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Jasper Vangaever

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Jasper VANGAEVER

le 15 septembre 2021

Categories under pressure

The gerund and the present participle from Late Latin to Old French

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Acknowledgements

This dissertation is the result of a long and intense journey. It started the first of July 2015 in Ghent, a few days before obtaining my Master's degree in Latin and French linguistics and literature. I had just finished my last exams and begun my annual student job as a lifeguard at the beach of Middelkerke. Despite my holiday mood and the long, warm, and busy day at the beach, I opened my UGent mailbox in the evening, in order to check whether I had received the reports of my MA thesis. I got a message from Marleen Van Peteghem, my MA thesis supervisor, and so I expected to have received the reports that I was thrilling to read. However, the message was about something completely different. Peter Lauwers, one of my professors of French linguistics, had told her about a PhD position available at the University of Lille, under the supervision of Anne Carlier. She did not yet have detailed information about the project, but knew that it had a diachronic orientation and focused on the transition from Latin to French. During my Master, I had expressed to Marleen my interest in pursuing linguistic research as a PhD student. Since I had studied both Latin and French linguistics, she thought this project might be an outstanding opportunity. Later that evening, she sent me more detailed information, obtained directly from Anne. I got to know that the PhD position was part of a pioneering international project on the transition from Late Latin to Old French, *viz.* the PaLaFra project (*Passage du latin au français: constitution et analyse d'un corpus numérique latino-français*), and that the topic of the dissertation was not pre-established. I was very excited about the project, and sent my official application to Anne four days later, on July 5.

Things went very fast. Anne invited me for an interview at the University of Lille two days later. I took the day off from my lifeguard student job and drove to Lille (if only we had known that we were both staying around Ostend these days). I got stressed upon arrival at the university, not so much for the interview, but to find my way in what appeared to be a labyrinth. I managed to locate Anne's office thanks to the instructions of some janitor and waited there for her arrival. Nerves started to pop up. A few minutes later, Anne arrived. As she greeted me, she immediately made me feel at comfort, and invited me kindly in her office. She presented the project in detail and set out the expectations of the successful candidate. I presented myself and asked all questions I had. All turned out splendidly. We were both positive about collaborating with each other, and Anne give me the time necessary to explore some practical issues before making a definitive decision. This did not take a long time. Three days later, on July 10, I contacted Anne to inform her of my decision. She found herself a PhD candidate, I myself found a supervisor and a project.

Thus, this dissertation would not have seen the light without Peter, Marleen, and Anne – and the janitor, without whom I might perhaps still be erring in Lille's labyrinth. Therefore, I wish to express

my greatest gratitude to all three of you: (i) to Peter, for informing Marleen about the available position and considering me a suitable candidate; (ii) to Marleen, for also thinking of me as a suitable candidate, transferring me all the information about the project, encouraging me to apply for it, and helping me completing my application form; (iii) to Anne, for having me invited for an interview, making me feel at ease from our very first encounter, and having enough confidence to embark me on your mission to explore the transition between Late Latin and Old French.

Anne has an exceptional expertise in Old French. She sometimes claims that (Late) Latin is not her strong suit, but that is just modesty talking. Anyhow, since my project focuses on both Late Latin and Old French and has a fundamental empirical orientation, she proposed to appoint a co-supervisor specialised in (Late) Latin. I instantly thought of Giovanbattista Galdi, one of my professors of Latin linguistics at Ghent University. His interest and expertise in substandard and Late Latin would be most welcome to bring this research to a good end. I am still very grateful that he enthusiastically accepted to co-supervise me during my trip through academia. In addition to Giovanni, we invited Marleen as a co-supervisor. Her expertise in Modern French and Romance in general would be a great asset to put in a comparative perspective the evolution from Late Latin to Old French to be discussed in my thesis. Marleen had been the supervisor of both my BA and MA thesis, so I was sure that I would again greatly benefit from her guidance. I am most grateful that she fervently accepted to continue supervising me for the past few years. The collaboration between Anne, at that time from the University of Lille, and Giovanni and Marleen, from Ghent University, led to the drawing up of a joint PhD convention.

On August 25, the four of us met for the first time, at Ghent University. We defined the topic of my thesis and made some practical arrangements. The first of October, I officially started my research activities. Now, 5,5 years later, I lay down my pen and submit the research I have been carrying out to a jury of specialists. I look forward to discuss my work with them and to come up with new ideas and perspectives for future research.

My 5,5-year journey between October 2015, when I officially started my PhD research, and June 2021, when I officially submitted it, has been quite an adventure. A rather atypical trajectory, involving a large number of people who have directly or indirectly contributed to the work submitted here. The following pages aim to express my sincerest gratitude to all people in issue.

First, I wish to say a few words of heartfelt thanks and high praise to my main supervisor, Anne. It might be a *cliché*, but in this case words are truly lacking to describe, even remotely, how much I have learned under your wings, how excellently you guided me during the entire process, how hard you kept encouraging me to push my limits, over and over again, how enthusiastically you incited me to keep extending my competences, how much you supported me in everything I have been doing, and so on. For 5,5 years, you have been tirelessly stimulating me on an intellectual level, always with the greatest possible pleasure. During these years, I got to know you as a truly brilliant linguist with an exceptional

empirical expertise, on the one hand, and an outstanding theoretical expertise, on the other. Additionally, you are gifted with the extremely valuable talent to always detect the bigger picture, and to present your argumentation in a crystal clear and convincing manner (you rightly describe yourself in this regard as a *maniaque de la structure*). My respect for you as a linguist is therefore tremendous. As a supervisor, you excel in striving to pass on these qualities to your students. Crucial in this regard has been our intense collaboration in view of (i) a joint presentation at the biennial conference of the *Société Internationale de la Diachronie du Français*, in January 2018 at the University of Neuchâtel, and, afterwards, (ii) its publication in *Le français moderne*. The intellectual growth that I experienced during this collaboration stimulated me to try acquiring these qualities myself and transpose them to my research activities. I did certainly not reach full mastership of them, but I nonetheless hope that you find some traces in this dissertation. Thesis-wise, you have always most carefully read anything I sent you and provided me with extremely useful feedback. As you are aware yourself, you are highly demanding (I mean this in an exclusively positive way). This systematically resulted in highly detailed comments and suggestions, on both the content and form of my writings. I cannot emphasise enough how much I appreciate all the time and all the effort you put in your evaluation of each and every of my texts, and how much all these texts have benefited from your insights, both content-wise and form-wise. I often wondered how you managed to combine all this time and effort consuming evaluations of my writings with your numerous other, at least equally time and effort consuming activities. All I can say is that, as a supervisor too, I have deepest respect for you. During our 5,5-year collaboration, I also got to know you as an extremely kind, cheerful, helpful, generous, and caring person with a keen sense of humour (and an adorable, though borderline kleptomaniac, bonnet-loving cat, Luna). It really has been most enjoyable to have you as a supervisor, on both an academic and a personal level. For all of this, and for all other things I could not mention here, I wish to express my sincerest gratitude to you, Anne.

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From October 2015 to August 2018, I worked at the University of Lille within the context of a PhD contract, funded by the French ANR (*Agence Nationale de la Recherche*) and the German DFG (*Deutsche Forschungsgemeinschaft*) as part of the above-mentioned PaLaFra project. I wish to thank both of these organisations for financially supporting not only my own research, but also the PaLaFra

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After my PhD contract ended, I remained active at the University of Lille as an associate lecturer and researcher (a so-called 'ATER', *i.e.* an *attaché temporaire d'enseignement et de recherche*). I held this position for the maximally allowed period of two years, from September 2018 to August 2020. I had the opportunity to teach different linguistics courses in the three Bachelor's years and in different programmes, while at the same continuing my doctoral research thanks to the financial support of the department of STL. In addition to the people mentioned in the above paragraph, I wish to thank in this respect (i) Anne, for encouraging me to apply for this position, passing me 'your' diachronic linguistics course (that was quite an honour!), and providing me useful material for other courses as well; (ii) the members of the recruitment committee, for allowing me to be a part of STL's *enseignants*; (iii) Antonio and Fayssal, for our collaboration for two particular courses; and (iv) Emmeline and Audrey, for your help with all practical and student-related issues during my two-year ATER-ship.

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From the beginning to the end of my PhD project (October 2015 – June 2021), I have remained connected to Ghent University under the terms of a joint PhD contract. I wish to thank the Department of Linguistics, the French Section, and the research groups GLIMS (Ghent University Research Group on Linguistic Meaning & Structure) and ΔiaLing for welcoming me with open arms and financially supporting me regarding various research activities. Thank you also, colleagues of these departments, for our interesting discussions at numerous activities. You made my time spent in Ghent extremely valuable and delightful. Special thanks are to be expressed in this respect to (i) my office companions Arne, Mihaela, Kirsten, Roxane, Kaat, and Liesbet; (ii) my countless fellow PhD students, in particular Simon, Arne, Mihaela, Antoine, Justine, Anaïs, Alessandro, Thomas, Aaricia, Evi, Hilde, Amélie, Emmeline, Linde, Fien, Sven, Margot, and Joren; and (iii) all doctoral and post-doctoral members of the Greek and Latin Sections. Thank you also: (i) Peter, for your everlasting interest and mental support during my entire 5,5 project; (ii) Chantal, for being the most cheerful, helpful, and efficient secretary one could possibly wish; (iii) Marleen, for all your time and effort spent on managing various kinds of administrative issues; and (iv) all professors whose courses I had the privilege to follow during my BA and MA programmes and gave me a solid basis to start my doctoral research.

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List of abbreviations and symbols

This appendix presents all abbreviations and symbols used in this thesis. The abbreviations precede the symbols and are arranged in alphabetical order.

ABL	ablative
AFF	affirmative
ART	article
ACC	accusative
DAT	dative
DEF	definite
DEM	demonstrative
EXCL	exclamative
F	feminine
FUT	future
GEN	genitive
GER	gerund
GERV	gerundive
IMP	imperative
INCH	inchoative
INDF	indefinite
INF	infinitive
INT	interrogative
INTENS	intensifier
LOC	locative
M	masculine
N	neuter
NEG	negation
NMLS	nominalisation
NOM	nominative
NP	noun phrase
OBJ	object case
OBL	oblique case
PASS	passive
PL	plural
PP	prepositional phrase
PRO	pronoun
PRS	present
PST	past
PTCP	participle
Q	question particle
REFL	reflexive
REL	relative
SG	singular
SBJV	subjunctive
SN	*syntagme nominal*
SUP	supine
VOC	vocative
VP	verb phrase
V.ANT	*-ant* form
1	first person
2	second person
3	third person
??	grammatical, but semantically incomplete
*	ungrammatical

Introduction

1. Object of the thesis

This thesis is devoted to the study of the non-finite verb forms that are commonly identified as ‘gerunds’ and ‘present participles’. It seeks to empirically investigate the evolution of these forms in the transitory period between Late Latin and Old French, in order to account for the fundamental differences between these categories of non-finite verb forms in Classical Latin and Modern French.

In Classical Latin, taken in this study as the period between the 3rd c. BC and the 2nd c. AD (see §1.1), the gerund and the present participle are two distinct categories of non-finite verb forms. From a morphological viewpoint, they are both built on the present stem of a verb, but to this stem are attached different morphemes: the gerund has the infix *-nd-* and a nominal ending (e.g. *lege-nd-i* ‘(of) reading’), whereas the present participle contains the infix *-nt-* and an adjectival ending (e.g. *lege-nt-es* ‘reading’) (Meiser 1998²: 226, 228; Pinkster 2015: 58, 60). In accordance with their nominal *vs* adjectival ending, the gerund is assigned case on the basis of its function or governing preposition, while the present participle is assigned case (and gender and number) through agreement with a noun. For instance, in (1) the gerund *defendendi* ‘to defend’ is in the genitive, since it is the adnominal argument of *potestatem* ‘opportunity’. In (2), on the contrary, the present participle *ardentes* ‘blazing’ is inflected in the nominative (feminine plural) through agreement with the noun *laminae* ‘metal plates’.[1]

(1) *[...] dat ipsa lex potestatem* ***defende-nd-i*** *[...].*
give.PRS.3SG INTENS.NOM.F.SG law.NOM.F.SG opportunity.ACC.F.SG defend-GER-GEN
‘The law itself gives the opportunity to defend (oneself).’ (Cic. *Mil.* 11.4)

(2) *Cum ignes* ***arde-nt-es****=que laminae [...] admovebantur [...].*
when fire.NOM.M.PL blaze-PTCP.PRS-NOM.M.PL=and metal_plate.NOM.F.PL bring_up.PST.PASS.3PL
‘When fire and blazing metal plates were brought up (...).’ (Cic. *Verr.* 2.5.163.8)

In line with their morphological properties, the gerund can fulfill a syntactic function characteristic of a noun, while the present participle can perform a syntactic function characteristic of an adjective (Palmer 1964: 320-321, 325; Pinkster 2015: 58, 60). For example, both forms can be used adnominally, with this

[1] All non-English examples cited in the present dissertation will be glossed according to the Leipzig Glossing Rules, available at https://www.eva.mpg.de/lingua/pdf/Glossing-Rules.pdf. Morpheme-by-morpheme glosses will be restricted to the two forms central to this study, viz. the gerund and the present participle. The most relevant grammatical information of the other forms will be provided in a non-morphemic way, *i.e.* after the lexical meaning and separated by dots. This grammatical information will not be restricted to overtly marked categories, but will also detail covert features. This strategy is in line with the general aim of this thesis to provide access to a large public of linguists, thus extending beyond the fields of (historical) Latin and French linguistics. To this end, all examples have also been translated as literally as possible. Another precaution made in this respect is that the meaning in the gloss is the one that the morpheme takes in the specific discourse context of the example, in order to avoid that differences between the discourse-independent meaning of a morpheme and its contextual interpretation presented in the translation disturb the grammatical analyses. All translations are mine, unless stated otherwise.

difference that this use features a prepositional or genitive form in the case of the gerund (e.g. *defendendi* ‘to defend’ (1)), but an agreeing form in the case of the present participle (e.g. *ardentes* ‘blazing’ (2)). However, both forms may also be used in an adverbial way, *i.e.* in adjuncts (Kühner & Stegmann 1914[5]: 731-754, 771-792; Palmer 1964: 322-324, 326; Pinkster 2021: §16.87-§16.104, §21.7). Clear examples are the gerund *pultando* ‘(by) kicking’ (3) and the present participle *pugnans* ‘fighting’ (4).

(3) ***Pulta-nd-o*** *pedibus* *paene* *confregi* *has=ce* *[...]* *fores.*
kick-GER-ABL foot.ABL.M.PL almost break.PST.1SG DEM.ACC.F.PL=DEM door.ACC.F.PL
‘I almost broke these doors here by kicking (on them) by my feet.’ (Pl. *Mos.* 453)

(4) *Ibi* *L.* *Cotta* ***pugna-ns*** *interficitur* *[...].*
there L. Cotta.NOM.M.SG fight-PTCP.PRS.NOM.M.SG kill.PRS.PASS.3SG
‘There is killed L. Cotta, as he was fighting.’ (Caes. *Gall.* 5.37.4)

Thus, the gerund and the present participle partly overlap with respect to their syntactic use. Importantly, this functional overlap does not raise a categorial issue, since forms displaying, e.g., adverbial external syntax can always be categorised as either gerunds or present participles on the basis of morphological grounds.

In Modern French, the labels ‘gerund’ and ‘present participle’ are also used to refer to two distinct categories of non-finite verb forms. From a morphological perspective, they are both built on the present stem of a verb and both contain the invariable ending *-ant*, but while the present participle is a bare form (e.g. *dans-ant* ‘dancing’), the gerund is always preceded by the morpheme *en* ‘in’ (e.g. *en dans-ant* ‘while dancing’) (Riegel *et al.* 1994[4]: 587-588). In syntactic terms, the present participle may occur in adjectival and adverbial configurations, like the adnominal form *donnant* ‘giving’ (5) and the adjunct form *sortant* ‘leaving’ (6), respectively. The gerund, on the contrary, always exhibits adverbial external syntax (e.g. *en chantant* ‘while singing’ (7)).

(5) *Pierre* *ouvre* *la* *fenêtre* ***donn-ant*** *sur* *la* *rue.*
Peter open.PRS.3SG ART.DEF.F.SG window.SG.F give-PTCP.PRS on ART.DEF.F.SG street.F.SG
‘Peter opens the window to the street.’

(6) ***Sort-ant*** *du* *métro,* *Pierre* *est* *tombé.*
leave-PTCP.PRS from;ART.DEF.M.SG subway.M.SG Peter be.3SG fall.PTCP.PST
‘Leaving the subway, Peter fell.’

(7) *Pierre* *est* *arrivé* ***en chant-ant****.*
Peter be.3SG arrive.PTCP.PST in sing-PTCP.PRS
‘Peter arrived (while) singing.’

As in Classical Latin, the gerund and the present participle thus have partly overlapping functional properties. Again, this overlap does not raise a categorial problem, since the two types of non-finite verb

forms are morphologically distinct. That is to say, all adjunct forms can be categorised as either gerunds or present participles on the basis of the presence *vs* absence of *en* 'in'.

A quick comparison of the morphological and syntactic properties of the gerund and the present participle in Classical Latin and Modern French allows formulating the following hypothesis about their evolution between the two languages: (i) from a morphological point of view, the gerund and the present participle become similar, but remain nonetheless distinct due to respectively the presence *vs* absence of *en* 'in'; (ii) from a syntactic perspective, the gerund specialises in adverbial external syntax at the cost of its nominal external syntax, whereas the present participle preserves both its adjectival and adverbial external syntax; (iii) from a morphosyntactic point of view, the gerund develops into an adverbial form of the verb, while the present participle keeps its ambivalent status as both an adjectival and adverbial form of the verb; (iv) from a categorial viewpoint, the gerund and the present participle remain distinct.

Though convincing at first glance, this hypothesis raises one fundamental question, namely how to account for the systematic use, in Modern French, of *en* 'in' before gerunds, but not before present participles. Given that the presence *versus* absence of this morpheme constitutes the only morphological difference between the two types of non-finite verb forms, the emergence of its use plays a key role in the evolution of the gerund and the present participle. For without this development, the gerund and the present participle would be morphologically identical. Given their functional overlap, *i.e.* their common use in adjuncts, it would therefore be impossible to categorise adjunct forms as either gerunds or present participles with absolute certainty. The result would be a situation of "categorial indeterminacy" (Aarts (2007: 4), *viz.* a situation in which the boundaries between the categories of the gerund and the present participle are blurred. The implications for the grammatical description of these forms would be drastic.

Interestingly, the question regarding the origin of the systematic use of *en* 'in' before the gerund raises more questions than it answers. Indeed, even though gerunds can be introduced by *en* 'in' already in Old French (e.g. *en plorant* 'while crying' (8)), the use of this morpheme before the gerund does not become systematic until the 17th c. (Sarré 2000: 51; Bazin-Tacchella 2020: 852). In 1679, the *Académie française* prescribes the use of *en* 'in' before the gerund, hereby cristalising, as shown by Sarré (2000: 51), the generalising tendency in language use to use this morpheme before adjunct *-ant* forms, but not before other types of *-ant* forms, such as adnominal forms.

(8) *[...] sospira et en* ***plor-ant*** *li demanda [...].*
sigh.PST.3SG and in cry-GER he.OBL.M.SG ask.PST.3SG
'She sighed and asked him while crying (...).' (*Eneas* 1676)

However, the generalisation of *en* 'in' before adjunct *-ant* forms has not been completed, as many *-ant* forms occurring in adjuncts remain bare, *i.e.* non-introduced by *en* 'in', even in Modern French (e.g.

sortant 'leaving' (6)). The question that arises is whether these bare adjunct *-ant* forms should be taken present participles or as gerunds. In the grammatical tradition of French, there is a striking consensus to consider the forms in issue as present participles. Thus, the recommendation of the *Remarqueurs* of the French Academy is held to have been meticulously followed and standardised, leading eventually to the sharp morphological distinction between the gerund and the present participle characteristic of Modern French.[2]

However, it is implausible – or at least highly questionable – that the prescription of the *Académie française* is followed meticulously and without any exception from 1689 onward. Hence, the question whether bare *-ant* forms used in adjuncts are present participles or gerunds remains open. In other words, some *-ant* forms appear nevertheless to be categorially indeterminate, making it impossible to establish a sharp boundary between the categories of the gerund and the present participle.

This categorisation issue of the *-ant* form in Modern French can only be resolved by empirically investigating the evolution of the gerund and the present participle between Classical Latin and Modern French. However, an in-depth corpus study of the two types of non-finite verb forms covering this entire span of more than 2,000 years is not feasible within the limits of this dissertation. Therefore, I will focus on the most crucial period in this time span, namely the transitional period between Late Latin and Old French.

2. Research questions

In order to examine the evolution of the gerund and the present participle from Late Latin to Old French in the light of their categorial distinction, I will investigate the morphological and syntactic changes of these forms, and explore to which extent these changes lead to shifts in morphosyntactic categorisation. Adhering to the widely accepted view that morphosyntactic categories are best defined on the basis of morphological and syntactic criteria (Trask 1999: 281; Aarts 2007: 2; Pullum 2009: 257), I will seek to measure the impact of the morphological merging of the gerund and the present participle in Old French on their categorial distinction. Does this merging blur the categorial distinction between these two types of non-finite verb forms, leading to some kind of categorial blend? Or does the distinction between these forms maintain itself on the basis of syntactic criteria, leading to a homonymic relationship?

These questions will be addressed on the basis of a quantitative corpus study. The corpus contains a large and varied sample of Late Latin and Old French texts, compiled in the context of the ANR/DFG project PaLaFra (see §5 below for more details). This thesis provides the first corpus-based quantitative

[2] It is worth mentioning here the work of Ayres-Bennet (2018), who has shown that the *Remarqueurs* have wrongly been seen as legislators imposing the norm of the *bon usage*, whereas they were rather fine observers of language use and of changes in language use.

analysis of the evolution in issue, and hence it is pioneering in bridging this gap between Late Latin and Old French.

So as to gain more detailed insight into the question at stake, I will provide in the following section a brief overview of the state of the art of the evolution of the gerund and the present participle from Late Latin to Old French.

3. State of the art of the evolution of the gerund and the present participle

Before reviewing the state of the art of this evolution (§3.2-§3.3), it is necessary to position the gerund and the present participle in the system of non-finite verb forms in Classical Latin (§3.1).

3.1. The gerund and the present participle in Classical Latin

In addition to the gerund and the present participle, the Classical Latin system of non-finite verb forms comprises seven more types, namely the past participle, the future participle, the present infinitive, the past infinitive, the future infinitive, the gerundive, and the supine (Kühner & Stegmann 1914[5]: 662-792; Ernout & Thomas 1951: 255-287; Palmer 1964: 317-327; Hofmann & Szantyr 1965: 341-395; Menge *et al.* 2000: 661-751; Pinkster 2015: 57-64). Depending on their morphological and syntactic properties, these forms are usually divided into two groups: nominal *versus* adjectival forms. The nominal forms correspond to the gerund, the supine, and the three types of infinitives, while the adjectival forms include the gerundive and the three types of participles. Notice, however, that Pinkster (2015: 64) defends a different analysis of the supine (*cf.* Chapter 1, §1.1.2).

In Classical Latin, this system of non-finite verb forms is relatively tightly organised, since each type of forms is specialised in distinct functional domains (Kühner & Stegmann 1914[5]: 662-792; Ernout & Thomas 1951: 255-287; Palmer 1964: 317-327; Hofmann & Szantyr 1965: 341-395; Menge *et al.* 2000: 661-751; Pinkster 2015: 57-64). Within the group of the nominal forms, for instance, the gerund predominantly occurs in adnominal phrases and manner/instrumental/causal adjuncts, the infinitive in verb complements, and the supine in purpose adjuncts and adjective complements. Yet, this functionally motivated division of labour is a tendency rather than a rule, since several forms show an overlap of their functional domain(s) and, hence, compete with each other (Kühner & Stegmann 1914[5]: 662-792; Ernout & Thomas 1951: 255-287; Palmer 1964: 317-327; Hofmann & Szantyr 1965: 341-395; Menge *et al.* 2000: 661-751; Pinkster 2015: 57-64, 2021: Ch. 15-17, 21 *passim*). For example, the infinitive competes with the gerund in some types of adnominal phrases (Kühner & Stegmann 1914[5]: 742-744; Ernout & Thomas 1951: 269; Palmer 1964: 320; Hofmann & Szantyr 1965: 350-351, 376; Menge *et al.*

2000: 746; Pinkster 2021: §17.13, §17.15), and the gerund and the infinitive both compete with the supine in purpose adjuncts, at least when the main verb denotes motion or transfer (Ernout & Thomas 1951: 260-262; Väänänen 1963[3]: 139; Hofmann & Szantyr 1965: 344-345, 378, 381; Stempel 1994: 236; Pinkster 2021: §16.86, §16.103, §16.112).

Another example of competition in the Classical Latin system of non-finite verb forms involves the two forms at the center of this dissertation, namely the gerund and the present participle. In adjuncts, these forms are specialised in different semantic values, leading to a kind of semantic complementary distribution, but sometimes, the gerund has a value characteristic of the present participle, and *vice versa* (Marouzeau 1910: 27, 79; Kühner & Stegmann 1914[5]: 751-752; Lyer 1932: 384-389; Aalto 1949: 65-70; Ernout & Thomas 1951: 266-267; Laughton 1964: 21, 25-26; Palmer 1964: 324; Hofmann & Szantyr 1965: 379-380; Vester 1983: 101-125, 134-135; Menge *et al.* 2000: 740-741; Adams 2013: 725-740; Galdi & Vangaever 2019: 100-106; Pinkster 2021: §21.14). For instance, temporal adjuncts expressing a state of affairs[3] co-occurring with the main state of affairs are typically headed by a present participle (e.g. *flens* 'crying' (9)), but sometimes an ablative gerund is used instead (e.g. *ornando* 'cheering' and *celebrando* 'celebrating' (10)).

(9) *[...]* ***fle-ns*** *Petreius* *manipulos* *circumit* *[...].*
cry-PTCP.PRS.NOM.M.SG Petreius.NOM.M.SG maniple.ACC.M.PL go_around.PRS.3SG
'Petreius goes around the maniples while crying.' (Caes. *civ*. 1.76)

(10) *[...]* *vestrum* *egressum* ***orna-nd-o*** *atque* ***celebra-nd-o*** *[...]*
your.ACC.N.SG departure.ACC.N.SG cheer-GER-ABL and celebrate-GER-AB
prosequebantur.
escort.PST.3PL
'They escorted your departure while cheering and celebrating.' (Cic. *Pis*. 3)

3.2. The evolution of the gerund and the present participle in Late Latin

In Late Latin, taken in this study as the period between the 3rd and the 10th c. AD (see §1.1), the system of non-finite verb forms is considered to be gradually restructured (Elcock 1960: 110-119; Harris 1978: 195-203; Bauer 1993a: 59, 2005). In this restructuring, a central role is held to be played by the evolution of the gerund and the present participle, which is claimed to be triggered by their functional competition with each other and with other types of non-finite verb forms. Roughly speaking, the gerund is argued

[3] In this thesis, the term 'state of affairs' will be used as a cover term for anything that can be denoted by what Dik (1997: 51) calls a 'nuclear predication', *i.e.* a combination of a predicate and its arguments. This is also how this author uses this term in his *The Theory of Functional Grammar* (*cf.* Dik 1997: 105). States of affairs are semantically diverse, comprising the four well-known 'situation types' or 'actional classes' distinguished by Vendler (1957): states (e.g. *John is tall*), activities (e.g. *John ran in the park*), accomplishments (e.g. *John built a bridge*), and achievements (e.g. *John left*).

to be progressively replaced by the infinitive in nominal external syntax (e.g. in adnominal phrases, as in (1)), so as to – indirectly – specialise in adverbial external syntax (*i.e.* its use in adjuncts, as in (4/10)).

During the Late Latin period, the gerund is claimed to specialise in this adverbial syntax also in a direct way, namely by gradually replacing the present participle in adjuncts. Corollarily, the present participle becomes completely reliant on its use in adjectival syntactic configurations (e.g. in adnominal phrases, as in (2)). Due to this substitution, the present participle is held to – indirectly – specialise in the external syntax of the adjective.

Noteworthily, the present participle is also considered to be progressively replaced by the gerund in progressive constructions (Aalto 1949: 75; Dietrich 1973: 305, 307; Hofmann & Szantyr 1965: 380). This is not surprising, given that the use of the gerund and the present participle in this construction is historically derived from their use in (a specific type of) adjuncts. Present participles such as *accusantes* 'accusing' (11) are thus held to be gradually substituted by gerunds like *mentiendo* 'lying' (12).

(11) *Stabant* *etiam* *principes* *sacerdotum* *et* *scribae* *constanter*
stand.PST.3PL for chief.NOM.M.SG priest.GEN.M.PL and scribe.NOM.M.PL constantly
accusa-nt-es *eum.*
accuse-PTCP.PRS-NOM.M.PL DEM.ACC.M.SG
'For the chief priests and scribes were constantly accusing him.' (*Vulg. Luc.* 23.9-10)

(12) *[...]* *contra* *illos* *qui* ***mentie-nd-o*** *vadunt* *[...].*
against DEM.ACC.M.PL REL.NOM.M.SG lie-GER-ABL go.PRS.3PL
'(...) against those who go lying.' (*Carol. capit.* 1a.810)

Due to these evolutions, the system of non-finite verb forms is argued to become more isomorphic: the infinitive specialises in nominal external syntax, the gerund in adverbial external syntax, and the present participle in adjectival external syntax.

Though set off in Late Latin, these specialisations are held to be completed only in the transition to Romance (and within the individual Romance languages themselves), in line with the more general trend toward morphosyntactic specialisation in this period (*cf.* Carlier & Combettes 2015). Note that this evolution is considered to hold for the transition from Late Latin to most Romance languages, but that some modern languages (and/or dialects) present a slightly different outcome for one or more non-finite verb forms (see the various chapters in Ledgeway & Maiden 2016).[4] An in-depth analysis of the outcome of the gerund and the present participle in the different Romance languages falls outside the

[4] Ledgeway & Maiden's (2016) book is about the Romance languages (and dialects) in general. Hence, the various contributions contained in it do not deal with the gerund and the present participle in particular. The key information about these two forms in the distinct Romance varieties can nonetheless be found in the various chapters.

scope of this dissertation. For reasons of simplicity, I will speak of Romance in general, bearing in mind that the evolutions in issue do not apply equally to all varieties.

The above-sketched developments summarise the widely accepted hypothesis of the evolution of the gerund and the present participle in Late Latin and in the transition to (Old) Romance. However, this hypothesis has not yet been investigated by means of a quantitative corpus study, and hence it remains unknown to which extent the predicted morphosyntactic shifts are corroborated by empirical evidence. Indeed, the hypothesis in issue has mainly been formulated on the basis of the following types of data.

(i) Given that the Romance languages develop from different substandard varieties of Late Latin, the evolution of the gerund and the present participle in Late Latin and in the transition to Old Romance has been established on the basis of empirical data as representative as possible of so-called 'Vulgar Latin', *i.e.* "the set of all those innovations and trends that turned up in the usage, particularly but not exclusively spoken, of the Latin-speaking population who were little or not at all influenced by school education and by literary models" (Herman 2000: 7; see also Väänänen 1963³: 3-6; Adams 2013: 10). However, the data investigated in this respect are scattered and have almost exclusively been studied from a qualitative point of view (e.g. Lyer 1932 and Adams 2013: 725-740 on adjunct gerunds and present participles). Moreover, most studies focus on the evolution of specific uses of the gerund or the present participle separately (e.g. Lyer 1932 on adjunct bare ablative gerunds), or on the evolution of only one of their competing uses (e.g. Vester 1983: 135-136, Adams 2013: 725-740, and Galdi & Vangaever 2019 on the competition between adjunct bare ablative gerunds and adjunct nominative present participles). However, since the evolution of the gerund and the present participle is held to be part of the much more general restructuring of the system of non-finite verb forms, it cannot be appropriately evaluated without investigating the evolution of the paradigms of the gerund and the present participle as a whole. Given the current absence of studies focusing on the evolution of all forms and uses of the gerund and the present participle, it thus remains an open question to which extent the presumed specialisation of the gerund in adverbial external syntax and of the present participle in adjectival external syntax is backed up by empirical evidence.

(ii) The evolution of the gerund and the present participle from Late Latin to Romance has furthermore been reconstructed in the light of empirical data taken from (Old) Romance languages. In most of these languages, the gerund can only exhibit adverbial external syntax or be used in a progressive construction, while the present participle can only display adjectival external syntax (Aalto 1949: 73; Elcock 1960: 110-111; Väänänen 1963³: 140-141; see also the various papers in Ledgeway & Maiden 2016). This functional split in (Old) Romance has been analysed as the outcome of ongoing changes in Vulgar Latin, and thus as indirect evidence in favour of the specialisation of the gerund and the present participle in respectively adverbial and adjectival external syntax. Yet, the question

remains to which extent these presumed specialisations manifest themselves in a direct way, viz. in an authentic sample of Late Latin data.

The crucial question emerging from (i-ii) is thus to which extent the traditionally hypothesised evolution of the gerund and the present participle in Late Latin is confirmed by quantitatively significant shifts in their external syntax and morphosyntactic categorisation.

3.3. The evolution of the gerund and the present participle from Late Latin to Old French

This question is all the more pregnant in view of the evolution of the two types of non-finite verb forms from Late Latin to Old French. In this transitional period, the gerund and the present participle are both affected by a series of morphological and phonetic evolutions that ultimately lead to the same form for the two types of non-finite verbs, viz. a form built on the present stem of a verb and having (or at least developing) the invariant ending *-ant* (e.g. *plorant* 'crying' (13)) (Elcock 1960: 112; Ménard 1973: 170; Harris 1978: 200; Arnavielle 1984: 40; Buridant 2000: 237, 2019: 343; Wackernagel & Langslow 2009: 352 fn. 15; De Smet 2014: 39-40; Bazin-Tacchella 2020: 852-854).

(13) *Tristran* *l'* *a* ***plor-ant*** *salüee.*
Tristan she.OBJ.F.SG have.PRS.3SG cry-V.ANT greet.PTCP.PST.F.SG
'Tristan greeted her while crying.' (Bér. *Tristan* 3777)

Due to this morphological merging of the gerund and the present participle, the category of Old French *-ant* forms can no longer be established on the basis of morphological grounds (Bazin-Tacchella 2020: 852).[5] However, from a "retrospective historical approach" (Aspland 1968: 151), two exceptions can be made.

(i) In Late Latin, the gerund, but not the present participle, can be governed by a preposition. Hence, all Old French prepositional *-ant* forms (e.g. *en fuiant* 'when flying' (14)) can in theory be taken as gerunds (Anglade 1958: 217; Ménard 1973: 173-175; Harris 1978: 199; Arnavielle 1984: 38-39; Jensen 1990: 322; De Smet 2014: 39).

(14) *Li* *leüns* *en* ***fui-ant*** */* *Sa* *trace* *vait*
ART.DEF.SBJ.M.SG lion.SBJ.M.SG in flee-V.ANT his.OBL.F.SG track.OBL.F.SG go.PRS.3SG
cuvrant *[...].*
cover.V.ANT
'The lion covers his track while fleeing.' (Ph. de Thaon *Bestiaire* 165-166)

[5] For this and other reasons that will be mentioned *infra*, all Old French *-ant* forms will be glossed in a categorially neuter way, viz. as V.ANT instead of GER or PTCP.PRS. This choice is in line with one of the main aims of this thesis, namely to explore the categorial status of Old French *-ant* forms. The forms with the exact ending *-ant* (e.g. *plorant* 'crying' (13)) will not be glossed for case, gender, and number, unlike those with an inflectional variant of this ending (e.g. *ardanz* 'burning' (15)).

(ii) In Late Latin, the present participle, but not the gerund, agrees with a noun in case, gender, and number. Therefore, all Old French *-ant* forms having an inflectional variant of the ending *-ant* (e.g. *ardanz* 'burning' (15)) can in principle be analysed as present participles (*cf.* Bazin-Tacchella 2020: 852-853). Note that, in Old French, the invariability of the present participle is still generalising, so that agreeing forms reminiscent of their Latin origin continue to be found, especially in adjectival syntactic configurations.

(15) *[...] S' el vient par aventure / U fus* ***ard-anz***
if she.SBJ.F.SG come.PRS.3SG by change.OBL.F.SG where fire.SBJ.M.SG burn-V.ANT.SBJ.M.SG
serat [...].
be.FUT.3SG
'If by chance it (a beast) comes where there will be a burning fire (...).' (Ph. de Thaon *Bestiaire* 1314-1315)

Additionally, some *-ant* forms can be categorised on the basis of syntactic criteria (*cf.* Arnavielle 1984: 38). From a retrospective historical approach, forms performing a function accessible to the Late Latin gerund, but inaccessible to the Late Latin present participle, can in theory be taken as gerunds, whereas those having a function accessible to the Late Latin present participle, but inaccessible to the Late Latin gerund, can in principle be seen as present participles. For instance, in Late Latin, the present participle, but not the gerund, can occur in subject predicates. Hence, all Old French subject predicate *-ant* forms (e.g. *mordant* 'biting' (15)) can in theory be categorised as present participles.

(16) *[...] se moz i trouvez ja mis qui*
if word.OBL.M.PL PRO.LOC find.PRS.2PL ever put.PTCP.PST.M.PL REL.NOM.M.PL
samblent ***mord-ant*** *[...].*
seem.PRS.3PL bite-V.ANT
'If you ever find some words written here words that seem offensive (lit. 'biting') (...).' (J. de Meun *Rose* 15168-15169)

However, the Late Latin gerund and present participle also share some uses, namely in adjuncts and in progressive constructions. Hence, Old French bare forms having the exact ending *-ant* and occurring in adjuncts (e.g. *plorant* 'crying' (13)) or progressive constructions (e.g. *cerchant* 'pursuing' (17)) cannot be analysed as either gerunds or present participles with absolute certainty (*cf.* De Smet 2014: 39).

(17) *Forment alot Romeins* ***cerch-ant*** *[...].*
vigorously go.PST.3SG Roman.OBL.M.PL pursue-V.ANT
'He went vigorously pursuing the Romans.' (Wace *Brut* 12833)

Since morphological and syntactic criteria fail to unambiguously categorise all Old French *-ant* forms as either gerunds or present participles, the boundary between the two categories is at the least to some

extent blurred. Faced with this situation, scholars have dealt with the distinction between the categories of the gerund and the present participle in Old French in two opposite ways.

Most authors hold that the gerund and the present participle still exist in Old French as two distinct categories of non-finite verb forms, just like in Late Latin (Gougenheim 1929; Anglade 1958: 215-217; Väänänen 1963³: 140-141; Ménard 1973: 169-175; Harris 1978: 199-201; Arnavielle 1982, 1984: 38, 1997; Jensen 1990: 322-334; Buridant 2000: 324-327, 2019: 461). They claim that the morphological merging of the two forms in Old French simply causes them to engage in a homonymic relationship. By contrast, a few scholars argue that the morphological merging of the gerund and present participle causes them to merge also on a categorial level (Adams 2003: 749; De Smet 2014: 40). This "conflation of the two categories" (Adams 2003: 749) is considered to lead to a categorial blend, described by De Smet (2014: 40) as an "all-purpose invariable non-finite form in *-ant*" that is "in syntactic terms neither a real gerund nor a real participle".

The question whether the gerund and the present participle survive in Old French as two distinct categories or merge instead in a categorial blend should not be addressed from a purely theoretical point of view. Indeed, this issue needs to be tackled on the basis of a quantitative corpus-based study, in the first place to measure the precise degree of categorial (in)determinacy of the Old French *-ant* form. Such a study could betoken whether the categorial indeterminacy of this form is a minor or major grammatical problem, *i.e.* whether it holds for a small or large number of instances. In the light of this result, the two hypotheses about the categorial distinction between the gerund and the present participle in Old French could be evaluated appropriately. However, quantitative studies of the Old French *-ant* form focusing on its categorial status are currently lacking. Hence, this area of research is to a large extent unexplored.

As mentioned in §2 above, the aim of this thesis is to empirically investigate the evolution of the gerund and the present participle in Late Latin, and to examine the exact impact of their morphological merging in Old French on their categorial distinction. However, this dissertation does not only intend to contribute to the disciplines of (historical) Latin and French linguistics, but also to (historical) linguistics in general, and in particular to the study of categoriality.

4. The study of categoriality

In (historical) linguistics, the concept of categoriality has been investigated quite extensively, especially in the framework of Grammaticalisation Theory (e.g. Meillet 1912; Lehmann 1982³, 1985, 2002, 2005; Heine *et al.* 1991; Hopper 1991; Heine 1993; Hopper & Thompson 1993²; Croft 2001; Haspelmath 2001; Wischer & Diewald 2002; Hengeveld *et al.* 2004; Himmelmann 2004, 2005; Traugott 2010). However, the study of categoriality extends far beyond the domain of grammaticalisation, both in

synchronic and diachronic linguistics. For instance, Aarts (2007) provides a state-of-the-art discussion of morphosyntactic categorisation in Modern English, while many authors deal with diachronic shifts in the internal syntactic categorisation of the English gerund (e.g. Jespersen 1949: 108-150; Tajima 1985; Fanego 2004; for an exhaustive list of references, see Fonteyn 2016: 14). In this dissertation, the notion of categoriality will be examined on two different levels.

(i) With respect to Late Latin, I will investigate to which extent the gerund and the present participle specialise in respectively adverbial and adjectival external syntax. The type of categoriality studied here focuses on the syntactic use of the forms in issue, and aims to establish to which extent shifts in the frequency of these uses lead to shifts on the level of their morphosyntactic categorisation (*cf.* Himmelmann 2004: 33). From a typological point of view, non-finite verb forms usually show the external syntax of a noun, adjective, or adverb. Hence, a distinction is often made between nominal, adjectival, and adverbial forms of the verb (see, e.g., Haspelmath 1995: 4; Nedjalkov 1998: 421-422; Ylikoski 2003: 228). The quantitative corpus study of the gerund and the present participle in Late Latin will allow identifying to which extent these forms develop into respectively an adverbial and an adjectival form of the verb. Thus, the study of categoriality pertaining to the gerund and the present participle in Late Latin boils down to a study of the morphosyntactic categorisation of two morphologically and categorially distinct types of non-finite verb forms.

(ii) As to Old French, I will seek to determine the impact of the morphological merging of the gerund and the present participle on their categorial distinction. The type of categoriality examined in this connection pertains to the validity of the categories of the gerund and the present participle as two distinct grammatical categories. Put differently, it seeks to explore to which extent the Old French *-ant* forms continue the categories of the gerund and the present participle, forged in the first place to describe two paradigms of non-finite verbs in Latin.

From a theoretical point of view, the main interest of this thesis lies in the assessment of the categorial indeterminacy of the Old French *-ant* form. As mentioned in §3.3, most scholars claim that the gerund and the present participle continue to exist in Old French as two distinct categories of non-finite verbs, while only a few authors defend the hypothesis of categorial merging. Noteworthily, the first group of scholars comprises practically all experts of historical French linguistics (Gougenheim 1929; Anglade 1958: 215-217; Ménard 1973: 169-175; Harris 1978: 199-201; Arnavielle 1982, 1984: 38, 1997; Jensen 1990: 322-334; Buridant 2000: 324-327, 2019: 461), while the second hypothesis has almost exclusively (at least most explicitly) been proposed from outside this research area, *i.e.* by the Latinist Adams (2003: 749) and the Anglicist De Smet (2014: 40). More recently, however, Bazin-Tacchella (2020: 852) leaves an opening for the hypothesis of categorial merging from within the field of historical French linguistics, though the absence of an explicit claim about the categorial status of the Old French *-ant* form calls for some vigilance in the evaluation of this author's contribution to the debate at stake.

The fact that the hypothesis of categorial merging has been put forward from outside the field of French (historical) linguistics and that most experts within this field of French (historical) linguistics continue regarding the gerund and the present participle as distinct categories of non-finite verb forms is highly relevant within the much more general debate about the status of linguistic categories. In this debate, two opposite positions can be distinguished.

(i) According to some authors, there exists a set of universally available categories from which each language makes a selection (e.g. Chomsky 1965: §1.5; Newmeyer 2007). Given that they are drawn from the same set, the categories selected by two or more languages are considered equivalent in each of the languages concerned, and hence the same labels are used in descriptive linguistics, on the one hand, and comparative/typological linguistics, on the other (*cf.* Haspelmath 2010: 663). For instance, Maling (2001) conceives of the dative case in Korean as the same category as the Icelandic dative case. In a similar vein, Aikhenvald (2004b) treats the adjective in Tariana on a par with the Russian adjective, and Kroeger (1993) does the same for the subject in Tagalog and English (see also Haspelmath 2010: 667). Some linguistic categories are even held to be universally instantiated, *i.e.* realised in all languages of the world. This claim has been made, e.g., for some morphosyntactic categories, such as the noun (*cf.* Baker 2003), the verb (*cf.* Baker 2003), and the adjective (*cf.* Dixon 2004). This view on linguistic categories is referred to as the "categorial universalism" (Haspelmath 2010: 663-664 *passim*), and is adopted in most formalist theories of language, such as Generative Grammar (Chomsky 1965: §1.5). Nonetheless, it has also been adopted by functionally oriented linguists, like Payne (1997), Corbett (2000), Van Valin (2005), and Dixon (2010) (for more details, see Haspelmath 2010: 664, 667).

(ii) The second group of authors rejects the idea of linguistic categories as cross-linguistic entities (e.g. Joos 1957; Dryer 1997; Croft 2000, 2001; Gil 2001; Lazard 2006; Haspelmath 2007, 2010, 2012, 2016; Cristofaro 2009; Lehmann 2018a: 28). They argue, on the contrary, that linguistic categories are language-specific, in the sense that "[E]ach language has its own categories" (Haspelmath 2010: 664). Hence, languages cannot be described on the basis of a predefined set of universally available categories (Haspelmath 2010: 664). They hold that categories may be similar across languages, but can in no case be equated with one another, since the formal and/or functional "criteria for category assignment are different from language to language" (Haspelmath 2010: 663). Compare the definite article in Romanian and French: in Romanian, it is a bound enclitic morpheme (e.g. *-ul* (18)), while in French, it corresponds to a free proclitic morpheme (e.g. *l'* (19)) (Vincent 2017).

(18) *Om-ul* *cântă.*
man-ART.DEF sing.PRS.3SG
'The man is singing.'

(19) *L'* *homme* *chante.*
ART.DEF.M.SG man.M.SG sing.PRS.3SG
'The man is singing.'

This second view on linguistic categories goes back to the 20th c. structuralism (e.g. Boas 1911; Joos 1957), and is generally referred to as the "categorial particularism" (Haspelmath 2010: 664). For reasons that will not be further examined here, the particularist view of linguistic categories is unquestionably the most convincing.

The categorial particularism implies that languages cannot be described in terms of the linguistic categories that have been created for the description of other languages, since this leads to grammatical bias and controversial category assignments (Boas 1911; Haspelmath 2010: 664, 669). Nevertheless, the categorial particularism has been violated for quite some time, especially under the pervasive influence of the grammatical tradition of Ancient Greek and Latin (Haspelmath 2010: 664, 667, 675). Of particular interest for this this thesis is Guiraud's (1963: 117) claim that the grammar of Old French has long been forced in the grammatical framework of Latin (see also Aspland 1968: 151-152). This raises the question whether the continued use of the labels 'gerund' and 'present participle' by most scholars from within the field of (historical) French linguistics to describe Old French *-ant* forms is to be seen as a violation of the categorial particularism, *i.e.* as an artificial imposition on the Old French *-ant* forms under the influence of the grammatical tradition of Latin, or whether it reflects, on the contrary, a linguistic reality. This issue will also be tackled on the basis of the empirical investigation carried out in this thesis.

5. Empirical basis

The research questions of this thesis will be investigated on the basis of large size of data taken from a vast and varied corpus of Late Latin and Old French texts. The corpus that will be explored has been elaborated in the context of the ANR/DFG project PaLaFra ("*Passage du latin au français: constitution et analyse d'un corpus numérique latino-français*").[6] This is the first large-scale international project aiming to explore the linguistic and conceptual "no man's land" (Herman 2006: 184) between Late Latin and Old French. Within the context of this project has been elaborated a digital and morphosyntactically annotated corpus of Late Latin and Old French texts showing language use as representative as possible of the language spoken in Gaul between Late Antiquity and the Early and High Middle Ages. Since this corpus is the first to gather a quantitatively significant and diverse sample of Late Latin and Old French

[6] The website of the PaLaFra project can be consulted at http://palafra.org (ANR-14-FRAL-0006). This thesis has been carried out within the context of this project, from which it also received a substantial part of its funding (October 2015-August 2018). The link between this thesis and the PaLaFra project will be specified in Chapter 3 (§3.2), along with other relevant background information about the PaLaFra project (and corpus).

texts, it provides an unprecedented empirical base allowing to tackle the topic of this dissertation in the best possible way.

It should be emphasised from the very beginning of this thesis that, though the corpus compiled within the context of the PaLaFra project is – in comparison with the existing corpora – large and varied, it is well known that, from a sociolinguistic point of view, there is a significant gap between written and spoken language (*cf.* Herman 2006: 186). Most crucially, language change typically emerges in spoken language, and reaches the written language only in a later stage due to its more conservative character. Hence, the language observable in the (written) texts of the PaLaFra corpus might not faithfully reflect the ongoing changes in the spoken language. However, since there exist no records of spoken language from this period, there is no empirical evidence to examine the evolution of the gerund and the present participle from Late Latin to Old French (or of the language of this period in general) in a more precise way.

6. Grammatical traditions and terminology

A major challenge of this thesis is to provide a grammatically speaking coherent and unified account of the evolution of the gerund and the present participle from Late Latin to Old French. This is less evident than could be expected, since the evolution in issue corresponds to an evolution from a mother language to a daughter language. Despite being historically related, these languages have usually been examined by two distinct research communities: historical Latin linguistics and historical French linguistics. These communities have their own linguistic traditions, and, incidentally, their own terminology and analyses – which are sometimes in conflict. Therefore, the bridging of the linguistic gap between Late Latin and Old French also entails bridging the institutional gap between (historical) Latin and French linguistics. In order to bridge this gap, I will use in this thesis a neuter metalinguistic apparatus, based in particular on typological research about non-finite verb forms (e.g. Haspelmath 1995; Nedjalkov 1998; Ylikoski 2003). For the sake of clarity, however, traditional Latin and French terminology will be mentioned wherever necessary. The terminology used in this thesis is also theoretically neuter, in line with the more general aim of this study to be accessible to a large public. For this reason, the evolution of the gerund and the present participle will also not be examined within a specific theoretical framework (also because no such framework has an outspoken added value to the study of the evolution in issue). These choices are similar to those made in the manual to be published within the context of the PaLaFra project (*Bridging the Gap between Late Latin and Early Old French: Empirical Investigations of (Morpho)Syntactic Changes*, edited by Carlier *et al.*), to which this thesis makes a contributions (see Chapter 3, §3.2).

7. Outline

The evolution of the gerund and the present participle from Late Latin to Old French will be examined in two steps. First, I will explore how this evolution has been dealt with in the existing literature (**Part 1**), and then I will empirically examine it in a large corpus of Late Latin and Old French texts (**Part 2**).

Part 1 will be subdivided into two chapters. **Chapter 1** explores the morphological and syntactic properties of the gerund and the present participle in Classical Latin, while **Chapter 2** investigates the evolution of the two types of non-finite verb forms in Late Latin and in the transition from Late Latin to Old French. Although it focuses on the period of Latin before that at the center of thesis, the first chapter about the gerund and the present participle in Classical Latin is the indispensable starting point for the study of their evolution in Late Latin and from Late Latin to Old French. At least three reasons can be put forward.

(i) The forms and uses of the gerund and the present participle have been quite extensively described for Classical Latin, not only in traditional grammars (e.g. Kühner & Stegmann 1914[5]; Hofmann & Szantyr 1965; Menge *et al*. 2000) and the recent two-volume *Oxford Latin Syntax* of Pinkster (2015, 2021), but also in specialised studies of the gerund and the present participle (e.g. Aalto 1949 and Risch 1984 for the gerund; Marouzeau 1910 and Laughton 1964 for the present participle). On the contrary, the evolution of the gerund and the present participle in Late Latin has been discussed in much less detail. As mentioned in §3.2, the current knowledge of this evolution is based on scattered empirical data focusing on specific forms and/or uses of the gerund and the present participle, on the one hand, and on empirical data taken from Romance languages and analysed retrospectively for Late Latin, on the other. A comprehensive quantitative corpus-based study of the various uses and forms of the gerund and the present participle in Late Latin is currently lacking. Hence, it is not surprising that not all of these forms and uses in Late Latin have been properly exemplified and discussed (*cf.* Chapter 2 and the empirical part). For this reason, it is recommendable to explore the well-documented morphological and syntactic properties of the gerund and the present participle in Classical Latin and to exemplify their various forms and uses at this stage of the language before turning to their less documented evolution in Late Latin.

(ii) In addition to the practical factor in (i), the inclusion of Classical Latin widens the diachronic span of this study. In this way, the evolution of the gerund and the present participle can be evaluated on a larger scale, so as to gain a more complete insight into its long-term dynamics and driving forces. This widening of the diachronic span in this thesis is also in line with the fact that language change is a slow and gradual process (*cf.* de Saussure 1916; Hopper 1987; Labov 1994, 2001; Croft 2000). As we will see, the main changes of the gerund and the present participle take place in Late Latin and in the transition to Old French, but clear traces of them can be found already in Classical Latin,

especially in Vulgar Latin. So as to fully seize the evolution of the gerund and the present participle in Late Latin, it is therefore worthwhile to look at their morphological and syntactic properties at this earlier stage of the language.

(iii) Finally, studies focusing on Late Latin or on the transition from Late Latin to (Old) Romance almost systematically include a comparison with Classical Latin. Thus, the approach adopted in this thesis follows the traditional *modus operandi* in diachronic research of Latin.

After having explored the formal and functional properties of the gerund and the present participle in Classical Latin (Chapter 1), I will examine their evolution from Late Latin to Old French (Chapter 2), still on the basis of the existing literature.

Part 2 is devoted to the empirical investigation of the gerund and the present participle from Late Latin to Old French. This part is subdivided in four chapters. **Chapter 3** presents the corpus and dataset of this thesis, and expounds the methodology that will be used. The two following chapters are dedicated to the empirical analysis of the evolution of the gerund (**Chapter 4**) and the present participle (**Chapter 5**) in Late Latin. The final chapter empirically examines the categorial status of the *-ant* form in Old French (**Chapter 6**). In accord with the focus of this dissertation, Chapters 4 and 5 seek to explore to which extent the traditionally hypothesised specialisation of the gerund and the present participle in Late Latin in respectively adverbial and adjectival external syntax is backed up by empirical data, while Chapter 6 aims to examine on the basis of these results the impact of the morphological merging of the gerund and the present participle in Old French on their categorial distinction.

The **Conclusion** discusses the main findings of the empirical investigation with reference to the previous research and provides directions for future research.

Part I. State of the art

Chapter 1. The gerund and the present participle in Classical Latin

1.1. Introduction

1.1.1. Preliminary description of the gerund and the present participle

In the grammatical tradition of Classical Latin, the labels ‘gerund’ and ‘present participle’ are used to refer to two distinct types of non-finite verb forms.[1] The gerund is built on the present stem of a verb, and further contains the inflectional infix *-nd-* and one of the endings of the second declension neuter nouns (Meiser 1998²: 228; Menge *et al.* 2000: 726-727; Pinkster 2015: 58). It occurs in different types of phrases, among which adnominal phrases and adjuncts are most frequent (Kühner & Stegmann 1914⁵: 737-755; Aalto 1949: Ch. 4; Palmer 1964: 320-324; Hofmann & Szantyr 1965: 374-380; Menge *et al.* 2000: 736-744; Pinkster 2015: 58). The forms *fugiendi* ‘to escape’ (1) and *quaeritando* ‘from searching’ (2) illustrate respectively an adnominal and an adjunct gerund.

(1) *[...]* ***fugie-nd-i*** *si* *data* *est* *occasio* *[...].*
escape-GER-GEN if give.PTCP.PST.NOM.M.F.SG be.PRS.3SG chance.NOM.F.SG
‘If a chance to escape is given (...).’ (Plaut. *Capt.* 117)

(2) *[...]* *sum* *defessus* ***quaerita-nd-o*** *[...].*
be.PRS.1SG tired.NOM.M.SG search-GER-ABL
‘I am tired from searching.’ (Plaut. *Amph.* 1014)

Like the gerund, the present participle is built on the present stem of a verb, but to this stem is attached different inflectional morphology: the infix *-nt-* and one of the endings of the third declension adjectives (Marouzeau 1910: 2-4; Eklund 1970: 12; Meiser 1998²: 226; Pinkster 2015: 60). The present participle is also used in various types of phrases, the most frequent ones being the same as those mentioned for the gerund (Kühner & Stegmann 1914⁵: 763-792; Ernout & Thomas 1951: 273-275, 280-285; Laughton 1964; Palmer 1964: 325-326; Hofmann & Szantyr 1965: 386-390; Menge *et al.* 2000: 713-724; Pinkster 2015: 60-61). *Occidentem* ‘setting’ (3) and *flentes* ‘crying’ (4) exemplify respectively an adnominal and an adjunct present participle.

[1] Authors often adopt different periodisations of Latin (Pinkster 2015: 5). The most authoritative one is proposed by Haverling (1988: 20-23), and also used in, e.g., Cuzzolin & Haverling (2009) and Pinkster (2015, 2021). This periodisation distinguishes four periods: Early Latin (240 BC – 90 BC), Classical Latin (90 BC – 14 AD), Silver Latin (14 AD – 200 AD), and Late Latin (200 AD – 600 AD). Since the aim of this study is to investigate the evolution of the gerund and the present from Late Latin to Old French, the distinction between the three periods before Late Latin is less relevant, all the more because the use of the two types of non-finite verb forms is relatively homogenous in these periods. Therefore, these periods will be jointly referred to by the term ‘Classical Latin’, which thus covers the period between 240 BC and 200 AD. A similar approach is taken by Banniard (2019: 29), who is also concerned with the transition from Late Latin to Old French. Evolutions of the gerund and the present participle between 240 BC and 200 AD will of course be pointed out where appropriate.

(3) *Alterum* *vergit* *ad* *Hispaniam* *atque* ***occide-nt-em*** *solem.*
other.NOM.N.SG lie.PRS.3SG to Spain.ACC.F.SG and set-PTCP.PRS-ACC.M.SG sun.ACC.M.SG
'The other (side) lies towards Spain and the West (lit. 'the setting sun').' (Caes. *Gall.* 5.13.2)

(4) *[...]* ***fle-nt-es*** *Caesari* *ad* *pedes* *proiecerunt* *[...]*
cry-PTCP.PRS-NOM.M.PL Caesar.DAT.M.SG to foot.ACC.M.PL throw.PST.3PL
'They threw (themselves) at the feet of Caesar while crying.' (Caes. *Gall.* 1.31.2)

The gerund and the present participle are part of a rich system of non-finite verb forms, including seven more types: the past participle, the future participle, the present infinitive, the past infinitive, the future infinitive, the gerundive, and the supine (Kühner & Stegmann 1914[5]: 662-792; Ernout & Thomas 1951: 255-287; Palmer 1964: 317-327; Hofmann & Szantyr 1965: 341-395; Scherer 1975: 82-96; Menge *et al.* 2000: 661-751; Pinkster 2015: 57-64). As we will see throughout this study, the gerund and the present participle interact with several of these forms, and these interactions are of crucial interest for their evolution from Late Latin to Old French (or Romance, for that matter). Therefore, it is necessary to have a brief look at the other types of non-finite verb forms, which is the topic of the following section.

1.1.2. The system of non-finite verb forms

Depending on their morphological and syntactic properties, the non-finite verb forms of Classical Latin are usually divided in a group of 'verbal nouns' or 'nominal/substantival forms of the verb' and a group of 'verbal adjectives' or 'adjectival forms of the verb': the first group includes the gerund, the supine, and the three types of infinitives, while the second group comprises the gerundive and the three types of participles (Kühner & Stegmann 1914[5]: 662-792; Ernout & Thomas 1951: 255-287; Palmer 1964: 317-327; Hofmann & Szantyr 1965: 341-395; Scherer 1975: 82-96; Menge *et al.* 2000: 661-751). Pinkster (2015: 57-64) maintains the distinction between nominal and adjectival forms, but separates the supine from the former. He argues that, though nominal from a historical point of view, the supine lacks typical nominal properties in Classical Latin, such as, for instance, the ability to be modified by an adjective or determiner. In what follows, I will give a brief description of the non-finite verb forms other than the gerund and the present participle. This overview is not exhaustive, but sufficient to determine the position of the gerund and the present participle within the Classical Latin system of non-finite verb forms.

The supine is built on the past stem of a verb and further contains the accusative or ablative ending of the fourth declension nouns, *viz.* respectively *-um* or *-u* (Kühner & Stegmann 1914[5]: 721; Hofmann

& Szantyr 1965: 380-382; Meiser 1998²: 225; Pinkster 2015: 64).[2] The accusative supine mostly occurs in adjuncts expressing the purpose of a transfer or movement, such as *irrisum dominum* 'to mock your master' (5). As for the ablative supine, it usually depends on an adjective, like *factu* 'to do' (6) (Kühner & Stegmann 1914⁵: 721-724; Ernout & Thomas 1951: 261-262; Palmer 1964: 324-325; Hofmann & Szantyr 1965: 380-382; Scherer 1975: 88-89; Pinkster 2021: §16.112-§16.113).

(5) *[...] nunc venis [...]* ***irris-um*** *dominum.*
now come.PRS.2SG mock-SUP.ACC master.ACC.M.SG
'Now you come to mock your master.' (Plaut. *Amph.* 587)

(6) *Bonam atque iustam rem oppido imperas et* ***fact-u*** *facilem.*
good.ACC.F.SG and fair.ACC.F.SG thing.ACC.F.SG city.DAT.N.SG order.PRS.2SG and do-SUP.ABL easy.ACC.F.SG
'You order something good and fair for the city and easy to carry out.' (Ter. *Haut.* 704)

Regarding the present, past, and future infinitives, they each have an active and a passive form (Ernout & Thomas 1951: 255; Scherer 1975: 82; Meiser 1998²: 225; Pinkster 2015: 57).[3] The present infinitives, both active and passive, and the past active infinitive are morphologically simple, while the past passive infinitive and the future infinitives, both active and passive, are complex: (i) the future active infinitive is contains a future participle and the present active infinitive *esse* 'to be'; (ii) the future passive infinitive comprises an accusative supine and the present passive infinitive of the verb *ire* 'to go', *viz. iri*; and (iii) the past passive infinitive is composed of a past participle and the present active infinitive *esse* 'to be' (Ernout & Thomas 1951: 255; Meiser 1998²: 225; Pinkster 2015: 57). The morphologically simple infinitives and the future passive infinitive are invariable, while the participles included in the future active infinitive and the past passive infinitive are inflected for case, gender, and number through agreement with a noun (Pinkster 2015: 57). The morphology of the infinitive is illustrated for the verb *cantare* 'to sing' in Table 1.1.

Table 1.1. Morphology of the infinitive in Classical Latin (illustrated for the verb *cantare* 'to sing')

	Active	**Passive**
Present	*cantare* 'to sing'	*cantari* 'to be sung'
Past	*cantavisse* 'to have sung'	*cantatus esse* 'to have been sung'
Future	*cantaturus esse* 'to be going to sing'	*cantatum iri* 'to be going to be sung'

[2] The accusative and the ablative supines are also known as respectively the first and the second supines (Hofmann & Szantyr 1965: 380-383; Pinkster 2015: 64, 2021: §16.112-§16.113). Some authors analyse the second supine as a dative instead of an ablative (Elcock 1960: 110; Sihler 1995: 613; Meiser 1998²: 225; Fruyt 2019: 197), while others take some instances as datives, but others as ablatives (Ernout & Thomas 1951: 255, 261; Palmer 1964: 280, 325; Scherer 1975: 89; Wackernagel & Langslow 2009: 350-351). This debate is of little interest here.

[3] Except for infinitives built on deponent verbs (Pinkster 2015: 57). As is well known, deponent verbs are morphologically passive, but semantically active (Pinkster 2015: 54). Hence, they can build only three infinitive forms: a passive present, a passive past, and a passive future form (Pinkster 2015: 54, 57).

From a syntactic viewpoint, the infinitive can occur in different types of phrases (or clauses). However, its dominant use in verb complements (Kühner & Stegmann 1914[5]: 664-721; Ernout & Thomas 1951: 255-258; Palmer 1964: 319-320; Hofmann & Szantyr 1965: 341-374; Pinkster 2015: 57-58, 2021: §15.91-§15.131). For instance, *invidere* ‘to be jealous’ (7) functions as the subject of the verb *cadit* ‘it befalls’, and *vereri* ‘to have shame’ (8) as the direct object of *perdidit* ‘he lost’. As for *loqui* ‘to speak’ (9), it is part of an accusative and infinitive construction, which serves as the direct object of the modal verb *volo* ‘I wish’.

(7) *Non* *cadit* *autem* ***invid-ere*** *in* *sapientem.*
NEG befall.PRS.3SG but be_jealous-INF.PRS to be_wise.PTCP.PRS.ACC.M.SG
‘But to be jealous does not befall the wise man.’ (Cic. *Tusc*. 3.21)

(8) *Hic* ***ver-eri*** *perdidit.*
DEM.NOM.M.SG have_respect-INF.PRS lose.PST.3SG
‘He lost his sense of shame (lit. ‘(the ability) to have respect’).’ (Plaut. *Bacch*. 158)

(9) *Vera* *volo* ***loqui-Ø*** *te* *[...].*
true.ACC.N.PL wish.PRS.1SG tell-INF.PRS you.ACC.M.SG
‘I wish that you tell the truth.’ (Plaut. *Amph*. 751)

Turning to the past and future participles, they are built on the same verb stem and both have one of the inflectional endings of the first or second declension adjectives (Meiser 1998[2]: 226-228; Pinkster 2015: 60). This ending is directly attached to the verb stem in the case of the past participle, while in the case of the future participle it is related to it through the infix *-ur-*. The present and future participles lack a passive form, while the past participle does not exist in the active. Hence, the paradigm of the participle is defective (Kühner & Stegmann 1914[5]: 762; Ernout & Thomas 1951: 273; Menge *et al.* 2000: 708-711; Haug 2012: 292; Pinkster 2015: 60). This paradigm is illustrated for the nominative masculine singular forms of the verb *cantare* ‘to sing’ in Table 1.2.

Table 1.2. Paradigm of the participle in Classical Latin (illustrated for the nominative singular forms of the verb *cantare* ‘to sing’)

	Active	**Passive**
Present	*cantans* ‘singing’	-
Past	-	*cantatus* ‘having been sung’
Future	*cantaturus* ‘going to sing’	-

Like their present counterparts, the past and future participles can be used in various ways, e.g. in adnominal phrases and adjuncts (Kühner & Stegmann 1914[5]: 763-780; Ernout & Thomas 1951: 276-280; Hofmann & Szantyr 1965: 390-393; Scherer 1975: 95-96; Menge *et al*. 2000: 713-720; Pinkster 2015: 60-61). These uses are illustrated for the present participle in respectively (3) and (4), and will therefore not be exemplified for the past and future participles.

The final type of non-finite verb forms is the gerundive. This form is built on the present stem of a verb, and further contains the inflectional infix *-nd-* and one of the endings of the first or second declension adjectives (Meiser 1998²: 228; Menge *et al.* 2000: 727; Pinkster 2015: 62). It shares the infix *-nd-* with the gerund. This morphological similarity has usually been explained from a historical perspective (Menge *et al.* 2000: 727). It is argued that the two forms are not equally old, but that the gerund is older and the source of the gerundive (Ribezzo 1926: 77; Aalto 1949: 24-32, 119-134; Scherer 1975: 91-92; Stempel 1994; Jasanoff 2006; Kircher-Durand 2008; Pinkster 2015: 64), or *vice versa* (Weisweiler 1890: 89; Bayard 1902: 27; Kühner & Stegmann 1914⁵: 727-728; Weerenbeck 1927: 225, 250; Risch 1984: 159-163; Meiser 1998²: 228).[4] While the historical relation between the gerund and the gerundive is subject to debate, their synchronic status as two distinct types of non-finite verb forms is uncontroversial (Menge *et al.* 2000: 727).

The gerundive typically has a passive and deontic value, and can be used in a personal or impersonal structure (Kühner & Stegmann 1914⁵: 728-734; Aalto 1949: 99-115; Ernout & Thomas 1951: 273, 285; Palmer 1964: 321; Hofmann & Szantyr 1965: 369-374; Risch 1984: 28-50; Menge *et al.* 2000: 727, 730-736; Pinkster 2015: 62-63, 288-300).[5] The impersonal gerundive has the invariable ending *-ndum*, and forms a passive and deontic verbal periphrasis with the auxiliary *esse* 'to be'. The agent of this periphrasis, if expressed, is mostly coded by a dative NP (Kühner & Stegmann 1914⁵: 729; Ernout & Thomas 1951: 286; Hofmann & Szantyr 1965: 369-370; Scherer 1975: 90-91; Risch 1984: 43; Pinkster 2015: 62, 296-297).[6] An example of this impersonal gerundive construction is *moderandum est mihi* 'I have to control' (10).

(10)	*Linguae*	***modera-nd-um***	*est*	*mihi.*
	tongue.DAT.F.SG	control-GERV-NOM.N.SG	be.PRS.3SG	I.DAT.M.SG

'I have to control my tongue (lit. 'my tongue is to be controlled by me').' (Plaut. *Curc*. 486)

[4] The most authoritative defendants of these hypotheses are respectively Aalto (1949: 24-32, 119-134) and Risch (1984: 159-163), who discuss the main arguments in this debate. Most scholars nonetheless give historical priority to the gerund. The idea that the gerund and the gerundive have a common origin is nowadays widely accepted, but this has not always been the case. Some authors ascribe them a distinct origin and consider their morphological similarities accidental (Ruddimann 1823 (II): 307; Corssen 1863: 134). For details, see Aalto (1949: 24-25).

[5] Since it mostly has a passive and deontic value, the gerundive has often been described as a future passive participle (Kühner & Stegmann 1914⁵: 727-728; Ernout & Thomas 1951: 273; Palmer 1964: 321; Pinkster 2015: 62), filling one of the gaps in the paradigm of the participle (see Table 1.2). However, the passive and/or deontic value of the gerundive is sometimes subtle or even absent (Kühner & Stegmann 1914⁵: 728; Hofmann & Szantyr 1965: 370-371; Pinkster 2015: 288-300 provides a detailed discussion). Its deontic value (the so-called '*notio necessitatis*') is most apparent when it forms a verbal periphrasis with the auxiliary *esse* 'to be' (Hofmann & Szantyr 1965: 371; Menge *et al.* 2000: 730-734; Pinkster 2015: 298; see the running text). In contrast with the gerundive, the gerund mostly has an active value. However, like the passive value of the gerundive, the active value of the gerund is a tendency rather than a rule (Kühner & Stegmann 1914⁵: 728-729; Scherer 1975: 90; Menge *et al.* 2000: 729-730; Pinkster 2015: 286-288).

[6] A few authors analyse such *-ndum* forms as nominative gerunds serving as the subject of the verb *esse* 'to be' (Hahn 1943; Aalto 1949: 92-98; Flobert 1975: 466). I will return to this issue in §1.2.1. In some cases, the agent of the impersonal gerundive is marked in the prepositional ablative, the preposition being *a(b)* 'by' (Kühner & Stegmann 1914⁵: 730-731; Scherer 1975: 90-91; Menge *et al.* 2000: 734; Pinkster 2015: 297).

As opposed to the impersonal gerundive, the personal gerundive agrees with a noun in case, gender, and number (Kühner & Stegmann 1914[5]: 729-734; Aalto 1949: 99-115; Hofmann & Szantyr 1965: 371-372; Risch 1984: 28-50; Menge *et al.* 2000: 730-735; Pinkster 2015: 62-63). It also has various uses. For instance, *contemnenda* 'to be despised' (11) occurs in an adnominal phrase, while *legendus* 'to be read' (12) forms a passive and deontic verbal periphrasis with the auxiliary *erit* 'he will be' (the agent of this periphrasis is expressed by the dative pronoun *vobis* 'you').

(11) *Et* *Hasdrubalem* *propediem* *adfore* *cum* *manu*
and Hasdrubal.ACC.M.SG soon arrive.INF.FUT with company.ABL.F.SG
haudquaquam ***contemne-nd-a***.
by_no_means despise-GERV-ABL.F.SG
'And (they said that) Hasdrubal would soon arrive with a company that should by no means be despised.' (Liv. 30.7.10)

(12) *Idem* *nunc* *vobis* *Naso* ***lege-nd-us*** *erit.*
same.NOM.M.SG now you.DAT.M.PL Naso.NOM.M.SG read-GERV-NOM.M.SG be.FUT.3SG
'You should read the same Naso now (lit. 'the same Naso should now be read by you').' (Ov. *rem*. 72)

In Classical Latin, the system of non-finite verb forms is relatively tightly organised, since each type of non-finite verb forms is specialised in different functional domains (Kühner & Stegmann 1914[5]: 662-792; Ernout & Thomas 1951: 255-287; Palmer 1964: 317-327; Hofmann & Szantyr 1965: 341-395; Menge *et al.* 2000: 661-751; Pinkster 2015: 57-64). For example, within the group of the nominal forms of the verb, taken here as including the supine, the infinitive typically occurs in verb complements, the gerund in adnominal phrases and manner/instrumental/causal adjuncts, and the supine in purpose adjuncts and adjective complements. However, this division of labour is a tendency rather than a rule, since several forms compete with each other in one or more functional domain(s) (Kühner & Stegmann 1914[5]: 662-792; Ernout & Thomas 1951: 255-287; Palmer 1964: 317-327; Hofmann & Szantyr 1965: 341-395; Menge *et al.* 2000: 661-751; Pinkster 2021: Ch. 15-17, 21). For instance, the infinitive sometimes competes with the gerund in adnominal phrases (Kühner & Stegmann 1914[5]: 742-744; Ernout & Thomas 1951: 269; Palmer 1964: 320; Hofmann & Szantyr 1965: 350-351, 376; Menge *et al.* 2000: 746; Pinkster 2021: §17.13, §17.15), and the gerund and the infinitive both compete with the supine in purpose adjuncts, at least when the main verb expresses a transfer or movement (Ernout & Thomas 1951: 260-262; Väänänen 1963[3]: 139; Hofmann & Szantyr 1965: 344-345, 378, 381; Stempel 1994: 236; Pinkster 2021: §16.86, §16.103, §16.112).

Functional competition is not only an integral part of the system of non-finite verb forms in Classical Latin, it is also the driving force behind the evolution of the gerund and the present participle in Late Latin and in the transition from Late Latin to Old French (or Romance in general). Therefore, it merits a more detailed discussion, which will be provided in the following section.

1.1.3. Functional competition

In linguistics, the concept of functional competition is a commonly used metaphor to refer to "the selection struggle among alternative forms at language production" (Fonteyn 2019: 53; see also Berg 2014; Fonteyn 2016: 31-32; De Smet *et al.* 2018: 198). The strength of this struggle depends on the degree of formal and functional similarity between the alternative forms: the higher is their degree of formal or functional similarity, the stronger is their competition (Fay & Cutler 1977; Berg 2014: 344). Competition has been shown to be strongest when the alternative forms show both formal and functional similarities (Shallice & McGill 1978; Berg 2014: 344; see also Fonteyn 2016: 31).

When two or more forms engage in competition over some functional domain, two main scenarios can be distinguished (Traugott & Trousdale 2013: 18; Fonteyn 2016: 32, 2019: 53; De Smet *et al.* 2018: 198). Either one of the alternatives is favoured and causes its competitor(s) to decline or even disappear (Leech *et al*. 2009), or each of the alternative forms subsists, but specialises in different functional domains or 'niches' (Torres Cacoullos & Walker 2009). The outcomes of these scenarios, referred to by De Smet *et al.* (2018: 198) as respectively 'substitution' and 'differentiation', have a similar effect on the language system: they increase its degree of isomorphism (Bates & MacWhinney 1982; Mondorf 2011: 397; Degand & Fagard 2012: 154; Fonteyn 2016: 32, 2019: 53; Nuyts & Byloo 2015: 34; De Smet *et al.* 2018: 198-199). Isomorphism can be described as the situation in which there is a functionally motivated division of labour between the forms of a given language system, in line with the more general principle that "a difference in syntactic form always spells out a difference in meaning" (Bolinger 1968: 127; see also Bolinger 1977; Haiman 1980; Dixon 1984; Givón 1985; Wierzbicka 1985; Goldberg 1995, 2006; Croft 2001; Fertig 2013). Languages are often held to naturally evolve toward an increasing degree of isomorphism, ideally providing their users with one form for one function or functional domain (Bolinger 1977; Haiman 1980; Wierzbicka 1988). Hence, the concept of competition has come to play an important role in diachronic linguistics (see, e.g., De Smet 2008a, 2008b, 2013; Torres Cacoullos & Walker 2009; Leech *et al.* 2009; Degand & Fagard 2012; Fonteyn 2016, 2019; De Smet *et al.* 2018; Fonteyn & Maekelberghe 2018).[7]

In Late Latin and in the transition from Late Latin to Old French (or Romance, for that matter), the system of non-finite verb forms is drastically restructured (Elcock 1960: 110-111; Väänänen 1963³: 138-141; Bauer 1993, 2005). In this restructuring, a central role is played by the evolution of the gerund and the present participle. As mentioned earlier, the driving force behind the evolution of these forms is

[7] In diachronic linguistics, it is usually held that competition and isomorphism are strongly correlated: competition is considered to lead to either substitution or differentiation, and thus to an increased degree of isomorphism. However, based on the evolution of the English gerund, De Smet (2008a, 2008b, 2013) argues that functional competition only settles in terms of substitution or differentiation when one of the competing forms has significant advantages over the other. In other words, an increased degree of isomorphism is a frequent, but non-compulsory outcome of functional competition (see also Fonteyn 2016: 31-32, fn. 4).

functional competition, in particular those between the gerund and the infinitive (Aalto 1949: 73; Elcock 1960: 110-111; Väänänen 1963[3]: 139; Bauer 1993, 2005) and between the gerund and the present participle (Aalto 1949: 73; Elcock 1960: 111; Väänänen 1963[3]: 140; Hofmann & Szantyr 1965: 373, 377, 384; Vester 1983: 135-136; Kooreman 1989; Bauer 1993, 2005; Maraldi 1994; Adams 2003: 748-749, 2013: 725-740; Pinkster 2021: §21.14). Although these competitions are strongest in Late Latin, there are clear traces of them already in the Classical period, especially in substandard varieties (Kühner & Stegmann 1914[5]: 663, 742-743; Lyer 1932: 384-389; Aalto 1949: Ch. 4; Väänänen 1963[3]: 139-140; Palmer 1964: 320, 324; Hofmann & Szantyr 1965: 350-351, 374-380, 383; Vester 1983: 101-121; Adams 2013: 725-726; Galdi & Vangaever 2019: 103-106; Pinkster 2021: §17.13-17.15, §21.14). For this reason, the description of the gerund and the present participle in Classical Latin is the indispensable starting point for the study of their evolution in Late Latin and in the transition from Late Latin to Old French.

1.1.4. Aim of the chapter

The aim of this chapter is to explore the morphological and syntactic properties of the gerund (§1.2) and the present participle (§1.3) in Classical Latin, and to examine to which extent these forms compete with each other already at this stage of the language (§1.4). The competition between the gerund and the infinitive will also be investigated, but since it concerns the present participle only in an indirect way, I will discuss it in the section dealing with the gerund. Attention will also be paid to the competition of the gerund and the present participle with the other types of non-finite verb forms (throughout §1.2 and §1.3).

1.2. The gerund

This section will first explore the morphological (§1.2.1) and syntactic properties (§1.2.2) of the gerund. On the basis of these properties, I will determine its morphosyntactic (§1.2.3) and typological profiles (§1.2.4). The morphosyntactic profile of the gerund will be obtained by mapping its morphological and syntactic properties on the morphosyntactic categories of Classical Latin, while its typological profile will be established by mapping its morphosyntactic profile on Haspelmath's (1995: 4) typology of non-finite verb forms. The functional competition between the gerund and the infinitive will be explored in §1.2.2.2 on the external syntax of the gerund, and synthesised in §1.2.5.

1.2.1. Morphological properties of the gerund

From a morphological perspective, the gerund displays verbal and nominal properties: it is verbal in that it is built on the present stem of a verb, which ends in *-a*, *-e*, or *-ie* depending on its conjugational class, and nominal by having one of the endings of the second declension neuter singular nouns (Meiser 1998[2]: 228; Menge *et al.* 2000: 726-727; Pinkster 2015: 58). The ending of the gerund is attached to the verb stem through the inflectional infix *-nd-*. As mentioned in §1.1.2, the gerund shares this infix with the gerundive. The gerund is marked for the nominal categories of case, gender, and number, but not for the verbal categories of person, number, tense, and mood (Pinkster 2015: 50, 58).

Contrary to regular nouns, the gerund lacks a form in the nominative, and thus has a defective paradigm. To be more precise, it is considered lacking a form in this case by most authors (e.g. Kühner & Stegmann 1914[5]: 736-755; Ernout & Thomas 1951: 265-268; Palmer 1964: 320-324; Hofmann & Szantyr 1965: 374-380; Risch 1984: 93-99; Stempel 1994: 236; Menge *et al.* 2000: 737-743; Pinkster 2015: 58, 301-303), while a few authors do recognise the existence of a nominative gerund (e.g. Hahn 1943: 286-290; Aalto 1949: 92-98; Flobert 1975: 466). The question whether the gerund has a form in the nominative depends on the analysis of forms in *-ndum* combined with a dative NP and a third person singular form of the verb *esse* 'to be', like *cantandum* 'singing' in *cantandum mihi est* 'I have to sing'. Most authors analyse these forms as impersonal gerundives forming a passive and deontic verbal periphrasis with the verb *esse* 'to be' (e.g. Kühner & Stegmann 1914[5]: 730; Ernout & Thomas 1951: 286; Palmer 1964: 321; Hofmann & Szantyr 1965: 369, Risch 1984: 41-43, 186-188; Menge *et al.* 2000: 733-734; Pinkster 2015: 301-303), but some take them as nominative gerunds functioning as the subject of *esse* 'to be' (e.g. Hahn 1943: 286-290; Aalto 1949: 92-98; Flobert 1975: 466). In the former analysis, the dative NP functions as the agent of the verbal periphrasis, while in the latter it serves as the dative possessor of the gerund (Pinkster 2015: 301). The existence of a nominative gerund is rejected in the first analysis, but recognised in the second. Following most authors, I will analyse the *-ndum* forms concerned as impersonal gerundives, thus conceiving of the gerund as non-existent in the nominative.[8]

A similar discussion can be observed for the accusative gerund. According to most authors, it is always governed by a preposition, mostly *ad* 'to' (13) (e.g. Kühner & Stegmann 1914[5]: 749; Ernout & Thomas 1951: 265; Palmer 1964: 322; Hofmann & Szantyr 1965: 377-378; Scherer 1975: 89; Risch 1984: 96-97; Menge *et al.* 2000: 727, 737-738; Pinkster 2015: 58).[9]

[8] A discussion of the main arguments *pro* and *contra* both hypotheses can be found in, e.g., Hahn (1943: 286-290), Aalto (1949: 92-98), and Pinkster (2015: 301-303). See also Risch (1984: 186-188).

[9] Other prepositions attested with an accusative gerund are *in* 'to', *ob* 'on account of', *ante* 'before', *inter* 'during', *propter* 'because of', and *circa* 'regarding' (Kühner & Stegmann 1914[5]: 749-751; Ernout & Thomas 1951: 265; Aalto 1949: 86-88; Palmer 1964: 322; Hofmann & Szantyr 1965: 377; Scherer 1975: 89-90; Risch 1984: 97; Menge *et al.* 2000: 737). Kühner & Stegmann (1914[5]: 749, 751) also mention *erga* 'toward', but the only example provided by them exemplifies a NP containing a personal gerundive instead of a gerund phrase.

(13) *[...] omnis* *sese* *multitudo* *ad* ***cognosce-nd-um*** *effudit.*
all.NOM.F.SG REFL.ACC.F.SG crowd.NOM.F.SG to find_out-GER-ACC pour_out.PST.3SG
'The whole crowd poured out to find out (about the ship).' (Caes. *civ*. 2.7.3)

However, a few authors also recognise the existence of a bare accusative gerund (e.g. Aalto 1949: 82-86; Blümel 1979: 86; Bauer 1993: 67). The question whether the gerund exists in the bare accusative depends on the analysis of forms in *-ndum* combined with a direct transitive verb, such as *cantandum* 'singing' in *cantandum censeo* 'I believe that I should sing'. Most authors take these forms as impersonal gerundives forming a passive and deontic verbal periphrasis with an implicit infinitive *esse* 'to be' within an accusative and infinitive construction (e.g. Kühner & Stegmann 1914[5]: 730-731; Ernout & Thomas 1951: 286; Hofmann & Szantyr 1965: 377-378; Menge *et al.* 2000: 734-736; Pinkster 2015: 303-304), but some authors analyse them as bare accusative gerunds serving as the direct object of the transitive verb (e.g. Aalto 1949: 82-86; Blümel 1979: 86; Bauer 1993: 67). The existence of a bare accusative gerund is rejected in the former analysis, but recognised in the latter. Like most authors, I will take the *-ndum* forms in question as impersonal gerundives, thus considering the gerund non-existent in the bare accusative.[10]

As for the genitive gerund, it is mostly bare, especially in adnominal phrases (Kühner & Stegmann 1914[5]: 737-746; Aalto 1949: 58-62; Ernout & Thomas 1951: 267-268; Palmer 1964: 323; Hofmann & Szantyr 1965: 374-376; Risch 1984: 93-95; Menge *et al.* 2000: 738-740; Pinkster 2015: 58). The coordinated forms *dormitandi* 'to sleep' and *cunctandi* 'to hesitate' (14), which depend on the abstract noun *copia* 'opportunity', are cases in point.

(14) *Non* *[...]* *tibi* ***dormita-nd-i*** *nec* ***cuncta-nd-i*** *copia* *est.*
NEG you.DAT.M.SG sleep-GER-GEN NEG hesitate-GER-GEN opportunity.NOM.F.SG be.PRS.3SG
'You do not have the opportunity to sleep or to hesitate.' (Plaut. *Epid*. 162)

In purpose adjuncts, the genitive gerund is often combined with a preposition (Menge *et al.* 2000: 740; Pinkster 2021: §16.103).[11] In Classical Latin, this preposition corresponds to *causa* 'for the sake of' or *gratia* 'for the sake of', which are in fact bare ablative nouns reanalysed as prepositions by means of a grammaticalisation process (Miniconi 1951: 121-134; Hofmann & Szantyr 1965: 133; Moussy 1966: 303-325; Pinkster 2015: 912).[12] These forms typically follow the gerund, so that they technically qualify

[10] The main arguments in this debate are discussed by, e.g., Aalto (1949: 82-86) and Pinkster (2015: 303-304). It is worth noting that, while the existence of the bare accusative gerund in Classical Latin is subject to debate, its existence in Late Latin is uncontroversial (Aalto 1949: 86; Hofmann & Szantyr 1965: 378; Bauer 1993: 67; Pinkster 2015: 305, 2021: §15.137-§15.138, §16.100). See §2.1.1.1.

[11] Several authors mention that the genitive gerund is often combined with *causa* 'for the sake of' or *gratia* 'for the sake of' (e.g. Kühner & Stegmann 1914[5]: 744), but only a few of them take these combinations as prepositional genitive gerund phrases (e.g. Menge *et al.* 2000: 740; Pinkster 2021: §16.103). For an explanation, see the running text and the following footnote.

[12] Grammaticalisation processes are slow and gradual processes, in which at least one, but typically several synchronic stages are characterised by formal and/or functional ambiguity between a source and a target analysis (Hopper 1991: 22-24; Hopper & Traugott 1993[2]: 124-126; Heine 1993: 54-56, 2002: 86). Hence, it is not surprising that some genitive gerunds combined with *causa* 'for the sake of' or *gratia* 'for the sake of' can be taken as either bare gerunds heading an adnominal phrase (source

as postpositions instead of prepositions (Menge *et al.* 2000: 740). However, for the sake of simplicity, they will be referred to as prepositions, as in Pinkster (2015: 1176, 2021: §16.103). As an example of a prepositional genitive gerund phrase, consider the purpose adjunct clause *cohortandi gratia* 'in order to encourage' (15).

(15) *Multa* *[...]* *ad* *te* ***cohorta-nd-i*** *gratia* *scripsimus.*[13]
many.ACC.N.PL to you.ACC.M.SG encourage-GER-GEN for_the_sake_of write.PST.1PL
'I have written many things to you for the sake of encouraging (you).' (Cic. *off.* 3.6.11)

Regarding the dative gerund, it is always bare – Latin lacks prepositions assigning this case to their complement (Kühner & Stegmann 1914[5]: 746-749; Aalto 1949: 63-65; Ernout & Thomas 1951: 265-266; Palmer 1964: 322; Hofmann & Szantyr 1965: 376-377; Risch 1984: 93; Menge *et al.* 2000: 741-743; Pinkster 2015: 58). The dative gerund is extremely rare, but nonetheless has different uses. For example, *alligando* 'to bind together' (16) occurs in a purpose adjunct, while *scribendo* 'at the writing' (17) is the complement of the verb *adessent* 'they were present'.

(16) *Utuntur* *in* *vinea* ***alliga-nd-o*** *fasces* *[...].*
use.PRS.3PL in vineyard.ABL.F.SG bind_together-GER-DAT bundle.ACC.M.PL
'They use (rushes) in the vineyard to bind bundles together.' (Varro *ling.* 5.31.137)

(17) *[...]* *cum=que* *[...]* *omnes=que* *iidem* ***scribe-nd-o*** *adessent* *[...].*
when=and all.NOM.M.PL=and same.NOM.M.PL write-GER-DAT be_present.SBJV.PST.3PL
'And when all the same persons were present at the writing (of the decree) (...).' (Cic. *har. resp.* 13)

Finally, the ablative gerund is predominantly bare, but can nevertheless be governed by a preposition, mostly *in* 'in' (Kühner & Stegmann 1914[5]: 751-754; Aalto 1949: 65-72; Ernout & Thomas 1951: 266-267; Palmer 1964: 324; Hofmann & Szantyr 1965: 379-380; Risch 1984: 95-96; Menge *et al.* 2000: 738, 740-741; Pinkster 2015: 58).[14] The ablative gerund is chiefly used as the head of an adjunct, irrespective of whether it is bare or prepositional. For instance, the bare ablative gerund *cunctando* 'by hesitating'

analysis) or prepositional gerunds heading an adjunct phrase (target analysis). Their analysis ultimately depends on factors such as their degree of desemanticisation, decategorisation, and recategorisation (*cf.* Hopper 1991: 22, 28-31; Heine 1993: 54-56, 88-99, 112-116, 2002: 86). The genitive marking of the gerunds is reminiscent of their original function as the modifiers of the nouns *causa* 'for the sake of' or *gratia* 'for the sake of', in line with the principle of syntactic reanalysis described by Langacker (1977: 58) as "the change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface structure". Quantitatively speaking, many combinations of a genitive gerund and *causa* 'for the sake of' or *gratia* 'for the sake of' allow an analysis as both NPs including an adnominal bare genitive gerund and as adjunct prepositional genitive gerund phrases. This might explain why many authors mention the frequent use of *causa* 'for the sake of' and *gratia* 'for the sake of' in combination with a genitive gerund without analysing them as prepositions (see the preceding footnote). However, there are strong arguments in favour of the prepositional status of at least some of these forms, and hence I will follow Menge *et al*. (2000: 740) and Pinkster (2021: §16.103) in recognising the existence of prepositional genitive gerunds.

[13] Notice that the form *scripsimus* 'I have written' is a plural of modesty (the subject is Cicero himself).

[14] Other prepositions attested with an ablative gerund are *de* 'regarding', *ex* 'from', *pro* 'instead of', and *a(b)* 'from', *cum* 'with', *sine* 'without', and *super* 'during' (Kühner & Stegmann 1914[5]: 751, 753-754; Aalto 1949: 70-72; Ernout & Thomas 1951: 266; Palmer 1964: 324; Hofmann & Szantyr 1965: 380; Risch 1984: 96; Menge *et al*. 2000: 738).

(18) and the prepositional ablative gerund *in circumeundo* ‘in going around’ (19) act as respectively a causal and a temporal adjunct.

(18) *Unus* *homo* *nobis* ***cuncta-nd-o*** *restituit* *rem.*
one.NOM.M.SG man.NOM.M.SG we.DAT.M.PL hesitate-GER-ABL restore.PST.3SG state.ACC.F.SG
‘One man (alone) restored the state for us by hesitating.’ (Cic. *off.* 1.84)

(19) *[...] in* ***circumeu-nd-o*** *exercitum* *animadvertit* *[...].*
in go_around-GER-ABL army.ACC.M.SG observe.PST.3SG
‘In going around the army he observed (...).’ (*Bell. Afr*. 82.1)

Like that of regular nouns, the case form of the gerund depends on its function and/or its governing preposition (Kühner & Stegmann 1914[5]: 736-755; Aalto 1949: Ch. 4; Ernout & Thomas 1951: 265-268; Palmer 1964: 320-324; Hofmann & Szantyr 1965: 374-380; Risch 1984: 93-99; Menge *et al.* 2000: 737-743; Pinkster 2015: 58). For example, *cunctando* ‘by hesitating’ (18) is marked in the bare ablative because it functions as a causal adjunct (Kühner & Stegmann 1914[5]: 751-752; Lyer 1932; Aalto 1949: 66-67; Hofmann & Szantyr 1965: 379; Vester 1983: 101-121; Menge *et al.* 2000: 740-741; Pinkster 2021: §16.101), while *cognoscendum* ‘to find out’ (13) is assigned the accusative by the preposition *ad* ‘to’ (Pinkster 2015: 1230). In (19), the gerund phrase is a temporal instead of a purpose adjunct, so that the preposition *in* ‘in’ assigns the ablative case to *circumeundo* ‘going around’ instead of the accusative (Pinkster 2015: 1230-1231).

Except for some copular and modal verbs, such as *esse* ‘to be’, *posse* ‘to be able to’, and *velle* ‘to want’, all verbs can build a gerund, even meteorological verbs like *pluere* ‘to rain’ (Pinkster 2015: 58). Witness (20), where the meteorological form *pluendo* ‘by raining’ serves as a causal adjunct.

(20) *[...] qui* *[...]* *diceret* *omnem* *aquam* *oportere*
REL.NOM.M.SG say.SBJV.PST.3SG all.ACC.F.SG water.ACC.F.SG need.INF.PRS
arceri *quae* ***pluendo*** *crevisset.*
keep_away.INF.PRS.PASS REL.NOM.F.SG rain-GER-ABL rise.SBJV.PST.3SG
‘(...) who said that all the water that had risen because of the rain needed to be kept away.’ (Cic. *top*. 38)

The morphology of the gerund in Classical Latin is presented for the verb *cantare* ‘to sing’ in Table 1.3.

Table 1.3. Morphology of the gerund in Classical Latin (illustrated for the verb *cantare* ‘to sing’)

Case form	**Prepositional/bare**	**Example**	**Translation**
Accusative	Prepositional	*ad canta-nd-um*	‘to singing’
Genitive	Prepositional/bare	*canta-nd-i*	‘of singing’
Dative	Bare	*canta-nd-o*	‘for singing’
Ablative	Prepositional/bare	*canta-nd-o*	‘by singing’

Since it lacks a form in the nominative and is always prepositional in the accusative, the gerund is usually considered the suppletive form of the infinitive, which, as for it, only exists in the nominative and is practically always bare in the accusative (Kühner & Stegmann 1914[5]: 662-663; Ernout & Thomas 1951: 255; Väänänen 1963[3]: 140; Palmer 1964: 320-321; Hofmann & Szantyr 1965: 341, 369; Scherer 1975: 89; Stempel 1994: 236; Bauer 2005: 515; Menge *et al*. 2000: 727-728, Pinkster 2015: 58-59).[15] In other words, the gerund acts as "the oblique case of the infinitive" (Palmer 1964: 320).[16] This relation of morphological complementarity between the two forms plays an important role in the evolution of the gerund in Late Latin and in the transition from Late Latin to Old French (see Chapter 2, §2.1.1.2.2).

1.2.2. Syntactic properties of the gerund

After having explored the morphological properties of the gerund, I will examine in this section its syntactic properties. I will first look at its internal syntax (§1.1.2.1), and then at its external syntax (§1.1.2.2).

1.2.2.1. Internal syntax of the gerund

Two factors regarding the internal syntax of the gerund will be studied: the internal syntactic complexity of gerund phrases (§1.2.2.1.1) and the marking of the internal argument of the gerund (§1.2.2.1.2).

1.2.2.1.1. Internal syntactic complexity of gerund phrases

In Classical Latin, the internal syntactic structure of gerund constituents shows different degrees of complexity (Kühner & Stegmann 1914[5]: 734-736; Lyer 1932: 224-232; Aalto 1949: Ch. 4; Ernout & Thomas 1951: 263; Palmer 1964: 321-324; Hofmann & Szantyr 1965: 373-374; Scherer 1975: 93-94;

[15] The oldest instances of the prepositional infinitive are found in Cicero's *De finibus bonorum et malorum*. They correspond to two coordinated present infinitives governed by the preposition *inter* 'between' (i) (Aalto 1949: 88 fn. 2; Ernout & Thomas 1951: 256; Palmer 1964: 318; Scherer 1975: 86).

(i) *[...]ut* *inter* *optime* ***valere*** *et* *gravissime* ***aegrotare*** *nihil*
that between perfectly be_healthy.INF.PRS and very_seriously be_ill.INF.PRS nothing.ACC.N.SG
prorsus *dicerent* *interesse* *[...].*
absolutely say.SBJV.PST.3PL lie_between.INF.PRS
'(...) they said that there is absolutely no difference between being perfectly healthy and being very gravely ill.' (Cic. *fin*. 2.43)

[16] Similar wordings are found elsewhere. For instance, Hofmann & Szantyr (1965: 341) write that "*das Gerundium in erster Linie einer Neubelebung der idg. Kasusbedeutung des Infin. dient und ihn so in den oblique Kasus ergänzt*". In a similar vein, Väänänen (1963[3]: 140) states that "[*L]e gérondif fournit à l'infinitif des cas obliques*". Waiving the traditional term 'oblique case', Pinkster (2015: 58-59) asserts that "the forms of the gerund have from Antiquity onwards been described as genitive / dative / accusative / ablative forms of the infinitive". Some authors also take the supine as a suppletive form of the infinitive (e.g. Ernout & Thomas 1951: 255; Väänänen 1963[3]: 139).

Risch 1984: 97-99; Menge *et al.* 2000: 728-729, 743-744; Pinkster 2021: §14.12). The constituents with the lowest degree of complexity only contain the gerund, like *iocandi* 'of joking' (21).

(21) *[...] si rei dignitas adimet* ***ioca-nd-i***
if case.GEN.F.SG seriousness.NOM.F.SG take_away.SBJV.PRS.3SG joke-GER-GEN
facultatem [...].
opportunity.ACC.F.SG
'If the seriousness of the case takes away the opportunity to joke.' (Cic. *inv*. 1.25)

These constituents can be divided in four groups.

(i) Some constituents contain the gerund because its arguments and possibly also adjuncts are semantically and syntactically shared with the main clause (Francis & Tatum 1919: 66; Kooreman 1989: 224; Pinkster 2021: §14.12).[17] This is the case in (22), where the implicit subject and direct object of *commemorando* 'by recalling' are coreferential with respectively the subject and the direct object of the main verb *renovare* 'to revive'.

(22) *[...] nolo eam rem* ***commemora-nd-o*** *renovare [...].*
not_want.PRS.1SG DEM.ACC.F.SG event.ACC.F.SG recall-GER-ABL revive.INF.PRS
'I do not want to revive this event by recalling (it).' (Cic. *Quinct*. 70)

The states of affairs denoted by these gerund constituents are 'specific' (Lehmann 1988: 191), in that they involve concrete arguments with actual referents. The effect of the semantic and syntactic sharing of arguments and adjuncts between two clauses is described by Lehmann (1988: 199) in terms of 'interlacing' (see also Davison 1979: §4.1; Foley & Van Valin 1984: §6.3)[18]. Depending on the number of constituents shared, clauses are more or less interlaced.

(ii) The second group of gerund constituents only contain the gerund because the state of affairs denoted by it is 'deactualised' (Dik 1985: 11) or 'typified' (Lehmann 1988: 191). That is to say, the gerund is used in an 'absolute way' (Kühner & Stegmann 1914[5]: 728; Ernout & Thomas 1951: 263; see also Dik 1985: 11, 1997: 89). The arguments of these gerunds do not have a concrete reference, which causes the state of affairs to have "a generic, habitual or potential reading rather than a reading which directly designates some actual state of affairs" (Dik 1985: 11).[19] Examples of this type of gerunds are *iocandi* 'of joking' (21) and *loquendi* 'of speaking' (23).

[17] For a general discussion of the semantic and syntactic sharing of constituents between two linked clauses, see, e.g., Davison (1979: §4.1), Foley & Van Valin (1984: §6.3), and Lehmann (1988: 191, 199-201).
[18] Hofmann & Szantyr (1965: 526) use the term 'synsemy' for the semantic sharing of constituents between two clauses.
[19] Focusing on the subject of the gerund, Kühner & Stegmann (1914[5]: 728) state that "*von dem bekannten oder unbekannten Subjekt wird ganz abstrahiert, um die Handlung oder den Zustand an sich desto nachdrucksvoller hervortreten zu lassen*".

(23) *[...] meam partem* ***loque-nd-i*** *et tuam trado tibi [...].*
my.ACC.F.SG part.ACC.F.SG speak-GER-GEN and your.ACC.F.SG grant.PRS.1SG you.DAT.M.SG
'I grant you (both) my part of speaking and yours.' (Plaut. *Asin*. 517)

Syntactically speaking, the first group of gerund constituents have the internal structure of a clause, while the second group are structurally equivalent to abstract (de)verbal NPs (Adams 2013: 736). In this study, the term 'gerund phrase' will be used to refer to gerund clauses and gerund NPs in a more general way, the latter being preserved for specific instances of gerund clauses and NPs. As for the term 'gerund construction', it will be restricted to contexts in which the term 'construction' stands for a linguistic structure defined as such within the theoretical framework of Construction Grammar, namely a unique, conventionalised, and arbitrary form-function pairing with a specific degree of internal complexity and lexical specificity (Goldberg 1995: 4, 2006: 3; Croft 2001: 18).

(iii) The third group of gerund phrases with a minimal degree of internal syntactic complexity only contain the gerund because it is built on an impersonal verb (e.g. *pluendo* 'by raining' (20)).

(iv) The fourth and final group is represented by constituents in which the arguments of the gerund are implicit without being semantically and syntactically shared with the main clause. Consider (24), where the implicit subject of *sedendo* 'by sitting' and *spectando* 'by watching' corresponds to the speaker, in this case an unidentified old man.

(24) *Lumbi* ***sede-nd-o****, oculi* ***specta-nd-o*** *dolent [...].*
loins.NOM.M.PL sit-GER-ABL eye.NOM.M.PL watch-GER-ABL hurt.PRS.3PL
'My loins hurt from sitting, my eyes from watching.' (Plaut. *Men*. 882)

Gerund phrases with a higher degree of internal syntactic complexity than in (21-24) contain the gerund and an additional constituent, which may be an argument of the gerund or an adjunct. For example, in (25) *addendo* 'by adding' governs the noun *supplicationes* 'thanksgivings' as its direct object, and in (26), *versando* 'by rolling' takes the noun *manibus* 'with their hands' as its instrumental adjunct.

(25) *An supplicationes* ***adde-nd-o*** *diem contaminari*
Q thanksgiving.ACC.F.PL add-GER-ABL day.ACC.F.SG pollute.INF.PRS.PASS
passus es [...]?
allow.PTCP.PST.NOM.M.SG be.PRS.2SG
'Did not you allow the day to be polluted by adding thanksgivings?' (Cic. *Phil*. 2.110.13)

(26) *[...] deinde pilae manibus* ***versa-nd-o*** *efficiuntur [...].*
then ball.NOM.F.PL hand.ABL.F.PL roll-GER-ABL form.PRS.PASS.3PL
'Then they are formed into balls by rolling (them) by hand.' (Vitr. 7.11.1)

The implicit arguments of these gerunds may be shared with the main clause, deactualised, or inferable from the discourse context. For instance, the implicit subject of *addendo* 'by adding' (25) is not

coreferential with the subject of the main verb *contaminari* ‘to be polluted’, but with the agent of this verb, which corresponds to the subject of the superordinate verb *passus es* ‘you allowed’. And in (26), the direct object of *versando* ‘by rolling’ is coreferential with the subject of the main verb *efficiuntur* ‘they are formed’, while its subject corresponds to the agent of this verb. Since the passage in (26) is part of an instruction describing how to make the colour blue, the subject of the gerund corresponds to anyone tempting to make this colour on the basis of Vitruvius’ recipe.

Gerund constituents with still a higher degree of internal syntactic complexity contain the gerund, its internal argument(s), and one or more adjuncts. However, such instances are rare in Classical Latin (Lyer 1932: 226-228; Palmer 1964: 321-324; Pinkster 2021: §14.12). A clear example is given in (27): the pronoun *iis* ‘them’ is the internal argument of *utendo* ‘by using’, while the coordinated adverbs *prudenter* ‘prudently’ and *magnifice* ‘splendidly’ are manner adjuncts. The subject of *utendo* ‘by using’ is coreferential with the subject of the main verb *effecit* ‘he made’, and hence left implicit inside the gerund clause.

(27) *Iis* *simul* *prudenter* *simul* *magnifice* ***ute-nd-o***
DEM.ABL.F.PL simultaneously prudently simultaneously splendidly use-GER-ABL
effecit *[...]* *ut* *[...].*
make.PST.3SG that
‘By using them both prudently and splendidly, he made that (...).’ (Liv. 33.21.2)

Gerund phrases with a maximal degree of internal syntactic complexity also contain an explicit subject, but in Classical Latin such cases are extremely rare (Pinkster 2021: §14.12). As an example, consider the clause headed by *aestimando* ‘by estimating’ (28): the subject of this gerund is coreferential with the subject of the main verb *permensus* ‘(after he) measured’, but it is anaphorically repeated inside the gerund clause by the emphatic pronoun *ipse* ‘himself’. In addition to this subject, the gerund clause contains the associative adjunct *secum* ‘to himself’[20] and the subordinate clause *quid in fronte paterent singuli* ‘how much each stone individually extended in height’, serving as the direct object of *aestimando* ‘by estimating’. As for the coordinated clause headed by *numerando* ‘by counting’, it only contains the gerund and its direct object *lapides* ‘stones’. Its subject is coreferential with the subject of the main verb *permensus* ‘(after he) measured’ without being anaphorically repeated inside the gerund clause.

[20] Associative adjuncts express “in the company of whom or together with whom (or its opposite: without whom) a person or thing is involved in a state of affairs” (Pinkster 2015: 897). On the associative value of *secum* ‘to himself’, see, e.g., Pinkster (2015: 1121-1122).

(28) *[...] unus ex Romanis [...],* ***numera-nd-o*** *lapides*
one.NOM.M.SG from Roman.ABL.M.PL count-GER-ABL stone.ACC.M.PL
aestima-nd-o=que *ipse secum quid in fronte*
estimate-GER-ABL=and INTENS.NOM.SG REFL.ACC.M.SG;with INT.ACC.N.SG in front.ABL.F.SG
paterent singuli altitudinem muri [...]
extend.SBJV.PST.3PL each.NOM.M.PL height.ACC.SG wall.GEN.M.SG
permensus [...], ad Marcellum rem defert.
measure.PTCP.PST.NOM.M.SG to Marcellus.ACC.M.SG situation.ACC.F.SG report.PRS.3SG
'One of the Romans, after measuring the height of the wall by counting the stones and by estimating himself in himself how much each stone extended in height, reported the situation to Marcellus.' (Liv. 25.23.11)

As apparent from the preceding examples, when the subject of the gerund has a concrete reference, it is usually coreferential with the subject of the main clause (22/27/28) or at least with the agent of the main state of affairs (25/26) (Aalto 1949 78; Kooreman 1989: 220; Adams 2013: 736; Pinkster 2021: §14.12, §21.14). Only when it needs to be inferred from the discourse context, as in (24), may it violate this tendency (Svennung 1935: 425; Hofmann & Szantyr 1965: 380; Adams 2013: 736).

According to Lehmann (1988: 191-197), the higher is the degree of internal syntactic complexity of a clause, the lower is its degree of 'desententialisation', *i.e.* the degree to which it has lost typical features of a finite clause. The lower is the degree of desententialisation of a clause, the higher is its degree of finiteness. As such, the gerund phrases exemplified in this section show a decreasing degree of desententialisation and an increasing degree of finiteness, except *numerando lapides* 'by counting the stones' (28), which has more or less the same degree of desententialisation and finiteness as the clauses in (25) and (26) (see also Kooreman 1989: 226).

It is important to note that, in Classical Latin, the number of gerund phrases with a high degree of internal syntactic complexity is low (Kühner & Stegmann 1914[5]: 735; Lyer 1932: 226-228; Palmer 1964: 321-324; Hofmann & Szantyr 1965: 373-374; Risch 1984: 97; Kooreman 1989: 223-225; Bauer 1993: 63, 2005: 516; Pinkster 2021: §14.12). Consequently, their mean degree of finiteness is also low (Lehmann 1988: 191-197; Kooreman 1989: 226).[21] This is mainly due to the competition between the gerund and the gerundive: gerund phrases with an explicit direct object compete with NPs containing a personal gerundive in different syntactic functions. At this stage of the language, the latter are preferred over the former, especially in standard varieties (Kühner & Stegmann 1914[5]: 734-735, 745-746; Lyer 1932: 231-232; Ernout & Thomas 1951: 263; Palmer 1964: 321-323; Hofmann & Szantyr 1965: 372-373, 375; Scherer 1975: 92; Kooreman 1989: 223-225; Menge *et al.* 2000: 736-737; Pinkster 2021: §14.12). For instance, adnominal gerund phrases like *legendi epistulas* 'to read the letters' (29), in which

[21] The mean degree of internal syntactic complexity is highest in bare genitive and bare ablative phrases (Kühner & Stegmann 1914[5]: 735; Ernout & Thomas 1951: 264; Palmer 1964: 321; Hofmann & Szantyr 1965: 373-374; Scherer 1975: 92).

the gerund is the head and the noun *epistulas* ‘letters’ its direct object, are less common than adnominal NPs like *legendarum epistularum* ‘to read the letters’ (30), in which the noun *epistularum* ‘of the letters’ is the head and the gerundive *legendarum* ‘to read’ its modifier (Bauer 1993: 64).

(29) *Tempus* ***lege-nd-i*** *epistulas.*
time.NOM.N.SG read-GER-GEN letter.ACC.F.PL
‘The time to read the letters.’ (Bauer 1993: 64)

(30) *Tempus* ***lege-nd-arum*** *epistularum.*
time.NOM.N.SG read-GERV-GEN.F.PL letter.GEN.F.PL
‘The time to read the letters (lit. ‘of the letters that should be read’).’ (Bauer 1993: 64)

Although NPs with a personal gerundive are, globally speaking, more common than gerund phrases with an explicit direct object, there are some configurations in which the latter are preferred (Kühner & Stegmann 1914[5:] 734-736; Ernout & Thomas 1951: 264-265, 268; Hofmann & Szantyr 1965: 372-373; Kooreman 1989: 224; Menge *et al.* 2000: 743-745). For example, they are preferred over genitive plural NPs containing a personal gerundive for phonetic reasons, because they allow avoiding the succession of the phonetically heavy endings *-orum* and *-arum* (Kühner & Stegmann 1914[5:] 736; Ernout & Thomas 1951: 264; Hofmann & Szantyr 1965: 373; Menge *et al.* 2000: 744). Gerund phrases like *pila coniciendi* ‘to throw spears’ (31), in which the gerund *coniciendi* ‘to throw’ is the head and the noun *pila* ‘spears’ its direct object, are thus more common than NPs like *pilorum coniciendorum* ‘to throw spears’ (32), in which the noun *pilorum* ‘of spears’ is the head and the gerundive *coniciendorum* ‘to be thrown’ its modifier.[22]

(31) *[...] ut* *spatium* *pila* *in* *hostes* ***conicie-nd-i*** *non*
that space.NOM.N.SG spear.ACC.N.PL to enemy.ACC.M.PL throw-GER-GEN NEG
daretur.
give.SBJV.PST.3SG
‘(...) that no space was given to throw spears upon the enemy.’ (Caes. *Gall.* 1.52.3)

(32) *[...] ut* *spatium* *pilorum* *in* *hostes* ***conicie-nd-orum*** *non*
that space.NOM.N.SG spear.GEN.N.PL to enemy.ACC.M.PL throw-GER-GEN.N.PL NEG
daretur.
give.SBJV.PST.3SG
‘(...) that no space was given to throw spears upon the enemy (lit. ‘of the spears that needed to be thrown upon the enemy’).’ (Menge *et al.* 2000: 744 [adapted from Caes. *Gall.* 1.52.3])

[22] For an overview of the contexts in which the two types of constituents are preferred or even compulsory, see, e.g., Kühner & Stegmann (1914[5]: 745-746), Ernout & Thomas (1951: 264-265, 268), Hofmann & Szantyr (1965: 372-373, 375), and Menge *et al.* (2000: 736-744).

As we will see in the following section, gerund phrases with an explicit direct object can be divided in two groups depending on how this argument is marked.

1.2.2.1.2. Marking of the internal argument of the gerund

In Classical Latin, the internal argument of the gerund is usually marked in the same way as when it is governed by a finite verb (Ernout & Thomas 1951: 263; Palmer 1964: 321; Hofmann & Szantyr 1965: 369; Bauer 1993: 65, 2005: 516). Consider (27) and (31), in which the internal argument of *utendo* 'by using' (27) and *coniciendi* 'to throw' (31) is marked in respectively the ablative and the accusative, just like when it is governed by a finite form of *uti* 'to use' (27) and *conicere* 'to throw' (31). Occasionally, however, the internal argument of the gerund is marked in the same way as when it depends on a noun (Kühner & Stegmann 1914[5]: 744-745; Ernout & Thomas 1951: 268; Palmer 1964: 321-322; Hofmann & Szantyr 1965: 374-375; Risch 1984: 192-195; Menge *et al.* 2000: 729).[23] Witness (33), in which the forms *infitiandi* 'to deny' and *defendendi* 'to defend' select the NP *earum rerum* 'these deeds' as their internal argument. This argument is marked in the bare genitive, just like prototypical adnominal NPs, while finite forms of the verbs *infitiari* 'to deny' and *defendere* 'to defend' assign the accusative to their internal argument.

(33) *[...] earum* *autem* *rerum* *nullam* *sibi* *iste*
DEM.GEN.F.PL but deed.GEN.F.PL no.ACC.F.SG REFL.DAT.M.SG DEM.NOM.M.SG
neque ***infitia-nd-i*** *rationem* *neque* ***defende-nd-i*** *facultatem*
NEG deny.GER-GEN reason.ACC.F.SG NEG defend-GER-GEN opportunity.ACC.F.SG
reliquit *[...].*
leave.PST.3SG
'But he did not leave for himself a reason to deny nor an opportunity to defend these deeds.' (Cic. *Verr*. 2.47)

According to Lehmann (1988: 191-197), non-finite clauses showing verbal internal syntax have a higher degree of finiteness than those displaying nominal internal syntax. As such, the gerund clauses in (27) and (31) are more finite than the ones in (33). From a diachronic perspective, the number of gerunds having nominal internal syntax decreases from the 1st c. BC onward, causing the number of gerunds with the internal syntax of a verb to become even more dominant (Kühner & Stegmann 1914[5]: 745). In this way, the mean degree of finiteness of gerund phrases increases from as early as the 1st c. BC onward.

A parallel can be drawn in this regard with the English gerund. Like its Classical Latin counterpart, the English gerund can have nominal or verbal internal syntax, as shown for the form *eating*

[23] The term "*principium-generandi-animalium-Konstruktion*" is sometimes used for this type of gerund phrases (Risch 1984: 192; Menge *et al.* 2000: 729).

in respectively (34) and (35): in (34), the internal argument of this form is realised by the PP *of cats and dogs*, just like when it functions as the modifier of a noun (e.g. *the life of cats and dogs*), while in (35), it is instantiated by the NP *cats and dogs*, just as when it is governed by a finite form of the verb *to eat* (e.g. *some people actually eat cats and dogs*) (Fonteyn 2019: 1).

(34) *Campaigns are being waged against the Republic of Korea where laws forbidding the* ***eating*** *of cats and dogs, the latter a traditional source of medicinal potency, are openly flouted*. (Fonteyn 2019: 1)

(35) *The population, though reduced to* ***eating*** *cats and dogs, fought back, however, so long as their ammunition lasted*. (Fonteyn 2019: 1)

In English linguistics, these two types of gerunds have been labelled in various ways, but nowadays the terms 'verbal gerund' and 'nominal gerund' are used most consistently (e.g. in Fanego 2004; Kranich 2007; Alexiadou 2013; De Smet 2008a, 2008b, 2013; Fonteyn 2016, 2019).[24] These labels will also be used in this thesis to describe the Latin gerund, but instead of referring to gerunds with verbal or nominal *internal* syntax, they will be used to refer to gerunds with verbal or nominal *external* syntax (see §1.2.3).

1.2.2.2. External syntax of the gerund

The external syntax (or distribution) of the gerund concerns the inventory of its syntactic uses. In Classical Latin, these uses are diverse: the gerund can occur in an adnominal phrase (§1.2.2.2.1), a verb complement (§1.2.2.2.2), an adjective complement (§1.2.2.2.3), an adverb complement (§1.2.2.2.4), or an adjunct (§1.2.2.2.5) (Kühner & Stegmann 1914[5]: 736-755; Aalto 1949: Ch. 4; Ernout & Thomas 1951: 265-268; Palmer 1964: 320-324; Hofmann & Szantyr 1965: 374-380; Menge *et al*. 2000: 737-743; Pinkster 2021: Ch. 15-17). The following sections will explore these uses of the gerund and examine to which extent the gerund competes in them with the infinitive and other types of non-finite verb forms (the competition between the gerund and the present participle will be discussed separately in §1.4). The study of the different uses of the gerund will serve to establish its external syntactic profile (§1.2.2.2.6), *i.e.* the inventory and relative frequency of its uses in a given corpus.

1.2.2.2.1. Adnominal gerunds

In Classical Latin, the gerund often acts as the head of an adnominal phrase (Kühner & Stegmann 1914[5]: 737-738, 750; Aalto 1949: Ch. 4; Ernout & Thomas 1951: 267; Palmer 1964: 322-323; Hofmann & Szantyr 1965: 374-376; Menge *et al*. 2000: 738-739; Pinkster 2021: §17.17-17.18, §17.20). These constituents depend on a noun whose referent they define, describe, or classify independently of the

[24] An overview of the labels used can be found in, e.g., Hudson (2003: 579 fn. 2) or Fonteyn (2019: 62 fn. 1).

state of affairs in which it takes part (Woodcock 1959: 50; Pinkster 2015: 965-966). For instance, *ad pugnandum* ‘to fight’ (36) depends on the coordinated nouns *studium* ‘eagerness’ and *virtus* ‘courage’, and specifies their referents by restricting their interpretation to the area of warfare.

(36) *Ne* *militibus* *[...]* *neque equitibus* *[...]* *studium* *ad*
NEG soldier.DAT.M.PL NEG horseman.DAT.M.PL eagerness.NOM.N.SG to
pugna-nd-um *virtus=que* *deerat.*
fight-GER-ACC courage.NOM.F.SG=and lack.PST.3SG
‘The eagerness and courage to fight did not lack to the soldiers nor the horsemen.’ (Caes. *civ*. 2.41.3)

Depending on whether they are semantically necessary or optional, a distinction can be made between respectively argumental and non-argumental adnominal gerund phrases (Pinkster 2021: §17.17-§17.18, §17.20).[25] The former, especially the bare genitive ones, mostly depend on an abstract noun whose meaning alone does not suffice to form a (contextually) meaningful information unit (Kühner & Stegmann 1914[5]: 737; Aalto 1949: 58-59; Palmer 1964: 323; Hofmann & Szantyr 1965: 375; Menge *et al*. 2000: 738-739; Pinkster 2015: 966, 2021: §17.17-§17.18). Examples are the bare genitive clause *existumandi cotidianae vitae consuetudinem* ‘to judge the habit of her daily life’ (37) and the prepositional accusative phrase *ad accusandum* ‘to accuse’ (38), depending on respectively *copiam* ‘opportunity’ (37) and *facultas* ‘opportunity’ (38).

(37) *[...]* *ea* *res* *dedit* *[...]* ***existuma-nd-i***
DEM.NOM.F.SG event.NOM.F.SG give.PST.3SG judge-GER-GEN
copiam *cotidianae* *vitae* *consuetudinem* *[...].*
opportunity.ACC.F.SG daily.GEN.F.SG life.GEN.F.SG habit.ACC.F.SG
‘This event gave (us) the opportunity to judge the habit of (her) daily life.’ (Ter. *Haut*. 282-283)

(38) *[...]* *ut* *[...]* *mihi* *summa* *facultas* *ad* ***accusa-nd-um***
that I.DAT.M.SG highest.NOM.F.SG opportunity.NOM.F.SG to accuse-GER-ACC
daretur *[...].*
give.SBJV.PST.PASS.3SG
‘(...) that the greatest opportunity to accuse was given to me.’ (Cic. *Verr*. 2.178)

However, they can also depend on other types of nouns, like nouns denoting personal agents (e.g. *fictor* ‘forger’), properties (e.g. *celeritas* ‘speed’), or duration (e.g. *dies* ‘day’) (Kühner & Stegmann 1914[5]: 737-738; Aalto 1949: 58-60; Palmer 1964: 323; Hofmann & Szantyr 1965: 375; Menge *et al*. 2000: 739-740; Pinkster 2021: §17.17-§17.18). Witness (39), in which *fandi* ‘of speaking’ is dependent on the noun *fictor* ‘forger’, which denotes a personal agent and requires a complement as much as the transitive verb *fingere* ‘to forge’ to which it is related.

[25] Pinkster (2015: 965-966) speaks of ‘adnominal arguments’ and ‘(optional) attributes’, respectively.

(39) *Non hic Atridae nec* ***fa-nd-i*** *fictor Ulixes.*
NEG here son_of_Atreus.NOM.M.PL NEG talk-GER-GEN forger.NOM.M.SG Ulysses.NOM.M.SG
'The sons of Atreus (are) not here nor Ulysses, the forger of fables (lit. 'of talking').' (Verg. *Aen*. 9.602)

By contrast, non-argumental adnominal gerund phrases provide additional information about the referent of a noun, *i.e.* information that is not required for the NP to form a (contextually) meaningful information unit (Pinkster 2021: §17.17, §17.20). For instance, *ad nocendum* 'to harm' (40) depends on the noun *scelera* 'evil'. It restricts the interpretation of this noun, but the meaning of this noun alone suffices in fact to form a (contextually) meaningful information unit.

(40) *Nec bestiarum solum ad* ***noce-nd-um*** *scelera sunt, sed*
NEG beast.GEN.F.PL alone to harm-GER-ACC evil.NOM.N.PL be.PRS.3SG but
interim aquarum quoque ac locorum.
at_the_same_time water.GEN.F.PL also and region.GEN.M.PL
'The evil to harm does not only come from the beasts, but at the same time also from the waters and the regions.' (Plin. *nat.* 25.20)

In line with the more general distinction between complementation and modification, argumental and non-argumental adnominal gerund phrases can be said to respectively 'complete' and 'modify' the head noun (Quirk *et al*. 1985: 65; Pinkster 2015: 965-966). The question whether adnominal gerund phrases are argumental or non-argumental will play no role in this study. What is more relevant for the purpose of this thesis is the case marking of the gerund.

In Classical Latin, adnominal gerunds most often stand in the bare genitive (Kühner & Stegmann 1914[5]: 737-738; Aalto 1949: 58-60; Ernout & Thomas 1951: 267; Palmer 1964: 323; Hofmann & Szantyr 1965: 374-376; Menge *et al*. 2000: 738-740; Pinkster 2021: §17.17-§17.18, §17.20). This marking does not contribute a specific meaning to the NP, but simply indicates that the gerund is syntactically dependent on a noun (Woodcock 1959: 50; Pinkster 2015: 1203). As such, the meaning of the NP entirely depends on the meaning of its constitutive parts and the discourse context, as in (37) and (39) (Woodcock 1959: 50; Pinkster 2015: 1203).

Apart from the bare genitive, adnominal gerunds may be marked in the prepositional accusative and the prepositional ablative (Kühner & Stegmann 1914[5]: 750; Aalto 1949: 71-72, 86-87; Palmer 1964: 322; Menge *et al.* 2000: 738; Pinkster 2021: §17.18, §17.20). The case form of the gerund is assigned by the preposition, which contributes moreover a specific meaning to the NP. The interpretation of this NP is thus mainly compositional (*cf.* Pinkster 2015: 1030). For instance, prepositional accusative forms are mostly governed by *ad* 'to', which usually contributes a final meaning to the NP (e.g. (36/38/40)) (Aalto 1949: 86-87). As for the prepositional ablative forms, they are mostly introduced by *in* 'in', which typically carries a temporal value (Aalto 1949: 71-72; Menge *et al.* 2000: 738). Witness (41), where the phrases *in agendo* 'in operating', *in conficiendo* 'in executing', and *in providendo* 'in planning' denote

the states of affairs during which a general should have the qualities expressed by respectively *industria* ‘thoroughness’, *celeritas* ‘rapidity’, and *consilium* ‘wisdom’.

(41) *Neque enim illae sunt solae virtutes*
NEG for DEM.NOM.F.PL be.PRS.3PL only.NOM.F.PL quality.NOM.F.PL
imperatoriae [...] labor in negotiis
belonging_to_a_general.NOM.F.PL application.NOM.M.SG in work.ABL.N.PL
fortitudo in periculis, industria in ***age-nd-o***
courage.NOM.F.SG in danger.ABL.N.PL thoroughness.NOM.F.SG in do-GER-ABL
celeritas in ***conficie-nd-o****, consilium in* ***provide-nd-o*** *[...].*
rapidity.NOM.F.SG in execute-GER-ABL wisdom.NOM.N.SG in plan-GER-ABL
‘For these are not the only qualities belonging to a general: application in work, courage in danger, thoroughness in operation (lit. ‘in doing’), rapidity in execution (lit. ‘in executing’), wisdom in strategy (lit. ‘in planning’).’ (Cic. *Manil*. 29.6)

In adnominal phrases, the gerund competes sometimes with the infinitive (Kühner & Stegmann 1914[5]: 742-744; Ernout & Thomas 1951: 269; Hofmann & Szantyr 1965: 376; Menge *et al*. 2000: 746; Pinkster 2021: §17.13, §17.15), and sometimes with NPs containing a personal gerundive (Kühner & Stegmann 1914[5]: 745-746, 750; Hofmann & Szantyr 1965: 374-375; Menge *et al.* 2000: 736-737; Pinkster 2021: §17.17-§17.20). Adnominal infinitives are much less frequent than their gerund competitors, especially in standard varieties, but they have nonetheless been attested from the earliest texts onward (Kühner & Stegmann 1914[5]: 742-744; Ernout & Thomas 1951: 269; Aalto 1949: 61-62; Ernout & Thomas 1951: 269; Palmer 1964: 320; Hofmann & Szantyr 1965: 350-351; Menge *et al.* 2000: 746-748; Pinkster 2021: §17.13-§17.15). In (42), the infinitive clause *benefacta cumulare* ‘to pile up good deeds’ serves as the adnominal argument of the abstract noun *occasio* ‘opportunity’, and can be replaced by, e.g., the genitive gerund *cumulandi* ‘to pile up’.

(42) *[...] nunc adest occasio benefacta* ***cumulare*** *[...].*
now be_present.PRS.3SG opportunity.NOM.F.SG good_deed.ACC.N.PL pile_up.INF.PRS
‘Now is the opportunity to pile up good deeds.’ (Plaut. *Capt*. 423-424)

The types of nouns allowing an adnominal infinitive are less diverse than in the case of adnominal gerunds. The same holds for the syntactic contexts in which these nouns may occur (Kühner & Stegmann 1914[5]: 742-744; Hofmann & Szantyr 1965: 350-351; Menge *et al.* 2000: 746-747; Pinkster 2021: §15.128, §17.13-§17.15). According to Pinkster (2021: §15.128, §17.13-§17.15), adnominal infinitives may depend on three groups of nouns: (i) subject or object predicates nouns (e.g. *occasio* ‘opportunity’ (42)); (ii) nouns semantically related to a verb that can take an infinitive clause as its direct object (e.g. *cogitatio* ‘reflection’ (43)); and (iii) nouns used in a light verb construction (e.g. *consilium* ‘plan’ (44)).

(43) *Cogitatio* *igitur* *diuturna* *nihil* ***esse*** *in*
reflection.NOM.F.SG so continued.NOM.F.SG nothing.ACC.N.SG be.INF.PRS in
re *mali* *dolori* *medetur* *[...].*
situation.ABL.F.SG evil.GEN.N.SG pain.DAT.M.SG heal.PRS.3SG
'So continued reflection that there is no evil in this situation heals the pain.' (Cic. *Tusc.* 3.74)

(44) *[...] te* *[...]* *consilium* *cepisse* *hominis* *propinqui*
you.ACC.M.SG plan.ACC.N.SG take.INF.PST man.GEN.M.SG close.GEN.M.SG
fortunas *[...]* ***evertere.***
fortune.ACC.F.PL ruin.INF.PRS
'You made the plan to ruin the fortunes of a man close to you.' (Cic. *Quinct.* 53)

Although, globally speaking, gerunds prevail over infinitives in adnominal phrases, the latter are preferred with nouns acting as subject or object predicates, as in (42) (Perrochat 1932: 170-187; Hofmann & Szantyr 1965: 376; Menge *et al*. 2000: 747; Pinkster 2021: §15.128). A relatively rare instance of an ad-nominal gerund depending on a subject predicate noun is *tacendi* 'to be quiet' (45).

(45) ***Tace-nd-i*** *tempus* *est* *[...].*
be_quiet-GER-GEN time.NOM.N.SG be.PRS.3SG
'It is time to be quiet.' (Plaut. *Poen.* 741)

The competition between adnominal gerunds and infinitives is particularly clear in examples like (46), where the gerund clause *eludendi senes* 'to fool the old men' and the infinitive clause *Phaedriae curam adimere argentariam* 'to take away Phaedria's financial worries' are coordinated by the conjunction *et* 'and' as the adnominal arguments of the abstract noun *occasio* 'opportunity' (Ernout & Thomas 1951: 269; Pinkster 2021: §17.15).

(46) *Summa* ***elude-nd-i*** *occasio* *est* *mihi* *nunc*
highest.NOM.F.SG fool-GER-GEN opportunity.NOM.F.SG be.PRS.3SG I.DAT.M.SG now
senes / *et* *Phaedriae* *curam* ***adimere***
old_man.ACC.M.PL and Phaedria.GEN.F.SG worry.ACC.F.SG take_away.INF.PRS
argentariam *[...].*
financial.ACC.F.SG
'Now I have the perfect opportunity to fool the old men and to take away Phaedria's financial worries.' (Ter. *Phorm.* 885-886)

As for the competition between adnominal gerunds and NPs containing a personal gerundive, it has been discussed in §1.2.2.1.1 with respect to the internal syntax of the gerund. As mentioned there, adnominal NPs with a personal gerundive are typically preferred over gerund phrases with an explicit direct object, especially in standard varieties. Instead of gerund clauses like *eludendi senes* 'to fool the old men' (46), it is thus more common to find NPs such as *causae dicendae* 'to speak the case' (47).

(47) *[...] dies causae* ***dice-nd-ae*** *venit.*
day.NOM.M.SG case.GEN.F.SG speak-GERV-GEN.F.SG come.PRS.3SG
'(...) the day came to speak the case (lit. 'of the case that needed to be spoken').' (Liv. 38.50.10)

1.2.2.2.2. Verb complement gerunds

The gerund can also occur in verb complements (Kühner & Stegmann 1914[5]: 747-748; Aalto 1949: Ch. 4; Ernout & Thomas 1951: 266; Palmer 1964: 323; Hofmann & Szantyr 1965: 377; Menge *et al.* 2000: 737-743; Pinkster 2021: §15.136-§15.138). It then acts as an argument of a verb, and is thus semantically and syntactically necessary (Dik 1997: 86-87; Pinkster 2015: 11). Gerund phrases can act as the second or third argument of a verb, but not as its first argument, *i.e.* its subject (Pinkster 2015: 301-303, 2021: §15.135-§15.138). *A scribendo* 'from writing' (48) and *ad cogitandum* 'to think' (49) are respectively the second argument of *abhorret* 'it recoils from' and the third argument of *instituere* 'to get to'.

(48) *[...] a* ***scribe-nd-o*** *[...] abhorret animus.*
from write-GER-ABL recoil.PRS.3SG mind.NOM.M.SG
'My mind recoils from writing.' (Cic. *Att.* 2.6.1)

(49) *Ita sum inritatus, animum ut nequeam ad*
so be.PRS.1SG irritated.NOM.M.SG mind.ACC.M.SG that be_unable.SBJV.PRS.1SG to
cogita-nd-um *instituere.*
think-GER-ACC set_up.INF.PRS
'I am so irritated that I am unable to get my mind to think.' (Ter. *Phorm.* 240)

The argumental character of these phrases is apparent from their inability to be omitted without affecting the core meaning and/or grammaticality of the sentence (Dik 1997: 86-90). For instance, the omission of *a scribendo* 'from writing' (48) and *ad cogitandum* 'to think' (49) changes the meaning of the verbs *abhorret* 'it recoils from' (48) and *instituere* 'to get to' (49): the former becomes deactualised (Dik 1985: 11) and is thus interpreted in an absolute way, while the latter takes a different meaning ('to apply to' > 'to set up'), as shown in respectively (50-51).

(50) *Abhorret animus.*
recoil.PRS.3SG mind.NOM.M.SG
'My mind shrinks back.' (adapted from Cic. *Att.* 2.6.1)

(51) *Ita sum inritatus, animum ut nequeam instituere.*
so be.PRS.1SG irritated.NOM.M.SG mind.ACC.M.SG that be_unable.SBJV.PRS.1SG set_up.INF.PRS
'I am so irritated that I am unable to set up my mind.' (adapted from Ter. *Phorm.* 240)

An even clearer example is given in (52): the omission of *canendo* 'singing' makes the meaning of the verb *desiste* shift from 'stop' to 'stand off', as evidenced in (53).

(52) *[...] "desiste* ***cane-nd-o****, / nata", ait [...].*
stop.IMP.PRS.2SG sing-GER-ABL daughter.VOC.F.SG say.PRS.3SG
'"Stop singing, (my) daughter", he said.' (Stat. *Theb*. 4.583-584)

(53) *Desiste.*
stand_off.IMP.PRS.2SG
'Stand off.' (adapted from Stat. *Theb*. 4.583-584)

In line with the more general fact that the distinction between arguments and adjuncts is gradient rather than discrete (Dik 1997: 87), it is sometimes difficult to establish whether gerund phrases are verb complements or adjuncts (Pinkster 2021: §16.100). This issue is important for the empirical examination of this study, and will be discussed in detail in Chapter 3 (§3.5.2).

Like adnominal gerunds, verb complement gerunds can be marked in various ways. They can also be bare or prepositional. The bare forms often stand in the dative (Kühner & Stegmann 1914[5]: 747-748; Aalto 1949: 63-64; Palmer 1964: 323; Hofmann & Szantyr 1965: 376-377; Menge *et al.* 2000: 741-743; Pinkster 2021: §15.137). In (54), the dative gerund clause *Epidicum quaerendo* 'to look for Epidicus' is the second argument of the light verb construction *operam dabo* 'I will make an effort'.

(54) *Ego [...] Epidicum operam* ***quaere-nd-o*** *dabo.*
I.NOM.M.SG Epidicus.ACC.M.SG effort.ACC.F.SG look-GER-DAT do.FUT.1SG
'I will make an effort to look for Epidicus.' (Plaut. *Epid*. 605)

Verb complement gerunds also stand in the dative in a number of verbal expressions. The most frequent of these is *scribendo adesse* 'to attend the writing (of a document)' (Kühner & Stegmann 1914[5]: 747-748; Aalto 1949: 64; Ernout & Thomas 1951: 266; Hofmann & Szantyr 1965: 376-377; Menge *et al.* 2000: 743; Pinkster 2021: §15.137). In this expression, illustrated in (55), the second argument of *scribendo* 'the writing' is usually implicit, but easily inferable from the discourse context.

(55) *Cato [...]* ***scribe-nd-o*** *adfuit [...].*
Cato.NOM.M.SG write-GER-DAT be_present.PST.3SG
'Cato attended (lit. 'was present at') the writing (of the decree).' (Cic. *Att.* 7.1.4)

The other bare marking of verb complement gerunds is the ablative, which is extremely rare (Pinkster 2021: §15.137-§15.138). It is illustrated by *canendo* 'singing' (52) and *sequendo* 'pursuing' (56).

(56) *[...] desperatione tandem fessum absistere* ***seque-nd-o*** *coegit.*
despair.ABL.F.SG finally tired.ACC.M.SG stop.INF.PRS pursue-GER-ABL force.PST.3SG
'Finally, he forced (him), as he was tired by despair, to stop pursuing.' (Liv. 29.33.8)

Verb complement gerunds can furthermore be marked in the prepositional accusative and the prepositional ablative (Aalto 1949: 86-87; Menge *et al.* 2000: 737-738; Pinkster 2021: §15.137-

§15.138). The former are mostly governed by *ad* ‘to’ (49), which contributes again a final meaning to the gerund phrase (Aalto 1949: 86-87; Menge *et al.* 2000: 737). The ablative forms are predominantly introduced by *a(b)* ‘from’ (48), which expresses metaphorical distance or separation (Pinkster 2021: §15.137-§15.138).

As in adnominal phrases, in verb complements the gerund competes sometimes with the infinitive (Pinkster 2021: §15.138), and sometimes with NPs including a personal gerundive (Hofmann & Szantyr 1965: 376-377; Menge *et al.* 2009: 737-743; Pinkster 2021: §15.137). This use is in fact the dominant use of the infinitive, and so verb complement infinitive clauses are much more frequent than their gerund counterparts (Kühner & Stegmann 1914[5]: 664-721; Ernout & Thomas 1951: 255-258; Palmer 1964: 319-320; Hofmann & Szantyr 1965: 341-374; Pinkster 2015: 57-58, 2021: §15.91-§15.131). In (57), the infinitive clause is *haec sperare* ‘to hope for these things’ is the second argument of *merui* ‘I deserved’.

(57) *Haec* *merui* ***sperare****?*
DEM.ACC.N.PL deserve.PST.1SG hope.INF.PRS
‘Did I deserve to hope for these things?’ (Prop. 2.5.3)

The fact that the gerund may compete with the infinitive in verb complements is evident from the comparison of examples like (58) and (59): in (58), the second argument of *impedire* ‘to hinder’ is realised by the gerund phrase *ad transeundum* ‘to cross’, while in (59), it is instantiated by the infinitive clause *me et hunc Sulpicium haec exquirere* ‘(that) Sulpicius here and I ask for this’.

(58) *[...] cum altitudine aquae tum etiam rapiditate fluminis*
not_only depth.ABL.F.SG water.GEN.F.SG but_also even rapidity.ABL.F.SG current.GEN.N.SG
ad ***transeu-nd-um*** *impedirentur.*
to cross-GER-ACC hinder.SBJV.PST.PASS.3PL
‘They were hindered to cross (the river) not only by the depth of the water, but also by the strength of the current.’ (Caes. *civ.* 1.62.2)

(59) *[...] me enim et hunc Sulpicium impedit*
I.ACC.M.SG for and DEM.ACC.M.SG Sulpicius.ACC.M.SG hinder.PRS.3SG
pudor [...] haec [...] ***exquirere*** *[...].*
modesty.NOM.M.SG DEM.ACC.N.PL ask_for.INF.PRS
‘For modesty hinders that Sulpicius here and I ask for this.’ (Cic. *de orat.* 1.163)

As for the competition between verb complement gerunds and NPs including a personal gerundive, the latter are again preferred over gerund clauses containing an explicit object, especially in standard varieties (Pinkster 2021: §15.137). Gerund clauses such as *Epidicum quaerendo* ‘to look for Epidicus’ (54) are thus less common than NPs like *lamentando filio* ‘to lamenting for her son’ (60).

(60) *Thetis* *[...]* ***lamenta-nd-o*** *pausam* *fecit* *filio.*
Thetis.NOM.F.SG lament-GERV-DAT.M.SG end.ACC.F.SG do.PST.3SG son.DAT.M.SG
'Thetis put an end to lamenting for her son (lit. 'to her son who needed to be lamented for').' (Plaut. *Truc*. 731)

1.2.2.2.3. Adjective complement gerunds

Like verbs, adjectives may require a complement and/or be expanded by optional constituents (Pinkster 2015: 215, 1074). In Classical Latin, these two types of constituents depending on an adjective may be realised by a gerund phrase, though only when the governing adjective is a subject or object predicate (Kühner & Stegmann 1914[5]: 737-750; Aalto 1949: Ch. 4; Ernout & Thomas 1951: 267; Palmer 1964: 322-323; Hofmann & Szantyr 1965: 375-377; Menge *et al.* 2000: 737-743; Pinkster 2021: §15.139, §17.31-§17.32, §17.34).[26] For example, *bellandi* 'to fight' (61) depends on the adjective *cupidi* 'eager', which acts as the predicate of the subject noun *homines* 'men' and governs the gerund as its second argument.[27] In (62), *ad narrandum* 'to tell' is dependent on the adjective *tutus* 'safe'. This adjective is the predicate of the subject NP *hic locus* 'this place' and takes the gerund phrase as an optional modifier.

(61) *[...] homines* ***bella-nd-i*** *cupidi* *magno* *dolore*
man.NOM.M.PL fight-GER-GEN eager.NOM.M.PL great.ABL.M.SG grief.ABL.M.SG
adficiebantur.
afflict.PST.PASS.3PL
'The men eager to fight were afflicted by a great grief.' (Caes. *Gall*. 1.2.4)

(62) *Non* *satis* *tutus* *est* *ad* ***narrandum*** *hic* *locus.*
NEG enough safe.NOM.M.SG be.PRS.3SG to tell-GER-ACC DEM.NOM.M.SG PLACE.NOM.M.SG
'This place is not safe enough to tell (you).' (Ter. *Phorm*. 818)

In the literature, constituents of the types exemplified by *bellandi* 'to fight' (61) and *ad narrandum* 'to tell' (62) are often referred to as respectively 'adjective complements' and 'modifiers of the adjective', in line with the more general distinction between complementation and modification (Quirk *et al.* 1985: 65). The question whether gerund constituents depending on an adjective are complements or modifiers is of no interest in this study. For practical reasons, I will use the term 'adjective complement' as a non-

[26] For an overview of the adjectives capable of governing a gerund phrase, see Pinkster (2021: §17.31). See also Kühner & Stegmann (1914[5]: 737, 746-747), Hofmann & Szantyr (1965: 375, 377), and Menge *et al.* (2000: 737, 740, 743). In the course of time, the inventory of these adjectives extends, especially in Late Latin (Kühner & Stegmann 1914[5]: 749; Aalto 1949: 59; Hofmann & Szantyr 1965: 377; Pinkster 2021: §17.31).
[27] The adjective *cupidus* 'eager' requires a second argument as much as the verb *cupere* 'to wish', to which it is related both semantically and formally (Pinkster 2015: 215).

technical cover term for both types of constituents, parallel to the use of the term ‘adnominal phrase’ for both arguments and modifiers of nouns.[28]

Like the two preceding types of gerunds, adjective complement gerunds can be marked in various ways, and may be bare or prepositional. The bare markings include the genitive and the dative, and are assigned by the governing adjective (Kühner & Stegmann 1914[5]: 737, 746-747; Aalto 1949: 58-60, 63-65; Ernout & Thomas 1951: 267; Hofmann & Szantyr 1965: 375, 377; Menge *et al.* 2000: 740, 743; Pinkster 2021: §15.139, §17.31-§17.32).[29] For instance, *cupidi* ‘eager’ (61) imposes the genitive on *bel-landi* ‘to fight’, while *commune* ‘common’ (63) assigns the dative to the coordinated forms *ediscendo* ‘to learning by heart’ and *scribendo* ‘to writing’.

(63) *Illud* ***edisce-nd-o*** ***scribe-nd-o****=que* *commune* *est* *[...].*
DEM.NOM.N.SG learn_by_heart-GER-ABL write-GER-ABL=and common.NOM.N.SG be.PRS.3SG
‘This is common to learning by heart and to writing.’ (Quint. *inst.* 11.2.35)

As for the prepositional markings, they include the accusative and the ablative (Kühner & Stegmann 1914[5]: 749-751; Aalto 1949: 71-72, 86-88; Palmer 1964: 322; Menge *et al.* 2000: 737; Pinkster 2021: §15.139, §17.31-§17.32). As always, the accusative forms are predominantly governed by *ad* ‘to’, which usually endows the adjective phrase with a final value (e.g. (62)) (Aalto 1949: 86-87; Menge *et al.* 2000: 737). The ablative forms are extremely rare and practically always introduced by *in* ‘in’ (Aalto 1949: 71). In (64), the prepositional ablative phrase *in diligendo* ‘in making our choice’ depends on the adjective *felices* ‘fortunate (note that the preposition *in* ‘in’ does not have its default temporal value, but serves to restrict the interpretation of this adjective) (Aalto 1949: 71-72).

(64) *[...] si* *minus* *felices* *in* ***dilige-nd-o*** *fuissemus* *[...].*
if less happy.NOM.M.PL in choose-GER-ABL be.SBJV.PST.1PL
‘(...) if we had been less fortunate in choosing (...).’ (Cic. *Lael.* 60)

Another similarity with the preceding types of gerunds is that adjective complement gerunds compete sometimes with infinitives (Kühner & Stegmann 1914[5]: 742; Ernout & Thomas 1951: 269; Hofmann & Szantyr 1965: 350-351, 375, 378; Pinkster 2021: §15.138, §17.27-§17.29), and sometimes with NPs including a personal gerundive (Kühner & Stegmann 1914[5]: 745-746; Ernout & Thomas 1951: 268; Hofmann & Szantyr 1965: 377; Menge *et al.* 2000: 737-743; Pinkster 2021: §17.31-§17.34). Adjective complement infinitives are less common than their gerund counterparts and their use is more restricted,

[28] In order to avoid confusion with the technical term ‘adjective complement phrase’, which refers to argumental constituents depending on an adjective, the term ‘adadjectival phrase’ could be used, in analogy to the term ‘adnominal phrase’. The form ‘adadjectival’ is used by some authors, e.g. Lehmann (2018b: 23), but for reasons of euphony, I will not use it in this study.
[29] Kühner & Stegmann (1914[5]: 754) and Hofmann & Szantyr (1965: 379) also mention the bare ablative, but the gerunds cited by them are either governed by adjectives that assign the dative to their complement, like *par* ‘equal’ (*cf.* Pinkster 2015: 217), or used in passages whose textual transmission is uncertain, the prepositional ablative reading with *in* ‘in’ being an alternative for the bare ablative reading (Kühner & Stegmann 1914[5]: 754). It is only in Late Latin that some adjective complement gerunds can unambiguously be taken as bare ablatives (Pinkster 2021: §15.139; see §2.1.1.2.2.1.3).

but they have nonetheless been attested from the earliest period onward. They mostly depend on an adjective that is semantically and sometimes also formally related to a verb capable of taking an infinitive clause as its direct object (Ernout & Thomas 1951: 269; Hofmann & Szantyr 1965: 350; Pinkster 2021: §17.27-§17.29). An example of such an infinitive clause is *se hasce aedis vendidisse* '(that) he sold this house' (65), which depends on the adjective *maestus* 'sad' (the related verb is *maerere* 'to be sad').

(65) *Sed* *ut* *maestus* *est* *se* *has=c'* ***vendidisse****!*
but how sad.NOM.M.SG be.PRS.3SG REFL.ACC.M.SG DEM.ACC.F.PL=DEM sell.INF.PST
'But how sad he is that he sold this (house here)!' (Plaut. *Most.* 796)

The competition between the gerund and the infinitive in adjective complements is manifest from the comparison between (61) and (66): in (61), the adjective *cupidus* 'eager' selects the gerund *bellandi* 'to fight' as its complement, while in (66) it governs the infinitive clause *falsis attingere gaudia palmis* 'to touch his joy with his unreal hands'.

(66) *[...] cupidus* *falsis* ***attingere*** *gaudia* *palmis* *[...].*
eager.NOM.M.SG false.ABL.F.PL touch.INF.PRS joy.ACC.N.PL hand.ABL.F.PL
'(...) eager to touch the joy (of his heart) with his false hands.' (Prop. 1.19.9)

Concerning the competition between adjective complement gerunds and NPs with a personal gerundive, the latter are once again preferred over gerund phrases containing an explicit direct object (Kühner & Stegmann 1914[5]: 745-746; Ernout & Thomas 1951: 268; Hofmann & Szantyr 1965: 377; Pinkster 2021: §17.31). Thus, gerund clauses like *equites quoque tegendo* 'to conceal even the horsemen' (67) are less common than NPs such as *referundae gratiae* 'to return thanks' (68).

(67) *[...] equites* *quoque* ***tege-nd-o*** *satis* *latebrosum*
horseman.ACC.M.PL also conceal-GER-DAT enough full_of_lurking_places.ACC.M.SG
locum *circumvectus* *[...].*
place.ACC.M.SG ride_around.PTCP.PST.NOM.M.SG
'(...) after riding around this place full enough of lurking places to conceal also the horsemen (...).' (Liv. 21.54.1)

(68) ***Referu-nd-ae*** *ego* *habeo* *linguam* *natam*
show-GERV-DAT.F.SG I.NOM.M.SG have.PRS.1SG tongue.ACC.F.SG be_born.PTCP.PST.ACC.F.SG
gratiae.
gratitude.DAT.F.SG
'I have a tongue born to show gratitude (lit. 'for gratitude that should be shown').' (Plaut. *Persa* 428)

1.2.2.2.4. Adverb complement gerunds

The gerund can also occur in adverb complements (Aalto 1949: 86-87; Menge *et al.* 2000: 742; Pinkster 2021: §17.35). As in the case of adjective complements, the term 'adverb complement' is taken here as a cover term for both arguments and modifiers of adverbs. An example of an adverb complement gerund phrase is *ad innitendum* 'to lean' (69), which depends on the adverb *idonee* 'suitably'.

(69) *Cum primum [...] gressum reciperavi, nondum quidem ad* ***innite-nd-um***
when first step.ACC.M.SG recover.PST.1SG not_yet indeed to lean-GER-ACC
idonee [...].
suitably
'As soon as I recovered the use of my leg (lit. 'my step'), not yet indeed in a way suitable to lean (on it) (...).' (Apul. *flor*. 16.23-24)

Adverb complement gerunds are extremely rare throughout the history of Latin (Pinkster 2021: §17.35). In the few examples cited in the literature, they stand in the accusative and are governed by the preposition *ad* 'to' (e.g. (69)) (Aalto 1949: 86-87; Menge *et al*. 2000: 742; Pinkster 2021: §17.35). The rareness of this type of gerunds lines up with the more general observation that subordinate clauses are practically never governed by an adverb. This is due to the risk of "an overload of information" at a relatively low level in the hierarchical structure of the sentence (Pinkster 2021: §17.35). No examples have been reported in the literature of adverb complement infinitives and NPs with a personal gerundive (Pinkster 2021: §17.35). Hence, this type of gerunds might be exempt from competition with them.

1.2.2.2.5. Adjunct gerunds

The final use of the gerund in Classical Latin is as the head of an adjunct phrase (Kühner & Stegmann 1914[5]: 731-754; Aalto 1949: Ch. 4; Ernout & Thomas 1951: 266-268; Palmer 1964: 322-324; Hofmann & Szantyr 1965: 376-380; Menge *et al*. 2000: 737-741; Pinkster 2021: §16.99-§16.104).[30] Adjuncts are syntactically and semantically optional constituents on the level of the VP or the clause as a whole. They form a heterogeneous group, but essentially resemble each other by modifying the state of affairs denoted by the main verb in some way or other (Dik 1997: 87; Pinkster 2015: 12). Witness *pultando pedibus* 'by kicking by my feet' (70) and *vescendo* 'to eat' (71), which function as respectively a manner and a purpose adjunct.

[30] Other terms used for this type of constituents are, e.g., 'adverbial modifiers' (Dik 1997: 51) and 'adverbials' (Quirk *et al.* 1985: 49; Pinkster 2015: 12).

(70) ***Pulta-nd-o*** *pedibus* *paene* *confregi* *has=ce* *[...]* *fores*
kick-GER-ABL foot.ABL.M.PL almost break.PST.1SG DEM.ACC.F.PL=DEM door.ACC.F.PL
'I almost broke these doors here by kicking (on them) by my feet.' (Plaut. *Most.* 453)

(71) *Scolymus* *[...]* *ab* *his* *distat,* *quod*
edible_thistle.NOM.M.SG from DEM.ABL.N.PL be_different.PRS.3SG insofar_as
radix *eius* ***vesce-nd-o*** *est* *decocta.*
root.NOM.F.SG its.GEN.M.SG eat-GER-ABL be.PRS.3SG boil.PTCP.PST.NOM.F.SG
'Edible thistle differs from these, insofar as its root is boiled in order to eat (it).' (Plin. *nat.* 21.96)

The syntactic and semantic optionality of the gerund phrases in (70) and (71) is apparent from the fact that they can be omitted without affecting the grammaticality or core meaning of the sentence, as shown for these examples in respectively (72) and (73).

(72) *Paene* *confregi* *has=ce* *fores.*
almost break.PST.1SG DEM.ACC.F.PL=DEM door.ACC.F.PL
'I almost broke these doors here.' (adapted from Plaut. *Most.* 453)

(73) *Scolymus* *ab* *his* *distat,* *quod* *radix*
edible_thistle.NOM.M.SG from DEM.ABL.N.PL be_different.PRS.3SG insofar_as root.NOM.F.SG
eius *est* *decocta.*
its.GEN.M.SG be.PRS.3SG boil.PTCP.PST.NOM.F.SG
'Edible thistle differs from these, insofar as its root is boiled.' (adapted from Plin. *nat.* 21.96)

Like the first three types of gerunds, adjunct gerunds may be marked in various ways. They may moreover be bare or prepositional. The bare markings include the genitive, the dative, and the ablative, and are assigned on the basis of the semantic value of the gerund (Kühner & Stegmann 1914[5]: 740-741, 746-753; Aalto 1949: 60-70; Ernout & Thomas 1951: 266-268; Palmer 1964: 323-324; Hofmann & Szantyr 1965: 376-380; Menge *et al.* 2000: 740-741; Pinkster 2021: §16.100-§16.101, §16.104). The bare dative (e.g. *vescendo* 'to eat' (71)) and genitive (e.g. *adsentandi* 'to flatter' (74)) forms mostly have a purpose value, and are as such in competition with each other (Kühner & Stegmann 1914[5]: 742; Aalto 1949: 60-64; Hofmann & Szantyr 1965: 376-377; Pinkster 2021: §16.100).

(74) *Vereor* *coram* *in* *os* *te* *laudare* *amplius, /* *ne*
fear.PRS.1SG openly in face.ACC.N.SG you.ACC.M.SG praise.INF.PRS more lest
id ***adsenta-nd-i*** *mage* *quam* *quo* *habeam*
DEM.ACC.N.SG flatter-GER-GEN more than REL.ABL.N.SG hold.SBJV.PRS.1SG
gratum *facere* *existumes.*
grateful.ACC.N.SG do.INF.PRS mean.SBJV.PRS.2SG
'I fear to openly praise you more in your face, lest you mean that I do it more to flatter than I hold (it) as being grateful.' (Ter. *Ad.* 269-270)

As to the bare ablative forms, they mostly express the manner of the main state of affairs, the means by which it is realised, or the state of affairs by which it is unintentionally brought about (Kühner & Stegmann 1914[5]: 751-752; Lyer 1932: 223-226, 382-384; Aalto 1949: 65-68; Ernout & Thomas 1951: 266; Palmer 1964: 324; Hofmann & Szantyr 1965: 379; Vester 1983: 101-120; Kooreman 1989: 221; Menge *et al.* 2000: 740-741; Adams 2013: 725; Pinkster 2021: §16.101). Clear examples are *pultando pedibus* 'by kicking by my feet' (70) and *recitando* 'by reciting' (75).

(75) *In hoc ita commemorare conveniet [...] id*
in DEM.ABL.N.SG so recall.INF.PRS be_appropriate.FUT.3SG DEM.ACC.N.SG
quod scriptum est ***recita-nd-o*** *[...].*
REL.NOM.N.SG write.PTCP.PST.NOM.N.SG be.PRS.3SG recite-GER-ABL
'So in this it will be appropriate to recall what is written by reciting (it).' (Cic. *Vatin*. 6)

In view of the competition between the gerund and the present participle, to be explored in detail in §1.4, it is important to add that bare ablative gerunds sometimes express the default semantic value of adjunct present participles. This is a temporal value of simultaneity, consisting of denoting a state of affairs concomitant or partly overlapping with the main state of affairs (Marouzeau 1910: 79; Kühner & Stegmann 1914[5]: 751-752; Lyer 1932: 384-389; Aalto 1949: 65-66, 68-70; Ernout & Thomas 1951: 266-267; Palmer 1964: 324; Hofmann & Szantyr 1965: 379-380; Vester 1983: 101-121, 134-135; Menge *et al.* 2009: 740-741; Adams 2013: 725-740; Galdi & Vangaever 2019: 100-103; Pinkster 2021: §21.14).[31] Witness *ornando* 'cheering' and *celebrando* 'celebrating' (76), which express the circumstances accompanying the motion expressed by the main verb *prosequebantur* 'they accompanied' (they could as such be replaced by the nominative present participles *ornantes* 'cheering' and *celebrantes* 'celebrating').

(76) *[...] vestrum egressum* ***orna-nd-o*** *atque* ***celebra-nd-o*** *[...] prosequebantur.*
your.ACC.N.SG departure.ACC.N.SG cheer-GER-ABL and celebrate-GER-ABL escort.PST.3PL
'They escorted your departure while cheering and celebrating.' (Cic. *Pis*. 3)

In Classical Latin, adjunct bare ablative gerunds with a semantic value other than manner, instrument, or cause are rare, but clear instances are found from the earliest texts onward (Marouzeau 1910: 79; Kühner & Stegmann 1914[5]: 752-753; Aalto 1949: 65; Palmer 1964: 324; Adams 2013: 725; Vincent 2016: 45; Galdi & Vangaever 2019: 100-103; Pinkster 2021: §21.14).[32] Many authors consider this use of the gerund characteristic of substandard varieties (Riemann 1886[7]: 514; Löfstedt 1911: 159; Lyer

[31] In the literature, this type of gerunds are sometimes qualified as 'modal' or 'circumstantial' (e.g. Kühner & Stegmann 1914[5]: 752; Lyer 1932: 384; Aalto 1949: 68-69; Hofmann & Szantyr 1965: 379). Another description that is often used is 'semantically weakened' (e.g. Adams 2013: 725-740).

[32] For an overview of the different semantic values of adjunct bare ablative gerunds in a corpus of Classical Latin texts, see Vester (1983: 101-121). For a diachronic overview, see Kooreman (1989) and Adams (2013: 725-740). A quantitative and diachronic study of these values in a corpus of technical texts is conducted by Galdi & Vangaever (2019: 100-103). As is well known, for some bare ablative gerunds it is difficult to determine whether or not they have a manner/instrumental/causal value (Hofmann & Szantyr 1965: 379; Adams 2013: 725-740).

1932: 397; Hofmann & Szantyr 1965: 379-380; Kooreman 1989: 220, 222-223; Burton 2000: 187; Maltby 2002: 220), but it has been repeatedly and unambiguously shown that it also occurs in standard varieties (Marouzeau 1910: 79; Kühner & Stegmann 1914[5]: 752-753; Ernout & Thomas 1951: 267; Tränkle 1960: 14; Fedeli 1980: 72-73; Wackernagel & Langslow 2009: 352; Haverling 2010: 369; Adams 2013: 725-740; Vangaever 2018: 12-14; Galdi & Vangaever 2019: 100-103, 106-107; Pinkster 2021: §21.14).[33]

When governed by a preposition, adjunct gerunds stand in the accusative, the genitive, or the ablative (Kühner & Stegmann 1914[5]: 731-732, 753-754; Aalto 1949: Ch. 4; Palmer 1964: 322-324; Hofmann & Szantyr 1965: 376-380; Menge *et al.* 2000: 737; Pinkster 2021: §16.100, §16.102-§16.104). The accusative forms are mostly introduced by *ad* 'to', which contributes a final meaning to the adjunct phrase (Kühner & Stegmann 1914[5]: 731-732, 749-750; Aalto 1949: 86-87; Menge *et al.* 2000: 737; Pinkster 2021: §16.100). This type of phrases, illustrated by *ad restinguendum* 'to extinguish' (77), compete with both dative and bare genitive adjunct phrases (Kühner & Stegmann 1914[5]: 742; Aalto 1949: 87; Ernout & Thomas 1951: 266; Pinkster 2021: §16.100).[34]

(77) *[...] ut [...] omnis [...] multitudo ad* ***restingue-nd-um*** *concurreret.*
that all.NOM.F.SG crowd.NOM.F.SG to extinguish-GER-ACC assemble.SBJV.PST.3SG
'(...) that the whole crowd assembled to extinguish (the fire).' (Caes. *Gall.* 7.24.5)

The genitive is assigned by the prepositions *causa* 'for the sake of' and *gratia* 'for the sake of', which may also endow the gerund clause with a final meaning (Pinkster 2021: §16.100). Classical Latin thus has four types of gerund phrases capable of having a final value. These phrases compete with each other, but also with other types of non-finite VPs (see *infra*). However, prepositional genitive gerunds can also express the reason (or motive) of the main state of affairs (Pinkster 2021: §16.103). Witness (78), where *non recitandi causa sed recognoscendi* 'not for the sake of reciting in public, but for the sake of revising' explains why the subject of *defendebat* 'he said in his defence' read his account book.[35]

(78) *[...] defendebat [...] non se* ***recita-nd-i*** *causa legisse,*
defend.PST.3SG NEG REFL.ACC.M.SG recite-GER-GEN for_the_sake_of read.INF.PST
sed ***recognosce-nd-i****.*
but revise-GER-GEN
'He said in his defence (lit. 'defended himself') that he had not read (it) for the sake of reciting (it) (in public), but for the sake of revising (it).' (Cic. *Vatin.* 5.12)

[33] For a critical and detailed discussion, see Adams (2013: 725-740).
[34] According to Aalto (1949: 63), prepositional accusative gerunds are preferred over dative gerunds in purpose adjuncts, especially in substandard varieties (see also Ernout & Thomas 1951: 266).
[35] As stated by Pinkster (2015: 909), "[R]eason adjuncts are the counterpart of purpose adjuncts". However, it is often difficult to determine whether an adjunct expresses the reason or the purpose of the main state of affairs.

Finally, the ablative gerund is mostly introduced by *in* 'in', which usually has a temporal value (Kühner & Stegmann 1914[5]: 753; Aalto 1949: 71-72; Pinkster 2021: §16.102). In (79), *in struendo* 'in building' situates the state of affairs designated by *reliquerunt* 'they left' in time by expressing the temporal frame within which it is realised.

(79) *[...] fenestras=que* *[...]* *ad tormenta* *mittenda* *in* ***strue-nd-o***
opening.ACC.F.PL=and to missile.ACC.N.PL throw.GERV.ACC.N.PL in build-GER-ABL
reliquerunt.
leave.PST.3PL
'While building, they left openings for the use of catapults (lit. 'for missiles that needed to be thrown').' (Caes. *civ*. 2.9.9)

A few remarks should also be made about the information-structural value of adjunct gerunds. From the point of view of information structure, adjuncts can be described as constituents "expanding the prototypical rheme" of a sentence without however being necessarily rhematic themselves (Haug 2012: 294). The prototypical rheme of a sentence is defined by Haug (2012: 294) as the part of the sentence denoting a simple event expressed by a verb and its non-subject arguments. Hence, it more or less corresponds to what Lambrecht (1994: 213) calls 'focus', *i.e.* "the semantic component of a pragmatically structured proposition whereby the assertion differs from the presupposition". According to Haug (2012: 294-303), adjuncts may expand the rheme of the sentence in three possible ways. However, only two of these options have been retrieved for adjunct gerunds (Galdi & Vangaever 2019: 110-111).

On the one hand, adjunct gerunds may expand the rheme of the sentence by presenting the state of affairs denoted by the main verb and its non-subject arguments with a higher degree of granularity (Haug 2012: 295-299). That is to say, by "zooming in" on this state of affairs and representing parts of it with greater granularity (Fabricius-Hansen & Haug 2012: 7). Examples of this type of adjuncts are the manner/instrumental phrases *pultando pedibus* 'by kicking by my feet' (70) and *recitando* 'by reciting' (75), as well as the coordinated forms *ornando* 'cheering' and *celebrando* 'celebrating' (76), which specify the circumstances accompanying the main state of affairs. This type of adjuncts are referred to by Haug (2012: 295-299) as 'elaborating adjuncts'. They correspond to what Dik (1997: 51) calls 'predicate (or σ1) satellites' within the theoretical framework of Functional Grammar (see also Kooreman 1989: 225-226). An example of an elaborating adjunct in Modern English is the adverb *carefully* (80).

(80) *John was writing a letter carefully*. (Dik 1997: 51)

Although they are semantically (and pragmatically) tightly connected to the core predication, *i.e.* the combination of the main verb and its arguments (*cf.* Dik 1997: 51), elaborating adjunct gerunds are

syntactically unconstrained. Indeed, they can combine with all types of main verbs: transitive as well as intransitive ones and, within the latter group, unaccusative as well as unergative ones. From a semantic point of view, elaborating adjuncts always express the manner of the main state of affairs, the means (or instrument) by which it is realised, or a state of affairs co-occurring with it (Haug 2012: 304; Galdi & Vangaever 2019: 109; see also Kooreman 1989: 225-226). The use of elaborating adjuncts can in a certain sense be conceived of as a communicative strategy compensating for the lack of a single verb whose meaning alone corresponds to that of the core predication and the elaborating adjunct taken together (Fabricius-Hansen & Haug 2012: 1; Haug 2012: 295; Galdi & Vangaever 2019: 109). In Classical Latin, adjunct gerunds often serve as elaborating adjuncts, especially the bare ablative ones (Vester 1983: 144-145; Kooreman 1989: 225-226; Galdi & Vangaever 2019: 110-111).

On the other hand, adjunct gerunds may expand the rheme of the sentence by anchoring the state of affairs denoted by the extended predication, *viz.* the combination of the core predication and possibly one or more elaborating adjunct(s) (*cf.* Dik 1997: 51-52), in time or space or by relating it to another, often known, state of affairs (Haug 2012: 299-301). That is, they "zoom out" on the main state of affairs by presenting it in a more comprehensive setting (Fabricius-Hansen & Haug 2012: 7). A clear example of this type of adjuncts is the prepositional ablative phrase *in struendo* 'in building' (79), since it locates the state of affairs denoted by *reliquerunt* 'they left' in time. This second type of adjuncts are labelled 'framing adjuncts' by Haug (2012: 299-301). They correspond to Dik's (1997: 51-52) group of 'predication (or σ2) satellites' (see also Kooreman 1989: 225-226). A Modern English example of a framing adjunct is the PP *in the library* (81), which situates main the state of affairs in a spatial setting.

(81) *John is carefully writing a letter in the library*. (Dik 1997: 52)

From a semantic point of view, framing adjuncts often have a temporal value, but they can also express a cause, condition, concession, and so on (Haug 2012: 304; Galdi & Vangaever 2019: 109).[36] In Classical Latin, these values are not often expressed by adjunct gerunds, at least not by bare ablative adjuncts, and hence framing gerunds are less frequent than elaborating ones (Vester 1983: 144-145; Kooreman 1989: 225-226; Galdi & Vangaever 2019: 110-111).[37]

The final aspect of adjunct gerunds to be examined is their competition with non-finite verb forms other than the present participle. Like adnominal, verb complement, and adjective complement gerunds, adjunct gerunds sometimes compete with infinitives (Aalto 1949: 63; Palmer 1964: 319; Hofmann & Szantyr 1965: 344-345, 378-379; Fruyt 1996: 45; Pinkster 2021: §16.86). However, this domain of competition is restricted to purpose adjuncts combined with a verb denoting a transfer or movement,

[36] Framing adjuncts include the so-called 'frame-setters' or 'scene-setters' (Chafe 1984; Dik 1997: 51-52, Diessel: 459-460). These constituents provide the orientation for the subsequent discourse or additional information about the preceding one.
[37] Focusing on bare ablative gerunds in technical literature between the 2nd c. BC and the 1st c. AD, Galdi & Vangaever (2019: 110-111) show that 84% have an elaborating function, while only 16% serve a framing function. This is in line with Kooreman's (1989: 225-226) claim that, in Classical Latin, bare ablative adjunct gerunds belong to a high content-level of the clause.

since this is the only type of adjuncts in which the infinitive may occur, at least in Classical Latin (Aalto 1949: 63; Ernout & Thomas 1951: 260-261; Palmer 1964: 319; Hofmann & Szantyr 1965: 344-345, 378-379; Scherer 1975: 84; Pinkster 2021: §16.86).[38] In (82), the infinitive clause *bibere usque plenis cantharis* 'to drink from full goblets' expresses the purpose of the (imperative) verb *da* 'give'.

(82) *Age,* *circumfer* *mulsum,* ***bibere***
go.IMP.PRS.2SG pass_around.IMP.PRS.2SG honeyed_wine.ACC.N.SG drink.INF.PRS
da *usque* *plenis* *cantharis.*
give.IMP.PRS.2SG continuously full.ABL.M.PL goblet.ABL.M.PL
'Go, pass the honeyed wine around, give (it to us) so that we can drink continuously from full goblets.' (Plaut. *Persa* 821)

Purpose adjunct infinitives have been attested from the earliest period onward. They are more frequent in substandard than in standard varieties, but even in substandard varieties they are less common than their gerund counterparts (Palmer 1964: 318; Pinkster 2021: §16.86). Note that purpose adjunct gerunds and infinitives do not only compete with each other, but also with the accusative (or first) supine (Ernout & Thomas 1951: 260-262; Hofmann & Szantyr 1965: 344-345, 378-381; Stempel 1994: 236; Pinkster 2021: §16.86, §16.106, §16.112). This adjunct use is the dominant use of the accusative supine, though it gradually loses ground in favour of the infinitive, the gerund, and NPs including a personal gerundive (Pinkster 2021: §16.112). in (83), the supine phrase is *questum iniurias* 'to complain about the injustice' expresses the purpose of the motion verb *venerunt* 'they came'.

(83) *[...] legati* *ab* *Roma* *venerunt* ***questum*** *iniurias* *[...].*
envoy.NOM.M.PL from Rome.ABL.F.SG come.PST.3PL complain.SUP.ACC injustice.ACC.F.PL
'The envoys came from Rome to complain about the injustice.' (Liv. 3.25.6)

Finally, adjunct gerunds are also in competition with NPs containing a personal gerundive. As per usual, the latter are preferred over gerund phrases with an explicit direct object, especially in standard varieties (Ernout & Thomas 1951: 265-266; Hofmann & Szantyr 1965: 377-379; Menge *et al*. 2000: 737-741; Pinkster 2021: §16.106). Gerund clauses like *vitando imbres et aestus* 'to evade rain and heat' (84) are thus less common than NPs such as *oneri ferendo* 'to carry loads' (85).

(84) *[...]* ***vitando****=que* *imbres* *et* *aestus* *tegebant* *harundinibus*
evade-GER-DAT=and rain.ACC.M.PL and heat.ACC.M.PL cover.PST.3SG reed.ABL.F.PL
et *fronde.*
and foliage.ABL.M.SG
'And they covered (the houses) with reeds and leaves in order to evade the rain and the heat.' (Vitr. 2.1.3)

[38] Over time, the range of verbs allowing a purpose adjunct infinitive phrase gradually extends, especially in Late Latin (Pinkster 2021: §16.86).

(85) *[...] ea* *non* *potest* *in* *structura* *oneri*
DEM.NOM.F.SG NEG be_able.PRS.3SG in masonry.ABL.F.SG load.DAT.N.SG
fere-nd-o *esse* *firma* *[...].*
carry.GERV.DAT.N.SG be.INF.PRS firm.NOM.F.SG
'It (the brickwork) cannot be firm in the masonry so as to carry loads (lit. 'for the loads that need to be carried').' (Vitr. 2.8.19)

1.2.2.2.6. External syntactic profile of the gerund

The preceding sections have shown that the external syntax of the gerund in Classical Latin is diverse: it can occur in adnominal phrases, verb complements, adjective complements, adverb complements, and adjuncts. Although it is well known that these uses are not equally frequent, no corpus studies have been performed in order to quantify their exact relative frequency. In order to fill this gap and to provide a point of comparison for the empirical investigation of Late Latin to be carried out in the second part of this study, I conducted a quantitative study of the external syntax of the gerund in a Classical Latin corpus at the beginning of my doctoral research (Vangaever 2018). The corpus of this study contains all Caesarian and Ciceronian texts included in the LASLA database (see Appendix 2), and its results are based on the total number of 1 273 gerunds occurring in them.[39] Admittedly, the language used in these texts is not representative of Classical Latin as a whole. However, the external syntax of the gerund is relatively stable in this period, and hence this is less problematic here. All texts of the LASLA database are morphosyntactically annotated. Hence, all gerunds used in the Caesarian and Ciceronian sub-corpora have been selected automatically, using the highly user-friendly interface. The 1 273 forms extracted have been manually annotated for several parameters, among which their syntactic use and case form are most relevant here. Before presenting the frequency of the distinct uses of the gerund in this Classical Latin corpus, two rectifications of my 2018 qualitative analysis should be made.

(i) The Ciceronian texts contain three instances of the form *solvendo* 'to pay' combined with the verb *esse* 'to be' (86). In Vangaever (2018: 20-21), these forms are analysed as the main verb of a progressive construction, while they actually act as the complement of the verb *esse* 'to be capable of', used in this regard as a modal instead of an existential verb (Pinkster 2021: §15.137).

(86) *[...] occultat* *suum* *gaudium,* *ne* *videatur* *non*
conceal.PRS.3SG his.ACC.N.SG joy.ACC.N.SG lest see.SBJV.PRS.PASS.3SG NEG
fuisse ***solve-nd-o***.
be.INF.PST pay-GER-ABL
'He conceals his joy, lest he be considered insolvent.' (Cic. *off.* 2.79)

[39] The texts included in the LASLA database are part of the section *Opera Latina*. The inventory of these texts is listed at http://cipl93.philo.ulg.ac.be/OperaLatina/users/MainInterface.aspx. Access to this section is free upon registration.

However, the combination of *solvendo* ‘to pay’ and *esse* ‘to be capable of’ can also be analysed as a more or less lexicalised verbal expression (Ernout & Thomas 1951: 266; Hofmann & Szantyr 1965: 376-377; Risch 1984: 134; Scherer 1975: 90; Menge *et al*. 2000: 743). This explains its presence in most Latin dictionaries (e.g. Gaffiot 1934: 1456). Lexicalised verbal expressions will be discarded from the dataset of this thesis (see §3.4), and hence the three combinations of *solvendo* ‘to pay’ and *esse* ‘to be solvent’ will be excluded from the results that will be reported here.[40]

(ii) The second rectification concerns the form *consulendo* ‘consulting’ (87), also analysed as the main verb of a progressive construction in Vangaever (2018: 19). However, it should be taken as an adjunct form, expressing the circumstances under which a consul should meet a number of qualities. This form has been retained in the results that will be reported here, but with another analysis.

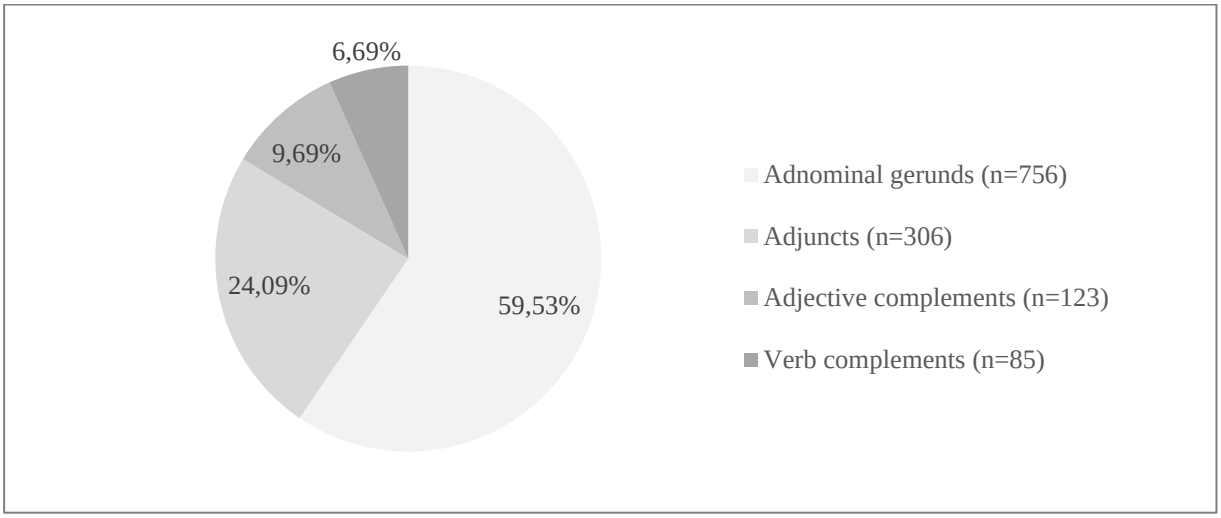
(87) *Animo* *consulem* *esse* *oportet,* *consilio,*
spirit.ABL.M.SG consul.ACC.M.SG be.INF.PRS be_necessary.PRS.3SG diplomacy.ABL.N.SG
fide, *gravitate,* *vigilantia,* *cura* *[...]* *rei*
honour.ABL.F.SG dignity.ABL.F.SG vigilance.ABL.F.SG devotion.ABL.F.SG state.DAT.F.SG
publicae ***consule-nd-o***.
public.DAT.F.SG take_care-GER-ABL
‘It is necessary that a consul is with spirit, diplomacy, honour, dignity, vigilance, and devotion when taking care of the republic.’ (Cic. *Pis*. 23)

In view of these rectifications, the number of forms on which the quantitative analysis of the external syntax of the gerund in Classical Latin should be based is 1 270 instead of 1 273. This number does not include forms used as the main verb of a progressive construction, which is in line with the widely accepted view that the gerund acquires this use only in Late Latin (Aalto 1949: 75-76; Väänänen 1963[3]: 141; Hofmann & Szantyr 1965: 380; Haverling 2010: 497; see §2.1.1.2.2.3). In this dissertation, the quantitative results reported in Vangaever (2018) will be adjusted in view of these two rectifications. However, due to the large size of the original dataset, this adjustment has a negligible impact on the overall trends.

The adjusted inventory and relative frequency of the different uses of the gerund in this Classical Latin corpus is given in Figure 1.1. This figure presents what will hereafter be referred to as ‘the external syntactic (or distributional) profile of the Classical Latin gerund’.

[40] According to Pinkster (2021: §15.137), the expression *solvendo esse* ‘to be solvent’ is fully lexicalised only in Late Latin. This might well be, but it undoubtedly has at least some degree of lexicalisation already in the Classical period. Hence, it might already at this stage of the language be analysed not compositionally, but as a single, multi-word lexeme. Anyhow, the exclusion of these three forms does not have any impact on the obtained frequency tendencies.

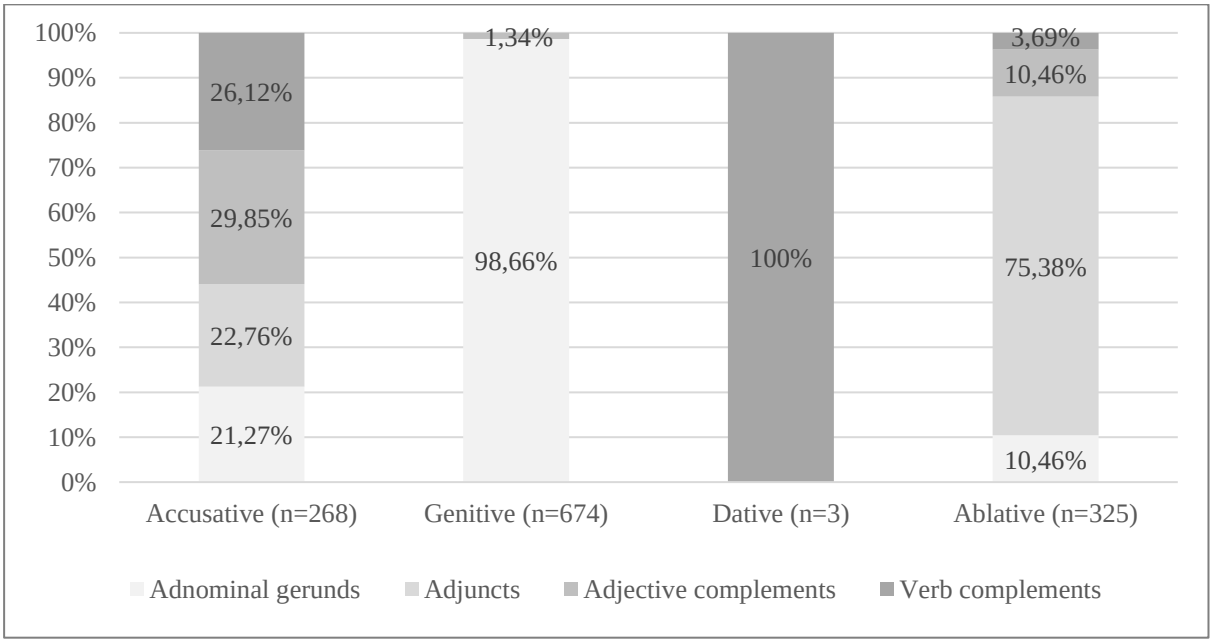
Figure 1.1. External syntactic profile of the gerund in Classical Latin (based on Vangaever 2018)



As shown by Figure 1.1, the Classical Latin gerund mostly occurs in adnominal phrases (60%). It is also often used in adjuncts (24%), whereas it is relatively rare in both adjective complements (10%) and verb complements (7%). The absence of adverb complement gerunds confirms their extreme rareness in this period (*cf.* Pinkster 2021: §17.35).

However, a distinction should be made between the different case forms of the gerund. As shown by Figure 1.2, adnominal gerunds are dominant only in the genitive (99%). In the ablative case, it is the adjunct use that prevails (75%). The external syntax of the gerund is most diverse in the accusative: the four uses each represent between 21% and 30%. The extremely low number of dative forms (n=3) does not allow drawing a firm conclusion for them.

Figure 1.2. External syntactic profile of the gerund in Classical Latin per case form (based on Vangaever 2018)



1.2.3. Morphosyntactic profile of the gerund

Having explored the morphological and syntactic properties of the gerund, I will now establish its morphosyntactic profile. This profile will be obtained by mapping the external syntactic profile of the gerund on the morphosyntactic categories of Classical Latin. In this mapping, the morphological properties of the gerund will also be taken into account. As seen in §1.2.1, these properties combine verbal and nominal features.

Depending on their syntactic use, gerunds can be divided in two groups: adnominal, verb complement, adjective complement, and adverb complement gerunds have a function characteristic of a noun, while adjunct gerunds have the prototypical function of an adverb (*cf.* Haspelmath 1995: 4; Nedjalkov 1998: 421-422; Ylikoski 2003: 228). Depending on whether the gerund has the external syntax of a noun or an adverb, a distinction can thus be made between respectively 'nominal gerunds' and 'adverbial gerunds'. This distinction has not been made in the grammatical tradition of (Classical) Latin, but will be used throughout this thesis in order to facilitate the description and analysis of (the evolution of) the gerund.[41] The mapping of the different uses of the gerund on the morphosyntactic categories of Classical Latin is synthesised in Table 1.4.

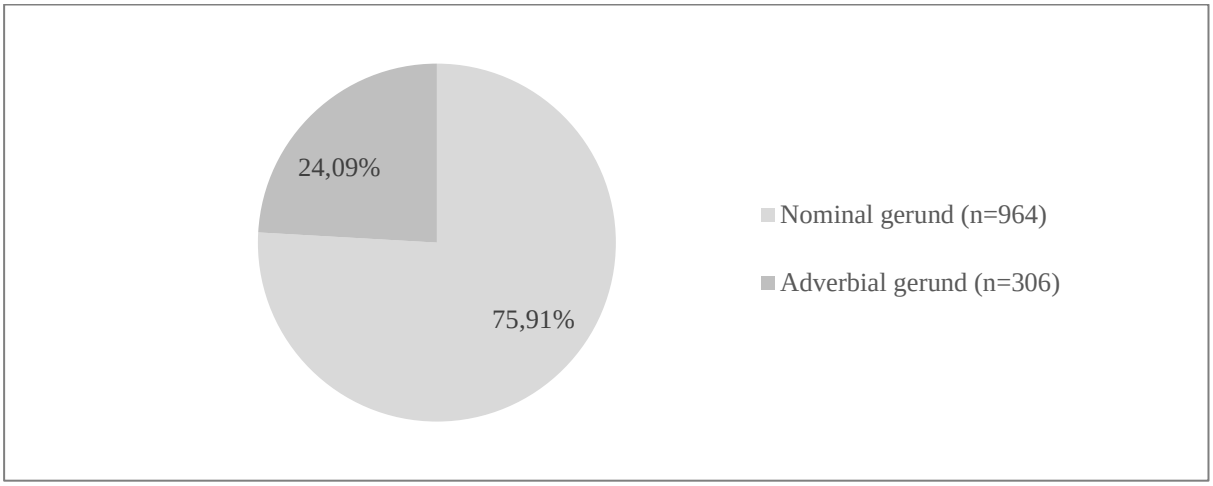
Table 1.4. Mapping of the uses of the gerund on the morphosyntactic categories of Classical Latin

Morphosyntactic category	**Use of the gerund**
Noun	Adnominal
	Verb complement
	Adjective complement
	Adverb complement
Adverb	Adjunct

The morphosyntactic profile of the gerund can be established by calculating the proportion of nominal and adverbial gerunds in a given corpus. Based on its external syntactic profile in Figure 1.1, the morphosyntactic profile of the Classical Latin gerund is presented in Figure 1.3.

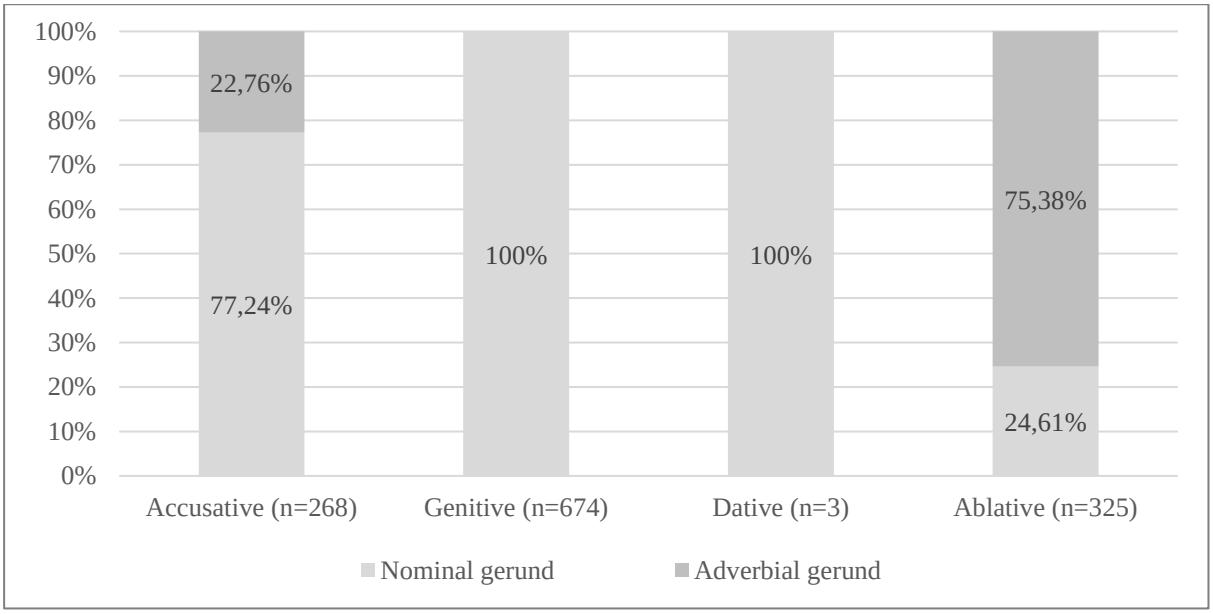
[41] The term 'nominal gerund' may not be equated with how it is used in English linguistics. As noted in §1.2.2.1.2, in English linguistics this term is used to refer to gerunds with nominal *internal* instead of *external* syntax.

Figure 1.3. Morphosyntactic profile of the gerund in Classical Latin (based on Vangaever 2018)



In Classical Latin, the gerund appears to have nominal external syntax about three times as often as adverbial external syntax. In other words, the adverbial gerund is heavily outnumbered by the nominal gerund. However, a distinction needs again to be made between the different cases of the gerund: the nominal gerund dominates in the accusative, the genitive, and the dative, while the adverbial gerund prevails in the ablative (Figure 1.4).

Figure 1.4. Morphosyntactic profile of the gerund in Classical Latin per case form (based on Vangaever 2018)



1.2.4. Typological profile of the gerund

The final step in describing the use of the gerund in Classical Latin is to define its typological profile. This profile is obtained by mapping the morphosyntactic profile of the gerund on Haspelmath's (1995:

4) typology of non-finite verb forms. According to this author, a distinction can be made between three cross-linguistically recurrent types of non-finite verb forms: (i) masdars, *i.e.* forms with nominal external syntax; (ii) converbs, *i.e.* forms showing adverbial external syntax; and (iii) participles, *i.e.* forms having adjectival external syntax.[42] In this typology, the Classical Latin nominal gerund falls under the masdar type and the adverbial gerund under the converb type. Since it can have the external syntax of the prototypical members of two distinct categories, the Classical Latin gerund qualifies as a 'bi-functional category of non-finite verb forms' (*cf.* Nedjalkov 1995: 104-105).

In view of the results shown in Figure 1.3, the Classical Latin gerund is strongly associated with the masdar type (76%), while its link with the converb type is relatively weak (24%). This result is in line with the traditional description of the gerund as a 'verbal noun', *viz.* a type of non-finite verb forms performing in the first place "*die Funktion eines Verbalsubst*." (Hofmann & Szantyr 1965: 369; see also Pinkster 2015: 58). In this way, the Classical Latin gerund behaves more like the English gerund than as its Romance successors (Haspelmath 1995: 45; see also Vincent 2016: 37, 46). This is exactly what makes its evolution from Latin to Romance so interesting.

It is important to emphasise that Haspelmath's (1995: 4) typology of non-finite verb forms is handled here as a comparative tool, that is, as a set of language-independent comparative concepts serving to describe the use of the gerund in Classical Latin in a grammatically unbiased way (Haspelmath 2010: 665; Lehmann 2018a: 33).[43] Admittedly, this approach is less relevant for the description of the Classical Latin gerund alone. However, it will become highly relevant for the description of its evolution in Late Latin and in the transition from Late Latin to Old French (or Romance in general) in Chapter 2. The labels 'masdar', 'converb', and 'participle' are thus meant as purely functional labels, *i.e.* deprived of any kind of formal and language-specific content (Haspelmath 2010: 665; Lehmann 2018a: 33). Despite its strong link with Haspelmath's (1995: 4) masdar type of non-finite verb forms, the Classical Latin gerund can therefore not be analysed *as* a masdar. Put differently, it cannot be asserted that it *is* a masdar. The Classical Latin gerund *is* nothing but the Classical Latin gerund, *viz.* a language-specific category of non-finite verb forms with a unique set of morphological and syntactic properties and an equally unique morphosyntactic profile.

[42] A similar typology is proposed by Nedjalkov (1998: 421-422). The main difference with Haspelmath's (1995: 4) typology is of a terminological order: while Haspelmath uses the term 'masdar' for non-finite verb forms displaying nominal external syntax, Nedjalkov uses the term 'infinitive'. The term 'masdar' comes from Arabic linguistics (Haspelmath 1995: 48), whereas the term 'converb' comes from Altaic linguistics (Haspelmath 1995: 46; Ylikoski 2003: 189). The label 'converb' is coined by Ramstedt (1903: 55) for the description of Khalkha Mongolian, and used later for the description of other Altaic languages, such as Turkic (e.g. von Gabain 1941; Krueger 1962), Mongolian (e.g. Hangin 1968), and Tungusic (e.g. Benzing 1955) (Haspelmath 1995: 46). Nedjalkov & Nedjalkov (1987) introduced this term in the typological literature, where it has rapidly spread and now belongs to the core terminology in the domain of non-finite verb forms (Haspelmath 1995: 46). In descriptive linguistics outside the Altaic family, the term 'converb' has been used only rarely.

[43] This approach also paves the way for a grammatically unbiased comparison of the use of the gerund in the different Romance languages, both from a diachronic and a synchronic point of view. Given the large variation of the use of the gerund in these languages and given also the differences with its use in Latin, the need for a metalinguistically unbiased approach is great. This is apparent from the discussions held by, e.g., Haspelmath (1995: 2-3, 45) and Halmøy (2003: 11-21).

1.2.5. Competition with non-finite verb forms other than the present participle

This final section about the gerund in Classical Latin will synthesise its competition with the various types of non-finite verb forms other than the present participle. Its competition with the present participle will be discussed separately at the end of this chapter (§1.4).

As seen throughout §1.2.2.2, the gerund competes with the infinitive in most of its uses, namely in adnominal phrases, verb complements, adjective complements, and adjuncts. However, the competition between the two forms is weak, especially in standard varieties. Indeed, the gerund prevails in adnominal phrases, adjective complements, and adjuncts, whereas the infinitive dominates in verb complements. Thus, the two forms are specialised in different syntactic uses. This suggests in fact that they are more in complementary distribution than in functional competition (*cf.* Pinkster 2015: 58). This lines up with the view of the gerund as the suppletive form of the infinitive, *viz.* the form taken by the infinitive in the prepositional accusative, the bare and the prepositional genitive, the dative, and the bare and the prepositional ablative.

However, the functional competition between the gerund and the infinitive is not only weak, it is also practically restricted to the accusative, the genitive, and the dative gerunds. Two reasons can be put forward. First, the ablative gerund only rarely occurs in adnominal phrases, verb complements, and adjective complements, while these are the dominant uses of both accusative, genitive, and dative gerunds and infinitives (see Figure 1.2). And second, contrary to the accusative, the genitive, and the dative gerunds, the ablative gerund does not occur in purpose adjuncts, *i.e.* the only type of adjuncts in which the infinitive can be used. The conclusion to be drawn is that the complementary distribution between the gerund and the infinitive applies more to the ablative gerund than to the accusative, the genitive, and the dative gerunds, and that, incidentally, the competition between the gerund and the infinitive concerns the latter more than the former. This difference between the ablative gerund and the other types of gerunds plays a fundamental role in the evolution of the gerund from Late Latin to Old French (or Romance in general), as we will see in §2.1.1.

As pointed out in §1.2.2.2, the gerund also competes with various types of NPs including a personal gerundive. This competition involves the same uses as those subject to competition between the gerund and the infinitive, but since the personal gerundive is an adjectival form that agrees with an explicit noun in case, gender, and number, NPs containing this form only compete with gerund phrases comprising an explicit direct object (Menge *et al.* 2000: 737). Globally speaking, NPs with a personal gerundive are preferred over this type of gerund constituents. This also explains why, at this stage of the language, gerund phrases have a low mean degree of internal syntactic complexity.

The final type of non-finite verb forms that may compete with the gerund is the supine. This competition is confined to purpose adjuncts, and is thus restricted to accusative, genitive, and dative gerunds. Already in Classical Latin, the supine is gradually replaced in purpose adjunct by infinitives, gerunds, and NPs with a personal gerundive. This replacement is set forth more markedly in Late Latin.

Apart from infinitives, supines, present participles, and NPs with a personal gerundive, gerunds may also compete with abstract deverbal NPs (Bauer 1993; Pinkster 2015: 59) and with finite clauses (Menge *et al.* 2000: 747-748; Pinkster 2021: §16.100). An example of competition between the gerund and abstract deverbal NPs is in adnominal phrases. Compare (88) and (89): in (88), the adnominal argument of *cupiditas* 'desire' is instantiated by the gerund clause *inimicos ulciscendi* 'to avenge their enemies', while in (89), it is realised by the abstract noun *ultionis* 'of vengeance' (Pinkster 2015: 59).

(88) *[...] qui [...] cupiditate inimicos* ***ulcisce-nd-i*** *arderent [...].*
REL.NOM.M.PL desire.ABL.F.SG enemy.ACC.M.PL avenge-GER-GEN burn.SBJV.PST.3PL
'(...) who burned with the desire to avenge their enemies.' (Liv. 29.6.7)

(89) *Hos [...]* ***ultionis*** *cupiditas ad virtutem accendit.*
DEM.ACC.M.PL vengeance.GEN.F.SG desire.NOM.F.SG to bravery.ACC.N.SG incite.PRS.3SG
'The desire for vengeance incited them to bravery.' (Tac. *hist.* 2.77.3)

One of the areas of competition between gerund phrases and finite clauses are purpose adjuncts (Steele 1898; Menge *et al.* 2000: 747-748; Pinkster 2021: §16.100). Compare, for instance, the gerund clauses in (71/74/77) with the finite clause *ut fidibus cantarem seni* 'to play the lyre for an old man' (90).

(90) *[...] veni ut fidibus* ***cantarem*** *seni [...].*
come.PST.1SG in_order_to lyre.ABL.F.PL play.SBJV.PST.1SG old_man.DAT.M.SG
'I came in order to play the lyre for an old man.' (Plaut. *Epid.* 500)

Abstract deverbal NPs and finite clauses play also a role in the evolution of the gerund from Late Latin to Old French, but this role is less significant than that of NPs with a personal gerundive and especially of infinitives and present participles. Hence, they will be given less attention in this study.

1.3. The present participle

After having explored the morphological and syntactic properties of the gerund in Classical Latin, I will proceed in this section to the analysis of the present participle. As for the gerund, attention will be paid to the morphological (§1.3.1) and syntactic (§1.3.2) properties of the present participle. On the basis of these properties, I will then establish its morphosyntactic (§1.3.3) and typological (§1.3.4) profiles. The functional competition between the gerund and the present participle will be touched upon in §1.3.2, but discussed in more detail in §1.4.

1.3.1. Morphological properties of the present participle

From a morphological perspective, the present participle combines verbal and adjectival properties: it is verbal by being built on the present stem of a verb, which ends in *-a*, *-e*, or *-ie* depending on its conjugational class, and adjectival in that it has one of the endings of the third declension adjectives (Marouzeau 1910: 2-4; Eklund 1970: 12; Meiser 1998[2]: 226; Pinkster 2015: 53, 59-60). This ending is not attached directly to the verb stem, but through the inflectional infix *-nt-*. The present participle is marked for the adjectival categories of case, gender, and number, but not for the verbal categories of person, number, tense, and mood (Pinkster 2015: 50, 60).

Like regular adjectives, the present participle inflects for case, gender, and number through agreement with a noun (Kühner & Stegmann 1914[5]: 755; Hofmann & Szantyr 1965: 383; Pinkster 2015: 60-61). For instance, *ingravescens* 'worsening' (91) and *exeuntem* 'coming out' (92) agree with respectively the nominative masculine singular noun *morbus* 'illness' and the accusative masculine singular pronoun *me* 'me'.

(91) *[...] non illum [...] morbus* ***ingravesce-ns*** *retardavit [...].*
NEG DEM.ACC.M.SG illness.NOM.M.SG worsen-PTCP.PRS.NOM.M.SG hold_back.PST.3SG
'His worsening illness did not hold him back' (Cic. *Phil*. 9.2)

(92) *Hic,* ***exeu-nt-em*** *me unde aspexisti modo.*
here come_out-PTCP.PRS-ACC.M.SG I.ACC.M.SG from see.PST.2SG just
'Here, where you just saw me coming out from.' (Plaut. *Bacch*. 204)

The morphology of the present participle is illustrated for the verb *cantare* 'to sing' in Table 1.5.

Table 1.51. Morphology of the present participle in Classical Latin (illustrated for the verb *cantare* 'to sing')

Case form	Number	Masculine	Feminine	Neuter
Nominative	Singular	*canta-ns*	*canta-ns*	*canta-ns*
	Plural	*canta-nt-es*	*canta-nt-es*	*canta-nt-ia*
Accusative	Singular	*canta-nt-em*	*canta-nt-em*	*canta-ns*
	Plural	*canta-nt-es/is*	*canta-nt-es/is*	*canta-nt-ia*
Genitive	Singular	*canta-nt-is*	*canta-nt-is*	*canta-nt-is*
	Plural	*canta-nt-ium*	*canta-nt-ium*	*canta-nt-ium*
Dative	Singular	*canta-nt-i*	*canta-nt-i*	*canta-nt-i*
	Plural	*canta-nt-ibus*	*canta-nt-ibus*	*canta-nt-ibus*
Ablative	Singular	*canta-nt-i/e*	*canta-nt-i/e*	*canta-nt-i/e*
	Plural	*canta-nt-ibus*	*canta-nt-ibus*	*canta-nt-ibus*

The morphology of the present participle calls for some remarks.

(i) In the nominative singular and the accusative neuter singular, the infix *-nt-* and the adjectival ending are merged in *-ns* (Marouzeau 1910: 3).

(ii) In the accusative masculine and feminine plural, the ending *-is* is gradually generalised at the cost of *-es*. However, due to the tendency of medieval copyists to replace the ending *-is* by *-es*, only a few written traces of this evolution persist (Marouzeau 1910: 3-4).

(iii) In the genitive plural, the ending *-ium* co-exists with *-um* until the 2nd or even the 1st c. BC. From this period onward, the former generalises at the expense of the latter (Marouzeau 1910: 3-4).

(iv) In the ablative singular, the present participle has two endings: *-i* and *-e* (Marouzeau 1910: 3). It has traditionally been assumed that the present participle takes the ending *-i* in adnominal phrases and *-e* in adjunct phrases or when nominalised as the head of a NP (Marouzeau 1910: 4; Leumann 1977: 438). However, many forms have been shown to violate this "syntactico-semantic rule" (Walvoort 2018: 3). Hence, the inflectional variation between *-e* and *-i* can hardly be considered functionally motivated (Eklund 1970: 12 fn. 1; Piccoli 1972: 23; Walvoort 2018: 20). Witness (93), in which the adnominal present participle *ineunte* 'beginning' has the ending *-e* instead of *-i*.

(93) *[...] si quis ab* ***ineu-nt-e*** *aetate habet*
if INDF.NOM.M.SG from begin-PTCP.PRS-ABL.F.SG age.ABL.F.SG have.PRS.3SG
causam celebritatis [...].
responsibility.ACC.F.SG reputation.GEN.F.SG
'If someone has the responsibility of a reputation from his youth (lit. 'beginning age') onward (...).' (Cic. *Off.* 2.44.3)

The inflectional variation between the ablative singular endings *-i* and *-e* is of little interest in this study, and hence it will not be further examined.[44] What is more important here is that for some forms ending in *-ns* or an inflectional variant of this ending (hence '*-ns* forms'), it is difficult to establish whether they are present participles or third declension adjectives (Marouzeau 1910: 48; Eklund 1970: 12-13, 18-25; Walvoort 2018: 4-5). This derives from the fact that many third declension adjectives historically derive from present participles. Like most cases of language change, this evolution from present participles to adjectives is slow and gradual, since it results from the repeated use of present participles in adjectival functions and under specific semantic and pragmatic circumstances (Traugott & Dasher 2002: 283; Himmelmann 2004: 26-31 on so-called 'splits' in lexicalisation). Due to the "gradualness" (*cf.* Trousdale & Traugott 2010: 5) of this evolution, some *-ns* forms cannot unambiguously be categorised, in synchrony, as present participles or third declension adjectives (Marouzeau 1910: 59; Eklund 1970: 12-13, 18-25; Scherer 1975: 94). The resulting "categorial indeterminacy" (*cf.* Aarts 2007: 4) of these forms

[44] For a state of the art discussion, see Walvoort (2018).

may lead to controversial category assignments. The categorisation of instances of *sciens* 'knowing' combined with the verb *esse* 'to be' (94) is illustrative in this respect (Eklund 1970: 45).

(94) *Carthagini* *ego* *sum* *gnatus,* *ut* *tu*
Carthage.ABL.F.SG I.NOM.M.SG be.PRS.1SG born.NOM.M.SG so_that you.NOM.M.SG
sis ***scie-ns***.
be.SBJV.PRS.2SG know-PTCP.PRS.NOM.M.SG
'I was born in Carthage, so that you know (lit. 'are knowing/aware').' (Plaut. *Poen.* 1038)

Used in this syntactic configuration, *sciens* 'knowing' is analysed as an adjective by Marouzeau (1910: 37, 54-55), but as a present participle by most scholars (e.g. Ernout & Thomas 1951: 274-275; Palmer 1964: 326; Hofmann & Szantyr 1965: 388; Scherer 1975: 96). Eklund (1970: 45) argues that there are no decisive arguments in favour of this or that analysis, so that it is impossible to categorise this form it in a conclusive way. The categorial indeterminacy of this and similar forms (or the disagreement about their category) raises an important theoretical and methodological issue for this thesis: which forms qualify as present participles, and should therefore be included in the dataset, and which forms qualify as adjectives, and should as such be excluded? A detailed discussion of this issue will be held in Chapter 3 (§3.4.2.1). For now, it suffices to mention that, in this thesis, the Latin present participle will be defined in a broad sense on the basis of the following description of Eklund (1970: 12):

> [T]he term "present participle" denotes words formed from present stems of verbs used in the language current at the time when the text in question was written by adding *-nt-* to the present stem (*-nts* > *-ns*; sometimes there may be a vowel between the stem and *-nt-*).

1.3.2. Syntactic properties of the present participle

Having investigated the morphological properties of the present participle in Classical Latin, I will now examine its syntactic properties. I will focus first on its internal syntax (§1.3.2.1), and then on its external syntax (§1.3.2.2).

1.3.2.1. Internal syntax of the present participle

As for the gerund, two factors pertaining to the internal syntax of the present participle will be examined: the internal syntactic complexity of present participle phrases (§1.3.2.1.1) and the marking of the internal argument of the present participle (§1.3.2.1.2).

1.3.2.1.1. Internal syntactic complexity of present participle phrases

Like that of gerund phrases, the internal syntactic structure of present participle phrases shows different degrees of complexity (Marouzeau 1910: 13-22; Hofmann & Szantyr 1965: 387; Pinkster 2021: §14.14, §16.91). Those with the lowest degree of complexity only contain the present participle, like *abundantes* 'abounding' (95).[45]

(95) *Semper* ***abunda-nt-es*** *hastas* *frangit=que* *quatit=que.*
always abound-PTCP.PRS-ACC.F.PL lance.ACC.F.PL shake.PRS.3SG=and break.PRS.3SG=and
'He always shakes and breaks the numerous lances.' (Enn. *ann*. 395)

Most of these phrases only contain the present participle because its arguments and possibly also adjuncts are semantically and syntactically shared with the main clause (Marouzeau 1910: 15). This sharing holds in particular for the subject of the present participle, which mostly corresponds to a constituent of the main clause, namely the NP with which it agrees in case, gender, and number. For instance, in (96) the implicit subject of *flentes* 'crying' corresponds to the pronoun *hi* 'they', which is the subject of the main clause verb *orabant* 'they prayed'.

(96) *Hi* *[...]* ***fle-nt-es*** *[...]* *orabant* *ut* *[...].*
DEM.NOM.M.PL cry-PTCP.PRS-NOM.M.PL pray.PST.3PL that
'They prayed in tears (lit. 'while crying') that (...).' (Caes. *Gall*. 7.78.4)

In the case of adjunct nominative present participles, the implicit subject shared with the main verb may be explicit in the main clause (e.g. in (96)) or implicit, that is to say, pro-dropped (e.g. in (97)).

(97) *[…]* ***fle-nt-es*** *ab* *eo* *salutem* *petiverunt* *[...].*
cry-PTCP.PRS-NOM.M.PL from DEM.ABL.M.SG safety.ACC.F.SG ask_for.PST.3PL
'They asked for safety from him while crying.' (Caes. *civ*. 3.98.3)

As for the implicit non-subject arguments of the present participle, as in the case of the gerund, they are either deactualised (*cf.* Dik 1985: 11) or inferable from the discourse context, as in respectively (98) and (99): in (98), *sapientes* 'wise' lacks an internal argument with a concrete reference, which causes it to be interpreted in an absolute way (*cf.* Dik 1997: 89); in (99), *insequente* 'following' does have an internal argument with a concrete reference, but is left implicit for the sake of linguistic economy (it corresponds to a NP like *hanc noctem* 'this night').

[45] When these phrases have a syntactic function characteristic of an adjective, like the adnominal *abundantes* 'abounding' (95), the present participle is often close to an analysis as an adjective (Hofmann & Szantyr 1965: 387). A detailed discussion of this will be held in §3.4.2.1.

(98) *Nos* *autem,* *qui* ***sapie-nt-es*** *non* *sumus,*
we.NOM.M.PL but REL.NOM.M.PL be_wise-PTCP.PRS-NOM.M.PL NEG be.PRS.1PL
fugitivos *[...]* *esse* *dicunt.*
runaway.ACC.M.PL be.INF.PRS say.PRS.3PL
'But they say that we, who are not wise, are runaways.' (Cic. *Mur*. 62)

(99) *Nocte* ***inseque-nt-e*** *legati* *responsa* *ad*
night.ABL.F.SG follow-PTCP.PRS-ABL.F.SG legate.NOM.M.PL answer.ACC.N.PL to
suos *referunt* *[...].*
their.ACC.M.PL bring.PST.3PL
'The following night, the legates brought the answers to their people.' (Caes. *Gall.* 8.23.1)

Present participle phrases with a higher degree of internal syntactic complexity than those just illustrated contain the present participle and an additional constituent. This constituent may be an argument of the present participle or an adjunct (Pinkster 2021: §14.14). For example, *adpetentis* 'aspiring' (100) takes the noun *regnum* 'power' as its internal argument, while *peccantibus* 'sinning' (101) is accompanied by the PP *in magna aliqua re* 'in some important matter', which functions as a respect adjunct (*cf.* Pinkster 2015: 914).

(100) *Sp. Maeli* *regnum* ***adpete-nt-is*** *domus*
Sp. Maelius.GEN.M.SG power.ACC.N.SG aspire-PTCP.PRS-GEN.M.SG house.NOM.F.SG
est *complanata* *[...].*
be.PRS.3SG level_with_the_ground.PTCP.PST.NOM.F.SG
'The house of Sp. Maelius, who aspired to rule, was levelled with the ground.' (Cic. *dom*. 101)

(101) *[...] ne* *existiment* *ita se* *adligatos,* *ut* *ab*
that_not mean.SBJV.PRS.3PL so REFL.ACC.M.PL bind.PTCP.PST.ACC.M.PL that from
amicis *in magna* *aliqua* *re* ***pecca-nt-ibus***
friend.ABL.M.PL in great.ABL.F.SG some.ABL.F.SG matter.ABL.F.SG sin-PTCP.PRS-ABL.M.PL
non *discedant.*
NEG withdraw.SBJV.PRS.3PL
'(...) that they should not think themselves so bound that they cannot withdraw from friends who sin in some important matter.' (Cic. *Lael*. 42)

Phrases with still a higher degree of internal syntactic complexity contain the present participle, its internal argument(s), and one or more adjunct(s). An example is given in (102): *intuens* 'looking' selects the noun *terram* 'ground' as its internal argument and is further accompanied by the adverb *modeste* 'modestly', which acts as a manner adjunct.

(102) *Adnuo /* *terram* ***intue-ns*** *modeste.*
nod.PRS.1SG ground.ACC.F.SG look_to-PTCP.PRS.NOM.M.SG modestly
'I nod while modestly looking to the ground.' (Ter. *Eun*. 579-580)

Present participle phrases with the highest degree of internal syntactic complexity also contain an explicit subject, but this possibility is restricted to adjunct phrases. *Senatum illuc vocante Metello consule* ‘because consul Metellus was summoning the senate there’ (103) is a case in point: the NP *Metello consule* ‘consul Metellus’ is the subject of *vocante* ‘summoning’, the noun *senatum* ‘senate’ its internal argument, and the adverb *illuc* ‘thence’ its spatial adjunct.

(103) *[...] concursus* *est* *ad templum* *Concordiae*
running_to.NOM.M.SG be.PRS.3SG to temple.ACC.N.SG Concord.GEN.F.SG
factus *senatum* *illuc* ***voca-nt-e***
make.PTCP.PST.NOM.M.SG senate.ACC.M.SG thence summon-PTCP.PRS-ABL.M.SG
Metello *consule.*
Metellus.ABL.M.SG consul.ABL.M.SG
‘A running was made to the temple of Concord since consul Metellus was summoning the senate there.’ (Cic. *Dom*. 11)

In line with Lehmann’s (1988: 191-197) claim that a high degree of internal syntactic complexity of a clause is correlated with a low degree of desententialisation (see also §1.2.2.1.1), the present participle phrases in this section show a decreasing degree of desententialisation. As a corollary, they show an increasing degree of finiteness. Parallel to the term ‘gerund phrase’, the term ‘present participle phrase’ will be used in this thesis as a cover term for all types of constituents headed by a present participle, irrespective of their syntactic function and their degree of internal syntactic complexity. The term ‘present participle clause’ will be retained for specific instances of present participle phrases containing (at least) an explicit second argument, and thus exhibiting a clear clause-like internal structure.

Present participle phrases with a high degree of internal syntactic complexity are rare until the 1st c. BC. They are mostly adjuncts headed by a nominative present participle (Marouzeau 1910: 13-22). This gradually changes from the 1st c. BC onward, especially in literary texts and in other types of texts written in a high register (Marouzeau 1910: 13-22; Lyer 1932: 230-231; Laughton 1964: 31-33). What can be observed from this century onward is an increasing number of adjunct nominative phrases with a high degree of internal syntactic complexity, on the one hand, and an increasing degree of internal syntactic complexity of all other types of present participle phrases, on the other. However, the former keep having the most complex internal syntactic structure (Marouzeau 1910: 13-22; Laughton 1964: 31-33). As a result, the mean degree of finiteness of present participle phrases increases (*cf.* Lehmann 1988: 191-197). This development is reminiscent of the process called ‘finitisation’ by Rose (2016: 350), *i.e.* “the extension of finite features to a non-finite construction (without change in dependent status)” (see also, e.g., Harris & Campbell 1995; Heine 2009; Givón 2016). Since non-finite clauses subject to finitisation acquire more morphosyntactic properties characteristic of finite clauses, and since the degree of finiteness of a clause is reflected on the morphosyntactic structure of its head (Givón 1990: 853; Bisang 2001: 1400; Nikolaeva 2010: 1178-1179), the finitisation of present participle phrases from the

1st c. BC onward entails a process of morphosyntactic verbalisation of the present participle (*cf.* Marouzeau 1910: 13-22; Lyer 1932: 230-231).

1.3.2.1.2. Marking of the internal argument of the present participle

The remaining factor pertaining to the internal syntax of the present participle to be discussed is the marking of its internal argument – at least if this argument is explicit and not syntactically shared with the main clause. As in the case of the gerund, a distinction can be made between two types of present participles (Pinkster 2015: 62, 223-225). Most forms have the internal syntax of a verb, because their internal argument is marked in the same way as when it is governed by a finite verb (Kühner & Stegmann 1914[5]: 755; Hofmann & Szantyr 1965: 384). For example, *vocante* 'summoning' (103) assigns the accusative to the noun *senatum* 'the senate', as do all finite forms of *vocare* 'to summon'. Occasionally, however, the internal argument is marked in the same way as when it depends on an adjective (Ernout & Thomas 1951: 275; Hofmann & Szantyr 1965: 387; Scherer 1975: 94). Witness (104), where *gerentum* 'managing' assigns the genitive to the noun *rei* 'business', while all finite forms of *gerere* 'to manage' assign the accusative to their internal argument.

(104) *Piaculum* *est* *miserere* *nos* *hominum* *rei*
sin.NOM.N.SG be.PRS.3SG pity.INF.PRS we.ACC.M.PL man.GEN.M.PL business.GEN.F.SG
male ***gere-nt-um***.
badly manage-PTCP.PRS-GEN.M.PL
'It is a sin that we pity people who manage their business badly.' (Plaut. *Truc*. 223)

In line with Lehmann's (1988: 191-197) claim that clauses showing verbal internal syntax have a higher degree of finiteness than those displaying adjectival internal syntax, the present participle phrase in (103) is more finite than the one in (104).

1.3.2.2. External syntax of the present participle

In Classical Latin, the external syntax of the present participle is diverse. It can occur in adnominal phrases (§1.3.2.2.1), subject predicates (§1.3.2.2.2), object predicates (§1.3.2.2.3), or adjuncts (§1.3.2.2.4), but it can also act as the main verb of a progressive construction (§1.3.2.2.5) or as what will be referred to in this study as a 'presentative progressive construction' (§1.3.2.2.6), *i.e.* a construction of the type *I see him* ***coming***. A few instances are also found of present participles used as finite verbs (§1.3.2.2.2.7).

In addition to these uses, the present participle can be nominalised, *viz.* function as the head of a NP (Marouzeau 1910: 63-70; Kühner & Stegmann 1914[5]: 763; Ernout & Thomas 1951: 275; Laughton 1964: 70-83; Palmer 1964: 326; Scherer 1975: 95-96; Menge *et al*. 2000: 713; Pinkster 2015: 956-958). Some present participles are more or less lexicalised in this function, such as *negotians* 'merchant' and *amans* 'lover', but most of them serve as the head of what Corblin (1990: 65) calls a 'NP without a noun' or 'nounless NP' (Fr. '*groupe nominal sans nom*'). These are NPs in which the original head noun is left unspecified, but can easily be inferred from the discourse context. Due to the ellipsis of this noun, the originally adnominal adjective or participle is contextually nominalised, *i.e.* attributed the status of head of the NP. For instance, in (105) *audientis* 'of the hearer' is contextually nominalised as the head of a genitive NP, the implicit head noun corresponding to a genitive (pro)noun like *hominis* 'of a man' or *alicuius* 'of someone'. In a similar vein, *conantis* 'those who try' (106) is the head of an accusative NP, the implicit head noun being an accusative (pro)noun like *milites* 'soldiers' or *quos* 'those'.

(105) *Nullo* *enim* *modo* *animus* ***audie-nt-is*** *aut*
no.ABL.M.SG for way.ABL.M.SG mind.NOM.M.SG hear-PTCP.PRS-GEN.M.SG or
incitari *aut* *leniri* *potest* *[...].*
arouse.INF.PRS.PASS or soothe.INF.PRS.PASS can.PRS.3SG
'For the mind of the hearer can in no way be aroused or soothed.' (Cic. *de orat.* 132)

(106) *Rursus* ***cona-nt-is*** *progredi* *insequitur* *et* *moratur.*
again try-PTCP.PRS-ACC.M.PL advance.INF.PRS pursue.PRS.3SG and delay.PRS.3SG
'He pursued and delayed those trying to advance again.' (Caes. *civ*. 1.65.2)

As mentioned by Pinkster (2015: 956), the nominalised use of the present participle often compensates for the lack of a regular noun denoting a specific type of agent. This use of the present participle is not very frequent in the earliest texts, but "became common in the philosophical and other technical works of Cicero and then spread to Livy and later historians" (Pinkster 2015: 956). Given that their use derives from a process of (contextual) lexicalisation, present participles serving as the head of a (nounless) NP will not be taken into account in this study.[46] It should nonetheless be noted that, for some present participles, it is difficult to establish whether they are nominalised or function as the head of an adjunct (Ernout & Thomas 1951: 275; Eklund 1970: 16-18; Pinkster 2015: 954, 958). Pinkster (2015: 958) cites as an example the form *lacrumantem* 'crying' (107).

(107) ***Lacruma-nt-em*** *lacinia* *tenet* *lacrumans.*
cry-PTCP.PRS-ACC.M.SG fringe.ABL.F.SG hold.PRS.3SG cry.PTCP.PRS.NOM.M.SG
'In tears (lit. 'while crying') she holds him who cries at the fringe (of his cloak).' (Plaut. *Asin*. 587)

[46] For this use of the present participle, see, among others, Marouzeau (1910: 63-70), Laughton (1964: 70-83), Adams (1973), and Pinkster (2015: 956-958). Riemann (1885: 85-88) deals with this use of the present participle in Livy, Önnerfors (1956: 124-126) in Pliny the Elder, Hintzen (1993: 95-114) in Cicero's orations, and Laughton (1964: 70-83) in Cicero in general.

The distinction between present participles used as the head of a NP and those heading an adjunct phrase will be explored in detail in Chapter 3 (§3.4.2.2).

1.3.2.2.1. Adnominal present participles

Like the gerund, the present participle can serve as the head of an adnominal phrase (Marouzeau 1910: 12, 22; Kühner & Stegmann 1914[5]: 763, 770-771; Laughton 1964: 52-69; Hofmann & Szantyr 1965: 387; Scherer 1975: 96; Menge *et al.* 2000: 708-709, 713-714; Pinkster 2015: 994-996). Two examples are given below: in (108), *distantes inter se milia passum IIII* 'standing four miles apart' depends on the NP *pontes duos* 'two bridges', and specifies the distance between two bridges; in (109), *ferventem* 'boiling' depends on the noun *aquam* 'water', and defines the type of water in which cabbage should be put.

(108) *In Sicori flumine pontes effecerat duos*
in Sicoris.ABL.M.SG river.ABL.N.SG bridge.ACC.M.PL make.PST.3SG two.ACC.M.PL
dista-nt-es *inter se milia passum IIII.*
stand_apart-PTCP.PRS-ACC.M.PL between REFL.ACC.M.PL mile.ACC.N.PL step.GEN.M.PL four
'He had made two bridges over the river Sicoris, standing four miles apart.' (Caes. *civ*. 1.40.1)

(109) *[...] coicito in aquam* ***ferve-nt-em*** *[...].*
put.IMP.PRS.2PL in water.ACC.F.SG boil-PTCP.PRS-ACC.F.SG
'Put it (cabbage) in boiling water.' (Cato *agr*. 156.7)

As for their gerund counterparts, a distinction should be made between semantically necessary and optional adnominal present participle phrases (Laughton 1964: 53-54; Pinkster 2015: 965-966). The former type is illustrated by *animum auditoris idonee comparans ad reliquam dictionem* 'bringing the mind of the hearer into a proper condition to receive the rest of the speech': this phrase depends on the noun *oratio* '(part of a) speech', whose meaning alone does not suffice to form a meaningful information unit within the context of (110). Indeed, the present participle clause serves to define the part of a plea (*oratio*) referred to by the term *exordium* 'exordium'.[47]

[47] This analysis of *animum auditoris idonee comparans ad reliquam dictionem* 'bringing the mind of the auditor into a proper condition to receive the rest of the speech' (110) is at odds with Pinkster's (2015: 996) analysis. This author regards this clause as semantically optional. However, the omission of this clause makes the sentence nonsensical, at least within the context of (110). As stated in the running text, the present participle clause serves to define the type of a plea called *exordium* 'exordium'. In such a definition, the present participle clause is clearly semantically necessary (as noted also by Laughton 1964: 53-54).

(110) *Exordium* *est* *oratio* *animum* *auditoris* *idonee*
exordium.NOM.N.SG be.PRS.3SG speech.NOM.F.SG mind.ACC.M.SG hearer.GEN.M.SG suitably
compara-ns *ad* *reliquam* *dictionem.*
bring-PTCP.PRS.NOM.F.SG to remaining.ACC.F.SG declaration.ACC.F.SG
'An exordium is a (part of a) speech that brings the mind of the hearer in a proper condition to receive the rest of the declaration (lit. 'that brings he mind of the hearer in a suitable way to the rest of the declaration).' (Cic. *inv*. 1.20)

Examples of adnominal present participle phrases that are semantically optional are *distantes inter se milia passum IIII* 'standing four miles apart' (108) and *ferventem* 'boiling' (109).

Another distinction that should be made is between appositive and restrictive adnominal present participle phrases. This distinction pertains to the referentiality of the head noun (Pinkster 2015: 1047; Poletto & Sanfelici 2017: 805). Appositive phrases express information about a noun that is not required to identify its referent (Poletto & Sanfelici 2017: 805). A clear example is *regnum adpetentis* 'aspiring to rule' (100), which depends on the proper noun *Sp. Maeli* 'Sp. Maelius'. An example of a form depending on a common noun is *ingravescens* 'worsening' (111).

(111) *Ita=que* *non* *illum* *vis* *hiemis,* *non* *nives,* *non*
so=and NEG DEM.ACC.M.SG violence.NOM.F.SG winter.GEN.F.SG NEG snow.NOM.F.PL NEG
longitudo *itineris,* *non* *asperitas* *viarum,* *non*
length.NOM.F.SG journey.GEN.N.SG NEG roughness.NOM.F.SG road.GEN.F.PL NEG
morbus ***ingravesce-ns*** *retardavit* *[...].*
illness.NOM.M.SG worsen-PTCP.PRS.NOM.M.SG slow_down.PST.3SG
'So, neither the violence of the winter, nor the snow, nor the length of the journey, nor the roughness of the roads, nor his worsening illness slowed him down.' (Cic. *Phil*. 9.2)

Restrictive phrases, on the contrary, provide information about a noun that is required to identify its referent (Poletto & Sanfelici 2017: 805). For instance, *orientem* 'rising' (112) depends on the noun *solem* 'sun' and specifies the point of compass in the direction of which the Belgae are gazing. The presence of this form is required to identify the part of the sun's daily trajectory that metonymically stands for the point of compass in issue.

(112) *Belgae* *[...]* *spectant* *in* *septentrionem* *et* ***orie-nt-em***
Belga.NOM.M.PL gaze.PRS.3PL to north.ACC.M.SG and rise-PTCP.PRS-ACC.M.SG
solem.
sun.ACC.M.SG
'The Belgae gaze to the north and the east (lit. 'the rising sun').' (Caes. *Gall*. 1.1.6)

The distinction between appositive and restrictive adnominal present participle phrases runs parallel to that between appositive and restrictive finite relative clauses, to which the former (or so-called 'reduced relative clauses') are structurally equivalent (Poletto & Sanfelici 2017: 804-805). It is also worth noting that most appositive phrases are semantically optional (e.g. (108/109/111)), while most restrictive phrases are semantically obligatory (e.g. (110)). However, there is no one-to-one correspondence between the two distinctions. Witness *orientem* 'rising' (112), which is restrictive, but in theory semantically optional.

Like adjectives, adnominal present participles are assigned case through agreement with their governing noun. For example, *distantes* 'standing apart' (108), *ferventem* 'boiling' (109), and *orientem* 'rising' (112) are in the accusative through agreement with the accusative nouns *pontes* 'bridges' (108), *aquam* 'water' (109), and *solem* 'sun' (112), while *comparans* 'bringing' (110) and *ingravescens* 'worsening' (111) stand in the nominative through agreement with the nominative nouns *oratio* 'passage' (110) and *morbus* 'illness' (111). This feature distinguishes present participles from gerunds, since the latter are assigned case on the basis of their function or governing preposition.

Prior to exploring the second use of the present participle, it should be pointed out that adnominal present participle phrases include a type of phrases that are often treated as an independent type and referred to as 'dominant participle constructions' or '*ab urbe condita* constructions' (Heick 1936; Ernout & Thomas 1951: 280; Laughton 1964: 84-99; Hofmann & Szantyr 1965: 394; Menge *et al.* 2000: 709, 717-718; Pinkster 2021: §15.132-§15.134). These phrases are made up of a noun and a present participle that, taken together, "form a complex of substantival character, capable of standing as subject or object of a verb, or of being governed by a preposition" (Laughton 1964: 84; see also Kühner & Stegmann 1914[5]: 762; Ernout & Thomas 1951: 280; Hofmann & Szantyr 1965: 394).[48] In such complexes, "the meaning of the participle predominates" (Laughton 1964: 84), feature underpinning the label 'dominant participle construction.[49] Examples of this type of present participles are *exorientem* 'rising' (113) and *consentiens* 'agreeing' (114).

(113) *Ante solem* ***exorie-nt-em*** *nisi in palaestram veneras [...].*
before sun.ACC.M.SG rise-PTCP.PRS-ACC.M.SG if_not to gymnasium.ACC.F.SG come.PST.2SG
'If you had not come to the gymnasium before sunrise (...).' (Plaut. *Bacch.* 424)

(114) *[...] vehementer eum* ***consentie-ns*** *Etruria movebit.*
vigorously DEM.ACC.M.SG agree-PTCP.PRS.NOM.F.SG Etruria.NOM.F.SG move.FUT.3SG
'The agreement of Etruria (lit. 'the agreeing Etruria') will move him vigorously.' (Cic. *fam.* 6.6.8)

[48] According to Pinkster (2021: §15.132-§15.134), dominant present participle phrases can only serve as an argument of a verb. This entails that phrases introduced by a preposition and functioning as adjuncts, like *ante solem exorientem* 'before sunset' (111), are to be analysed in a different way, namely as NPs containing an adnominal present participle.
[49] As for the term '*ab urbe condita* construction', it is based on the title of Livy's history of Rome (*Ab urbe condita* 'From the foundation of the city'). This title is an exemplary instance of the phrase (but with a past participle). This term has long been used because of "the difficulty of finding a clear and concise definition in grammatical terms" (Laughton 1964: 84).

PPs and NPs containing a dominant present participle are respectively adjuncts and arguments of a verb, as in respectively (113) and (114). However, within these PPs and NPs, the present participle is clearly adnominal (Kühner & Stegmann 1914[5]: 762).[50] The analysis of constituents like *consentiens Etruria* 'the agreement of Etruria' (114) as verb complement *present participle phrases*, as proposed by Pinkster (2021: §15.132-§15.134), is untenable. The same holds for the analysis of phrases like *ante solem exorientem* 'before sunrise' (113) as adjunct *present participle phrases*. Admittedly, the constituents in issue act as respectively verb complements and adjuncts, but instead of instantiating present participle phrases, they instantiate respectively NPs and PPs. Within these NPs and PPs is used a specific type of adnominal present participle, *viz.* one whose meaning prevails over that of the head noun.[51] It is not without importance that Laughton (1964: 97) states, with respect to PPs such as *ante solem exorientem* 'before sunrise' (113), that not all dominant present participles "can be confidently distinguished form attributive uses". The same idea is put forward by Pinkster (2021: §15.133) with regard to NPs like *consentiens Etruria* 'the agreement of Etruria' (114) when asserting that "[I]t is not always easy to decide whether a sequence consisting of a (pro)noun and a participle is a noun phrase or a participial clause". As opposed to that of the past participle, the dominant use of the present participle is extremely rare throughout the history of Latin (Kühner & Stegmann 1914[5]: 769; Laughton 1964: 84-99; Menge *et al*. 2000: 718; Pinkster 2021: §15.132-§15.134). Hence, the analysis adopted in this thesis will have no (or a negligible) impact on the quantitative results.

1.3.2.2.2. Subject predicate present participles

Another use of the present participle is as the predicate of the subject (Kühner & Stegmann 1914[5]: 763; Laughton 1964: 1; Hofmann & Szantyr 1965: 388; Scherer 1975: 96; Menge *et al.* 2000: 717; Pinkster 2015: 60).[52] In this study, subject predicates will be defined as syntactically obligatory constituents used in combination with a copular verb (or a verb used as such) in order to assign some property or definition to the subject of a proposition, independently of some other state of affairs (as in Quirk *et al.* 1985: 54-55; Rémi-Giraud 2013: 268-271; Pinkster 2015: 30). For instance, *madentes* '(being) wet' (115) acts as the predicate of the subject *cinconnorum fimbriae* 'the fringes of the curls': it ascribes the feature [+wet] to the referent of this subject by means of the copular verb *erant* 'they were'. Likewise, *amans sui*

[50] Menge *et al.* (2000: 709) recognise that the present participle is in "*ein attributives Verhältnis zum scheinbar regierenden Nomen*", but find it nonetheless "*irreführend dem Partizip in diesen Konstruktionen die untergeordnete Funtion des Attributs zuzuweisen*" (see also pp. 717-718). They take the dominant present participle as a "*Prädikatsnomen*", but this analysis is not convincing. As they admit themselves, these forms are semantically dominant, but can nevertheless be omitted without making the sentence ungrammatical or devoid of meaning. As such, they should be taken as a sub-type of adnominal present participles.
[51] Due to the semantic dominance of the present participle, NPs and PPs of this type can in many languages be translated by a NP or PP in which the Latin present participle is rendered by a noun and serves as the head, while the Latin head noun is rendered by an adnominal NP. Witness, for instance, the English translation of *ante solem exorientem* 'before sunrise' (113) and *consentiens Etruria* 'the agreement of Etruria' (114) (Kühner & Stegmann 19145: 762, 769).
[52] Marouzeau (1910: 37-39) analyses all subject predicates present participles as adjectives. However, this analysis confuses the category and the function of the forms, and should as such be rejected.

'loving herself' (116) is the predicate of the subject of *est* 'she is', *viz. virtus* 'virtue'. The property assigned to the referent of this subject is paraphrasable as 'self-respecting' or 'self-esteeming'.

(115) *[...] erant [...]* ***made-nt-es*** *cincinnorum fimbriae [...].*
be.PST.3PL be_wet-PTCP.PRS-NOM.F.PL curl.GEN.M.PL fringe.NOM.F.PL
'The fringes of the curls were wet.' (Cic. *Pis*. 25)

(116) *Omnino est* ***amans*** *sui virtus.*
totally be.PRS.3SG love-PTCP.PRS.NOM.F.SG her.GEN.F.SG virtue.NOM.F.SG
'Virtue totally loves herself (lit. 'is totally loving herself').' (Cic. *Lael*. 98)

In the grammatical tradition of English, the constituents labelled here 'subject predicate phrases' are also referred to as '(subject) predicative constructions' (Quirk *et al.* 1985: 55). Depending on the morphosyntactic category of the head, a distinction is moreover made between 'predicat(iv)e adjectives (or adjective phrases)', like *totally independent* (117), and 'predicat(iv)e nouns (or NPs)', such as *a separate nation* (118) (Quirk *et al.* 1985: 54-55).

(117) *The country became totally independent.* (Quirk *et al.* 1985: 54)

(118) *The country became a separate nation*. (Quirk *et al.* 1985: 55)

Quirk *et al.* (1985: 54-55) use yet another term, *i.e.* 'subject complement', also used by Pinkster (2015, 2021) in the two recent volumes of his *Oxford Latin Syntax*. In the grammatical tradition of French, the constituents under discussion are called '*attributs du sujet*', and a distinction is commonly made between syntactically necessary (e.g. *gourmand* 'gourmand' (119)) and syntactically optional (e.g. *enchanté du colloque* 'delighted with the conference' (120)) subject predicates (Riegel *et al*. 1994[4]: 234-239; Rémi-Giraud 2013: 268-271).[53]

(119) *Mon collègue est gourmand.*
my.M.SG colleague.M.SG be.PRS.3SG gourmand.M.SG
'My colleague is gourmand.' (Rémi-Giraud 2013: 268)

(120) *Mon collègue est rentré en France enchanté*
my.M.SG colleague.M.SG be.PRS.3SG return.PTCP.PST.M.SG to France delighted.M.SG
du colloque.
from;ART.DEF.M.SG conference.M.SG
'My colleague returned to France delighted with the conference.' (Rémi-Giraud 2013: 268)

Noteworthily, the use of syntactically optional subject predicates in Modern French is constrained. As shown by Buchard (2006), the only verbs allowing such constituents are unaccusative verbs, *i.e.* verbs whose subject behaves like an internal rather than an external argument, and is thus inside the VP (*cf.* Perlmutter 1978; Burzio 1986; Legendre & Sorace 2003). It is this feature that enables regarding the

[53] These types are referred to as respectively '*attributs du sujets essentiels*' and '*attributs du sujet non essentiels*'.

constituents in issue as a sub-group of subject predicates instead of, e.g., subject-oriented adjuncts, since the verbs combined with a prototypical (or syntactically necessary) subject predicates belong to the same group of verbs as those allowing a syntactically optional subject predicate, *viz.* intransitive verbs of the unaccusative type. However, this syntactic constraint does not exist in Classical Latin – nor in Late Latin. Witness (121): *flens* 'crying' is a present participle that is functionally equivalent to the adjective phrase *enchanté du colloque* 'delighted with the conference' (120) in Modern French, since they both designate the circumstances under which the subject performs a motion, but that differs from it by being combined not with an unaccusative verb, but with a transitive verb, namely *circumit* 'he goes around'.

(121)	*[...]*	***fle-ns***	*Petreius*	*manipulos*	*circumit*	*[...].*
		cry-PTCP.PRS.NOM.M.SG	Petreius.NOM.M.SG	maniple.ACC.M.PL	go_around.PRS.3SG	

'Petreius goes around the maniples while crying.' (Caes. *civ*. 1.76)

In other words, the syntactic constraint allowing to distinguish a specific group of subject predicates in Modern French is absent in Classical (and Late) Latin. Hence, the constituents under discussion will in this thesis not be analysed as subject predicates, but as (subject-oriented) adjuncts (see also §1.3.2.2.4).

It is important to emphasise that, despite their syntactic differences, constituents like *enchanté du colloque* 'delighted with the conference' (120) and *flens* 'crying' (121) are both secondary predicates, since they express a state of affairs that is "interpreted as holding for one of the participants of the main predicate" (Himmelmann & Schultze-Berndt 2005: 4; see also, e.g., Fabricius-Hansen & Haug 2012: 3; Pinkster 2021: §21.14). In the literature, these constituents are often referred to as such (or as 'depictive secondary predicates'), but other terms have also been used, such as 'predicative attributes' (Paul 1919; Halliday 1967), 'copredicates' or 'copredicatives' (Nichols 1978; Plank 1985), 'predicative adjuncts' (Hengeveld 1992), 'participant-oriented adjuncts' (Himmelmann & Schultze-Berndt 2005), and 'co-eventive adjuncts' (Fabricius-Hansen & Haug 2012). As evident from this non-exhaustive list of terms, the precise syntactic function of secondary predicates is subject to debate: some authors consider them a specific type of subject predicates (e.g. Paul 1919; Halliday 1967; Riegel *et al.* 19944: 235-236, 237; Buchard 2006), while others regard them as a sub-type of adjuncts (e.g. Hengeveld 1992; Himmelmann & Schultze-Berndt 2005; Fabricius-Hansen & Haug 2012; Rémi-Giraud 2013). The disagreement is due to the fact that, in many languages, the constituents concerned are neither prototypical subject predicates nor prototypical adjuncts, but an intermediary type displaying features of both types of constituents. Such an intermediary status has also been acknowledged for structurally equivalent constituents headed by other forms, like adjectives (e.g. Himmelmann & Schultze-Berndt 2005; Fabricius-Hansen & Haug 2012; Rémi-Giraud 2013) and adverbs (e.g. Himmelmann & Schultze-Berndt 2005; Molinier 1990). It is important to stress in this regard that the criteria to analyse the constituents involved as eithers subject predicates or adjuncts are language-specific, and hence the syntactic analysis of functionally equivalent

constituents may vary among the languages of the world, as mentioned above for (Classical) Latin and Modern French.

Like subject predicate adjectives, subject predicate present participles can be marked in two cases: the nominative and the accusative (*cf.* Pinkster 2015: 1181-1184). In (115) and (116), *madentes* ‘(being) wet’ (115) and *amans* ‘loving’ (116) stand in the nominative, which is the default marking of subjects and their agreeing dependents in Latin. By contrast, *cedentem* ‘yielding’ (122) is in the accusative: the clause in which it is used, namely *multa multis de suo iure cedentem* ‘yielding much of his own right to many others’, is embedded in an accusative and infinitive construction. In this type of construction, the subject and its agreeing dependents are marked in the accusative instead of the nominative.

(122) *Conveniet* *[...]* *esse* *[...]* *aequum,* *facilem,* *multa*
be_appropriate.FUT.3SG be.INF.PRS fair.ACC.M.SG courteous.ACC.M.SG many.ACC.N.PL
multis *de* *suo* *iure* ***cede-nt-em*** *[...].*[54]
many.DAT.M.PL from his.ABL.N.SG right.ABL.N.SG yield-PTCP.PRS-ACC.M.SG
‘It will be appropriate to be fair, courteous, and willing to yield much of his own right to many others.’ (Cic. *off.* 2.64.4)

1.3.2.2.3. Object predicate present participles

Present participle phrases cannot only act as subject predicates, but also as object predicates (Ernout & Thomas 1951: 282; Laughton 1964: 50-51; Hofmann & Szantyr 1965: 387).[55] By analogy to their subject counterparts, object predicates will be defined in this study as syntactically obligatory constituents used in combination with a transitive verb in order to assign some property or definition to the object of this verb, independently of some other state of affairs (Quirk *et al.* 1985: 54-55; Rémi-Giraud 2013: 268-271; Pinkster 2015: 30). For example, in (123) *flentem* ‘crying’ is the predicate of the direct object pronoun *te* ‘you’: the referent of this pronoun is caused to be in a particular circumstance by the referent of the subject of the factitive verb *facit* ‘he makes’ (Pinkster 2015: 791).

(123) *[...] qui* *te* *nunc* ***fle-nt-em*** *facit.*
REL.NOM.M.SG you.ACC.M.SG now cry-PTCP.PRS-ACC.M.SG make.PRS.3SG
‘(...) who now makes you sad (lit. ‘crying’).’ (Plaut. *Pseud*. 1041)

[54] The subject of this accusative and infinitive construction is implicit. It has a generic reference and corresponds to an accusative (pro)noun like *hominem* ‘man’ or *aliquem* ‘someone’.
[55] Laughton (1964: 50-51) speaks in this regard of ‘completive participles’. Menge *et al.* (2000: 714) analyse the object NP and the present participle as an accusative and participle construction, which they analyse as a complement clause functioning as the direct object of the transitive main verb. This analysis is untenable. An equally untenable analysis is that of Pinkster (2021: §21.7), who takes the present participle phrases as adjuncts. See the running text for the reason why these analyses are untenable. Hofmann & Szantyr (1965: 387) seem to take the present participles as object predicates, but they are very implicit about this. Marouzeau (1910: 37-39) analyses all object predicates present participles as adjectives, but this analysis confuses the category and the function of the forms involved. Hence, it is also untenable (the same remark on Marouzeau’s analysis was made with respect to subject predicate present participles; see fn. 52).

As for their subject counterparts, the grammatical tradition of English also refers to object predicates as '(object) predicative constructions' (Quirk *et al.* 1985: 55). Depending on the morphosyntactic category of their head, a distinction is made again between 'predicat(iv)e adjectives (or adjective phrases)', like *rather expensive* (124), and 'predicat(iv)e nouns (or NPs)', like *a genius* (125) (Quirk *et al*. 1985: 55).

(124) *Most people consider these books rather expensive*. (Quirk *et al*. 1985: 55)

(125) *Most people considered Picasso a genius*. (Quirk *et al*. 1985: 55)

Parallel to their use of the term 'subject complement', Quirk *et al.* (1985: 54-55) make use of the term 'object complement' for the constituents concerned, just like Pinkster (2015, 2021) in his two volumes of the *Oxford Latin Syntax.* Similarly to the label '*attribut du sujet*', the grammatical tradition of French refers to constituents like *flentem* 'crying' (123) as '*attributs de l'objet*'. A distinction is again made in this tradition between syntactically necessary (e.g. *délicieux* 'delicious' (126)) and optional (e.g. *froid* 'cold') object predicates (Riegel *et al*. 1994[4]: 239-241; Rémi-Giraud 2013: 268-270).[56]

(126)	*Mon*	*collègue*	*trouve*	*les*	*petits*	*gâteaux*	*délicieux.*
	my.M.SG	colleague.M.SG	find.PRS.3SG	ART.DEF.M.PL	little.M.PL	cake.M.PL	delicious.M.PL

'My colleague finds the little cakes delicious.' (Rémi-Giraud 2013: 268)

(127)	*Mon*	*collègue*	*a*	*bu*	*son*	*café*	*froid.*
	my.M.SG	colleague.M.SG	have.PRS.3SG	drink.PTCP.PST	his.M.SG	coffee.M.SG	cold.M.SG

'My colleague drank his coffee cold.' (Rémi-Giraud 2013: 268)

As shown by Buchard (2006: 71), the use of syntactically optional object predicates in Modern French is also constrained, as in the case of their subject counterparts: the object needs to be an internal argument of the main verb, assume the semantic role of patient or theme, and code the participant who is involved in the main state of affairs in a particular state.[57] These constraints are again absent in (Classical) Latin, as apparent from the existence of adjunct present participles whose subject is coreferential with a non-direct object argument of the main verb, such as an indirect object (see §1.3.2.2.4). Hence, constituents that are functionally equivalent to the adjective *froid* 'cold' (127) in Modern French, like the coordinated present participle clauses *ovantem* 'rejoicing' and *prope triumphantem* 'almost triumphating' (128), have a different syntactic analysis in this language, *viz.* as object-oriented adjuncts (see §1.3.2.2.4).

[56] By analogy to their subject counterparts, these types of object predicates are referred to as respectively '*attributs de l'objet essentiels*' and '*attributs de l'objet non essentiels*'.

[57] This constraint is reminiscent of that on the use of syntactically optional subject predicates in Modern French. This is due to the similar functional properties of intransitive verbs of the unaccusative type and (some) transitive verbs. This parallel allows Buchard (2006) to propose a unified analysis of syntactically optional subject and object predicates in Modern French, and of subject and object predicates in general.

(128) *[...] cum [...] me* ***ova-nt-em*** *et prope* ***triumpha-nt-em***
when I.ACC.M.SG rejoice-PTCP.PRS-ACC.M.SG and almost triumph-PTCP.PRS-ACC.M.SG
populus [...] in Capitolium [...] tulerit [...].
people.NOM.M.SG to Capitol.ACC.N.SG bring.PST.3SG
'When the people brought me to the Capitol (while I was) rejoicing and almost triumphating.' (Cic. *Phil*. 14.12.10)

Like object predicate adjectives, object predicate present participles are usually marked in the accusative (Pinkster 2015: 790-792). This is the default case of direct objects and their agreeing dependents in Latin (Pinkster 2015: 1181-1184). Witness *flentem* 'crying' (123) and *appetentem* 'desiring' (129).[58]

(129) *Eadem=que ratio fecit hominem hominum*
same.NOM.F.SG=and reason.NOM.F.SG make.PST.3SG man.ACC.M.SG man.GEN.M.PL
appete-nt-em *[...].*
desire-PTCP.PRS-ACC.M.SG
'The same reason made man desirous of men (lit. 'desiring men').' (Cic. *fin*. 2.45)

1.3.2.2.4. Adjunct present participles

A fourth use of the Classical Latin present participle is in adjuncts (Marouzeau 1910: 22-37; Kühner & Stegmann 1914[5]: 771-792; Lyer 1932: 222-223; Laughton 1964: 19-45, 100-117; Palmer 1964: 326; Scherer 1975: 96; Menge *et al*. 2000: 708-709, 715-716; Pinkster 2021: §16.87-§16.98, §21.7). Witness *abiens* 'leaving' (130), which acts as a temporal adjunct expressing a state of affairs that partly overlaps with that denoted by the main verb, *viz. respondit* 'he answered'.

(130) *Ille mihi* ***abie-ns*** *ita respondit, 'se*
DEM.NOM.M.SG I.DAT.M.SG leave-PTCP.PRS.NOM.M.SG so answer.PST.3SG REFL.ACC.M.SG
sectari simiam'.
chase.INF.PRS monkey.ACC.F.SG
'When leaving, he answered me such, that the was chasing a monkey.' (Plaut. *Mil*. 179)

Adjunct present participles can be marked in various cases. This case depends on the reference of their subject and is assigned through agreement with a (usually explicit) noun (Marouzeau 1910: 6-12, 24-32; Lyer 1932: 223; Laughton 1964: 19-45, 101-117; Palmer 1964: 326; Vester 1983: 6, 121-127, 132; Pinkster 2021: §16.87-§16.98, §21.7). The present participle stands in the nominative when its subject

[58] Note that the present participle *appetentem* 'desiring' (129) has adjectival internal syntax: its direct object is assigned the genitive, while it is marked in the accusative when governed by a finite form of *appetere* 'to desire'.

is coreferential with the subject of the main verb, as in (131), except when it is embedded in an accusative and infinitive construction. In this case, the present participle stands in the accusative (e.g. (132)).

(131) *Pompeius* *enim* ***discede-ns*** *ab* *urbe* *in* *senatu*
Pompey.NOM.M.SG for leave-PTCP.PRS.NOM.M.SG from city.ABL.F.SG in senate.ABL.M.SG
dixerat *[...]*.
say.PST.3SG
'For when leaving the city, Pompey had said in the senate (...).' (Caes. *civ*. 1.33)

(132) *Quod* *Tarquinium* ***dixisse*** *ferunt* ***exsula-nt-em*** *[...]*.
REL.ACC.N.SG Tarquin.ACC.M.SG say.INF.PST say.PRS.3PL live_in_exile-PTCP.PRS-ACC.M.SG
'This is what they say that Tarquin had said during his exile.' (Cic. *Lael*. 53)

However, some forms violate this semantic constraint (Ernout & Thomas 1951: 12; Laughton 1960: 22; Hofmann & Szantyr 1965: 143; Keydana 1997: 328-329; Adams 2005: 93; Galdi 2017: 33; Pinkster 2021: §16.95). These instances are not without controversy, as will be demonstrated on the basis of the most cited example in this connection, namely *contemnentes* 'contemning' (133).

(133) *Hi* ***contemne-nt-es*** *eum,* *assurgere*
DEM.NOM.M.PL contemn-PTCP.PRS-NOM.M.PL DEM.ACC.M.SG stand_up.INF.PRS
ei *nemo* *voluit.*
DEM.DAT.M.SG nobody.NOM.M.SG want.PST.3SG
'Since they contemned him, nobody wanted to stand up for him.' (Calp. *hist*. 27)

The subject of *contemnentes* 'contemning' (133) corresponds to the pronoun *hi* 'they'. Strictly speaking, this subject differs from that of the main verb *voluit* 'nobody wanted', *i.e.* the pronoun *nemo* 'nobody'. Hence, the present participle clause may be analysed as a so-called 'nominative absolute (adjunct) construction' (Ernout & Thomas 1951: 12; Hofmann & Szantyr 1965: 143; Galdi 2017: 33, 61-62; details of absolute adjunct present participle phrases will be given below).[59] However, the subject of *contemnentes* 'contemning' has the same referent as that of the main verb *voluit* 'nobody wanted'. The negative pronoun *nemo* 'nobody' stands indeed for *nemo eorum* 'none of them' (Galdi 2017: 62). According to Keydana (2008: 329), this resolves the conflict between the plural marking of *hi* 'they' and the singular marking of *nemo* 'nobody'. Within this line of thinking, Keydana (2008: 329) takes *hi* 'they' as a so-called '*nominativus pendens*', *viz.* a nominative constituent functioning "as the logical rather than syntactical subject at the beginning of a sentence, followed by a sentence in which this subject is now replaced by a pronoun in the case required by the syntax" (Wallace 1996: 51). In this way, the

[59] Hofmann & Szantyr (1965: 143) also analyse this constituent as a nominative absolute adjunct phrase. However, they argue that this constituent is not deliberately used as such, but as the result of anacoluthon, that is to say, an interruption in the planned syntax. They hold that deliberate uses of nominative absolute present participles do not occur before Late Latin.

present participle does not violate the subject coreferentiality constraint mentioned above, so that it does not qualify as a nominative absolute adjunct (Keydana 2008: 328-329; Pinkster 2021: §16.95).

Other nominative present participles that potentially violate the subject coreferentiality constraint are also subject to debate. Generalising over the discussions of specific instances, two opposite camps can be distinguished: some authors recognise the existence of absolute adjunct nominative present participles already in Classical Latin (Baehrens 1913: 266-270; Ernout & Thomas 1951: 12; Hofmann & Szantyr 1965: 143-144; Galdi 2017: 33-37), while others reject it, acknowledging their existence only in Late Latin (Kroll 1915: 352; Bacherler 1922: 101; Keydana 2008: 328-329; Adams 2005: 93; Pinkster 2021: §16.95).

Present participles whose subject is coreferential with the direct object of the main verb are typically marked in the accusative. Witness (134), in which the subject of *inhaerentem* ‘sticking’ and *occurrentem* ‘approaching’ corresponds to respectively *alium* ‘a second one’ and *tertium* ‘a third one’.

(134) *Ac* *mox* *alium* *pedibus* *meis* *mordicus*
and immediately other.ACC.M.SG foot.DAT.M.PL my.DAT.M.PL with_the_teeth
inhaere-nt-em *per* *scapulas* *ictu* *temperato*
stick-PTCP.PRS-ACC.M.SG between shoulder.ACC.F.PL stroke.ABL.M.SG control.PTCP.PST.ABL.M.SG
tertium=que *inprovide* ***occurre-nt-em*** *pectore*
third.ACC.M.SG=and thoughtlessly approach-PTCP.PRS-ACC.M.SG chest.ABL.N.SG
offenso *peremo.*
hit.PTCP.PST.ABL.N.SG kill.PRS.1SG
‘And immediately I killed another one by a controlled stroke between the shoulders as he was sticking with his teeth to my feet and a third one by a stroke on the chest (lit. ‘by a stroken chest’) as he was approaching thoughtlessly.’ (Apul. *met*. 3.6.1-2)

The present participle typically stands in the dative when its subject is coreferential with the indirect object of the main verb. *Dormienti* ‘sleeping’ (135) is a case in point.

(135) *Credebas* ***dormie-nt-i*** *haec* *tibi*
believe.PST.2SG sleep-PTCP.PRS-DAT.M.SG DEM.ACC.N.PL you.DAT.M.SG
confecturos *deos?*
accomplish.PTCP.FUT.ACC.M.PL god.ACC.M.PL
‘Did you believe that the gods would accomplish this for you as you were sleeping?’ (Ter. *Ad*. 693)

As to the genitive, it is mostly assigned to present participles whose subject is coreferential with an adnominal NP (Laughton 1964: 34-35). Witness (136): the implicit subject of *absentis* ‘being absent’ is the genitive pronoun *cuius* ‘whose’, which depends on the noun *nomen* ‘name’.

(136) *Cuius* ***abse-nt-is*** *nomen* *recepisti?*
INT.GEN.M.SG be_absent-PTCP.PRS-GEN.M.SG name.ACC.N.SG accept.PST.2SG
'Whose name did you accept in his absence?' (Cic. *Verr*. 2.110)

Finally, the present participle is in the ablative when its subject is not coreferential with any constituent of the main clause (Lehmann 1988: 201; Menge *et al.* 2000: 719; Pinkster 2021: §16.90).[60] For instance, the subject of *regnante* 'ruling' (137) corresponds to the ablative noun *Anco* 'Ancus'. This noun does not perform a syntactic function within the main clause, and is therefore not a constituent of it.

(137) *Anco* ***regna-nt-e*** *Lucumo* *[...]* *Romam* *commigravit [...].*
Ancus.ABL.M.SG reign-PTCP.PRS-ABL.M.SG Lucumo.NOM.M.SG Rome.ACC.F.SG move.PST.3SG
'In the reign of Ancus (lit. 'when Ancus was reigning'), Lucumo moved to Rome.' (Liv. 1.34.1)

As a general rule, the subject of adjunct present participles is syntactically shared with the main clause when it is coreferential with one of its constituents (e.g. (130-131/133-136)), but explicit inside the present participle clause when it is not coreferential with any constituent of the main clause (e.g. (137)). In a few instances, however, the subject of the present participle is implicit without being coreferential with a constituent of the main clause. In these cases, the subject of the present participle can usually be easily inferred from the discourse context (Marouzeau 1910: 36; Kühner & Stegmann 1914[5]: 773; Pinkster 2021: §16.92). Witness (138), in which the implicit subject of *timentibus* 'fearing' corresponds to a noun like *incolis* 'inhabitants'.

(138) *Attalus* *quoque* *Pteleon* *nihil* *[...]* ***time-nt-ibus***
Attalus.NOM.M.SG also Pteleon.ACC.N.SG nothing.ACC.N.SG fear-PTCP.PRS-ABL.M.PL
oppressit.
crush.PST.3SG
'Attalus also crushed Pteleon, although its inhabitants did not fear anything.' (Liv. 31.46.13)

In the grammatical tradition of Latin, adjunct present participles whose subject is coreferential with a constituent of the main clause are called 'conjunct participles' (Kühner & Stegmann 1914[5]: 771; Vester 1977; Lehmann 1988) or '*praedicativa*' (Laughton 1964: 19-45; Vester 1983; Pinkster 1984; Kooreman

[60] However, this is a tendency rather than a rule (*cf.* Kühner & Stegmann 1914[5]: 786-787; Hoff 1989; Menge *et al*. 2000: 722-723; Kruijer & la Roi 2018; Pinkster 2021: §16.90). In some cases, the subject of ablative present participles is indeed coreferential with a constituent of the main clause. For instance, in (i) the subject of the coordinated forms *permittente* 'allowing' and *suadente* 'advising' is the noun *patre* 'father'. This noun is coreferential with (and anaphorically repeated by) the pronoun *eo* 'him'. This pronoun *eo* 'him' is the complement of the preposition *ab* 'from', this PP as a whole serving as the spatial adjunct of the main verb *semigravit* 'he went away'.

(i) *[...]non* *modo* ***permitte-nt-e*** *patre,* *sed* *etiam* ***suade-nt-e*** *ab*
not only allow-PTCP.PRS-ABL.M.SG father.ABL.M.SG but even advise-PTCP.PRS-ABL.M.SG from
eo *semigravit* *[...].*
DEM.ABL.M.SG go_away.PST.3SG
'He went away from him, his father not only allowing (this), but even advising (it).' (Cic. *Cael*. 18)

1989; Menge *et al.* 2000: 708-709; Cabrillana 2010, 2019).[61] In the two volumes of his *Oxford Latin Syntax*, Pinkster (2015, 2021) uses the more modern label 'secondary predicate'. As for the forms whose subject is not coreferential with a constituent of the main clause, they are commonly labelled 'absolute present participles', and, depending on their case form, a distinction is made between, e.g., nominative and ablative absolute present participles (Marouzeau 1910: 34-37; Kühner & Stegmann 1914[5]: 771; Laughton 1964: 100-117; Lehmann 1988: 201; Menge *et al.* 2000: 718-724; Pinkster 2021: §16.87-§16.98).[62]

However, the use of these labels varies from author to author, which easily causes terminological confusion (Pinkster 2015: 30). For example, some scholars use them for referring to syntactic functions. Witness Vester (1983: 121), who states that "[T]he use of the part. praes. that is relevant for this study is formed by part. praes. with the syntactic function Praedicativum" (capital original). In a similar vein, Pinkster (2015: 30) writes that "[T]he last syntactic function of clause constituents to be discussed in this section is the SECONDARY PREDICATE" (small capitals original; see also Pinkster 2021: Ch. 21). These authors rightly recognise a syntactic difference between conjunct and absolute present participles (or participles in general), as the former are more tightly connected to the main clause by being oriented toward one of its participants. However, these two types of forms share a more fundamental syntactic property, namely that they are syntactically and semantically optional constituents that modify the main state of affairs in some way or other (Dik 1997: 87). For this reason, traditional Latin grammars subsume conjunct and absolute present participles under the same group of forms, *i.e.* adjuncts forms, and analyse them as distinct sub-types of adjuncts (e.g. Kühner & Stegmann 1914[5]: 771-792). This approach is also taken by, among others, Fabricius-Hansen & Haug (2012) from a cross-linguistic perspective. In this thesis, the distinction between conjunct and absolute present participles is less central. Hence, they will be grouped and jointly referred to as 'adjunct present participles' (wherever necessary, a distinction will nonetheless be made between the two types of adjuncts). Thus, the term 'adjunct present participle' will be used in a way similar to 'adverbial modifier' or 'adverbial' (Quirk *et al.* 1985: 49), just like in, for instance, Himmelmann & Schultze-Berndt (2005), Fabricius-Hansen & Haug (2012), and Haug (2012). As such, it stands in opposition with the term 'complement'.

[61] Menge *et al.* (2000: 708-709, 715-716) also use the term 'conjunct participle' for adnominal present participles. This practice has not been followed by other authors. The Latin term for 'conjunct participle' is '*participium coniunctum*' in the singular and '*participia coniuncta*' in the plural. The singular form of the term '*praedicativa*' is '*praedicativum*'.

[62] The terms 'conjunct participle' and 'absolute participle' are also used in other grammatical traditions and even in comparative linguistics and linguistic typology (*cf.* König & van der Auwera 1990: 338; Haspelmath 1995: 46). In Fabricius-Hansen & Haug (2012: 2, 9), these traditional terms are replaced by respectively 'open adjuncts' and 'closed adjuncts'. The history of the term 'ablative absolute' (Lat. '*ablativus absolutus*') is investigated by, among others, Scaglione (1970) and Keydana (1997: 6-7). A detailed discussion of absolute adjunct present participle phrases in Latin can be found in, e.g., Weihenmajer (1891) and Horn (1918). See also Flinck-Linkomies (1929) and the discussion in Laughton (1964: 100-101). The evolution of absolute adjunct present participle phrases in the transition from Latin to Romance is investigated by Müller-Lancé (1994). Absolute adjunct present participles are relatively rare in the earliest texts, but gain in frequency from the 1st c. BC onward (Laughton 1964: 101-117; Pinkster 2021: §16.88).

It is worth adding that the analysis of conjunct and absolute present participles as sub-types of adjunct present participles has an important parallel in the domain of finite adjunct clauses, to which adjunct present participle clauses are claimed to be structurally equivalent (*cf.* Kühner & Stegmann 1914[5]: 766; Ernout & Thomas 1951: 283; Laughton 1964: 19-45, 101-117; Pinkster 2021: §14.14, §21.7). Compare (139) and (140): in (139), the subject of *cum ex renibus laboraret* 'when he took pains in his kidneys' is coreferential with the subject of the main verb *clamitabat* 'he shouted', while in (140), the subject of *cum omnes milites naves conscendissent* 'when all soldiers had boarded the ship' is not coreferential with any constituent of the main clause. However, despite the fact that the subject of the *cum*-clause is involved in the main state of affairs in (139), but not in (140), the two types of *cum*-clauses are uncontroversially subsumed under the same type of clauses, namely adjunct clauses.

(139) *[...] cum ex renibus laboraret [...] clamitabat [...].*
when from kidney.ABL.M.PL take_pains.SBJV.PST.3SG shout.PST.3SG
'When he took pains in his kidneys, he shouted (...).' (Cic. *Tusc.* 2.60)

(140) *Hos [...] signo revocare constituit cum omnes*
DEM.ACC.M.PL sign.ABL.N.SG summon.INF.PRS decide.PST.3SG when all.NOM.M.PL
milites naves conscendissent.
soldier.NOM.M.PL ship.ACC.F.PL board.SBJV.PST.3PL
'He decided to summon them with a sign when all soldiers had boarded the ships.' (Caes. *civ.* 27)

Another aspect of adjunct present participles that should be discussed concerns their semantic value. In the literature, two opposite views have been defended. According to most authors, adjunct present participles have a default semantic value, namely a temporal value of simultaneity (Lyer 1932: 222-223, 398; Laughton 1964: 20-45, 109-110; Palmer 1964: 326; Hofmann & Szantyr 1965: 386; Krisch 1988; Adams 2013: 725; Pinkster 2015: 542-543). This value should be interpreted in a relatively large sense, covering at least the two temporal relations referred to by Hetterle (2015: 47) as 'simultaneity duration' and 'simultaneity overlap' (*cf.* Kühner & Stegmann 1914[5]: 756; Ernout & Thomas 1951: 273-274; Laughton 1964: 20-21, 109-110; Palmer 1964: 326; Hofmann & Szantyr 1965: 386; Scherer 1975: 94; Menge *et al.* 2000: 712; Pinkster 2015: 543). The latter is illustrated in (130/131/137): the states of affairs denoted by *abiens* 'leaving' (130), *discedens ab urbe* 'leaving the city' (131), and *Anco regnante* 'in the reign of Ancus' (137) are presented as overlapping with those denoted by the main verbs *respondit* 'he answered' (130), *dixerat* 'he had said' (131), and *commigravit* 'he moved' (137), while in reality they are prior to them or overlap with them for only a limited stretch of time (see also Cristofaro 2003; Diessel 2008: 470).[63] The relation of simultaneity duration is exemplified in (141) and (142).[64]

[63] Conjunct forms expressing simultaneity overlap are often built on a verb denoting arrival or departure, as in (130) and (131) (Laughton 1964: 38-39; Palmer 1964: 326; Menge *et al.* 2000: 712).
[64] Conjunct forms having this temporal value are qualified by Laughton (1964: 21, 24-25) as 'modal'. This same description is found in, e.g., Marouzeau (1910: 24), Hofmann & Szantyr (1965: 384), and Menge *et al.* (2000: 716, 719).

(141) *[...]* ***fle-ns*** *Petreius* *manipulos* *circumit* *[...].*
cry-PTCP.PRS.NOM.M.SG Petreius.NOM.M.SG maniple.ACC.M.PL go_around.PRS.3SG
'Petreius goes around the maniples while crying.' (Caes. *civ*. 1.76) [=121]

(142) *[...] quo* ***inspecta-nt-e*** *ac* ***sede-nt-e*** *legem*
REL.ABL.M.SG look-PTCP.PRS-ABL.M.SG and sit-PTCP.PRS-ABL.M.SG law.ACC.F.SG
tribunus *plebis* *tulit* *[...].*
tribune.NOM.M.SG plebs.GEN.F.SG enact.PST.3SG
'As he was looking and sitting, a tribune of the plebs enacted a law.' (Cic. *p. red. in sen*. 11)

The states of affairs expressed by *flens* 'crying' (141) and *inspectante ac sedente* 'looking and sitting' (142) are concomitant with those expressed by the main verbs *circumit* 'he goes around' (141) and *tulit* 'he enacted' (142). That is to say, they take place at exactly the same time (*cf.* Dixon 2009: 10; Hetterle 2015: 47). Thus, *flens* 'crying' (141) and *inspectante ac sedente* 'looking and sitting' (142) denote the circumstances under which Petreius wanders through his maniples (141) and under which a tribune of the plebs enacted a law (142). In the grammatical tradition of Latin, this value is usually referred to as 'accompanying circumstance' (Kühner & Stegmann 1914[5]: 777; Pinkster 2015: 899) or 'concomitant action' (Ernout & Thomas 1951: 273).[65]

However, the default temporal value of adjunct present participles is often backgrounded in favour of a pragmatically inferred value (Lyer 1932: 223; Laughton 1964: 20-45, 110; Palmer 1964: 326; Krisch 1988; Galdi & Vangaever 2019: 99; Pinkster 2021: §16.89, §21.7). For instance, in (143) the conjunct phrase *diutius durans* 'lasting longer' is endowed with a conditional value. And in (144), the absolute phrase *tacentibus nobis* 'us being silent' has a concessive value.

(143) *[...] diutius* ***dura-ns*** *mortis* *index* *est.*
longer last-PTCP.PRS.NOM.F.SG death.GEN.F.SG indication.NOM.M.SG be.PRS.3SG
'If it lasts longer, it is an indication of death.' (Cels. 2.6.2)

(144) *[...] ex* *his* *horum* *contraria* *facile* ***tace-nt-ibus***
from DEM.ABL.N.PL DEM.GEN.N.PL opposite.NOM.N.PL easily be_silent-PTCP.PRS-ABL.M.PL
nobis *intellegentur.*
we.ABL.M.PL understand.FUT.PASS.3PL
'From these things their opposites will be understood easily, even when we are silent.' (Cic. *inv*. 2.157)

The inventory of semantic values that can be foregrounded at the cost of the default temporal value of adjunct present participles is large and varied (Kühner & Stegmann 1914[5]: 771-777; Lyer 1932: 223; Ernout & Thomas 1951: 283-284; Laughton 1964: 20-45, 110; Hofmann & Szantyr 1965: 384-385;

[65] Laughton (1964) speaks of 'concomitance' in the case of conjunct present participles (pp. 20-45), but of 'accompanying circumstance' in the case of absolute present participles (pp. 101-117). However, the temporal value of the two types of forms is identical, as evident from the comparison between (141) and (142). Hence, Laughton's distinction should be avoided.

Menge *et al*. 2000: 715-716, 719-720; Galdi & Vangaever 2019: 103-106; Pinkster 2021: §16.89, §21.7).[66] These pragmatically inferred values often co-exist with the default temporal value of adjunct present participles. In some contexts, it is therefore difficult to determine the primary semantic value of the present participle (Laughton 1964: 25; Galdi & Vangaever 2019: 99).

In contrast with the first group of authors, the second group argue that adjunct present participles do not have a default semantic value (Marouzeau 1910: 6-12; Vester 1983: 125-126, 130, 134). Although most forms have a more or less backgrounded temporal value, they hold that this value must be inferred from the discourse context as much as all other semantic values, such as cause and concession. However, this view is problematic for at least two reasons. The first one has to do with the fact that the present participle is inflected for the category tense (Pinkster 2015: 50). As for any other non-finite verb inflected for this category, the tense value of the Latin present participle is not absolute, but relative. That is to say, it depends on a reference point provided by the discourse context (Comrie 1985: 64; Pinkster 2015: 541, 2021: §21.7). Since the present participle is built on the present stem of the verb, its relative tense value is simultaneity: it denotes a state of affairs co-occurring or at least partly overlapping with that expressed by the main verb (Pinkster 2015: 50, 541-542). Given that most present participles have a more or less backgrounded temporal value, this simultaneity value is best taken as their default semantic value. The second reason has to do with the fact that, as mentioned earlier, many adjunct present participles combine a temporal and a non-temporal value. If this temporal value does not correspond to the default meaning of the present participle, it is difficult to explain why, in a given discourse context, two distinct semantic values are inferred, while only one of them is foregrounded. On the whole, the hypothesis that adjunct present participles have a default temporal value is thus more convincing.

It is also worth adding that the semantic relation between an adjunct present participle and its main clause does not always need to be inferred from the discourse context. Occasionally, this relation is lexicalised by what Kortmann (1991: 11) calls an 'augmentor' (Marouzeau 1910: 31-32; Kühner & Stegmann 1914[5]: 789-791; Lease 1928, 1931; Lyer 1932: 223; Ernout & Thomas 1951: 284-285; Laughton 1964: 110; Palmer 1964: 326; Hofmann & Szantyr 1965: 385; Tränkle 1968: 139-140; Vester 1983: 126-127; Menge *et al.* 2000: 719, 725; Galdi & Vangaever 2019: 99; Pinkster 2021: §16.89, §21.18). For example, the conjunct phrase *quasi dormiens* 'as if sleeping' (145) specifies the state of affairs denoted by the main verb *iacuerit* 'it has lain' by comparing it with another state of affairs. The adverb *quasi* 'as if' is used to code this relation of 'similarity/comparison' (Hetterle 2015: 54; see Galdi & Vangaever 2019: 105). Likewise, the concessive value of the absolute phrase *defendente nullo* 'nobody defending' (146) is lexicalised by the adverb *tamen* 'yet' (Pinkster 2021: §16.89).

[66] Focusing on conjunct nominative present participles in a corpus of technical texts between the 2nd c. BC and the 6th c. AD, Galdi & Vangaever (2019: 103-106) inventorise 14 distinct semantic values.

(145) *[...] requirendum* *est* *[...]* *num* *sine* *sensu* *quasi*
inquire.GERV.NOM.N.SG be.PRS.3SG whether without feeling.ABL.M.SG as_if
dormie-ns *iacuerit.*
sleep-PTCP.PRS.NOM.M.SG lay.SBJV.PST.3SG
'We must inquire (lit. 'it should be inquired (by us)') whether it has lain without feeling, as if it were asleep.' (Cels. 8.4.1)

(146) *[...] quo* ***defende-nt-e*** *nullo* *tamen*
for_which_reason defend-PTCP.PRS-ABL.M.SG nobody.ABL.M.SG nonetheless
armatis *ascendere* *esset* *difficile* *[...].*
arm.PTCP.PST.DAT.M.PL climb.INF.PRS be.SBJV.PST.3SG difficult.NOM.N.SG
'For which reason it was nonetheless difficult for armed men to climb, although nobody was defending.' (Hirt. *Gall*. 8.33.1)

As mentioned by Pinkster (2021: §16.89), augmentors can be part of the adjunct or of the main clause, as in respectively (145) and (146). In Classical Latin, the use of augmentors is rare, confined to semantic relations that are conceptually complex (Galdi & Vangaever 2019: 99), and partly influenced by Greek syntax (Marouzeau 1910: 82; Palmer 1964: 326).

As in the case of adjunct gerunds, a few remarks should also be made about the information-structural value of adjunct present participles. Like their gerund counterparts, adjunct present participles can expand the rheme of a sentence through elaboration and framing (Haug 2012: 294-301; Galdi & Vangaever 2019: 111-112). Recall that elaborating adjuncts specify the main state of affairs by zooming in on it, *viz.* by representing parts of it with greater granularity (Fabricius-Hansen & Haug 2012: 7; Haug 2012: 295-299). An example of this type of adjunct present participles is *flens* 'crying' (141), which expresses the circumstances under which Petreius goes around his maniples. Elaborating adjuncts appear at the level of the core predication, *i.e.* the combination of the main verb and its arguments (*cf.* Dik 1997: 51), and are as such semantically (and pragmatically) tightly connected to the VP. However, the present participles remain syntactically unconstrained: they can be combined with all types of main verbs, *viz.* transitive as well as intransitive ones and, within the group of intransitive verbs, unaccusative as well as unergative ones. From a semantic point of view, this type of present participles express the manner of the main state of affairs, the means by which it is realised, or a state of affairs co-occurring with it (Haug 2012: 304; Galdi & Vangaever 2019: 109; see also Kooreman 1989: 225-226). In Classical Latin, elaborating present participles are not highly frequent, at least not the nominative ones (Galdi & Vangaever 2019: 110-111).

In view of the discussions held in §1.3.2.2.2 and §1.3.2.2.3, it is worth adding that this group of elaborating present participles comprise all secondary predicates of the types illustrated by *flens* 'crying' (121/141) and *ovantem et prope triumphantem* 'rejoicing and almost triumphating' (128), which are repeated below for practical reasons.

(121) *[...]* ***fle-ns*** *Petreius* *manipulos* *circumit* *[...].*
cry-PTCP.PRS.NOM.M.SG Petreius.NOM.M.SG maniple.ACC.M.PL go_around.PRS.3SG
'Petreius goes around the maniples while crying.' (Caes. *civ*. 1.76) [=141]

(128) *[...]* *cum* *[...]* *me* ***ova-nt-em*** *et* *prope* ***triumpha-nt-em***
when I.ACC.M.SG rejoice-PTCP.PRS-ACC.M.SG and almost triumph-PTCP.PRS-ACC.M.SG
populus *[...]* *in* *Capitolium* *[...]* *tulerit* *[...].*
people.NOM.M.SG to Capitol.ACC.N.SG bring.PST.3SG
'When the people brought me to the Capitol (while I was) rejoicing and almost triumphating.' (Cic. *Phil*. 14.12.10)

Since they are secondary predicates, these constituents establish a relation with the subject or another constituent of the main clause (Himmelmann & Schultze-Berndt 2005: 4). For example, in (121/141) *flens* 'crying' is subject-oriented, because the state of affairs expressed by it relates to the subject of the main verb (*i.e.* the noun *Petreius*), while in (128), *ovantem et prope triumphantem* 'rejoicing and almost triumphating' is object-oriented, since the state of affairs denoted by it related to the direct object of the main verb (*i.e.* the pronoun *me* 'me'). At the same time, these constituents provide rhematic information serving to present part of the main state of affairs with a higher degree of specificity (Fabricius-Hansen & Haug 2012: 7; Haug 2012: 295-299). That is to say, they are semantically and pragmatically tightly connected to the core predication. For this reason, the informational value of elaborating secondary predicates is usually more or less equally high as that of the main clause (*cf.* Winkler 1997; Geuder 2000: 199-200; Himmelmann & Schultze-Berndt 2005: 18; Güldemann 2005). This is in line with the idea that the use of elaborating constituents compensates for the lack of a single verb whose meaning alone corresponds to that coded by the combination of the core predication and the elaborating phrase. In a certain sense, the meaning of elaborating phrases can thus be conceived of as a context-induced and analytically rendered seme of a verb that is semantically underspecified as compared with the more detailed representation the speaker has in mind (Fabricius-Hansen & Haug 2012: 1; Haug 2012: 295; Galdi & Vangaever 2019: 109).

As to the second type of adjunct present participles, *i.e.* framing forms, they expand the rheme of the sentence by anchoring the state of affairs coded by the extended predication in time or space or by relating it to another, often known, state of affairs (Haug 2012: 299-301). Remember that the extended predication is defined as the combination of the core predication and possibly one or more elaborating adjunct(s) (Dik 1997: 51-52). The framing use of adjunct present participles is uncontroversial, and will therefore not be discussed more extensively (this use has been discussed in more detail with respect to the gerund; see §1.2.2.2.5). Suffice it to mention that several examples of framing present participles have been cited in this section, among which the temporal forms *abiens* 'leaving' (130) and *discedens* 'leaving' (131), the causal form *contemnentes* 'contemning' (133), and the conditional form *durans* 'lasting' (143).

Contrary to adjunct gerunds, adjunct present participles can also expand the rheme of the sentence in a third way (Haug 2012: 301-303; Galdi & Vangaever 2019: 110-112; see also Marouzeau 1910: 29). Indeed, they may provide information that is equally new and central as that asserted by the main clause (or perhaps even more central), but that is semantically unrelated to it (Haug 2012: 301-303). Thus, instead of denoting a state of affairs related to the main state of affairs by means of, e.g., a temporal, causal, or conditional relationship, these constituents designate a state of affairs that stands more or less on its own, at least from a semantic and pragmatic point of view (Haug 2012: 301-302).[67] However, from a syntactic point of view, they depend on another, usually finite verb, just like elaborating and framing adjuncts (Haug 2012: 301-303). An example of this type of adjuncts is *cottidie everrentes eorum stabula* 'sweeping out their quarters every day' (147), which expresses an instruction that is equally important for taking care of turtledoves as that coded by the main clause (Marouzeau 1910: 29; Galdi & Vangaever 2019: 110).

(147) *Cibatui* *quod* *sit,* *obiciunt* *triticum* *siccum*
food.DAT.M.SG insofar_as be.SBJV.PRS.3SG offer.PRS.3PL wheat.ACC.N.SG dry.ACC.N.SG
in *centenos* *vicenos* *turtures* *fere* *semodium,*
for hundred.ACC.M.PL twenty.ACC.M.PL turtledove.ACC.M.PL about half-modius.ACC.M.SG
cottidie ***everre-nt-es*** *eorum* *stabula* *[...].*
every_day sweep_out-PTCP.PRS-NOM.M.PL their.GEN.M.PL quarter.ACC.N.PL
'As to food, they offer dry wheat, about a half-modius for 120 turtledoves, and they sweep out their quarters every day.' (Varro *rust.* 3.8.2)

This type of adjuncts are called 'independent rhemes' by Haug (2012: 301-303). However, since this term does not specify whether the adjuncts are independent from the thematic or the rhematic part of the main clause, Galdi & Vangaever (2019: 110) propose the term 'secondary focus adjuncts'. The adjective *secondary* refers in this respect to the pragmatically independent status of the adjuncts, not to some hierarchical status. In Classical Latin, adjunct present participles are only rarely used as secondary focus adjuncts (Marouzeau 1910: 29; Galdi & Vangaever 2019: 111-112).[68]

A final remark that should be made about adjunct present participles pertains to ablative absolute forms. In Classical Latin, some of these forms show signs of a partly grammaticalised status as prepositions (Rovai 2013, 2014; Galdi 2019). This is the case of *praesente* 'in the presence of', *absente* 'in the absence of', *stante* 'during', *praesidente* 'in command of', and *faciente* 'by' (Rovai 2013, 2014; Galdi 2019: 103-104), to which some authors add *(co)operante* 'by', *dispensante* 'by', *instigante* 'at the instigation of', *praestante* 'thanks to', and *favente* 'with help of' (Horn 1918: 35-39; Flinck-Linkomies

[67] The discourse relation between the main clause and this type of adjuncts is one of coordination in the sense described by Asher & Lascarides (2003) within their framework of Segmented Discourse Representation Theory (SDRT).
[68] Focusing on nominative conjunct adjunct present participles in technical literature between the 2nd c. BC and the 1st c. AD, Galdi & Vangaever (2019: 111-112) show that 71% have a framing function, 28% an elaborating function, and only 1% a secondary focus function.

1929: 221; Hofmann & Szantyr 1965: 133-134). In Classical Latin, the present participles with the clearest prepositional features are forms like *praesente* 'in the presence of' (148): its ablative singular marking is at odds with the ablative plural marking of the pronoun *nobis* 'us', while it should agree with this pronoun when acting as a prototypical absolute adjunct present participle (Rovai 2013; Galdi 2019: 95-96).

(148) *[...] nec* ***praese-nt-e*** *nobis* *alius* *quisquam*
NEG be_present-PTCP.PRS-ABL.M.SG we.ABL.M.PL other.NOM.M.SG anyone.NOM.M.SG
est *servos* *Sosia.*
be.PRS.3SG slave.NOM.M.SG Sosia.NOM.M.SG
'And in our presence there is no other slave Sosia.' (Plaut. *Amph*. 400)

However, Classical Latin does not possess present participles with prepositional features that have completed their grammaticalisation process. Even Late Latin does not have fully grammaticalised prepositions going back to ablative absolute present participles (Galdi 2019).[69] Therefore, the forms in question will not be analysed in this thesis as prepositions, but as ablative absolute present participles.

1.3.2.2.5. Present participles used in a progressive construction

In Classical Latin, the present participle can also function as the main verb of a progressive construction (Marouzeau 1910: 38; Aalto 1949: 75; Ernout & Thomas 1951: 274-275; Palmer 1964: 326; Hofmann & Szantyr 1965: 388; Scherer 1975: 96; Menge *et al.* 2000: 717; Pinkster 2015: 544-545). This is a verbal periphrasis made up of a verb that is more or less grammaticalised into an aspectual auxiliary and a present participle acting semantically and syntactically as the main verb (Aalto 1949: 76). The grammatical(ised) meaning of the auxiliary scopes over the lexical meaning of the present participle (*cf.* Gast & Diessel 2012: 15), and consists of presenting the state of affairs denoted by the latter in its "uninterrupted duration or continuity" (Garey 1957: 91). Hence, it serves as a marker of the progressive aspect (Haverling 2010: 492).[70] In the Classical period, the progressive marker can be realised by a form of the verb *esse* 'to be' (149) or by a posture like *stare* 'to stand' (150) (Aalto 1949: 75).

[69] In Late Latin, the prepositional use of some present participles is more evident than in Classical Latin. For instance, some instances of *faciente* 'by' show clear signs of a decategorised status: despite being built on the transitive verb *facere* 'to do', the form *faciente* 'by' is often used without a direct object. This causes its meaning to be interpreted in a more general way (Galdi 2019: 97). Also, while the verb *facere* 'to do' imposes the selection restrictions [+animate] and [+control] on its subject, the noun accompanying the form *faciente* 'by' often presents the features [-animate] and [-control]. This indicates that *faciente* 'by' has lost at least part of its argument structure (Galdi 2019: 97). In addition, some instances are found in which *faciente* 'by' does not agree with the accompanying noun, much like *praesente* 'in the presence of' in (148) (Galdi 2019: 96-97). Finally, *faciente* 'by' tends to develop a fixed position after the accompanying noun (Galdi 2019: 96). The fixation of the linear position of a linguistic item is a well-known symptom of grammaticalising items (Lehmann 1982³: 158-160).
[70] The progressive aspect is also referred to as the continuous (e.g. Comrie 1976) or durative aspect (e.g. Gougenheim 1929).

(149) *Cuius* *decursum* *antecedebat* *rivus,* *qui*
REL.GEN.F.SG slope.ACC.M.SG run_in_front_of.PST.3SG rivulet.NOM.M.SG REL.NOM.M.SG
ad *eorum* *accessum* *summam* *efficiebat* *loci*
to their.GEN.M.PL approach.ACC.M.SG critical.ACC.F.SG make.PST.3SG territory.GEN.M.SG
iniquitatem. *Nam* *palustri* *et* *voraginoso* *solo*
unevenness.ACC.F.SG for marshy.ABL.N.SG and full_of_pits.ABL.N.SG soil.ABL.N.SG
curre-ns *erat* *ad* *dextrum.*
run-PTCP.PRS.NOM.M.SG be.PST.3SG to right.ACC.N.SG
'In front of the slope of this (plain) ran a rivulet, which made the unevenness of the territory critical for their approach. For to the right it was running on marshy soil full of pits.' (*Bell. Hisp.* 29.2)

(150) *[...] tristis* *Aristaeus* *nostri* *genitoris* *ad* *undam*
sad.NOM.M.SG Aristaeus.NOM.M.SG our.GEN.M.SG father.GEN.M.SG at water.ACC.F.SG
stat ***lacrima-ns*** *[...].*
stand.PRS.3SG cry-PTCP.PRS.NOM.M.SG
'Aristaeus is (lit. 'stands') sadly crying near the waters of our father.' (Verg. *georg*. 4.355-356)

The use of the present participle as the main verb of a progressive construction derives from its use as the head of an elaborating conjunct adjunct phrase (Aalto 1949: 76). Without going into detail here, the lexical meaning of *esse* 'to be' or a posture verb combined with an elaborating nominative present participle is sometimes backgrounded in favour of the grammatical value described above,[71] whereas the lexical meaning of the present participle is not only preserved, but foregrounded (Heine 1993: 54, 2002: 86).[72] However, a distinction should be made between *esse* 'to be' and the posture verbs: while the lexical meaning of the former is mostly strongly backgrounded, if not entirely lost, that of the latter often co-exists with their grammatical meaning, phenomenon called 'persistence' by Hopper (1991: 22; see also Heine 2002: 86). Compare (149) and (150): in (149), *erat* 'it was' does not serve to express the existence of a rivulet, but to present the running of this rivulet as a continuous activity that makes it difficult for Caesar's troops to approach the Pompeians; in (150), on the contrary, *stat* 'he stands' does not only serve to present the crying of Aristaeus as ongoing, but possibly also to express that Aristaeus is standing near some water. The adverb *possibly* is crucial here, since the persistence of the lexical meaning of grammaticalising forms is by no means compulsory (Hopper 1991: 22; Heine 2002: 86). In many contexts, it is even unclear whether this lexical meaning is preserved or lost. *Stat* 'he stands' (150)

[71] Heine (1993: 54) refers to the process "whereby in specific contexts a lexical item is emptied of its lexical semantics and acquires a grammatical function" as 'desemanticisation'. Various other terms are used for this process (for an overview, see, e.g., Heine 1993: 89).

[72] In a recent paper (Vangaever 2019), I investigated the emergence of the progressive present participle construction within the theoretical framework of Diachronic Construction Grammar (Hilpert 2013; Traugott & Trousdale 2013; Barðdal *et al.* 2015; Coussé *et al.* 2018). I argue that the emergence of this construction is a case of grammatical constructionalisation, *i.e.* a historical process in which the formal and functional structure of an existing construction are reanalysed, so as to give rise to a new construction (Traugott & Trousdale 2013: 1). The term 'construction' is taken here in the sense described in the framework of Construction Grammar, *viz.* as a unique, conventionalised, and arbitrary form-function pairing with different degrees of internal complexity and lexical specificity (Goldberg 1995: 4, 2006: 3; Croft 2001: 18).

is in fact a case in point, but in order to demonstrate this, the passage in (150) needs to be interpreted within its discourse context, given in (151). For practical reasons, this passage is translated, but not glossed.[73]

(151) *Carmine quo captae dum fusis mollia pensa / devolvunt, iterum maternas impulit auris / luctus Aristaei, vitreisque sedilibus omnes / obstipuere; sed ante alias Arethusa sorores / prospiciens summa flavum caput extulit unda / et procul: "O gemitu non frustra exterrita tanto / Cyrene soror, ipse tibi, tua maxima cura / tristis Aristaeus nostri genitoris ad undam / stat* ***lacrimans****, et te crudelem nomine dicit."*

'And while, charmed by the strain, they unrolled the soft coils from their spindles, again the wail of Aristaeus smote upon his mother's ear, and all upon their crystal thrones were startled. Yet, first of all the sisters, Arethusa, looking forth, raised her golden head above the water's brim, and cried from afar: "O sister Cyrene, you are not alarmed by this loud lament in vain. Aristaeus, your own beloved, is sadly crying near the waters of our father, and he says that you are cruel by name."' (Verg. *georg*. 4.348-356)

The lamenting of Aristaeus is at the center of this passage: it is expressed not only by the present participle *lacrimans* 'crying', but also by the nouns *luctus* 'wail' and *gemitu* 'lament'. This is what triggers the attention of Arethusa and her sisters, and what causes Arethusa to investigate what is going on. When she finds out the reason of Aristaeus' lamentating, she addresses her sister Cyrene and presents her findings. Within this context, the primary function of *stat* 'he stands' is to present the lamenting of Aristaeus as a continuous activity, because it is the durative character of his lamentations that makes Arethusa find out about it. It is possible that Aristaeus is standing near the water while lamenting, but he may just as well be sitting, lying, or even pacing around.[74] What matters most is that he is lamenting. The question whether he is standing while doing so is contextually less relevant.

Since the lexical meaning of *esse* 'to be' is strongly backgrounded, if not completely lost, while that of the posture verbs may co-exist with their grammatical value, the analysis of present participles as the main verb of a progressive construction instead of as the head of an adjunct phrase is usually more evident when they are combined with *esse* 'to be' than with a posture verb. For some combinations of a posture verb and a present participle, it is indeed difficult to establish whether they form a progressive construction or the bi-clausal structure that gave historically rise to it. This type of syntactic ambiguity, described by Rosenbach (2010: 154) in terms of 'constructional gradience', can only be resolved when

[73] The same translation-instead-of-glossing strategy will be adopted for all other examples that will be presented in their broader discourse context in this thesis. For most of these instances, a separate example comprising the present participle or gerund to be discussed will nonetheless be provided, usually as an introductory instance to illustrate some syntactic use (as in this section).
[74] Some thirty verses before the passage in (151), it is said that Aristaeus sadly stopped near the sacred fount at the stream's head (*tristis ad extremi sacrum caput adstitit amnis*; v. 319). Hence, it is most likely that he is still standing while lamenting. However, this does not exclude the lexical meaning of *stat* 'he stands' from being backgrounded in favour of its grammatical, *i.e.* progressive, value.

taking into account the discourse context, as shown for *stat lacrimans* ‘he is crying’ (150). This issue will be examined in detail in Chapter 3 (§3.5.4).

In Classical Latin, progressive present participle constructions are extremely rare, but nonetheless found from the earliest texts onward (Aalto 1949: 75; Hofmann & Szantyr 1965: 388; Pinkster 2015: 544-545). Most of them occur in substandard varieties (e.g. (149)), but unambiguous instances are also found in standard varieties (e.g. (150)) (Marouzeau 1910: 38; Hofmann & Szantyr 1965: 388). One of the oldest examples is *bibentes esse* ‘they are drinking’ (152). This construction is embedded in an accusative and infinitive clause, which, in turn, is part of a relative clause. The result is a syntactically complex sentence, but one in which the function of the present participle as the main verb of a progressive construction is beyond discussion.

(152) *[...] isti* *Graeci* *[...] / quos* *semper* *videas*
DEM.NOM.M.PL Greek.NOM.M.PL REL.ACC.M.PL always see.SBJV.PRS.2SG
bibe-nt-es *esse* *in* *thermopolio* *[...].*
drink-PTCP.PRS-ACC.M.PL be.INF.PRS in tavern.ABL.N.SG
‘(...) those Greeks, who you always see drinking in the tavern.’ (Plaut. *Curc*. 288-292)

Given its extreme rareness, the progressive present participle construction does not hold as a fully grammatical(ised) construction in Classical Latin (Bybee 1985, 2010; Croft 2000: 5; Traugott 2015: 53, 55). The construction is still emerging in this period, and does not become more frequent until Late Latin (Eklund 1970: 74; Pinkster 1998: 230; Haverling 2010: 496). However, even in Late Latin it does not become highly frequent. In this sense, the Latin progressive present participle construction is usually considered an exploratory ‘forerunner’ (Bertinetto *et al*. 2000: 538) or ‘precursor’ (Bertinetto 2000: 563) of the Romance progressive construction (e.g. It. *sto cantando* ‘I am singing’), a kind of ‘experimental substitute’ of the synthetic imperfect tense (Pinkster 1998: 234; Haverling 2010: 492-493).

1.3.2.2.6. Present participles used in a presentative progressive construction

Another construction in which the present participle occurs combines a present participle, a perception verb, and an accusative NP. The present participle agrees with this NP, which acts as its logical subject. The perception verb evokes an act of visual (e.g. *conspicor* ‘I see’ (153)) or auditory (e.g. *audiebam* ‘I heard’ (154)) perception.

(153) *Sed* *quis* *illic* *est* *quem* *huc*
but INT.NOM.M.SG that.one.NOM.M.SG be.PRS.3SG REL.ACC.M.SG hither
advenie-nt-em *conspicor?*
come-PTCP.PRS-ACC.M.SG see.PRS.1SG
'But who is that one that I see coming hither?' (Plaut. *Epid*. 435)

(154) *Cum* *quo* *Antiochum* *saepe* ***disputa-nt-em*** *audiebam.*
with REL.ABL.M.SG Antiochus.ACC.M.SG often discuss-PTCP.PRS-ACC.M.SG hear.PST.1SG
'I heard Antiochus often discussing with him (Heraclitus).' (Cic. *Lucullus* 11)

In the grammatical tradition of Latin, the present participle and the accusative NP are jointly referred to as an 'accusative and participle construction' (Maraldi 1980: 47; Menge *et al*. 2000: 714; Greco 2013: 173-174; Zheltova 2017: 317; Pinkster 2021: §21.8).[75] This construction is usually analysed as a complement clause functioning as the direct object of the perception verb. This function explains the accusative marking of both the NP and its agreeing participle (Ernout & Thomas 1951: 282; Bolkestein 1976: 287, 289; Menge *et al*. 2000: 714; Greco 2013: 173, 177). The accusative and participle construction denotes a state of affairs that "may be conceived of as causing sound or being visible" (Bolkestein 1976: 286), and that is ongoing at the time of its visual or auditory perception (Maraldi 1980: 48-49; Greco 2013: 180-181). Hence, it is associated with the progressive aspect, just like its counterparts in other languages, such as English (e.g. *I saw the accused* ***stabbing*** *the victim*) (Comrie 1976: 40; Greco 2013: 181, fn. 25).

More recently, Greco (2013: 179-180) and Zheltova (2017: 317-319) argue that the combination of a perception verb and an accusative and participle construction holds as an evidential strategy. Evidentiality is described as the "linguistic category whose primary meaning is source of information" (Aikhenvald 2004b: 3). Evidential values can be marked by either grammatical morphemes or lexemes devoted to the expression of the source of information, or by grammatical constructions acquiring this value as a secondary value. It is these grammatical constructions having a non-coded, backgrounded evidential value that Aikhenvald (2004b: 105) calls 'evidential strategies'. According to Greco (2013: 179-180) and Zheltova (2017: 317-319), the combination of a perception verb and an accusative and participle construction qualifies as an evidential strategy because the perception verb expresses the source of the information reported in the accusative and participle construction as a secondary value. Its primary function remains the expression of sensory perception. For instance, in addition to denoting an act of respectively visual and auditory perception, *conspicor* 'I see' (153) and *audiebam* 'I heard' (154) indicate that the information coded by the accompanying accusative and participle construction is

[75] The Latin term for this construction is '*Accusativus cum Participio*'. Within the field of English linguistics, Declerck (1982: 1) uses the term 'Participial Perception Verb Complements'.

provided by the speaker. According to Greco (2013: 179-180), the evidence expressed by the complex of a perception verb and an accusative and participle construction is direct and attested.

Pinkster (2021: §21.8) defends yet another analysis of this complex: the accusative NP alone acts as the direct object of the perception verb, while the present participle functions as the head of an adjunct expressing the circumstances under which its subject is perceived by that of the perception verb. In this analysis, the present participle clauses *huc advenientem* 'coming here' (153) and *cum quo saepe disputantem* 'often discussing with him' (154) express the circumstances under which an unknown man (153) and Antiochus (154) are respectively seen and heard by the speaker.[76] Laughton (1964: 50) also seems to analyse the accusative NP as the direct object of the perception verb, but instead of taking the present participle as a conjunct adjunct, like Pinkster, he views it as an object predicate.[77] Laughton's analysis is in line with that usually proposed for the corresponding forms in French, whether in Old French (e.g. Buridant 2000: 327, 2019: 467) or Modern French (e.g. Halmøy 2013: 279-280).[78]

In this thesis, another analysis of the complex of a perception verb and an accusative and participle construction will be proposed. The basic idea is that this is a grammatical construction that (historically) derives from the bi-clausal structure exemplified in (155).[79] This structure contains a transitive verb, an accusative NP, and an elaborating conjunct adjunct present participle.

(155) *[...] vix* *illum* *adsequor* ***curre-nt-em*** *[...].*
hardly DEM.ACC.M.SG follow.PRS.1SG run-PTCP.PRS-ACC.M.SG
'I (can) hardly follow him as he is running.' (Sen. *epist.* 83.4)

In (155), *currentem* 'running' unambiguously serves as the head of an adjunct phrase. This phrase specifies the circumstances under which the referent of its subject, *viz.* the pronoun *illum* 'him', is involved in the state of affairs denoted by the main verb *adsequor* 'I follow'. The pronoun *illum* 'him' is the direct object of *adsequor* 'I follow', and is therefore assigned the accusative (*cf.* Pinkster 2015: 1181-1184). Since conjunct adjunct present participles agree with the NP acting as their subject, this case is also assigned to *currentem* 'running'. Since it is adjunct, *currentem* 'running' can be omitted without affecting the grammaticality and/or core meaning of the sentence, as shown in (156) (*cf.* Dik 1997: 87).

[76] This might also be the analysis of Hofmann & Szantyr (1965: 387). However, they are not explicit about the precise function of the present participle, and hence this cannot be stated with certainty.
[77] Laughton (1964: 50) qualifies these present participles as 'completive'.
[78] Some authors do not provide an explicit analysis of the present participle. For instance, Kühner & Stegmann (1914[5]: 763) state that these forms are used "*in prädikativem Sinne zur Ergänzung eines Verbalbegriffes*", but it is unclear whether they take these forms as object predicates, like Laughton (1964: 50), or as verb complements, like most authors (e.g. Ernout & Thomas 1951: 282; Bolkestein 1976: 287, 289; Menge *et al.* 2000: 714; Greco 2013: 173, 177).
[79] In a recent paper (Vangaever 2021), I investigated the emergence of this construction within the theoretical framework of Diachronic Construction Grammar (Hilpert 2013; Traugott & Trousdale 2013; Barðdal *et al.* 2015; Coussé *et al.* 2018). I argue that it instantiates a case of grammatical constructionalisation, just like the emergence of the progressive present participle construction (see fn. 72 in §1.3.2.2.5).

(156) *Vix* *illum* *adsequor.*
hardly DEM.ACC.M.SG follow.PRS.1SG
'I (can) hardly follow him.' (adapted from Sen. *epist*. 83.4)

If the transitive verb is realised by a perception verb, its combination with an accusative NP and a present participle often allows the same analysis. This is in fact the analysis proposed by Pinkster (2021: §21.8) for all instances of this combination. The present participle phrase then denotes the circumstances under which the referent of its subject is perceived by that of the subject of the perception verb, as illustrated above for *huc advenientem* 'coming here' (153) and *cum quo saepe disputantem* 'often discussing with him' (154). Since it still holds as an adjunct, the present participle phrase can be omitted without rendering the sentence ungrammatical and/or changing its meaning. This is shown for the examples in (153-154) in respectively (157-158).

(157) *Sed* *quis* *illic* *est* *quem* *conspicor?*
but INT.NOM.M.SG that.one.NOM.M.SG be.PRS.3SG REL.ACC.M.SG see.PRS.1SG
'But who is it that one that I see?' (adapted from Plaut. *Epid*. 435)

(158) *Antiochum* *audiebam.*
Antiochus.ACC.M.SG hear.PST.1SG
'I heard Antiochus.' (adapted from Cic. *Lucullus* 11)

However, the combination of a perception verb, an accusative NP, and a present participle can often be analysed in a different way. This alternative analysis is typically more appropriate to the discourse context. The examples in (153-154) are cases in point, but in order to demonstrate this, they need to be interpreted within their broader discourse context, provided in respectively (159-160).

(159) *Nil homini amico est opportuno amicius / sine tuo labore quod velis actum est tamen / Ego si allegassem aliquem ad hoc negotium / minus hominem doctum minusque ad hanc rem callidum / os sublitum esset, itaque me albis dentibus / meus derideret filius meritissumo / Atque haec stultitiast me illi vitio vortere / egomet quod factitavi in adulescentia / cum militabam ; pugnis memorandis meis / eradicabam hominum aureis, quando occeperam / Sed quis illic est quem huc* ***advenientem*** *conspicor / suam qui undantem chlamydem quassando facit?*
'A friend in need is a friend indeed. What you want done is done, without any effort on your part. If I'd employed someone less smart in this business and less clever in this matter, I'd have been fooled: my son would laugh at me, showing me his white teeth, and I'd fully deserve it. But who is this I can see coming here? He makes his cloak move like a wave by shaking it' (Plaut. *Epid*. 425-436)

(160) *"Cum Alexandriae pro quaestore", inquit, "essem, fuit Antiochus mecum, et erat iam antea Alexandriae familiaris Antiochi Heraclitus Tyrius, qui et Clitomachum multos annos et Philonem audierat, homo sane in ista philosophia, quae nunc prope dimissa revocatur, probatus et nobilis; cum quo Antiochum saepe* ***disputantem*** *audiebam, sed utrumque leniter."*
'"When I was in Alexandria as deputyquaestor", he said, "Antiochus was in my company, and the Tyrian Heraclitus, Antiochus's friend, was already in Alexandria. He had listened to Clitomachus and Philo for many years, and he was truly esteemed and famous in this philosophical school, which is now revived after being almost abandoned. I heard Antiochus often discussing with him (Heraclitus), but each of them (discussing) gently."' (Cic. *Lucullus* 11)

In (159), the speaker (Periphanes) delivers a monologue on the pleasure of having a friend in need. During his monologue, an unknown soldier appears and approaches him. As soon as he notices this, Periphanes interrupts his monologue and asks himself who is the man approaching him. In (160), the speaker (Lucullus) delivers a monologue on his experiences at Alexandria in the company of the philosophers Antiochus and Heraclitus. After introducing Heraclitus and specifying the philosophical school to which he belongs, Lucullus states that Antiochus and Heraclitus have held many philosophical discussions. Within these contexts, the most informative part of the excerpts in (153-154) is not that Periphanes sees someone (153) and that Lucullus hears Antiochus (154), but that an unknown soldier approaches Periphanes (153) and that Antiochus has held many philosophical discussions with Heraclitus (154). That is to say, the states of affairs being focused on are expressed by the present participle clauses *huc advenientem* 'coming here' (153) and *cum quo disputantem* 'discussing with him' (154). The acts of visual and auditory perception designated by *conspicor* 'I see' (153) and *audiebam* 'I heard' (154), as for them, are somewhat backgrounded. On closer inspection, the lexical meaning of these verbs is backgrounded in favour of a more grammatical meaning (or function), in line with the mechanism of desemanticisation (Heine 1993: 89). Since desemanticisation is the first shift in a grammaticalisation process (Heine 1993: 54-56), this suggests that some perception verbs combined with an accusative NP and a present participle have a more or less grammaticalised status. This hypothesis will now be explored in more detail.

The hypothesis that I will defend is based on the logical distinction drawn by Kuroda (1972: 154) and Lambrecht (1994: 139-140) between two types of judgments in view of their information structure: categorical judgments and thetic judgments. The former have a clear subject-predicate structure, since they involve "both the act of recognition of a subject and the act of affirming or denying what is expressed by the predicate about the subject" (Lambrecht 1994: 139). For instance, in (161) the predicate *is blue* expresses some information about the subject NP *this flower* (Lambrecht 1994: 139).

(161) *This flower is blue.* (Lambrecht 1994: 139)

As for thetic judgments, they involve "the recognition or rejection of some judgment material, without predicating this judgment of some independently recognised subject" (Lambrecht 1994: 139). Hence, they do not have a bipartite structure. Canonical examples of thetic judgments are meteorological (162) and existential (163) sentences (Kuroda 1972: 154; Lambrecht 1994: 139-140).

(162) *It rains*. (Lambrecht 1994: 140)
(163) *There are yellow flowers.* (Lambrecht 1994: 140)

Lambrecht (1994: 141-142) relates this logical distinction between categorical and thetic judgments to a pragmatic distinction: utterances expressing a categorical judgment have a topic-comment structure, while those conveying a thetic judgment lack a topic, and are as such "all-new".

I hypothesise that in some complexes of a perception verb and an accusative and participle construction, the primary function of the perception verb is not to express an act of perception nor the source of the information coded by the present participle phrase, but to introduce the state of affairs denoted by the present participle as new information, *viz.* as a thetic information unit. This function as a marker of information structure is grafted onto the lexical meaning of the perception verb, which is partly desemanticised and, as such, grammaticalised. This pragmatic function of the perception verb is apparent in both (153/159) and (154/160): *conspicor* 'I see' (153/159) and *audiebam* 'I heard' (154/160) both introduce a state of affairs whose information value is significantly higher than that of the acts of sensory perception. In other words, *conspicor* 'I see' (153/159) and *audiebam* 'I heard' (154/160) are used as presentative markers rather than as full lexical perception verbs. It is worth noting that the presentative function of some perception verbs is cued or even emphasised by the presence of *ecce* 'behold', *i.e.* the presentative *par excellence* in Latin (e.g. (164)).

(164)	*Ecce*	*autem*	*video*	*rure*	***redeu-nt-em***	*senem.*
	behold	but	see.PRS.1SG	farm.ABL.N.SG	return-PTCP.PRS-ACC.M.SG	old_man.ACC.M.SG

'But behold, I see the old man returning from the farm.' (Ter. *Eun*. 967)

As for the state of affairs denoted by the accusative NP and the present participle, it is still interpreted as ongoing. This is in line with the former function of the present participle phrase, *i.e.* to express a durative state of affairs taking place at the time of the act of visual or auditory perception. Some complexes of a perception verb and an accusative and participle construction thus combine a presentative and a progressive value. Hence, they will be labelled 'presentative progressive constructions'.

The hypothesis that perception verbs used in a presentative progressive construction show signs of a grammaticalised status entails that the internal syntactic structure of this construction differs from that of its source structure illustrated in (155): the perception verb shifts from the status of main verb to that of presentative marker, while the present participle shifts from the status of head of an adjunct to

that of main verb. As for the accusative NP, it loses its function as the direct object of the perception verb and specialises as the subject of the present participle. Its accusative marking remains reminiscent of its former function, conformingly to the process of syntactic reanalysis, defined by Langacker (1977: 58) as "the change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface structure". Due to these shifts, the originally bi-clausal source structure is in a certain sense reanalysed as a mono-clausal construction.

It is important to add, however, that the degree of grammaticalisation of the perception verbs is low. The main reason is that their lexical meaning typically co-exists with their grammatical meaning (or function), as in the case of the posture verbs used in a progressive present participle construction (*cf.* Hopper 1991: 22; Heine 2002: 86). Witness (164), where *video* 'I see' certainly evokes an act of visual perception, but nonetheless serves in the first place to announce the return of an old man (and to present this information as all-new). Note also that the evidential value of the perception verbs persists along with their sensory value. For instance, *video* 'I see' (164) also indicates that the source of the information coded by *rure redeuntem senem* 'the old man returning from the farm' is the speaker, in this case the slave Parmeno. Due to the persistence of the lexical meaning of the perception verbs, it is sometimes difficult to establish whether a complex of a perception verb, an accusative NP, and a present participle forms a presentative progressive construction or its bi-clausal source structure. Like that of some combinations of a posture verb and a present participle, the syntactic ambiguity of these complexes can only be resolved when taking into account the discourse context: if the sensory value of the perception verb is backgrounded and if the present participle carries the highest informational value, the complex qualifies as a presentative progressive construction; if, on the contrary, the sensory value of the perception verb is foregrounded and if the present participle conveys accessory information about the referent of the accusative NP, it instantiates its bi-clausal source structure.

In the previous discussion, all perception verbs occurring in a presentative progressive construction are active. Hence, the present participle and its subject NP are marked in the accusative. This is the most common configuration, but it is not the only possible one. Occasionally, the perception verb is in the passive, which induces a nominative marking on the present participle and its subject NP (*cf.* Pinkster 2021: §21.8). These passive structures allow the same analysis as their active counterparts, irrespective of whether the perception verb evokes an act of visual (165) or auditory (166) perception.

(165) *[...] Antonius [...] cum cohortibus XII* ***descende-ns***
Anthony.NOM.M.SG with cohort.ABL.F.PL twelve descend-PTCP.PRS.NOM.M.SG
ex loco superiore cernebatur.
from place.ABL.M.SG higher.ABL.M.SG see.PST.PASS.3SG
'Anthony was seen descending from a higher position with twelve cohorts.' (Caes. *civ*. 3.65.1)

(166) *Saepe* *auditus* *est* *[...]* *se=que* *ire* *ad*
often hear.PTCP.PST.NOM.M.SG be.PRS.3SG REFL.ACC.M.SG=and go.INF.PRS to
illam *[...]* ***dictita-ns*** *[...].*
DEM.ACC.F.SG declare-PTCP.PRS.NOM.M.SG
'He was often heard declaring that he should go to her.' (Tac. *ann*. 13.46.1)

In presentative progressive constructions, the present participle sometimes competes with the infinitive, at least when the perception verb evokes "actual perception" instead of "knowledge and reflection based on some form of perception" (Riemann 1886[7]: 470 fn. 1; Marouzeau 1910: 40; Ernout & Thomas 1951: 283; Hofmann & Szantyr 1965: 387; Maraldi 1980: 51, 71 fn. 2; Menge *et al*. 2000: 714; Greco 2013: 177-180; Pinkster 2021: §15.98, §21.7).[80] An example of what could hold as a presentative progressive infinitive construction is given in (167).

(167) *Virum* *bonum* *eccum* *Parmenonem* ***incedere*** *video.*
man.ACC.M.SG good.ACC.M.SG behold Parmeno.ACC.M.SG approach.INF.PRS see.PRS.1SG
'Behold! I see Parmeno, that good man, approaching.' (Ter. *Eun*. 918)

1.3.2.2.7. Present participles used as syntactically finite verbs

The final use of the present participle to be discussed is as a syntactically finite verb, *i.e*. as the predicate of a clause in which it "has a position such, that it seems to serve as a finite form and can be replaced – without any other changes being made in the sentence – by a finite form" (Eklund 1970: 119; see also Hofmann & Szantyr 1965: 389-390).[81] One of the oldest instances of this type of present participles is *attolentia* 'lifting up' (168), used in coordination with the morphologically finite verb *signatur* 'it is marked' (Hofmann & Szantyr 1965: 389; Eklund 1970: 140).[82]

[80] The present participle and the infinitive do not compete when the perception verb has a cognitive instead of a sensory value. In this case, only the infinitive can be used (Riemann 1886[7]: 469-470; Kühner & Stegmann 1914[5]: 703-704; Hofmann & Szantyr 1965: 387-388; Maraldi 1980: 47-48, 51; Pinkster 1990: 131; Greco 2013: 179-180).
[81] Marouzeau (1910: 29) might have this use of the present participle in mind when stating that "*[I]l arrive même chez Varron que le participe contienne un énoncé de même nature et de même importance que le verbe principal, et qu'il ait ainsi la valeur d'une nouvelle proposition principale*". However, the only example cited by him should be taken as a specific type of conjunct adjunct present participles, namely a secondary focus participle (*cf.* Galdi & Vangaever 2019: 106, 110).
[82] This example dates from the 1st c. AD and is used by the poet Statius. Until at least the 2nd c. AD, the few instances of syntactically finite present participles mostly occur in poetry (Hofmann & Szantyr 1965: 389). This raises the question whether the finite use of the present participle is 'natural' in this period or the mere result of poetic syntactic liberty. The oldest instance of a syntactically finite present participle is used by the 1st c. BC poet Propertius (Hofmann & Szantyr 1965: 389).

(168) *[...] omnia* *nam laetas* *pila* ***attolle-nt-ia***
all.NOM.N.PL for joyous.ACC.F.PL spear.NOM.N.PL lift_up-PTCP.PRS-NOM.N.PL
frondes *nulla=que* *famosa* *signatur*
leaves.ACC.F.PL no.NOM.F.SG=and infamous.ABL.F.SG mark.PRS.PASS.3SG
lancea *penna.*
lance.NOM.F.SG feather.ABL.F.SG
'For all spears lift up joyous leaves and no lance is marked with an infamous feather.' (Stat. *silv*. 5.1.92)

From the 2nd c. AD onward, the syntactically finite use of the present participle becomes slightly more frequent, especially in substandard varieties and in religious texts (Hofmann & Szantyr 1965: 389; Eklund 1970: 117-205 *passim*). As an example, consider the form *facientes* 'they do' (169).

(169) *Qui* *ergo* *extra* *voluntatem* *illius* ***facie-nt-es***
REL.NOM.M.PL so without consent.ACC.F.SG DEM.GEN.M.SG do-PTCP.PRS-NOM.M.PL
quid *morem* *debitam* *habent.*
INDF.ACC.N.SG death.ACC.F.SG be_due.PTCP.PST.ACC.F.SG receive.PRS.3PL
'So those who do something without his consent receive a due death.' (Clem. *ad Cor*. 41.3)

The use of the present participle as a finite verb is in fact controversial. Due to its rareness in Classical Latin and to the complexity of the scientific debate, its discussion will be held with respect to Late Latin in Chapter 2 (§2.1.2.2.2.3.3). For now, it is important to mention that finiteness is not a morphological property of a verb, as has long been claimed, but a morphosyntactic property of a clause that is reflected on the morphology of a verb only in the second place (Givón 1990: 853; Bisang 2001: 1400; Nikolaeva 2010: 1178-1179). This is particularly clear when looking at the morphology of verbal nouns in Northern Khanty: in this language, verbal nouns inflect for person and number in complement and adverbial clauses (e.g. (170)), but not in relative clauses (e.g. (171)) (Nikolaeva 2007: 2).

(170) *Ma* *xo:t* *we:r-m-e:m* *jupina* *[...].*
I house make-NMLS.1SG after
'After I built the house (...).' (Nikolaeva 2007: 2)

(171) *Ma* *we:r-əm* *xo:t-e:m* *[...].*
I make-NMLS house-1SG
'The house I built (...).' (Nikolaeva 2007: 2)

In other words, in Northern Khanty verbal nouns are not inherently marked or unmarked for person and number, but in function of the syntactic configuration in which they are used (Nikolaeva 2007: 2). This and similar observations in other languages, such as Old Neapolitan (e.g. Vincent 1998: 141), indicate indeed that finiteness is a clausal rather than a verbal property (Givón 1990: 853; Bisang 2001: 1400; Nikolaeva 2010: 1178-1179). It is for this reason that this final use of the present participle will be

referred to in this thesis as '**syntactically** finite' – morphologically speaking, the present participle remains non-finite).

1.3.2.2.8. External syntactic profile of the present participle

As shown in the previous sections, the external syntax of the present participle in Classical Latin is diverse: it can (i) occur in adnominal phrases, subject predicates, object predicates, and adjuncts; (ii) act as the main verb of a progressive or presentative progressive construction; and (iii) be used syntactically as a finite verb. It is well known that these uses are not equally frequent, but no corpus studies have been performed to quantify their exact relative frequency, as in the case of the gerund. In order to fill this gap and to provide a point of comparison for the empirical investigation of Late Latin that will be conducted in the second part of this thesis, I carried out a quantitative study of the external syntax of the present participle in a Classical Latin corpus at the beginning of my doctoral research. I used the same corpus as for the study of the external syntax of the gerund (see §1.2.2.2.6), and reported the results in the same paper, *i.e.* Vangaever (2018). Like the gerunds, the present participles occurring in this corpus have been retrieved automatically using the interface of the LASLA database (recall that the texts included in this database are morphosyntactically annotated). From the 2 013 forms selected have been manually discarded all present participles used as the head of a NP (n=221). The remaining 1 792 instances have been manually annotated for several parameters, among which their syntactic use is most relevant here. Before discussing the frequency of the various uses of the present participle in this Classical Latin corpus, two rectifications of my 2018 qualitative analysis be made.

(i) The Classical Latin corpus contains six present participles built on the verb *audire* 'to hear' and combined with a form of the verb *esse* 'to be' and the ablative noun *dictu* 'word, order' (172). These forms are analysed as the main verb of a progressive construction in Vangaever (2018: 29-30), but should be taken instead as a constitutive part of a more or less lexicalised verbal expression meaning 'to obey the order of someone' (Gaffiot 1934: 187).

(172) *Quo* *nuntio* *perterritus* *discessit* *et* *dicto*
REL.ABL.N.SG message.ABL.N.SG frighten.PTCP.PST.NOM.M.SG leave.PST.3SG and order.DAT.N.SG
audie-ns *fuit* *regi.*
hear-PTCP.PRS.NOM.M.SG be.PST.3SG king.GEN.M.SG
'Frightened by this message, he left and obeyed the king's order.' (*Bell. Afr.* 57.3)

Since lexicalised verbal expressions will be discarded from the dataset of this thesis (see §3.4), the six forms used in the verbal expression *dictu audiens esse* 'to obey the order of someone' will be excluded from the results that will reported here (as for the three instances of the gerund *solvendo* 'to pay' used in the expression *solvendo esse* 'to be solvent'; see §1.2.2.2.6).

(ii) The second rectification concerns 37 present participles combined with a perception verb and a NP (e.g. *sedentem* ‘sitting’ (173)). In Vangaever (2018: 26-27), these forms are analysed as object predicates, in line with the analysis of the corresponding forms in the grammatical tradition of French (e.g. Buridant 2000: 327, 2019: 467 for Old French; Halmøy 2013: 279-280 for Modern French). In this study, these instances are taken as the main verb of a presentative progressive construction, at least when the sensory value of the perception verb is backgrounded in favour of a presentative function (see §1.3.2.2.6).

(173) *[...] in quibus eo usque se praebebat*
in REL.ABL.N.PL by_that_degree always REFL.ACC.M.SG prove.PST.3SG
patientem atque impigrum, ut eum nemo
be_patient.PTCP.PRS.ACC.M.SG and active.ACC.M.SG that DEM.ACC.M.SG nobody.NOM.M.SG
umquam in equo ***sede-nt-em*** *viderit.*
ever in horse.ABL.M.SG sit-PTCP.PRS-ACC.M.SG see.SBJV.PST.3SG
‘In these things he always proved himself patient and active by that degree that nobody ever saw him sitting on a horse.’ (Cic. *Verr*. 6.27)

In view of these rectifications, the number of forms on which the quantitative analysis of the external syntax of the present participle in Classical Latin should be based corresponds to 1 786 instead of 1 792, and includes 37 instances used as the main verb of a presentative progressive construction. In this thesis, the quantitative results reported in Vangaever (2018) will be adjusted in the light of these two rectifications. Due to the large size of the original dataset, this adjustment has a negligible impact on the overall tendencies.

The adjusted inventory and relative frequency of the different uses of the present participle in this Classical Latin corpus is provided in Figure 1.5. This figure shows what will hereafter be referred to as ‘the external syntactic (or distributional) profile of the Classical Latin present participle’.

Figure 1.5. External syntactic profile of the present participle in Classical Latin (based on Vangaever 2018)

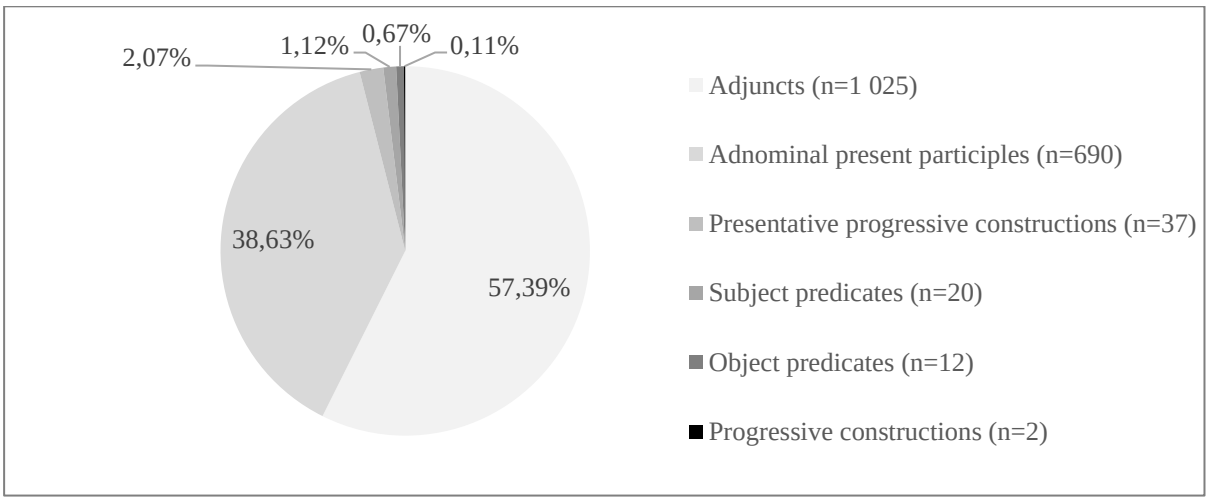


Figure 1.5 shows that the Classical Latin present participle is mostly used in adjuncts (57%). Hence, it could be considered specialised in this use, as claimed by Laughton (1964: 20). However, the proportion of adjunct present participles is not exceptionally high, especially not in comparison with the adnominal forms (39%). Thus, the specialisation of the present participle in adjuncts should be relativised. What is most relevant in Figure 1.5 is that the two dominant uses of the present participle jointly represent 96% of all forms, and that its remaining uses are thus extremely rare. The absence of present participles used syntactically as finite verbs confirms their extreme rareness at this stage of the language.

As in the case of the gerund, however, the external syntactic profile of the present participle varies depending on its case form. Since the present participle is assigned case through agreement with a noun, this variation is nonetheless less relevant. It appears that nominative and ablative forms mostly occur in adjuncts, while accusative, genitive, and dative forms are chiefly used in adnominal phrases (Vangaever 2018: 25).[83] The fact that nominative and ablative present participles more often occur in adjuncts than accusative, genitive, and dative forms has to do with the reference of their subject: the subject of adjuncts is mostly either coreferential with the subject of the main clause or not coreferential with any constituent of this clause. Since the nominative is the default marking in the former scenario and the ablative in the latter, it is only logical that most adjunct present participles stand in the nominative or ablative.

1.3.3. Morphosyntactic profile of the present participle

After having examined the morphological and syntactic properties of the present participle, I will in this section establish its morphosyntactic profile. This profile will be obtained by mapping its external syntactic profile on the morphosyntactic categories of Classical Latin. In this mapping, I will also take into account the morphological properties of the present participle. As noted in §1.3.1, these properties combine verbal and adjectival features.

Depending on their syntactic use, present participles can be divided in three distinct groups: adnominal, subject predicate, and object predicate present participles perform a syntactic function characteristic of an adjective, while adjunct present participles have the prototypical function of an adverb (Haspelmath 1995: 4; Nedjalkov 1998: 421-422; Ylikoski 2003: 228). As for the forms used in a progressive or presentative progressive construction, they can in principle be mapped on two categories. From a diachronic point of view, they should be mapped on the adverb, because they historically derive from forms heading an adjunct phrase. However, from a synchronic perspective, they should be mapped on the verb, because they serve as the semantic and syntactic main verb of a construction in which another verb form is more or less grammaticalised as either a progressive or a

[83] Within the group of conjunct adjunct forms, the "nominative present participle shows an overwhelming preponderance over the oblique cases" (Laughton 1964: 31; see also Marouzeau 1919: 13, 22-23).

presentative marker. The synchronic analysis of these participles is most appropriate, and hence they will be mapped on the category of the verb. With respect to syntactically finite present participles, they are obviously mapped on the verb.

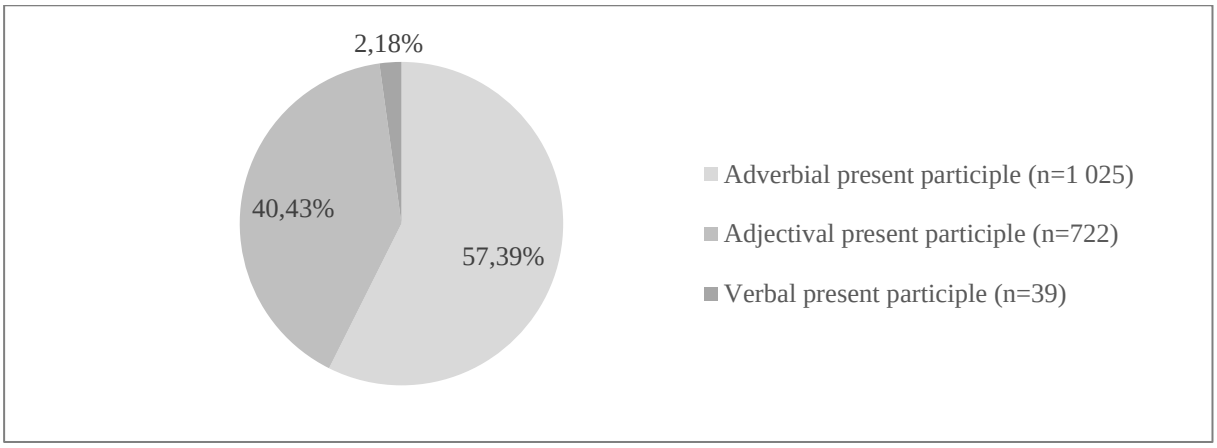
Depending on whether the present participle has the external syntax of an adjective, an adverb, or a verb, a distinction can thus be made between respectively 'adjectival present participles', 'adverbial present participles', and 'verbal present participles'. This distinction is absent from the grammatical tradition of (Classical) Latin, but will be used throughout this thesis to facilitate the description and analysis of (the evolution of) the present participle.[84] The mapping of the various uses of the present participle on the morphosyntactic categories of Classical Latin is synthesised in Table 1.6.

Table 1.6. Mapping of the uses of the present participle on the morphosyntactic categories of Classical Latin

Morphosyntactic category	**Use of the present participle**
Adjective	Adnominal
	Subject predicate
	Object predicate
Adverb	Adjunct
Verb	Main verb of a progressive construction
	Main verb of a presentative progressive construction
	Syntactically finite

The morphosyntactic profile of the present participle can be obtained by calculating the relative frequency of adjectival, adverbial, and verbal present participles in a given corpus. Based on its external syntactic profile in Figure 1.5, the morphosyntactic profile of the Classical Latin present participle is presented in Figure 1.6.

Figure 1.6. Morphosyntactic profile of the present participle in Classical Latin (based on Vangaever 2018)



[84] Laughton (1964: 20-45) also uses the term 'adverbial present participle', but restricts it to conjunct forms having a semantic value other than their default temporal value.

In Classical Latin, the present participle has most often adverbial external syntax (57%). However, it also frequently displays adjectival external syntax (40%).[85] Its use with verbal external syntax is extremely rare (2%). However, a distinction should again be made between the case forms of the present participle: nominative and ablative forms predominantly have adverbial external syntax, in line with their dominant use in adjuncts, whereas accusative, genitive, and dative forms mostly have adjectival external syntax (Vangaever 2018: 25).

1.3.4. Typological profile of the present participle

This final section will establish the typological profile of the present participle in Classical Latin. As in the case of the gerund, this profile is obtained by mapping the morphosyntactic profile of the Classical Latin present participle on Haspelmath's (1995: 4) typology of non-finite verb forms. Recall that this author distinguishes three cross-linguistically recurrent types of non-finite verb forms: (i) masdars, *i.e.* forms displaying nominal external syntax; (ii) converbs, *i.e.* forms with adverbial external syntax; and (iii) participles, *i.e.* forms showing adjectival external syntax. In this typology, the Classical Latin adverbial present participle falls under the converb type and the adjectival present participle under the participle type. The verbal present participle does not belong to any of these types (at least not from a synchronic point of view), and will therefore be left out from the following discussion. Since it can have the external syntax of the prototypical members of three distinct categories, the Classical Latin present participle holds as a 'tri-functional category of non-finite verb forms' (*cf.* Nedjalkov 1995: 105).

Based on the results shown in Figure 1.6, the Classical Latin present participle is strongly related to the converb type (57%). Its association with the participle type is less strong (40%), but the difference is relatively modest. Contrary to what could be expected on the basis of its language-specific label, the link of the Classical Latin present participle with the cross-linguistically recurrent participle type is thus relatively weak. This demonstrates the potentially misleading character of language-specific labels in comparative linguistics and linguistic typology, and, as a corollary, the interest of using language-independent comparative concepts in these fields (Haspelmath 2010: 665; Lehmann 2018a: 33). The same applies to diachronic linguistics, since this discipline can be conceived of as a particular type of comparative linguistics.

[85] According to Palmer (1964: 325), the adverbial present participle is less frequent than the adjectival present participle in the earliest texts. This might well be, but since he does not provide quantitative evidence, this claim should be taken with caution. The same holds for Hofmann & Szantyr's claim (1965: 383) that in substandard varieties from the earliest period onward, the present participle decreasingly has adverbial external syntax (see also Horn 1918: 4). With respect to the standard varieties, Hofmann & Szantyr (1965: 384) state that the use of the present participle "*geht ihren eigenen Weg*", but they do not explicate what they mean by this nor how these varieties differ from the substandard language (their remarks following this citation concern moreover the internal syntax of the present participle instead of its external syntax).

Remember that Haspelmath's (1995: 4) typology of non-finite verb forms is handled in this study as a comparative tool, *i.e.* a set of language-independent comparative concepts serving to describe the use of the present participle in Classical Latin in a grammatically unbiased way (Haspelmath 2010: 665; Lehmann 2018a: 33).[86] The labels 'masdar', 'converb', and 'participle' are thus intended as purely functional labels, *i.e.* deprived of any kind of formal and language-specific content (Haspelmath 2010: 665; Lehmann 2018a: 33). In spite of its strong link with Haspelmath's (1995: 4) converb type, the Classical Latin present participle can therefore not be described *as* a converb. In other words, it cannot be asserted that it *is* a converb. The Classical Latin present participle *is* nothing but the Classical Latin present participle, *viz.* a language-specific category of non-finite verb forms with a unique set of morphological and syntactic properties and an equally unique morphosyntactic profile.

1.4. Functional competition between the gerund and the present participle

Sections 1.2 and 1.3 have explored the morphological and syntactic properties of the gerund and the present participle in Classical Latin and established their external syntactic, morphosyntactic, and typological profiles. The aim of the final section of this chapter is to compare the main morphological and syntactic properties of the two types of non-finite verb forms in Classical Latin, and to determine to which extent they are in functional competition at this stage of the language. This section serves as the conclusion of this chapter.

The morphological and syntactic properties of the gerund and the present participle partly overlap. From a morphological perspective, they are both built on the present stem of a verb, but to this stem are attached different morphemes: the gerund contains the infix *-nd-* and one of the endings of the second declension neuter singular nouns, while the present participle contains the infix *-nt-* and one of the endings of the third declension adjectives. Since the gerund has a nominal ending and the present participle an adjectival ending, the morphology of the gerund displays verbal and nominal features, while that of the present participle combines verbal and adjectival properties.

From a syntactic point of view, a distinction needs to be made between the internal and the external syntax of the gerund and the present participle. Their internal syntactic properties are similar: they both have mostly verbal internal syntax, but can nonetheless show the internal syntax of a nominal category (of a noun in the case of the gerund and of an adjective in the case of the present participle). At this stage of the language, present participle phrases with a high degree of internal syntactic complexity are more frequent than their gerund counterparts. This is mainly due to the fact that gerund

[86] As in the case of the gerund, this strategy paves the way for a grammatically unbiased comparison of the use of the present participle in the different Romance languages, both from a diachronic and from a synchronic point of view.

phrases containing an explicit direct object are usually avoided in favour of NPs including a personal gerundive.

With respect to their external syntax, it corresponds to that of a noun or an adverb in the case of the gerund, but to that of an adjective, an adverb, or a verb in the case of the present participle. The external syntax of the two types of non-finite verb forms thus partly overlaps, in that they can both occur in adjuncts. However, this external syntactic overlap has more of a semantic complementary distribution than of a full-fledged functional competition, since the adverbial gerund and the adverbial present participle are specialised in different semantic values (Vester 1983: 125; Kooreman 1989: 219; Adams 2013: 725-726; Galdi & Vangaever 2019: 100-108). For instance, prepositional accusative, prepositional and bare genitive, and dative gerunds predominantly express the purpose of the main state of affairs (Kühner & Stegmann 1914[5]: 731-732, 742; Aalto 1949: 60-64, 86-87; Hofmann & Szantyr 1965: 376-377; Menge *et al*. 2000: 737; Pinkster 2021: §16.100), and bare ablative gerunds mostly express the manner of the main state of affairs, the means by which it is realised, or the state of affairs by which it is unintentionally brought about (Kühner & Stegmann 1914[5]: 751-752; Lyer 1932: 223-226, 382-384; Aalto 1949: 65-68; Ernout & Thomas 1951: 266; Palmer 1964: 324; Hofmann & Szantyr 1965: 379; Vester 1983: 101-120; Kooreman 1989: 221; Menge *et al.* 2000: 740-741; Adams 2013: 725; Pinkster 2021: §16.101). By contrast, present participles typically have a temporal value of simultaneity or a pragmatically inferred value overriding this temporal value, such as condition or concession (Laughton 1964: 20-38; Vester 1983: 121-125; Galdi & Vangaever 2019: 103-106).

However, the semantic complementary distribution between the adverbial gerund and the adverbial present participle is a tendency rather than a rule. On the one hand, the adverbial gerund sometimes has a semantic value characteristic of the adverbial present participle (Marouzeau 1910: 79; Löfstedt 1911: 159; Kühner & Stegmann 1914[5]: 751-753; Lyer 1932: 222, 384-389; Aalto 1949: 65-66, 68-70; Ernout & Thomas 1951: 266-267; Palmer 1964: 324; Hofmann & Szantyr 1965: 379-380; Scherer 1975: 93; Vester 1983: 112-120; Menge *et al.* 2000: 741; Adams 2013: 725-740; Vincent 2016: 45; Galdi & Vangaever 2019: 100-103; Pinkster 2021: §21.14). This holds in particular for the bare ablative gerund (see §1.2.2.2.5). Witness (76), repeated below, where the coordinated forms *ornando* ‘cheering’ and *celebrando* ‘celebrating’ express the circumstances accompanying the main state of affairs, or (174), in which *erumpendo* ‘bursting out’ anchors the main state of affairs in time. Both of these temporal values are typically expressed by adjunct present participles (see §1.3.2.2.2.4).

(76) *[...]* *vestrum* *egressum* ***orna-nd-o*** *atque* ***celebra-nd-o*** *[...]*
your.ACC.N.SG departure.ACC.N.SG cheer-GER-ABL and celebrate-GER-ABL
prosequebantur.
escort.PST.3PL
‘They escorted your departure while cheering and celebrating.’ (Cic. *Pis.* 3)

(174) *Ita* ***erumpe-nd-o*** *navis* *[...]* *incendunt.*
so burst_out-GER-ABL ship.ACC.F.PL burn.PRS.3PL
'So, as they burst out, they burn the ships.' (*Bell. Hisp*. 36.3)

This latter value is also the default value of ablative gerunds governed by the preposition *in* 'in', like *redeundo* 'returning' (175) (Kühner & Stegmann 1914[5]: 753; Menge *et al.* 2000: 738; Pinkster 2021: §16.102).

(175) *[...]* *in* ***redeu-nd-o*** *[...]* *succubuit* *[...].*
in return-GER-ABL succumb.PST.3SG
'He succumbed as he was returning.' (Suet. *Aug*. 2.98.5)

On the other hand, the adverbial present participle sometimes has a semantic value characteristic of the adverbial gerund (Marouzeau 1910: 27, 79; Lyer 1932: 222, 384; Woodcock 1959: 73; Laughton 1964: 21, 25-26; Vester 1983: 123-125; Adams 2013: 725; Galdi & Vangaever 2019: 103-106).[87] For example, *haec et multa eius modi dicens* 'saying these and similar things' (176) specifies the means by which the main state of affairs is realised. This value is typically expressed by bare ablative gerunds.

(176) *Haec* *et* *multa* *eius* *modi* ***dice-ns***
DEM.ACC.N.PL and many.ACC.N.PL DEM.GEN.M.SG manner.GEN.M.SG say-PTCP.PRS.NOM.M.SG
fidem *faciebat* *[...].*
trust.ACC.F.SG make.PST.3SG
'By saying these and many similar things he gained trust.' (Cic. *Brut*. 197)

These and similar instances unambiguously show that, despite their specialisation in different semantic values, the adverbial gerund and the adverbial present participle compete with each other already at this stage of the language (Marouzeau 1910: 78-80; Kühner & Stegmann 1914[5]: 752-753; Aalto 1949: 65, 69-70; Scherer 1975: 93; Kooreman 1989: 221; Menge *et al.* 2000: 741; Adams 2013: 725-740; Galdi & Vangaever 2019: 100-108; Pinkster 2021: §21.7). Recall in this respect that the use of bare ablative gerunds with a temporal value is more characteristic of substandard than of standard varieties, but that unambiguous instances of these forms are nonetheless found in standard varieties from the earliest texts onward (Kühner & Stegmann 1914[5]: 752-753; Ernout & Thomas 1951: 267; Tränkle 1960: 14; Fedeli 1980: 72-73; Wackernagel & Langslow 2009: 352; Haverling 2010: 369; Adams 2013: 725-740; Vangaever 2018: 12-14; Galdi & Vangaever 2019: 100-103, 106-107; Pinkster 2021: §21.14).

Clear evidence of the competition between the adverbial gerund and the adverbial present participle is provided by instances like (177). In this example, the gerund clause *incruentam et sine luctu*

[87] Laughton (1964: 25-28) describes such present participles as 'gerundial', leading to formulations like "the gerundial present participle is not very frequent in the writing of Cicero's maturity'(p. 26). Such descriptions mix up form and function, and easily lead to terminological confusion. They should be avoided at any cost.

victoriam et alia huiusce modi praetexendo ‘pretending a victory without blood or sorrow and other things of this kind’ and the present participle clause *omne belli decus sibi retinens* ‘keeping all glory of war for himself’ are coordinated as the temporal adjuncts of the state of affairs denoted by *monebat* ‘he warned’. Thus, they are both used with the typical semantic value of the adverbial present participle (Vester 1983: 130-131; see also Aalto 1949: 69; Adams 2003: 748).

(177) *Eadem Mucianus crebris epistulis monebat,*
same.ACC.N.PL Mucianus.NOM.M.SG frequent.ABL.F.PL letter.ABL.F.PL warn.PST.3SG
incruentam et sine luctu victoriam et alia
without_blood.ACC.F.SG and without sorrow.ABL.M.SG victory.ACC.F.SG and other.ACC.N.PL
huius=ce modi ***praetexe-nd-o****, sed gloriae avidus*
DEM.GEN.M.SG=DEM manner.GEN.M.SG pretend-GER-ABL but fame.GEN.F.SG eager.NOM.M.SG
atque omne belli decus sibi ***retine-ns****.*
and all.ACC.N.SG war.GEN.N.SG glory.ACC.N.SG REFL.DAT.M.SG keep-PTCP.PRS.NOM.M.SG
‘Mucianus warned for the same things in many letters, pretending (to wish) a victory without blood and sorrow and other things of this kind here, but (actually being) eager of fame and keeping all glory of war for himself.’ (Tac. *hist.* 3.8.3)

Coordination of adverbial gerunds and present participles is also possible with a semantic value characteristic of the former. Witness (178): the present participle clause *vetustissimum quemque militum nomine vocans* ‘by addressing any old soldier by name’ and the bare ablative gerund clause *contubernalis appellando* ‘by calling (them) messmates’ serve as the instrument adjuncts of the state of affairs denoted by *adfectaverat* ‘he had desired’ (Vester 1983: 131; see also Aalto 1949: 69; Adams 2003: 748).

(178) *[...] studia militum [...] adfectaverat [...] vetustissimum*
enthusiasm.ACC.N.PL soldier.GEN.M.PL aspire.PST.3SG oldest.ACC.M.SG
quemque militum nomine ***voca-ns*** *ac [...]*
any.ACC.M.SG soldier.GEN.M.PL name.ABL.N.SG address-PTCP.PRS.NOM.M.SG and
contubernalis ***appella-nd-o*** *[...].*
messmate.ACC.M.PL call-GER-ABL
‘He had aspired the enthusiasm of the soldiers by addressing any of the oldest soldiers by name and by calling them messmates.’ (Tac. *hist.* 1.23.1)

Two final remarks should be made about the competition between the adverbial gerund and the adverbial present participle.

(i) While the adverbial gerund and the adverbial present participle are often equivalent from a semantic point of view, there is an important syntactic difference between them. Indeed, the present participle is often used with an explicit direct object, whereas gerunds governing such an object are typically

replaced by NPs containing a personal gerundive. Therefore, in contexts where the non-finite head of an adjunct governs a direct object, the present participle is much more common than the gerund (Laughton 1960: 28). Consequently, the competition between the two forms mainly applies to phrases with a low degree of internal syntactic complexity. However, this too is a tendency rather than a rule, as evidenced by the coordination of the syntactically complex gerund clause *incruentam et sine luctu victoriam et alia huiusce modi praetexendo* 'pretending a victory without blood and sorrow and other things of this kind' and the more or less equally complex present participle clause *omne belli decus sibi retinens* 'keeping all glory of war for himself' (177). Anyhow, it is clear that the competition between the adverbial gerund and the adverbial present participle is not independent from that between the gerund and NPs containing a personal gerundive. As we will see in the following chapter, the relation between these two competitions plays an important role in the evolution of the gerund and the present participle in Late Latin.

(ii) The second remark relates to the scope of the competition between the gerund and the present participle. In the literature, discussions of this competition usually focus on the bare ablative gerund and, since the subject of this form is mostly coreferential with that of the main verb (Aalto 1949: 78; Vester 1983: 103; Kooreman 1989: 220; Adams 2013: 736; Pinkster 2021: §14.12, §21.14), the nominative present participle. However, the competition between the gerund and the present participle is not restricted to these forms. For instance, ablative gerunds governed by *in* 'in' (e.g. *redeundo* 'returning' (175)), may compete with nominative present participles to situate the main state of affairs in time, just like bare ablative gerunds (e.g. *erumpendo* 'bursting out' (174)). And nominative present participles may express the purpose of the main state of affairs, just like prepositional accusative, prepositional and bare genitive, and dative gerunds (Kühner & Stegmann 1914[5]: 757, 777; Laughton 1964: 30-31; Hofmann & Szantyr 1965: 387). Witness the clause *quarum oblivionem quaerens* 'pursuing the oblivion of this (misery)' (179).

(179) *[...] incurro* *in* *memoriam* *communium* *miseriarum,* *quarum*
run_into.PRS.1SG in memory.ACC.F.SG common.GEN.F.PL misery.GEN.F.PL REL.GEN.F.PL
oblivionem ***quaere-ns*** *hunc* *[...]* *sermonem*
oblivion.ACC.F.SG pursue-PTCP.PRS.NOM.M.SG DEM.ACC.M.SG discussion.ACC.M.SG
produxi *[...].*
spin_out.PST.1SG
'I run into the memory of our common misery, the oblivion of which I pursued by spinning out this discussion.' (Cic. *Brut.* 251)

The focus on bare ablative gerunds and nominative present participles in discussions of the functional competition between the gerund and the present participle has mainly a historical explanation. As we will see in the following chapter, in Late Latin the competition between the adverbial gerund and the adverbial present participle gains in intensity and also starts settling in a

way that is crucial for the evolution of the gerund and the present participle as a whole. The forms that play a central role in this intensifying competition are the ablative gerund and the nominative present participle. Thus, the historical interest of these forms has been retrospectively projected on their functional competition at earlier stages of the languages.

With respect to the central topic of this thesis, it is worth emphasising that the competition between the gerund and the present participle in Classical Latin does not raise a categorial problem. Indeed, since the two types of non-finite verb forms are morphologically distinct, instances occurring in adjuncts can always be categorised as gerunds or present participles with absolute certainty. That is to say, the functional competition between the gerund and the present participle does not blur the categorial distinction between them. As we will see in the following chapter, this also holds for Late Latin, but not for Old French.

Chapter 2. The gerund and the present participle from Late Latin to Old French

The preceding chapter has investigated the morphological and syntactic properties of the gerund and the present participle in Classical Latin, and examined to which extent these two types of non-finite verb forms compete with each other and with other types of non-finite verb forms at this stage of the language. This second chapter will deal with the gerund and the present participle in Late Latin, taken as the period between the 3rd and the 10th c. AD.[1]

It is commonly claimed that the morphological properties of the gerund and the present participle in Late Latin remain relatively stable, while their syntactic properties drastically change. These syntactic changes are held to take mainly place in the light of the functional competition between the gerund and the infinitive (Aalto 1949: 73; Elcock 1960: 111; Harris 1978: 198-199; Bauer 1993), on the one hand, and between the gerund and the present participle (Aalto 1949: 73; Elcock 1960: 111; Väänänen 1963³: 140; Harris 1978: 200; Kooreman 1989; Bauer 1993; Maraldi 1994; Adams 2003: 748-749, 2013: 725-740; Pinkster 2021: §21.14), on the other. These competitions are argued to gain in intensity and to start settling in a way that radically distinguishes the use of the gerund and the present participle in Late Latin from their use in Classical Latin. The settling of these competitions is considered part of a much more general evolution, namely the restructuring of the system of non-finite verb forms (Elcock 1960: 110-119; Harris 1978: 195-203; Bauer 1993: 59, 2005). This restructuring is not limited to Late Latin, but takes instead place on an Indo-European scale (*cf.* Bichakjian 1988a, 1988b; Bauer 1993). In the transition from Late Latin to Old French, this restructuring of the system of non-finite verb forms is partly compromised due to morphological and phonetic evolutions affecting the endings of the gerund and the present participle. These evolutions suspend the definitive settling of the functional competition between these two forms (Ménard 1973: 170; Harris 1978: 200; Arnavielle 1984: 40; Vincent 1988: 47; Jensen 1990: 322; Buridant 2000: 237, 2019: 343; Wackernagel & Langslow 2009: 352 fn. 15; Bazin-Tacchella 2020: 852), and also challenge their categorial distinction (Ménard 1973: 169; Adams 2013: 749; De Smet 2014: 39-40; Bazin-Tacchella 2020: 852). The developments in question particularise Old French among the other Old Romance languages (Elcock 1960: 111; Harris 1978: 200; Vincent 1988: 47; Wackernagel & Langslow 2009: 352 fn. 15; Adams 2013: 726).

The aim of this chapter is to explore the evolution of the morphological and syntactic properties of the gerund and the present participle from Late Latin to Old French. The evolution of their syntactic properties will be mainly examined in the light of their mutual functional competition and that between

[1] As mentioned in §1.1 (fn. 1), Late Latin is often defined as the period between 200 and 600 AD (e.g. Haverling 1988: 20-23; Cuzzolin & Haverling 2009; Pinkster 2015: 5). Banniard (2018: 29) extends this period to 900, but in this thesis, the 10th c. will also be included. In the empirical part, three sub-periods of Late Latin will be distinguished, namely Imperial Latin (3rd-5th c.), Merovingian Latin (6th-7th c.), and Early Medieval Latin (8th-10th c.).

the gerund and the infinitive. As in the preceding chapter, attention will also be paid to other competitors of the gerund and the present participle, without however devoting an in-depth analysis to them. The investigation of the existing knowledge about the evolution of the gerund and the present participle from Late Latin (§2.1) to Old French (§2.2) will allow formulating the research questions of this thesis (§2.3).

2.1. The gerund and the present participle in Late Latin

The examination of Late Latin will focus first on the gerund (§2.1.1), and then on the present participle (§2.1.2). I will also discuss their main changes in the transition from Late Latin to Romance. Evolutions characteristic of the transition from Late Latin to Old French will be explored in §2.2, along with those taking place within the period of Old French.

2.1.1. The gerund

This section will investigate the morphological (§2.1.1.1) and syntactic (§2.1.1.2) changes of the gerund in Late Latin, and determine their impact on its morphosyntactic (§2.1.1.3) and typological (§2.1.1.4) profiles.

2.1.1.1. Morphological changes of the gerund

Globally speaking, the morphological properties of the gerund remain stable between Classical and Late Latin. However, two evolutions can be observed. The first change affects the forms of verbs of the fourth and fifth conjugations, having the present stem ending *-ie* (Elcock 1960: 111). Possibly under influence of the infinitive in *-ire* (e.g. *audire* 'to hear'), this ending comes to be gradually replaced by *-i*. The latter is preserved in Portuguese, Gascon, Catalan, and Sardinian, but lost in all other Romance languages.[2] These languages have generalised *-a* and *-e*, which correspond to the present stem endings of the verbs of respectively the first and second/third conjugations.[3] The general trend in Late Latin thus consists of the generalisation of *-and-* (e.g. *cantando* 'singing') and *-end-* (e.g. *delendo* 'destroying') at the expense of *-iend-*/*-ind-* (e.g. *moriendo* 'dying'). As we will see in §2.2.1, Old French further generalised one of these endings (Ernout & Thomas 1951: 267; Elcock 1960: 111; Väänänen 1963[3]: 141; Bazin-Tacchella

[2] Traces of *-i* nonetheless persist in other Romance languages, like Piedmontese (e.g. *drumint* 'sleeping') (Elcock 1960: 111).
[3] These two endings are preserved in Portuguese, Gascon, Catalan, and Sardinian along with the ending *-i* (Elcock 1960: 111). Castilian preserved *-a*, while *-e* evolved to *-ie* (e.g. *escribiendo* 'writing' instead of **escribendo*) (Elcock 1960: 111).

2020: 853). This development toward one single ending also takes place in some contemporary Italian dialects: *-and-* generalises in northern dialects and *-end-* in southern ones (Elcock 1960: 111).

The second morphological evolution of the gerund involves the accusative gerund. In contrast with Classical Latin, where this gerund is always prepositional, in Late Latin it can also be bare (Aalto 1949: 86; Hofmann & Szantyr 1965: 378; Bauer 1993: 67; Pinkster 2015: 305, 2021: §15.137-§15.138, §16.100).[4] Bare accusative gerunds can be used in different types of constituents, among which purpose adjuncts (e.g. *ambulandum* 'to walk' (1)) (Odelstierna 1926: 32-42; Aalto 1949: 86; Hofmann & Szantyr 1965: 379; Pinkster 2021: §16.100) and verb complements (e.g. *prilium committendum* 'to engage in battle' (2)) (Odelstierna 1926: 43-56; Aalto 1949: 86; Hofmann & Szantyr 1965: 378; Pinkster 2021: §15.138).

(1) *Deinde* *ambulet* *et* *alio* *die* ***ambula-nd-um*** *ducere* *[...].*[5]
then walk.SBJV.PRS.3SG and other.ABL.M.SG day.ABL.M.SG walk-GER-ACC bring.INF.PRS
'Then he should walk, and the following day (too) you should bring (him) to walk.' (Chiron 133)

(2) *Theubertus* *[...]* *prilium* *vellens* ***committe-nd-um***
Theudebertus.NOM.M.SG battle.ACC.N.SG wish.PTCP.PRS.NOM.M.SG engage-GER-ACC
adgreditur.
attack.PST.3SG
'As he wished to engage in battle, Theubertus attacked.' (Fredeg. *chron*. 4.37)

According to Pinkster (2021: §16.100), the emergence of the bare accusative gerund is to be seen within the light of the increasing "confusion between the functions of the present infinitive and the gerund" (see also Hofmann & Szantyr 1965: 379). In Late Latin, the functional competition between the gerund and the infinitive becomes more intense (see §2.1.1.2.2). This intensifying functional competition might have indeed an impact on the morphology of the two types of non-finite verb forms, all the more because they are in a relation of morphological complementarity (the gerund holds as the suppletive form of the infinitive; see §1.2.1). In contexts where the prepositional gerund competes with the bare infinitive, such as verb complements and purpose adjuncts, their rising functional confusion might cause some gerunds to be marked analogically to their bare infinitive counterpart (e.g. *committendum* 'to engage' instead of *committere* 'to engage' in (2)) – the concept of analogy is to be understood as "the exchange of features between expressions on the basis of a (partial) similarity" (De Smet 2014: 35-36).[6] Put differently, the

[4] Remember that some authors recognise the existence of a bare accusative gerund also in Classical Latin (Aalto 1949: 82-86; Blümel 1979: 86; Bauer 1993: 67). However, this analysis is controversial, since most scholars analyse the *-ndum* forms in issue as impersonal gerundives forming a passive and deontic verbal periphrasis with the implicit infinitive auxiliary *esse* 'to be' (Kühner & Stegmann 19145: 730-731; Ernout & Thomas 1951: 286; Hofmann & Szantyr 1965: 377-378; Menge *et al.* 2000: 734-736; Pinkster 2015: 303-304). See the discussion in §1.2.1 with respect to Classical Latin.

[5] *Ducere* 'to bring' is a so-called 'jussive infinitive': it has an imperative value and acts syntactically as a finite verb (Ernout & Thomas 1951: 272; Elcock 1960: 112; Palmer 1964: 318; Harris 1978: 198; Fruyt 1996: 48, 58). As such, it is a competitor of morphologically finite imperative verbs.

[6] Another possibility, pointed out by Hofmann & Szantyr (1965: 379) with regard to purpose adjunct gerunds, is that the bare accusative marking is used in a hypercorrect way against the spread of the prepositional infinitive. They further note that the

rise of the bare accusative gerund in Late Latin might be an analogy-driven, morphosyntactic symptom of the intensifying functional competition between the gerund and the infinitive. It is worth noting that such analogical marking can also be observed in the opposite direction. In Classical Latin, the infinitive is practically always bare, while in Late Latin, it is increasingly governed by a preposition, mostly *ad* 'to' (Ernout & Thomas 1951: 256; Scherer 1975: 86; Harris 1978: 199). Thus, the prepositional infinitive might have gained ground under influence of the prepositional gerund. This hypothesis is supported by the fact that most prepositional gerunds and infinitives are introduced by the same preposition, namely *ad* 'to'. As we will see later, there is also another, more fundamental, factor contributing to the rise of the prepositional infinitive, and, incidentally, to the increasing functional confusion between the gerund and the infinitive. For now, it suffices to mention that the emergence of the bare accusative gerund and the rising frequency of prepositional infinitives gradually puts an end to the relation of morphological complementarity between the gerund and the infinitive.

Apart from the morphological evolutions mentioned above, the Late Latin gerund is occasionally affected by phonetic evolutions (Hofmann & Szantyr 1965: 380). Most relevant here are the apocope of final /m/ and the vocalic confusion between /ō/ and /ŭ/ (*cf.* Väänänen 1963³: 36-37, 66-67). These two evolutions typically co-occur, as in the case of *possedendo* 'to possess' (3).[7]

(3) *[...] omnis res meas [...] ad filio meo [...]*
all.ACC.F.PL possession.ACC.F.PL my.ACC.F.PL to son.ABL[ACC].M.SG my.ABL[ACC].M.SG
trado ad ***possedendo***.
give.PRS.1SG to possess-GER-ABL[ACC]
'I give all my possessions to my son in order (for him) to possess (them).' (*Form. Andec.* 58)

From a morphological point of view, *possedendo* 'to possess' (3) looks like a dative or ablative gerund. However, it instantiates an accusative gerund affected by the phonetic evolutions just mentioned. It thus stands for *possedendum* 'to possess'. This is manifest from the presence of the preposition *ad* 'to', which always assigns the accusative to its complement (Pinkster 2015: 1230). The analysis of *-ndo* forms as phonetically affected accusative gerunds can also be defended for some bare forms, provided that they perform a function from which the dative and bare ablative gerunds are excluded (e.g. second argument of a transitive verb assigning the accusative to its internal argument). Such cases have not been reported in the literature, but a clear instance has been found in the Late Latin corpus of this thesis. This example will be discussed in Chapter 4 (§4.2.2.4). Conversely, the Late Latin corpus contains a few *-ndum* forms in contexts where one expects *-ndo* (e.g. in instrumental adjuncts). These forms are hypercorrected for

emergence of purpose adjunct bare accusative gerunds might be due to "*die formal-analogischen Einwirkungen der normalen Konstruktionen*" (p. 379), but it is not entirely clear what they mean by this.

[7] Forms affected by phonetic evolutions will be glossed morphologically, but an additional gloss, between square brackets, will be added to mark the expected category from a syntactic viewpoint. For the morphological gloss, I marked the ablative rather than the dative for all forms having the same ending in the two cases. The case chosen here is less relevant, but priority was given to the ablative because ablative constituents outnumber dative constituents and because the ablative has more functions than the dative.

the phonetic evolutions in issue. Hence, they should not be taken as accusative gerunds, but as dative or ablative ones. Examples of such forms will be given in various sections of Chapter 4.

2.1.1.2. Syntactic changes of the gerund

Contrary to its morphological ones, the syntactic properties of the gerund undergo important changes in Late Latin. These changes pertain to both its internal (§2.1.1.2.1) and external (§2.1.1.2.2) syntax.

2.1.1.2.1. Internal syntactic changes of the gerund

The changes on the level of the internal syntax of the gerund involve the internal syntactic complexity of gerund phrases (§2.1.1.2.1.1) and the marking of the internal argument of the gerund (§2.1.1.2.1.2).

2.1.1.2.1.1. Internal syntactic complexity of gerund phrases

In Classical Latin, the number of gerund phrases with a high degree of internal syntactic complexity is low, because most phrases share one or more constituents with the main clause, denote a state of affairs that is partly 'deactualised' (Dik 1985: 11), and/or contain one or more implicit arguments that need to be inferred from the discourse context (Kühner & Stegmann 1914[5]: 735; Lyer 1932: 226-228; Palmer 1964: 321-324; Hofmann & Szantyr 1965: 373-374; Risch 1984: 97; Bauer 1993: 63, 2005: 516; Pinkster 2021: §14.12; see §1.2.2.1.1). Hence, their mean degree of finiteness is low (*cf.* Lehmann 1988: 191-197; Kooreman 1989: 226). In Late Latin, the number of gerund phrases with a high(er) degree of internal syntactic complexity increases, especially in substandard varieties (Lyer 1932: 228-232; Palmer 1964: 324; Hofmann & Szantyr 1965: 373-374; Kooreman 1989: 224-225; Bauer 1993: 64-65, 2005: 516). They can still share constituents with the main clause, denote a (partly) deactualised state of affairs, and/or contain implicit arguments that need to be inferred from the discourse context, but the general trend is toward more explicit constituents of their own. This holds in particular for the internal argument of adjunct bare ablative gerunds (Lyer 1932: 228-230; Hofmann & Szantyr 1965: 373-374; Kooreman 1989: 224-225). The phrases headed by these forms thus become more clause-like. *Reliqua depopulando* 'while plundering the other (cities)' (4) and *quid faciendo* 'by doing what' (5) are cases in point.

(4) *[...] ad Mettensem urbem reliqua* ***depopula-nd-o*** *perveniunt [...].*
to Metz.ACC.F.SG city.ACC.F.SG other.ACC.N.PL plunder-GER-ABL come_to.PRS.3PL
'They come to the city of Metz while plundering the other (cities).' (Greg. Tur. *Franc.* 2.6)

(5) *[...] quid* ***facie-nd-o*** *vitam* *aeternam* *possidebo?*
INT.ACC.N.SG do-GER-ABL life.ACC.F.SG eternal.ACC.F.SG possess.FUT.1SG
'By doing what will I possess the eternal life?' (*Vulg. Luc.* 18.18)

The rising number of complex gerund phrases is mainly due to the evolution of the competition between gerunds governing a direct object and NPs comprising a personal gerundive (Kühner & Stegmann 1914[5]: 735-736; Lyer 1932: 228-232; Palmer 1964: 324; Hofmann & Szantyr 1965: 373; Bauer 1993: 64-65, 2005: 516). As noted in §1.2.2.1.1, NPs containing a personal gerundive (e.g. *legendarum epistularum* 'to read the letters' (6)) are usually preferred over gerund clauses including an explicit direct object (e.g. *legendi epistulas* 'to read the letters' (7)) in Classical Latin, especially in standard varieties.

(6) *Tempus* ***lege-nd-i*** *epistulas.*
time.NOM.N.SG read-GER-GEN letter.ACC.F.PL
'The time to read the letters.' (Bauer 1993: 64)

(7) *Tempus* ***lege-nd-arum*** *epistularum.*
time.NOM.N.SG read-GERV-GEN.F.PL letter.GEN.F.PL
'The time to read the letters (lit. 'of the letters that should be read').' (Bauer 1993: 64)

From the 1st c. AD onward, but more markedly from the 2nd and especially the 3rd c. AD onward, NPs with a personal gerundive start falling out of use, in both standard and substandard varieties (Kühner & Stegmann 1914[5]: 735-736; Lyer 1932: 228-232; Palmer 1964: 324; Hofmann & Szantyr 1965: 373; Bauer 1993: 64-65, 2005: 516). As a corollary, the use of gerunds governing an explicit direct object generalises. This generalisation soon spreads to phrases exempt from competition with NPs including a personal gerundive, so that the frequency of complex gerund clauses rises even more (Bauer 2005: 516).

The evolution toward a more complex and clause-like internal structure of gerund phrases leads to an increase in their mean degree of finiteness (*cf.* Lehmann 1988: 191-197; Kooreman 1989: 226). In this sense, the evolution of gerund phrases is reminiscent of a process of 'finitisation' (Rose 2016: 350), described in §1.3.2.1.1 with regard to the present participle. Since the degree of finiteness of a clause is reflected on the morphosyntactic structure of its head (Givón 1990: 853; Bisang 2001: 1400; Nikolaeva 2010: 1178-1179), the finitisation of gerund phrases in Late Latin leads to a process of morphosyntactic verbalisation of the gerund (Lyer 1932: 230-231; Kooreman 1989: 226-227). That is to say, the gerund becomes more verbal – at least in terms of its internal syntax. According to Bauer (1993: 65, 2005: 516), the morphosyntactic verbalisation of the mainly active gerund at the expense of the chiefly passive gerundive is part of a large-scale Indo-European development toward an increasingly transitive syntax.

A few remarks are in order about the subject of the gerund. As in Classical Latin, this subject is mostly implicit. Except in adjuncts, this implicit subject is usually deactualised (e.g. (6)). In adjuncts, it is most often specific (or actualised) and coreferential with the subject or agent of the main clause (e.g. (4-5)) (Kooreman 1989: 221). However, it may also be coreferential with another constituent of the main

clause, unlike in Classical Latin (Odelstierna 1926: 59; Svennung 1935: 425; Aalto 1949: 78-80; Hofmann & Szantyr 1965: 380; Pinkster 2021: §21.14). Witness (8-9): in (8), the subject of *peragendo* 'by doing' corresponds to the dative pronoun *tibi* 'for you', *i.e.* the second argument of *prodest* 'it is advantageous'; in (9), the subject of *querendo* 'as he was looking for' is coreferential with the second argument of *adiuverunt* 'they helped', namely the accusative pronoun *eum* 'him'.

(8) *Dic,* *tibi* *quid* *prodest* *scelus*
tell.IMP.PRS.2SG you.DAT.M.SG INT.NOM.N.SG be_advantageous.PRS.3SG crime.NOM.N.SG
hoc ***perage-nd-o*** *[...]?*
DEM.ACC.N.SG do-GER-ABL
'Tell (me), which crime is advantageous for you by doing this?' (Ven. Fort. *carm*. 4.15.7)

(9) *[...] dii* *adiuverunt* *eum* ***quere-nd-o*** *divinitatem* *[...].*
god.NOM.M.PL help.PST.3PL DEM.ACC.M.SG look-GER-ABL divinity.ACC.F.SG
'The gods helped him as he was looking for divinity.' (Leo *Alex*. 2.4)

These adjunct gerunds compete with conjunct adjunct accusative, genitive, dative, and ablative present participles (Odelstierna 1926: 59; Svennung 1935: 425; Aalto 1949: 78-80; Hofmann & Szantyr 1965: 380; Pinkster 2021: §21.14). Thus, instead of the gerunds *peragendo* 'by doing' (8) and *querendo* 'as he was looking for' (9), the present participles *peragenti* 'doing' and *querentem* 'looking for' could have been used, marked in respectively the dative and the accusative through agreement with the pronouns *tibi* 'for you' (8) and *eum* 'him' (9) (Odelstierna 1926: 59; Aalto 1949: 78-79; Hofmann & Szantyr 1965: 380; Pinkster 2021: §21.14 fn. 56). The emergence, in Late Latin, of gerunds of the type illustrated in (8-9) extends the area of competition between adjunct gerunds and present participles.

This competition is further extended by the appearance of absolute adjunct gerunds, *i.e.* gerunds having a usually explicit subject that is not coreferential with any constituent of the main clause (Elss 1907: 46; Flinck-Linkomies 1924: 219; Odelstierna 1926: 58; Weerenbeck 1927: 169; Biese 1928: 91; Svennung 1935: 425; Aalto 1949: 80-82; Väänänen 1963³: 141; Hofmann & Szantyr 1965: 144, 380; Kooreman 1989: 221; Maltby 2002: 223; Adams 2013: 736-739; Pinkster 2021: §16.95).[8] These forms are always marked in the bare ablative, while their subject stands in the nominative (Flinck-Linkomies 1924: 219; Aalto 1949: 80-82; Hofmann & Szantyr 1965: 144). Examples of absolute adjunct gerund clauses are *providendo illis Deus Meliora quam petunt* 'because God foresees better things for them than they ask for' (10) and *hoc dicendo princeps miliciae* 'when the general of the army said this' (11).

[8] According to Adams (2013: 736-739), most absolute adjunct gerunds are not deliberately used as such, but as the mere result of anacoluthon. This question is of no interest in this thesis. In the literature, no examples of absolute adjunct gerunds are cited from before the 6th c. AD. Hence, their appearance might be a particularly late phenomenon.

(10) *Multi* *orantes* *non* *exaudiuntur* ***provide-nd-o***
many.NOM.M.PL pray.PTCP.PRS.NOM.M.PL NEG hear_clearly.PRS.PASS.3PL foresee-GER-ABL
illis *Deus* *meliora* *quam* *petunt.*
DEM.DAT.M.PL God.NOM.M.SG better.ACC.N.PL than ask_for.PRS.3PL
'Many people who pray are not clearly heard because God foresees better things for them than they ask for.' (Isid. *Sent*. 3.7.26)

(11) *Hoc* ***dice-nd-o*** *princeps* *miliciae* *subrisit*
DEM.ACC.N.SG say-GER-ABL first.NOM.M.SG army.GEN.F.SG smile.PST.3SG
Nectanabus *et* *dixit* *[...]*.
Nectanabus.NOM.M.SG and say.PST.3SG
'When the general of the army said this, Nectanabus smiled and said (...).' (Leo *Alex*. 1.2)

These forms compete with both nominative and ablative absolute adjunct present participles (Elss 1907: 46; Flinck-Linkomies 1924: 219; Odelstierna 1926: 58; Škerlj 1926: 55, 180; Weerenbeck 1927: 160; Biese 1928: 91; Svennung 1935: 425; Aalto 1949: 80-82; Väänänen 1963³: 141; Hofmann & Szantyr 1965: 144; Maltby 2002: 223; Adams 2013: 737). Indeed, the combination of a nominative noun and an adjunct bare ablative gerund can either be replaced by an ablative noun and an agreeing present participle (e.g. *providente Deo* 'God foreseeing' instead of *providendo Deus* 'God foreseeing'), or the nominative noun can be preserved and the gerund replaced by a nominative present participle (e.g. *providens Deus* 'God foreseeing' instead of *providendo Deus* 'God foreseeing').

The fact that the bare ablative gerund becomes a competitor of the present participle in all types of conjunct adjuncts and in absolute adjuncts has important implications for the functional competition between the adverbial gerund and the adverbial present participle (see §2.1.1.2.2.2 and §2.1.2.2.2.1).

2.1.1.2.1.2. Marking of the internal argument of the gerund

The morphosyntactic verbalisation of the gerund is also visible in the marking of its internal argument, though in a less significant way (Bauer 1993: 65, 2005: 516). As in Classical Latin, in Late Latin, the gerund has either verbal or nominal external syntax. In (12), *edendi* 'of eating' has verbal internal syntax, since its internal argument is assigned the accusative, just like when it is governed by a finite form of *edere* 'to eat'. In (13), in contrast, *evadendi* 'to avoid' has nominal internal syntax: its internal argument stands in the genitive, just like when it depends on a noun, while it is assigned the accusative when it is governed by a finite form of *evadere* 'to avoid'.

(12) *[...] officium* ***ede-nd-i*** *homines* *demiratur.*
practice.ACC.N.SG eat-GER-GEN man.ACC.M.PL be_amazed.PRS.3SG
'He is amazed by the practice of eating men.' (Iul. Val. 1.9.17)

(13) ***Evade-nd-i*** *calamitatis* *inditionem* *non* *comprehendo* *[...].*
avoid-GER-GEN disaster.GEN.F.SG indication.ACC.F.SG NEG seize.PRS.1SG
'I do not seize the indication to avoid the disaster.' (Isid. *synon.* 1.5)

In Classical Latin, the gerund most often displays verbal internal syntax (Ernout & Thomas 1951: 263; Palmer 1964: 321; Hofmann & Szantyr 1965: 369; Bauer 1993: 65, 2005: 516). Within this period, the number of forms with nominal internal syntax gradually decreases from as early as the 1st c. BC onward (Kühner & Stegmann 1914[5]: 745). This tendency is set forth in Late Latin. Hence, the increasing number of gerunds governing an explicit direct object at the cost of NPs including a personal gerundive mostly have verbal external syntax. Since non-finite clauses headed by a form exhibiting verbal internal syntax are more finite than those headed by a form showing nominal internal syntax (Lehmann 1988: 191-197), this evolution positively contributes to the finitisation of gerund phrases.

2.1.1.2.2. External syntactic changes of the gerund

The external syntactic changes of the gerund in Late Latin are more critical than those pertaining to its internal syntax. They take place in the light of the functional competition of the gerund with (especially) the infinitive and the present participle. These competitions gain in intensity and start settling in a way that radically distinguishes the use of the gerund in Late Latin from its use in Classical Latin (Aalto 1949: 73; Elcock 1960: 111; Väänänen 1963[3]: 140; Hofmann & Szantyr 1965: 369, 384; Harris 1978: 199-200; Kooreman 1989; Bauer 1993, 2005; Maraldi 1994; Adams 2003: 748-749, 2013: 725-740; Pinkster 2021: §21.14).

As in Classical Latin, in Late Latin, the gerund can have nominal or adverbial external syntax. In the former case, it is adnominal or used as the complement of a verb, adjective, or adverb, while in the latter case, it occurs in an adjunct. Unlike in Classical Latin, the gerund can also act as the main verb of a progressive construction (Aalto 1949: 75-76; Väänänen 1963[3]: 141; Hofmann & Szantyr 1965: 380; Dietrich 1973: 305-312; Haverling 2010: 497). In this use, it displays verbal external syntax – just like the present participles occurring in this construction (see §1.3.3). Thus, the bipartite distinction between nominal and adverbial gerunds in Classical Latin shifts toward a tripartite distinction between nominal, adverbial, and verbal gerunds in Late Latin. In other words, the gerund evolves from a 'bi-functional' to a 'tri-functional category of non-finite verb forms' (*cf.* Nedjalkov 1995: 104-105).

This section will examine the evolution of the nominal (§2.1.1.2.2.1), the adverbial (§2.1.1.2.2.2), and the verbal (§2.1.1.2.2.3) gerund in Late Latin, and investigate the role played in these evolutions by

the competition of the gerund with (especially) the infinitive and the present participle. The impact of these evolutions on the external syntactic profile of the gerund will be measured in §2.1.1.2.2.4.

2.1.1.2.2.1. The nominal gerund

The nominal gerund has the same uses in Late Latin as in Classical Latin. It can thus occur in adnominal phrases or as the complement of a verb, adjective, or adverb (Aalto 1949: Ch. 4; Elcock 1960: 110-111; Väänänen 1963[3]: 139; Bauer 1993: 67). The first three uses are explicitly mentioned and exemplified in the existing literature, while the latter is not. This does not necessarily mean that the gerund can no longer occur in adverb complements in Late Latin. This type of gerunds might for instance be used in texts that have not been transmitted to us or that have not yet been discovered or examined. The lack of cited instances only suggests that, if they exist in Late Latin, adverb complement gerunds are at the least extremely rare. It is worth recalling that this type of gerunds are also extremely rare in Classical Latin (see §1.2.2.2.4). Due to their absence in discussions of the Late Latin gerund in the existing literature, adverb complement gerunds will be left out in the following sections (as we will see in Chapter 4, this type of gerunds are also absent in the Late Latin corpus of this thesis). Attention will thus be restricted to gerunds used in adnominal phrases (§2.1.1.2.2.1.1), verb complements (§2.1.1.2.2.1.2), and adjective complements (§2.1.1.2.2.1.3). A conclusion with respect to the nominal gerund as a whole will be drawn in §2.1.1.2.2.1.4.

2.1.1.2.2.1.1. Adnominal gerunds

In Late Latin, adnominal gerunds can depend on a larger variety of nouns than in Classical Latin, though the most frequent type of nouns is identical in the two periods: abstract nouns (Aalto 1949: Ch. 4; Palmer 1964: 322-323; Hofmann & Szantyr 1965: 375; Bauer 1993: 62). In (14), the gerund clause *exercendi milites* ‘to train soldiers’ depends on the abstract noun *cura* ‘care’.

(14) *Tanta* *[...]* *fervabatur* ***exerce-nd-i*** *milites* *cura* *ut* *[...].*
so_great.NOM.F.SG rage.PST.PASS.3SG train-GER-GEN soldier.ACC.M.PL care.NOM.F.SG that
‘Such a great care to train soldiers was raging that (...).’ (Veg. *mil.* 2.12)

An example of a Late Latin gerund phrase depending on a concrete instead of an abstract noun is *ad spargendum super nos* ‘to sprinkle on us’ (15).

(15) *[...] benedic* *[...] sal* *ad* ***sparge-nd-um*** *super* *nos* *[...].*
bless.IMP.PRS.2SG salt.ACC.M.SG to sprinkle-GER-ACC on we.ACC.M.PL
‘Bless the salt to sprinkle on us.’ (*Vit. Hugb.* p. 491)

As in Classical Latin, adnominal gerunds can be in the bare genitive (14) or the prepositional accusative (15) (Aalto 1949: Ch. 4). They might also be able to stand in the prepositional ablative, as in Classical Latin, but no such examples have been cited in the literature for Late Latin. One of the latest reported instances dates from the 2nd c. AD. The form in issue is *in profitendo* ‘in declaring’ (16).

(16) *[...] maximam scientiam in* ***profite-nd-o*** *habuerunt [...].*
greatest.ACC.F.SG skill.ACC.F.SG in declare_in_public-GER-ABL have.PST.3PL
‘They had the greatest skill in declaring in public.’ (Mela 178.38)

As seen in §1.2.2.2.6, adnominal gerunds are the dominant type of gerunds in Classical Latin. At this stage of the language, they are also much more common than their infinitive competitors, especially in standard varieties (Kühner & Stegmann 1914[5]: 742-744; Aalto 1949: 61-62; Ernout & Thomas 1951: 269; Palmer 1964: 320; Hofmann & Szantyr 1965: 350-351; Menge *et al*. 2000: 746-748; Pinkster 2021: §17.13-17.15). In Late Latin, the restrictions on the use of the adnominal infinitive gradually disappear. Hence, the infinitive becomes a competitor of the gerund in an increasing number of semantic and syntactic contexts (Aalto 1949: 73; Ernout & Thomas 1951: 269; Elcock 1960: 111; Väänänen 1963[3]: 139; Hofmann & Szantyr 1965: 351; Harris 1978: 198; Fruyt 1996: 47). For instance, in Classical Latin, the infinitive can only depend on abstract nouns acting the predicate of the subject or object (Kühner & Stegmann 1914[5]: 742-743; Pinkster 2021: §15.128, §17.15), whereas in Late Latin, these nouns may perform the same functions as those allowing an adnominal gerund (Väänänen 1963[3]: 139; Fruyt 1996: 47). Witness (17), in which the infinitive clause *infirmos curare* ‘to cure the ill’ depends on the direct object of *dat* ‘he gives’, *viz. potestatem* ‘opportunity’.

(17) *[...] dat potestatem infirmos* ***curare*** *[...].*
give.PRS.3SG opportunity.ACC.F.SG ill.ACC.M.PL cure.INF.PRS
‘He gives the opportunity to cure the ill.’ (Hier. *in Matth*. 1.10.7)

However, the infinitive does not only extend its area of competition with the adnominal gerund, it also starts replacing it (Aalto 1949: 73; Ernout & Thomas 1951: 269; Elcock 1960: 111; Väänänen 1963[3]: 139; Harris 1978: 198, 199; Bauer 1993: 62). That is to say, the competition between the gerund and the infinitive in adnominal phrases starts settling in favour of the latter. In this way, the gerund gradually loses its adnominal use. This evolution is completed in the transition from Late Latin to most Romance languages (Aalto 1949: 73; Elcock 1960: 111; Väänänen 1963[3]: 139). Indeed, the non-finite equivalent in most Romance languages of the Late Latin adnominal gerund is the prepositional infinitive – the default preposition is *di* ‘of’ in Italian and *de* ‘of’ in the other languages (Harris 1978: 198-199; Schulte 2007: 88). As an example of this shift, compare the Latin NP *ars legendi* ‘the art of reading’ (18) with its counterparts in Modern French (19), Spanish (20), and Romanian (21) (Schulte 2007: 88).

(18) *Ars* ***lege-nd-i***.
art.NOM.F.SG read-GER-GEN
'The art of reading.' (Schulte 2007: 88)

(19) *L'* *art* *de* ***lire***.
ART.DEF.M.SG art.M.SG of read.INF.PRS
'The art of reading.' (Schulte 2007: 88)

(20) *El* *arte* *de* ***leer***.
ART.DEF.M.SG art.F.SG of read.INF.PRS
'The art of reading.' (Schulte 2007: 88)

(21) *Art=a* *de* *a* ***trăi***.
art.F.SG=ART.DEF.F.SG of INF read.INF.PRS
'The art of reading.' (Schulte 2007: 88)

Notice that, as in Classical Latin, most adnominal gerunds in Late Latin are marked in the bare genitive (e.g. (14/18)). The fact that their infinitive successors in Romance are always prepositional suggests that the substitution of the gerund by the infinitive in adnominal phrases is not only part of the restructuring of the system of non-finite verb forms (see §2.1.1.2.2.4 and §2.1.1.3 below), but also of the more general shift from the synthetic marking of syntactic relationships by means of inflectional morphology to their analytic marking by means of prepositions (*cf.* Ernout 1914³: 9-10; Väänänen 1963³: 111).

2.1.1.2.2.1.2. Verb complement gerunds

A similar evolution can be observed for verb complement gerunds. As in Classical Latin, these gerunds can head a constituent acting as the second (e.g. *faciendo* 'to do' (22)) or third (e.g. *ad credendum* 'to believe' (23)) argument of a verb (Odelstierna 1926: 45; Aalto 1949: 86-87; Elcock 1960: 111; Pinkster 2021: §15.137-§15.138).

(22) *[...] tam* *qui* *fecerit* *quam* *qui* ***facie-nd-o***
as_well_as REL.NOM.M.SG do.SBJV.PST.3SG as REL.NOM.M.SG do-GER-ABL
consenserit *anathema* *sit* *[...].*
consent.SBJV.PST.3SG anathema.NOM.N.SG be.SBJV.PRS.3SG
'Let both who did (it) and who consented to do (it) be anathema.' (*Form. Marc.* 2.4)

(23) *Cum* *fidem* *nullus* *adhiberet* *signis* *quibusdam,*
although faith.ACC.F.SG no.NOM.M.SG practice.SBJV.PST.3SG sign.ABL.N.PL particular.ABL.N.PL
plerosque *ad* ***crede-nd-um*** *coartabat.*
most_people.ACC.M.PL to believe-GER-ACC bring.PST.3SG
'Although no one practiced faith with particular signs, he brought most people to believe.' (Sulp. Sev. *Mart.* 1.23.3)

They can also be marked in the same ways as in Classical Latin. Thus, they may stand in the dative (e.g. *faciendo* 'to do' (22)), the prepositional accusative (e.g. *ad credendum* 'to believe' (23)), the bare ablative (e.g. *extinguendo* 'extinguishing'/*excludendo* 'excluding' (24)), and the prepositional ablative (e.g. *in veniendo* 'in coming' (25)). Unlike in Classical Latin, they may also occur in the bare accusative (e.g. *solvendum* 'to pay' (26)) and the bare genitive (e.g. *abeundi* 'to leave' (27)) (Odelstierna 1926: 45, 54; Aalto 1949: 61, 86; Hofmann & Szantyr 1965: 378; Pinkster 2021: §15.137-§15.138).[9]

(24) *O felix penitentia, quae [...] non [...] delictorum*
EXCL fortunate.VOC.F.SG penance.VOC.F.SG REL.NOM.F.SG NEG crime.GEN.N.PL
flammas ***extingue-nd-o*** *frequenti=que ieiunio peccatorum*
flame.ACC.F.PL extinguish-GER-ABL frequent.ABL.N.SG=and fasting.ABL.N.SG sin.GEN.N.PL
virus ***exclude-nd-o*** *destitit [...].*
poison.ACC.N.SG exclude-GER-ABL stop.PST.3SG
'O fortunate penance, which did not stop extinguishing the flames of crimes nor excluding the poison of sins by frequent fasting.' (*Vit. Elig.* 1.7)

(25) *Si [...] abba in* ***venie-nd-o*** *moras innexuerit [...].*[10]
if abbot.NOM.M.SG in come-GER-ABL delay.ACC.F.PL fasten_to.PST.3SG
'If the abbot fastened delay to his coming (...).' (*Vit. Sadalb.* 20)

(26) *Iube Gundebadum tibi tributa* ***solve-nd-um*** *[...].*
order.IMP.PRS.2SG Gundebadus.ACC.M.SG you.DAT.M.SG tribute.ACC.N.PL pay-GER-ACC
'Order that Gundebadus pays the tributes to you.' (Fredeg. *chron.* 3.23)

(27) *[...] Latini comici metuentes [...] ne quis*
Latin.NOM.M.PL comic_poet.NOM.M.PL fear.PTCP.PRS.NOM.M.PL that INDF.NOM.M.SG
fastidiosus finito actu velut admonitus
bored.NOM.M.SG finish.PTCP.PST.ABL.M.SG act.ABL.M.SG as_if advise.PTCP.PST.NOM.M.SG
abeu-nd-i *reliquae comoediae fiat*
leave-GER-GEN remaining.GEN.F.SG comedy.GEN.F.SG become.SBJV.PRS.3SG
contemptor [...].
despiser.NOM.M.SG
'The Latin comic poets, fearing that some bored spectator, as if advised to leave by the end of an act, becomes a despiser of the rest of the comedy (...).' (Donat. *Ad. praef.* 1.4)

[9] In (22), (24), and (26), the gerunds are assigned respectively the dative, the ablative, and the accusative by the verbs *consentiret* 'he consented' (22), *destitit* 'he stopped' (24), and *iube* 'order' (26). *Credendum* 'to believe' (23) and *veniendo* 'coming' (25) are assigned respectively the accusative and the ablative by the prepositions *ad* 'to' (23) and *in* 'in' (25). *Abeundi* 'to leave' (27) is assigned the genitive by the past participle *admonitus* 'advised', which thus has adjectival internal syntax.

[10] Note that *in veniendo* 'in coming' does not depend on *innexuerit* 'he fastened' alone, but on the combination of this verb with the noun *moras* 'delay'. This combination functions as a so-called 'light (or support) verb construction' (Pinkster 2015: 74). Details about this type of constructions in Latin can be found in, e.g., Rosén (1981: 130-159), Flobert (1996), Hoffmann (1996, 2015), and Pinkster (2015: 74-77).

In Classical Latin, verb complement gerunds are rare (see §1.2.2.2.6). This is mainly due to the relation of morphological complementarity between the gerund and the infinitive in this period: the gerund only exists in the prepositional accusative, the genitive, the dative, and the ablative, while the infinitive only exists in the nominative and is almost always bare in the accusative (see §1.2.1). Since the gerund does not exist in the bare accusative, it is excluded from the quantitatively largest group of verb complements, *i.e.* those serving as the direct object of a verb that assigns the (bare) accusative to its internal argument. In Classical Latin, this type of constituents thus require a bare infinitive. This changes in Late Latin: due to the emergence of the bare accusative gerund, the gerund starts to occur in direct objects. As such, it enters in competition with the bare infinitive. Witness (26), where the innovative bare accusative gerund *solvendum* 'to pay' is used instead of the 'expected' bare infinitive *solvere* 'to pay'.

Although the gerund sometimes replaces the infinitive in direct objects (e.g. in (26)), the general, long-term trend consists of the substitution of the gerund by the infinitive (Aalto 1973: 73; Elcock 1960: 111; Harris 1978: 199; Bauer 1993). This replacement is moreover not restricted to direct objects, but applies instead to verb complements in general. However, like its substitution in adnominal phrases, the replacement of the gerund by the infinitive in verb complements is completed only in the transition from Late Latin to Romance – or at least to most Romance languages. A key factor in this evolution is the increasing use of the prepositional infinitive and the extension of the range of prepositions allowing infinitive complements (Ernout & Thomas 1951: 256; Harris 1978: 199; Schulte 2007: Ch. 7). Crucially, the infinitive in Late Latin becomes compatible with the preposition *ad* 'to', which grammaticalises in the transition to Romance as one of the two main complementisers of the infinitive – the other one is *de* 'of' (Schulte 2007: Ch. 7). The substitution of the gerund by the infinitive in prepositional verb complements in Late Latin is illustrated by the shift from *ad laborandum* 'to work' (28) to *ad laborare* 'to work' (29) as the second argument of *horto* 'I exhort'. The infinitive outcome of this evolution in Modern French is exemplified in (30) (Elcock 1960: 111).[11]

(28) *Te* *horto* *ad* ***labora-nd-um***.
you.ACC.M.SG exhort.PRS.1SG to work-GER-ACC
'I exhort you to work.' (Elcock 1960: 111)

(29) *Te* *horto* *ad* ***laborare***.
you.ACC.M.SG exhort.PRS.1SG to work.INF.PRS
'I exhort you to work.' (Elcock 1960: 111)

(30) *Je* *t'* *exhorte* *à* ***travailler***.
I.SUBJ.M.SG you.OBJ.M.SG exhort.PRS.1SG to work.INF.PRS
'I exhort you to work.' (Elcock 1960: 111)

[11] The examples in (28-30) are forged by Elcock (1960: 111) in order to present the structural change in a schematic way. He hereby assumes that, in Late Latin, the deponent verb *hortari* 'to exhort' evolves into a regular verb. The alignment of deponent verbs on the model of regular verbs is a well-known feature of Late Latin (and of substandard varieties in earlier periods) (*cf.* Väänänen 1963³: 101, 128). Hence, the examples of Elcock (1960: 111) in (28-29) can be taken as representative of Late Latin.

2.1.1.2.2.1.3. Adjective complement gerunds

The same trend can be observed for adjective complement gerunds. In Late Latin, the gerund can depend on the same adjectives as in Classical Latin, but in the course of time, the inventory of these adjectives slightly extends (Hofmann & Szantyr 1965: 377; Pinkster 2021: §17.31). The example in (31) presents three distinct adjectives, each of them governing a different gerund (Aalto 1949: 62).

(31) *Secunda* *activa* *est* *quae* *[...]* ***habe-nd-i***
second.NOM.F.SG active.NOM.F.SG be.PRS.3SG REL.NOM.F.SG have-GER-GEN
insatiata, ***rapie-nd-i*** *cauta,* ***serva-nd-i*** *sollicita*
unsatisfied.NOM.F.SG take-GER-GEN careful.NOM.F.SG preserve-GER-GEN solicitous.NOM.F.SG
geritur.
manage.PRS.PASS.3SG
'The second (phase) is active and is managed unsatisfied of having, careful of taking, and solicitous of preserving.' (Fulg. *myth.* 2.66)

As in Classical Latin, adjective complement gerunds in Late Latin can stand in the bare genitive (e.g. *habendi* 'of having', *rapiendi* 'of taking', and *servandi* 'of preserving' (31)), the prepositional accusative (e.g. *ad audiendum* 'to hear' and *ad ignoscendum* 'to forgive' (32)), and the prepositional ablative (e.g. *in iudicando* 'in judging' (33)). A few instances are also found in the bare ablative (e.g. *culpando* 'being blamed' (34)), marking unattested in Classical Latin (Pinkster 2021: §17.32). It is possible that this type of gerunds may also stand in the dative, as in Classical Latin, but to my knowledge, no examples of this marking have been cited in the literature.

(32) *[...] solers* *ad* ***audie-nd-um,*** *clemens* *ad* ***ignosce-nd-um*** *[...].*
skilled.NOM.M.SG to listen-GER-ACC merciful.NOM.M.SG to forgive-GER-ACC
'(...) skilled to listen and merciful to forgive.' (*CIL* 5.6725)

(33) *Erat* *enim* *[...]* *in* *iudiciis* *iustus,* *in* ***iudica-nd-o***
be.PST.3SG for in legal_process.ABL.N.PL fair.NOM.M.SG in judge-GER-ABL
cautissimus *[...].*
most_cautious.NOM.M.SG
'For he was fair in legal processes and most cautious in judging.' (Greg. Tur. *Franc*. 6.30)

(34) *[...]* ***culpa-nd-o*** *nihilum* *dignus* *[...].*[12]
blame-GER-ABL in_no_way worthy.NOM.M.SG
'(...) in no way worthy of being blamed.' (*CIL* 3.9504.2-4)

[12] Contrary to most gerunds, *culpando* 'being blamed' (34) has a passive value. It is well known that the active voice value of the gerund is a tendency rather than a rule (Kühner & Stegmann 19145: 728-729; Scherer 1975: 90; Menge *et al.* 2000: 729-730; Pinkster 2015: 286-288). See also §1.1.2, fn. 5).

In Classical Latin, adjective complement gerunds are not very frequent (see §1.2.2.2.6). The infinitive sometimes competes with the gerund in these constituents, but at this stage of the language, the gerund is nonetheless more common (Ernout & Thomas 1951: 269; Hofmann & Szantyr 1965: 350; Pinkster 2021: §17.27-§17.29). This changes again in Late Latin. In this period, the use of the infinitive gains in frequency, to the detriment of the gerund (Aalto 1949: 73; Ernout & Thomas 1951: 269; Elcock 1960: 111; Hofmann & Szantyr 1965: 369, 378; Scherer 1975: 89; Harris 1978: 198-199). Thus, the gerund is gradually replaced in adjective complements by the infinitive (e.g. *ad satisfacere* 'to satisfy' (35)), just like in adnominal phrases and verb complements. Once more, this substitution is completed only in the transition from Late Latin to Romance – or at least to most Romance languages.

(35) *[...] qui* *eos* *habet* *necessarios* *ad* ***satisfacere*** *[...].*
REL.NOM.M.SG DEM.ACC.M.PL have.PRS.3SG necessary.ACC.M.PL to satisfy.INF.PRS
'(...) who has them necessary to satisfy (the claim) (...).' (*Lex Sal.* 49.1)

As in the previous cases, the shift from gerunds to infinitives in adjective complements would not have been possible without the increasing use of prepositional infinitives, in particular infinitives governed by *ad* 'to' (Ernout & Thomas 1951: 256, 270; Elcock 1960: 111; Hofmann & Szantyr 1965: 369, 378; Scherer 1975: 89; Harris 1978: 198-199; Fruyt 1996: 47, 56, 59). The substitution of the gerund by the infinitive in prepositional adjective complements is illustrated by the shift from *ad dicendum* 'to say' (36) to *ad dicere* 'to say' (37) as the complement of *facile* 'easy'. The corresponding infinitive clause in Modern French is *à dire* 'to say' (38) (Elcock 1960: 111).

(36) *Facile* *ad* ***dice-nd-um***.
easy.NOM.N.SG to say-GER-ACC
'Easy to say.' (Elcock 1960: 111)

(37) *Facile* *ad* ***dicere***.
easy.NOM.N.SG to say.INF.PRS
'Easy to say.' (Elcock 1960: 111)

(38) *Facile* *à* ***dire***.
easy.SG to say.INF.PRS
'Easy to say'. (Elcock 1960: 111)

2.1.1.2.2.1.4. Conclusion

The preceding sections have shown that, in Late Latin, the gerund is gradually replaced by the infinitive in adnominal phrases as well as in verb and adjective complements (Aalto 1949: 73; Elcock 1960: 111; Harris 1978: 197, 199; Bauer 1993). This evolution is all the more significant from a morphosyntactic viewpoint: since these three types of gerunds show nominal external syntax, it consists of the substitution

of the nominal gerund by the nominal infinitive (Harris 1978: 197, 199). In other words, the infinitive specialises in Late Latin in nominal external syntax at the cost of the gerund. Hence, the survival of the gerund in the transition from Late Latin to (most) Romance (languages) becomes completely reliant on its adverbial and verbal external syntax.

2.1.1.2.2.2. The adverbial gerund

Unlike the nominal gerund, the adverbial gerund has only one use, namely in adjuncts (see §1.2.3). As in Classical Latin, adjunct gerunds in Late Latin can be bare or prepositional. They can also still express a wide range of semantic values (Aalto 1949: Ch. 4; Galdi & Vangaever 2019: 100-103; Pinkster 2021: §16.99-§16.104, §21.14). Consider the examples in (39-41): in (39), *ambulandum* 'to walk' is assigned the accusative by the preposition *ad* 'to', the gerund phrase as a whole denoting the purpose of the main state of affairs; in (40), *concedendo* 'by granting' is marked in the bare ablative, because it is used in a clause specifying the manner of the main state of affairs; in (41), finally, *respondendo* 'answering' is assigned the ablative by the preposition *in* 'in', which confers a temporal value to the gerund phrase.

(39) *[...] postea* *ad* ***ambula-nd-um*** *producetur* *[...].*
thereafter to walk-GER-ACC bring.SBJV.PRS.PASS.3SG
'Thereafter it (the mule) should be brought to walk.' (Veg. *mulom*. 1.35)

(40) *Magnificasti* *Alexandrum* ***concede-nd-o*** *illi* *fiduciam* *in*
honour.PST.2SG Alexander.ACC.M.SG grant-GER-ABL DEM.DAT.M.SG faith.ACC.F.SG in
hoc *[...].*
DEM.ABL.N.SG
'You have honoured Alexander by granting him faith in this.' (Leo *Alex*. 2.7)

(41) *[...] in* ***responde-nd-o*** *sic* *ait* *[...].*
in answer-GER-ABL thus say.PST.3SG
'In answering (him), he thus said (...).' (Iul. Val. 3.38.60)

Generally speaking, the different types of adjunct gerunds express the same values as in Classical Latin. Thus, bare genitive (e.g. *orandi* 'in order to pray' (42)) and dative forms (e.g. *suadendo Philippum per somnium* 'to persuade Philippus in his sleep' (43)) always express a purpose, just like most prepositional genitive (e.g. *orandi gratia* 'in order to pray' (44)) and accusative forms (e.g. *ad ambulandum* 'to walk' (39)) (Pinkster 2021: §16.100).[13]

[13] As in Classical Latin, most prepositional accusative gerunds in Late Latin are combined with *ad* 'to'. This preposition usually has a purpose value and confers this value to the gerund phrase (Aalto 1949: 86-88). Other prepositions assign other values to the gerund phrase (Aalto 1949: 88; Pinkster 2021: §16.102-§16.103). For instance, gerunds governed by *ob* 'for the sake of' bear a causal meaning (Pinkster 2021: §16.103), while those introduced by *inter* 'between' have a temporal value (Aalto 1949: 88; Pinkster 2021: §16.102). As noted in §1.2.2.2.5 with regard to Classical Latin, adjunct prepositional genitive gerunds can also take on a causal value (Pinkster 2021: §16.103).

(42) *[...]* ***ora-nd-i*** *extra* *civitate* *egrediens* *[...].*
pray-GER-GEN outside city.ABL[ACC].F.SG go_out.PTCP.PRS.NOM.M.SG
'(...) going out of the city in order to pray.' (*Vit. Hugb.* p. 486)

(43) *[...] apprehendit* *avem* *marinam* ***suade-nd-o*** *Philippum*
take.PST.3SG bird.ACC.F.SG of_the_sea.ACC.F.SG persuade-GER-DAT Philippus.ACC.M.SG
per *somnium.*
during sleep.ACC.N.SG
'He took the seabird in order to persuade Philippus in his sleep.' (Leo *Alex*. 1.8)

(44) *[...] ad basilicam* *sancti* *Marcelli* *[...]* ***ora-nd-i***
to basilic.ACC.F.SG saint.GEN.M.SG Marcellus.GEN.M.SG pray-GER-GEN
gratia *pergebat.*
for_the_sake_of go_to.PST.3SG
'He went to the basilic of saint Marcellus for the sake of praying.' (*Vit. Austr*. 1.4)

In Late Latin, the purpose of the main state of affairs can in addition be expressed by a bare accusative gerund phrase, unlike in Classical Latin (Odelstierna 1926: 32-42; Aalto 1949: 86; Hofmann & Szantyr 1965: 379; Pinkster 2021: §16.100). An often-cited example in this regard is *ambulandum* 'to walk' (1), which has already been discussed with respect to the morphological changes of the gerund in Late Latin (see §2.1.1.1) – this example is repeated below for practical reasons.[14]

(1) *Deinde* *ambulet* *et* *alio* *die* ***ambula-nd-um*** *ducere* *[...].*
then walk.SBJV.PRS.3SG and other.ABL.M.SG day.ABL.M.SG walk-GER-ACC bring.INF.PRS
'Then he should walk, and the following day (too) you should bring (him) to walk.' (Chiron 133)

In Classical Latin, the infinitive sometimes competes with the gerund in purpose adjuncts, namely when the main verb denotes a transfer or movement (see §1.2.2.2.5). In Late Latin, purpose adjunct infinitives can still combine with this type of verbs (e.g. *ad manducare* 'to eat' (45)), but they can also depend on other types of verbs (Perrochat 1932: 164-169; Norberg 1943: 206-231; Fruyt 1996: 45-46; Pinkster 2021: §16.86). Witness (46), in which the coordinated infinitives *comedere* 'to eat' and *bibere* 'to drink' act as the purpose adjuncts of the posture verb *sedit* '(it) sat down' (Pinkster 2021: §16.86).

(45) *Quomodo* *potest* *hic* *nobis* *carnem* *dare* *ad* ***manducare****?*
how can.PRS.3SG DEM.NOM.M.SG we.DAT.M.PL meat.ACC.F.SG give.INF.PRS to eat.INF.PRS
'How can he give us meat to eat?' (*Ital. Ioh*. 6.52)

[14] Note that the parallelism between this bare accusative gerund and the prepositional accusative phrase *ad ambulandum* 'for a walk' (39). This parallelism clearly indicates that the two types of constituents are equivalent and thus in competition with each other, especially considering that the *Mulomedicina Chironis*, from which is taken the example in (1), is the main source of Vegetius' text, from which is taken the example in (39).

(46) *[...] sedit* *populus* ***comedere*** *ac* ***bibere*** *[...].*
sit_down.PST.3SG people.NOM.M.SG eat.INF.PRS and drink.INF.PRS
'The people sat down to eat and to drink.' (*Vulg. Ex.* 32.6)

Due to the increasing number of verbs with which it may combine, the infinitive becomes a competitor of the gerund in a growing amount of purpose adjuncts. However, the infinitive does not only extend its area of competition with the gerund, it also starts substituting it, as in adnominal phrases as well as in verb and adjective complements (Ernout & Thomas 1951: 256, 270; Elcock 1960: 110-111; Väänänen 1963[3]: 139; Hofmann & Szantyr 1965: 345, 378-379; Fruyt 1996: 55, 58-59; Bauer 1993: 67, 2005: 517, 519; Pinkster 2021: §16.86). Once again, this gradual replacement of the gerund by the infinitive is completed in the transition from Late Latin to Romance – or at least to most Romance languages. In some Romance languages, purpose adjunct infinitives can moreover still be either bare or prepositional, just like in Late Latin. Witness the Modern French clauses *apporter des fruits* 'to bring fruit' (47) and *à lire* 'to read' (48) (*cf.* Elcock 1960: 110-111).

(47) *Je* *viens* ***apporter*** *des* *fruits.*
I.SUBJ.M.SG come.PRS.1SG bring.INF.PRS ART.INDF.M.PL fruit.M.PL
'I come to bring fruit.'

(48) *Il* *donna* *à* *sa* *femme* *des* *livres* *à* ***lire.***
he.SBJ.M.SG give.PST.3SG to his.F.SG wife.F.SG ART.INDF.M.PL book.M.PL to read.INF.PRS
'He gave to his wife some books to read.'

Since purpose adjunct gerunds always stand in the accusative, the genitive, and the dative, and since the gerund has only rarely another semantic value in these cases, the replacement of purpose adjunct gerunds by infinitives leads to the decline and eventual disappearance of accusative, genitive, and dative adjunct gerunds. As a corollary, adjunct gerunds survive in Romance only in the ablative (Aalto 1949: 73; Ernout & Thomas 1951: 267; Elcock 1960: 111; Väänänen 1963[3]: 139; Hofmann & Szantyr 1965: 369; Adams 2003: 748).[15]

As regards ablative adjunct gerunds, the prepositional forms are mostly governed by *in* 'in', which confers a temporal value to the gerund phrase (41) (Aalto 1949: 71-72; Pinkster 2021: §16.102). Bare ablative gerunds, as for them, have more or less the same semantic values as in Classical Latin, but in Late Latin, the relative frequency of these values is held to change in a way that is of crucial interest for the competition between the gerund and the present participle (Kooreman 1989: 219-220; Adams 2013:

[15] A few authors argue that, in Late Latin, the bare ablative gerund acquires the possibility to carry a final value (Hofmann & Szantyr 1965: 380; Kooreman 1989: 223). However, since the ablative gerund is morphologically identical to the dative gerund, there is no reason to take gerunds in *-ndo* with a purpose value as datives in Classical Latin, but as bare ablatives in Late Latin. Another group of authors recognise the existence of purpose bare ablative gerunds throughout the history of Latin, while at the same time acknowledging that of purpose dative forms (Odelstierna 1926: 24; Aalto 1949: 63, 76-78). This hypothesis is also untenable, since there are no objective arguments to determine whether some purpose gerund in *-ndo* is a dative or an ablative. The best option is therefore to take all forms in issue as either datives or bare ablatives. Following most authors, among whom Palmer (1964: 323) and Pinkster (2021: §16.100), all purpose adjunct bare gerunds in *-ndo* are taken in this thesis as datives.

725-726). Bare ablative gerunds still often express the manner of the main state of affairs, the means by which it is realised, or the state of affairs by which it is unintentionally brought about (e.g. *moriendo* 'by dying' (49)) (Hofmann & Szantyr 1965: 379; Kooreman 1989: 222; Adams 2013: 725), but they are claimed to be increasingly used with other semantic values (Lyer 1932; Ernout & Thomas 1951: 267; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 379-380; Kooreman 1989: 222-223; Adams 2013: 725-726; Pinkster 2021: §21.14).

(49) *[...] mortem* ***morie-nd-o*** *vicerit [...].*
death.ACC.F.SG die-GER-ABL defeat.PST.3SG
'He defeated death by dying.' (Cypr. *epist*. 73.5)

The range of these other values is relatively large and varied (Lyer 1932: 395-399; Aalto 1949: 65; Galdi & Vangaever 2019: 100-103). However, one of these values is considered to stand out in frequency. The value in issue is the default semantic value of adjunct present participles, namely the temporal value of expressing a state of affairs concomitant with the main state of affairs (Lyer 1932: 389-395; Ernout & Thomas 1951: 267; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 379-380; Adams 2013: 725-726; Pinkster 2021: §21.14). As in the case of adjunct present participles, this simultaneity relation may be partial (50) or complete (51).

(50) *[…]ubi quidem Tharso et* ***eu-nd-o*** *Ierusolimam iam fueram.*
where indeed Tharsus.ABL.M.SG also go-GER-ABL Jerusalem.ACC.F.SG already be.PST.1SG
'Where in Tharsus I had indeed already been also when going to Jerusalem.' (*Peregr. Aeth*. 22.1)

(51) *[...] sic redirent mature [...]* ***dice-nd-o*** *psalmos vel antiphonas [...].*
so return.SBJV.PST.3PL early say-GER-ABL psalm.ACC.M.PL or antiphon.ACC.F.PL
'So they returned early while singing psalms or antiphons.' (*Peregr. Aeth*. 15.5)

In Late Latin, the adjunct bare ablative gerund is thus claimed to gradually loosen its ties with its original manner/instrumental/causal value, and to develop into a semantically more neuter and versatile strategy for adverbial subordination, to the image of the adjunct present participle (Hofmann & Szantyr 1965: 379-380). According to Adams (2013: 725-740), however, this shift is less drastic than has traditionally been assumed. Though recognising that the absolute frequency of adjunct bare ablative gerunds with a non-manner/instrumental/causal value increases, he convincingly demonstrates that many of the alleged non-manner/instrumental/causal gerunds can nonetheless be analysed as such. He concludes that many instances are simply "ambiguous and not unequivocally to be assigned a non-instrumental participial function", and further argues that the bare ablative gerund is in fact "subject to *ad hoc* shifts of meaning determined by the context" (Adams 2013: 739; see also Lyer 1932: 399; Galdi & Vangaever 2019: 99; Pinkster 2021: §16.99). Adams' claim is supported by quantitative evidence gathered from a corpus of technical texts examined by Galdi & Vangaever (2019: 100-103, 106-107). It will be further empirically tested in the second part of this thesis (Chapter 4, §4.3.5).

However, the fact remains that, over time, the frequency of non-manner/instrumental/causal bare ablative gerunds gradually increases, at the cost of the present participle (Marouzeau 1910: 79; Kühner & Stegmann 1914[5]: 753; Lyer 1932; Aalto 1949: 65-66; Elcock 1960: 111; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 373, 377, 379-380, 384; Harris 1978: 200; Kooreman 1989; Bauer 1993, 2005; Maraldi 1994; Adams 2003: 748, 2013: 726, 735, 739; Pinkster 2021: §21.14). This replacement is held to extend to adjuncts in general, leading to the disappearance of the present participle in this type of constituents. As per usual, this process of substitution is completed only in the transition from Late Latin to Romance (Marouzeau 1910: 79; Aalto 1949: 73; Hofmann & Szantyr 1965: 384; Harris 1978: 200; Adams 2013: 726; Vincent 2016: 45). Evidence in favour of this shift can be found in the Romance languages themselves: in these languages, adjuncts can still be headed by a gerund, but not by a present participle (Elcock 1960: 111; Harris 1978: 200; Adams 2013: 726; Vincent 2016: 45).[16] However, as we will see in §2.2, Old French does not conform to this pattern, and hereby has a unique position among the Romance languages.

The substitution of the present participle by the gerund in adjuncts calls for two remarks. First, this substitution would not have been possible without the process of morphosyntactic verbalisation of the gerund (Lyer 1932: 399; Hofmann & Szantyr 1965: 373). Indeed, until at least the 2nd c. AD, the number of adjuncts with a high degree of internal syntactic complexity and comprising in particular an explicit direct object is much higher in the case of the present participle than in the case of the gerund. Hence, adjunct gerund phrases could not have successfully replaced their present participle counterparts without gaining in internal syntactic complexity (Lyer 1932: 230-231; Hofmann & Szantyr 1965: 373). As stated in §2.1.1.2.1.1, the morphosyntactic verbalisation of the gerund is mainly due to the decline of NPs including a personal gerundive. Thus, the evolution of the competition between the gerund and the present participle is not independent from their competition with other types of non-finite verb forms.

The second remark relates to the distinction between conjunct and absolute adjuncts. Discussions of the competition between the bare ablative gerund and the present participle in adjuncts usually focus on conjunct adjuncts. This is due to the fact that, as stated in §2.1.1.2.1.1, the subject of the bare ablative gerund is mostly coreferential with the subject of the main clause, so that it mainly competes with the nominative present participle. The replacement of nominative present participles by ablative gerunds in conjuncts is then held to be due to the semantic flexibility of the latter: since "the nominative participle must agree with the subject in number, while the ablative of the gerund is independent of the subject", the gerund is often "more convenient, if less precise, than the participle" (Wackernagel & Langslow 2009: 352; see also Vester 1983: 136; Adams 2013: 736).[17]

[16] For Spanish, see, e.g., Lloyd (1987: 315) or Penny (1995[2]: 235-237). For Italian, see, e.g., Maiden (1995: 124).
[17] This advantage of the bare ablative gerund over the nominative present participle supports De Smet's (2008, 2008b, 2013) claims that the substitution scenario in functional competition only takes place when one of the competing forms has significant advantages over the other (see also §1.1.3, fn. 7). However, the semantic flexibility of the gerund is not the only reason behind

However, adjunct bare ablative gerunds in Late Latin can also have an explicit subject that is not coreferential with a constituent of the main clause (see §2.1.1.2.1.1). These absolute forms compete with present participles as much as conjunct forms. This is apparent from the equivalence between the gerund clause *sancto suggerendo Spiritu* 'the Holy Spirit suggesting (it)' (52) and the present participle clause *amicis suggerentibus* 'his friends suggesting (it)' (53) (Väänänen 1963³: 141; Wackernagel & Langslow 2009: 352; Adams 2013: 736-739).[18]

(52) *[…]hoc* *etiam* *tonitrualis* *ille* *evangelistarum*
DEM.ACC.N.SG also thundering.NOM.F.SG DEM.NOM.M[F].SG evangelist.GEN.M.PL
vox, *sancto* ***suggere-nd-o*** *Spiritu,* *[…]* *concelebrat* *[…].*
voice.NOM.F.SG holy.ABL.M.SG suggest-GER-ABL spirit.ABL.M.SG celebrate.PST.3SG
'The thundering voice of the evangelists, on the suggestion of the Holy Spirit, also celebrated this.' (*Form. Marc.* 2.1)

(53) *[...] ad paternam,* *amicis* ***suggere-nt-ibus*** *commigravit* *domum.*
to paternal.ACC.F.SG friend.ABL.M.PL suggest-PTCP.PRS-ABL.M.PL move.PST.3SG house.ACC.F.SG
'He moved to his father's house on the suggestion of his friends (lit. 'because his friends suggested (it)').' (*Vit. Furs.* 2)

In this competition too, the present participle is gradually replaced by the gerund. Witness the Romance languages, where absolute adjuncts can still be headed by a gerund, but not by a present participle (Aalto 1949: 82; see also Vincent 2016: 45) – Old French is again an exception (see §2.2). The Spanish and Italian clauses *yo faziendo esto* 'while I am doing this' (54) and *e stando ogn' uomo queto et attento* 'when every man will be quiet and attentive' (55) are two examples of Old Romance absolute adjunct gerunds clauses cited by Aalto (1949: 82).

(54) *[...] yo* ***fazie-ndo*** *esto,* *ellos* *acabaron* *lo* *so* *[...].*
I do-GER DEM.N.SG they.SBJ.MPL finish.PST.3PL ART.DEF.N.SG their.N.SG
'While I am doing this, they finished theirs.' (*Cid* 3205)

(55) *[...]* ***sta-ndo*** *ogn'* *uomo* *queto* *et* *attento,* *comincerà* *questi*
stand-GER every.M.SG man.M.SG quit.M.SG and attentive.M.SG begin.FUT.3SG DEM.M.SG
a *cantare* *[...].*
to sing.INF.PRS
'When every man will be quiet and attentive, he will begin to sing.' (Fra' Guidotto *Fiore* 57.230)

its victory, and certainly not the most important one. As we will see in §2.1.1.3, the main force behind this substitution process is the restructuring of the system of non-finite verb forms in terms of morphosyntactic specialisation.

[18] Note that the subject of the gerund in (52) is not marked in the nominative, as in most absolute gerund clauses, but in the ablative. If anything, this confirms the confusion between absolute adjunct gerunds and ablative absolute adjunct present participles, and in particular the encroachment of the gerund on the distribution of the present participle.

To summarise, in Late Latin, the gerund increasingly loses ground to the infinitive in purpose adjuncts, while extending its use in all other types of adjuncts at the expense of the present participle.

2.1.1.2.2.3. The verbal gerund

The Late Latin gerund cannot only exhibit nominal or adverbial external syntax, but also verbal external syntax. In this case, it acts as the main verb of a progressive construction (Aalto 1949: 75-76; Väänänen 1963[3]: 141; Hofmann & Szantyr 1965: 380; Dietrich 1973: 305-312; Haverling 2010: 497). Like their present participle counterparts, progressive gerund constructions are verbal periphrases composed of a verb that is more or less grammaticalised into an aspectual auxiliary and a bare ablative gerund used syntactically and semantically as the main verb (Aalto 1949: 76). Within this specific configuration, the grammatical(ised) meaning of the auxiliary consists of presenting the state of affairs denoted by the gerund as ongoing. Hence, it serves as a marker of the progressive aspect. This progressive marker can be realised by a form of the verb *esse* 'to be' (e.g. *erat* 'he was' (56)), a posture verb, such as *stare* 'to stand' (e.g. *stetit* 'he stood' (57)), or a motion verb, like *vadere* 'to go' (e.g. *vadunt* 'they go' (58)) (Aalto 1949: 75; Dietrich 1973: 305-312).

(56) *[...] in monte erat Darius* ***vocifera-nd-o*** *et*
in mountain.ABL.M.SG be.PST.3SG Darius.NOM.M.SG scream-GER-ABL and
congrega-nd-o *multitudinem hostium [...].*
gather-GER-ABL multitude.ACC.F.SG enemy.GEN.M.PL
'On the mountain, Darius was screaming and gathering a multitude of enemies.' (Leo *Alex*. 2.14)

(57) *[...] cum prope silvam venisset [...] stetit dux*
when near forest.ACC.F.SG come.SBJV.PST.3SG stand.PST.3SG general.NOM.M.SG
diu ***cuncta-nd-o****.*
for_some_time hesitate-GER-ABL
'When he had come near a forest, the general stood in hesitation for some time.' (Amm. 17.1.8)

(58) *[...] contra illos qui* ***mentie-nd-o*** *vadunt [...].*
against DEM.ACC.M.PL REL.NOM.M.SG lie-GER-ABL go.PRS.3PL
'(...) against those who go lying.' (*Carol. capit.* 1a.810)

The use of the gerund as the main verb of a progressive construction historically derives from its use as the head of an elaborating adjunct phrase (Aalto 1949: 76).[19] The emergence of this use is to be explained in the same way as in the case of the present participle. This process has been investigated in §1.3.2.2.5,

[19] In Vangaever (2019), I examine the emergence of the progressive gerund construction along with that of its present participle counterpart within the theoretical framework of Diachronic Construction Grammar. See also §1.3.2.2.5, fn. 72.

and will not be rediscussed here.[20] More relevant here is the observation that, unlike in the progressive present participle construction in Classical Latin, the auxiliary of the progressive gerund construction in Late Latin can be realised by a motion verb. This type of verbs often keep track of their original lexical meaning (*cf.* the concept of 'persistence' put forward by Hopper 1991: 22), and thus display a low degree of desemanticisation and, by extension, grammaticalisation (*cf.* Heine 1993: 54-56). The same holds for the posture verbs (Dietrich 1973: 307), as for the progressive present participle construction in Classical Latin (see §1.3.2.2.5). For instance, in (57) the general may be standing while hesitating, and in (58), people may be moving around while telling lies. However, the question whether the general is standing (57) and whether the people telling lies are moving around (58) is contextually less relevant. What really matters is that the general has been hesitating for some time (57) and that some people continuously tell lies (58). This is manifest from the discourse context of (57-58), given in respectively (59-60).

(59) *Emensaque aestimatione decimi lapidis cum prope silvam venisset squalore tenebrarum horrendam, stetit dux diu* ***cunctando****, indicio perfugae doctus per subterranea quaedam occulta fossasque multifidas latere plurimos, ubi habile visum fuerit erupturos.*
'And after having advanced approximately ten miles, when he had come near a forest formidable with its forbidding shade, the general stood in hesitation for some time, being informed by the report of a deserter that large forces were lurking in some hidden underground passages and wide-branching trenches, ready to burst forth when they saw an opportunity.' (Amm. 17.1.8)

(60) *Ut missi sive comites illorum missos transmittunt contra illos qui* ***mentiendo*** *vadunt, ut eos convincant.*
'Just like the legates or their officials send around messengers against those who go lying, in order to convince them.' (*Carol. capit.* 1a.810)

In (59), the narrator zooms in on a state of affairs taking place near a forest after a general and his army marched ten miles, and after this same general has been told that enemies are waiting for an opportunity to attack. The focus is on the hesitations of the general, since he is trying to figure out what to do about the threat of the enemy. At the center of the passage in (60) is the lying of some people: legates or their officials are sending around messengers in order to convince the people who are spreading lies about some matter. Within these contexts, the lexical meaning of *stetit* 'he stands' (59) and *vadunt* 'they go' (60) is backgrounded in favour of their grammatical value, which consists of presenting the hesitations of the general (59) and the lying of some people (60) as ongoing. The general may stand while hesitating, but he may just as well be sitting, lying, or even pacing around. Similarly, the people may move around while telling lies, but they may just as well be sitting, lying, or even standing still.

[20] It is highly plausible that the emergence of the progressive gerund construction in Late Latin did not take place independently from the further development of the progressive present participle construction, all the more because the two constructions are in competition since the very emergence of the gerund variant (*cf.* Aalto 1949: 75). The fact the gerund and the present participle also compete with each other in the source structure of the progressive construction strengthens this hypothesis. The relation between the two types of progressive constructions and the role played in their further evolution by the competition between adjunct bare ablative gerunds and adjunct present participles has not yet been investigated (*cf.* Vangaever 2019: 262-263).

Needless to say, the persistence of the lexical meaning of some posture and motion verbs makes it sometimes difficult to establish whether their combination with a bare ablative gerund instantiates a progressive construction or its bi-clausal source structure. Therefore, it is not suprising that the analysis of some combinations is subject to debate. A good example is *ire trahendo* '(that) they go dragging' (61), which is taken as a progressive construction by, e.g., Aalto (1949: 75), Hofmann & Szantyr (1965: 380), and Dietrich (1973: 309), but as a bi-clausal structure comprising an adjunct gerund by Pinkster (2021: §21.14).

(61) *[...] credas* *ut* *stellas* *ire* ***trahe-nd-o*** *comas.*
believe.SBJV.PRS.2SG that star.ACC.F.PL go.INF.PRS drag-GER-ABL ray.ACC.F.PL
'You would believe that stars go dragging their rays.' (Ven. Fort. *carm*. 5.5.118)

This same holds for the present participle counterparts, both in Classical Latin (see §1.3.2.2.5) and Late Latin (see §2.1.2.2.2.3.1). The distinction between progressive gerund constructions and their bi-clausal source structure will be examined in detail in Chapter 3 (§3.5.4).

For now, it is important to note that, as soon as they emerge, progressive gerund constructions enter in competition with their present participle equivalents. As in adjuncts, this competition soon starts settling in favour of the gerund (Aalto 1949: 75; Dietrich 1973: 305, 307; Hofmann & Szantyr 1965: 380). Thus, progressive present participle constructions are gradually replaced by gerund constructions, and definitively so in the transition to Romance (Meyer-Lübke 1899: 333; Diez 1843[4]: 907; Lyer 1934: 169; Aalto 1949: 75; Dietrich 1973: 305, 307; Harris 1978: 200-201; Vincent 2016: 45). The examples in (62-63) illustrate a progressive gerund construction in respectively Modern Spanish and Italian.

(62) *Estuvo* ***escribie-ndo*** *hasta* *despues* *del* *alba.*
be.PST.3SG write-GER until after of;ART.DEF.F.SG dawn.F.SG
'He was writing until after dawn.' (Squartini 1998: 38)

(63) *Ieri* *Giulio* *stava* ***parla-ndo*** *con* *Marco,* *quando* *arrivò* *Giacomo.*
yesterday Giulio stand.PST.3SG talk-GER with Marco when arrive.PST.3SG Giacomo
'Yesterday Giulio was talking with Marco, when Giacomo came.' (Squartini 1998: 73)

Despite this long-term replacement of the present participle variant by the gerund variant, the former is occasionally attested in Old Romance, namely in Old Italian (Filzi 1914: 35-40; Škerlj 1926; Squartini 1998: 28), Old Occitan (Squartini 1998: 28), and Old Romanian (Squartini 1998: 29). As we will see in (§2.2), Old French has an idiosyncratic position among the Romance languages also in this respect.

2.1.1.2.2.4. External syntactic profile of the gerund

As in Classical Latin, the external syntax of the gerund in Late Latin is diverse: it can occur in adnominal phrases, verb complements, adjective complements, adjuncts, and probably also adverb complements.

In addition, it can act as the main verb of a progressive construction. However, the frequency of these uses drastically changes in view of the intensifying competition of the gerund with the infinitive and the present participle. This section will synthesise these changes and measure their impact on the external syntactic profile of the gerund. As stated in the Introduction of this thesis, there are currently no corpus studies of the external syntax of the gerund in Late Latin, let alone studies providing quantitative figures of its various uses. Hence, all frequency shifts predicted by the functional changes set out in the previous sections remain speculative. One of the aims of the empirical part of this thesis is to investigate to which extent these functional changes are observable in a diachronic corpus of Late Latin texts (Chapter 4).

As regards the competition between the gerund and the infinitive, it involves adnominal phrases, verb complements, adjective complements, and purpose adjuncts. These competitions all tend to settle in favour of the infinitive. This evolution causes the number of adnominal, verb complement, adjective complement, and purpose adjunct gerunds to drop, and, incidentally, their proportion to the total number of gerunds. As for the competition of the gerund with the present participle, it concerns non-purpose adjuncts and progressive constructions. These competitions both settle in favour of the gerund. This shift makes the number of non-purpose adjunct gerunds and gerunds used in a progressive construction rise, and, as a corollary, their proportion to the total number of gerunds. These trends turn up in Late Latin, especially in substandard varieties, but are completed only in the transition to Romance. – or at least to most Romance languages. However, the transition from Late Latin to Old French is a notable exception to some of them (see §2.2).

It is important to recall that when two or more forms enter in competition, two main scenarios can be distinguished (Traugott & Trousdale 2013: 18; Fonteyn 2016: 32, 2019: 53; De Smet *et al.* 2018: 198). Either one of the alternatives is favoured and causes its competitor(s) to decline or even disappear (Leech *et al.* 2009), or each of the alternatives subsists, but specialises in different functional domains (Torres Cacoullos & Walker 2009). The outcomes of these scenarios are referred to by De Smet *et al.* (2018: 198) as respectively ‘substitution’ and ‘differentiation’. In Late Latin, the functional competition of the gerund with the infinitive and the present participle settles in terms of the second scenario, that of differentiation: the infinitive specialises in adnominal phrases, verb as well as adjective complements, and purpose adjuncts at the expense of the gerund, while the gerund specialises in non-purpose adjuncts and progressive constructions to the detriment of the present participle (on the latter, see also §2.1.2.2.2).

The emerging functional differentiation between the gerund and the infinitive has an important morphological implication. As in Classical Latin, the gerund in Late Latin almost always occurs in an adnominal phrase, verb complement, adjective complement, or purpose adjunct when it is marked in the accusative, the genitive, or the dative. By contrast, the ablative gerund is almost always used in a non-purpose adjunct or progressive construction. Thus, the specialisation of the gerund in Late Latin in these latter two uses and its replacement by the infinitive in its other uses entails that the gerund survives in

the ablative, while gradually disappearing in the other case forms (Aalto 1949: 73; Ernout & Thomas 1951: 267; Elcock 1960: 111; Väänänen 1963[3]: 139; Hofmann & Szantyr 1965: 369; Adams 2003: 748). Consequently, the Romance gerund goes back to the ablative gerund rather than to the Late Latin gerund as a whole. Since the external syntactic profile of this ablative gerund significantly differs from that of the accusative, genitive, and dative forms, and is as such not representative of the gerund as a whole, it is not surprising that the Latin gerund is more similar to the English gerund than to the Romance gerund (*cf.* Haspelmath 1995: 45; see also Vincent 2016: 37, 46).

In view of the evolution just sketched, one might raise the question to which extent the gerund in Late Latin and in Romance can still be considered as the suppletive form of the infinitive. In Late Latin, the collapse of the case system and the increasing use of prepositional infinitives enable the infinitive to occur in an increasing number of syntactic contexts. Among these contexts are those from which the infinitive was excluded in Classical Latin, and in which the gerund was to be used instead. Considering that, in Late Latin and in the transition to Romance, the gerund and the infinitive specialise in different functional domains and that, in doing so, the infinitive replaces the gerund in the accusative, the genitive, and the dative, but not in the ablative, the gerund ceases to act as the suppletive form of the infinitive. That is to say, it develops into a morphologically and functionally independent type of non-finite verb forms. This evolution toward categorial independency starts in Late Latin, but is completed only in the transition to Romance. Indeed, it is in this transitional period that the infinitive definitively replaces its gerund competitors, while leaving unaffected its functionally and formerly also formally complementary ablative gerund form.

It should be emphasised that the emerging division of labour between the gerund and the infinitive in Late Latin is to a large extent made possible by increasing use of prepositional infinitives, in particular forms governed by *ad* ‘to’ (Ernout & Thomas 1951: 256; Hofmann & Szantyr 1965: 369; Harris 1978: 199). In this way, the evolution toward functional differentiation between the gerund and the infinitive is not only part of the restructuring of the system of non-finite verb forms (Elcock 1960: 110-119; Bauer 1993: 59), but also of the more general shift from the synthetic marking of syntactic relations by means of inflectional morphology to their analytic marking (Ernout 1914[3]: 9-10; Väänänen 1963[3]: 111).

2.1.1.3. Morphosyntactic profile of the gerund

The changes affecting the external syntax of the gerund in Late Latin have also important implications for its morphosyntactic profile. From a morphosyntactic perspective, the substitution of the gerund by the infinitive in adnominal phrases as well as in verb and adjective complements entails that the gerund progressively loses its nominal external syntax. By contrast, its replacement by the infinitive in purpose adjuncts ousts the gerund from only part of its adverbial external syntax. Put differently, the nominal

gerund is gradually substituted by the nominal infinitive, whereas the adverbial gerund and the adverbial infinitive specialise in different semantic values. As for the specialisation of the gerund in non-purpose adjuncts and progressive constructions at the cost of the present participle, its morphosyntactic correlate is its specialisation in adverbial and verbal external syntax. Thus, the emerging functional differentiation between the gerund and the infinitive and between the gerund and the present participle follows a much more general evolutionary trend, namely that of morphosyntactic specialisation. This trend commences in Late Latin, but is pursued more markedly in the transition to Romance (*cf.* Carlier & Combettes 2015). Barring purpose adjunct infinitives, on the one hand, and gerunds used in a progressive construction, on the other, the infinitive thus specialises in nominal external syntax and the gerund in adverbial external syntax. The more general conclusion to be drawn is that functional competition may not only increase the degree of functional isomorphism of a language, but also, and perhaps more significantly, its degree of morphosyntactic isomorphism.

2.1.1.4. Typological profile of the gerund

The external syntactic changes of the gerund in Late Latin do not only have important implications for its morphosyntactic profile, but also for its typological profile. Recall that the typological profile of the gerund is obtained by mapping its morphosyntactic profile on Haspelmath's (1995: 4) typology of non-finite verb forms, in which a distinction is made between: (i) masdars, *i.e.* forms with nominal external syntax; (ii) converbs, *i.e.* forms exhibiting adverbial external syntax, and (iii) participles, *i.e.* forms with adjectival external syntax). As in Classical Latin, the nominal gerund in Late Latin falls under the masdar type, while the adverbial gerund is associated with the converb type. Like the verbal present participle in Classical Latin, the verbal gerund in Late Latin is not related to any of these types, at least not from a synchronic point of view. Hence, it will be left out in the following discussion.

In Late Latin, the specialisation of the gerund in adverbial external syntax and its replacement by the infinitive in nominal external syntax strengthens its association with the converb type and weakens its link with the masdar type. That is to say, the gerund becomes more and more converb-like. Since the labels 'masdar', 'converb', and 'participle' are used in this thesis as purely functional labels (see §1.2.4), this process can be referred to as 'converbalisation'.[21] This does not mean that the Late Latin gerund *is* or *becomes* a converb, just like the Classical Latin gerund is not a masdar (see §1.2.5). The Late Latin gerund is nothing but the Late Latin gerund, *viz.* a language-specific non-finite verb form with a unique set of morphological and syntactic properties and an equally unique morphosyntactic profile. However, due to its converbalisation, it is not surprising that, in typological literature, descriptions are sometimes

[21] I first used this term in a paper presented at the 13th International Colloquium on Late and Vulgar Latin at the University of Eötvös Loránd in Budapest (September 2018). To my knowledge, this term has not been used before. The title of the paper in issue is: *Categoriality in language change: The "converbalisation" of the gerund*.

found of Romance gerunds in terms of converbs. Witness Haspelmath (1995: 45), who states that "[T]he Romance gerund is a rather typical converb". The label 'converb' being taken in this study as a language-independent functional label instead of a language-specific categorial label, I refrain from this practice.

2.1.2. The present participle

Having explored the evolution of the gerund in Late Latin, I will investigate in this section the evolution of the present participle. As for the gerund, I will first examine the changes affecting the morphology (§2.1.2.1) and syntax (§2.1.2.2) of the present participle. Then, I will assess the impact of these changes on the morphosyntactic (§2.1.2.3) and typological (§2.1.2.4) profile of the present participle. Changes in the competition of this form with the gerund will be studied throughout these sections, and hence they will not be synthesised in a separate section.

2.1.2.1. Morphological changes of the present participle

Like those of the gerund, the morphological properties of the present participle are similar in Late Latin and in Classical Latin. They remain moreover relatively stable over time (Elcock 1960: 111, 116). Only one evolution can be observed, identical to that affecting the morphology of the gerund. This evolution consists of the generalisation of the forms of the first and second/third declension verbs at the expense of those of the fourth/fifth declension, thus of forms containing *-ant-* (e.g. *cantantem* 'singing') or *-ent-* (e.g. *delentem* 'destroying') at the cost of forms comprising *-i(e)nt-* (e.g. *morientem* 'dying') (Elcock 1960: 111.

However, as in the case of the gerund, the morphology of the present participle is also occasionally affected by phonetic evolutions. Most relevant are the apocope of final /m/ and the spirantisation of /nt/ before /i/ or /e/ (Väänänen 1963³: 54, 66-67). For instance, *presente* 'present' (64) looks like an ablative present participle, but instantiates in fact as an accusative form affected by the apocope of final /m/. The accusative is assigned through agreement with the noun *misso* 'messenger'. Besides being also apocoped for its final /m/, this form shows vocalic confusion between /ō/ and /ŭ (*cf.* Väänänen 1963³: 54, 66-67).

(64) *[...] ipsum* *nunc* *per* ***prese-nt-e*** *misso*
INTENS.ACC.M.SG now by be_present.PTCP.PRS-ABL[ACC].M.SG sending.ABL[ACC].M.SG
vobis *direximus.*[22]
you.DAT.M.PL direct.PST.1PL
'We now directed him to you by this sending.' (*Epist. Desid*. 2.3)

The fact that *presente misso* 'this sending' stands for *presentem missum* 'this sending' is evident from the presence of the preposition *per* 'by', which always assigns the accusative to its complement (Pinkster 2015: 1230).

An example of a present participle affected by the spirantisation of /nt/ before /i/ or /e/ is offered by *nuncupancia* 'named' (65). The originally dental consonant /t/ of this form is spirantised before /i/, leading to the ending *-ancia* instead of *-antia*.

(65) *[...] de* *loca* ***nuncupa-nc-ia*** *illa* *[...].*
about place.ACC[ABL].N.PL be_named-PTCP.PRS-ACC[ABL].N.PL DEM.ACC[ABL].N.PL
'(...) about these places that are named (...).' (*Form. Tur*. p. 161)

As in the case of the gerund, the phonetic evolutions affecting the morphology of the present participle are of little interest in this study. Hence, they will not be further examined.

2.1.2.2. Syntactic changes of the present participle

Contrary to its morphological properties, the syntactic properties of the present participle undergo drastic changes in Late Latin. These changes pertain to both its internal (§2.1.2.2.1) and external (§2.1.2.2.2) syntax, though the latter are much more pronounced than the former (as in the case of the gerund).

2.1.2.2.1. Internal syntactic changes of present participle phrases

The changes regarding the internal syntax of the present participle concern the internal complexity of present participle phrases (§2.1.2.2.1.1) and the marking of the internal argument of the present participle (§2.1.2.2.1.2).

[22] In Late Latin, the determiner/pronoun *ipse* progressively loses its emphatic character and gradually develops into a relatively neuter definite determiner/pronoun (*cf.* Aebischer 1948; Selig 1992; Carlier & De Mulder 2010). However, this evolution is completed only in the transition from Late Latin to Romance. Hence, this Late Latin determiner/pronoun is often referred to as a proto-article or 'articloid', term coined by Aebischer (1948).

2.1.2.2.1.1. Internal syntactic complexity of present participle phrases

In Classical Latin, present participle phrases with a high degree of internal syntactic complexity are rare until the 1st c. BC, and mostly conjunct adjuncts headed by a nominative present participle (Marouzeau 1910: 13-22; Lyer 1932: 227). From the 1st c. BC onward, the number of phrases with a high degree of internal complexity increases, especially in literary texts and texts written in a high register (Marouzeau 1910: 13-22; Lyer 1932: 230-231). This causes the mean degree of finiteness of these phrases to rise (*cf.* Lehmann 1988: 191-197), hereby exemplifying the concept of finitisation (*cf.* Rose 2016: 350; see also §1.3.2.1.1).

In Late Latin, the finitisation of present participle phrases continues. Thus, phrases with a complex internal syntactic structure gain in frequency. The coordinated clauses headed by *facientes* 'making' and *euntes* 'going' (66) are cases in point: *facientes* 'making' governs the noun *aquam* 'water' as its direct object[23] and is further modified by the adverbs *inde* 'thence' and *denuo* 'again' as well as by the ablative NP *alia die* 'the following day', which act as respectively a spatial, an aspectual, and a temporal adjunct; *euntes* 'going', as for it, is accompanied by the PP *inter montes* 'between the mountains', which serves as its spatial argument, and by the adverbs *adhuc* 'still' and *aliquantulum* 'a little bit', respectively an aspectual and a quantificational adjunct.

(66) *Inde* *denuo* *alia* *die* ***facie-nt-es*** *aquam* *et*
thence again other.ABL.F.SG day.ABL.F.SG make-PTCP.PRS-NOM.M.SG water.ACC.F.SG and
eu-nt-es *adhuc* *aliquantulum* *inter* *montes* *pervenimus* *ad*
go-PTCP.PRS-NOM.M.SG still a_little_bit between mountain.ACC.M.SG arrive.PST.1PL at
mansionem *[...].*
residence.ACC.F.SG
'After we stocked water again from there the following day and after we still walked a little bit between the mountains, we arrived at a residence.' (*Peregr. Aeth.* 6.1)

This general trend toward finitisation does not entail that present participle phrases can no longer have a low degree of internal syntactic complexity. Indeed, they can still be restricted to the present participle, and the internal argument of transitive present participles can still be 'deactualised' (Dik 1985: 11) or left implicit, to be inferred from the discourse context. Witness (67), where the present participle phrase only contains the form *sequenti* 'following' – its direct object is left unspecified because it can be easily inferred from the discourse context.

[23] The present participle *facientes* 'making' and the noun *aquam* 'water' form a light verb construction.

(67) *Die* *autem* ***seque-nt-i*** *[...]* *prostraverunt* *se* *in*
day.ABL.M.SG but follow-PTCP.PRS-ABL.M.SG prostrate.PST.3PL REFL.ACC.M.PL to
orationem *[...].*
prayer.ACC.F.SG
'But the following day, they prostrated to pray.' (*Vit. Gal. Wal.* p. 315)

Nevertheless, complex present participle phrases become more frequent. They develop in this way into a syntactically more versatile and clause-like subordination strategy. Since the degree of finiteness of a clause is reflected morphosyntactically on its head (Givón 1990: 853; Bisang 2001: 1400; Nikolaeva 2010: 1178-1179), the finitisation of present participle phrases makes the present participle continue its process of morphosyntactic verbalisation set off from the 1st c. BC onward. The gerund and the present participle thus both undergo a process of morphosyntactic verbalisation. However, this process starts a few centuries earlier with the present participle that with the gerund.

2.1.2.2.1.2. Marking of the internal argument of the present participle

The morphosyntactic verbalisation of the present participle also manifests itself in the marking of its internal argument (Bauer 1993: 65, 2005: 516), just like in the case of the gerund. As in Classical Latin, the present participle in Late Latin can have the internal syntax of a verb or an adjective. Compare (66) and (68): in (66), *facientes* 'making' has verbal internal syntax, since its direct object, *viz.* the accusative noun *aquam* 'water', is marked in the same way as when governed by a finite form of *facere* 'to make eat'; in (68), on the contrary, *favens* 'supportive' has adjectival internal syntax, since its second argument *vestrae peticionis* 'your petition' is assigned the genitive, just like when it depends on a noun, while it stands in the dative when governed by a finite form of *favere* 'to support'.

(68) *[...] si* *ipse* *vestrae* *peticionis* ***fave-ns*** *[...]*
if INTENS.NOM.M.SG your.GEN.F.SG petition.GEN.F.SG favour-PTCP.PRS.NOM.M.SG
esse *voluerit* *[...].*
be.INF.PRS want.SBJV.PST.3SG
'If he himself wanted to be supportive of your petition (...) .' (*Vit. Bonit.* 35)

However, the present participle has overwhelmingly verbal internal syntax, as already in Classical Latin. Since non-finite clauses showing verbal internal syntax are more finite than those exhibiting adjectival internal syntax (*cf.* Lehmann 1988: 191-197), this positively contributes to the mean degree of finiteness of present participle clauses.

2.1.2.2.2. External syntactic changes of the present participle

Generally speaking, the external syntax of the present participle in Late Latin is as diverse as in Classical Latin, in that it can still display adjectival, adverbial, and verbal external syntax (Elcock 1960: 111-112; Väänänen 1963³: 140-141). It has adjectival external syntax when used in an adnominal phrase, a subject predicate, or an object predicate; adverbial external syntax when heading an adjunct; and verbal external syntax when acting as the main verb of a progressive or presentative progressive construction or when serving as a finite verb (see §1.3.3). The tripartite distinction between adjectival, adverbial, and verbal present participles in Classical Latin is thus preserved in Late Latin. Hence, the present participle is still a 'tri-functional category of non-finite verb forms' (*cf.* Nedjalkov 1995: 104-105).

Despite having the same uses as in Classical Latin, the external syntactic profile of the present participle in Late Latin drastically changes. This is due in particular to its intensifying competition with the gerund (Aalto 1949: 73; Elcock 1960: 111; Väänänen 1963³: 140-141; Hofmann & Szantyr 1965: 384; Bauer 1993, 2005; Adams 2003: 748, 2013: 725-740; Pinkster 2015: 549 fn. 237, 2021: §21.14). This section aims to explore the evolution of this profile, by examining the evolution of successively the adverbial (§2.1.2.2.2.1), the adjectival (§2.1.2.2.2.2), and the verbal present participle (§2.1.2.2.2.3).

As in the case of the gerund, the external syntax of the present participle in Late Latin has not yet been the subject of a quantitatively oriented diachronic corpus study. Moreover, discussions of this topic in the existing literature are usually short and poorly documented (e.g. Elcock 1960: 111-112; Väänänen 1963³: 140-141). Some uses of the present participle have been examined in more detail, such as its use as a finite verb (e.g. Eklund 1970: 117-205; Adams 1976: 60-65) and as the main verb of a presentative progressive construction (e.g. Greco 2013), but others have been given no or little attention, for example its use in adnominal phrases as well as in subject and object predicates. Since the current section serves to present the state of the art of the evolution of the present participle in Late Latin, the different uses of the present participle will therefore be illustrated by only a few examples. In the empirical part (Chapter 5), these uses will be exemplified more extensively.

2.1.2.2.2.1. The adverbial present participle

As in Classical Latin, the adverbial present participle in Late Latin has only one use, namely in adjuncts (Väänänen 1963³: 140). In (69) and (70), *haec videns* 'seeing this' and *manducans multum* 'eating a lot' serve as respectively a temporal and a concessive adjunct.

(69) *Haec* ***vide-ns*** *virgo* *ancilla=que* *Christi*
DEM.ACC.N.PL see-PTCP.PRS.NOM.F.SG virgin.NOM.F.SG servant.NOM.F.SG=and Christ.GEN.M.SG
ad *Claudium* *imperatorem* *dixit* *[...].*
to Claudius.ACC.M.SG emperor.ACC.M.SG say.PST.3SG
'Seeing this, the virgin and servant of Christ said to Emperor Claudius (...)' (*Pass. Iul.* 1.1.4)

(70) *[...]* ***manduca-ns*** *multum* *esurit* *[...].*
eat-PTCP.PRS.NOM.M.SG a_lot be_hungry.PRS.3SG
'Despite eating a lot, it is hungry.' (Chiron 407)

A bipartite distinction can also still be made between conjunct and absolute adjunct present participles. The subject of conjunct forms is coreferential with a constituent of the main clause. Hence, it is typically syntactically shared with this main clause (e.g. (69-70)). In contrast, the subject of absolute forms is not coreferential with any constituent of the main clause. For this reason, it usually explicit inside the present participle clause (e.g. *sancto Moyse* 'saint Moses' in (71)).

(71) *[...]* *ubi* *incensus* *est* *vitulus* *[...]* ***iube-nt-e***
where burn.PTCP.PST.NOM.M.SG be.PRS.3SG calf.NOM.M.SG order-PTCP.PRS.-ABL.M.SG
sancto *Moyse* *[...].*
saint.ABL.M.SG Moses.ABL.M.SG
'(...) where the calf was burned on command of saint Moses (lit. 'because saint Moses ordered (it)').' (*Peregr. Aeth.* 5.6)

In contrast with Classical Latin, where absolute present participles are practically always marked in the ablative,[24] in Late Latin, they may also stand in the nominative, the accusative, or the genitive (Kühner & Stegmann 1914[5]: 792; Pinkster 2021: §16.88, §16.94-§16.98). Depending on the case of the present participle, a distinction is made between nominative (e.g. *benedicens nos episcopus* 'the bishop blessing us' (72)), accusative (e.g. *advenientem sanctum Abraam* 'saint Abraham approaching' (73)), genitive (e.g. *inter se invicem cogitationum accusantium aut etiam defendentium* 'their thoughts accusing and also defending each other' (74)), and ablative (e.g. *iubente sancto Moyse* 'saint Moses commanding (it)' (71)) absolute (adjunct) constructions (Kühner & Stegmann 1914[5]: 792; Müller-Lancé 1994; Pinkster 2021: §16.88, §16.94-§16.98).

(72) *[...]* ***benedice-ns*** *nos* *episcopus* *profecti* *sumus.*
bless-PTCP.PRS.NOM.M.SG we.ACC.M.PL bishop.NOM.M.SG leave.PTCP.PST.NOM.M.SG be.PRS.1PL
'After the bishop blessed us, we left.' (*Peregr. Aeth.* 16.7)

[24] As mentioned in §1.3.2.2.4, most authors only acknowledge the existence of ablative absolute present participles in Classical Latin. However, some scholars also recognise the existence of nominative absolutes in this period. The candidates for the latter are in any case extremely rare. Hence, absolute present participles in Classical Latin are either always or practically always in the ablative.

(73) *[...] sanctus Melchisedech,* ***advenie-nt-em*** *sanctum*
saint.NOM.M.SG Melchisedech.NOM.M.SG approach-PTCP.PRS-ACC.M.SG saint.ACC.M.SG
Abraam, hostias Deo puras [...] optulit.
Abraham.ACC.M.SG sacrifice.ACC.F.PL God.DAT.M.SG pure.ACC.F.PL offer.PST.3SG
'As saint Abraham was approaching, saint Melchisedech offered pure sacrifices to God.' (*Peregr. Aeth.* 14.2)

(74) *[...] ostendunt opus legis [...] inter se invicem*
show.PRS.3PL work.ACC.N.SG law.GEN.F.SG between REFL.ACC.M.PL mutually
cogitationum ***accusa-nt-ium*** *aut etiam* ***defende-nt-ium*** *[...].*[25]
thought.GEN.F.PL accuse-PTCP.PRS-GEN.F.PL or also defend-PTCP.PRS-GEN.F.PL
'They show the work of the law while their thoughts are mutually accusing and also defending each other.' (*Vulg. Rom.* 2.15)

The present participle competes with the gerund in adjuncts already in Classical Latin (see §1.4). At this stage of the language, however, the competition between these forms is weak. On the one hand, they are specialised in different semantic values, so that their external syntactic overlap has more of a semantic complementary distribution than of a true functional competition (Vester 1983: 125; Kooreman 1989: 219; Adams 2013: 725-726; Galdi & Vangaever 2019: 100-108; Pinkster 2021: §21.14). On the other hand, their competition is more or less restricted to conjunct clauses having a subject coreferential with that of the main verb. The forms subject to competition are thus bare ablative gerunds and nominative present participles (Aalto 1949: 78; Vester 1983: 103; Kooreman 1989: 220; Adams 2013: 736; Pinkster 2021: §14.12, §21.14).

In Late Latin, the competition between the gerund and the present participle in adjuncts gains in intensity. At least two reasons can be put forward. Most significantly, the bare ablative gerund gradually loosens its ties with its original manner/instrumental/causal value, so as to develop into a semantically more neuter and versatile strategy for adverbial subordination. In this way, it becomes a competitor of the present participle in an increasing number of semantic contexts (Marouzeau 1910: 79; Kühner & Stegmann 1914[5]: 753; Lyer 1932; Aalto 1949: 65-66; Elcock 1960: 111; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 373, 377, 379-380, 384; Harris 1978: 200; Kooreman 1989; Bauer 1993, 2005; Maraldi 1994; Adams 2003: 748, 2013: 726, 735, 739; Pinkster 2021: §21.14). In addition, despite remaining most often coreferential with that of the main verb, the subject of bare ablative gerunds starts being able to not be coreferential with any constituent of the main clause, as in (75) (Väänänen 1963[3]: 141; Hofmann & Szantyr 1965: 144; Pinkster 2021: §21.14; see also §2.1.2.2.1.1 and §2.1.1.2.2.2).

[25] As noted by Pinkster (2021: §16.96), the use of genitive absolute present participles in religious texts is influenced by Biblical Greek. Witness the clause in (74), which translates a Greek genitive absolute adjunct present participle clause.

(75) *[...] meos animos plura* ***vide-nd-o*** *cremas.*
my.ACC.M.PL soul.ACC.M.PL more.ACC.N.PL see-GER-ABL burn.PRS.2SG
'You burn my soul as I see more.' (Ven. Fort. *carm*. 11.19.2)

However, the competition between the gerund and the present participle does not only gain in intensity, but also starts settling, in favour of the gerund (Marouzeau 1910: 79; Kühner & Stegmann 1914[5]: 753; Lyer 1932; Aalto 1949: 65-66; Elcock 1960: 111; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 373, 377, 379-380, 384; Harris 1978: 200; Kooreman 1989; Bauer 1993, 2005; Maraldi 1994; Adams 2003: 748, 2013: 726, 735, 739; Vincent 2016: 45; Pinkster 2021: §21.14). As mentioned in §2.1.1.2.2.2, adjunct present participles are thus gradually replaced by gerunds. Although this replacement primarily concerns conjuncts, it also holds for absolute forms (Väänänen 1963[3]: 141).

This evolution is even more significant from a morphosyntactic viewpoint: since adjunct gerunds and present participles have the external syntax of an adverb, the replacement of the latter by the former consists of the substitution of the adverbial present participle by the adverbial gerund. That is, the gerund specialises in adverbial external syntax at the expense of the present participle. Hence, the survival of the present participle in the transition from Late Latin to Old Romance becomes completely reliant on its adjectival and verbal external syntax, examined in respectively §2.1.2.2.2.2 and §2.1.2.2.2.3.

2.1.2.2.2.2. The adjectival present participle

In Late Latin, the adjectival present participle has the same uses as in Classical Latin. It can thus occur in adnominal phrases (e.g. *ineunte* 'beginning' (76)), subject predicates (e.g. *contradicentes* 'obstinate' and *furantes* 'mad' (77)), and object predicates (e.g. *tumentem* 'swollen' (78)).

(76) *[...] cum ab* ***ineu-nt-e*** *pueritia [...] militaveritis [...].*
when from begin-PTCP.PRS-ABL.F.SG childhood.ABL.F.SG serve.SBJV.PST.2PL
'When you served (in the army) from the beginning of your childhood (...).' (*Epist. Austr*. 5)

(77) *[...] quod deinceps apostolus praecipit exsequantur ut non*
REL.ACC.N.SG next apostle.NOM.M.SG order.PST.3SG carry_out.SBJV.PRS.3PL that NEG
sint ***contradice-nt-es*** *non* ***fura-nt-es.***
be.SBJV.PRS.3PL contradict-PTCP.PRS-NOM.M.PL NEG be_mad-PTCP.PRS-NOM.M.SG
'They should execute what the apostle ordered next, so that they would not be contrarious or mad.' (Hier. *in Tit*. 2.9)

(78) *[...] totum=que illius vultum* ***tume-nt-em*** *ac*
whole.ACC.M.SG=and DEM.GEN.M.SG face.ACC.M.SG be_swollen-PTCP.PRS-ACC.M.SG and
lividum reddidit.
bluish.ACC.M.SG make.PST.3SG
'And he made his whole face swollen and bluish.' (Greg. *Dial*. 1.2.11)

It is held that, in Late Latin, the gradual replacement of the present participle by the gerund in adjuncts makes the present participle specialise in its adjectival uses, in particular its adnominal use (Marouzeau 1910: 79, 83-84; Elcock 1960: 111; Väänänen 1963³: 140; Hofmann & Szantyr 1965: 384; Harris 1978: 200; Kooreman 1989: 219-220). This shift results from the fact that the replacement of adjunct present participles by gerunds reduces the absolute frequency of adverbial present participles, and, incidentally, their proportion to the total number of present participles. As a result, the fraction of adjectival present participles increases, even if their absolute frequency remains stable. In this sense, the specialisation of the present participle in adjectival external syntax is in the first place an indirect evolution, that is to say, not due to a rising absolute frequency of adnominal phrases as well as subject and object predicates.

Like that of the gerund in adverbial external syntax, the specialisation of the present participle in adjectival external syntax is not completed in Late Latin, but only in the transition to Romance. Indeed, in most Romance languages, the present participle can no longer occur in adjuncts, while it can still be used in adjectival syntactic configurations, in particular adnominal phrases – be it as a productive form or as a more or less lexicalised one. Witness *cambiante* 'changing' (79) and *saliente* 'outgoing' (80) in Modern Spanish (Rigau 2000: 352).

(79) *Una* *situación* ***cambia-nte***.
ART.INDF.F.SG situation.F.SG change-PTCP.PRS.F.SG
'A changing situation.' (Rigau 2000: 352)

(80) *El* *presidente* ***salie-nte***.
ART.DEF.M.SG president.M.SG leave-PTCP.PRS.M.SG
'The outgoing president.' (Rigau 2000: 352)

As we will see in §2.2, Old French differs from other Old Romance languages also in this respect.

2.1.2.2.2.3. The verbal present participle

In addition to its adverbial and adjectival uses, the present participle in Late Latin can have the external syntax of a verb, just like in Classical Latin. In this syntax, it functions as the main verb of a progressive (§2.1.2.2.2.3.1) or presentative progressive construction (§2.1.2.2.2.3.2), or as a syntactically finite verb (§2.1.2.2.2.3.3). As mentioned in §1.3.2.2.7 with respect to Classical Latin, the latter use of the present participle is controversial. Hence, it will be discussed in detail.

2.1.2.2.2.3.1. Present participles used in a progressive construction

In Classical Latin, progressive present participle constructions are extremely rare, and the auxiliary (or the verb used as such) corresponds to either the verb *esse* 'to be' or a posture verb, like *stare* 'to stand'

(Aalto 1949: 75). In Late Latin, this type of constructions gain in frequency, especially in substandard varieties and in religious texts (Marouzeau 1910: 39; Hofmann & Szantyr 1965: 388; Scherer 1975: 96). Moreover, besides *esse* 'to be' (e.g. (81)) or a posture verb (e.g. (82)), the auxiliary may be realised by a motion verb, such as *ibat* 'he goes' (83).[26]

(81) *Erat* *enim* *intra* *Treverici* *termini* *territurio*
be.PST.3SG for inside of_the_people_of_Trèves.GEN.M.SG border.GEN.M.SG area.ABL[ACC].N.SG
cuidam *barbaro* ***servie-ns***.
some.DAT.M.SG barbarian.DAT.M.SG serve-PTCP.PRS.NOM.M.SG
'For he was serving some barbarian in the area of the border of Trèves.' (Greg. Tur. *Franc.* 3.15)

(82) *Stabant* *etiam* *principes* *sacerdotum* *et* *scribae* *constanter*
stand.PST.3PL for chief.NOM.M.SG priest.GEN.M.PL and scribe.NOM.M.PL constantly
accusa-nt-es *eum.*
accuse-PTCP.PRS.NOM.M.PL DEM.ACC.M.SG
'For the chief priests and the scribes were constantly accusing him.' (*Vulg. Luc.* 23.9-10)

(83) *[...] ille* *vero* *ibat* *incessanter* ***vocifera-ns*** *hoc*
DEM.NOM.M.SG but go.PST.3SG continuously shout-PTCP.PRS.NOM.M.SG DEM.ACC.N.SG
illi *accidisse* *ob* *scelere* *quod* *in*
DEM.DAT.M.SG happen.INF.PST because_of crime.ACC.N.SG REL.ACC.N.SG against
servum *sancti* *Trudonis* *perpetrasset.*
servant.ACC.M.SG saint.GEN.M.SG Trudo.GEN.M.SG complete.SBJV.PST.3SG
'But he (the thief) was continuously shouting that this had happened to him because of the crime that he completed against the servant of saint Trudo.' (*Vit. Trud.* 26)

Like the posture verbs, the motion verbs used as the auxiliary in this construction often have a low degree of grammaticalisation. This is due to the fact that their lexical source meaning often co-exists with their grammatical meaning, which consists of presenting the state of affairs denoted by the present participle as ongoing (*cf.* Hopper's (1991: 22) concept of 'persistence'; see also Heine 2002: 86). For example, in (82) the priests and scribes may stand while accusing Jesus, and in (83) the thief may move around while shouting. However, this is contextually less relevant than the continuous accusations of the priests (82) and the constant shouting of the thief (83).

Despite its increasing frequency in Late Latin, the progressive present participle construction does not survive in the transition to Romance. Indeed, this construction is replaced by its gerund competitor, as mentioned in §2.1.1.2.2.3 (Aalto 1949: 75; Dietrich 1973: 305, 307; Hofmann & Szantyr 1965: 380). Consequently, the Romance progressive construction is essentially a gerund construction (Meyer-Lübke

[26] According to most authors, the increasing use of the present participle as the main verb of a progressive construction in Late Latin is strongly influenced by Biblical Greek (e.g. Scherer 1975: 96). While Greek syntax certainly has an influence on this use of the present participle, especially in religious texts, its impact on the development of this use may nonetheless not be overestimated, as claimed by Amenta (2003: 146-148) and confirmed by Haverling (2010: 495-496).

1899: 333; Diez 1843[4]: 907; Lyer 1934: 169; Dietrich 1973: 305, 307; Vincent 2016: 45). Remnants of the present participle variant are nonetheless found in some Old Romance languages (see §2.1.1.2.2.3).[27] As often, Old French has an idiosyncratic position in this respect (see §2.2).

2.1.2.2.2.3.2. Present participles used in a presentative progressive construction

As in Classical Latin, the verbal present participle in Late Latin can also function as the main verb of a presentative progressive construction. In this construction, a present participle combines with a NP and a verb of visual (e.g. *vidistis* 'you saw' (84)) or auditory (e.g. *audi* 'hear' (85)) perception.

(84) *Vidistis* *itaque* *oculis* *fidei* *in* *evangelio* *piscatorem*
see.PST.2PL so eye.ABL.M.PL faith.GEN.F.SG in Gospel.ABL.N.SG fisherman.ACC.M.SG
epula-nt-em.
eat-PTCP.PRS-ACC.M.SG
'So with the eyes of faith you saw the fisherman eating in the Gospel.' (Aug. *serm*. 558.136)

(85) *[...] audivi* *vocem* ***dice-nt-em*** *[...]*.
hear.PST.1SG voice.ACC.F.SG say-PTCP.PRS-ACC.F.SG
'I heard a voice saying (...).' (Greg. Tur. *Franc*. 7.1)

Recall that the lexical meaning of the perception verbs usually co-exists with their grammatical meaning, which consists of presenting the state of affairs expressed by the present participle as all-new, that is, as a thetic information unit (*cf.* Hopper 1991: 22; Heine 2002: 86). In addition, the perception verbs often have an evidential value, since they usually express the source of information expressed by the present participle (*cf.* Greco 2013: 179-180 and Zheltova 2017: 317-319).

In Late Latin, the presentative marker may also be realised by the presentative *ecce* 'behold' (86) or by a third person form of the verb *habere* 'to have' (87), unlike in Classical Latin (Vangaever 2021). The latter is used in an impersonal way, announcing Romance presentative structures like Spanish *hay* 'there is' and French *il y a* 'there is' (*cf.* Luque 1978; Stengaard 2008; Pinkster 2015: 97).[28]

[27] According to Marouzeau (1910: 39), the progressive present participle construction does survive in the transition from Late Latin to Romance. However, except for Old French and some rare instances in other Old Romance languages, this claim is manifestly wrong, since it is infirmed by empirical data.

[28] Presentative progressive constructions with *habere* 'to have' are often semantically and syntactically ambiguous, just like those with a perception verb (see §1.3.2.2.6). Indeed, *habere* 'to have' may not only be interpreted in an impersonal way, thus with a presentative function, but also in a personal way, *i.e.* with a possessive meaning. However, the possessive meaning of *habere* 'to have' is often backgrounded in favour of its grammatical function, which consists of introducing the state of affairs denoted by the present participle and its accompanying NP as new information. In contexts where this grammatical value offers a more plausible interpretation of the sentence, *habere* 'to be' is best taken in an impersonal way, and thus as the presentative marker of a presentative progressive construction – despite the persistence of its possessive meaning (*cf.* Hopper 1991: 22).

(86) *[...] ecce dominum deum tuum [...]* ***sta-nt-em***
behold Lord.ACC.M.SG God.ACC.M.SG your.ACC.M.SG stand-PTCP.PRS-ACC.M.SG
ad summitatem scale [...].
at top.ACC.F.SG ladder.GEN.F.SG
'Behold your Lord, God, standing on top of the ladder.' (*Vit. Pard.* 1.29)

(87) *Habebat [...] in cubiculo [...] multorum pignora sanctorum [...]*
have.PST.3SG in room.ABL.N.SG many.GEN.M.PL symbol.ACC.N.PL saint.GEN.M.PL
depende-nt-ia *[...].*
hang-PTCP.PRS-ACC.N.PL
'In his room there were hanging symbols of many saints.' (*Vit. Elig.* 1.8)

The appearance of *ecce* 'behold' in Late Latin supports the hypothesis that perception verbs combined with an accusative NP and a present participle may acquire a presentative function. The same is true for *habere* 'to have', whose use as an impersonal verb with a presentative function is certainly not frequent in Late Latin, but nonetheless uncontroversial (Stengaard 2008; Pinkster 2015: 97). An example of this use of *habere* 'to have' outside the presentative progressive present participle construction is given in (88) (Stengaard 2008: 115).

(88) *Habebat autem de eo loco ad montem*
have.PST.3SG but from DEM.ABL.M.SG place.ABL.M.SG to mountain.ACC.M.SG
Dei forsitan quattuor milia.
God.GEN.M.SG perhaps four mile.ACC.N.PL
'But from that place to the mountain of God there was perhaps four miles.' (*Peregr. Aeth.* 1.1)

As in constructions with a perception verb, the present participle and its subject NP are in the accusative when the presentative marker is realised by the verb *habere* 'to have' (87). This marking is reminiscent of the former function of the NP as the direct object of *habere* 'to have' and of the present participle as the head of an elaborating adjunct agreeing with this NP. In line with the process of syntactic reanalysis, defined by Langacker (1977: 58) as "the change in the structure of an expression or class of expressions *that does not involve any immediate or intrinsic modification of its surface structure*" (italics mine), the case form of the present participle and the NP thus does not change, despite their structural reanalysis as respectively the main verb and the subject of the construction. In other words, the present participle and its subject NP are not 'actualised' (Timberlake 1977: 141), *i.e.* morphosyntactically aligned on their new function. However, this does not exclude their analysis as being syntactically reanalysed (Hopper & Traugott 1993²; Harris & Campbell 1995; Barðdal & Gildea 2015: 17-18).

As for the constructions with *ecce* 'behold', the present participle and its subject NP can stand in either the accusative (e.g. (86)) or the nominative (e.g. (89)).

(89) *[...] cum alveum Mosellae [...] transmeassent, ecce!*
when channel.ACC.M.SG Moselle.GEN.F.SG cross.SBJV.PST.3PL behold
venie-ns *sancta Tetta [...].*
come-PTCP.PRS.NOM.F.SG saint.NOM.F.SG Tetta.NOM.F.SG
'When they had crossed the channel of the Moselle, behold, there was saint Tetta coming.' (*Vit. Adelph.* 6)

This variation is not restricted to the use of *ecce* 'behold' in presentative progressive constructions, nor to its use in Late Latin in general (Pinkster 2015: 368). Witness the Classical Latin examples in (90) and (91), where *ecce* 'behold' governs respectively the accusative pronoun *me* 'me' (90) and the nominative proper noun *Sebosus* 'Sebosus' (91).

(90) *Ecce me.*
behold I.ACC.M.SG
'Here I am (lit. 'behold me').' (Plaut. *Cist.* 283)

(91) *Cum haec [...] scribebam, ecce tibi Sebosus!*[29]
when DEM.ACC.N.PL write.PST.1SG behold you.DAT.M.SG Sebosus.NOM.M.SG
'When I was writing this, behold, (there came) Sebosus to you.' (Cic. *Att.* 2.15.3)

As in Classical Latin, the sole competitor of the present participle in this construction in Late Latin is the infinitive. However, this competition is still restricted to contexts in which the presentative marker is a perception verb and has a backgrounded sensory value rather than a cognitive one. In the transition from Late Latin to most Romance languages, the present participle is replaced in this construction by the infinitive (*cf.* Aspland 1974: 16). A Modern Spanish example of this infinitive construction is given in (92) (Fernández-Ordóñez 2000: 1371).

(92) *El agua lo ves caer desde la ventana.*
ART.DEF.M.SG water.F.SG it.M.SG see.PRS.2SG fall.INF.PRS from ART.DEF.F.SG window.F.SG
'You see the water falling from the window.' (Fernández-Ordóñez 2000: 1371)

Again, the transition from Late Latin to Old French provides an exception to this shift (see §2.2).

2.1.2.2.2.3.3. Present participles used as syntactically finite verbs

The final use of the present participle to be discussed is as a finite verb. In this use, the present participle is the predicate of a clause in which it "has a position such, that it seems to serve as a finite form and can be replaced – without any other changes being made in the sentence – by a finite form" (Eklund

[29] According to Pinkster (2015: 368), the nominative marking of *Sebosus* 'Sebosus' is due to the fact that this noun functions as the subject of a finite verb like *venit* 'he came', which, he claims, needs to be inferred from the discourse context.

1970: 119; see also Hofmann & Szantyr 1965: 389-390; Adams 1976: 60-65). An example of such a clause is *inde moventes* ‘moving from there’ (93), used in coordination with the finite clause *multitudo monachorum obviaverunt nobis* ‘a multitude of monks approached us’ - this coordination is a clear sign of the syntactically finite status of the former:

(93) *[...] inde* ***move-nt-es*** *[...] et ecce multitudo monachorum*
thence move-PTCP.PRS-NOM.M.SG and behold multitude.NOM.F.SG monk.GEN.M.PL
obviaverunt nobis [...].
approach.PST.3PL we.DAT.M.SG
‘We moved thence and, behold, a multitude of monks approached us.’ (*Anton. Plac*. A.37)

In Classical Latin, syntactically finite present participles are extremely rare, and practically restricted to substandard varieties and religious texts translated from Greek (Hofmann & Szantyr 1965: 389; Eklund 1970: 117-205 passim). In Late Latin, this use of the present participle becomes more frequent, but is still practically confined to substandard varieties and religious texts translated from Greek (Hofmann & Szantyr 1965: 389; Eklund 1970: 140, 117-205). The influence of Biblical Greek is particularly strong in relative clauses (e.g. (94)) (Hofmann & Szantyr 1965: 389; Eklund 1970: 144-153).

(94) *Innocentius, qui* ***depreca-ns*** *sanctum*
Innocentius.NOM.M.SG REL.NOM.M.SG pray-PTCP.PRS.NOM.M.SG saint.ACC.M.SG
Andream [...].
Andreas.ACC.M.SG
‘Innocentius, who prays to Saint Andreas (...).’ (*Inscr. Christ. Diehl* 3859)

In (94), *deprecans* ‘praying’ serves as the head of a relative clause introduced by the pronoun *qui* ‘who’, which is normally combined with a morphologically finite verb. *Deprecans* ‘praying’ thus stands for the finite present tense verb *deprecatur* ‘he prays’, by which it can be replaced without other changes being made, in line with Eklund’s (1970: 119) definition cited above. However, the present participle can also be used as a syntactically finite verb in other types of subordinate clauses (Hofmann & Szantyr 1965: 389; Eklund 1970: 154-158; Adams 1976: 62). Consider (95), where *metuentes* ‘fearing’ is the head of an adverbial clause introduced by the conjunction *quia* ‘since’, which is normally accompanied by a morphologically finite verb, such as, for instance, *metuebant* ‘they feared’.

(95) *Sed quia senatus et populus Zenonem* ***metue-nt-es****,*
but since Senate.NOM.M.SG and people.NOM.M.SG Zenon.ACC.M.SG fear-PTCP.PRS-NOM.M.PL
ne quid male pateretur civitas, relicto
lest INDF.ACC.N.SG bad.ACC.N.SG endure.SBJV.PST.3SG city.NOM.F.SG abandon.PTCP.PST.ABL.M.SG
Basilisco, se illi omnes dederunt.
Basilisk.ABL.M.SG REFL.ACC.M.PL DEM.DAT.M.SG all.NOM.M.PL give.PST.3PL
'But since the Senate and the people feared Zenon, they all surrendered to him after having abandoned the Basilisk, lest the city would endure something bad.' (*Anon. Vales.* 2.43)

In the scientific literature, the existence of syntactically finite present participles is widely recognised (Löfstedt 1911: 249; Biese 1928: 82; Cavallin 1934: 77; Svennung 1935: 433-434; Eriksson 1939: 65-67; Hofmann & Szantyr 1965: 389-390), except by Adams (1976: 60-65). However, Adams' position is untenable, since many present participles are unquestionably syntactically finite (e.g. (93-95)). As for Eklund (1970: 117-205), in spite of recognising their existence, he argues that many alleged syntactically finite present participles can also be analysed in a different way, and that their number is thus lower than has been assumed. The alternative analyses of these forms are diverse, and are related to the more general discussion of how the syntactically finite use of the present participle came into being. In the literature, various explanations have been given. Since these explanations are complementary rather than mutually exclusive (Biese 1928: 82; Svennung 1935: 433-434; Eriksson 1939: 65-67; Hofmann & Szantyr 1965: 389; Eklund 1970: 117-205), syntactically finite present participle clauses might qualify as what Van de Velde *et al.* (2015: 1) call 'multiple source constructions', *i.e.* constructions deriving "not just from one, but from different source constructions at once".

The aim of the following sections is to explore the various sources of syntactically finite present participle clauses. However, since these clauses are not at the center of this thesis, the discussion will be relatively short. A more detailed and richly documented discussion of this topic is provided by Eklund (1970: 117-205), who focuses on Christian texts translated from Greek up to 600 AD.

2.1.2.2.2.3.3.1. Source 1. Present participles used in a progressive construction

The first source of syntactically finite present participle clauses are progressive constructions (Löfstedt 1911: 249; Biese 1928: 82; Svennung 1935: 433; Hofmann & Szantyr 1965: 389; Eklund 1970: 136-141). It is argued that some present participles are not deliberately used as syntactically finite verbs, but as the result of the ellipsis of the auxiliary *esse* 'to be' in a progressive construction. For instance, Eklund (1970: 139) claims that *expectans* 'waiting' (96) is syntactically finite due to the ellipsis of *erat* 'he was'. This analysis of *expectans* 'waiting' (96) is supported by the fact that an explicit auxiliary is used both

in the Greek source of the Late Latin text and in all Latin manuscripts of the *Vetus Latina* other than the *Codex Aureus*, on which is based the reading in (96) (Eklund 1970: 139).

(96) *[...] venit Ioseph ab Arimathia, nobilis decurio,*
come.PST.3SG Joseph.NOM.M.SG from Arimathea.ABL.F.SG noble.NOM.M.SG officer.NOM.M.SG
qui et ***expecta-ns*** *regnum Dei [...].*
REL.NOM.M.SG also expect-PTCP.PRS.NOM.M.SG kingdom.ACC.N.SG God.GEN.M.SG
'There came Joseph of Arimathea, a noble officer who was also expecting the kingdom of God.' (*Vet. Lat. Marc.* 15.43)

According to Hofmann & Szantyr (1965: 389), the ellipsis of the auxiliary "*erklärt sich leicht daraus, daß das Part. in periphrastischen Formen fast alleiniger Träger des Verbalinhalts ist*". They also claim that this ellipsis of *esse* 'to be' is analogous to its ellipsis in other especially past participle, constructions.

Opinions strongly diverge on the number of present participles analysable as syntactically finite due to this type of auxiliary ellipsis. For example, Hofmann & Szantyr (1965: 389) defend this analysis for most forms, while Eklund (1970: 141) states that "a derivation from periphrases can be confirmed only in a few cases". This latter position is more convincing for at least two reasons. On the one hand, many syntactically finite present participle clauses do not denote an outspoken durative state of affairs, and are therefore difficult to analyse as progressive constructions with an ellipted form of *esse* 'to be'. The clause headed by *veniens* 'coming' (97) is a case in point.

(97) *Quidam [...] Vincentius nomine nummorum arcarius*
INDF.NOM.M.SG Vincentius.NOM.M.SG name.ABL.N.SG money.GEN.M.PL treasurer.NOM.M.SG
venie-ns *ad civitatem Gabis ut ex*
come-PTCP.PRS.NOM.M.SG to city.ACC.F.SG Gabi.ABL.M.PL in_order_to on_behalf_of
actionem auri publici munimen acciperet.
function.ACC[ABL].F.SG gold.GEN.N.SG public.GEN.N.SG protection.ACC.N.SG receive.SBJV.PST.3SG
'Someone named Vincentius, the treasurer of the public monies, came to the city of Gabi in order to receive protection on behalf of his function for the public gold.' (*Pass. Getul.* 1.99.1)

On the other hand, the frequency of progressive present participle constructions is low throughout the history of Latin (Eklund 1970: 11-74). Also, although the oldest instances are found in the 2nd c. BC, they gain in frequency only in Late Latin (Eklund 1970: 74; Pinkster 1998: 230), according to Haverling (2010: 496) from especially the 6th c. AD onward. Therefore, it is unlikely that most present participles acting as syntactically finite verbs serve in fact as the main verb of an elliptical progressive construction. Indeed, the first instances of syntactically finite present participles appear in the 1st c. AD (Hofmann & Szantyr 1965: 389; Eklund 1970: 140), and thus predate the frequency rise of progressive constructions in Late Latin.

Another ‘argument’ against the ellipsis analysis found in the literature relates to the fact that some texts containing several syntactically finite present participles do not comprise any forms occurring in a progressive construction with an explicit form of *esse* ‘to be’ – or only a few of them (Eriksson 1939: 65-67; Eklund 1970: 120; Adams 1976: 61). Some scholars take this as evidence against the ellipsis analysis (Eklund 1970: 120; Adams 1976: 61), but the (near-)absence of progressive constructions *with* an explicit auxiliary in these texts does not necessarily exclude the analysis of present participle clauses *without* an explicit auxiliary as elliptical progressive constructions. Hence, this ‘argument’ has no weight in the above discussion.

For the two reasons mentioned earlier, the number of present participles serving as syntactically finite verbs due to auxiliary ellipsis is certainly lower than claimed by Hofmann & Szantyr (1965: 389), in line with Eklund’s (1970: 136-141) criticism. The fact remains, however, that the forms in issue act as syntactically finite verbs in the texts transmitted to us – or can at least be analysed as such. Indeed, while it cannot be determined whether the writer thought of them as syntactically finite or as the main verb of an elliptical progressive construction – not even when comparing translated Late Latin texts with their Greek source –, it can unambiguously be established that they serve as finite verbs in (one or more manuscripts of) the Late Latin texts that have reached us. Since grammatical sense can be made of them without assuming an implicit auxiliary, it might therefore be better to take them as such. This is in any case how they will be analysed in this thesis.

2.1.2.2.2.3.3.2. Source 2. Absolute adjunct nominative present participles

Another source of syntactically finite present participle clauses are nominative absolute adjunct clauses (Löfstedt 1911: 158-159; Biese 1928: 82; Cavallin 1934: 77; Eriksson 1939: 65-66; Eklund 1970: 168-171). These clauses often have a high degree of syntactic autonomy, in that they are only loosely attached to the syntactically superordinate clause (Horn 1918: 54, 58-59; Biese 1828: 75). Hence, they can easily serve as bridging clauses for syntactically finite clauses, whose head is also mostly in the nominative (Eklund 1970: 168). Moreover, from a synchronic point of view, some present participles are ambiguous between an analysis as syntactically finite forms and absolute adjuncts. Punctuation plays an important role in this matter (Eklund 1970: 168-171; Adams 1976: 61-65). Witness *venientes* ‘coming’, which is best analysed as an absolute adjunct present participle in (98), but as a syntactically finite verb in (99), because the noun *tempus* ‘time’ is followed by a comma in (98), but by a full stop in (99) (Eklund 1970: 168-169).

(98) *Iterum* ***venie-nt-es*** *in Hierusolima, ubi [...] aegrotus remansi*
again go-PTCP.PRS-NOM.M.PL to Jerusalem.ABL[ACC].F.SG where sick.NOM.M.SG stay.PST.1SG
per multum tempus, evidenter occulata fide
during much.ACC.N.SG time.ACC.N.SG clearly conceal.PTCP.PST.ABL.F.SG faith.ABL.F.SG
vidi beatam Euphemiam per visionem et Antonium.
see.PST.1SG blessed.ACC.F.SG Euphemia.ACC.F.SG during vision.ACC.F.SG and Anthony.ACC.M.SG
'When we went again to Jerusalem, where I stayed for a long time as I was sick, with a concealed faith I saw the blessed Euphemia and Anthony in a vision.' (*Anton. Plac.* A.46)

(99) *Iterum* ***venie-nt-es*** *in Hierusolima, ubi [...] aegrotus remansi*
again go-PTCP.PRS-NOM.M.PL to Jerusalem.ABL[ACC].F.SG where sick.NOM.M.SG stay.PST.1SG
per multum tempus. Evidenter occulata fide
during much.ACC.N.SG time.ACC.N.SG clearly conceal.PTCP.PST.ABL.F.SG faith.ABL.F.SG
vidi beatam Euphemiam per visionem et Antonium.
see.PST.1SG blessed.ACC.F.SG Euphemia.ACC.F.SG during vision.ACC.F.SG and Anthony.ACC.M.SG
'We went again to Jerusalem, where I stayed for a long time as I was sick. With a clearly concealed faith I saw the blessed Euphemia and Anthony in a vision.' (*Anton. Plac.* A.46)

However, punctuation was added to original Latin texts only in the Middle Ages. Therefore, it reflects the interpretation of the medieval copyist rather than the intention of the writer. Additionally, in many contexts, different punctuation strategies are possible. For this reason, it is not surprising that different manuscripts of the same text often offer different punctuation (Eklund 1970: 168-169). Punctuation, it turns out, is thus not always reliable to determine the use of present participles. This conclusion is further supported by the fact that editors are not always consistent in their punctuation (Eklund 1970: 168-169). The example in (98/99) is illustrative: following the A reading of the *Itinerarium Antonini Placentini*, Geyer (1898: 190) proposes the punctuation in (98) in the edition of the text, but the one in (99) in the verb index at the end of the edition (p. 448). In this way, *venientes* 'coming' is a syntactically finite present participle in the edited text, but an absolute adjunct in the verb index. An alternative reading of this text, the B reading, has a punctuation similar to that proposed in (98). However, in contrast with the A reading of (98), in which *vidi* 'I saw' is the main verb and *venientes* 'coming' an absolute adjunct present participle, in the B reading, given in (100), *venientes* 'coming' is a syntactically finite present participle and *vidi* 'I saw' the head of finite adjunct clause, introduced by the conjunction *usquedum* 'until' and subordinate to the present participle clause (Eklund 1970: 169).[30]

[30] Galdi (2015: 42-55) notes that the language in the B version of the *Itinerarium Antonini Placentini*' is almost systematically regularised, *i.e.* purified from innovative features. Hence, it does not present the authentic language of the author, making it less relevant for the study of language change.

(100) *Iterum* ***venie-nt-es*** *Hierusolima, ubi ego egrotus*
again go-PTCP.PRS-NOM.M.PL Jerusalem.ABL[ACC].F.SG where I.NOM.M.SG sick.NOM.M.SG
per multum tempus iacui, usquedum vidi per
during much.ACC.N.SG time.ACC.N.SG lay.PST.1SG until see.PST.1SG during
visionem beatam Euphemiam et Antonium.
vision.ACC.F.SG blessed.ACC.F.SG Euphemia.ACC.F.SG and Anthony.ACC.M.SG
'We went again to Jerusalem, where I laid sick for a long time, until I saw in a vision the blessed Euphemia and Antonius.' (*Anton. Plac.* B.46)

Bearing in mind the oftentimes arbitrary and conflicting punctuation in medieval manuscripts, Eklund (1970: 168-170) accepts the syntactic ambiguity of some present participles and the possibility to take them as syntactically finite forms, while Adams (1976: 61-65) systematically analyses them as absolute adjuncts (see also Pitkäranta 1978: 78-85). In doing so, the latter does not refrain from imposing punctuation different from that provided in the manuscript variants of some text, and thus in its existing editions. Adams' analysis is certainly convincing for some instances, but the generalisation of this analysis to all forms involved is a bridge too far (*cf.* Eklund 1970: 168-170). Adams position must be understood in his overall refusal to recognise the existence of syntactically finite present participles.

Since language change is a slow and gradual process, in which the emergence of new structures from existing ones includes at least one period in which specific instances are ambiguous between the source and the target structure (Faarlund 1990: 48; Heine 2002: 86; Hopper & Traugott 1993²: 124-126), the ambiguity of some present participle clauses might suggest that syntactically finite clauses derive from nominative absolute adjuncts. However, the latter are not the only possible source of syntactically finite clauses, and the role played by them might not be overestimated. Indeed, they are extremely rare until the 4th c. AD (Galdi 2017: 33-37), while syntactically finite present participles occur from the 1st c. AD onward, though only rarely (Hofmann & Szantyr 1965: 389; Eklund 1970: 140).[31] What is more, the frequency of nominative absolute adjunct present participles is relatively low even in Late Latin (Galdi 2017: 34-37), so that their contribution to the further development of syntactically finite present participles is probably small.

2.1.2.2.2.3.3.3. Source 3. Conjunct adjunct nominative present participles

The third source of syntactically finite present participle clauses are nominative conjunct adjunct clauses (Eklund 1970: 162-167). Like their absolute counterparts, nominative conjunct adjuncts often have a high degree of syntactic and semantic autonomy, their connection to the syntactically superordinate

[31] It is worth reiterating that some authors reject the existence of nominative absolute adjunct present participles before Late Latin (e.g. Keydana 1997: 328; Pinkster 2021: §16.95). This further relativises their role in the emergence of syntactically finite present participles.

clause being relatively loose (Marouzeau 1910: 29; Galdi & Vangaever 2019: 110).[32] This type of adjuncts are more frequent in Late Latin than in Classical Latin, but clear instances are found already in the earliest texts. An often-cited example in the literature is the clause headed by *everrentes* 'sweeping out' (101) (see also §1.3.2.2.4).

(101) *Cibatui* *quod* *sit,* *obiciunt* *triticum* *siccum,*
food.DAT.M.SG insofar_as be.SBJV.PRS.3SG offer.PRS.3PL wheat.ACC.N.SG dry.ACC.N.SG
in *centenos* *vicenos* *turtures* *fere* *semodium,*
for hundred.ACC.M.PL twenty.ACC.M.PL turtledove.ACC.M.PL about half-modius.ACC.M.SG
cottidie ***everre-nt-es*** *eorum* *stabula* *[...].*
every_day sweep_out-PTCP.PRS-NOM.M.PL their.GEN.M.PL quarter.ACC.N.PL
'As to food, they offer dry wheat, about a half-modius for 120 turtledoves, and they sweep out their quarters every day.' (Varro *rust.* 3.8.2)

Like their absolute counterparts, these conjuncts can easily function as bridging clauses for syntactically finite present participle clauses. This is also suggested by the ambiguity of some of these clauses (Eklund 1970: 162-167). For instance, *addens* 'adding' (102) is taken as a syntactically finite present participle by Petschenig (1881: 165), but as a conjunct adjunct subordinate to the finite verb *iubet* 'he orders' by, among others, Horn (1918: 48) and Eklund (1970: 162) - even with the punctuation in (102), in particular the full stop after the verb *propelli* 'to be driven forward'.[33]

[32] Galdi & Vangaever (2019: 110) refer to such adjuncts as 'secondary focus adjuncts', while Bary & Haug (2011) and Haug (2012) use the term 'independent rhemes' (see §1.3.2.2.4).
[33] Horn (1918: 48) and Eklund (1970: 162) argue that "*addens* (...) is 'psychologically' subordinate to *iubet*" and therefore "not really a syntactically finite present participle" (Eklund 1970: 162; italics and single quotation marks original). This explanation is hardly defendable from a syntactic point of view, especially given the presence of an unrelated finite clause between those comprising *iubet* 'he orders' and *addens* 'adding'. Eklund (1970: 162-167) extends this analysis to all present participles used in passages containing a declarative verb.

(102) *[...] iubet cunctos episcopos, qui Carthagine fuerant*
order.PRS.3SG all.ACC.M.PL bishop.ACC.M.PL REL.NOM.M.PL Carthage.ABL.F.SG be.PST.3PL
congregati, quorum iam ecclesias, domos et
gather.PTCP.PST.NOM.M.PL REL.GEN.M.PL already church.ACC.F.SG house.ACC.F.PL and
substantiam ceperant, in hospitiis, quibus erant,
possession.ACC.F.SG take.PST.3PL in room.ABL.N.PL REL.ABL.N.PL be.PST.3PL
expoliari et expoliatos foris muro
rob.INF.PRS.PASS and rob.PTCP.PTC.ACC.M.PL outdoors wall.ABL[ACC].M.SG
propelli. Non animal, non servus, non
drive_forth.INF.PRS.PASS NEG animal.NOM.N.SG NEG slave.NOM.M.SG NEG
mutanda quae ferebant vestimenta penitus
change.GERV.NOM.N.PL REL.ACC.N.PL wear.PST.3PL clothes.NOM.N.PL entirely
dimittuntur; ***adde-ns*** *adhuc, ut nullus*
send_away.PRS.PASS.3PL add-PTCP.PRS.NOM.M.SG besides that no.NOM.M.SG
quempiam illorum hospitio reciperet [...].
INDF.ACC.M.SG DEM.GEN.M.PL hospitality.ABL.N.SG receive.SBJV.PST.3SG
'He orders that all bishops, who were gathered in Carthage and whose churches, houses, and possessions they had already taken, be robbed in the rooms where they were staying and be thus driven forth outdoors, to the wall. Not an animal, not a slave, not the clothes that they wore and needed to be changed were entirely sent away. He besides adds that nobody ought to receive any of them in hospitality.' (Vict. Vit. 3.15)

Eklund (1970: 162-167) regards most of these present participles as conjunct adjuncts, but not without recognising that some of them might nevertheless be analysed as syntactically finite. By contrast, Adams (1976: 61-65) takes again a more radical stance. In line with his overall rejection of syntactically finite present participles, he systematically takes the forms in issue as conjunct adjuncts, imposing, wherever necessary, punctuation different from that provided in medieval manuscripts and offered in modern text editions. For instance, he holds that *veniens* 'coming' is syntactically finite with the punctuation in (103), but argues that this punctuation is misleading.

(103) *[...] Nepos [...] factus est episcopus et*
Nepos.NOM.M.SG make.PTCP.PST.NOM.M.SG be.PRS.3SG bishop.NOM.M.SG and
Nepo factus imperator Romae. Mox
Nepos.NOM.M.SG make.PTCP.NOM.M.SG emperor.NOM.M.SG Roma.GEN.F.SG soon
venie-ns Ravennam: quem persequens
come-PTCP.PRS.NOM.M.SG Ravenna.ACC.F.SG REL.ACC.M.SG pursue.PTCP.PRS.NOM.M.SG
Orestis patricius cum exercitu, metuens
Orestes.NOM.M.SG noble.NOM.M.SG with army.ABL.M.SG fear.PTCP.PRS.NOM.M.SG
Nepos adventum Orestis, ascendens
Nepos.NOM.M.SG arrival.ACC.M.SG Orestes.GEN.M.SG embark.PTCP.PRS.NOM.M.SG
navem fugam petit.[34]
ship.ACC.F.SG flight.ACC.F.SG seek.PST.3SG
'Nepos was made bishop and Nepos (was) made emperor of Rome. Soon he came to Ravenna: when the noble Orestes pursued him with an army, Nepos, fearing Orestes' arrival, embarked on a ship and fled.' (*Anon. Vales*. 2.36)

He argues that the clause headed by *veniens* 'coming' should not be separated from the previous sentence by a full stop, but by a comma. He then states that, if "a comma is placed after *Romae*, and a full stop after *Ravennam*', as in (104), "*veniens* becomes a postponed perfective pres. part., describing an action posterior to the election of Nepos", thus instantiating conjunct form (Adams 1976: 61; italics original).

(104) *[...] Nepos [...] factus est*
episcopus et
Nepos.NOM.M.SG make.PTCP.PST.NOM.M.SG be.PRS.3SG bishop.NOM.M.SG and
Nepo factus imperator Romae. Mox
Nepos.NOM.M.SG make.PTCP.NOM.M.SG emperor.NOM.M.SG Roma.GEN.F.SG soon
venie-ns Ravennam. Quem persequens
come-PTCP.PRS.NOM.M.SG Ravenna.ACC.F.SG REL.ACC.M.SG pursue.PTCP.PRS.NOM.M.SG
Orestis patricius cum exercitu, metuens
Orestes.NOM.M.SG noble.NOM.M.SG with army.ABL.M.SG fear.PTCP.PRS.NOM.M.SG
Nepos adventum Orestis, ascendens
Nepos.NOM.M.SG arrival.ACC.M.SG Orestes.GEN.M.SG embark.PTCP.PRS.NOM.M.SG
navem fugam petit.
ship.ACC.F.SG flight.ACC.F.SG seek.PST.3SG
'Nepos was made bishop and Nepos (was) made emperor of Rome, and soon he came to Ravenna. When the noble Orestes pursued him with an army, Nepos, fearing Orestes' arrival, embarked on a ship and fled.' (*Anon. Vales*. 2.36; according to Adams 1976: 61)

[34]*Persequens* 'pursuing' is a nominative absolute form. *Metuens* 'fearing' and *ascendens* 'embarking' are conjunct forms.

Adams' (1976: 61-65) analysis might again be preferable for some present participles, but it cannot be generalised to all forms. Some instances are at the least ambiguous between the two analyses, and for others, the analysis as a syntactically finite present participle is much more convincing than as a loosely attached conjunct adjunct (*cf.* Eklund 1970: 162-167).

2.1.2.2.2.3.3.4. Source 4. Anacoluthon

A fourth source of syntactically finite present participle clauses is anacoluthon. This phenomenon can be described as an unintended interruption in the planned syntax (Svennung 1935: 434; Eriksson 1939: 67; Hofmann & Szantyr 1965: 389; Eklund 1970: 144-161; Adams 1976: 62). Anacoluthon often leads to a 'contamination of two modes of expression' (Eklund 1970: 144), that is to say, a blended structure whose beginning is characteristic of one structure, but its end of another. According to Svennung (1935: 434) and Adams (1976: 62), the clause headed by *metuentes* 'fearing' (95), repeated below, is a case in point: it begins as a finite adjunct clause introduced by the conjunction *quia* 'since', but finishes as an adjunct present participle clause. They argue that this syntactic interruption is triggered by the semantic affinity between the intrinsically causal meaning of *quia* 'because' and the frequent causal meaning of adjunct present participles, especially in sentence-initial position.

(95) *Sed quia senatus et populus Zenonem* ***metue-nt-es***,
but since Senate.NOM.M.SG and people.NOM.M.SG Zenon.ACC.M.SG fear-PTCP.PRS-NOM.M.PL
ne quid male pateretur civitas, relicto
lest INDF.ACC.N.SG bad.ACC.N.SG endure.SBJV.PST.3SG city.NOM.F.SG abandon.PTCP.PST.ABL.M.SG
Basilisco, se illi omnes dederunt.
Basilisk.ABL.M.SG REFL.ACC.M.PL DEM.DAT.M.SG all.NOM.M.PL give.PST.3PL
'But since the Senate and the people feared Zenon, they all surrendered to him after having abandoned the Basilisk, lest the city would endure something bad.' (*Anon. Vales.* 2.43)

It is claimed that the syntactically finite use of this and similar present participles is not deliberate, but the result of a breach in the planned syntax. This analysis undoubtedly holds for most forms, especially the earliest ones, but it cannot be generalised to all occurrences, at least not in the later period. Indeed, in the later period, this use of the present participle might occasionally have been deliberate, namely as the unforeseen result of the increasing number of undeliberate instances in earlier periods. Nevertheless, irrespective of whether their use is deliberate, the forms act as syntactically finite verbs in the texts that have come down to us. Hence, they offer irrefutable evidence in favour of the existence of syntactically finite present participles, hereby invalidating Adams' (1976: 62) claim.[35]

[35] Surprisingly, Adams (1976: 60) does not perceive a conflict in refuting the existence of syntactically finite present participles, on the one hand, and admitting that of present participle clauses introduced by a relative pronoun or subordinating conjunction,

2.1.2.2.2.3.3.5. Source 5. Apodotic use of coordinating conjunctions

The syntactically finite use of the present participle has also been related to the so-called 'apodotic use of coordinating conjunctions', that is, their use as devices coordinating an adjunct with a hierarchically superordinate constituent (Svennung 1935: 433-434; Eriksson 1939: 66-67; Eklund 1970: 172-195). The apodotic use of coordinating conjunctions is attested throughout the history of Latin. However, it is more common in Late Latin than in Classical Latin, and within the period of Late Latin it is most characteristic of Christian texts (Eklund 1970: 172-195; Wehr 2008: 180). Different conjunctions can be used in this way, such as *et* 'and', *atque* 'and', *sed* 'but', and the enclitic *-que* 'and' (Eklund 1970: 172-195). They may coordinate both finite and non-finite adjunct clauses with a hierarchically superordinate clause, the non-finite variants being nonetheless confined to participle clauses (Eklund 1970: 173; Galdi 2014: 63). In (105), the enclitic morpheme *-que* 'and' coordinates the present participle *respondens* 'answering' with the morphologically finite verb *dixit* 'he said'. In (106), the clauses headed by the present participle *vocans* 'calling' and the morphologically finite verb *statuit* 'he put' are coordinated by means of the second occurrence of the conjunction *et* 'and':

(105) *At* *ille* ***responde-ns*** *dixit=que* *ad* *eos* *[...].*
but DEM.NOM.M.SG answer-PTCP.PRS.NOM.M.SG say.PST.3SG=and to DEM.ACC.M.PL
'But he answered and said to them (...).' (*Act. Andr.* 93.11)

(106) *Et* ***voca-ns*** *Iesus* *puerum* *et* *statuit*
and call-PTCP.PRS.NOM.M.SG Jesus.NOM.M.SG boy.ACC.M.SG and put.PST.3SG
eum *in* *medio* *eorum.*
DEM.ACC.M.SG in middle.ABL.N.SG DEM.GEN.M.PL
'And Jesus called the boy and put him in the middle of them.' (*Vet. Lat. Matth.* 18.2)

Due to their coordination with a morphologically finite verb, present participles of the type exemplified in (105-106) unambiguously serve as syntactically finite verbs, contrary to Adams' (1976: 63) claim. In line with his overall rejection of this type of present participles, this author states that the forms in issue are "not felt to be genuinely finite" themselves, because they require "the support of a neighbouring finite verb" (Adams 1976: 63). As in the case of the clauses discussed in the previous sections, he usually imposes punctuation other than that proposed in medieval manuscripts and modern text editions, in order to make possible their analysis as conjunct adjuncts that are only loosely attached to the superordinate clause. Again, Adams' position is convincing for some clauses, but it cannot be extended to all of them.

on the other. Though implicitly, he seems to reason that all clauses of the latter type are the result of anacoluthon, and that their unplanned character does not allow accepting the existence of syntactically finite present participles. If this is his reasoning, it needs to be rejected. As argued in the running text, even if they are not deliberately used as such, the present participles function as syntactically finite verbs in the texts transmitted to us. Hence, their very existence cannot be denied.

Adjunct clauses acquiring the status of a syntactically finite clause by virtue of being coordinated with a morphologically finite clause are often qualified as 'parahypotactic' – the underlying concept is known as 'parahypotaxis' (Hofmann & Szantyr 1965: 389; Galdi 2014: 63).

2.1.2.2.2.3.3.6. Source 6. Mistakes and mistranslations

Finally, Eklund (1970: 121) argues that some present participles used in texts translated from Greek are syntactically finite "due to mistakes made unintentionally by the authors and translators" (see also pp. 142-143). The forms involved are thus not deliberately used as syntactically finite verbs, but as the result of either a correct translation from an authentic error in the Greek source or a mistranslation from the Greek source (Eklund 1970: 142). This analysis can be defended for some instances – a few examples are given in Eklund (1970: 142-143). However, as in the case of syntactically finite present participles resulting from anacoluthon, this type of forms undeniably act as syntactically finite verbs in the Latin texts transmitted to us. Hence, they provide irrefutable evidence of the existence of syntactically finite present participles. Besides, it cannot be established with absolute certainty whether the use of present participles as syntactically finite verbs in passages where they are lacking in the Greek source is due to a deliberate translation, and thus to an intentional deviation from the Greek source, or to an undeliberate mistranslation. What can be undeniably determined is how the forms in question function in the Latin text. As noted earlier with regard to other types of forms analysable as syntactically finite, these forms are perhaps best taken in the way that they are transmitted in the Latin text, all the more because they are liable to a grammatical interpretation without hypothesising errors or bad translations. This matter is of course more complicated when distinct manuscripts of the same Latin text offer different readings, but this is less relevant for the purpose of this study. It goes without saying that this philological remark holds for all present participles serving as syntactically finite verbs (or analysable as such).

2.1.2.2.2.3.3.7. Conclusion

The preceding sections have shown that the syntactically finite use of the present participle has various possible sources. Three of these are linguistic structures: progressive constructions, absolute adjuncts, and conjunct adjuncts. Specific present participles used in these structures might first have been used unintentionally in a syntactically finite way, perhaps as the result of auxiliary ellipsis, anacoluthon, the apodotic use of coordinating conjunctions, a mistake translated as such from Greek, or a mistranslation from Greek. However, the increasing frequency of syntactically finite present participles in Late Latin might suggest that this use of the present participle also became a deliberate use. This does not entail that all syntactically finite present participles are deliberately used as such, but that, at this stage of the

language, this use might be intentional in some cases, while remaining unintentional in others. For this reason, it is not only advisable to recognise the existence of syntactically finite present participles, but also to embrace the possibility that, in the course of time, speakers started deliberately using the present participle in this particular way. After all, the existence of morphologically non-finite, but syntactically finite verbs is not exceptional, neither in Latin, nor in other languages. For instance, in many languages, including Latin, the infinitive can act as a syntactically finite verb in instructions, as a competitor of a morphologically finite imperative verb (Ernout & Thomas 1951: 272; Elcock 1960: 112; Palmer 1964: 318; Harris 1978: 198; Fruyt 1996: 48, 58). This so-called 'jussive use' of the infinitive is exemplified for Late Latin in (107), where the infinitive *dare* 'to give' is used in parallelism with the finite imperative verb *dato* 'give'; *agiter* 'shake' (108) illustrates a jussive infinitive in Modern French (Fruyt 1996: 48).

(107) *Ordeum* *dato,* *non* *simpliciter* ***dare.***
wheat.ACC.N.SG give.IMP.PRS.2PL NEG simply give.INF.PRS
'Give wheat, (but) do not simply give (it) (*i.e.* without processing it).' (Chiron 138)

(108) ***Agiter*** *avant* *de* *s'* *en* *servir.*
shake.INF.PRS before of REFL from_it serve.INF.PRS
'Shake before use (lit. 'before making use of it).' (Fruyt 1996: 48)

The Latin infinitive is also often used as a syntactically finite verb in narrative texts (Ernout & Thomas 1951: 270-271; Palmer 1964: 317-318; Harris 1978: 199). Examples of such 'historic(al) infinitives' are *frangere* 'to break', *ruere* 'to ruin', and *scindere* 'to tear' (109).

(109) *[...]* *circumstabant* *navem* *turbines* *venti,* *imbres*
surround.PST.3PL ship.ACC.F.SG whirlwind.NOM.M.PL wind.NOM.M.PL rain.NOM.M.SG
fluctus=que *atque* *procellae* *[...]* ***frangere*** *malum,* ***ruere***
flood.NOM.M.PL=and and storm.NOM.F.PL break.INF.PRS mast.ACC.M.SG ruin.INF.PRS
antemnas, ***scindere*** *vela* *[...].*
yard.ACC.F.PL tear.INF.PRS sail.ACC.N.PL
'The whirlwinds surrounded the ship; the rain, the floods, and the storms broke the mast, ruined the yards, and tore the sails.' (Plaut. *Trin.* 835-837)

Another question that needs to be reassessed is the syntactic ambiguity of some present participles. As shown in the previous sections, some present participles can be taken as either syntactically finite verbs or as (i) the main verb of a progressive construction, (ii) an absolute adjunct, or (iii) a conjunct adjunct. Different authors often propose competing analyses of one and the same form. Given this disagreement, originating in the various sources of syntactically finite present participles, it is most prudent to define these forms without reference to their possible sources, but focusing only on their observable syntactic use in the clause. In view of this, their best definition is probably that proposed by Eklund (1970: 119), as forms having a position such that they act as a finite verb and can be replaced by a finite verb without

other changes being made in the sentence. In this thesis, syntactically finite present participles will be exclusively conceived of in terms of this definition. This means that, except for the those in (98), (101), and (104), all present participles cited in the previous sections will be taken as syntactically finite.

In the literature, the use as a syntactically finite verb has not been reported for the gerund. Hence, the present participle is exempt from competition with the gerund in this use. Yet, this type of present participles is not preserved in the transition from Late Latin to Old Romance. This suggests that, despite gaining in frequency and perhaps even becoming occasionally deliberate in Late Latin, this use of the present participle did not successfully spread in the speech community (Croft 2000: 5; Traugott 2015: 53, 55). The main reason for this loss is the mismatch between the morphologically non-finite form of the present participle and its syntactically finite use. Due to this conflict, the present participle is an unfit competitor of morphologically finite verbs. Expectedly, syntactically finite present participle clauses are replaced by clauses headed by a morphologically finite verb, which are exempt from the form-function mismatch just mentioned.

2.1.2.2.2.4. External syntactic profile of the present participle

As in Classical Latin, the external syntax of the present participle in Late Latin is diverse. Indeed, it can occur in adnominal phrases, subject as well as object predicates, and adjuncts, but it may also act as the main verb of a progressive or presentative progressive construction, or be used syntactically as a finite verb. However, in Late Latin, the frequency of these uses drastically changes in view of the intensifying competition of the present participle with the gerund. This section aims to synthesise these changes, and to determine their impact on the external syntactic profile of the present participle. As in the case of the gerund, the current absence of quantitatively oriented corpus studies of the external syntax of the present participle in Late Latin does not allow providing concrete figures for the frequency shifts predicted by the functional changes discussed in the previous sections. Therefore, these shifts remain to some extent speculative. One of the aims of the empirical part of this study is to explore to which extent these shifts are observable in a diachronic corpus of Late Latin texts (Chapter 5).

In Classical Latin, the present participle mostly occurs in adjuncts. However, it is also frequently used in adnominal phrases – its other uses are extremely rare (see §1.3.2.2.7). Its competition with the gerund is restricted to adjuncts This competition is weak and appears more as a semantic complementary distribution, since the two forms are specialised in different semantic values (see §1.4).

In Late Latin, the area of competition between the gerund and the present participle extends, due to the emergence of the gerund in progressive constructions and to its appearance in absolute adjuncts as well as in conjunct adjuncts having a subject coreferential with a constituent of the main clause other

than its subject. Over time, the competition between the gerund and the present participle becomes more intense, in both adjuncts and progressive constructions. Soon, these competitions start settling in favour of the gerund, which thus comes to specialise in adjuncts and progressive constructions. Consequently, the present participle becomes completely reliant on its other uses, *i.e.* in adnominal phrases, subject as well as object predicates, presentative progressive constructions, and as a syntactically finite verb. Thus, the functional competition between the gerund and the present participle in Late Latin gradually settles in terms of differentiation, which is one of the two main outcomes of functional competition (Traugott & Trousdale 2013: 18; De Smet *et al.* 2018: 198).

2.1.2.3. Morphosyntactic profile

The external syntactic changes of the present participle in Late Latin have also important implications for its morphosyntactic profile. From a morphosyntactic viewpoint, the specialisation of the gerund in adjuncts at the expense of the present participle entails that the present participle is progressively ousted from adverbial external syntax. By contrast, the specialisation of the gerund in progressive constructions expels the present participle from only part of its verbal external syntax, since it still has verbal external syntax in presentative progressive constructions and when used as a syntactically finite verb. However, the present participle loses the latter two uses in the transition from Late Latin to Romance, and hence it becomes entirely reliant on its adjectival external syntax (Marouzeau 1910: 79, 83-84; Elcock 1960: 111; Palmer 1964: 325; Hofmann & Szantyr 1965: 384; Kooreman 1989: 219-220). Thus, the emerging functional differentiation between the gerund and the present participle follows a more general tendency, that of morphosyntactic specialisation (*cf.* Carlier & Combettes 2015). Indeed, excluding the forms with verbal external syntax, the gerund specialises in adverbial external syntax and the present participle in adjectival external syntax. As noted with respect to the gerund (§2.1.1.3), the more general conclusion to be drawn is that functional competition may not only increase the degree of functional isomorphism of a language, but also its degree of morphosyntactic isomorphism.

Within the family of the Romance languages, the tendency toward morphosyntactic specialisation is generally pursued most strongly in French (Carlier & Combettes 2015). As we will see in §2.2, however, the evolution of the gerund and the present participle provides a notable exception to this trend.

2.1.2.4. Typological profile

The changes in the external syntax the present participle in Late Latin have also serious implications for its typological profile. Remember that the adverbial present participle falls under Haspelmath's (1995: 4) converb type of non-finite verbs, while the adjectival present participle relates to his participle type

(see §1.3.4). As to the verbal present participle, it is not associated with any of these types, at least not in synchrony – just like the verbal gerund. Hence, it will be left out in the following discussion.

In Late Latin, the specialisation of the present participle in adjectival external syntax strengthens its link with the participle type of non-finite verb forms, and weakens its association with the converb type. That is, the present participle becomes more participle-like. Since the labels 'masdar', 'converb', and 'participle' are used in this thesis as purely functional labels (*cf.* Haspelmath 2010: 665; Lehmann 2018a: 33), this process can be labelled 'participialisation'. The participialisation of the present participle in Late Latin and in the transition to Romance makes this form a 'true participle', *viz.* a non-finite verb form that, functionally speaking, 'deserves' its name, unlike in Classical Latin, where it behaves more like a converb than as a participle (see §1.3.4).

2.1.3. Conclusion

In Late Latin, the system of non-finite verb forms is drastically restructured. In this restructuring, a major role is played by the evolution of the gerund and the present participle. The evolution of these forms is mainly driven by functional competition. The gerund competes with different types of non-finite verb forms and with abstract (de)verbal NPs, but above all with the infinitive and the present participle. The competition of the gerund with the infinitive concerns its nominal external syntax and its use in purpose adjuncts, and settles in favour of the infinitive. As a consequence, the gerund specialises in non-purpose adjuncts and progressive constructions, where it competes with the present participle. This second type of competition settles in favour of the gerund, which makes the present participle specialise in adjectival external syntax (its remaining verbal uses are lost in the transition from Late Latin to Romance). Due to these evolutions, the system of non-finite verb forms gradually develops specialised forms for nominal (the infinitive), adverbial (the gerund), and adjectival (the present participle) functions. These functions are respectively aligned on Haspelmath's (1995: 4) masdar, converb, and participle types of non-finite verb forms. Hence, in Late Latin, the infinitive becomes increasingly masdar-like, the gerund converb-like, and the present participle participle-like. However, this evolution toward form-function alignment does not apply equally to all Old Romance languages, as will be shown for Old French in the following section.

Noteworthily, as in Classical Latin, the rivalry between the gerund and the present participle in Late Latin does not raise a categorial problem. Indeed, the two forms are morphologically distinct, so that the competing forms in adjuncts and progressive constructions can always be categorised as either gerunds or present participles. In other words, the increasing functional competition between the gerund and the present participle does not blur their categorial distinction.

2.2. The gerund and the present participle in Old French

Old French will be delimited in this study as the period between the 9th c. AD, *i.e.* when the first texts written in the vernacular language appear, and the 13th c. AD (see also §3.3.2). In the transition from Late Latin to Old French, the morphological and syntactic properties of the gerund and the present participle are subject to drastic changes. While their syntactic changes are similar to those taking place between Late Latin and other Romance languages, their morphological changes are language-specific (Elcock 1960: 112). Some of these morphological changes are triggered by phonetic evolutions affecting the endings of the gerund and the present participle, and ultimately leading to the same form for the two types of non-finite verbs (Elcock 1960: 112; Buridant 2000: 237, 2019: 343; Wackernagel & Langslow 2009: 352 fn. 15; De Smet 2014: 38-40; Bazin-Tacchella 2020: 852-854). This morphological merging of the gerund and the present participle blurs the categorial distinction between them, so that some forms can no longer be categorised as gerunds or present participles with absolute certainty (Ménard 1973: 169; Harris 1978: 200; De Smet 2014: 40; Bazin-Tacchella 2020: 852). The result is a situation of what can be labelled 'categorial indeterminacy' (Aarts 2007: 4). This indeterminacy challenges the distinction between the categories of the gerund and the present participle, and thus raises a fundamental problem for their description in Old French.

This section aims to explore the evolution of the gerund and the present participle from Late Latin to Old French and during the Old French period. I will focus in particular on the categorial distinction between these forms. Attention will first be paid to the changes affecting the morphology of the gerund and the present participle and leading to their morphological merging (§2.2.1). In this section, I will also examine the impact of this morphological merging on the categorial distinction between the gerund and the present participle in general. Next, I will analyse the external syntax of the two forms, and explore the impact of their morphological merging on their categorial distinction for each of their uses separately (§2.2.2). Finally, the conclusions drawn from §2.2.1 and §2.2.2 will be synthesised in order to measure the global degree of categorial indeterminacy of the Old French outcomes of the Late Latin gerund and present participle (§2.2.3). This latter section will also assess the implications of this indeterminacy for the theoretical distinction between the two types of non-finite verb forms.

2.2.1. Morphological merging of the gerund and the present participle

In the transition from Late Latin to Old French, the paradigms of the gerund and the present participle are drastically reduced, because they do not survive in all case forms (Aalto 1949: 73; Elcock 1960: 111; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 369; Buridant 2000: 237, 2019: 343). As noted in §2.1.1.2.2.4, the gerund is replaced by the infinitive (and abstract NPs) in all functions characteristic

of the accusative, genitive, and dative gerunds. Hence, only the ablative form, having the ending *-ndo*, has a descendant in Old French (or in Romance in general) (Aalto 1949: 73; Ernout & Thomas 1951: 267; Elcock 1960: 111; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 369; Buridant 2000: 237, 2019: 343; Bazin-Tacchella 2020: 853). As for the present participle, only the nominative and accusative forms have a continuation in Old French (Buridant 2000: 237, 2019: 343; Bazin-Tacchella 2020: 852-853). This is due to the collapse of the (Late) Latin case system, characterised by the generalisation of nominative forms for the functions covered by the nominative and vocative cases, and the generalisation of accusative forms for all other functions (Buridant 2000: 62, 2019: 71; Bazin-Tacchella 2020: 853).[36] In the transition from Late Latin to Old French, the nominative and the vocative conflate in the subject case (Fr. '*cas sujet*'), while the accusative, the genitive, the dative, and the ablative merge in the oblique case (Fr. '*cas régime*') (Buridant 2000: 62, 2019: 71; Bazin-Tacchella 2020: 853). This evolution affects nouns, adjectives, determiners, and participles alike, and reduces the forms of the present participle that survive in Old French (Buridant 2000: 237, 2019: 343; Bazin-Tacchella 2020: 852-853). Moreover, due to the general loss of the neuter, the present participle only survives in the masculine and the feminine (Buridant 2000: 61; Bazin-Tacchella 2020: 852-853).[37] Since the Latin present participle has the same form in these genders, there is little morphological variation in the forms giving rise to descendants in Old French (Bazin-Tacchella 2020: 852). Indeed, the forms at stake show only three distinct inflectional endings: *-ns* (nominative singular), *-ntem* (accusative singular), and *-ntes* (nominative and accusative plural).

However, the ablative gerund and the nominative and accusative present participles do not survive in the transition from Late Latin to Old French without undergoing further morphological changes. Quite the contrary, they are affected by two types of changes: changes pertaining to their productive formation out of verbs used in the language of this period, on the one hand, and changes triggered by phonetic evolutions, on the other (Elcock 1960: 112; Harris 1978: 200; Buridant 2000: 237, 2019: 343; Bazin-Tacchella 2020: 853). The former concern the vowel ending of the present stem of the verbs used for the gerund and the present participle. In Late Latin, this ending corresponds to *-a*, *-e*, or *-ie* depending on the conjugational class of the verb, although in most parts of the Roman Empire, including Gaul, the first class ending *-a* and the second/third class ending *-e* generalise at the cost of the fourth/fifth class ending *-ie* (Elcock 1960: 111). Between Late Latin and Old French, the first class ending *-a* extends to

[36] Buridant (2000: 62, 766; 2019: 1129) refers to the accumulation of functions under a single morphological case by the term 'synapsis'. Meyer-Lübke (1894) and Herman (1998, 2000) describe the collapse of the Latin case system in detail. Schøsler (2020: 633-639) studies the evolution of the case system from Late Latin to Old French. Two recent corpus studies about the evolution and/or role of case marking in Late Latin and Old French are respectively Pinkster (2018) and Schøsler (2018).

[37] In the earliest stages of Old French, the neuter is preserved in a small number of nouns going back to Late Latin neuter plural nouns in *-a*, but these nouns are soon reinterpreted as feminine nouns (Buridant 2000: 61). This resistance to the disappearance of the neuter mainly concerns collective nouns, such as *arme* 'combination of the pieces of an armour', which goes back to the plural of the Latin neuter noun *armum* 'weapon', *i.e. arma* 'weapons' (Buridant 2000: 61). For Italian, the neuter as a marker of a collective reference is maintained for a few lexemes up to Modern Italian (e.g. *un braccio* 'an arm', *le braccia* 'the arms'). For the evolution of the morphological marking of gender on nouns, adjectives, and participles in the transition from Late Latin to Old French, see Schøsler (2020: 639-640).

the detriment of the second/third class ending -*e* (Ernout & Thomas 1951: 267; Elcock 1960: 111; Väänänen 1963[3]: 141; Buridant 2000: 237, 2019: 343; Bazin-Tacchella 2020: 853). As a result, -*a* is no longer analysed as the ending vowel of the present stem of the verb, but reanalysed as being part of the inflectional ending of the gerund and present participle. Hence, the ending -*ando* becomes the invariable ending of the gerund, while the ending of the present participle is -*ans* in the nominative singular, -*antem* in the accusative singular, and -*antes* in the nominative and the accusative plural (Harris 1978: 200; Buridant 2000: 237, 2019: 343; Bazin-Tacchella 2020: 853). It is worth noting that the evolution toward a morphologically invariable ending for the gerund is in line with its specialisation in the external syntax of an adverb, since the gerund now becomes more adverb-like not only from a functional perspective, but also from a morphological one (Aspland 1968: 152; Harris 1978: 199).

Regarding the morphological changes triggered by phonetic evolutions, they concern the ending of the gerund and the present participle (Elcock 1960: 112; Buridant 2000: 237, 2019: 343; De Smet 2014: 38-40). In the case of the gerund, these evolutions consist of the apocope of the final vowel and the devoicing of the dental consonant thus left in final position, which leads to the ending -*ant* (Elcock 1960: 112; Harris 1978: 200; Buridant 2000: 50, 237, 2019: 343). Due to the invariability of this ending and in particular to the loss of the morpheme -*o*, which is the case marker of the ablative gerund in Late Latin, the Old French gerund becomes uninflected for case. Hence, it cannot be considered marked in either the subject case or the oblique case, just like adverbs. That is to say, the gerund falls outside the Old French case system.

With respect to the present participle, the phonetic evolutions affecting the nominative forms have been given no attention in the literature, while discussions of the accusative forms are restricted to the singular (e.g. in Elcock 1960: 112; Harris 1978: 200; Buridant 2000: 237, 2019: 343).[38] The focus on the accusative might be explained by the fact that the Old French outcome of this case, *i.e.* the oblique case, covers more functions than the outcome of the nominative, *i.e.* the subject case. Hence, the chances for present participles to agree with a noun in the oblique case are higher than their chances to agree with one in the subject case. However, the higher frequency of oblique case present participles holds for both singular and plural forms. Hence, the lack of attention for accusative plural present participles remains unexplained. Anyhow, the evolutions affecting the ending of the accusative present participle are equally evident for the singular and the plural: (i) the singular ending -*antem* gets apocoped for its final consonant and its post-tonic vowel, which leads to the same ending as that of the gerund, *viz.* -*ant*; (ii) the plural ending -*antes* preserves the final consonant as part of the more general evolution of the morpheme -*s* into the grammatical marker of the plural number, while the post-tonic vowel is apocoped, the resulting ending -*ants* being graphically rendered as -*anz* (Buridant 2000: 47, 201, 237, 2019: 343).

[38] A recent exception is Bazin-Tacchella (2020: 853). See the following footnote for more information.

By contrast, the evolution of the Late Latin nominative forms to the Old French subject case forms cannot be explained by regular phonetic evolutions. For instance, the Late Latin nominative singular present participle ends in *-ans*, while the Old French subject case singular present participle ends in *-anz* in the masculine and in *-anz* or *-ant* in the feminine. *-Anz* could in principle be a phonetic or graphical variant of *-ans* (Buridant 2000: 43), but the evolution from Late Latin *-ans* to Old French feminine *-ant* seems phonetically unexplainable. A similar observation can be made for the plural present participle, which ends in *-antes* in Late Latin, both in the masculine and the feminine, but takes in Old French the ending *-ant* in the masculine and *-anz* in the feminine. The shift from Late Latin *-antes* to Old French *-anz* can be explained in the same way as the evolution of the accusative plural present participle, but again, the shift from Late Latin *-antes* to Old French *-ant* seems phonetically unexplainable. Thus, the question arises as to how to account for the subject case endings of the Old French present participle, or at least the endings inexplicable by regular phonetic evolutions.

The answer lies in the concept of analogy. In Old French, the endings of the oblique case present participle are identical to the oblique case endings of epicene adjectives of the type *grant* 'big'. Hence, it may be hypothesised that the endings of the subject case present participles have been aligned on those of the subject case forms of this same group of adjectives.[39] These endings correspond indeed to *-anz* in the masculine singular, to *-anz*/*-ant* in the feminine singular, to *-ant* in the masculine plural, and to *-anz* in the feminine plural (Anglade 1958: 214; Harris 1978: 200; Buridant 2000: 201-202, 237, 2019: 343). The alignment of the morphology of the Old French present participle on that of epicene adjectives like *grant* 'big' is illustrated in Table 2.1 for the verb *amer* 'to love' (Buridant 2000: 201, 237, 2019: 343):

Table 2.1. Alignment of the morphology of the present participle on that of the epicene adjectives of the type *grant* 'big' in Old French (illustrated for the verb *amer* 'to love')

		Subject case	**Oblique case**
Masculine	**Singular**	*amanz* 'loving'	*amant* 'loving'
		granz 'big'	*grant* 'big'
	Plural	*amant* 'loving'	*amanz* 'loving'
		grant 'big'	*granz* 'big'
Feminine	**Singular**	*amanz*/*amant* 'loving'	*amant* 'loving'
		granz/*grant* 'big'	*grant* 'big'
	Plural	*amanz* 'loving'	*amanz* 'loving'
		granz 'big'	*granz* 'big'

[39] Bazin-Tacchella (2020: 853) proposes a different analysis. According to her, the nominative singular forms have been aligned on the model of the genitive nouns (*-ans* > *-antis*), in line with the more general tendency to align imparisyllabic forms on the model of parisyllabic forms. She further claims that the ending of the nominative plural masculine forms has been replaced by *-i*, conformingly to a morphological evolution in the paradigm of the third declension nouns. She does not comment on the evolution of the nominative plural feminine forms. To my knowledge, this author stands alone in this analysis. In any case, she does not provide scientific references for this analysis. In my opinion, the hypothesis of analogical alignment on the model of the epicene adjectives of the type *grant* 'big' is more plausible, also considering the further morphological evolution of the present participle (see running text).

In the course of time, the feminine forms of the epicene adjectives of the type *grant* 'big' become aligned on those of non-epicene adjectives like *dur* 'hard', with this proviso that the "*forme analogique en face de l'épicène depend de différents paramètres comme l'aire régionale, la forme (prose/vers), la position*" (Buridant 2000: 204-205). Given that the ending of the present participle is aligned on the model of the epicene adjectives, it is not surprising that the alignment of the feminine forms of these adjectives on those of the non-epicene adjectives is also extended to some present participles, especially when used with an adjectival function (*cf.* Anglade 1958: 214; Harris 1978: 200; Buridant 2000: 328). Witness (110), where the adnominal form *mescreantes* 'non-believing' has the non-epicene ending *-antes* instead of the 'expected' epicene ending *-anz*.

(110)	*[...]*	*de*	***mescre-ant-es***	*gens*	*esteit*	*pursis.*
		by	not_believe-V.ANT-OBL.F.SG	people.OBL.F.SG	be.PST.3SG	pursue.PTCP.PST.M.SG

'He was pursued by non-believing people.' (*Bibl. Mac. Rois* 1)

Due to the morphological and functional similarities of this and similar forms with regular adjectives, it is sometimes hard to determine whether a particular instance holds as a present participle or an adjective (Ménard 1973: 169; Arnavielle 1984: 39). This difficulty has also been mentioned for the Latin present participle (see §1.3.1), and will be discussed extensively in Chapter 3 (§3.4.3.1). More relevant for the present discussion is the fact that, due to the aforementioned phonetic evolutions, the Old French present participle has the same form as the gerund when it is inflected in: (i) the subject case masculine plural; (ii) the oblique case masculine singular; (iii) the oblique case feminine singular; and (iv) possibly also in the subject case feminine singular. These forms are all made up of the present stem of a verb and the ending *-ant*, e.g. *am-ant* 'loving' (Harris 1978: 200; Buridant 2000: 328, 2019: 461; Bazin-Tacchella 2020: 853; see Table 2.1). Since these forms cannot be categorised as gerunds or present participles on purely morphological grounds, they raise a fundamental problem for the categorial distinction between the gerund and the present participle (Ménard 1973: 169; De Smet 2014: 39-40; Bazin-Tacchella 2020: 852).

However, the categorial indeterminacy of these forms can sometimes be resolved on the basis of other criteria, *viz.* the presence of a preposition and their syntactic use (Arnavielle 1984: 38; De Smet 2014: 39-40). In Late Latin, the ablative gerund, but not the nominative or accusative present participle, can be governed by a preposition.[40] Assuming that present participles do not become compatible with prepositions between Late Latin and Old French, all *-ant* forms governed by a preposition can therefore be taken as gerunds (Anglade 1958: 217; Ménard 1973: 173-175; Harris 1978: 199; Arnavielle 1984: 38-39; Jensen 1990: 322; De Smet 2014: 39; Bazin-Tacchella 2020: 853-854). *Racatant* 'buying back'

[40] This holds in fact for the present participle in general, unless it acts as the head of a NP. This type of present participles are indeed compatible with prepositions, but since they are not taken into account in this study, this is less relevant here.

(111) is a case in point, this form being separated from its governing preposition *por* 'to' by the noun *vie* 'life', which functions as the direct object of the gerund (*cf.* Ménard 1973: 174-175).

(111) *Mais* *il* *le* *fait* *por* *vie* ***racat-ant*** *[...].*
but he.SBJ.M.SG it.OBJ.N.SG do.PRS.3SG to life.OBL.F.SG buy_back-V.ANT
'But he does it to buy back his life.' (R. de Paris *Ogier* 5476)

The fact that all *-ant* forms governed by a preposition qualify as gerunds does not mean that all bare forms are present participles. In Late Latin, ablative gerunds are in fact much more often bare than prepositional, so that the presence, but not the absence, of a preposition is a useful criterion in resolving the categorial indeterminacy of Old French *-ant* forms. Since most *-ant* forms are bare instead of prepositional, however, the usefulness of this first criterion is relatively low.

The second criterion relates to the syntactic use of the *-ant* form, and is useful for a much larger group of instances. It relies on the uses of the gerund and the present participle in Late Latin. Aspland (1968: 151, 152, 166), who deals only with absolute adjunct forms, speaks of the 'retrospective historical approach' of categorising Old French *-ant* forms. In principle, Old French *-ant* forms having a function from which is excluded the Late Latin present participle can be analysed as gerunds, while those used with a function inaccessible to the Late Latin gerund can be taken as present participles (*cf.* De Smet 2014: 39-40). For instance, forms serving as the main verb of a presentative progressive construction, like *fuiant* 'fleeing' (112), can be taken as present participles, because in Late Latin, this function can be performed by a present participle, but not by a gerund.

(112) *[...]* *De* *toutes* *pars* *les* *veïst* *on* ***fui-ant.***
from all.OBL.F.PL side.OBL.F.PL they.OBJ.M.PL see.PST.3SG one.SBJ.M.SG flee-V.ANT
'They were seen fleeing from all sides.' (*Narbonnais* 7534)

However, this criterion is useless for all *-ant* forms performing a function accessible to both the Late Latin (ablative) gerund and (nominative and accusative) present participle. For instance, both forms can act as the main verb of a progressive construction, and hence Old French *-ant* forms used in this construction, like *querant* 'looking' (113), cannot be taken as either gerunds or present participles with absolute certainty.

(113) *E* *quant* *ele* *at* *sei* *grant /* *Une*
and when she.SBJ.F.SG have.PRS.3SG thirst.OBL.F.SG great.OBL.F.SG ART.INDF.OBL.F.SG
eve *vait* ***quer-ant.***
water.OBL.F.SG go.PRS.3SG look-V.ANT
'And when she has great thirst, she looks for water.' (Ph. de Thaon *Bestiaire* 769-770)

Moreover, this syntactic criterion to resolve the categorial indeterminacy of *-ant* forms is only reliable if, in the transition from Late Latin to Old French or within the period of Old French itself, the gerund

and the present participles do not extend the range of their uses, *i.e.* when the gerund does not encroach on the distribution of the present participle, and *vice versa.* However, as we will see below, the Old French gerund has probably taken over some of the functions characteristic of the Late Latin present participle (De Smet 2014: 40). Hence, the syntactic use of Old French *-ant* forms might be less reliable to determine their category than suggested so far – I will return to this point at the end of this section. For now, it suffices to mention that, even if some *-ant* forms could be categorised as gerunds or present participles due to the presence of a preposition (e.g. *racatant* 'buying back' (111)) or their syntactic use (e.g. *fuiant* 'fleeing' (112)), others remain categorially indeterminate (e.g. *querant* 'looking' (113)). These latter forms raise a fundamental problem for the theoretical distinction between the categories of the gerund and the present participle, and thus for their grammatical description in Old French (De Smet 2014: 39-40).

Even more problematic is the fact that forms that might be categorised as present participles based on their syntactic use sometimes take the ending *-ant* in contexts where one expects *-anz* (Ménard 1973: 170; De Smet 2014: 40). Consider *brunisant* 'shining' (114): it modifies the noun *espiez* 'swords' and thus qualifies in principle as a present participle, but instead of agreeing with this noun and taking the ending *-anz*, it has the non-agreeing ending *-ant*.

(114)	*Franceis*	*i*	*fierent*	*des*	*espiez*	***brunis-ant.***
	French.SBJ.M.PL	there	hit.PRS.3PL	with;ART.DEF.OBL.M.PL	sword.OBL.M.PL	shine-V.ANT

'The French are hitting there with their shining swords.' (*Roland* 1664)

In the course of time, the number of non-agreeing forms like *brunisant* 'shining' (114) increases, which suggests that the present participle progressively turns into a morphologically invariable form, just like the gerund (Ménard 1973: 170; Harris 1978: 200; Arnavielle 1984: 40). This evolution toward formal invariability might be triggered by the morphological identity of the gerund, on the one hand, and present participles for which the agreement yields the ending *-ant*, on the other hand. Indeed, the categorial indeterminacy related to this morphological identity might have been extended to the present participle in general, that is, also to the forms for which agreement is expected to yield an ending other than *-ant*. As such, the morphology of the present participle comes to be aligned on that of the gerund (Arnavielle 1984: 40). Put differently, the evolution of the present participle in Old French toward morphological invariability might be an analogy-driven morphological effect of the blurring of its categorial distinction with the gerund.

Yet, the increasing number of forms like *brunisant* 'shining' (114) does not necessarily mean that the present participle becomes morphologically invariable. As noted by De Smet (2014: 40), the forms in issue might be gerunds instead of present participles, hypothesis for which he provides three possible explanations. First, the increasing number of forms like *brunisant* 'shining' (114) might be due to their systematic reinterpretation as (morphologically invariable) gerunds, even in syntactic uses from which

the Late Latin gerund is excluded. De Smet (2014: 40) refers to this mechanism as ‘categorial incursion’, which is a type of analogy that is punctual instead of gradual (see also De Smet 2009: 1748). In our case, the punctuality of the analogy would lie in the fact that all non-agreeing -*ant* forms are each individually reinterpreted as gerunds, and thus abruptly. However, the non-agreeing ending of forms like *brunisant* ‘shining’ (91) might also indicate that the gerund extends its range of uses at the expense of the present participle. In this case, the increasing number of non-agreeing forms is the result of “gerunds gradually copying and taking over the distribution of present participles” (De Smet 2014: 40). De Smet (2014: 40) speaks in this regard of ‘analogical extension’, a type of analogy that is gradual instead of abrupt. In our case, the gradual nature of the analogy would reside in the gradual encroachment of the gerund on the distribution of the present participle, and thus in the gradual spread of morphologically invariable -*ant* forms in contexts of use reminiscent of the Late Latin present participle instead of the Late Latin gerund. Finally, the increasing number of non-agreeing -*ant* forms could be due to a combination of the two mechanisms just mentioned: some forms could be present participles punctually reinterpreted as gerunds due to categorial incursion, while others could be gerunds having a function characteristic of the present participle due to analogical extension.

Whatever its cause, the increasing number of non-agreeing forms like *brunisant* ‘shining’ (114) clearly indicates that the categorial distinction between the gerund and the present participle is blurred (Aalto 1949: 73; Ménard 1973: 169; Jensen 1990: 322; Sarré 2000; De Smet 2014: 40; Bazin-Tacchella 2020: 852). This categorial confusion even affects forms that can be taken as gerunds due to the presence of a preposition (Jensen 1990: 323; Buridant 2000: 324). Witness *enhortanz* ‘encouraging’ (115): the fact that it is governed by the preposition *por* ‘to’ suggests that it is a gerund, while its morphological agreement with the subject *li apostoiles* ‘the apostle’ points to an analysis as a present participle.

(115) *[...] por les clers* ***enhort-anz*** *li*
to ART.DEF.OBL.M.PL clerk.OBL.M.PL encourage-V.ANT.OBL.M.PL ART.DEF.SBJ.M.SG
apostoiles i donat consentement.
apostle.SBJ.M.SG to_it give.PST.3SG consent.OBL.M.SG
‘The apostle gave his consent to it in order to encourage the clerks.’ (*Dial. Greg.* 4)

By analogy to the explanations given above for forms like *brunisant* ‘shining’ (114), the agreeing ending of forms like *enhortanz* ‘encouraging’ (115) could suggest that some gerunds are reinterpreted as present participles (categorial incursion) and/or that the present participle encroaches on the distribution of the gerund (analogical extension). However, given the very low frequency of agreeing prepositional forms like *enhortanz* ‘encouraging’ (115), the hypothesis that the gerund loses its morphological invariability is highly unlikely.

Despite the fact that the present participle can still take by grammatical agreement the ending -*anz* instead of the invariable ending -*ant* (especially when used in an adjectival function, like the adnominal

form *apartenanz* ‘belonging’ (116)) and despite the exceptional occurrences of gerunds in *-anz* instead of *-ant* (e.g. *enhortanz* ‘encouraging’ (115)), the gerund and present participle both evolve in Old French toward a morphologically invariant form, having the ending *-ant* (Wackernagel & Langslow 2009: 352).

(116) *[...] les* *granz* *conseulz* *des*
ART.DEF.OBL.M.PL big.OBL.M.PL council.OBL.M.PL about;ART.DEF.OBL.F.PL
aparten-anz *choses* *de Rome.*
belong-V.ANT.OBL.F.PL affair.OBL.F.PL of Rome
‘(...) the big councils about the affairs belonging to Rome.’ (*Sages* 001.004)

Consequently, the gerund and the present participle become morphologically identical, which makes the blurring of their categorial distinction complete (Ménard 1973: 169; Harris 1978: 200; De Smet 2014: 39-40; Bazin-Tacchella 2020: 852). Therefore, it becomes impossible to identify the category of many *-ant* forms on purely morphological grounds, so that the two above-mentioned criteria should be invoked (*cf.* Arnavielle 1984: 38; De Smet 2014: 39-40). The presence of a preposition is a relatively reliable criterion, but it is inoperative for the bare forms, which are in the vast majority. As to the syntactic use of the *-ant* form, the Late Latin gerund and present participle have a partially overlapping distribution. Hence, this criterion is not conclusive. Moreover, the ‘retrospective historical approach’ (Aspland 1968: 151, 152, 166) of categorising Old French *-ant* forms on the basis of these two criteria is only reliable under the assumption that the gerund and the present participle do not encroach on each other’s morphology or distribution, neither in the transition from Late Latin to Old French, nor during the Old French period itself.[41] Assuming, for the time being, that the morphology and distribution of these forms remains constant in this period, the following section aims to establish for each type of *-ant* forms whether their category can be identified based on their syntactic use. As we will see, scholars strongly disagree about which types of forms are to be taken as gerunds or present participles. This disagreement is not surprising, because in addition to the issue of the external syntactic overlap between the gerund and the present participle inherited from Late Latin, there is the problem of their morphological merging in Old French.

In the following sections, the term ‘*-ant* form’ will be used as a cover term for all non-finite verb forms in Old French built on the present stem of a verb and having either the exact ending *-ant* or a phonetic, graphical, or inflectional variant of this ending – regardless of their syntactic use.

[41] Note that the presence *vs* absence of a preposition is not a purely morphological property, but one that combines morphology and syntax (prepositions are also markers of syntactic functions). For the sake of simplicity, however, I will refer to this criterion as a morphological criterion. What matters most is indeed the formal distinction between bare and prepositional forms.

2.2.2. External syntax of the *-ant* form

Like the gerund and the present participle in Late Latin, the *-ant* form in Old French has various uses. These syntactic uses can be mapped on three different morphosyntactic categories, yielding a three-type distinction between adjectival (§2.2.2.1), adverbial (§2.2.2.2), and verbal *-ant* forms (§2.2.2.3). The following sections aim at exploring the distinct uses of the Old French *-ant* form and at defining for each use separately whether the forms involved are categorially determinate or indeterminate on the basis of a retrospective historical approach, *i.e.* on the basis of syntactic criteria valid in Late Latin. A conclusion about the degree of categorial (in)determinacy of the Old French *-ant* form as a whole will be drawn in §2.2.2.4.

2.2.2.1. The adjectival -ant *form*

In Old French, *-ant* forms can occur in three types of constituents performing a syntactic function accessible to the adjective, *viz.* adnominal phrases, subject predicates, and object predicates (Arnavielle 1984: 39; Buridant 2000: 328, 2019: 468-469). Witness (117-119): in (117), *ardant* 'burning' modifies the noun *feu* 'fire'; in (118), *bruianz* 'making noise' is the predicate of the subject *l'eve* 'the water'; and in (119), *recreant* 'surrendering' is the predicate of the object *le* 'him'.

(117) *[...] ad l' escrit el feu*
have.PRS.3SG ART.DEF.OBL.M.SG document.OBL.M.SG in;ART.DEF.OBL.M.SG fire.OBL.M.SG
ard-ant *geté.*
burn-V.ANT throw.PTCP.PST
'He threw the document in the burning fire.' (Guernes *Becket* 3539)

(118) *[...] l' eve estoit roide et* ***brui-anz****.*
ART.DEF.SBJ.F.SG water.SBJ.F.SG be.PST.3SG swift.SBJ.F.SG and make_noise.V.ANT.SBJ.F.SG
'The water was swift and noisy.' (Chr. de Troyes *Yvain* 3083)

(119) *Rendre le quidet u mort o* ***recre-ant****.*
render.INF.PRS he.OBJ.M.SG want.PRS.3SG or dead.OBL.M.SG or renounce-V.ANT
'He wants to make him either dead or harmless.' (*Roland* 2733)

The fact that *bruianz* 'making noise' (118) and *recreant* 'surrendering' (119) display adjectival external syntax is apparent from their coordination with the adjectives *roide* 'swift' (118) and *mort* 'dead' (119).

If we admit that the gerund and the present participle do not encroach on each other's distribution in the transition from Late Latin to Old French nor within the period of Old French itself, all adjectival *-ant* forms unambiguously qualify as present participles (Anglade 1958: 216; Väänänen 1963[3]: 140; Ménard 1973: 169-171; Harris 1978: 200; Arnavielle 1984: 39; Buridant 2000: 328, 2019: 468-469).

This is undisputable for subject and object predicates, because in Late Latin, the gerund, but not the present participle, is excluded from these functions. It also holds for adnominal forms, despite the fact that the Late Latin gerund can also be adnominal. Indeed, Old French adnominal *-ant* forms agree in theory with their governing noun, just like Late Latin present participles, while the Late Latin gerund is assigned case based on its syntactic function or governing preposition. Moreover, the analysis of adnominal *-ant* forms as gerunds would require the presence of a preposition compensating for the loss of the Latin case affix, but a preposition is lacking in all constituents concerned.

Given that adnominal as well as subject and object predicate *-ant* forms can be taken as present participles based on their syntactic function alone, their morphological identity with the gerund does not raise a categorial problem. Hence, it is not surprising that, in the scientific literature, the analysis of these forms as present participles is uncontroversial.

2.2.2.2. The adverbial -ant *form*

The *-ant* form can also occur in constituents performing the syntactic function characteristic of an adverb, *i.e*. that of adjunct (Aspland 1968: 216-217; Ménard 1973: 170, 173; Buridant 2000: 324-327, 2019: 461-467; Combettes 2003: 8-9). Consider (120): *plorant* ‘crying’ is a temporal adjunct denoting the circumstances accompanying the state of affairs denoted by the main verb *a salüee* ‘(he) greeted’.

(120) *Tristan* *l'* *a* ***plor-ant*** *salüee.*
Tristan she.OBJ.F.SG have.PRS.3SG cry-V.ANT greet.PTCP.PST.F.SG
‘Tristan greeted her while crying.’ (Bér. *Tristan* 3777)

The subject of adjunct forms can be coreferential with the subject of the main verb (e.g. (120)), but also with another constituent of the main clause (Ménard 1973: 170, 175). For instance, in (121) the subject of *noant* ‘swimming’ is coreferential with the direct object of *prent* ‘(it) takes’, namely the NP *le peissun* ‘the fish’.

(121) *[...]* *Le* *peissun* *prent* ***no-ant*** *[...].*
ART.DEF.OBL.M.SG fish.OBL.M.SG take.PRS.3SG swim-V.ANT
‘It (the eagle) takes the fish as it swims.’ (Ph. de Thaon *Bestiaire* 2024)

However, not all adjunct forms are conjuncts. Indeed, their subject can just as well lack coreference with a constituent of the main clause. In this case, the subject is usually explicit within the adjunct clause for obvious semantic reasons (Klemenz 1884: 35; Stimming 1886: 545; Etienne 1895: 310; Aspland 1968; Ménard 1973: 173; Buridant 2000: 324-326, 2019: 461-466). An example of such an absolute adjunct form is *vivant* ‘living’ (122), its subject being the NP *le pere et la mere* ‘his father and mother’.

(122) *Quant* *aucuns* *en* *porte* *eritage* *le*
when INDF.SBJ.M.SG INCH take.PRS.3SG heritage.OBL.M.SG ART.DEF.OBL.M.SG
père *et* *la* *mere* ***viv-ant*** *[...].*
father.OBL.M.SG and ART.DEF.OBL.F.SG mother.OBL.F.SG live-V.ANT
'When someone starts taking inheritance during the life of his father and mother (...).' (Ph. de Beau. *Coutumes* 481)

With respect to the category of adjunct *-ant* forms, those having the exact ending *-ant* are in principle indeterminate, since in Late Latin, the gerund and the present participle can both occur in both conjunct and absolute adjuncts (see §2.1.1.2.2.2 and §2.1.2.2.2.1). Thus, conjunct forms such as *plorant* 'crying' (120) and *noant* 'swimming' (121) and absolute forms like *vivant* 'living' (122) cannot be taken as either gerunds or present participles with absolute certainty. By contrast, prepositional forms like *en plorant* 'while crying' (123) and *sor deffendant* 'while defending' (124) can be categorised as gerunds, unless the present participle encroaches on the distribution of the gerund between Late Latin and Old French or within the period of Old French itself, by becoming in particular compatible with prepositions.

(123) *Blancheflor* *respond* *en* ***plor-ant.***
Blancheflour answer.PRS.3SG in cry-V.ANT
'Blancheflour answered in tears (lit. 'while crying').' (*Floire* 2588)

(124) *J'* *ai* *mort* *celui* *sor* *mon* *cors*
I.SBJ.M.SG have.PRS.1SG kill.PTCP.PST DEM.OBL.M.SG while my.OBL.M.SG body.OBL.M.SG
deffend-ant.
defend-V.ANT
'I killed him out of self-defense (lit. 'while defending my (own) body').' (*Huon* 1104)

As for the adjuncts having an inflectional variant of the ending *-ant*, like *crianz* 'shouting' and *pluranz* 'crying' (125), they qualify in principle as present participles, unless they are gerunds having inherited the morphological inflection of the present participle due to analogical incursion (*cf.* De Smet 2014: 40) and thus agreeing with their subject (see §2.2.1).

(125) *[...]* *vindrent* *devant* *le* *rei* ***cri-anz*** *é*
come.PST.3PL before ART.DEF.OBL.M.SG king.OBL.M.SG shout-V.ANT.SBJ.M.PL and
plur-anz.
cry-V.ANT.SBJ.M.PL
'They came before the kind while shouting and crying.' (*Rois* 83)

However, the overwhelming majority of the adjunct forms are bare and have the exact ending *-ant*, and are as such categorially indeterminate. This also holds for phonetic or graphical variants of these forms, like *vivent* 'living' (126).

(126) *[...]* *fut* *rois* *par* *covent* *Salemons* *son*
be.PST.3SG king.SBJ.M.SG by arrangement.OBL.M.SG Salomon.SBJ.M.SG his.OBL.M.SG
père ***viv-ent.***
father.OBL.M.SG live-V.ANT
'Salomon became king by arrangement during the life of his father.' (*Bibl. Mac. Rois* 1)

Hence, it comes as no surprise that the category of these *-ant* forms is highly controversial. For instance, Väänänen (1963³: 140) and Ménard (1973: 170, 173) take them as gerunds,[42] while Buridant (2000: 324-327, 2019: 461-466) analyses them as present participles.[43] Anglade (1958: 215-217) takes all absolute forms as gerunds, but does not mention the conjunct forms. As for Arnavielle (1984: 39), he argues that the absolute adjuncts are in theory gerunds, but that, from a diachronic perspective, "*le participe paraît remplacer ou du moins largement concurrencer le gérondif dans ces emplois*". Confusingly, Buridant (2000: 324-327, 2019: 461-466) maintains the term 'gerund', but does not use this term as a categorial label referring to a specific category of non-finite verb forms, as in the grammatical tradition of Latin, but as a functional label referring to a sub-type of adjunct present participles, namely conjuncts. Indeed, when discussing forms like *plorant* 'crying' (123), he states that "*le participe présent est incident à un procès principal dont il marque une modalité secondaire*" (Buridant 2000: 326, 2019: 466), and, commenting two concrete examples, he asserts:

> *Comme gérondif proprement dit, le participe déclare le procès comme contentant d'un autre procès, et constitue ainsi l'équivalent d'un adverbe qui aurait un caractère verbo-temporel.*

In view of the morphological merging of the gerund and the present participle and the resulting blurring of their categorial distinction, the use of the term 'gerund' as a functional label alongside that of 'present participle' as a categorial label does not clarify the grammatical description of the forms at stake. Rather, it testifies of the embarrassment caused by the morphological fusion of the two forms in Old French and of the difficulty to describe the resulting *-ant* forms in a clear and unambiguous way.

Noteworthily, some absolute adjunct *-ant* forms show signs of a partially grammaticalised status as prepositions (Klemenz 1884: 39; Stimming 1886: 157; Garner 1889: 136; Lerch 1912: 13; Foulet 1930: 98; Aspland 1968; Ménard 1973: 173; Buridant 2000: 325-326, 2019: 462-465). The forms cited

[42] It should be noted that Väänänen (1963³: 140) is in the first place concerned with the evolution of the gerund and the present participle in Late Latin. He discusses the evolution of these forms from Late Latin to Romance and in the individual Romance languages only very briefly, and inevitably too categorically in the case of Old French – where the complexity of this matter due to the morphological merging of the two forms requires a more comprehensive and nuanced discussion.
[43] Combettes (2003: 8-9) alternates between the terms 'present participle' and '*-ant* forms' in discussing conjunct adjunct forms. This might suggest that he takes the forms in issue as present participles. However, an explicit claim about the categorial status of these forms is lacking. He might, for instance, use these terms in a more or less synonymous, categorially neuter way. Hence, it is not clear whether he truly conceives of them as present participles.

in the literature are built on the verbs *voir* ‘to see’ (127), *ouir* ‘to hear’ (128), *pendre* ‘to hang’ (129), *durer* ‘to last’ (130), and *entrer* ‘to enter’ (131).[44]

(127) ***Ve-ant*** *els* *ad* *l'* *escrit*
see-V.ANT they.OBJ.M.PL have.PRS.3SG ART.DEF.OBL.M.SG document.OBL.M.SG
el *feu* *ardant* *geté.*
in;ART.DEF.OBL.M.SG fire.OBL.M.SG burn.V.ANT throw.PTCP.PST
‘He threw the document in the burning fire while they were watching.’ (Guernes *Becket* 3539)

(128) *Dunc* *fu* *lit* *li* *escriz* ***oi-ant***
so be.PST.3SG read.PTCP.PST ART.DEF.SBJ.M.SG document.SBJ.M.SG hear-V.ANT
tut *le* *tropel.*
all.OBL.M.SG ART.DEF.OBL.M.PL crowd.OBL.M.PL
‘So the document was read while the whole crowd was listening.’ (Guernes *Becket* 1006)

(129) *Quant* *[...]* *il* *muert* *le* *plet* ***pend-ant*** *[...].*
when he.SBJ.M.SG die.PRS.3SG ART.DEF.OBL.M.SG process.OBL.M.SG hang-V.ANT
‘When he dies during the process (...).’ (Ph. de Beau. *Coutumes* 225)

(130) *[...]* *se* *ele* *le* *porte* *meins* *de* *.VII.* *mois*
if she.SBJ.F.SG he.OBJ.M.SG carry.PRS.3SG less than seven month.OBL.M.PL
le *mariage* ***dur-ant*** *[...].*
ART.DEF.OBL.M.SG marriage.OBL.M.SG last-V.ANT
‘If she carries it (an unborn child) for less than seven months during the marriage (...).’ (Ph. de Beau. *Coutumes* 579)

(131) ***Entr-ant*** *settenbre,* *a* *l’* *oisme* *di /*
begin-V.ANT September.OBL.M.SG at ART.DEF.OBL.M.SG eighth.OBL.M.SG day.OBL.M.SG
Morut *li* *reis* *[...].*
die.PST.3SG ART.DEF.SBJ.M.SG king.SBJ.M.SG
‘At the beginning of September, on the eighth day, the king died.’ (Wace *Rou* 9223-9224)

The forms built on the verbs of visual perception *voir* ‘to see’ and auditory perception *ouir* ‘to hear’ are particularly intriguing from a typological point of view. In their prepositional use, the sensory value of *voir* ‘to see’ and *ouir* ‘to hear’ is backgrounded in favour of a more grammatical meaning. This meaning consists of indicating the mere presence of their former subject during the realisation of the main state

[44] In Middle French (14th-16th c.), the prepositional use of *-ant* forms is also attested for *moyenner* ‘to serve as an intermediary’ and *toucher* ‘to touch’ (Aspland 1968: 164-165; Buridant 2000: 326). In the course of time, *moyennant* ‘by means of’ and *touchant* ‘concerning’ complete their grammaticalisation process and thus acquire full membership of the category of the preposition. They still have this status in Modern French. However, at this stage of the language, the use of the preposition *touchant* ‘concerning’ is obsolete and restricted to the literary language (Aspland 1968: 164-165; Buridant 2000: 326). In discussing the prepositional use of some *-ant* forms, Aspland (1968: 165) and Buridant (2000: 326) also mention the form *nonobstant* ‘notwithstanding’, which is “composed of *non* and *obstant* (<*obstare*, to stand in the way of)” (Aspland 1968: 165). However, this form cannot be considered an *-ant* form, in the first place because it lacks a corresponding finite verb due to the presence of the negative morpheme *non* (see the criterion proposed by Eklund 1970: 12-13). Moreover, the verb on which it is built exists in Latin, but does not survive in the transition to Old French. Hence, *nonobstant* ‘notwithstanding’ is built on a verb that no longer exists at the time of its formation, which violates another of Eklund’s (1970: 12) constraints.

of affairs (Klemenz 1884: 39; Stimming 1886: 157; Garner 1889: 136; Lerch 1912: 13; Foulet 1930: 98; Aspland 1968: 155-156, 161; Buridant 2000: 325-326, 2019: 463-464). This meaning is also frequently conveyed by the preposition *devant* 'before, in presence of' (132), and a competition thus arises between this preposition and the *-ant* forms built on *voir* 'to see' and *ouir* 'to hear' (Aspland 1968: 155; Buridant 2000: 325-326, 2019: 464).

(132) *[...] l'* *apeloit* *de traïson /* *[...] devant la*
he.OBJ.M.SG accuse.PST.3SG of betrayal.OBL.F.SG before ART.DEF.OBL.F.SG
gent.
people.OBL.F.SG
'He accuses him of betrayal before the people.' (*Joufrois* 270-271)

In the course of the 12th c., the competition between the forms of visual and auditory perception settles in favour of *voir* 'to see'. This is evidenced, *inter alia*, by the fact that the *-ant* form is often built on *voir* 'to see' instead of *ouir* 'to hear' in contexts where the main verb requires in principle an act of auditory perception (Aspland 1968: 155, 157). Witness (133): the verb *dirai* '(I) will say' designates a declarative act, and hence one expects *oiant* 'hearing' instead of *voiant* 'seeing':

(133) *[...] je* *le* *vos* *dirai* ***voi-ant*** *toz* *cels*
I.SBJ.M.SG it.OBJ.N.SG you.OBL.M.PL tell.FUT.1SG see-V.ANT all.OBL.M.PL DEM.OBL.M.PL
de ceste *place.*
of DEM.OBL.F.SG place.OBL.F.SG
'I will tell it to you in the presence of everyone who lives here.' (*Graal* 17)

From the end of the 12th c. onward, the forms built on *voir* 'to see' and *ouir* 'to hear' are both gradually replaced by the preposition *devant* 'before' (Aspland 1968: 155, 157, 164). This process is completed in Middle French (14th-16th c.), without leaving traces of prepositional uses of *voir* 'to see' and *ouir* 'to hear' in subsequent stages of the language (Grandsaignes d'Hauterive 1947: 438, 580; Buridant 2000: 326, 2019: 464).

Regarding the forms built on *pendre* 'to hang' (129), their originally spatial meaning 'hanging, being suspended' shifts toward the temporal meaning 'being suspended, being in progress' by means of the space-to-time metaphor (Marchello-Nizia 2007: §2.3). This temporal meaning is equivalent to that of the *-ant* forms built on *durer* 'to last' (130), which generates another case of functional competition. In contrast with those built on *voir* 'to see' and *ouir* 'to hear', the forms built on *pendre* 'to hang' and *durer* 'to last' finish their grammaticalisation process, and thus acquire full membership of the category of the preposition, though only in the Middle French period (Buridant 2000: 326, 2019: 464). The fully grammaticalised prepositions *pendant* 'during' and *durant* 'during' are still used concomitantly in contemporary French.

As to the forms built on *entrer* ‘to enter’ (131), in line with the lexical meaning of this verb, they denote the beginning of some period (Keller 1953: 338; Aspland 1968: 159; Buridant 2000: 325, 2019: 462-463). Like those built on *voir* ‘to see’ and *ouir* ‘to hear’, the forms built on *entrer* ‘to enter’ do not complete their grammaticalisation process, and thus do not acquire full membership of the category of the preposition. Hence, their prepositional use is confined to Old French – it does not leave any traces in the subsequent stages of the language (Buridant 2000: 326).

Although the *-ant* forms built on *voir* ‘to hear’, *ouir* ‘to hear’, and *entrer* ‘to enter’ do not complete their grammaticalisation process and although the forms built on *pendre* ‘to hang’ and *durer* ‘to last’ complete their grammaticalisation process only in Middle French, their use with prepositional features in Old French is unquestionable. This is manifest in instances like (134) and (135), where the constituent headed by *voiant* ‘seeing’ is respectively used in parallelism with the PP *devant mon tré* ‘before my tent’ (134) and in coordination with the PP *a celé* ‘in secret’ (135).

(134) *[...]* ***Voi-ant*** *mes* *gens,* *devant* *mon* *tré /*
see-V.ANT my.OBL.F.SG people.OBL.F.SG before my.OBL.M.SG tent.OBL.M.SG
Ma *parole* *en* *sera* *tenue* *[...].*
my.SBJ.F.SG word.SBJ.F.SG INCH be.FUT.3SG hold_as_true.PTCP.PST.F.SG
‘In the presence of my men, before my tent, my word will begin to be held as true.’ (Chr. de Troyes *Perceval* 2252-2253)

(135) *Sovent* *vienent* *a* *parlement /* *Et* *a* *celé* *et* ***voi-ant***
often come.PRS.3PL to parliament.OBL.M.SG and in hide.PTCP.PST and see-V.ANT
gent.
people.OBL.F.SG
‘They often come to the parliament, both in secret and in public (lit. ‘and with everyone looking’).’ (Bér. *Tristan* 577-578)

The prepositional use of these forms is also apparent from other factors. However, since this use is not at the center of this thesis, these factors will not be further investigated.[45] Since they are not full members of the category of the preposition in Old French, these forms are still analysable as absolute adjuncts (*cf.* Halmøy 2013: 278 for equivalent forms in Modern French). This is how they will be taken in this thesis.

As in the case of conjunct and absolute adjunct *-ant* forms without prepositional features, the issue of the category of absolute adjuncts with prepositional features is controversial. For instance, the forms built on *voir* ‘to see’ and *ouir* ‘to hear’ are analysed as gerunds by some authors (e.g. Klemenz 1884: 36; Stimming 1886: 545; Garner 1889: 135-138; Brunot 1922: 465; Meyer-Lübke 1923: 553-561; Škerlj 1926: 139; Lyer 1931, 1934: 244, 258; Veenstra 1946: 48; Aalto 1951: 145-157; Anglade 1958: 216;

[45] For an overview and discussion of these factors, see Aspland (1968), who focuses on the forms built on the perception verbs *voir* ‘to see’ and *ouir* ‘to hear’.

Aspland 1968: 154-155; Ménard 1973: 173), but as present participles by others (Diez 1843[4]: 957-958; Mercier 1879: 25; Etienne 1895: 310; Lerch 1912: 13, 1915: 481; Weerenbeck 1927: 145; Buridant 2000: 325-326, 2019: 461-466). The main argument of the latter analysis is the frequent use of the Late Latin present participle in absolute adjuncts, which is claimed to be the source of the prepositional use of Old French *-ant* forms. However, Aspland (1968: 154-155) rejects this hypothesis on the basis of morphological grounds. He notes that the overwhelming majority of these forms have the precise ending *-ant*, even in contexts where one expects the agreeing ending *-anz* (Aspland 1968: 154-155).[46] *Veant* 'seeing' (127) is a case in point: as a present participle, it should agree with the pronoun *els* 'they' and thus take the ending *-anz*, but instead of this ending, it has the non-agreeing ending *-ant*. Since this invariable ending is characteristic of the gerund, Aspland (1968: 154-155) argues that these forms are gerunds. However, as mentioned earlier (§2.2.1), the Old French present participle also evolves toward morphological invariability. For this reason, the morphological criterion put forward by Aspland (1968: 154-155) is unreliable. Does this mean that the forms in question are categorially indeterminate?

As for the previous types of *-ant* forms, the external syntax of the gerund and the present participle in Late Latin might be conclusive, provided again that the gerund and the present participle do not encroach on each other's distribution in either the transition from Late Latin to Old French or during the Old French period itself. In Late Latin, absolute adjunct present participles often display prepositional features, as clearly evidenced by *faciente* 'doing' (136): the ablative singular ending *-iente* of this form is at odds with the accusative plural ending of the noun that functions as its subject, *viz. interregna* 'time between two reigns' (Galdi 2019: 96).

(136) *[...] quae unus de fidelibus ac leodebus [...]*
REL.ACC.N.PL one.NOM.M.SG among follower.ABL.M.PL and subject.ABL.M.PL
interrigna ***facie-nt-e*** *visus* *est*
time_between_kings.ACC.N.PL do-PTCP.PRS-ABL.N.SG see.PTCP.PST.NOM.M.SG be.PRS.3SG
perdidisse [...].
lose.INF.PST
'(...) which (possessions) one of his followers and subjects is seen to have lost because of the time between two reigns' (*Edict. Chloth.* p. 285)

By contrast, no instances have been reported of Late Latin absolute adjunct gerunds with prepositional features. Hence, it could be argued that all Old French *-ant* forms with prepositional features are present participles. However, none of these forms is a full member of the category of the preposition, but remains in essence an absolute adjunct. Therefore, they cannot be simply taken as present participles, since the Late Latin gerund can just as well occur in absolute adjuncts (Elss 1907: 46; Flinck-Linkomies 1924:

[46] Of the 101 forms built on *voir* 'to see' and the 58 built on *ouir* 'to hear' included in the Old French corpus of Aspland (1968: 155), the exact ending *-ant* is taken by respectively 98 and 50 instances.

219; Odelstierna 1926: 58; Weerenbeck 1927: 169; Biese 1928: 91; Svennung 1935: 425; Aalto 1949: 80-82; Väänänen 1963³: 141; Hofmann & Szantyr 1965: 144, 380; Aspland 1968: 155; Kooreman 1989: 221; Maltby 2002: 223; Adams 2013: 736-739; Pinkster 2021: §16.95). Moreover, the Late Latin present participles for which a prepositional use has been recognised are built on different verbs than the Old French *-ant* forms. It is therefore not excluded that the Old French forms with a semi-prepositional status originate by grammaticalisation from absolute adjunct gerunds instead of present participles (Aspland 1968: 153, 155). They might even have multiple sources (*cf.* Van de Velde *et al*. 2015: 1), some going back to absolute adjunct gerunds, and others to absolute adjunct present participles. As in the case of conjunct and absolute adjuncts without prepositional features, the category of these forms can therefore not be established with absolute certainty.

To sum up, all adjunct *-ant* forms in Old French are categorially indeterminate, except the ones governed by a preposition (> gerunds) or displaying an inflectional variant of the ending *-ant* (> present participles).

2.2.2.3. The verbal -ant *form*

Finally, the Old French *-ant* form can have the external syntax of a verb. In this case, it serves as the main verb of a progressive or presentative progressive construction. Witness *chantant* ‘singing’ (137) and *ourant* ‘praying’ (138): in (137), *chantant* ‘singing’ forms with the verb *ert* ‘he was’ a verbal periphrasis designating a durative state of affairs (Gougenheim 1929; Anglade 1958: 215-216; Ménard 1973: 171-172; Buridant 2000: 357-358, 2019: 517-519; Combettes 2003: 8-9); in (138), *ourant* ‘praying’ combines with the pronoun *le* 'him’ and the verb of visual perception *trouvai* ‘I found’, this pattern expressing a durative state of affairs introduced in the universe of discourse as a new information, *viz.* as a thetic information unit (Vangaever 2021).

(137) *Un* *prestres* *ert* *messe* ***chant-ant***.
ART.INDF.SBJ.M.SG priest.SBJ.M.SG be.PST.3SG Mass.OBL.F.SG sing-V.ANT
‘A priest was singing the Mass.’ (Adg. *Mir.* 9.1)

(138) *[...]* *A* *genous* *le* *trouvai* ***our-ant*** *[...]*.
on knee.OBL.M.PL he.OBL.M.SG find.PST.3SG pray-V.ANT
‘I found him praying on his knees.’ (Bodel *Nicolas* 511)

These two uses of the *-ant* form will be explored in respectively §2.2.2.3.1 and §2.2.2.3.2.

2.2.2.3.1. -*Ant* forms used in a progressive construction

In Old French, -*ant* forms acting as the main verb of a progressive construction cannot only be combined with *être* 'to be' as the progressive marker, but also with a motion verb (Gougenheim 1929; Aspland 1971; Buridant 2000: 357, 2019: 517-518; Combettes 2003: 8-9; Schøsler 2004, 2005, 2007; Becker 2005).[47] For instance, *cerchant* 'pursuing' (139) and *siglant* 'sailing' (140) form a progressive verbal periphrasis with respectively *alot* 'he went' and *vindrent* 'they came'.

(139) *Forment* *alot* *Romeins* ***cerch-ant*** *[...].*
vigorously go.PST.3SG Roman.OBL.M.PL pursue-V.ANT
'He went vigorously pursuing the Romans.' (Wace *Brut* 12833)

(140) *[...]* *A* *Toteneis* *vindrent* ***sigl-ant*** *[...].*
to Totnes come.PST.3PL sail-V.ANT
'They came sailing to Totnes.' (Wace *Brut* 14345)

As in Late Latin, the degree of grammaticalisation of the motion verbs is often low, especially when they combine with an -*ant* form denoting a movement itself (Buridant 2000: 357, 2019: 517; Combettes 2003: 8-9; Becker 2005: 313-314; Vangaever & Carlier 2020: 251). *Vindrent* 'they came' (140) and *aller* 'to go' (141), combined with respectively *siglant* 'sailing' and *najant* 'swimming', are cases in point, as will be demonstrated below.

(141) *[...]* *car* *il* *a* *travaillié* *maint* *jor* *d'* *aller*
for he.SBJ.M.SG have.PRS.3SG toil.PTCP.PST many.OBL.M.PL day.OBL.M.PL of go.INF.PRS
naj-ant *par* *cele* *mer.*
swim-V.ANT on DEM.OBL.F.SG sea.OBL.F.SG
'For he toiled many days swimming on this sea.' (*Eneas* 3301)

Vindrent 'they came' (140) and *aller* 'to go' (141) undoubtedly have a progressive value: they present the state of affairs denoted by *siglant* 'sailing' (140) and *najant* 'swimming' (141) as durative, or at least evoke a "*dilatation temporelle qui représente le déroulement de l'action au ralenti*" (Becker 2005: 313-314; see also Lapaire & Rotgé 1998: 421). They behave in this regard like *ert* 'he was' (137) and *alot* 'he went' (139), and hence *vindrent siglant* 'they came sailing' (140) and *aller najant* 'to go swimming' (141) can indeed be analysed as progressive constructions. However, the combination of *vindrent* 'they came' (140) and *aller* 'to go' (141) with an -*ant* form built on another motion verb reactivates their lexical meaning, which is therefore less backgrounded than in the case of *alot* 'he went' (139) and

[47] In the transition from Late Latin to Old French, the verb *esse* 'to be' and the posture verb *stare* 'to stand' survive as two distinct verbs, namely *être* 'to be' (or *estre*) and *ester* 'to stand'. However, some of their forms merge morphologically, leading to a situation of lexical indeterminacy. Following convention, all forms in issue will be taken as forms of *être* 'to be', all the more because no instances have been reported of progressive constructions with an auxiliary that can undoubtedly be considered a form of *ester* 'to stand'.

especially *ert* ‘he was’ (137) (Anglade 1958: 172; Buridant 2000: 357, 2019: 517; Becker 2005: 313-314; Vangaever & Carlier 2020: 251). As a matter of fact, the reactivation of this lexical meaning gives rise to a division of labor: *vindrent* ‘they came’ (140) and *aller* ‘to go’ (141) serve as directional verbs marking a move away from or closer to a given landmark, whereas *siglant* ‘sailing’ (140) and *najant* ‘swimming’ (141) specify the manner of the movement (*cf.* Anglade 1958: 172; Arnavielle 1984: 39; Buridant 2000: 357, 2019: 517; Combettes 2003: 8-9; Becker 2005: 313-314; Vangaever & Carlier 2020: 251). *Vindrent siglant* ‘they came sailing’ (140) and *aller najant* ‘to go swimming’ (141) behave in this respect like ‘satellite-framed constructions’ (Talmy 1985, 2000; Schøsler 2008), so that *siglant* ‘sailing’ and *najant* ‘swimming’ can also be taken as conjunct adjuncts. However, following most authors (e.g. Gougenheim 1929; Anglade 1958: 215-216; Ménard 1973: 172; Becker 2005: 313-314; Vangaever & Carlier 2020: 251), forms like *siglant* ‘sailing’ (140) and *najant* ‘swimming’ (141) will nonetheless be analysed as the main verb of a progressive construction, not only because the accompanying motion verbs also have a progressive value, but also because these verbs often show other signs of a grammaticalised status, like a reduced or even entirely lost argument structure. I will return to this point in Chapter 3 (§3.5.4), where the distinction between conjunct adjuncts and progressive constructions will be investigated in detail.

While some motion verbs have a low degree of grammaticalisation, others have a high or even maximal degree of grammaticalisation. Witness (142), in which the subject of *aluignant* ‘lengthening’ and *acurzant* ‘shortening’ is inanimate, so that *vunt* ‘they go’ cannot be taken as a lexical verb denoting physical movement. Indeed, it can only be analysed as an auxiliary grammaticalised in the expression of the progressive aspect, and thus a marker of metaphorical movement, in particular movement in time:

(142) *Li* *jurn* *vunt* ***aluign-ant*** / *E* *les*
ART.DEF.SBJ.M.PL day.SBJ.M.PL go.PRS.3PL lengthen-V.ANT and ART.DEF.SBJ.F.PL
nuiz ***acurz-ant***.
night.SBJ.F.PL shorten-V.ANT
‘The days are lengthening and the nights shortening.’ (Ph. de Thaon *Comput* 379-380)

With respect to the category of the *-ant* forms, it is in principle indeterminate for all forms having the exact ending *-ant*. Indeed, in Late Latin, the gerund and the present participle can both be used as the main verb of a progressive construction, and hence there is no objective argument for categorising Old French forms having the ending *-ant* as either gerunds or present participles. Nonetheless, some authors take an explicit stand in this debate. These scholars can be divided in three groups. The first group takes all forms as present participles, irrespective of whether the auxiliary is *être* ‘to be’ or a motion verb (e.g. Buridant 2000: 357-358, 2019: 517-519).[48] By contrast, the second group of authors analyses all forms as gerunds, also irrespective of the type of the auxiliary (e.g. Aalto 1973: 73). According to the third and

[48] The position of Combettes (2003: 8-9) is similar as for the conjunct adjunct forms (see fn. 43 in §2.2.2.2).

largest group, some forms are present participles, while others hold as gerunds (e.g. Gougenheim 1929; Anglade 1958: 215; Väänänen 1963[3]: 140-141; Ménard 1973: 171-172; Harris 1978: 201; Werner 1980: 370-380; Arnavielle 1984: 39; Squartini 1998: 27). Interestingly, the category of the *-ant* forms is held to depend on the type of auxiliary: the forms combined with *être* 'to be' are taken as present participles, while those combined with a motion verb are considered gerunds.[49] However, this third hypothesis is equally speculative as the former two, since the Late Latin gerund and present participle can both form a progressive construction with the two types of auxiliaries. The resulting categorial indeterminacy is explicitly recognised by Becker (2005: 311) for the forms combined with *venir* 'to come', as apparent from the very first sentence of his paper:

> *Dans cet article nous nous concentrerons sur les périphrases de mouvement associées au mode quasi-nominal (le participe ou le gérondif selon la nomenclature) en français et en italien*.

In the footnote accompanying this opening sentence, Becker (2005: 311) only mentions Riegel *et al*. (1994[4]: 253), who take all forms involved as present participles. Following these authors, Becker (2005) categorises as present participles all forms having the exact ending *-ant* and combined with a motion verb, without pronouncing himself on the category of the forms combined with *être* 'to be' (in line with the scope of his paper). It is almost anecdotal that, while systematically speaking of these instances as present participles in the running text of his paper, he writes "*Venir + gérondif en ancien français*" in the heading of the very first section dealing with them (p. 313). This and similar observations elsewhere clearly demonstrate that the category of these forms is indeterminate, which makes category assignment inconsistencies of the type just illustrated perhaps even inevitable. In order to avoid such inconsistencies, Vangaever & Carlier (2020) use the purely formal label '*formes verbales en* -ant' without taking position in the delicate debate of their category.

This categorical indeterminacy also holds for graphical/phonetic variants of the forms in issue, like *firend* 'beating' and *desfazend* 'destroying' (143) or *parlan* 'speaking' and *annuncian* 'announcing' (144).

(143)	*[...]*	*de*	*dobpla*	*corda*	*·lz*	*vai*	***fir-end***,	*tot*
		with	double.OBL.F.SG	rope.OBL.F.SG	he.OBJ.M.SG	go.PRS.3SG	beat-V.ANT	all.OBL.M.SG
		lor	*marched*	*vai*	***desfaz-end***.			
		their.OBL.M.SG	market.OBL.M.SG	go.PRS.3SG	destroy-V.ANT			

'He is beating them with a double rope, he is destroying their whole market.' (*Passion* 75-76)

[49] Arnavielle (1984: 39) adopts an even more complex categorisation. He analyses as present participles all forms combined with *être* 'to be', on the one hand, and all forms combined with a motion verb and having an inflectional variant of the ending *-ant*, on the other. By contrast, he takes as gerunds all forms combined with a motion verb and having the invariant ending *-ant*.

(144) *Per* *toz* *lengatges* *van* ***parl-an***, *las*
through all.OBL.M.PL language.OBL.M.PL go.PRS.3PL speak-V.ANT ART.DEF.OBL.F.PL
virtuz *Crist* *van* ***annunci-an*** *[...]*.
virtue.OBL.F.PL Christ.OBL.M.SG go.PRS.3PL announce-V.ANT
'They are speaking in all languages, they are announcing the virtues of Christ.' (*Passion* 481-482)

By contrast, forms having an inflectional variant of the ending *-ant* can be taken as present participles, on the assumption that the gerund remains morphologically invariable and does not occasionally agree with its subject by analogy to the present participle (Arnavielle 1984: 40; see also §2.2.1).[50] An example of an inflected form is *muianz* 'mooing' (145): it agrees with its pro-dropped feminine plural subject, and thus takes the ending *-anz* instead of the non-agreeing ending *-ant*.

(145) ***Mui-anz*** *pur* *lur* *vééls* *alerent* *[...]*.
moo-V.ANT.SBJ.F.PL for their.OBL.M.PL calf.ABL.M.PL go.PST.3PL
'They were mooing for their calves.' (*Rois* 13)

With respect to prepositional forms used as the main verb of a progressive construction, they could in principle be categorised as gerunds, unless the present participle encroaches on the morphology of the gerund either between Late Latin and Old French or within the period of Old French itself. However, the scientific literature does not provide examples of prepositional forms in Old French. In contemporary French, on the contrary, their existence is undeniable. A case in point is the form *en augmentant* 'rising' in structures like *les prix vont en augmentant* 'the prices are rising' (*cf.* Vangaever & Carlier 2020).[51]

2.2.2.3.2. *-Ant* forms used in a presentative progressive construction

The final use of Old French *-ant* forms to be discussed is their use in a presentative progressive construction. This is a construction containing a more or less grammaticalised presentative marker, a NP and an *-ant* form. The presentative marker may be realised by a verb of visual perception (e.g. *voit* 'he saw' (146)), a verb of auditory perception (e.g. *oïrent* 'they heard' (147)), the presentative *ès* 'behold' or a graphical or phonetic variant of this form (e.g. (148)), or an (impersonal) third person form of the verb *avoir* 'to have' (e.g. *out* 'there was' (149)) (Vangaever 2021).

[50] According to Arnavielle (1984: 40), this type of forms are present participles encroaching on the distribution of the gerund.
[51] The question whether *en* 'while' still holds as a preposition in Modern French is subject to debate. Some authors regard it as the gerund marker, having lost its original prepositional force (e.g. Halmøy 2003: 62-63, 2013: 275; Begioni & Rocchetti 2010: 81-83). In Old French, in contrast, the status of *en* 'in' as a preposition is uncontroversial.

(146) *[...] le resgarda, et quant il le voit*
he.OBJ.M.SG watch.PST.3SG and when he.SBJ.M.SG he.OBJ.M.SG see.PRS.3SG
atend-ant *devant la porte [...] li dist [...].*
wait-V.ANT before ART.DEF.OBL.F.SG door.OBL.F.SG he.SBJ.M.SG say.PRS.3SG
'He watched him, and when he sees him waiting before the door, he says (...).' (*Graal* 325)

(147) *[...] quant oïrent le païsant / « Fuiez, fuiez,*
when hear.PST.3PL ART.DEF.OBL.M.PL peasant.OBL.M.PL flee.IMP.PRS.2PL flee.IMP.PRS.2PL
fuiez » ***dis-ant*** *[...].*
flee.IMP.PRS.2PL say-V.ANT
'When they heard the peasants say: "Flee, flee, flee" (...).' (J. de Meun *Rose* 14807-14808)

(148) *Ez Bricaudel par la ville* ***cri-ant*** *[...].*
behold Bricaudel through ART.DEF.OBL.F.SG city.OBL.F.SG shout-V.ANT
'There is Bricaudel shouting through the city.' (*Ami* 2378)

(149) *Une corune d' or out a la*
ART.INDF.OBL.F.SG crown.OBL.F.SG of gold.OBL.M.SG have.PST.3SG at ART.DEF.OBL.F.SG
croiz ***pend-ant*** *[...].*
cross.OBL.F.SG hang-V.ANT
'There was hanging a golden crown at the cross.' (Guernes *Becket* 6101)

As mentioned in §1.3.2.2.7 with respect to Classical Latin, my analysis of this type of *-ant* forms differs from their analysis in the grammatical tradition of French (for Old French, see, e.g. Klemenz 1884: 12; Stimming 1886: 550; Mönch 1912: 137, 168; Škerlj 1926: 91, 215; Lyer 1934: 217; Veenstra 1946: 24; Arnavielle 1984: 39; Buridant 2000: 327, 2019: 467-468; Combettes 2003: 9; for Modern French, see, e.g., Halmøy 2013: 279-280). In this tradition, the forms at stake are analysed as object predicates. However, since they do not assign a property to the referent of their subject NP, but rather denote a durative state of affairs in which this referent is involved at some point in time, they have a verbal instead of an adjectival force.[52] Hence, their analysis as object predicates is untenable – at least in view of how this type of constituents are defined in this thesis (see §1.3.2.2.3).[53]

Notice that discussions of these forms in the literature are typically restricted to forms combined with a perception verb, whereas those combined with the presentative *ès* 'behold' or *avoir* 'to have' are given no or only little attention. The lack of attention for the latter might be due to their extremely low absolute frequency (Vangaever 2021), but also to the fact that they cannot possibly be taken as object predicates. Hence, they indirectly challenge the analysis of their structurally equivalent forms combined with a perception verb. By contrast, the *-ant* forms combined with the presentative *ès* 'behold' can in

[52] Note that the state of affairs performed by the subject NP may be static (e.g. (146/149) or dynamic (e.g. (147/148)).
[53] Focusing on complexes of a NP and an *-ant* form combined with a perception verb or the presentative ès 'behold', Aspland (1974) defends the same analysis as that usually adopted for the equivalent constructions in Latin (see §1.3.2.2.6). He thus analyses the NP and the *-ant* form as a complement clause functioning as the direct object of the perception verb or the presentative, the latter being analysed in this respect as a true predicate.

theory be analysed as object predicates, but only when the presentative is taken as a true predicate and the accompanying NP as its direct object. In this case, the presentative is structurally equivalent to an imperative form of the verb *voir* 'to see', like *veez* 'see' or *vez* 'see' (Aspland 1974: 15; Buridant 2000: 537). However, another analysis of *ès* 'behold' is available: it can be considered as a purely grammatical marker (*i.e.* as a non-predicative element), and the accompanying NP as a true subject (Buridant 2000: 537). In this analysis, the *-ant* form cannot be taken an object predicate. The analysis adopted in this study and elaborated in more detail in Vangaever (2021) has the advantage of being applicable to the three types of *-ant* forms (those combined with a perception verb, with the presentative *ès* 'behold', and with *avoir* 'to have'). It thus presents a unified account of what appear to be 'allostructions', that is, "variant structural realisations of a construction that is left partially underspecified" (Cappelle 2006: 18).

It goes without saying that not all *-ant* forms combined with a NP and a perception verb, the presentative *ès* 'behold', or *avoir* 'to have' function as the main verb of a presentative progressive construction. When they do not denote a durative state of affairs, but assign instead a property to the referent of their subject, they act instead as object predicates. This is the case in (150): *verdoiant* '(being) green' assigns the feature [+green] to the referent of the direct object pronoun *le* 'it' through the act of visual perception denoted by *vit* 'she saw' – the referent of this pronoun corresponds to the crown of the tree in the Garden of Eden from which Eve unwittingly took an apple.

(150) *[...] quant [...] ele vit le raim, [...] s'*
when she.SBJ.F.SG see.PST.3SG ART.DEF.OBL.M.SG branch.OBL.M.SG REFL.OBJ.F.SG
aperçut por ce que ele le vit
notice.PST.3SG for DEM.OBL.N.SG that she.SBJ.F.SG it.OBJ.M.SG see.PST.3SG
verdoi-ant *[...].*
be_green-V.ANT
'When she saw the branch, she noticed that she saw it being verdant.' (*Graal* 247)

It should also be noted that the perception verbs used in a presentative progressive construction have a relatively low degree of grammaticalisation. This is evident from the fact that their lexical sensory value is usually not evicted by their grammatical meaning, but rather co-exists with it as a backgrounded value (*cf.* Hopper's 1991: 22 notion of 'persistence'; see also Heine 2002: 86). Recall that this grammatical value consists of presenting the state of affairs designated by the *-ant* form as all-new, *viz.* as a thetic information unit. Such persistence also holds for the evidential value of the perception verb, which is intrinsically related to its sensory value and which is also more or less backgrounded depending on the discourse context (Vangaever 2021). This evidential value has been acknowledged by Greco (2013: 179-180) and Zheltova (2017: 317-319) for Latin, but it also holds for Old French (and other languages with a similar construction). Witness (146) and (147), where *voit* 'he saw' (146) and *oïrent* 'they heard'

(147) also express the source of the information encoded by *atendant* ‘waiting’ (146) and *disant* ‘saying’ (147).

Let us finally examine the category of the *-ant* forms. In Late Latin, the main verb of a presentative progressive construction can be realised by a present participle, but not by the gerund. Hence, the Old French forms used in this construction can in theory be analysed as present participles, at least if one assumes that the gerund does not encroach on the distribution of the present participle, neither in the transition from Late Latin to Old French, nor during the Old French period itself. However, empirical evidence suggests that the gerund does acquire this function, because some Old French *-ant* forms used as the main verb of a presentative progressive construction are governed by the preposition *en* ‘in’ (e.g. the coordinated forms *estant* ‘standing’ and *encensant* ‘spreading incense’ (151)). Since only the Late Latin gerund can be prepositional, these Old French forms can thus be categorised as such, unless the present participle becomes compatible with prepositions.

(151) *[...] truvád le rei Jeroboam tut en* ***est-ant*** *é*
find.PST.3SG ART.DEF.OBL.M.SG king.OBL.M.SG Jerboa all in stand-V.ANT and
cel altel avúiltre ***encens-ant****.*
DEM.OBL.M.SG altar.OBL.M.SG wicked.OBL.M.SG burn_incense-V.ANT
‘He found King Jerboa while standing and burning incense on that wicked altar.’ (*Rois* 142)

Nonetheless, some authors take all forms in question as present participles (Klemenz 1884: 12-13; Lerch 1912: 70; Buridant 2000: 327, 2019: 467-468; Combettes 2003: 9). This analysis is coherent with their traditional analysis as object predicates, a use accessible to the Late Latin present participle, but not to the gerund. Buridant (2000: 327, 2019: 467) takes even the prepositional forms as present participles, thus assuming that the present participle encroaches on the distribution of the gerund.[54] Unlike Buridant, some authors analyse all forms in issue as gerunds (e.g. Diez 1843[4]: 261; Garner 1889: 426-427; Lyer 1934: 217-236; Ménard 1973: 172-173). A third and final group of scholars opt for a hybrid hypothesis, taking some forms as gerunds, but others as present participles (Stimming 1886: 550-552; Mönch 1912: 137-139, 142-143, 168, 170; Škerlj 1926: 91-92, 219; Veenstra 1946: 24-29, 67; Aspland 1974). For instance, Aspland (1974) regards the forms with the invariant ending *-ant* as gerunds, but those with an inflectional variant of this ending as present participles.[55]

[54] Buridant (2000: 327, 2019: 467) remains implicit about the implications of this analysis for the categorial distinction between the gerund and the present participle. Indeed, in his discussion of prepositional forms like those in (151), he simply states that “*la distinction formelle entre participe present et gérondif n’est pas pertinente en ancien français, la préposition en pouvant accompagner ou non le participe*”. However, he does not determine the theoretical impact of this morphological fusion of the gerund and the present participle on their categorial distinction.

[55] As noted in the running text, Ménard (1973: 172-173) categorises all *-ant* forms concerned as gerunds. However, in a remark about the forms with an inflectional variant of the ending *-ant*, he states that “*on ne saurait dire si l’on a affaire originellement à un gérondif ou à un participe present*”. In other words, he recognises the categorial indeterminacy of these forms, but not of those having the invariant ending *-ant*.

2.2.2.4. Conclusion

As in the case of the gerund and present participle in Late Latin, the external syntax of the Old French *-ant* form is diverse. It can occur in adnominal phrases, subject and object predicates, adjuncts, progressive constructions, and presentative progressive constructions. These uses are far from equally frequent (Aspland 1968: 153), but since corpus-based studies of the external syntax of this form in Old French are currently lacking, hypotheses about their relative frequency are speculative. Consequently, it is impossible to determine the external syntactic profile of the Old French *-ant* form, and, as a corollary, its morphosyntactic and typological profile. It can only be pointed out that this form has uses characteristic of three categories, *i.e.* the adjective, the adverb, and the verb – without knowing their relative weight –, and that the former two types fall respectively under Haspelmath's (1995: 4) participle and converb types of non-finite verb forms (the verbal uses are excluded from this classification). One of the aims of the empirical part of this study is to explore the frequency of the different uses of the *-ant* form in a diachronic corpus of Old French texts (Chapter 6).

The previous sections have also investigated to which extent the external syntax of the Old French *-ant* form is a useful criterion to identify its category. Under the assumption that the gerund and the present participle do not encroach on each other's distribution between Late Latin and Old French nor within the period of Old French itself, all *-ant* forms used in adnominal phrases, subject and object predicates, and presentative progressive constructions can be considered present participles, while those used in adjuncts and progressive constructions are categorially indeterminate. Thus, the degree of categorial indeterminacy of the *-ant* form depends on the combined relative frequency of adjunct forms and forms used in a progressive construction. However, as mentioned above, corpus-based studies of the external syntax of the *-ant* form are currently lacking. Hence, its degree of indeterminacy is unknown. As such, it is not clear whether the categorial indeterminacy of the Old French *-ant* form is a minor or a major problem, that is, whether it applies to a small or large number of instances. The empirical part of this thesis aims to measure this degree of categorial indeterminacy on the basis of quantitative evidence, and to evaluate the impact of the morphological merging of the gerund and the present participle on their categorial distinction in the light of this degree of indeterminacy. The question as to how this distinction in Old French has been dealt with in the scientific literature will be explored in the following section.

2.2.3. Categorial distinction between the gerund and the present participle

The preceding sections have shown that the gerund and the present participle become morphologically partly identical in the transition from Late Latin to Old French, and that this process of morphological

merging is gradually completed during the Old French period (Ménard 1973: 170; Harris 1978: 200; Arnavielle 1984: 40). The two types of non-finite verbs evolve toward morphological invariability, their inflectional ending *-ant* being directly attached to a verb's present stem. This morphological merging of the gerund and the present participle blurs their categorial distinction (Ménard 1973: 169; Harris 1978: 200; De Smet 2014: 39-40; Bazin-Tacchella 2020: 852), and the resulting categorial indeterminacy can only be resolved for some forms. The criteria allowing to categorise *-ant* forms as either gerunds or present participles concern their morphology and external syntax (Arnavielle 1984: 38), but they are little reliable because they are based on the assumption that the gerund and the present participle do not exhibit morphological and/or distributional exchange, neither in the transition from Late Latin to Old French, nor within the period of Old French itself. Yet, this assumption is problematic, since empirical evidence suggests that such encroachment does take place (*cf.* De Smet 2014: 40). This holds for the three criteria that can be invoked to categorise Old French *-ant* forms, namely the presence of a preposition, their inflectional ending, and their syntactic use (*cf.* Arnavielle 1984: 38; De Smet 2014: 39-40). The aim of this section is to identify the issues raised by these criteria, and to determine their implications for the categorial distinction between the gerund and the present participle.

In theory, all prepositional *-ant* forms can be taken as gerunds, because in Late Latin, only the gerund can be prepositional (Anglade 1958: 217; Ménard 1973: 173-175; Harris 1978: 199; Arnavielle 1984: 38-39; Jensen 1990: 322; De Smet 2014: 39). However, this argument raises a problem for two groups of prepositional *-ant* forms. On the one hand, some instances have an inflectional variant of the ending *-ant*, which is unexpected for gerunds (e.g. *enhortanz* 'encouraging' (115)). As mentioned in §2.2.1, such inflected forms can be analysed in two opposite ways: either they are gerunds encroaching on the morphology of the present participle by virtue of agreeing with a noun, or they are prepositional present participles, *viz.* forms encroaching on the distribution of the gerund. On the other hand, some prepositional forms are used in a way accessible to the Late Latin present participle, but not to the Late Latin gerund (e.g. *en estant* 'standing' and *en encensant* 'spreading incense' (151)). Again, two analyses are available: either they are gerunds encroaching on the distribution of the present participle, or they are present participles encroaching on the morphology of the gerund, in particular prepositional present participles. Whatever their analysis, the forms at stake indicate that there is at least some morphological and/or distributional exchange between the gerund and the present participle. This makes their categorial distinction even more blurred. This issue further suggests that the first criterion, *i.e.* the presence of a preposition, is not plainly reliable, as already mentioned in §2.2.1.

The same conclusion can be drawn for the second criterion, namely the inflectional ending of the *-ant* form. The Late Latin source of the Old French gerund, *i.e.* the ablative gerund, is formally invariable, while the Late Latin source of the Old French present participle agrees with a noun in case, gender, and number. Therefore, Old French verb forms having an inflectional variant of the ending *-ant* can in principle be considered present participles. However, this argument is questionable for two groups

of forms. As pointed out with respect to the previous criterion, some *-ant* forms agree with a noun while being governed by a preposition (e.g. *enhortanz* 'encouraging' (115)). These instances are to be taken as either prepositional present participles, thus as forms encroaching on the distribution of the gerund, or as prepositional gerunds encroaching on the morphology of the present participle. Conversely, a vast number of occurrences have the non-agreeing ending *-ant* in syntactic contexts from which the gerund is excluded, and in which an agreeing present participle is expected (e.g. the adnominal form *brunisant* 'shining' (114)). This latter type of forms can also be analysed in two opposite ways: either as present participles encroaching on the morphology of the gerund and thus taking the invariable ending *-ant*, or as gerunds encroaching on the distribution of the present participle. Anyhow, we need to assume at least some cases of formal and/or distributional exchange between the gerund and the present participle, and thus of categorial overlap or blurring. The diachronic shift of the present participle toward the invariable ending *-ant* further stimulates this categorial blurring. In view of the preceding remarks, agreement is far from being a reliable criterion to categorise Old French *-ant* forms, a claim also made by Buridant (2000: 324; 2019: 461). Its reliability decreases even over time, as the present participle tends to become morphologically invariable.

Like the morphological criteria just discussed, the external syntax of the Old French *-ant* form is little reliable (Aspland 1968: 152). In Late Latin, the gerund has some uses that are inaccessible to the present participle, and *vice versa*, but the two forms also share uses. In principle, Old French *-ant* forms used in a way inaccessible to the Late Latin gerund can be categorised as present participles, and, conversely, forms used in a way inaccessible to the Late Latin present participle can be taken as gerunds. However, as apparent from the previous paragraphs, some of these occurrences are nonetheless indeterminate, due to morphological reasons. This conflict between the form and the function of these instances indicates that morphological merging and distributional encroachment between the gerund and the present participle does take place. As for the forms used in a way accessible to both the Late Latin gerund and present participle, they are by definition indeterminate. On the whole, the external syntax of Old French *-ant* forms is therefore an under-effective criterion for determining their category.

In sum, none of the criteria is conclusive for categorising Old French *-ant* forms. Even a combination of morphological and syntactic criteria is often not decisive. Since the best way to define linguistic categories is on the basis of morphological and syntactic criteria (Trask 1999: 281; Aarts 2007: 2; Pullum 2009: 257), the lack of decisive arguments of precisely these types suggests that the categorial distinction between the gerund and the present participle is suspended. As expected in cases where the criteria for category assignment are not conclusive and where the distinction between two categories is blurred, the categorial distinction between the Old French gerund and present participle has been dealt with in two opposite ways. This opposition is in line with a more general opposition between two types of approaches toward categorisation, *viz.* the 'splitting approach' and the 'lumping approach' (Croft 2001: 32). The next two sections will discuss successively the 'Splitter Hypothesis' (§2.2.3.1) and the

'Lumper Hypothesis' (§2.2.3.2) of the distinction between the gerund and the present participle in Old French.

2.2.3.1. Splitter Hypothesis

The advocates of the Splitter Hypothesis claim that the gerund and the present participle exist in Old French as two distinct categories of non-finite verb forms, just like in (Late) Latin (Gougenheim 1929; Anglade 1958: 215-217; Väänänen 1963³: 140-141; Ménard 1973: 169-175; Harris 1978: 199-201; Arnavielle 1982, 1984: 38, 1997; Jensen 1990: 322-334; Buridant 2000: 324-327, 2019: 461-469).[56] They implicitly or explicitly hold that the morphological merging of the gerund and the present participle does not blur their categorial distinction, but 'simply' causes a homonymic collision. Since their categorial distinction is preserved, the main challenge of this hypothesis is to establish the criteria for category assignment, in order to allow drawing a sharp line between the two categories. However, as shown in the preceding discussion, the available morphological and syntactic criteria do not allow categorising all *-ant* forms. In many cases, they even lead to conflicting categorisations. What is more, the Splitter Hypothesis is based on the assumption that the gerund and the present participle do not take over (part of) each other's morphology and distribution, while empirical evidence suggests that such encroachment does take place. For these reasons, the Splitter Hypothesis is untenable.

Surprisingly, this hypothesis is nonetheless adopted by most authors. Its popularity might be due to the influence of the Latin grammatical tradition, acknowledged for the description of Old French (Guiraud 1963: 117; Aspland 1968: 151-152), but also of many other, even non-European languages (Haspelmath 2010: 664, 667, 675; Vincent 2016: 37). Indeed, just like many caseless languages have often been described in terms of the Latin case system until well into the 19th c. AD (Haspelmath 2010: 666-667), the description of Old French *-ant* forms might have been forced in the grammatical framework developed for the description of Latin without considering the language-specific properties of these Old French outcomes of the Latin gerund and present participle. In this spirit, the recognition of the gerund and the present participle as two distinct categories in Old French might violate the so-called 'categorial particularism' (Haspelmath 2010: 664). This refers to the idea that languages have their own categories and their own criteria for category assignment, and can as such not be described in terms of the categories created for the description of other languages – at least not without revising the

[56] Most of these authors regard the gerund and the present participle as distinct categories on the same level of abstraction (Anglade 1958: 215-217; Väänänen 1963³: 140-141; Ménard 1973: 169-175; Harris 1978: 199-201; Jensen 1990: 322-334), except Buridant (2000: 324-327, 2019: 461-469). This author subcategorises the gerund under the present participle. However, as pointed out before, Buridant uses the term 'gerund' inconsistently, *i.e.* sometimes as a categorial label and sometimes as a functional label referring to a subtype of present participles. Therefore, it is even not clear whether he adheres to the Spitter Hypothesis or to Lumper Hypothesis. If he takes this label as a functional label, he does not adhere to the Spitter Hypothesis, but to the Lumper Hypothesis, considering all *-ant* forms as present participles. If, on the other hand, he takes it as a categorial label, he adheres to Splitter Hypothesis, and in particular to the version of the theory that regards the gerund as a sub-category of the present participle.

set of their defining properties (Boas 1911; Joos 1957; Haspelmath 2010: 664, 669). Violations of the categorial particularism lead to grammatical bias and controversial category assignments (Haspelmath 2010: 664, 669). Therefore, they need to be avoided at any cost.

Evidence supporting the hypothesis that the categorial distinction between the gerund and the present participle in Late Latin has been artificially imposed on the description of Old French comes from the fact that many authors propose a radical functional split between the gerund and the present participle in Old French on the basis of their (presumed) functional evolution in Late Latin, but without considering their morphological evolution. For example, Väänänen (1963³: 140-141), Harris (1978: 200-201), and Jensen (1990: 322) take as present participles all forms having adjectival external syntax and all forms combined with *être* 'to be' to form a progressive construction, but as gerunds all forms with adverbial external syntax and all forms forming a progressive construction with a motion verb. The analysis of Old French *-ant* forms with adjectival and adverbial external syntax as respectively present participles and gerunds seems logical in view of the (presumed) specialisation of the Late Latin present participle and gerund in respectively adjectival and adverbial external syntax. However, even if this functional differentiation in Late Latin is supported by empirical evidence, their formal merging in Old French makes it theoretically impossible to impose a radical functional split between the gerund and the present participle. This conclusion was also reached on the basis of the empirical data examined in §2.2.1 and §2.2.2, which unambiguously suggested that, in Old French, at least some morphological and/or distributional exchange takes place between the gerund and the present participle. Even more problematic is the analysis of *-ant* forms combined with *être* 'to be' or a motion verb in a progressive construction as respectively present participles and gerunds, because there is no empirical evidence whatsoever showing that Late Latin present participles and gerunds used in progressive constructions specialise in different auxiliaries. All this shows is that the functional split between the gerund and the present participle in Old French proposed by these scholars is most likely imposed by analogy to the categorial distinction between the gerund and the present participle in Latin without properly revising their language-specific properties in Old French, in particular their morphological properties.

Significantly, despite recognising the gerund and the present participle as two distinct categories in Old French, most advocates of the Splitter Hypothesis often avoid the categorial labels 'gerund' and 'present participle' in their description of concrete instances, using instead the categorially neuter and morphological label '*-ant* form' or 'verb form in *-ant*' (Fr. '*forme (verbale) en* -ant') (e.g. Ménard 1973: 169-175; Aspland 1974; Harris 1978: 200-201).[57] This clear discrepancy between theory and practice, *i.e.* between preserving the categorial distinction between the gerund and the present participle, on the

[57] Combettes (2003: 7-10) – and others – alternates between the term 'present participle' and '*-ant* form'. However, an explicit claim about the categorial distinction between the gerund and the present participle is lacking. Hence, it is not clear whether he adheres to the Splitter or the Lumper Hypothesis, that is, whether he uses the term 'present participle' as a categorially neuter synonym for '*-ant* form' and thus as a cover term for all *-ant* forms, be it gerunds or present participles.

one hand, and using the morphological label '-*ant* form'/'verb form in -*ant*' instead of the categorial labels 'gerund' and 'present participle', on the other hand, further invalidates the Splitter Hypothesis. It also confirms that the categorial distinction between the gerund and the present participle in Old French does in fact not reflect a linguistic reality.

2.2.3.2. Lumper Hypothesis

This brings us to the Lumper Hypothesis, put forward most explicitly by two authors dealing with this topic from outside the field of French historical linguistics, namely the Latinist Adams (2003: 749) and the Anglicist De Smet (2014: 40).[58] They argue that the morphological merging of the gerund and the present participle in Old French does not merely blur the categorial distinction between them, but suspends it and causes the two types of non-finite verb forms to merge also on a categorial level. Adams (2003: 749) speaks in this regard of a "conflation of the two categories". De Smet (2014: 40) notes that the resulting categorial blend combines properties of the Late Latin gerund and the Late Latin present participle, so that "the all-purpose invariable non-finite form in -*ant* eventually left over is, in syntactic terms, neither a real gerund nor a real participle". More recently, Bazin-Tacchella (2020: 852) leaves an opening for this hypothesis of categorial merging from within the field of historical French linguistics:

> *En ancien et moyen français, on parlera plutôt de formes en* -ant, *variables ou invariables, car les catégories de participe et de gérondif, adaptées à la grammaire latine, ne seront établies qu'à partir du 17e s.*

Yet, an explicit claim about the categorial status of the Old French -*ant* form is lacking, and hence it is not clear how exactly this passage should be interpreted in the light of the aforementioned debate.[59]

The implications of the Lumper Hypothesis for the description of Old French grammar are drastic: the categorial merging of the gerund and the present participle abolishes their very existence as distinct linguistic categories, so that they can no longer be used to describe -*ant* forms. To abandon categories that are so entrenched in the grammatical tradition of Old French (or of French in general) is not evident. However, as argued in the preceding sections, this is the only way in which the impact of the morphological merging of the gerund and the present participle on their categorial distinction can be

[58] It is worth emphasising that the Lumper Hypothesis has been proposed by scholars from outside French linguistics. This clearly shows that descriptive linguistics can benefit greatly from the point of view of experts of other languages, and that such external point of views are often necessary in order to call into question some aspect of grammar. Hypotheses elaborated in a different grammatical tradition might lead to new insights and sometimes even groundbreaking advances, as will be argued to be the case for Adams' (2003: 749) and De Smet's (2014: 40) contributions to the debate about the distinction between the gerund and the present participle in Old French.

[59] The Lumper Hypothesis (or some variant of it) is defended for Modern French by a few authors working within the field of French linguistics (e.g. Wilmet 1997: 292-294, 521; De Carvalho 2003; see also Zemb 1978: 131, who compares French and German). However, the argumentation that can be developed for Modern French, where *en* 'in' is mandatory before the gerund, is different from that for Old French. Hence, this question will not be further addressed.

convincingly accounted for, both in view of the empirical data and from a theoretical perspective. In addition, this hypothesis is in line with the particularist view on linguistic categories: it rightly separates Old French from the other Romance languages, in which the gerund and the present participle do not merge morphologically, and thus do not undergo categorial blurring. Most importantly, however, the Lumper Hypothesis solves the fundamental problem of the categorial indeterminacy of Old French *-ant* forms, because these forms are all conceived as belonging to the same category. The question that remains in this respect is how to denominate this new category and the forms associated with it.

In order to facilitate cross-linguistic comparison and typological research, Lehmann (2018a: 35-37) argues that language-specific categories are best labelled on the basis of a comparative approach: if descriptive linguists are to create a new category, they should have a look at other languages and verify whether some language has an equivalent category. If this is the case, the new category should ideally be named after its equivalent in that other language – this existing label might of course be adapted for the sake of unambiguously covering the two categories. If, on the contrary, there are no languages having an equivalent category, the new category should be given a new label.

In the case of the categorial blend of the gerund and the present participle in Old French, there exists a comparable category in English. Similar to their morphological fusion in Old French, the gerund and the present participle merge morphologically between Old and Middle English, their ending being the invariable morpheme *-ing* (Kisbye 1971: 54; Lass 1992: 146; Dalton-Puffer 1996: 90-91; Fonteyn 2016: 307-309, 311). As in the case of Old French, the morphological merging of the English gerund and present participle raises a categorial problem, because some *-ing* forms are categorisable as either gerunds or present participles (Huddleston & Pullum 2002: 82; Duffley 2006: 1; Fonteyn 2016: 312-313).[60] While most authors still recognise the gerund and the present participle as two distinct categories, some authors evaluate their morphological fusion and functional overlap in terms of categorial merging. For instance, Quirk *et al*. (1985: 1291-1292) consider all forms present participles, and refer to them as '*-ing* participles' or '*-ing* forms'. An intermediate position is defended by Huddleston & Pullum (2002: 80) and Duffley (2006: 1): they recognise the gerund and present participle as two distinct categories, but instead of categorising the indeterminate forms as either gerunds or present participles, they group them in a third category and label them 'gerund-participles'.

By analogy to these labels proposed for English, the categorial blend of the gerund and the present participle in Old French could be labelled – on the basis of a comparative approach – '*-ant* participle', '*-ant* form', or 'gerund-participle'. The first of these labels prioritises the present participle, but this is

[60] As in the case of Old French, the question which *-ing* forms are categorially indeterminate is subject to debate. Focusing on Present-Day English, Huddleston & Pullum (2002: 82) and Duffley (2006: 1) cite as examples all forms acting as the main verb of a progressive construction (e.g. *he is* ***singing***) and as the head of a conjunct adjunct (e.g. ***hearing*** *this, he opened the door*). Fonteyn (2016: 312-313) recognises this for some conjunct adjuncts (e.g. *after* ***being*** *ready, we took coach*) and some absolute adjuncts (e.g. *Disks, no, Yeah, I know, but with them not* ***knowing****, friend's because there's so much disk swopping*).

less appropriate since there is no objective reason for such priority (the label '-*ant* gerund' could just as well be used). From a comparative point of view, the best candidates are thus '-*ant* form' and 'gerund-participle' or, more accurately, 'verb form in -*ant*' and 'gerund-present participle'.

However, it is also interesting to have a look at other labelling strategies, *i.e.* strategies other than looking for an equivalent category in another language. Various suggestions can be made.

(i) The Old French blend of the gerund and the present participle could be named after one of its source categories – strategy underlying the term '-*ing* participle' proposed by Quirk *et al.* (1985: 1292) for English. However, this strategy is best avoided since there are no objective reasons to prioritise the label 'gerund' or 'present participle', as mentioned above. Additionally, both labels run the risk of wrongly evoking a one-to-one correspondence with the gerund or present participle in (Late) Latin, and thus of generating terminological confusion.

(ii) Another option is to combine the labels of the source categories. This strategy underpins the term 'gerund-participle' used by Huddleston & Pullum (2002: 80) and Duffley (2006: 1) for English. The most obvious options are 'gerund-present participle' and 'present participle-gerund', but the shorter variants 'gerund-participle' and 'participle-gerund' are more practical. These labels have the advantage of explicitly marking both the blended character of the category and its two source categories. However, they have the disadvantage of erroneously suggesting the priority of the first-mentioned source category, and of being morphologically complex.

(iii) The third possibility is to forge a shorter and more practical version of the labels in (ii), such as the acronyms 'gerpar' (> '**ger**und-**par**ticiple') or 'parger' (> **par**ticiple-**ger**und'). These two options are little successful, but the term 'parund' (> **par**ticiple-ger**und**') is convincing, also because it has the metalinguistic advantage of allowing a fully transparent equivalent in French, *viz. parondif.* Moreover, since only part of the labels of the source categories are used in this term, the risk of wrongly evoking the priority of the first mentioned category is downgraded.

(iv) Since the forms in issue have the invariable ending -*ant* or at least tend to generalise this ending, yet another option is to use a purely formal label (*cf.* Haspelmath 2010: 674). This strategy endorses the term '-*ing form*', also used by Quirk *et al*. (1985: 1292) for English. The options here are 'verb form in -*ant*' and 'verbal -*ant* form'. They have the theoretical advantage of being categorially neuter, but the practical disadvantage of being morphologically complex. The shorter variants '-*ant* form' and 'form in -*ant*' are in principle good alternatives, but their disadvantage is that they do not explicitly mark that the forms at stake are verb forms, and differ in this regard from other types of -*ant* forms, like (de)verbal adjectives and nouns.

(v) The Old French blend of the gerund and present participle could also be labelled based on one of its functional properties (*cf.* Haspelmath 2010: 674; Lehmann 2018a: 36-37). For instance, after one of the three cross-linguistically recurrent types of non-finite verbs distinguished by Haspelmath (1995: 4). Depending on whether it has mostly nominal, adjectival, or adverbial external syntax, it could be named respectively 'masdar', 'participle', or 'converb'. However, this strategy requires quantitative results gathered from corpus-based studies of the external syntax of the forms at hand, which are lacking in the current state of the art. This type of study will be conducted in the empirical part of this thesis, and I will therefore postpone the discussion of fifth this strategy to Chapter 6.

(vi) The two final options are to assign to the Old French blend an already existing, but non-linguistic label or to create an entirely new linguistic label, *viz.* a neologism. Reference can be made in this regard to the terminology created by Damourette & Pichon (1968-1971) for the description of French grammar. In an attempt to neutralise the terminological confusion in the French grammatical tradition, these authors propose to replace some of the traditional labels by arbitrarily chosen terms, such as *assiette* 'plate' instead of *article* 'article'.[61] However, this strategy is radical and has not successfully spread in the linguistic community. For this reason, this final strategy should only be adopted as a last resort, *i.e.* when none of the previous strategies result in an appropriate option.

In my opinion, the most suitable candidates among the labels just presented are 'parund' and '-*ant* form'. From a theoretical viewpoint, these labels are more or less equally justifiable. From a cognitive point of view, the former raises the problem of being idiosyncratic because of its neological character. From a practical perspective, the latter is less convenient due to its morphological complexity. Thus, the choice ultimately depends on whether priority is given to the practical (> 'parund') or cognitive (> '-*ant* form') advantage. For the time being, I will continue using the formal label '-*ant* form', by analogy to the term '-*ing* form' used in the grammatical tradition of English. The more precise label 'verb form in -*ant*' will be used wherever necessary to avoid categorial confusion with other forms in -*ant*, like adjectives (for instance in §3.4.3). I will reevaluate this labelling issue at the end of this thesis (Chapter 6 (§6.9) and Conclusion).

As we have seen in this section, the Lumper Hypothesis of the categorial distinction between the gerund and the present participle in Old French is more convincing that the Splitter Hypothesis, both from a theoretical point of view and on the basis of scattered empirical data. However, a comprehensive quantitative study of the Old French -*ant* form is required in order to properly evaluate these hypotheses, on the basis of the exact degree of categorial indeterminacy of the -*ant* form. Indeed, this degree will

[61] These authors propose the terms '*adjectif verbal*' and '*affonctif verbal*' for respectively the (present) participle and the gerund in Modern French. The former has to be rejected for the present participle because it generates categorial confusion with true verbal adjectives, such as *convaincants* 'convincing' in *il a donné des arguments convaincants* 'he gave convincing arguments' (*vs* the present participle *convainquant* 'convincing' in *il a donné des arguments convainquant tous les members du jury* 'he gave arguments that convinced all members of the jury'). The label '*affonctif verbal*' for the gerund is to be avoided for obvious reasons of terminological obscurity.

indicate whether the issue of categorial indeterminacy of the Old French *-ant* form is a minor or a major grammatical problem, that is, whether it affects a small or a large number of instances. Thus, this degree will betoken to which extent the theoretical discussion about the categorial distinction between the gerund and the present participle is relevant. This type of study constitutes a gap in the existing literature, but will be carried out in the empirical part of this thesis (Chapter 6).

2.3. Conclusion and aim of the empirical part of this thesis

The preceding sections have explored the evolution of the gerund and the present participle from Late Latin to Old French, and investigated the impact of their morphological merging in Old French on their categorial distinction. The discussions in these sections are a summary of the available literature, and have been critically assessed on the basis of published empirical data. However, as mentioned in these sections, the hypotheses put forward lack a strong empirical basis. Hence, the presumed changes in Late Latin and their implications for the categorial distinction between the gerund and the present participle in Old French remain somewhat speculative.

The lack of a comprehensive corpus-based study is without any doubt unfortunate for Late Latin. However, without empirical evidence allowing to objectively measure the presumed functional changes of the gerund and the present participle in Late Latin, it remains possible to study the conditions of use of both the gerund and the present participle, since their categorial distinction is still in place. In contrast, the absence of a large-scale empirical study is highly problematic for Old French. In this language, the morphological merging of the two types of non-finite verbs suspends their categorial distinction, giving rise to a situation of categorial indeterminacy. This categorial indeterminacy can sometimes be solved on the basis of morphological and/or distributional criteria, but in many cases it cannot. Moreover, there is compelling evidence in favour of morphological and distributional encroachment of the gerund on the present participle, and/or *vice versa*. This calls in fact into question the category of each and every *-ant* form. The only possible way to maintain the distinction between the gerund and the present participle in Old French is to hypothesise a functional split on the *-ant* forms. However, this split must reflect a linguistic reality rather than being an artificial continuation of categories created for the description of (Late) Latin. This issue can only be tackled on the basis of quantitative empirical evidence gathered from a diachronic corpus of Late Latin and Old French texts. Indeed, the verification in such a corpus of the presumed functional changes of the gerund and the present participle in Late Latin is the *conditio sine qua non* for exploring the possibility of a strict functional split of Old French *-ant* forms, and thus for maintaining the categorial distinction between the gerund and the present participle instead of merging them.

In order to accurately measure the impact of the morphological merging of the gerund and the present participle in Old French on their categorial distinction and to appropriately establish whether the categories of the gerund and the present participle are preserved in the transition from Late Latin to Old French, the second part of this thesis aims at empirically investigating the evolution of the gerund and the present participle in Late Latin, on the one hand (Chapters 4 and 5), and to assess on the basis of this investigation the categorisation issue of Old French *-ant* forms, on the other (Chapter 6). The empirical investigation will be carried out on the basis of an extensive amount of data gathered from a large and varied corpus of Late Latin and Old French texts and will be evaluated using statistical methods, so as to enable addressing the above-raised issue in the best possible way. The corpus and the dataset of this study will be presented in the following chapter, along with the methodology that will be used (Chapter 3).

By empirically investigating the evolution of the gerund and the present participle in both Late Latin and Old French, the second part of this thesis aims to fill a gap in both historical Latin linguistics and historical French linguistics. Given that linguists working in these diachronically complementary fields of research have in the past usually been operating independently from each other, the empirical part of this study does not only aim at bridging (part of) the linguistic gap between Late Latin and Old French, but also (part of) the institutional gap between the respective research fields (see also §3.1).

Part II. Empirical investigation

Chapter 3. Corpus, dataset, and methodology

3.1. Introduction

The first part of this study has explored the morphological and syntactic properties of the gerund and the present participle in Classical Latin (Chapter 1), and summarised the currently available knowledge about their evolution from Late Latin to Old French (Chapter 2). As mentioned at the end of the previous chapter (§2.3), this evolution has not yet been the subject of a comprehensive diachronic corpus study, at least not of a study focusing on their external syntax in general. Therefore, it is still an open question to which extent their presumed syntactic and morphosyntactic differentiation in Late Latin is supported by empirical data, and to which extent the Old French *-ant* form is categorially indeterminate. Hence, the exact impact of the morphological merging of the gerund and the present participle on their categorial distinction is still unknown.

The aim of the second part of this study is to empirically investigate these questions in a large and varied diachronic corpus of Late Latin and Old French texts. This empirical investigation will be carried out in three distinct chapters: the evolution of the gerund and the present participle in Late Latin will be explored in respectively Chapter 4 and Chapter 5, while the categorial indeterminacy of the Old French *-ant* form will be examined in Chapter 6. The aim of the current chapter is threefold: (i) to present the corpus (§3.3) and dataset (§3.4) of this study; (ii) to examine the various types of syntactic ambiguity of the gerund, present participle, and *-ant* form constituents evoked in Chapters 1 and 2 (§3.5); and (iii) to expound the research procedures and methodology that will be used (§3.6). However, before tackling these aspects, I will detail the broader research context of this thesis (§3.2).

3.2. Research context: the PaLaFra project

This thesis has been performed within the context of the ANR/DFG project *PaLaFra* ("*Passage du latin au français: constitution et analyse d'un corpus numérique latino-français*"). This is the first large-scale international project aiming at exploring the linguistic and conceptual "no man's land" (Herman 2006: 184) between Late Latin as spoken in Gaul and Old French.[1] Within the context of this project has been elaborated a digital and morphosyntactically annotated corpus of Late Latin and Old French texts showing language use as representative as possible of the language spoken in Gaul between Late Antiquity and the Early and High Middle Ages. The key morphosyntactic changes of this language are currently being empirically investigated by a large group of experts from the complementary fields of

[1] The website of this project can be consulted at http://palafra.org (ANR-14-FRAL-0006).

historical Latin linguistics and historical French linguistics. By creating a synergy between two complementary research communities that have until now been operating in a more or less autonomous way, the PaLaFra project aims to unify the linguistic and conceptual insights required to bridge the gap between Late Latin and Old French. This collaborative approach was successfully adopted in a pilot publication project carried out by two of the instigators of the PaLaFra project, namely A. Carlier and C. Guillot-Barbance (Carlier & Guillot-Barbance 2018). This pilot project showed that the research climate was ready for a more comprehensive project reuniting diachronic experts from Latin and French historical linguistics.

The scientific output of the members of the PaLaFra project is manifold. At the center are (i) the elaboration of a digital and morphosyntactically annotated corpus of Late Latin and Old French texts, meanwhile freely accessible on the website of the *Base de français médiéval*,[2] and (ii) the publication of a comprehensive manual, being currently edited by Anne Carlier, Lieven Danckaert, Céline Guillot-Barbance, Maria Selig, and myself under the title *Bridging the Gap between Late Latin and Early Old French: Empirical Investigations of (Morpho)Syntactic Changes*.[3] In addition, various publications can be mentioned, like Bucher *et al*. (2017), Carlier (2016, 2017), Carlier & Lamiroy (2018), Galdi & Vangaever (2019), Guillot-Barbance *et al*. (2017), Pincemin *et al*. (2018), Selig *et al*. (2017), Simonenko & Carlier (2020), Vangaever (2017, 2018, 2019, 2021), and Vangaever & Carlier (2020) (see also all contributions in Carlier & Guillot-Barbance 2018). This dissertation is yet another example of the output of the PaLaFra project. It also inherits from this project its focus on the morphosyntactic properties of the gerund and the present participle.

3.3. Corpus

The present study essentially draws its empirical data from the corpus elaborated within the context of the PaLaFra project. Being compiled for the specific purpose of examining the transition from Late Latin to Old French, this corpus provides the ideal empirical base for the topic of this dissertation. This corpus is moreover pioneering in combining Late Latin and Old French texts, so that the empirical investigation of the gerund and the present participle from Late Latin to Old French is unique. It goes without saying that the texts of the PaLaFra corpus have been selected with care. Language change typically emerges in the spoken language and reaches the written language only at a later stage due to its more conservative character (Herman 2006: 186). Therefore, the texts included in the PaLaFra corpus show a language use

[2] The website of the *Base de français médiéval* (BFM) and other information about this database is provided in the Bibliography (section 'Corpora and databases').
[3] This manual is complementary to the monumental *Grande Grammaire Historique du Français* (GGHF), edited by Christiane Marchello-Nizia, Bernard Combettes, Sophie Prévost, and Tobias Scheer (2020). The GGFH investigates the history of French from its very emergence to the 21st c. The methodology and corpus orientation of the two publication projects are comparable, and several contributors to the GGHF are also members of the PaLaFra project.

that is as representative as possible of the language spoken in Gaul between Late Antiquity and the Early and High Middle Ages. Admittedly, the number and the variety of the texts are not equally large for all centuries, and only written data are available. Hence, they might not faithfully reflect the ongoing changes in the spoken language (Herman 2006: 186). These are however the material and technological inconveniences proper to historical corpus linguistics in general. What matters more is that the texts of the PaLaFra corpus document the transitional period between a mother and a daughter language in an almost uninterrupted way. As such, they provide an empirical base that is exceptional not only from a cross-linguistic perspective, but also from a Romance point of view. Indeed, the unified corpus of Late Latin and Old French texts is unique in the field of historical corpus linguistics, and can therefore serve as a laboratory to empirically test hypotheses formulated in general and typological linguistics. The fact that the linguistic features of (Late) Latin and its daughter language (Old) French are often diametrically opposed from a typological perspective, e.g. with respect to word order and inflectional morphology, adds to the interest of the PaLaFra corpus. It is within the context of this unique empirical base that the evolution of the gerund and the present participle from Late Latin to Old French will be examined in the second part of this thesis.

The texts of the PaLaFra corpus are divided into three sub-corpora: a corpus of Late Latin texts (PALAFRALAT-V2-0), a corpus of Old French texts (PALAFRAFRO-V2-2), and a so-called 'parallel corpus' comprising a subset of the Late Latin texts of the PALAFRALAT-V2-0 corpus and their Old French translation included in the PALAFRAFRO-V2-2 corpus (PALAFRAPAR). This parallel corpus has been compiled for the specific purpose of comparing Late Latin and Old French structures on a micro-linguistic level. However, it does not contain texts other than those included in the PALAFRA-LAT-V2-0 and PALAFRAFRO-V2-2 corpora, and hence it will not play a role in this thesis. In addition to the PALAFRALAT-V2-0 and PALAFRAFRO-V2-2 corpora, the corpus of this study includes the BL2LAT corpus, which is a pilot version of the PALAFRALAT-V2-0 corpus (but one that contains a mainly different sample of texts), and the Classical Latin corpus examined by Vangaever (2018).[4] Since this dissertation focuses on the transition from Late Latin to Old French, however, this Classical Latin corpus will not be investigated in the same detail as the Late Latin and Old French corpora (see §3.6.1.2). The inclusion of the BL2LAT corpus has a primarily practical reason: the PALAFRALAT-V2-0 and PALAFRAFRO-V2-2 corpora have been compiled and morphosyntactically annotated in the course of the PaLaFra project. Before the (definitive version of the) PALAFRALAT-V2-0 corpus was available, I explored the use of the gerund and the present participle in Late Latin in its pilot version. Instead of later replacing this BL2LAT corpus by the PALAFRALAT-V2-0 corpus, I retained it as an additional corpus, not only because most texts included in it are different from those of the PALAFRALAT-V2-0

[4] Like the PALAFRALAT-V2-0, PALAFRAFRO-V2-2, and PALAFRAPAR corpora, the BL2LAT corpus is hosted by the *Base de français médiéval*. The Classical Latin corpus has been presented in §1.2.2.2.6. More technical information about these corpora is given in the Bibliography (section 'Corpora and databases').

corpus, but also because it contains some texts of the 4th-5th c., which are scarce in the PALAFRALAT-V2-0 corpus.

The remainder of this section will present in more detail the Late Latin corpora BL2LAT and PALAFRALAT-V2-0 (§3.3.1) and the Old French corpus PALAFRAFRO-V2-2 (§3.3.2). I will also set out which texts of these corpora will be included in the corpus of this thesis, and which texts will be excluded. The texts selected for the corpus of this study will be assigned to a sub-period of Late Latin or Old French, thus providing the basis for the diachronic investigation in Chapters 4 to 6. Drawing on Banniard (2018: 29), the period of Late Latin will be divided into three sub-periods: Imperial Latin (4th-5th c.), Merovingian Latin (6th-7th c.), and Early Medieval Latin (8th-10th c.).[5] As for the period of Old French, it will be divided into the conventional sub-periods of Early Old French (9th-11th c.) and Old French (12th-13th c.).[6] This latter label is thus used for both the general period between the 9th and the 13th c. and the sub-period covering the 12th-13th c. This might occasionally cause confusion. In order to avoid such confusion, I will reserve the term 'Old French' for the general period between the 9th and the 13th c. (as in Chapter 2), and refer to the sub-period in terms of the two centuries subsumed under it, namely the 12th-13th c.

3.3.1. Late Latin

This section aims to describe in more detail the BL2LAT (§3.3.1.1) and PALAFRALAT-V2-0 (§3.3.1.2) corpora. I will also merge the texts of these corpora retained in the corpus of this dissertation in a single, Late Latin corpus (§3.3.1.3).

3.3.1.1. The BL2LAT corpus

The BL2LAT corpus contains 30 Late Latin texts between the 4th and the 12th c. These texts are written in prose and belong to the religious domain, except for Fredegar's *Chronica*, which is a historical text.[7] Most of the religious texts are hagiographies (n=25), but there are also two dialogues, one itinerary, and

[5] Banniard (2018: 29) also includes the 3rd c. in the Imperial Latin period. However, the BL2LAT and PALAFRALAT-V2-0 corpora do not contain texts from this century, and hence it will not be considered in this thesis. As for the period of Early Medieval Latin (8th-10th c.), it is meant as the Latin counterpart of the period referred to by Banniard (2018: 29) as 'Proto-French' (8th-9th c.). Nevertheless, it is slightly extended so as to include also the 10th c., period for which the BL2LAT and PALAFRALAT-V2-0 corpora present a number of linguistically interesting texts.

[6] The Old French period is often extended to the mid-14th c. However, since the PALAFRAFRO-V2-2 corpus contains only one text from the 14th c., this text will be discarded from the corpus of this study. Hence, the first half of the 14th c. will be excluded from the period of Old French.

[7] Only part of Fredegar's *Chronica* is included in the BL2LAT corpus, namely the fourth book and the continuations (see also Appendix 1). The author of this text is in fact unknown. Indeed, the name Fredegar is introduced only in 1579, in the *Recueil des antiquitez gauloises et françoises* by Claude Fauchet. It is furthermore unclear whether the text is written by a single author, as argued by, e.g., Lot (1914) and Goffart (1963), or by two or more authors, as held by, e.g., Krusch (1882), Hellmann (1934), and Wallace-Hadrill (1958). For practical reasons, I will refer to this text in this thesis as "Fredegar's *Chronica*", without taking a stand in the debate on its authorship.

one letter. Fredegar's text is a chronicle. The texts of the BL2LAT corpus jointly contain 130 494 words, which equals an average text length of 4 350 words.[8] However, the actual length of the texts ranges from 601 (*i.e.* the anonymous *Passio Symphorosae*) to 20 335 (*i.e.* Fredegar's *Chronica*) words.

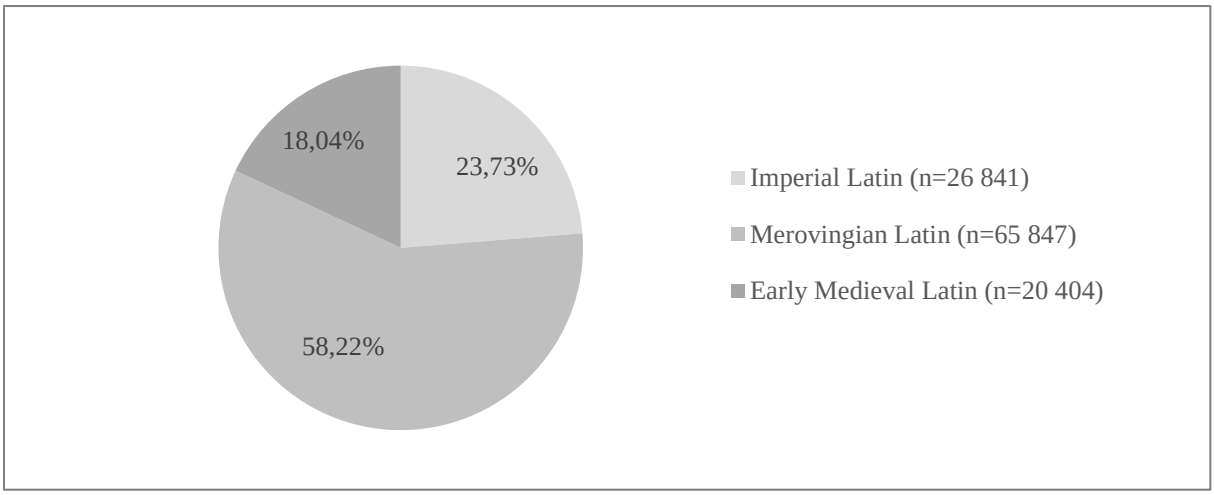
The corpus of the present study includes all texts of the BL2LAT corpus, except the *Vita Petri Venerabilis*. This text is written in the 12th c., and thus falls outside the period of Latin taken into account in this thesis. One text of the BL2LAT corpus has been divided into two texts, namely the *Peregrinatio Aetheriae*. In the BL2LAT corpus, the itinerary written by the nun Egeria in the 4th c. is accompanied by a letter of Valerius of Bierzo composed in the 7th c., the two documents being treated as one single text. For obvious chronological reasons, these two texts have been separated in the corpus of this study. Thus, this corpus contains 30 Late Latin texts from the BL2LAT corpus. These texts comprise a total number of 125 908 words, which makes an average length of 4 197 words per text.

On the basis of their date of composition mentioned in the *Base de français médiéval*, the texts of the BL2LAT corpus have been assigned to one of the three sub-periods of Late Latin distinguished earlier, *viz.* Imperial Latin (4th-5th c.), Merovingian Latin (6th-7th c.), and Early Medieval Latin (8th-10th c. This was unproblematic for all texts with a date of composition falling within the limits of one and the same century (e.g. the *Peregrinatio Aetheriae*, written in 384) or overlapping between two or more centuries subsumed by the same period (e.g. the *Passio Nazarii et Celsi*, composed around 600 and thus on the verge between the 6th and the 7th c.). However, a few texts (n=5) have a date of composition that overlaps between two or more centuries covered by distinct periods of Late Latin. Hence, they cannot be unambiguously assigned to Imperial, Merovingian, or Early Medieval Latin. This holds, for instance, for the *Passio Agathae*, which dates from around 500 and is as such on the verge between the 5th and the 6th c. and, incidentally, between the periods of Imperial and Merovingian Latin. Likewise, the *Passio Victoris et Coronae* and the three versions of the *Passio Viti* are dated around 700, and thus fall between Merovingian and Early Medieval Latin.[9] Instead of (arbitrarily) subsuming these texts under one of the three sub-periods of Late Latin, they have been isolated and excluded from all quantitative and statistical analyses of the evolution of the gerund and the present participle between Imperial and Early Medieval Latin. In contrast, they have been retained in all other analyses, e.g. in those comparing the syntactic use of the two types of non-finite verb forms between Classical and Late Latin (see §3.6.1.2). The diachronic distribution of the unambiguously periodisable words is presented in Figure 3.1 – they represent 90% of all words (113 092 out of 125 908).

[8] The *Base de français médiéval* does not provide the number of words alone, but the combined number of words and signs of punctuation. I calculated the number of words in the BL2LAT corpus by subtracting the number of punctuation signs from the combined number of words and punctuation signs as mentioned in the *Base de français médiéval* (n=145 636). The number of punctuation signs (n=15 142) was determined on the basis of the query [word="."], which, against all appearances, selects all signs of punctuations, not only dots.

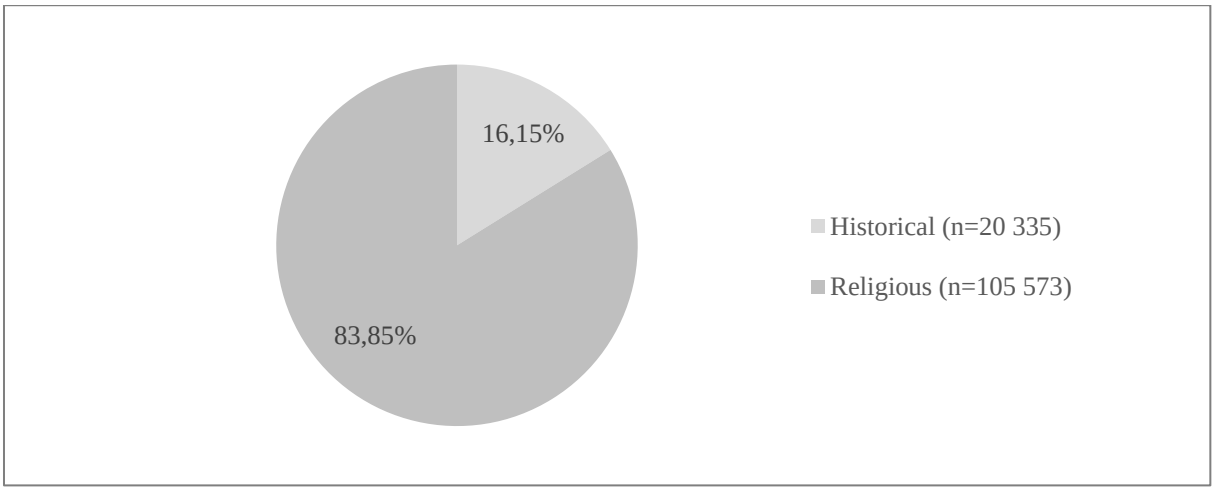
[9] The three versions of the *Passio Viti* are three distinct texts: they tell a similar story, but are linguistically different. Therefore, they are all three included in the corpus of this study (as in Carlier & Guillot-Barbance 2018; see p. 16).

Figure 3.1. Diachronic distribution of the words of the unambiguously periodisable texts of the BL2LAT corpus included in the corpus of this thesis (n=113 092)



The thematic distribution of the total number of Late Latin words is shown in Figure 3.2. Considering the textual composition of the BL2LAT corpus (29 religious texts *vs* 1 historical text), it is not surprising that most of them belong to the religious domain:

Figure 3.2. Thematic distribution of the words of the texts of the BL2LAT corpus included in the corpus of this thesis (n=125 908)



The list of the texts of the BL2LAT corpus included in that of the present study is given in Appendix 1. The texts are arranged in chronological order, and within each century in alphabetical order. For each text, mention is made of respectively the sub-period of Late Latin, the century, the title, the author (if known), the thematic domain, and the textual genre. Whenever the date of composition overlaps between two or more centuries and/or sub-periods of Late Latin, all centuries and periods involved are mentioned.

3.3.1.2. The PALAFRALAT-V2-0 corpus

The PALAFRALAT-V2-0 corpus contains 187 Late Latin texts between the 5th and the 10th c. These texts are written in prose and can be divided into historical (n=107), legal (n=51), and religious texts (n=29). The historical texts are mainly letters (n=103), but they also include two historiographies and two chronicles. The religious texts are all hagiographies. Most of the legal texts are charters (n=40), but there are also nine formularies and two laws. Together, the texts of the PALAFRALAT-V2-0 corpus contain 329 823 words. This yields an average text length of 1 764 words, against 4 350 in the BL2LAT corpus.[10] This difference is due to the fact that 76% of the texts of the PALAFRALAT-V2-0 corpus are letters (n=103 or 55%) or charters (n=40 or 21%), texts genres that are usually very short. Indeed, while they make up 76% of all texts, the letters and charters comprise only 14% of all words (45 071 out of 329 823) – 10% (or 31 877 words) for the letters and 4% (or 13 194 words) for the charters. The average length of the letters and charters is similar (respectively 309 and 330 words per document). However, the above-mentioned average length should not obscure the fact that the actual length of the texts of the PALAFRALAT-V2-0 corpus strongly fluctuates between 68 (the *Epistula Brunihildae ad Anastasiam augustam*) and 24 311 (*Vita Eligii episcopi Noviomagensis*) words.

The corpus of this study includes all but five texts of the PALAFRALAT-V2-0 corpus. The fourth book and continuations of Fredegar's *Chronica*, treated as two distinct texts in this corpus, are excluded because they are already part of the BL2LAT corpus. The three remaining texts, namely the *Vita Sulpicii episcopi Biturigi*, the *Vita Filiberti abbatis Gemeticensis et Heriensis*, and the *Vita Pardulfi abbatis Waractensis*, are each represented in two versions going back to the same archetype. Only one of these versions has been retained in the corpus of this thesis. For the *Vita Sulpicii episcopi Biturigi* and the *Vita Filiberti abbatis Gemeticensis et Heriensis*, the version A has been retained, because these versions are considered closest to the original texts by their editors in the *Monumenta Germaniae Historica* (hence MGH), *i.e.* the database of primary sources that provided the two texts in issue (and many other texts of the PALAFRALAT-V2-0 corpus) (*cf.* Krusch 1902: 365; Levison 1910: 578).[11] As to the *Vita Pardulfi abbatis Waractensis*, it is unclear which version is closest to the original text, so that no motivated choice

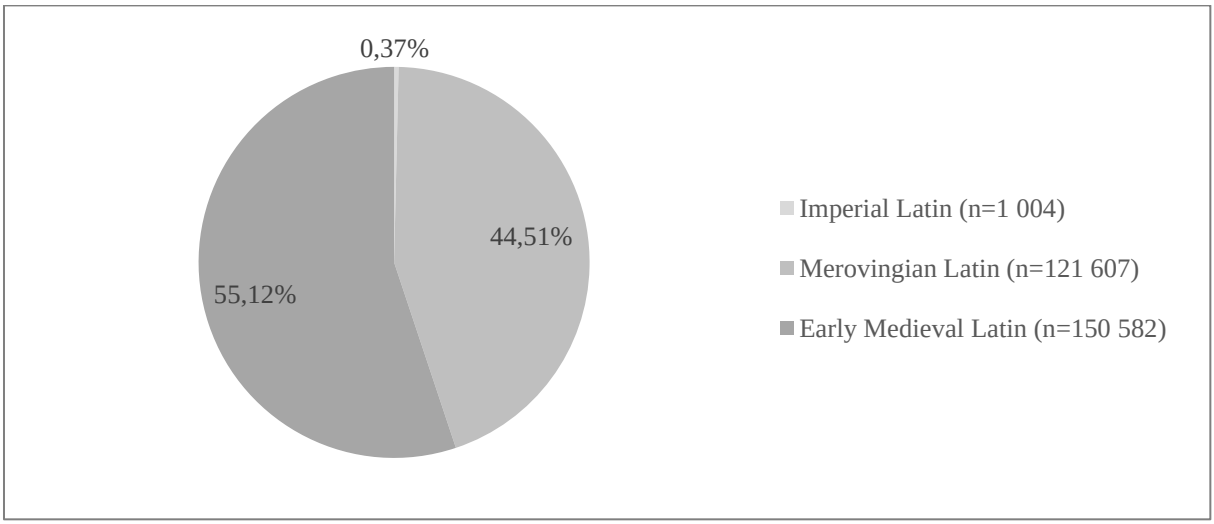
[10] As in the case of the BL2LAT corpus, the *Base de français médiéval* does not provide the number of words alone, but the combined number of words and punctuation signs. I calculated the number of words in the PALAFRALAT-V2-0 corpus in the same way as for the BL2LAT corpus (the combined number of words and punctuation signs amounts to 398 142 and the number of punctuation signs alone to 68 319).

[11] Krusch (1902: 365), the editor of the *Vita Sulpicii episcopi Biturigi* in the MGH states: "Vitae Sulpicii quales editae sunt et brevior (B) et prolixior (C) textum primigenium minime exhibent, sed ipsi proprius accedere videtur quod nobis eruere licuit exemplar ignotum (A)." ('The lives of Sulpicius as edited in the shorter version B and the more extended version C certainly do not provide the original text, but the unknown version A that I have been able to construe seems to be close to it'; my transl.). In a similar vein, the editor of the *Vita Filiberti abbatis Gemeticensis et Heriensis* in the MGH, Levison (1910: 578), writes: "Quae cum ita sint, dubitari nequit, quin recensioni A potior auctoritas adhibenda sit quam textui B." ('Since things are as such [*viz.* that the B version contains more conjunctions and adverbs than the A version], it is without doubt that the A version has more authority than the B version'; my transl.).

can be made (Levison 1920: 22).[12] The version selected for the corpus of this study is the one with the largest number of words (version 1), although the difference with the shorter version is negligible (4 119 *vs* 4 088 words). In view of the preceding remarks, the corpus of this dissertation includes 182 texts of the PALAFRALAT-V2-0 corpus. These texts comprise a total number of 299 995 words and have an average length of 1 648 words.

Like those of the BL2LAT corpus, the texts selected from the PALAFRALAT-V2-0 corpus have been assigned to one of the three sub-periods of Late Latin, based on their date of composition mentioned in the *Base de français médiéval*. For the texts with a date of composition extending over two or more centuries covered by a different sub-period of Late Latin, the same principle was adopted as in the case of the BL2LAT corpus: instead of arbitrarily subsuming them under one of the sub-periods, they have been isolated and left out from all quantitative and statistical analyses of the evolution of the gerund and the present participle from Imperial to Early Medieval Latin, but retained in all other analyses (see also §3.6.1.2). This holds for the following five texts: (i) the *Formulae Marculfi* and (ii) the *Supplementum formulae Marculfi*, both composed between 650 and 730; (iii) the *Vita Amati*, written between the 7th and the 8th c.; (iv) the Merovingian Charter 144, dating from between 694 and 711; and (v) the *Vita Wandregiseli*, whose date of composition revolves around 700. The unambiguously periodisable words account for 91% of all words (273 193 out of 299 995). Their diachronic distribution is shown in Figure 3.3.

Figure 3.3. Diachronic distribution of the words of the unambiguously periodisable texts of the PALAFRALAT-V2-0 corpus included in the corpus of this thesis (n=273 193)

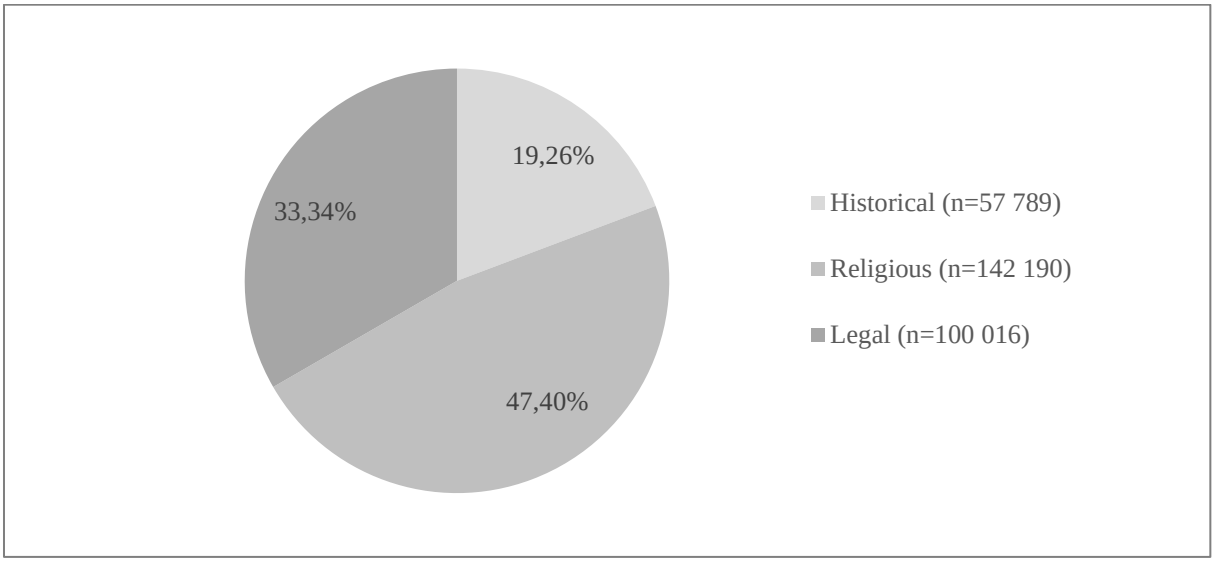


[12] The editor of the text in the MGH, W. Levison (1920: 22), states: "Itaque in Vita recensenda neque 1 neque 2a. b neglegendi sunt, atque satis lugendum, quae lectio preferenda sit, haud semel vix certo diiudicari posse (...)." ('And so, in reviewing the Life, neither the version 1 nor the version 2a. b should be neglected, and it is to be regretted that it cannot be determined with certainty once and for all which version is to be preferred'; my transl.).

As shown in Figure 3.3, the period of Imperial Latin is highly underrepresented in the PALAFRALAT-V2-0 corpus. Indeed, this corpus includes only three texts from this period, *viz.* three letters belonging to the collection of *Epistulae Austrasicae* and containing only 180, 241, and 583 words (the letters in issue are respectively the second, the first, and the twenty-third). This is why it is important to include the BL2LAT corpus, which, as seen in §3.3.1.1, provides a workable, though not very high, amount of words for the Imperial Latin period (n=26 841; see Figure 3.1).

The thematic distribution of the total number of Late Latin words is presented in Figure 3.4.

Figure 3.4. Thematic distribution of the words of the texts of the PALAFRALAT-V2-0 corpus included in the corpus of this thesis (n=299 995)



As in the BL2LAT corpus, the religious texts dominate in terms of number of words. However, in the PALAFRALAT-V2-0 corpus, the legal texts also play an important role – this type of texts are absent in the BL2LAT corpus. The absolute number of words in the historical texts is much higher than in the BL2LAT corpus, but their proportion to the total number of words is similar. The texts and words of the two Late Latin corpora will be merged in a single corpus in §3.3.4.

Appendix 2 presents the list of the texts of the PALAFRALAT-V2-0 corpus retained in the corpus of this study. The same type of information is provided as for the texts of the BL2LAT corpus.

3.3.1.3. The Late Latin corpus of this thesis

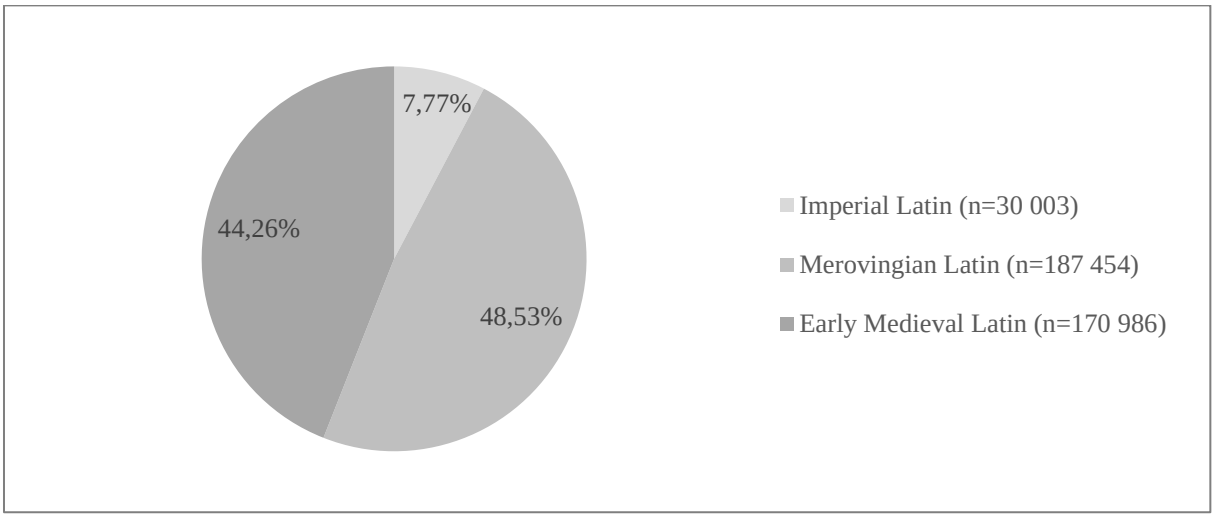
The previous sections have described the BL2LAT and PALAFRALAT-V2-0 corpora, and set out which texts of these corpora are included in the corpus of this thesis. The aim of the current section is to merge these texts into a single Late Latin corpus, hereafter referred to as ‘the Late Latin corpus (of this study)’.

A comparison will also be made between this Late Latin corpus and the Classical Latin corpus examined by Vangaever (2018).

Taken together, the texts retained from the BL2LAT and PALAFRALAT-V2-0 corpora yield a total number of 212 Late Latin texts between the 4th and the 10th c. These texts contain 425 903 words, which equals an average text length of 2 009 words. In comparison, the Classical Latin corpus comprises 88 texts with a total number of 625 034 words. This corresponds to 7 103 words per text.[13] As we will see, the average text length does not impact the frequency of the gerund and the present participle in the Classical and Late Latin corpora, let alone on their syntactic use (see §3.4).

Most texts of the Late Latin corpus can be unambiguously assigned to one of the three sub-periods of Late Latin (202 texts out of 212). The same holds for the number of words (386 285 out of 425 903). The diachronic distribution of the total number of words of the unambiguously periodisable Late Latin texts is presented in Figure 3.5.

Figure 3.5. Diachronic distribution of the words of the unambiguously periodisable texts of the Late Latin corpus of this thesis (n=386 285)

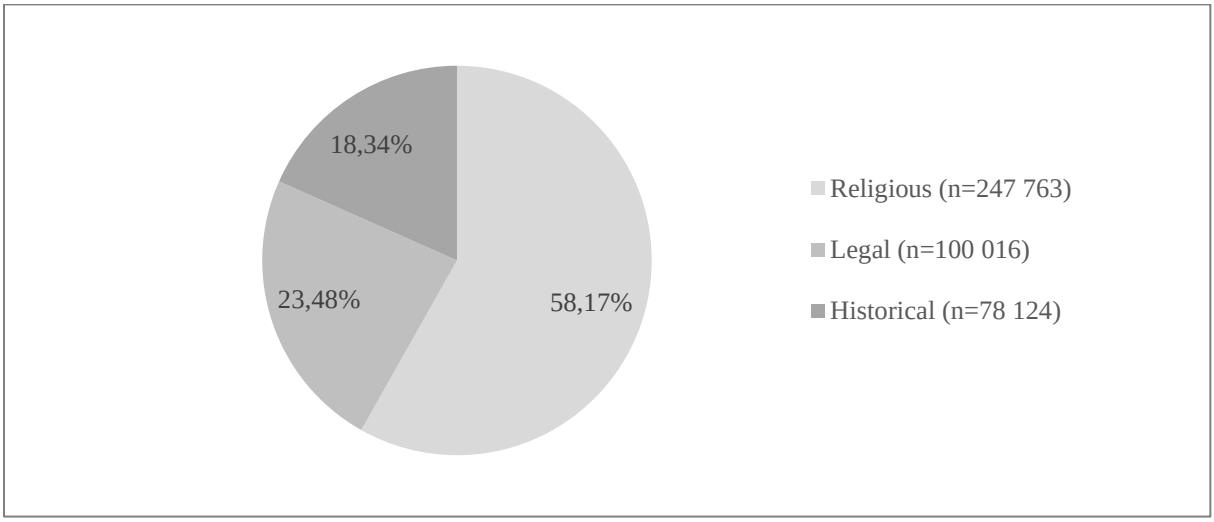


As shown by Figure 3.5, the period of Imperial Latin is severely underrepresented in comparison with Merovingian and Early Medieval Latin. Yet, the absolute number of words of this period is high enough to thoroughly examine the use of the gerund and the present participle (see §3.4.1 and §3.4.2).

With respect to the thematic distribution of the words of the Late Latin corpus, most of them occur in the religious texts, but the legal and historical texts also contain a large number of words (Figure 3.6).

[13] Unlike the *Base de français médiéval*, the LASLA database provides the number of words of individual texts, *i.e.* without taking into account punctuation signs. The numbers of words per text included in the Classical Latin corpus have been summed up using Excel, since the LASLA database does not allow creating online sub-corpora and thus does not allow calculating such numbers automatically – this is indeed possible in the *Base de français médiéval*.

Figure 3.6. Thematic distribution of the words of the Late Latin corpus of this thesis (n=425 903)



The uneven diachronic and thematic distribution of the words of the Late Latin corpus might distort the quantitative results that will be obtained: the more words there are in some period or thematic domain, the higher are the odds for this period or thematic domain to show a larger number of gerunds or present participles, and hence the higher are their odds to biase the quantitative tendencies. So as to avoid such bias, all frequencies in the empirical part of this study will be normalised and statistically evaluated (see §3.6.1.2 and §3.6.3.1).

Before exploring the Old French corpus, it should be pointed out that most texts of the Classical Latin corpus reflect standard language use, while the texts of the Late Latin corpus reflect as much as possible the spoken language – or at least the language used in substandard settings, where language change typically emerges (*cf.* Herman 2000: 7). This different textual composition might have an impact on the results of the evolution of the gerund and the present participle from Classical to Late Latin, and hence it will be taken into account in evaluating all results (see §3.6.1.2). However, in spite of the distinct textual composition of the Classical and Late Latin corpora, my 2018 corpus study of the external syntax of the gerund and the present participle in Classical Latin is the first of its kind. Hence, it is at least possible to compare the two periods on the basis of quantitatively approached empirical data. Moreover, the external syntax of the gerund and the present participle is held to be relatively stable in Classical Latin, so that this diaphasic asymmetry might be less problematic than suggested by the previous discussion.

3.3.2. Old French

The Old French corpus PALAFRAFRO-V2-2 contains 44 texts between the 9th and the 14th c. Most of these texts are written in either prose (n=22) or verse (n=21), but one text shows alternating passages in

prose and verse, *viz.* the chantefable *Aucassin et Nicolette*.[14] From a thematic viewpoint, these texts can be divided into religious (n=22), literary (n=8), didactical (n=7), legal (n=4), and historical (n=3) texts. The religious texts are predominantly hagiographies (n=12), but they also comprise two sermons, two miracles, two psalters, one drama, one commentary, one letter, and one historiography. The literary texts contain four novels, three epics, and one short novel. Among the didactical texts are two dialogues, two lapidaries, one novel, one bestiary, and one computus. The legal texts comprise two charters, one oath, and one treaty, while the historical texts include two chronicles and one historiography. These 44 texts contain a total number of 1 019 776 words, yielding an average text length of 23 177 words.[15] However, the actual length of the texts strongly varies between 113 (*i.e.* the *Serments de Strasbourg*) and 139 313 (*i.e.* the *Coutumes de Beauvaisis*).

The corpus of this study includes all but ten texts of the PALAFRAFRO-V2-2 corpus. Nine texts have been excluded since they are Old French translations of Late Latin texts, and hence reflect language use that is less natural and might be influenced by the Late Latin original. These texts are *Li ver del juïse*, the *Psautier de l'Orne*, the *Psautier de Cambridge*, *Li Dialoge Gregoire lo Pape*, the *Vie de saint Benoit*, the *Epistle saint Bernart a Mont Deu*, *Li sermon saint Bernart*, the *Dialogue de l'âme de saint Isidore*, and the *Vie de saint Lambert*. The *Légende de sainte Bathilde*, written by Jean Vignay, has also been excluded because it is composed in the 14th c. Hence, it falls outside the period of Old French as defined in this study. The 34 texts of the PALAFRAFRO-V2-2 corpus retained in that of this dissertation contain 843 838 words. This equals an average text length of 24 819 words. This length is remarkably higher than that of the Late Latin texts (n=2 129) (see §3.3.1.3).

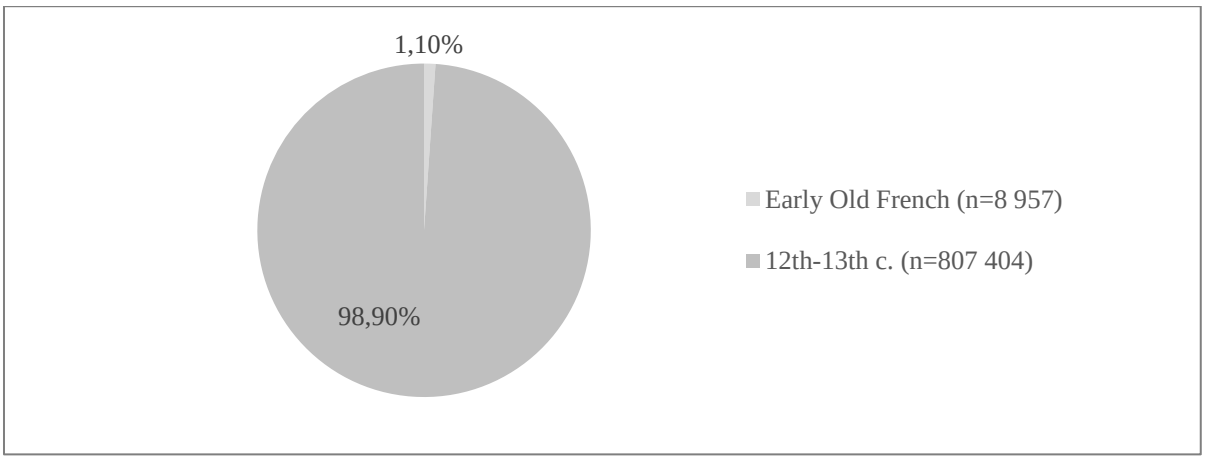
On the basis of their date of composition reported in the *Base de français médiéval*, these 34 texts have been subsumed under one of the two sub-periods of Old French distinguished earlier, namely Early Old French (9th-11th c.) and the 12th-13th c. This was straightforward for all texts, except the *Chanson de Roland*. This text is composed around 1100 and can as such not unambiguously be assigned to either Early Old French or the 12th-13th c.[16] The same principle will be adopted as in the case of the BL2LAT and PALAFRALAT-V2-0 corpora: the *Chanson de Roland* will be excluded from all quantitative and statistical analyses of the evolution of the *-ant* form from Early Old French to the 12th-13th c., but retained in all other analyses (see §3.6.2.2). Given that it is the only text of the Old French corpus that cannot be periodised with absolute certainty, the syntactic use of the *-ant* form in this text will be

[14] Spoken language is typically less faithfully reflected in versified texts than in prose texts. Therefore, texts composed in verse are in theory less appropriate for the study of language change. However, the inclusion of versified texts in Old French corpora is practically inevitable, especially for the period of Early Old French (9th-11th c.). Indeed, the majority of the texts preserved from this period are versified, so that their exclusion would drastically impoverish this already scantily documented period.
[15] As in the case of the BL2LAT and PALAFRALAT-V2-0 corpora, the *Base de français médiéval* does not provide the number of words alone, but the combined number of words and punctuation signs. The number of words in the PALAFRAFRO-V2-2 corpus was calculated in the same way as for the Latin corpora (the combined number of words and punctuation signs amounts to 1 205 205 and the number of punctuation signs alone to 181 429).
[16] In the *Grande Grammaire Historique du Français*, this text is subsumed under the 12th c. (Prévost 2020: 46). For the sake of uniformity with the Late Latin corpus, I will not assign this text to this century and thus to the period of the 12th-13th c., but isolate it as a separate text, on the verge between the two sub-periods of Old French.

systematically compared with its use in the Early Old French and 12th-13th c. corpora, in order to examine to which extent the use of this linguistic form can be taken as a criterion in the more general discussion of the periodisation of this text.

The words of the unambiguously periodisable texts retained in the Old French corpus of this thesis represent 97% of all words (816 361 out of 843 838). Figure 3.7 shows their diachronic distribution.

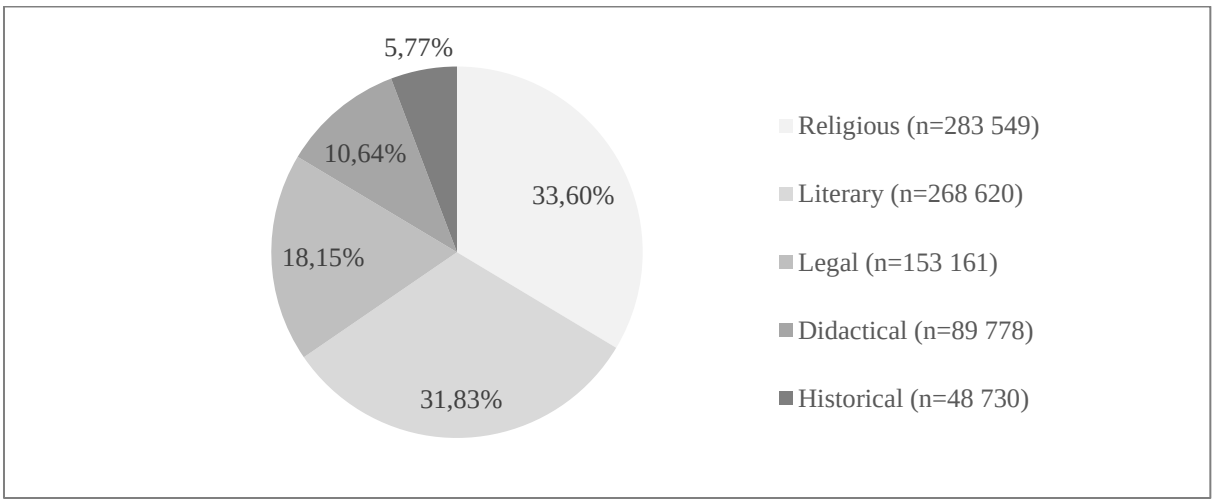
Figure 3.7. Diachronic distribution of the words of the unambiguously periodisable texts of the PALAFRAFRO-V2-2 corpus included in the corpus of this thesis (n=816 361)



As shown in Figure 3.7, the Early Old French period is severely underrepresented in the PALAFRAFRO-V2-2 corpus. However, this is less due to the textual composition of this corpus than to the poor number of texts available from this period, *i.e.* texts transmitted to us. Yet, the small number of words between the 9th-11th c. include several *-ant* forms, so that the use of these forms in the earliest period of French can nonetheless be investigated (see §3.4.3).

Figure 3.8 shows the thematic distribution of all words included in the Old French corpus.

Figure 3.8. Thematic distribution of the words of the texts of the PALAFRAFRO-V2-2 corpus included in the corpus of this thesis (n=843 838)



As in the BL2LAT and PALAFRALAT-V2-0 corpora, most words of the PALAFRAFRO-V2-2 corpus are used in religious texts, although the difference with the literary texts is small. The legal and didactical texts also comprise a large number of words, just like the historical texts – at least in absolute terms. As apparent from the comparison between Figures 3.6 and 3.8, the Old French corpus is thematically more diverse than the Late Latin corpus.

The texts from the PALAFRAFRO-V2-2 corpus retained in the corpus of this thesis are listed in Appendix 3. For each text, the same type of information is provided as for the texts of the BL2LAT and PALAFRALAT-V2-0 corpora.

3.4. Dataset and ambiguities with respect to morphosyntactic categorisation

After having detailed the composition of the corpus of this study, I will present its dataset. As mentioned in §1.2.2.2.6 and §1.3.2.2.8, the Classical Latin dataset includes all 1 270 gerunds and all 1 792 present participles occurring in the Classical Latin corpus. These forms have been retrieved automatically on the basis of the available morphosyntactic annotation of the texts of this corpus and using the interface of the LASLA database. In a similar vein, the Late Latin and Old French datasets comprise all gerunds and present participles occurring in the Late Latin and Old French corpora. As noted earlier, the texts of the Late Latin and Old French corpora elaborated within the context of the PaLaFra project have been morphosyntactically annotated (and lemmatised). Hence, all Late Latin gerunds and present participles and all Old French *-ant* forms can in principle be extracted by means of a morphosyntactic query. However, a first exploration of the 8 079 Late Latin gerunds and present participles retrieved by the appropriate query in the PALAFRALAT-V2-0 corpus, *i.e.* [pos="V" & mood="PARTICIPLE"&tense= "PRESENT"]|[pos= "V"& mood="GERUND"], and of the 3 250 Old French *-ant* forms selected by the query [cattex-pos="VERppa"][17] in the PALAFRAFRO-V2-2 corpus revealed that not all forms selected by these queries are Late Latin gerunds or present participles or Old French verb forms in *-ant*. Conversely, a closer look at the texts showed that the queries do not select all Late Latin gerunds and present participles nor all Old French verb forms in *-ant.* In other words, the morphosyntactic annotation of the texts of the PALAFRALAT-V2-0 and PALAFRAFRO-V2-2 is not completely reliable, at least not for the forms investigated in this study. The annotators are not to be blamed in this connection: some forms morphologically look like a Late Latin gerund or present participle or like an Old French verb form in *-ant* and also perform a syntactic function accessible to one of these forms, but can nonetheless

[17] It is worth noting that the annotators of the PALAFRAFRO-V2-2 corpus did not use two distinct labels for the Old French outcomes of the Late Latin gerund and present participle. Rather, they merged these forms into a single category, covered by the label 'VERppa' – 'ppa' stands for '*participe présent actif*' ('active present participle'). The fact that the categorial merging of the gerund and the present participle in Old French is the most feasible *modus operandi* in PoS-tagging should not come as a surprise: how could annotators possibly categorise all *-ant* forms with absolute certainty when linguists strongly disagree on their categorial status, and when morphological criteria are of no or only little help?

be categorised in a different way (e.g. some Late Latin gerunds in *-ndum* and *-ndi* can also be analysed as gerundives, and some Late Latin present participles and Old French *-ant* forms can also be seen as adjectives). Therefore, the choices made in annotating the texts almost inevitably lead to a number of controversial category assignments. Although it can hardly be practically managed otherwise, the fact that the morphosyntactic annotation of the texts has been manually performed and/or verified by different persons adds to this annotation issue – even if the annotations are performed on the basis of the same, predefined set of parameters.

In order to resolve these issues, all texts of the PALAFRALAT-V2-0 and PALAFRAFRO-V2-2 corpora retained in the corpus of this thesis have been searched for gerunds, present participles, and verb forms in *-ant* on the basis of morphological queries. The instances selected by these queries have been categorised as Late Latin gerunds, Late Latin present participles, or Old French verb forms in *-ant* on the basis of the principles that will be set out in respectively §3.4.1, §3.4.2, and §3.4.3. The Late Latin gerunds and present participles occurring in the texts of the BL2LAT corpus had to be retrieved in the same way, for the simple reason that these texts have not been morphosyntactically annotated. The final dataset of this study will be presented in §3.4.4.

Two paleographical issues need to also be addressed. On the one hand, several Late Latin and Old French texts contain one or more corrupt passages, *viz.* passages that have only partly been transmitted. All forms used in such passages whose syntactic use cannot be determined with absolute certainty have been discarded from the dataset. On the other hand, some occurrences retrieved by the aforementioned morphological queries have one or more alternative readings, *i.e.* morphologically deviant forms attested in one or more manuscripts other than the one on which is based the edition of the text in the BL2LAT, PALAFRALAT-V2-0, or PALAFRAFRO-V2-2 corpora. Given the large number of forms that were to be manually reviewed (see §3.4.1 to §3.4.3), it was impossible to check for manuscript variants for each of these forms separately. Moreover, their alternative readings are not mentioned in the *Base de français médiéval*, but need to be searched for each form individually in the critical edition of the text. Therefore, the Late Latin and Old French datasets have been compiled on the basis of the readings proposed in the BL2LAT, PALAFRALAT-V2-0, and PALAFRAFRO-V2-2 corpora. Some forms in the dataset of this study might have an alternative reading that is paleographically speaking more likely than that proposed in the BL2LAT, PALAFRALAT-V2-0, or PALAFRAFRO-V2-2 corpora, but their frequency is without any doubt too low to distort the quantitative results. Yet, I verified the presence of manuscript variants for all forms with one or more unexpected traits, e.g. an unexpected syntactic use or case form. The few instances analysed in this way will be discussed in due course in Chapters 4 to 6.

3.4.1. The Late Latin gerund

The ending of the Late Latin gerund corresponds in principle to *-ndum*, *-ndi*, or *-ndo*. The ending *-ndum* is occasionally affected by the vocalic merging of /ō/ and /ŭ/ and/or by the apocope of final /m/, and the ending *-ndo* is occasionally hypercorrected for one or both of these phonetic evolutions, as mentioned in §2.1.1.1 (see also Väänänen 1963³: 36-37, 66-67; Hofmann & Szantyr 1965: 380). In order to select all possible forms of the gerund, the endings *-ndom* and *-ndu* have been added to the morphological query used to extract all gerunds in the Late Latin corpus. However, no gerunds in *-ndom* or *-ndu* have been found. This is not surprising given the fact that the two phonetic evolutions just mentioned typically co-occur, the phonetically affected accusative ending thus being *-ndo* instead of *-ndom* or *-ndu*, and the hypercorrected dative or ablative ending *-ndum* instead of *-ndom* or *-ndu*. I added to the morphological query [word=".*ndum|.*ndi|.*ndo|.*ndom|.*ndu"] a code aiming to exclude a number of recurrent words homonymous with one of the possible forms of the gerund, like the adverb *aliquando* 'sometime' or the subordinating conjunction *quando* 'when'.[18] This query yielded a total number of 2 225 forms, among which 534 in the BL2LAT corpus and 1 691 in the PALAFRALAT-V2-0 corpus (at least in the texts of these corpora retained in the corpus of this thesis).

Have been discarded from these results all forms that are not built on the present stem of a verb and can as such not be qualify as gerunds. The remaining forms instantiate either gerunds or gerundives, because the gerundive is sometimes morphologically identical to the gerund. Three cases of such formal identity can be distinguished.

(i) When inflected in the nominative neuter singular and the accusative masculine and neuter singular, the gerundive has the same ending as the accusative gerund, *i.e. -ndum*.

(ii) When inflected in the genitive masculine and neuter singular and the nominative masculine plural, the gerundive is morphologically identical to the genitive gerund, having the ending *-ndi*.

(iii) When inflected in the dative and ablative masculine and neuter singular, the gerundive has the same ending as the dative and the ablative gerund, namely *-ndo*.

Most forms in *-ndum*, *-ndi*, and *-ndo* can be unambiguously categorised as gerunds or gerundives on the basis of morphological and/or syntactic criteria. However, some of them can be taken as either gerunds or gerundives. These forms can be divided into three groups: forms in *-ndum* combined with a direct transitive verb (§3.4.1.1) or with an accusative masculine or neuter singular noun (§3.4.1.2), and forms

[18] The morphological query thus used is [word=".*ndum|.*ndi|.*ndo|.*ndom|.*ndu" & word!="quando|aliquando|inmundo|immundo|iracundi|childebrando|chadoindum|sisenandi|sisenando|sisenandum|leudemundo|rependo|chadoindo|defendo|profundum|blando|contendo|effundi|abscondi|perpendo|fundo|respondi|emendo|perpendo|inpendo|profundo|ostendo|accendi|inmundum|ostendi|descendi|mundo|mundum|perpendi|intendi|praetendi|grandi|ascendi"%c]. Since the BL2LAT corpus is not lemmatised, all forms homonymous with one of the possible forms of the gerund had to be included in this query each individually.

in *-ndi* combined with a genitive masculine or neuter singular noun (§3.4.1.3). The following sections will discuss the criteria used to categorise these three types of forms. The final set of Late Latin gerunds will be presented in §3.4.1.4.

3.4.1.1. -Ndum *forms combined with a direct transitive verb*

As mentioned in §2.1.1.1, in Late Latin, the gerund is sometimes marked in the bare accusative, e.g. in verb complements (Aalto 1949: 86; Hofmann & Szantyr 1965: 378; Bauer 1993: 67; Pinkster 2015: 305, 2021: §15.137-§15.138). Witness (1), where *inibi prilium committendum* 'to start a war there' acts as the direct object of the present participle *vellens* 'wishing'.

(1) *Theubertus* *[…] prilium* *vellens* ***committe-nd-um***
Theudebertus.NOM.M.SG battle.ACC.N.SG want.PTCP.PRS.NOM.M.SG engage-GER-ACC
adgreditur.
attack.PST.3SG
'As he wished to engage in battle, Theubertus attacked.' (Fredeg. *chron*. 4.37)

However, some forms in *-ndum* combined with a direct transitive verb can also be taken as gerundives forming a passive and deontic verbal periphrasis with the implicit infinitive auxiliary *esse* 'to be' (Kühner & Stegmann 1914[5]: 730-731; Ernout & Thomas 1951: 286; Hofmann & Szantyr 1965: 377-378; Menge *et al.* 2000: 734-736; Pinkster 2015: 303-304). Depending on whether it combines with an explicit masculine or neuter singular noun with which it agrees in case, gender, and number, so as to trigger the ending *-um*, the gerundive is personal or impersonal. An example of an *-ndum* form allowing an analysis as either a bare accusative gerund or a personal gerundive is *silendum* 'to be quiet/to be kept silent' (2).

(2) a. *Sed* *neque* *hoc* ***sile-nd-um*** *puto* *[...].*
but NEG DEM.ACC.N.SG keep_silent-GER.ACC think.PRS.1SG
'But I do not mean to keep this silent.' (Greg. M. *dial.* 2.25.18)
b. *Sed* *neque* *hoc* ***sile-nd-um*** *puto* *[...].*
but NEG DEM.ACC.N.SG keep_silent-GERV.ACC.N.SG think.PRS.1SG
'But I do not think that this should be kept silent.' (Greg. M. *dial.* 2.25.18)

In (2a), *silendum* 'to be quiet' is analysed as a bare accusative gerund and the pronoun *hoc* 'this' as its direct object, resulting in the translation 'but I do not mean to keep this quiet'. By contrast, in (2b), the form *silendum* 'to be kept silent' is taken as a personal gerundive depending on the pronoun *hoc* 'this' and agreeing with this pronoun in case, gender, and number. It forms with this pronoun an elliptic

accusative and infinitive construction serving as the direct object of the verb *puto* 'I think'.[19] In this analysis, the example in (2b) is to be translated as 'but I do not think that this should be kept silent'. The question raised at this point is how exactly *-ndum* forms combined with a direct transitive verb, like *silendum* 'to be quiet/to be kept silent' (2) should be analysed and categorised, in order to determine which of them should be included in the dataset, and which of them should be excluded.

In this study, the analysis of the forms in issue has been based on three criteria: (i) their voice value; (ii) the presence of a deontic value; and (iii) their commutability with an active present infinitive. With respect to the first criterion, the voice value of the gerund is typically active, whereas that of the gerundive is always passive when forming a verbal periphrasis with *esse* 'to be' (Kühner & Stegmann 1914[5]: 728-729; Hofmann & Szantyr 1965: 371; Scherer 1975: 90; Menge *et al*. 2000: 729-730; Pinkster 2015: 285-288). Therefore, forms having an active interpretation are gerunds, whereas those having an outspoken passive interpretation are gerundives. However, the active interpretation of the gerund is a tendency rather than a rule, because forms having a passive interpretation can sometimes nonetheless be taken as gerunds (*cf*. Kühner & Stegmann 1914[5]: 728-729; Scherer 1975: 90; Menge *et al*. 2000: 729-730; Pinkster 2015: 286-288). Furthermore, many instances can be interpreted with either an active or a passive interpretation, and these interpretations are often more or less equally plausible in the discourse context. This holds, for instance, for *silendum* 'to keep silent/to be kept silent' (2), as implicitly pointed out in the discussion of this example. This form is moreover used at the beginning of a new paragraph, so that a more concrete discourse context is lacking to help categorising it. All in all, the voice value of the *-ndum* forms alone is of little help in determining their category.

Occasionally, however, the active interpretation of the *-ndum* form is ruled out by the presence of an explicit agent. This agent is typically realised by a dative NP, but it can also be instantiated by a PP. The preposition corresponds in this case to *a(b)* 'by', and assigns the ablative to its complement (e.g. (3)) (Kühner & Stegmann 1914[5]: 729-731; Ernout & Thomas 1951: 286; Hofmann & Szantyr 1965: 369-370; Scherer 1975: 90-91; Risch 1984: 43; Menge *et al.* 2000: 534; Pinkster 2015: 62, 296-297).

(3) *[...] ea tibi fiducia libellum edidi, qua*
DEM.ABL.F.SG you.DAT.M.SG faith.ABL.F.SG work.ACC.M.SG submit.PST.3SG REL.ABL.F.SG
nulli a te ***prode-nd-um*** *reor [...].*
no.DAT.M.SG by you.ABL.M.SG reveal-GERV-ACC.N.SG mean.PRS.1SG
'I have submitted the work to you with this faith, by which I mean that you should not reveal (it) to anyone (lit. 'that it should not revealed to anyone by you').' (Sulp. Sev. *Mart. praef.* 2)

These forms unambiguously instantiate gerundives, and have thus been excluded from the dataset.

[19] The accusative and infinitive construction is elliptic because the infinitive auxiliary *esse* 'to be' is left unexpressed.

The second criterion to categorise *-ndum* forms combined with a direct transitive verb concerns the presence of a deontic value. As mentioned above, gerundives forming a verbal periphrasis with *esse* 'to be' do not only have a passive value, but also a deontic one. This latter value is absent from all types of gerund constituents, and hence all *-ndum* forms with a deontic value hold as gerundives. This criterion confirms the gerund status of *committendum* 'to start' (1), its deontic value being ruled out by the modal value of the governing verb *vellens* 'wishing'. At the same time, it corroborates the gerundive analysis of *prodendum* '(you should) reveal' (3), whose deontic value is salient. As to *silendum* 'to keep silent/to be kept silent' (2), it can, but does not need to, be interpreted with a deontic value. However, since the sentence in which it occurs opens a new paragraph, and since it has a pragmatic function consisting of introducing a new topic of interest for the narrative to be reported, the status of this form as a gerundive with a deontic value is more convincing. As a general rule, all forms for which a deontic value can be assumed have been analysed as gerundives, and have therefore been excluded from the dataset. Dubious cases have also been excluded, in order to ensure that the dataset contains only forms that can undeniably be considered gerunds.

The final criterion allowing to categorise *-ndum* forms combined with a direct transitive verb is their commutability with an active present infinitive. As mentioned in §2.1.1.2.2.1.2, verb complement bare accusative gerunds compete with active bare present infinitives. Therefore, *-ndum* forms that can be replaced by an active present infinitive as the complement of a direct transitive verb hold as gerunds, while those which do not allow this replacement instantiate gerundives. However, our ineluctable lack of linguistic intuition about dead languages or past stages of contemporary languages makes that this and other linguistic tests should be handled with care, and that their result should be interpreted in terms of probability instead of certainty (see Schøsler 2007: 97 on Old French). With this proviso, the criterion just presented seems to confirm the gerund analysis of *committendum* 'to start' (1) and the gerundive status of *prodendum* '(you should) reveal' (3), at least if one accepts the grammaticality of (4) and the ungrammaticality of (5).

(4) *Theubertus* *prilium* *vellens* ***committere*** *adgreditur*
Theudebertus.NOM.M.SG battle.ACC.N.SG want.PTCP.PRS.NOM.M.SG engage.INF.PRS attack.PST.3SG
'As he wished to engage in battle, Theubertus attacked.' (adapted from Fredeg. *chron*. 4.37)

(5) **[...]* *ea* *tibi* *fiducia* *libellum* *edidi,* *qua*
DEM.ABL.F.SG you.DAT.M.SG faith.ABL.F.SG work.ACC.M.SG submit.PST.3SG REL.ABL.F.SG
nulli *a* *te* ***prodere*** *reor* *[...].*
no.DAT.M.SG by you.ABL.M.SG reveal.INF.PRS mean.PRS.1SG
'I have submitted the work to you with this faith, by which I mean to not reveal (it) to anyone by you.' (adapted from Sulp. Sev. *Mart. praef.* 2)

As for *silendum* ‘to keep silent/to be kept silent’ (2), it seems replaceable by an active present infinitive, as shown by the presumed grammaticality of (6). However, this replacement rules out the deontic value of the verb complement, which, as noted above, is contextually relevant.

(6) *Sed neque hoc* ***silere*** *puto [...].*
but NEG DEM.ACC.N.SG keep_silent.INF.PRS think.PRS.1SG
‘But I do not mean to keep this silent.’ (adapted from Greg. M. *dial.* 2.25.18)

Therefore, *silendum* ‘to keep silent/to be kept silent’ (2) and similar forms are best taken as gerundives, despite their commutability with an active present infinitive. The conclusion to be drawn is that the three criteria put forward are not always conclusive, but that the second criterion, the presence of a deontic value, is the most reliable one. For this reason, the categorisation of *-ndum* forms combined with a direct transitive verb has in the first place been based on the question of whether the clauses headed by them bear an outspoken deontic value, in which case the *-ndum* forms have been excluded from the dataset.

3.4.1.2. -Ndum *forms combined with an accusative masculine or neuter singular noun*

A second syntactic configuration raising ambiguity between gerunds and gerundives are forms in *-ndum* combined with an accusative masculine or neuter singular noun. Witness *reficiendum* ‘to repair’ (7): on the one hand, it can be analysed as an accusative gerund governing the noun *corpus* ‘body’ as its direct object and being assigned itself the accusative by the preposition *ad* ‘to’ (7a); on the other hand, it can be taken as a personal adnominal gerundive depending on the noun *corpus* ‘body’, which, as for it, is assigned the accusative by the preposition *ad* ‘to’ (7b).

(7) a. *[...] invenerunt [...] quaeque poterant ad* ***reficie-nd-um*** *corpus*
find.PST.3PL INDF.ACC.N.PL can.PST.3PL to repair-GER-ACC body.ACC.N.SG
delectabilia videri.
delightful.ACC.N.PL see.INF.PRS.PASS
‘They found anything that could be considered delightful to repair their body.’ (Greg. M. *dial.* 2.13.20)

b. *[...] invenerunt [...] quaeque poterant ad* ***reficie-nd-um***
find.PST.3PL INDF.ACC.N.PL can.PST.3PL to repair-GERV-ACC.N.SG
corpus delectabilia videri.
body.ACC.N.SG delightful.ACC.N.PL see.INF.PRS.PASS
‘They found anything that could be considered delightful for their body that needed to be repaired.’ (Greg. M. *dial* 2.13.20)

In the former analysis, *ad reficiendum corpus* ‘to repair their body’ (7) holds as a prepositional gerund clause, while in the latter, it qualifies as a PP including a personal gerundive. In this study, the category

of the forms involved has been determined on the basis of the same criteria as those used to categorise *-ndum* forms combined with a direct transitive verb: those having an outspoken passive value and, more importantly, a (salient) deontic one are taken as gerundives, while those exempt from these values and replaceable by an active present infinitive are analysed as gerunds.[20] Based on these criteria, *reficiendum* 'to repair' (7) holds as a gerund: although a passive and deontic interpretation is not excluded ('for their body that needed to be repaired'), its active and especially non-deontic interpretation is more likely ('to repair their body'). Moreover, it is replaceable by the active present infinitive *reficere* 'to repair' without this replacement causing the loss of a salient deontic value, as clear from the comparison between (7) and (8).

(8) *Invenerunt* *[...]* *quaeque* *poterant* *ad* ***reficere*** *corpus*
find.PST.3PL INDF.ACC.N.PL can.PST.3PL to repair.INF.PRS body.ACC.N.SG
delectabilia *videri.*
delightful.ACC.N.PL see.INF.PRS.PASS
'They found anything that could be considered delightful to repair their body.' (adapted from Greg. M. *dial.* 2.13.20)

In the Late Latin corpus, most *-ndum* in issue allow this replacement, and have as such been categorised as gerunds. An additional example of such a form is *devorandum* 'to devour' (9). Its replacement by the present active infinitive *devorare* 'to devour' is illustrated in (10).

(9) *[...] te* *ad* ***devora-nd-um*** *licentiam* *ei* *dabo.*
you.ACC.M.SG to devour-GER-ACC permission.ACC.F.SG DEM.DAT.M.SG give.FUT.1SG
'I will give him the permission to devour you.' (*Pass. Columb.* 1.5.6)

(10) *[...] te* *ad* ***devorare*** *licentiam* *ei* *dabo.*
you.ACC.M.SG to devour.INF.PRS permission.ACC.F.SG DEM.DAT.M.SG give.FUT.1SG
'I will give him the permission to devour you.' (adapted from *Pass. Columb.* 1.5.6)

The fact that most forms in this syntactic configuration have been taken as gerunds instead of gerundives is in line with the more general replacement of NPs and PPs including a personal gerundive by gerund constituents containing an explicit direct object. As noted in §2.1.1.2.1.1, this replacement takes place from the 3rd c. onward and lines up with the process of finitisation of gerund phrases, *i.e.* their evolution toward a more complex and clause-like internal structure (Kühner & Stegmann 1914[5]: 735-736; Lyer 1932: 228-232; Palmer 1964: 324; Hofmann & Szantyr 1965: 373; Bauer 1993: 64-65, 2005: 516).

[20] According to Hofmann & Szantyr (1965: 373), the direct object of the gerund typically follows the gerund until the 7th c., but increasingly precedes it from this century onward. Hence, it could be argued that word order is an additional criterion to categorise the *-ndum* forms at stake. However, as admitted by Hofmann & Szantyr (1965: 373) themselves, these word order patterns are tendencies rather than rules. Moreover, Hofmann & Szantyr (1965: 373) do not provide quantitative results, so that it is unclear to which extent the two word orders reflect objective tendencies until and from the 7th c. onward. For these reasons, this criterion has not been retained in this thesis (a corpus-based diachronic study of the two word order patterns would certainly be interesting to reevaluate its relevance).

3.4.1.3. -Ndi *forms combined with a genitive masculine or neuter singular noun*

A similar discussion can be held for verb forms in *-ndi* combined with a genitive masculine or neuter singular noun. As an example, consider *inveniendi* 'to find' (11): on the one hand, it can be taken as an adnominal genitive gerund depending on the noun *spe* 'hope' and governing the noun *corporis* 'body' as its direct object, in which case the gerund has the nominal internal syntax (11a); on the other hand, it can be seen as a personal gerundive depending on the noun *corporis* 'body', which, as for it, depends on the noun *spe* 'hope' and therefore stands in the bare genitive (11b).

(11) a. *[...] ab spe iterum* ***invenie-nd-i*** *corporis destituuntur [...].*
from hope.ABL.F.SG again find-GER-GEN body.GEN.N.SG leave.PRS.PASS.3PL
'They are again left without hope to find the body.' (*Vit. Elig.* 2.6)

b. *[...] ab spe iterum* ***invenie-nd-i*** *corporis destituuntur [...].*
from hope.ABL.F.SG again find-GERV-GEN.N.SG body.GEN.N.SG leave.PRS.PASS.3PL
'They are again left without hope for the body that needed to be found.' (*Vit. Elig.* 2.6)

In the former analysis, *inveniendi corporis* (11) is a gerund phrase, while in the latter, it instantiates a NP including a personal gerundive. As for the preceding types of categorial ambiguity, these *-ndi* forms have been taken as gerundives when they have an outspoken passive and especially a deontic value, but as gerunds when having an active value and being replaceable by an active present infinitive without losing a contextually salient deontic value. Returning to *inveniendi* 'to find' (11), its passive and deontic interpretation is not excluded ('without hope for the body that needed to be found'), but it is much less plausible than its active, non-deontic interpretation ('without hope to find the body'). In addition, it can be replaced by the present active infinitive *invenire* 'to find' (12), which does not have any deontic value whatsoever.

(12) *[...] ab spe iterum* ***invenire*** *corpus destituuntur [...].*[21]
from hope.ABL.F.SG again find.INF.PRS body.ACC.N.SG leave.PRS.PASS.3PL
'They are again left without hope to find the body.' (adapted from *Vit. Elig.* 2.6)

It could be argued that, since the Late Latin gerund mostly has verbal internal syntax, the forms in *-ndi* concerned should be taken as gerundives instead of gerunds with nominal internal syntax. However, this argument is infirmed by instances like (13), in which *suspendendi* 'to suspend' can only be analysed as a gerund governing the genitive noun *ultionis* 'vengeance' as its direct object and thus having nominal

[21] Recall that the infinitive is increasingly used in adnominal phrases in Late Latin, so that it can indeed replace the adnominal gerund *inveniendi* 'to find' (11). However, the infinitive typically has verbal internal syntax. Hence, the genitive noun *corporis* 'of the body' in (11) has been replaced by the accusative noun *corpus* 'body' in (12). This replacement does not weaken the argument: what really matters is that the adnominal *-ndum* constituent can be replaced by an active infinitive clause, so that the former can be taken as a gerund constituent instead of a passive and deontic gerundive construction.

internal syntax. Indeed, if it were a gerundive, it should agree with this genitive feminine noun and thus take the form *suspendendae* ‘to suspend’.

(13) *[...] non desperabamus divinam [...] ultionis* ***suspende-nd-i*** *manum [...].*
NEG despair.PST.1PL divine.ACC.F.SG vengeance.GEN.F.SG suspend-GER-GEN hand. ACC.F.SG
‘We did not despair the divine hand to suspend vengeance.’ (*Epist. Austr.* 9)

In other words, though the internal syntax of the gerund mostly corresponds to that of a verb, it can also correspond to that of a noun (Kühner & Stegmann 1914[5]: 745). Therefore, forms in *-ndi* combined with a genitive masculine or neuter singular noun cannot be automatically considered gerundives, but need to be categorised on the basis of the criteria set out above.

An interesting example in this regard is (14): *minuendi* ‘to reduce’ and *effugiendi* ‘to escape’ are combined with respectively the genitive masculine noun *doloris* ‘pain’ and the genitive the neuter noun *funeris* ‘death’. The *-ndi* forms are to be analysed as genitive gerunds displaying nominal internal syntax, thus as forms governing the nouns *doloris* ‘pain’ and *funeris* ‘death’ as their direct object. This gerund analysis of *minuendi* ‘to reduce’ and *effugiendi* ‘to escape’ is indisputable because of their parallelism with *evadendi* ‘to avoid’. This form combines with the genitive feminine noun *calamitatis* ‘disaster’ and cannot be analysed as a personal gerundive depending on the noun *calamitatis* ‘disaster’, because in this case, it should agree with this noun and take the form *evadendae* ‘to avoid’. Consequently, it can only be taken as a gerund with nominal internal syntax, selecting the noun *calamitatis* ‘disaster’ as its direct object.

(14) ***Evade-nd-i*** *calamitatis inditionem non comprehendo,* ***minue-nd-i***
avoid-GER-GEN disaster.GEN.F.SG indication.ACC.F.SG NEG seize.PRS.1SG reduce-GER-GEN
doloris argumenta non colligo, ***effugie-nd-i*** *funeris*
pain.GEN.M.SG argument.ACC.N.PL NEG collect.PRS.1SG escape.GER-GEN death.GEN.N.SG
vestigium non invenio.
trace.ACC.N.SG NEG find.PRS.1SG
‘I do not seize the indication to avoid the disaster, I do not collect the arguments to reduce the pain, I do not find the trace to escape from death.’ (Isid. *synon.* 1.8)

3.4.1.4. Final set of Late Latin gerunds

In view of the criteria set out in the previous sections, the number of Late Latin gerunds included in the dataset of this thesis is 1 308. This number is slightly higher than the number of instances retained in the Classical Latin dataset (n=1 270). Considering the size of the Classical and Late Latin corpora, the gerund is more frequent in the Late Latin than in the Classical Latin corpus. The normalised frequency

of the gerund in the two corpora, calculated as the number of instances per 10 000 words, is presented in Table 3.1.

Table 3.1. Frequency of the gerund in the Classical and Late Latin corpora

Period	#gerunds	#words	#gerunds per 10 000 words
Classical Latin	1 270	625 034	20.32
Late Latin	1 308	425 903	30.71

The increasing frequency of the gerund between Classical and Late Latin observed in Table 3.1 is highly relevant.[22] In Late Latin, the gradual replacement of the present participle by the gerund in non-purpose adjuncts and progressive constructions leads to an increasing frequency of gerunds, whereas the gradual substitution of the gerund by the infinitive in adnominal phrases, purpose adjunct, verb complements, and adjective complements reduces the frequency of the gerund. The increasing trend observed in Table 3.1 could therefore indicate that the former evolution is more significant than the latter, *i.e.* that the rise of gerunds at the expense of present participles in non-purpose adjuncts and progressive constructions outweighs their decline in adnominal phrases, verb complements, adjective complements, and purpose adjuncts in favour of the infinitive.

Another factor that might contribute to the frequency rise of the gerund is the replacement of NPs and PPs containing a personal gerundive by gerund clauses including an explicit direct object. However, the precise impact of this replacement on the increasing frequency of the gerund cannot be measured without a quantitative study of the competing gerund and gerundive phrases from Classical to Late Latin. Such a study falls outside the scope of this thesis. In §3.4.2.3, I will briefly return to this question when evaluating the frequency pattern of the present participle.

The remainder of this section aims to explore the diachronic and thematic distribution of the Late Latin gerunds. With regard to their diachronic distribution, 14% of the gerunds cannot be unambiguously assigned to either Imperial, Merovingian, or Early Medieval Latin. This leaves us 86% of periodisable forms (1 130 occurrences out of 1 308). As expected from the distribution of the Late Latin words among these three periods (see Figure 3.5), most of the periodisable forms occur in the Merovingian and Early Medieval Latin sub-corpora (see Table 3.2 below). Relatively speaking, the frequency of these instances increases between Imperial and Early Medieval Latin, as shown in Table 3.2.[23]

[22] According to a chi-square goodness-of-fit test, this difference is also statistically highly significant ($\chi 2 = 111.09$; df = 1; $p < 0.0001$). More details about this type of statistical test will be provided in §3.6.3.1.
[23] A chi-square goodness-of-fit test suggests that this frequency rise is statistically highly significant ($\chi 2 = 21.23$; df = 2; $p < 0.0001$).

Table 3.2. Frequency of the gerund in the Imperial, Merovingian, and Early Medieval Latin corpora

Period	#gerunds	#words	#gerunds per 10 000 words
Imperial Latin	52	30 003	17.33
Merovingian Latin	525	187 454	28.01
Early Medieval Latin	553	170 986	32.34

The increasing tendency between Imperial and Early Medieval Latin observed in Table 3.2 calls for the same remark as that made for the frequency rise between Classical and Late Latin: it might suggest that the substitution of the present participle by the gerund in progressive constructions and non-purpose adjuncts is more significant than the replacement of the gerund by the infinitive in adnominal phrases, verb complements, adjective complements, and purpose adjuncts.

Concerning the thematic distribution of the Late Latin gerunds, more than half of them occur in the religious texts (55%), the legal and historical texts containing respectively 29% and 16%. In relative terms, however, the gerund is most frequent in the legal texts, while having a similar frequency in the religious and historical texts (Table 3.3).[24]

Table 3.3. Frequency of the gerund in the three thematic domains in the Late Latin corpus

Domain	#gerunds	#words	#gerunds per 10 000 words
Religious	720	247 763	29.06
Legal	375	100 016	37.49
Historical	213	78 124	27.26

As we will see in Chapter 4, the legal texts do not only differ from the religious and historical texts with respect to the frequency of the gerund, but also, and more significantly, with regard to its syntactic use. For this reason, the unequal thematic distribution of the gerunds will be taken into account in evaluating all quantitative results (see §3.6.1.2 and §3.6.3.1).

3.4.2. The Late Latin present participle

The ending of the Late Latin present participle corresponds to one of the endings of the third declension adjectives, namely *-ns*, *-ntem*, *-ntis*, *-nti*, *-nte*, *-ntes*, *-ntia*, *-ntium*, *-ntum*, or *-ntibus*. These endings are sometimes affected by phonetic evolutions, in particular the vocalic confusion between /ē/ and /ĭ/, the apocope of final /m/, and/or the assibilation of /t/ (*cf.* Väänänen 1963³: 36-37, 55, 66-67). An exploratory

[24] According to a chi-square goodness-of-fit test, the differences between the three thematic domains are statistically highly significant ($\chi 2 = 20.2$; df = 2; $p < 0.0001$). The most significant contribution to the obtained chi-square values is made by the overrepresentation of gerunds in the legal texts.

investigation of the attested endings of the present participle based on the morphosyntactic query [pos= "V"& mood="PARTICIPLE" & tense="PRESENT"] in the PALAFRALAT-V2-0 corpus revealed that only the phonetic variants *-nts*, *-ncia*, *-ncium*, *-ntebus -ntaes*, *-ntae*, and *-ntces* are used. These variants have been added to the basic morphological query used to select all present participles in the Late Latin corpus, *i.e.* [word=".*ns|.*ntem|.*ntis|.*nti|.*nte|.*ntes|.*ntia|.*ntium|.*ntum|.*ntibus"]. As in the case of the gerund, I added to this query a code serving to exclude a selection of recurrent words homonymous with one of the possible forms of the present participle, like the nouns *mons* 'mountain' and *gens* 'nation'.[25] This final query yielded a total number of 13 173 forms, among which 3 595 in the BL2LAT corpus and 9 578 in the PALAFRALAT-V2-0 corpus (at least in the texts retained in the corpus of this thesis).

Have been excluded from these results all forms that are not built on the present stem of a verb and can as such not hold as present participles. The remaining forms instantiate either present participles or third declension adjectives. The latter are often historically derived from present participles by means of a lexicalisation process. From a synchronic point of view, it is therefore sometimes difficult to identify the category of forms in *-ns* or an inflectional variant of this ending (henceforth '*-ns* forms'), especially when they are used with an adjectival function (Marouzeau 1910: 48-63; Eklund 1970: 12-13, 18-25; Scherer 1975: 94). Moreover, some *-ns* forms are nominalised, *i.e.* serve as the head of a NP (Marouzeau 1910: 63-70; Laughton 1964: 70-83; Palmer 1964: 326; Scherer 1975: 95-96; Pinkster 2015: 956-958). As noted in §1.3.2.2, the use of these forms results from a process of (contextual) lexicalisation, and hence they are not taken into account in this study. However, it is not always easy to establish whether an *-ns* form acts as the head of a NP, especially for forms that are not fully lexicalised on the diachronic axis (Ernout & Thomas 1951: 275; Eklund 1970: 16-18; Pinkster 2015: 954, 956-958). For the reasons just mentioned, it is important to examine in more detail the distinction between present participles and adjectives (§3.4.2.1), on the one hand, and between nominalised and non-nominalised present participles (§3.4.2.2), on the other. The final set of Late Latin present participles will be presented in §3.4.2.3.

[25] The morphological query thus used is [word=".*ns|.*ntem|.*ntis|.*nti|.*nte|.*ntes|.*ntia|.*ntium|.*ntum|.*ntibus|.*nts|.*ncia|.*ncium|.*ntebus|.*ntaes|.*ntae|.*ntces"&word!="montes|prudentibus|provintia|quantis|dentes|omnipotentis|indumentis|contenti|pons|adolescentia|infantis|infante|claremonte|frantia|uiolentia|frontem|argenti|gentis|uehementem|arrogantia|gens|monte|gentes|gentem|clemens|frequentes|clementia|quanti|clementia|momentis|aliquantis|nutrimentis|elementi|iumentis|mentium|iumenti|mens|inoboedientem|omnipotentis|gente|prudentia|gentibus|frequentia|septigenti|pontem|prudens|uentis|mundumtenti|dementes|insipientes|inuenti|quingentis|uestimentis|tormentis|amentia|mentibus|omnipotenti|omnipotentibus|aliquanti|uehemens|nuntium|mentis|mentem|uenti|fontium|mentem|sentis|prudentem|omnipotens|omnipotentem|innocentes|repente|mentes|innocentem|ingens|adulescens|recens|ingenti|substantia|sponte|inconstantia|frontis|dentibus|ingenti|mens|mente|sacramentis|emolumenti|sponte|duodeuiginti|inpudens|impudens|monazontes|lente|monazontes|fundamentis|fontem|fontes|fronte|infans|montibus|quanti|infantes|infantibus|testamenti|testamenti|montibus|tanti|gentes|ingentes|reverentia|reuerentia|tante|aliquantis|fons|fonte|fontem|quotiens|gentium|aliquotiens|tantis|monti|ante|calciamenti|ingentem|ingens|trans|frequens|argumentis|ingentis|montis|montem|uiginti|frequenti|montium|prouintia|ante|mons|infans|infantem|inpotentia|infantia|documentis|nuntia|totiens|mons|monte"%c]. As stated with respect to the gerund, the BL2LAT corpus is not lemmatised. Hence, all forms homonymous with one of the possible forms of the present participle had to be included in this query each individually.

3.4.2.1. Present participles vs *adjectives*

In the literature, different criteria have been proposed to categorise *-ns* forms as either present participles or adjectives (Marouzeau 1910: 48-63; Eklund 1970: 12-13, 18-25). These criteria concern three distinct aspects of the forms at stake, namely their morphology (§3.4.2.1.1), semantics (§3.4.2.1.2), and syntax (§3.4.2.1.3). The following sections will review these criteria (§3.4.2.1.1-§3.4.2.1.3) and list the ones that I will use in this thesis (§3.4.2.1.4).

3.4.2.1.1. Morphological distinction

Different morphological criteria have been proposed. Most obviously, present participles are non-finite verb forms, so that only forms having a corresponding finite verb "used in the language current at the time when the text in question was written" (Eklund 1970: 12) may qualify as present participles (see also Marouzeau 1910: 49). Based on this criterion, three types of *-ns* forms hold as adjectives instead of present participles, and are thus excluded from the dataset.

(i) Forms lacking a corresponding finite verb both "in the language current at the time when the text in question was written" (Eklund 1970: 12) and in all previous synchronic stages, such as *clemens* 'merciful', *demens* 'reckless', *ingens* 'enormous', and *vehemens* 'violent' (Marouzeau 1910: 49 fn. 1; Eklund 1970: 12-13). These forms are not built on the present stem of a verb, but are regular adjectives that simply happen to have the same inflectional endings as the present participle.

(ii) Forms that lack a corresponding finite verb "in the language current at the time when the text in question was written" (Eklund 1970: 12), but that had such a corresponding finite verb at an earlier stage of the language (Marouzeau 1910: 49; Eklund 1970: 12). Marouzeau (1910: 26, 49) cites as examples *frequens* 'frequent', *repens* 'sudden', and *recens* 'recent', which he claims to be derived from respectively **frequere*, **repere*, and *recere* – note that he does not provide a proper meaning for these verbs and that the former two are unattested). Another example cited by Marouzeau (1910: 49), but discussed in more detail by Eklund (1970: 12), is *potens* 'powerful'. Both authors derive this form from the present stem of the unattested verb **potere* 'to be able to'. However, as rightly observed by Eklund (1970: 12, fn. 1), *potens* 'powerful' might also be built on the present stem of *posse* 'to be able to', which exists throughout the history of Latin.[26] This latter analysis is adopted

[26] Eklund (1970: 12 fn. 1) refutes *posse* 'to be able to' as the origin of *potens* 'powerful' because he finds it "hardly justified from a syntactical point of view, since there is a syntactical difference: *potens* very seldom takes an infinitive in pre-Christian Latin [...], whereas the infinitive is frequent along with finite forms of *posse*" (italics original). However, this is an unconvincing argument, since the absence of an infinitive object is the result of the 'deactualised' (Dik 1985: 11) status of *potens* 'powerful' when having adjectival external syntax, feature that does not only characterise other present participles, but also other types of non-finite verb forms (Lehmann 1988: 191-195). Besides, there are instances of *potens* 'powerful' showing adjectival external

by Hofmann & Szantyr (1965: 386, 388), who thus regard *potens* 'powerful' as a present participle, but not without adding that its meaning is not identical to that of its corresponding finite verb. This is a valid point, to which I will return in §3.4.2.1.2.

(iii) Forms built on the present stem of a verb that is used "in the language current at the time when the text in question was written" (Eklund 1970: 12), but to which is attached additional morphology absent from this corresponding finite verb (Eklund 1970: 12-13). Examples are *evidens* 'evident' and *impatiens* 'impatient': they are built on respectively *videre* 'to see' and *pati* 'to bear', but they contain in addition the respective prefixes *e(x)* 'from' *in-* 'un-' (Eklund 1970: 12-13).

However, not all forms validating the first morphological criterion are present participles (Marouzeau 1910: 49; Eklund 1970: 12). According to Eklund (1970: 12), only the forms whose stem is "exactly the same in the p.p. [present participle, JV] as in the finite forms" can be categorised as present participles, like *amans* 'loving' and *audiens* 'hearing', built on the present stem of respectively *amare* 'to love' (*i.e. ama-*) and *audire* 'to hear' (*i.e. audi-*) (see also Marouzeau 1910: 49). Based on this second criterion, *prudens* 'prudent' does not hold as a present participle, since it is built on *providere* 'to take precautions' without simply "adding *-nt-* to the present stem" (Eklund 1970: 12; italics original). *Prudens* 'prudent' contrasts in this respect with *providens* 'taking precautions', built on the same verb and unquestionably validating Eklund's criterion (*cf.* Marouzeau 1910: 49; Eklund 1970: 12). However, while this second criterion makes perfect sense for forms like *prudens* 'prudent', it is problematic for a particular group of irregular verbs.

Indeed, some irregular verbs have different present stems. This raises the question on the basis of which stem(s) the *-ns* forms should be built in order to qualify as present participles (Eklund 1970: 12 fn. 1). Examples are *praeesse* 'to be present', *abesse* 'to be absent', *ire* 'to go', and *velle* 'to want'. *Velle* 'to want', for instance, gives rise to both *vellens* 'willing' and *volens* 'willing' (Eklund 1970: 12 fn. 2). In the case of *ire* 'to go', phonetic variation in its present stem leads to the co-existence of *iens* 'going' (in the nominative singular and the accusative neuter singular) and forms built on *eunt-*, such as *euntes* 'going' (nominative and accusative masculine and feminine plural). Though he is not explicit about this, Eklund (1970: 12 fn. 2) seems to take all stems of these verbs as legitimate stems for the formation of present participles. This is undoubtedly the only viable position.

As apparent from the preceding paragraph, the second morphological criterion of Eklund (1970: 12) is less reliable than the first one. Irregular verbs are by definition formed in an idiosyncratic way, and hence it is not surprising that they differ from regular verbs with respect to the formation of present participles. For this reason, it seems more adequate to retain only the first criterion, and to 'simply' add

syntax and governing an infinitive object, as observed by Bonnet (1890: 438) and confirmed by Eklund (1970: 12 fn. 1) himself. This supports the present participle analysis of at least these occurrences.

that the forms categorisable as present participles may be formed in either a regular or an irregular way. This adjustment will also be of crucial interest for the definition of the Old French verb form in *-ant*. Indeed, without this adjustment, morphologically irregular forms like *étant* 'being' and *ayant* 'having', built on respectively *être* 'to be' and *avoir* 'to have', cannot hold as verb forms in *-ant* – position that is untenable (see §3.4.3.1).

The third morphological criterion to categorise *-ns* forms as either present participles or adjectives is the presence of grammatical morphemes that are only compatible with adjectives, in particular those expressing the comparative and superlative degrees of comparison (Marouzeau 1910: 50; Eklund 1970: 18). For instance, forms containing the comparative morpheme *-ior-* (e.g. *parentiores* 'rather obedient') or the superlative morpheme *-issim* (e.g. *praecellentissimus* 'very distinguished'), can qualify as present participles.

Eklund (1970: 22) puts forward a fourth morphological criterion, namely the formation of adverbs on the basis of *-ns* forms. He argues that forms having an adverb derived from them "may be placed on a level with the adjectives" (Eklund 1970: 22). As an example, he cites *ardens* 'burning', at the basis of the adverb *ardenter* 'ardently, eagerly'. However, the creation of an adverb on the basis of an *-ns* form does not necessarily imply that this form is an adjective, if this is indeed what Eklund (1970: 22) means by his rather vague description. The adverb might also be formed on the basis of a present participle that has a descriptive meaning and that is often used with an adjectival function. This could be the case for *ardens* 'burning', as this form is often used adnominally. A distinction should thus be made between the category and the function of *-ns* forms, which is often ignored in discussions about the category of the forms at stake – at least in explicit terms. Given that it is based on the confusion between category and function, the fourth morphological criterion of Eklund (1970: 22) will not be retained in this thesis.

3.4.2.1.2. Semantic distinction

From a semantic viewpoint, the categorisation of *-ns* forms as either present participles or adjectives has often been related to the question of whether their meaning is identical to or different from that of the corresponding finite verb. In the former case, the *-ns* forms qualify as present participles, while in the latter case they hold as adjectives (Marouzeau 1910: 49-50; Eklund 1970: 20-21). Marouzeau (1910: 50) takes *diligens* 'diligent' on the basis of this criterion as an adjective, since its meaning diverges from that of the verb on which it is built, *viz. diligere* 'to love', as evidenced by the example in (15).

(15) *Recte* *loquere* *et* *proinde* ***dilige-nt-em*** *ut* *uxorem* *decet.*
properly speak.PRS.2SG and just love-PTCP.PRS-ACC.F.SG as wife.ACC.F.SG fit.PRS.3SG
'You speak properly and just as it fits a diligent wife.' (Plaut. *Amph*. 773)

Marouzeau (1910: 50) defends a similar analysis for *praesens* 'being present', also adopted by Eklund (1970: 21). These authors rightly derive this instance from *praeesse*, but are mistaken in restricting the translation of this verb to 'to be in charge'. *Praeesse* can also have the meaning 'to be present', which is moreover the typical meaning of the *-ns* forms built on this verb. Therefore, *praesens* 'being present' qualifies as a present participle, just like *amans* 'loving', built on *amare* 'to love'.

In fact, the semantic criterion just presented is misleading. Present participles are non-finite verb forms that can have adjectival external syntax and that are in this case usually 'deactualised' (Dik 1985: 11) for one or more arguments. This adjectival use can provoke a slight shift in the meaning of the verb, which nonetheless remains related to the original meaning. *Diligentem* 'diligent' (15) is a case in point: its meaning differs from that of *diligere* 'to love' only because it acts as an adnominal modifier without a concrete direct object. This yields "a generic, habitual or potential reading rather than a reading which directly designates some actual state of affairs" (Dik 1985: 11). Crucially, the contextual reinterpretation of *diligentem* 'diligent' does not necessarily change its category. Hence, it can still qualify as a present participle. Put differently, *-ns* forms may be used with an adjectival function and have several properties related to this category while remaining present participles from a morphosyntactic point of view, as implicitly admitted by Eklund (1970: 20-21). The conclusion to be drawn is that, as mentioned earlier (§3.4.2.1.1), a clear distinction should be made between the category and the function of *-ns* forms, in order to avoid the pitfall of categorising *-ns* forms as adjectives instead of present participles simply because of their slightly different meaning due to their deactualised status and adjectival function.

Over time, the repeated use of deactualised *-ns* forms with an adjectival function might lead to a process of lexicalisation, and thus to their eventual recategorisation as adjectives (Marouzeau 1910: 59). However, from a synchronic point of view, the distinction between deactualised present participles with adjectival external syntax and lexicalised or lexicalising adjectives is tiny. It does moreover not raise a semantic or syntactic issue, but only a categorial one, related to the distinction between category and function mentioned earlier. In line with the broad definition of the present participle that will be adopted in this study (§3.4.2.1.4), all deactualised *-ns* forms showing adjectival external syntax will be taken as present participles, provided that they are built on a verb "used in the language current at the time when the text in question was written" (Eklund 1970: 12) without having additional inflectional morphology that can only be marked on adjectives. This choice might be controversial for some forms (e.g. *praesens* 'present'), but at least it provides a methodologically transparent framework respecting the distinction between the category and function of *-ns* forms as much as possible. Moreover, the broadness of this definition of the present participle will be taken into account in the assessment of all quantitative results, so that an eventual overrepresentation of adjectival present participles will be relativised (Chapter 5).

A similar argument can be developed for the second semantic criterion proposed by Eklund (1970: 19-20). He claims that adjectives usually denote qualities, whereas present participles typically express

"actions or developments". He cites as examples the adjectives *bonus* 'good', *albus* 'white', *longus* 'long', and *fortis* 'strong', and the present participles *faciens* 'doing', *docens* 'learning', *dicens* 'saying', and *adveniens* 'arriving' (see also Marouzeau 1910: 22, 48; Kühner & Stegmann 1914[5]: 755). This claim is certainly true for adjectives, but for the present participle, it is more or less restricted to forms having the adverbial or verbal external syntax. As stated with respect to the first semantic criterion, the meaning of present participles used with an adjectival function often slightly diverges from that of the verb on which they are built, especially when they are deactualised, such as *diligentem* 'diligent' in (15). In this change, the type of meaning of the *-ns* form typically shifts from an "action or development" to a quality (Marouzeau 1910: 48; Eklund 1970: 20). This holds for both *diligentem* 'diligent' (15) and *proserpens* 'creeping forward' (16) (Marouzeau 1910: 48; Eklund 1970: 20).

(16) *Tamquam* ***proserpe-ns*** *bestia* *est* *bilinguis*
like creep_forward-PTCP.PRS.NOM.F.SG animal.NOM.F.SG be.PRS.3SG treacherous.NOM.M.SG
et *scelestus.*
and evil.NOM.M.SG
'Like a snake (lit. 'animal that creeps forward) he is treacherous and evil.' (Plaut. *Persa* 299)

The same argument applies to the forms with a different *type* of meaning than their corresponding finite verb: forms denoting a quality can instantiate present participles as much as those expressing an "action or development". The former may denote a quality simply because they are used with syntactic function characteristic of a category other than their own category, *i.e.* through (contextual) recategorisation, as stated implicitly by Marouzeau (1910: 48) and Eklund (1970: 19-20). This hypothesis is supported by the fact *-ns* forms may denote a quality instead of an "action or development" not because of exhibiting adjectival external syntax or being deactualised, but because of being built on a verb denoting a quality by itself (e.g. *candens* 'being white-hot' (17)).

(17) *Tum* *vero* *ac* *si* ***cande-ns*** *ferrum* *faucibus* *accepisset* *[...].*
then but as if be_very_hot-PTCP.PRS.ACC.N.SG iron.ACC.N.SG jaw.ABL.F.PL take.SBJV.PST.3SG
'But then, as if he took a very hot iron in his jaws (...).' (Sulp. Sev. *Mart.* 1.17.7)

In view of the previous discussion, it is not surprising that the question of whether *-ns* forms are present participles or adjectives mostly applies to forms having a descriptive meaning or designating a state (in the Vendlerian sense), such as *praesens* 'present', *patens* 'standing open', *excellens* 'excelling', *valens* 'being strong', and *abundans* 'abounding' (Marouzeau 1910: 48-63). These types of meaning are simply often attributed or predicated as qualities. However, qualities may be expressed not only by adjectives, but also by deactualised present participles used with an adjectival function.

The definition of the present participle in this study will not take into account the semantic criteria just explored, but only require that the *-ns* form, in order to qualify as a present participle, has a meaning

derivable from the meaning of its corresponding finite verb through deactualisation and/or (contextual) recategorisation (e.g. *diligentem* ‘diligent’ (15)).

3.4.2.1.3. Syntactic distinction

Various syntactic criteria have been put forward to categorise *-ns* forms. To start with, Marouzeau (1910: 49) holds that all forms used in a way inaccessible to its corresponding finite verb qualify as adjectives instead of present participles. For instance, in (18) *lubentes* ‘pleasing’ is used in a personal way, in that it agrees with a noun in case, gender, and, number, while its corresponding finite verb is impersonal (*i.e. lubet* ‘it pleases’).

(18) *[...] qui* *semper* *malo* *muliebri* *sunt*
REL.NOM.M.PL always misfortune.ABL.N.SG womanly.ABL.N.SG be.PRS.3PL
lub-en-tes.
please.PTCP.PRS-NOM.M.PL
‘(...) who are always pleased with the misfortune of women.’ (Plaut. *Cist*. 681)

Eklund (1970: 21-22) also mentions this criterion, but while Marouzeau (1910: 49) takes the forms in question as adjectives, by invoking a mechanism of transcategorial shift (“*adjectivation du participe*”), Eklund (1970: 21-22) makes the necessary distinction between category and function, considering them present participles used with an adjectival function. Like the semantic criteria discussed in the previous section, this first syntactic criterion is thus poorly reliable. The same applies to the three other syntactic criteria found in the literature.

(i) Forms coordinated with regular adjectives and/or past participles with adjectival external syntax may be adjectival present participles instead of adjectives, provided that they validate the morphological criteria presented in §3.4.2.1.1 (Eklund 1970: 20). A clear example is the subject predicate *fluens* ‘flowing’ (19), coordinated with the past participle *dissipata* ‘disordered’ and the adjective *inculta* ‘unpolished’.

(19) *[...] dissipata* *et* *inculta* *et* ***flue-ns*** *est*
incoherent.NOM.F.SG and unpolished.NOM.F.SG and flow-PTCP.PRS.NOM.F.SG be.PRS.3SG
oratio.
speech.NOM.F.SG
‘The speech is incoherent, unpolished, and loose (lit. ‘flowing’).’ (Cic. *de orat*. 220)

(ii) Forms used with an adjectival syntactic function and a meaning related to that of the corresponding finite verb may also be adjectival present participles instead of adjectives, unless they violate the

morphological criteria set out in §3.4.2.1.1 (Marouzeau 1910: 50; Eklund 1970: 22). Examples are subject predicates like *fluens* ‘flowing’ (19) and adnominal forms such as *ardenti* ‘ardent’ (20).

(20) *[...] quis umquam fuit aut avaritia tam* ***arde-nt-i***
REL.NOM.M.SG ever be.PST.3SG or avarice.ABL.F.SG so burn-PTCP.PRS-ABL.F.SG
aut tam effrenatis cupiditatibus ut [...].
or so unbridled.ABL.F.PL desire.ABL.F.PL that
‘(...) who ever was with such an ardent avarice or such unbridled desires that (...).’ (Cic. *fin*. 3.36)

(iii) Forms having adjectival internal syntax are likely to also have adjectival external syntax. Yet, even forms with adjectival internal syntax may be present participles instead of adjectives, provided, as always, that they validate the morphological criteria mentioned in §3.4.2.1.1 (Marouzeau 1910: 50).[27] Witness (21): *cupiens* ‘desiring’ holds as a present participle despite the fact that its internal argument, *viz.* the pronoun *tui* ‘you’, is marked in the genitive (just like when it is governed by an adjective) instead of the accusative (the case assigned by finite forms of the verb *cupere* ‘to desire’).

(21) *Nam nemo ad te venit nisi* ***cupie-ns***
for nobody.NOM.M.SG to you.ACC.M.SG come.PRS.3SG unless desire-PTCP.PRS.NOM.M.SG
tui [...].
you.GEN.M.SG
‘For nobody comes to you unless he desires you.’ (Ter. *Hec*. 141-142)

In addition to the criteria just illustrated, Eklund (1970: 20) argues that *-ns* forms used to translate Greek adjectives are present participles used with an adjectival function, at least when they do not violate the morphological criteria expounded in §3.4.2.1.1.

Just like the first syntactic criterion, the syntactic criteria in (i) to (iii) do not allow categorising *-ns* forms as present participles *vs* adjectives, but as present participles having adjectival external syntax *vs* present participles showing adverbial or verbal external syntax (Eklund 1970: 20-22). Put differently, the forms in issue are functionally similar to adjectives without undergoing a shift of morphosyntactic categorisation.

3.4.2.1.4. Conclusion

As shown in the preceding sections, different criteria have been put forward to categorise *-ns* forms as either present participles or adjectives. Most of these criteria are misleading, because they concern less

[27] It goes without saying that forms having *verbal* internal syntax (e.g. governing an accusative second argument) are present participles instead of adjectives. The category of such forms is not subject to debate, and hence this criterion is not mentioned in the running text.

the categorial distinction between present participles and adjectives than the functional distinction between present participles with adjectival external syntax and present participles showing adverbial or verbal external syntax. This holds in particular for all semantic and syntactic criteria. Thus, the most reliable criteria to categorise *-ns* forms are the morphological ones. In view of the discussion of these criteria in §3.4.2.1.1, I will take as present participles all *-ns* forms built on a verb "used in the language current at the time when the text in question was written" (Eklund 1970: 12) without having additional morphology, irrespective of whether they are formed in a regular or irregular way. The only semantic criterion that needs to be added to this definition is that the forms categorisable as present participles should have the same meaning as the verb on which they are built or a meaning that can be derived from it through deactualisation and/or (contextual) recategorisation (see §3.4.2.1.2).

This definition of the present participle is relatively broad, and applies to forms like *praesens* 'present', *absens* 'absent', *sapiens* 'wise', and *potens* 'able to, powerful' as much as to forms like *amans* 'loving', *videns* 'seeing', *legens* 'reading', and *audiens* 'hearing'. Therefore, the dataset of this study contains several forms that qualify as adjectives according to a narrower definition of the present participle, as in, for instance, Eklund (1970: 12-13). In order to avoid that it biases the results of this study, the broadness of this definition will be taken into account in assessing all quantitative results in the empirical part of this study. This broad definition of the present participle, although it may be criticised, has the advantage of being transparent and more operational for quantitative analyses, as will be shown in Chapter 5.

3.4.2.2. Nominalised vs *non-nominalised present participles*

The distinction between nominalised and non-nominalised present participle has been discussed briefly in §1.3.2.2 with respect to Classical Latin. As mentioned there, the present participle is sometimes used as the head of a NP. A distinction needs to be made in this respect between forms that are more or less lexicalised in this function (e.g. *negotians* 'merchant' and *amans* 'lover'), and forms functioning as the head of what Corblin (1990: 65) calls a 'NP without a noun' or 'nounless NP'. These are NPs in which the head noun is left unspecified, but can easily be inferred from the discourse context. Due to the ellipsis of this noun, the originally adnominal adjective or participle is contextually nominalised, so as to serve as the head of the NP (Marouzeau 1910: 63-70; Laughton 1964: 70-83; Palmer 1964: 326; Scherer 1975: 95-96; Pinkster 2015: 956-958). For example, *absentibus* 'the absent' (22) is contextually nominalised as the head of an ablative NP (or at least of the nominal complement of the preposition *de* 'about'), the elided noun being an ablative (pro)noun like *hominibus* 'men' or *quibusdam* 'some people'. An equivalent example from the Late Latin corpus is *legentibus* 'readers' (23).

(22) *[...] cum [...] de* ***abse-nt-ibus*** *[...] dicitur.*
when about be_absent-PTCP.PRS-ABL.M.PL talk.PRS.PASS.3SG
'(...) when people talk about the absent.' (Cic. *off.* 1.134)

(23) *Simul et* ***lege-nt-ibus*** *consulendum fuit [...].*
at_the_same_time and read-PTCP.PRS-DAT.M.PL look_after.GERV.NOM.N.SG be.PST.3SG
'And at the same time, it needed to be looked after for the readers (...).' (Sulp. Sev. *Mart.* 1.8)

For most present participles, among which *absentibus* 'the absent' (22) and *legentibus* 'readers' (23), the question of whether they are nominalised is straightforward. Their nominalised status is obvious if they are lexicalised in this function. A recurrent example of such a form in the Late Latin corpus is *agens* 'advocate', derived from the verb *agere* 'to defend a cause'. Noteworthily, the use of this form is almost restricted to legal texts. In (24), the nominalised character of this form is apparent from its combination with the possessive adjective *vestri* 'your'.

(24) *[...] vos vel* ***agentes*** *vestri eam ad*
you.NOM.M.PL or advocate.PTCP.PRS.NOM.M.PL your.NOM.M.PL DEM.ACC.F.SG to
parte vestra revocastis [...].
part.ABL[ACC].F.SG your.ABL[ACC].F.SG reclaim.PST.3SG
'You or your advocates reclaimed it (the land) for your share.' (*Form. Marc.* 2.41)

However, for some forms it is difficult to determine whether they are nominalised (Marouzeau 1910: 67-68; Ernout & Thomas 1951: 275; Laughton 1964: 57, 82-83; Eklund 1970: 16-18; Pinkster 2015: 954, 958). Pinkster (2015: 958) cites as an example *lacrumantem* 'crying' (25). According to him, this form can be analysed as either a nounless NP (the implicit noun being the accusative pronoun *eum* 'him') or an adjunct denoting the circumstances under which its subject is affected by the main state of affairs.

(25) ***Lacruma-nt-em*** *lacinia tenet lacrumans.*
cry-PTCP.PRS-ACC.M.SG fringe.ABL.F.SG hold.PRS.3SG cry.PTCP.PRS.NOM.M.SG
'In tears she holds him who cries at the fringe (of his cloak).' (Plaut. *Asin.* 587)

Yet, Pinkster (2015: 956) defends the analysis of *lacrumantem* 'crying' (25) as an adjunct, although he does not explain why. I agree that the subject of this form can be easily "understood from the context" (Pinkster 2015: 956), and that in the presence of this subject, the present participle would function as an adjunct. However, I disagree with this analysis in the absence of this subject, as in (25). Contrary to true adjuncts, *lacrumantem* 'crying' (25) cannot be omitted without rendering the sentence ungrammatical (26). Hence, this form is best taken as a nounless NP acting as the direct object of *tenet* 'she holds'.

(26) * *Lacinia* *tenet* *lacrumans.*
fringe.ABL.F.SG hold.PRS.3SG cry.PTCP.PRS.NOM.M.SG
'In tears she holds at the fringe (of his cloak).' (adapted from Plaut. *Asin.* 587)

Moreover, unlike prototypical adjunct present participle clauses, *lacrumantem* 'crying' (25) cannot be replaced by a finite subordinate clause. This is shown by the ungrammaticality of (27), where the present participle is replaced by a finite temporal adjunct clause introduced by the conjunction *dum* 'while'.

(27) * *Dum* *lacrumabat* *lacinia* *tenet* *lacrumans.*
while cry-PST.3SG fringe.ABL.F.SG hold.PRS.3SG cry.PTCP.PRS.NOM.M.SG
'In tears she holds at the fringe (of his cloak) while he cries.' (adapted from Plaut. *Asin.* 587)

As a general rule, present participles that cannot be omitted without making the sentence ungrammatical and that cannot be replaced by a finite adjunct clause have been considered the head of a nounless NP instead of adjuncts. As a corollary, they have been discarded from the dataset. Anyhow, the number of this type of forms is low. Given the large size of the final dataset (see §3.4.2.3), this choice has therefore a negligible impact on the quantitative results in Chapter 5.

Another configuration raising the question of whether present participles are nominalised is their use in combination with a pluri-categorial form like *omnis* 'every'. As an example, consider *sperantes* 'believing' (28): on the one hand, it can be analysed as the head of a nounless NP, in which case *omnes* 'every' acts as an indefinite determiner; on the other hand, it can be regarded as the modifier of *omnes* 'everyone', which holds in this case as an indefinite pronoun (*cf.* Laughton 1964: 57, 82-83).

(28) *[...]* *sapientia* *dei* *omnes* ***spera-nt-es*** *in*
wisdom.NOM.F.SG God.GEN.M.SG all.ACC.M.PL believe-PTCP.PRS-ACC.M.PL in
illum *suscitat* *[...].*
DEM.ACC[ABL].M.SG encourage.PRS.3SG
'The wisdom of God encourages everyone who believes in Him.' (*Pass. Vict.* 1.641.47)

However, the analysis of *sperantes* 'believing' as the head of a nounless NP requires that a noun like *homines* 'men' is ellipted or inferable from the discourse context, but this hypothesis is superfluous due to the presence of *omnes* 'every', which on its own often acts as the head of a nounless NP, as in (29).

(29) *Denique* *omnes* *cucurrerunt* *ad* *secretarium* *iudicis* *[...].*
then all.NOM.M.PL run.PST.3PL to chamber.ACC.N.SG judge.GEN.M.SG
'Then all ran to the chamber of the judge.' (*Pass. Agath.* 1.12.6)

Therefore, the most plausible analysis of present participles like *sperantes* 'believing' (28) is not as the head of a nounless NP, but as the modifier of the pluri-categorial form, serving in this case as a pronoun. This analysis has the advantage that it does not require the postulation of an ellipted noun in a linguistic

structure where an explicit pluri-categorial form can easily act as the head noun. However, it is worth noting that, as pointed out by Laughton (1964: 83), the distinction between these analyses is the problem of the linguist, not of the speaker: "it would no more occur to the Roman to analyse the nature of the participle in such a phrase than it would occur to the modern Englishman to ask himself, whether a notice saying 'all persons trespassing will be prosecuted' meant 'all persons who trespass' or 'all trespassers'". It goes without saying that this applies to many types of syntactic ambiguity.

Besides the two types of present participles just discussed, where a choice has been made between an analysis as either nominalised or non-nominalised forms, there is a small, but functionally diverse group of forms for which both analyses are more or less equally plausible (Eklund 1970: 17). The subject predicate *sapiens* 'wise' (30) is a case in point: on the one hand, it can be taken as the adjectival predicate of the pro-dropped subject of *es* 'you are'; on the other hand, it can be regarded as the head of a nounless NP, the ellipted noun being *homo* 'man' (Eklund 1970: 17).

(30) *At* *tu* *qui* ***sapie-ns*** *es* *[...].*
but you.NOM.M.SG REL.NOM.M.SG be_wise-PTCP.PRS.NOM.M.SG be.PRS.2sg
'But you, who are wise (...).' (Ter. *Phorm*. 403)

In this study, all present participles allowing an analysis as non-nominalised forms have been taken as such, and have therefore been included in the dataset.

3.4.2.3. Final set of Late Latin present participles

On the basis of the criteria set out in the previous sections, the number of present participles included in the Late Latin dataset is 8 785. This is significantly higher than the number of instances in the Classical Latin dataset (n=1 786). More importantly, the relative frequency of the present participle is also much higher in the Late Latin corpus than in the Classical Latin corpus (Table 3.4).[28]

Table 3.4. Frequency of the present participle in the Classical and Late Latin corpora

Period	#present participles	#words	#present participles per 10 000 words
Classical Latin	1786	625 034	28.57
Late Latin	8 785	425 903	206.27

Like that of the gerund, the increasing frequency of the present participle between Classical and Late Latin observed in Table 3.4 is highly relevant. Crucially, it is at odds with what is expected in the light of the standard hypothesis of the evolution of the present participle in Late Latin: its gradual replacement

[28] According to a chi-square goodness-of-fit test, this difference is statistically highly significant ($\chi 2 = 7949.56$; df = 1; $p < 0.0001$).

by the gerund in non-purpose adjuncts and in progressive constructions is expected reduce rather than increase the frequency of the present participle. The spectacular frequency rise between Classical and Late Latin emerging from the data of this study might suggest that the presumed frequency decline of adjunct present participles and present participles used in a progressive construction is countered by an unexpected and drastically rising frequency of present participles in other contexts, namely in adjectival syntactic configurations, presentative progressive constructions, and/or syntactically finite clauses. Yet, the increasing frequency of the present participle might also indicate that the frequency rise of the gerund between Classical and Late Latin is not due to the replacement of the present participle by the gerund in non-purpose adjuncts and progressive constructions, and that the present participle thus persists in these uses. These hypotheses will be empirically examined in Chapters 4 and 5.

In comparing the Classical and Late Latin corpora, it is also interesting to explore the ratio of the number of present participles and gerunds. Although they both gain in frequency between Classical and Late Latin, the frequency rise of the gerund is modest (from 20 to 31 forms per 10 000 words; see Table 3.1), while that of the present participle is sharp (from 29 to 206 instances per 10 000 words; see Table 3.4). Table 3.5 provides the ratio of these forms in the two periods and shows that, although the number of present participles is higher than that of gerunds in both periods, the Classical Latin corpus contains 1.41 present participles for each gerund, while the Late Latin corpus comprises 6.72 of them (this rising ratio will be rediscussed in Chapter 5).[29]

Table 3.5. Ratio of the number of present participles and gerunds in the Classical and Late Latin corpora

Period	**#present participles**	**#gerunds**	**#present participles/#gerunds**
Classical Latin	1 786	1 270	1.41
Late Latin	8 785	1 308	6.72

As in the case of the gerund, the Late Latin present participles will also be explored with respect to their diachronic and thematic distribution. As to their diachronic distribution, 9% of them cannot be attributed to Imperial, Merovingian, or Early Medieval Latin with absolute certainty. This leaves us with 91% of periodisable instances (7 987 forms out of 8 785). In line with the distribution of the Late Latin words among these three periods (see Figure 3.5), most of these periodisable forms occur in the Merovingian and Early Medieval Latin sub-corpora. In relative terms, the frequency of the present participle increases between Imperial and Early Medieval Latin (Table 3.6).[30]

[29] A chi-square goodness-of-fit test shows that the high frequency of present participles in comparison with gerunds in Late Latin is statistically highly significant ($\chi 2 = 238.28$; df = 1; $p < 0.0001$).
[30] According to a chi-square goodness-of-fit test, this frequency rise is statistically highly significant ($\chi 2 = 105.35$; df = 2; $p < 0.0001$).

Table 3.6. Frequency of the present participle in the Imperial, Merovingian, and Early Medieval Latin corpora

Period	#present participles	#words	#present participles per 10 000 words
Imperial Latin	406	30 003	135.32
Merovingian Latin	3 741	187 454	199.57
Early Medieval Latin	3 840	170 986	224.58

This increase calls for the same remarks as those made for the increasing frequency of present participles from Classical to Late Latin: it might indicate that either (i) the present participle is not replaced by the gerund in non-purpose adjuncts and progressive construction or (ii) the decline of present participles in these uses is countered by an unexpected and drastically increasing frequency of present participles used with adjectival external syntax, in presentative progressive constructions, and/or in syntactically finite clauses.

With respect to the ratio of the number of present participles and gerunds, while it rises between Classical and Late Latin (see Table 3.5), it decreases within the period of Late Latin (Table 3.7).[31]

Table 3.7. Ratio of the number of present participles and gerunds in the Imperial, Merovingian, and Early Medieval Latin corpora

Period	#present participles	#gerunds	#present participles/#gerunds
Imperial Latin	406	52	7.81
Merovingian Latin	3 741	525	7.12
Early Medieval Latin	3 840	553	6.94

In other words, the gerund and the present participle gain both in frequency within the Late Latin period, but, relatively speaking, the frequency rise of the gerund is steeper than that of the present participle.

As to the thematic distribution of the Late Latin present participles, most of them are used in the religious texts (66%). The legal and historical texts contain respectively 13% and 21%. Proportionally speaking, however, the present participle is much less frequent in the legal texts than in the religious and historical texts (Table 3.8). This result is opposite to that obtained for the gerund – this form is most frequent in the legal texts (see Table 3.3).[32]

Table 3.8. Frequency of the present participle in the three thematic domains in the Late Latin corpus

Domain	#present participles	#words	#present participles per 10 000 words
Religious	5 753	247 763	232.20
Legal	1 183	100 016	118.28
Historical	1 849	78 124	236.68

[31] A chi-square goodness-of-fit test indicates that this decline is statistically insignificant ($\chi 2 = 0.08$; df = 2; p = 9608).
[32] According to a chi-square goodness-of-fit test, the differences between the three thematic domains are statistically highly significant ($\chi 2 = 491.16$; df = 2; $p < 0.0001$).

As we will see in Chapter 5, the legal texts do not only differ from the religious and historical texts with regard to the frequency of the present participle, but also with respect to its syntactic use. As in the case of the gerund, the unequal thematic distribution of the Late Latin present participles will be taken into account in the evaluation of all quantitative results (see §3.6.1.2 and §3.6.3.1).

The frequency difference between the gerund and the present participle in the legal texts and the religious and historical texts can also be deduced from their ratio: for each gerund, the legal texts contain only three present participles, whereas the religious and historical texts comprise respectively 8 and 9 of them (Table 3.9).[33]

Table 3.9. Ratio of the number of present participles and gerunds in the three thematic domains

Domain	#present participles	#gerunds	#present participles/#gerunds
Religious	5 753	720	7.99
Legal	1 183	375	3.15
Historical	1 849	213	8.68

These specificities of the use of the gerund and the present participle in legal texts raise the question of whether the language used in these texts stands out also with respect to other features. If this proved to be the case, these observations would lead to an important, more general methodological insight: at least for Late Latin, it would be advisable not to rely exclusively on legal texts to analyse language change, and to evaluate all results from this type of texts separately from those of other thematic domains.

3.4.3. The Old French -*ant* form

The Old French verb form in-*ant* is inflected on the model of the epicene adjectives of the type *granz* 'big', and thus has the ending -*anz* or -*ant* (Anglade 1958: 214; Harris 1978: 200; Buridant 2000: 201-202, 237, 2019: 343; Bazin-Tacchella 2020: 853). However, the morphology of these adjectives tends to align on that of the non-epicene adjectives like *dur* 'hard', and so does the morphology of verb forms in -*ant*, especially when used with an adjectival function (Anglade 1958: 214; Harris 1978: 200; Buridant 2000: 328, 2019: 468-469). Moreover, the ending of verb forms in -*ant* is often affected by phonetic evolutions and/or graphic variations. All possible endings and graphic/phonetic variants of these forms need to be integrated in the morphological query used to retrieve all instances. As in the case of the Late Latin present participle, these endings and variants have been inventorised on the basis of an exploratory examination of the verb forms in -*ant* retrieved by a morphosyntactic query in the PALAFRAFRO-V2-

[33] A chi-square goodness-of-fit test suggests that the low number of present participles in comparison with gerunds in the legal texts *vs* the religious and historical texts is highly significant ($\chi 2 = 21.23$; df = 2; $p < 0.0001$).

2 corpus, namely [cattex-pos="VERppa"]. This list of attested endings, *viz. -ans*, *-ants*, *-antz*, *-ent*, *-enz*, *-end*, *-en*, *-an*, *-and*, *-aunt*, *-aunte*, *-auntes*, *-aunts*, and *-auntz*, has been added to the basic morphological query used to select all verb forms in *-ant*, *i.e.* [word=".*ant|.*anz"]. Parallel to the procedure adopted to retrieve all Late Latin gerunds and present participles, I added to this query a code aiming to exclude a series of recurrent words homonymous with one of the possible forms of the verb form in *-ant*, e.g. the subordinating conjunction *quant* 'when' and the adjective *granz* 'big'.[34] This final query gave a total number 38 209 results, but only a small number of them instantiate verb forms in *-ant*.

I discarded from these hits all instances that are not built on the present stem of a verb "used in the language current at the time when the text in question was written" (Eklund 1970: 12), and that can as such not qualify as verb forms. The same morphological criterion was thus adopted as for the Late Latin present participle (see §3.4.2.1.1 and §3.4.2.1.4). Hence, morphologically irregular instances, like *étant* 'being' (> *être* 'to be) and *ayant* 'having' (> *avoir* 'to have') qualify as verb forms in *-ant* as much as regular forms such as *lisant* 'reading' (> *lire* 'to read') and *disant* 'saying' (> *dire* 'to say').

Have also been excluded all forms built on the present stem of a verb, but corresponding to finite verb forms inflected in the third person plural and thus having the ending *-ent* (e.g. *chantent* 'they sing'). Another group of forms discarded are those used in a more or less lexicalised verbal expression, such as *faire semblant* 'to pretend', *faire connaissant* 'to reveal', and *faire entendant* 'to make clear'. This type of expressions has not been attested with a gerund or present participle in the Late Latin corpus, but, as mentioned in Chapter 1 (§1.2.2.2.6 and §1.3.2.2.8), they do occur in the Classical Latin corpus. Like their Old French counterparts, these gerunds and present participles have been excluded from the Classical Latin dataset. Finally, I omitted all *-ant* forms used in the *Commentaire en prose sur les*

[34] The morphological query thus used is [word=".*ant|.*anz|.*ante|.*antes|.*ans|.*ants|.*antz|.*ent|.*enz|.*end|.*en|.*an|.*and|.*aunt|.*aunte|.*auntes|.*aunts|.*auntz"&word!="tant|christian|forment|erent|sent|cenz|devient|devint|soen|lenz|fierent|vestiment|vent|repairent|returnerent|reconurent|ourent|durement|suvent|commandement|soient|autant|errement|amen|paien|dient|nïent|ben|fierement|tent|monument|argent|neient|amfant|gentement|belament|prient|volent|ornement|dient|men|uan|tient|johan|gent|nient|present|benlement|sovent|jugement|avient|doivent|Jehan|pan|evan|talenz|rien|getent|virent|voillent|nen|bien|vindrent|vindrent|furent|estoient|souvent|leans|humblement|amen|premierement|enfans|venrant|getterent|maent|salvament|sagrament|paramenz|preiement|aveien|moniment|eren|enz|ven|vient|mien|ent|cent|sen|element|christiien|bien|den|enfan|van|venrant|gran|affanz|an|genz|abanz|avan|crident|davan|man|perdonent|vestimenz|fan|devent|ren|fortment|fortmen|ten|tan||pend|gran|afanz|grand|jovant|besanz|en|bobant|normanz|gent|rend|voldrent|argent|ben|ant|anz|comans|pleinemant|certainement|mandemant|ceanz|rant|chanz|conmanz|conmant|leanz|mante|fausemblant|jehans|normanz|enfantemeant|conmendemanz|porquant|putantes|reconcilians|eruberescant|rapiant|scrutans|cognoscant|setante|adans|alquans|cante|tyranz|tanz|enfanz|comanz|romanz|alquant|sergant|tiranz|serganz|nonante|johans|tantes|ante|neporquant|decidant|erubescant|nepurquant|neporquant|enfante|enfanz|alquanz|çaianz|chambellans|umblemant|entante|demant|vulcans|covanz|tant|compleignemant|sichanz|adanz|devant|roidemant|quarante|vulcanz|hantes|cant|cant|serjanz|chieremant|pans|comant|hautemant|hante|branz|brans|avant|garrigant|jherusalant|frans|blans|repant|chante|bezans|tyrant|apant|grant|atant|nonpuissanz|errammant|tans|prant|dant|jans|souvant|conmant|ans|quant|quant|tante|dans|grans|grans|devant|itant|seissante|grant|frans|ranz|belyssans|brant|sans|belissans|alemans|flans|belissant|païsant|belyssant|garans|garant|serjans|jant|anfant|talant|bethleant|abrahannt|auquant|serjant|seissante|anfanz|sanz|anz|granz|dant|rans|dedanz|fromant|longuemand|parlemant|briemant|jugemant|antretant|prochenemant|hardemant|longuemant|vanz|soldeemant|vante|formant|sodemant|espessemant|vante|atant|ahanz|sovant|momant|lunguemant|danz|granz|tormante|vant|danz|cinquante|dedanz|tormant|lïemant|hastivemant|malemant|altremant|laidemant|laianz|altretant|davant|atante|antante|antant|ansemant|menüemant|comant|tanz|ordenemant|belemant|celeemant|richemant|solemant|mautalant|mant|autremant|alquant|folemant|esprant|comancemanz|anchantemant|alquant|chans|ahans|loëmant|sanz|descendemant|legieremant|fieremant|oignemant|sainemant|maltalant|seüremant|premieremant|enfant|avant|tormant|sichans|troïans|antant|naturalmant|ordeneemant|restoremant|dolcemant|sant|quantes|deffant|isnellemant|fant|ganz|deuant|rollant|guant|cinquante|cumant|guarant|alcant|qant|qualogrenant|qualogrenanz|calogrenanz|bans|voiremant|entant|hardemanz|felenessemant|espant|troians|mans|sante|itant|pant|parans|rolanz|nonsaichant|atanz|anfans|nonvoiant"%c].

psaumes I-XIII in translations of Late Latin passages instead of in Old French comments on the Bible text. This is in line with the more general exclusion of translated texts, so as to retain only texts written in authentic Old French.

The remaining *-ant* forms instantiate either verb forms in *-ant* or adjectives, and the group of verb forms in *-ant* include both nominalised and non-nominalised instances. As in the case of the Late Latin present participle, however, it is not always easy to determine whether some *-ant* form is a verb form or an adjective (§3.4.3.1) or, in the case of a verb form, whether or not it is nominalised (§3.4.3.2). For the sake of uniformity of this thesis, these issues have been handled on the basis of the same criteria as those used for Late Latin *-ns* forms. The final set of Old French verb forms in *-ant* will be presented in §3.4.3.3.

In order to avoid categorial confusion between verb forms in *-ant* and adjectives in *-ant*, I will use in the remainder of this section the term 'verb form in *-ant*' to refer to the non-finite verb forms to which this study is devoted. The term '*-ant* form' will be used as a purely formal label, covering both adjectives and verb forms in *-ant* (see also the end of §2.2.3.2

3.4.3.1. Verb forms in -ant vs *adjectives*

In this study, all *-ant* forms built on the present stem of a verb "used in the language current at the time when the text in question was written" (Eklund 1970: 12) without showing additional morphology will be categorised as verb forms, irrespective of whether they are formed in a regular or irregular way, but provided that their meaning is either identical to that of their corresponding finite verb or can be derived from it through deactualisation and/or (contextual) recategorisation. For instance, the form *escoulourjans* 'fading' (31) qualifies as a verb form, because it is built on the present stem of *escolourger* 'to fade' and has the same meaning as this verb, apart from the fact that, due to its subject predicate use, it does not express this meaning as a process, but as the property derived from this process ('to fade' > 'fading, disappearing').

(31) *[...] par les memoires qui sont* ***escoulourj-ans***
by ART.DEF.OBL.F.PL memory.OBL.F.PL REL.SBJ.F.PL be.PRS.3PL fade-V.ANT.SBJ.F.PL
et par les vies as gens
and by ART.DEF.OBL.F.PL life.OBL.F.PL to;ART.DEF.OBL.F.PL people.OBL.F.PL
qui sont courtes [...].
REL.SBJ.F.PL be.PRS.3PL short.SBJ.F.PL
'By the memories that are fading and by the lives of the people that are short.' (Ph. de Beau. *Coutumes* prol. 4)

Within this line of thinking, forms like *vaillant* ‘valuable’ (> *valoir* ‘to be of worth’), *poant* ‘powerful’ (> *pouvoir* ‘to be able to’), and *savant* ‘wise’ (> *savoir* ‘to know’) hold as verb forms as much as forms like *voiant* ‘seeing’ (> *voir* ‘to see’), *lisant* ‘reading’ (> *lire* ‘to read’), and *oiant* ‘hearing’ (> *ouïr* ‘to hear’). Remember that the term ‘verb form in *-ant*’ is used here as a categorial label covering the Old French outcomes of the Late Latin gerund and present participle, and does not feature the internal nor external syntax of the forms at stake (it is thus not restricted to forms having verbal internal and/or external syntax). As in the case of the Late Latin present participle, this wide definition of the Old French verb form in *-ant* makes that the final dataset contains several forms that qualify as adjectives in a stricter definition. So as to avoid that this choice biases the results of this study, the broadness of this definition will be taken into account in the evaluation of all quantitative results (see Chapter 6).

In accordance with the morphological criterion mentioned above, Old French *-ant* forms built on a verb that existed in Late Latin, but fell out of use in Old French, like *présent* ‘present’ (> Lat. *praeesse* ‘to be present’), *absent* ‘absent’ (> Lat. *abesse* ‘to be absent’), and *obédient* ‘obedient’ (> Lat. *oboedire* ‘to obey’), are adjectives, and have as such been excluded.

3.4.3.2. Nominalised vs *non-nominalised* -ant *forms*

Like Late Latin present participles, Old French *-ant* forms serving as the head of a NP can be more or less lexicalised in this function or act as the head of a “NP without a noun” or “nounless NP” (Corblin 1990: 65; see Ménard 1973: 170; Arnavielle 1984: 39). An example of a form developing a lexicalised use as the head of a NP is *tenant* ‘legitimate owner’, built on the verb *tenir* ‘to hold’ and used as a technical term in legal texts. In (32), the nominalised character of this form is particularly clear from its syntactic context, since it combines with the definite article *li* ‘the’.

(32) *[...] meismement quant li* ***tenant*** *l' ont*
especially when ART.DEF.SBJ.M.PL legitimate_owner.SBJ.M.PL it.OBJ.F.SG have.PRS.3PL
souferte sans debat.
endure.PTCP.PST.F.SG without dispute.OBL.M.SG
‘(...) especially when the legitimate owners endured it without dispute.’ (Ph. de Beau. *Coutumes* 766)

As an example of an *-ant* form used as the head of a nounless NP, consider *getant* ‘throwing’ (33): this form selects the NP *l’arc* ‘the bow’ as its direct object and contextually serves as the head of a nounless NP due to the absence of a subject case noun like *homme* ‘man’.

(33) *[...] Cume l'* *arc* ***get-ant /*** *Met* *la*
like ART.DEF.SBJ.M.SG bow.OBL.M.SG throw-V.ANT put.PRS.3SG ART.DEF.OBL.F.SG
sëete *avant.*
arrow.OBL.F.SG before
'(...) like the bow-bearer (lit. 'thrower of the bow') puts his arrow forward.' (Ph. de Thaon *Comput* 1759-1760)

Like their Late Latin counterparts, all Old French *-ant* forms acting as the head of a NP have been omitted. However, as in the case of their Late Latin counterparts, it is sometimes difficult to establish whether or not an Old French *-ant* form heads a NP. The most frequent type of such ambiguous forms are governed by the preposition *en* 'in' (e.g. *estant* 'standing' (34) and *dormant* 'sleeping' (35)).

(34) *Puis* *en* ***est-ant*** *dunad* *beneïçun* *a* *tuz* *ces* *de*
then in stand-V.ANT give.PST.3SG blessing.OBL.F.SG to all.OBL.M.PL DEM.OBL.M.PL of
Israel [...].
Israel
'Then he blessed all people from Israel while standing.' (*Rois* 132)

(35) *[...] ki* *l'* *ocit* *en* ***dorm-ant*** *[...].*
REL.SBJ.M.SG he.OBJ.M.SG kill.PST.3SG in sleep-V.ANT
'(...) who killed him in his sleep.' (Ph. de Thaon *Bestiaire* 412)

On the one hand, *estant* 'standing' (34) and *dormant* 'sleeping' (35) can be taken as verb forms in *-ant* acting as the head of an adjunct denoting the circumstances under which the subject of *dunad* 'he gave' realises the main state of affairs (34) or under which the direct object of *ocit* 'he killed' is affected by the main state of affairs (35). On the other hand, they can be taken as nominalised forms having the same semantic value as in their verb form analysis, but in a more abstract way due to their deactualised status, in particular the suspension of a concrete subject (e.g. *en estant* 'in a standing position') (*cf.* Dik 1985: 11; Lehmann 1988: 191).[35] In theory, both analyses are equally plausible, even for instances like *dormant* 'sleeping' (35), whose subject is not coreferential with the subject of the main verb. This is due to the fact that, unlike in Modern French, where the subject of verb forms in *-ant* preceded by *en* 'in' is in principle always coreferential with that of the main verb (e.g. (36)) (Wagner & Pinchon 1991: §368), in Old French, this subject coreferentiality constraint is not yet in place (Halmøy 2003: 113).[36] Witness (37), in which the subject of *alant* 'going' and *venant* 'coming', undoubtedly verb forms in *-ant*, is not coreferential with any constituent of the main clause.

[35] In Modern French, this nominalised use of *-ant* forms preceded by *en* 'in' is no longer possible.
[36] For a critical discussion about the implicit subject of verb forms in *-ant* introduced by *en* 'in' in Modern French, see Halmøy (1982: 177-219, 2003: 109-123).

(36) *Je* *me* *rase* *en* ***chant-ant.***
I.SBJ.M.SG REFL.OBJ.M.SG shave.PRS.1SG in sing-V.ANT
'I shave while singing.' (Halmøy 2003: 102)

(37) *[...] se la bateure est fete en marchié*
if ART.DEF.SBJ.F.SG battering.SBJ.F.SG be.PRS.3SG do.PTCP.PST.F.SG in market.OBL.M.SG
ou en ***al-ant*** *ou en* ***ven-ant*** *du marchié [...].*
or in go-V.ANT or in come-V.ANT from;ART.DEF.OBL.M.SG market.OBL.M.SG
'If the battering is committed during the market or on the way to or from the market (...).' (Ph. de Beau. *Coutumes* 839)

In this study, all forms governed by the preposition *en* 'in' and allowing an analysis as verb forms have been taken as such, and have therefore been included in the final dataset (see also Halmøy 2003: 42-48, 113). It is worth noting in this regard that when the subject of the *-ant* form is not coreferential with any constituent of the main clause, it can usually be easily inferred from the discourse context. For instance, the subject of *alant* 'going' and *venant* 'coming' (37) corresponds to the implicit agent of *est fete* 'is committed', and the subject of *dormant* 'sleeping' and *veillant* 'being awake' (38) is coreferential not with the subject of the relative clause containing the two *-ant* forms, but with the subject of the main clause verb *començа* 'he began'.

(38) *[...] lors começa a penser par les choses qui*
then begin.PST.3SG to think.INF.PRS by ART.DEF.OBL.F.PL thing.OBL.F.PL REL.SBJ.F.PL
aparoient et en ***dorm-ant*** *et en* ***veill-ant*** *[...].*
appear.PST.3PL and in sleep-V.ANT and in be_awake-V.ANT
'Then he began to think about the things that appeared both when he was sleeping and when he was awake.' (*Graal* 261)

However, a small group of forms combined with the preposition *en* 'in' are nonetheless better analysed as nominalised forms for purely semantic reasons. Consider *seant* 'sitting' (39).

(39) *Pernez m' as braz, sim*
take.IMP.PRS.2PL I.OBJ.M.SG at;ART.DEF.OBL.M.PL arm.OBL.M.PL AFF;I.OBJ.M.SG
drecez en ***se-ant.***
lift_up.IMP.PRS.2PL in sit-V.ANT
'Take me by my arms, lift me up in a sitting position.' (*Roland* 2829)

In theory, *seant* 'sitting' (39) can be taken as either the head of an adjunct denoting the state of affairs resulting from the main state of affairs or as the head of a NP expressing this same value, but again in a more abstract way due to its deactualised status (*cf.* Dik 1985: 11; Lehmann 1988: 191). However, while this resultative meaning is easily expressed by nominalised forms introduced by *en* 'in', especially when combined with a verb evoking a change of posture such as *dresser* 'to lift up', it is only rarely expressed

by forms that unambiguously qualify as verb forms.[37] Therefore, forms like *seant* 'sitting' (39) are best analysed as nominalised. Hence, they have been excluded from the final dataset.

Another type of forms that are best taken as nominalised are those illustrated by *estant* 'standing' (40). This form can in principle be analysed in three ways.

(40) *Eneas s' estut an* ***est-ant*** *[...].*
Eneas REFL.OBJ.M.SG stand.PST.3SG in stand-V.ANT
'Eneas stood in an up-right (lit. 'standing') posture.' (*Eneas* 4669)

First, it can be taken as the head of an adjunct expressing the circumstances under which the subject of the main verb realises the main state of affairs. Next, it can be analysed as the main verb of a progressive construction, in which case *s'estut* 'stood' has the status of an auxiliary and serves to present the state of affairs denoted by *estant* 'standing' (40) as ongoing (this analysis is not excluded due to the presence of the preposition *an* 'in'). Finally, it can be regarded as nominalised: *s'estut* 'he stood' qualifies in this case as a full lexical verb and *en estant* 'in an up-right posture' as an adjunct PP specifying the state of affairs denoted by *s'estut* 'he stood'. Since *s'estut* 'he stood' and the *-ant* form are built on the same verb, *i.e. ester* 'to stand', the lexical meaning of the former seems foregrounded. This makes its analysis as the auxiliary of a progressive construction less plausible. Moreover, if *estant* 'standing' was the main verb of a progressive construction, we would have expected an auxiliary built on *être* 'to be' or *aller* 'to go', which are not only more frequent in this function than *ester* 'to stand', but also, and perhaps more importantly, exempt from the structural ambiguity of *s'estut* 'he stands'. Given the semantic and lexical redundancy between *s'estut* 'he stood' and *estant* 'standing', the status of the *-ant* form as a nominalised form seems most plausible. This and similar forms have therefore been discarded from the final dataset.

All *-ant* forms combined with both a possessive determiner and the preposition *en* 'in' are without any doubt nominalised (e.g. *estant* 'standing posture' (41) and *dormant* 'sleep' (42)), and have as such also been excluded (Ménard 1973: 173; Harris 1978: 199-200; Arnavielle 1984: 38).

(41) *Dunc l' a fait l' apostoiles en*
so he.OBJ.M.SG have.PRS.1SG do.PTCP.PST ART.DEF.SBJ.M.SG apostle.SBJ.M.SG in
sun ***est-ant*** *lever [...].*
his.OBL.M.SG stand-V.ANT rise.INF.PRS
'So, the apostle made him rise in his up-right posture.' (Guernes *Becket* 2352)

(42) *[...] et pasturent an son* ***dorm-ant*** *[...].*
and feed.PST.3PL in his.OBL.M.SG sleep-V.ANT
'And they fed (on him) in his sleep.' (*Eneas* 493)

[37] Although Old French may not be simply compared with Modern French, it is interesting to note that the Modern French *-ant* form introduced by *en* 'in' never expresses the result of the main state of affairs (Halmøy 2003: 87-108).

It is worth adding that nominalised *-ant* forms governed by the preposition *en* 'in' are lexically restricted. In the corpus of this study, they are built on the verbs *seoir* 'to sit' (< *seant* 'sitting posture'), *ester* 'to stand' (< *estant* 'standing posture'), *dormir* 'to sleep' (< *dormant* 'sleep'), *veiller* 'to be awake' (< *veillant* 'wake'), or *croître* 'to grow' (< *creissant* 'waxing of the moon'). A broader range of verbs is attested in the legal text *Coutumes de Beauvaisis*, written by Philippe de Beaumanoir in the 13th c. This text also contains forms built on *demander* (< *demandant* 'charge'), *défendre* (< *defendant* 'defense'), *monter* (< *montant* 'upward line of inheritance'), *avaler* (< *avalant* 'downward line of inheritance'), and *descendre* (< *descendant* 'downward line of inheritance').

Finally, all bare *-ant* forms introduced by a (usually possessive) determiner are also nominalised, and have as such been discarded. Consider, for instance, the form *vivant* 'life' (43).

(43) *[...] La* *nostre* *aïde* *tout* *mon* ***viv-ant***
ART.DEF.OBL.F.SG our.OBL.F.SG help.OBL.F.SG all.OBL.M.SG my.OBL.M.SG live-V.ANT
avréz.
have.FUT.2PL
'You will have my help as long as I live.' (*Ami* 560)

3.4.3.3. Final set of Old French verb forms in -ant

In view of the criteria presented in the preceding sections, the number of verb forms in *-ant* (hereafter again '*-ant* form') retained in the Old French dataset corresponds to 2 153. This number is significantly lower than the combined attested frequency of the Late Latin gerund (n=1 786) and present participle (n=8 785). This difference is huge also in relative terms, as shown in Table 3.10.[38]

Table 3.10. Frequency of the gerund and the present participle in the Late Latin and Old French corpora

Period	#gerunds and present participles	#words	#gerunds and present participles per 10 000 words
Late Latin	10 093	425 903	236.98
Old French	2 153	843 838	25.51

The number of gerunds and present participles is almost ten times higher in the Late Latin than in the Old French corpus. Since the present participle is much more frequent than the gerund in the Late Latin corpus (31 *vs* 206 forms per 10 000 words), the low frequency in the Old French corpus might suggest that many present participles are not replaced by their competing gerund forms in the transition from

[38] According to a chi-square goodness-of-fit test, this difference is statistically highly significant ($\chi 2$ = 13121.32; df = 1; $p < 0.0001$).

Late Latin to Old French, but by other linguistic structures, like finite clauses. Indeed, if they had been replaced by gerunds, the number of Old French *-ant* forms would have been much higher. This contrast between the high frequency of gerunds and especially present participles in the Late Latin corpus and the low frequency of *-ant* forms in the Old French corpus will be discussed in Chapters 4 to 6.

With respect to the diachronic distribution of the Old French *-ant* forms, 6% of them occur in the *Chanson de Roland* and can therefore not be assigned to Early Old French or the 12th-13th c. with absolute certainty. This leaves us with 94% of unambiguously periodisable instances (2 022 forms out of 2 153). As expected in view of the distribution of the Old French words among these periods, most of the periodisable *-ant* forms occur in the 12th-13th c. (Table 3.11). However, proportionally speaking, the frequency of these instances is higher in Early Old French than in the 12th-13th c. On the diachronic axis, the relative frequency of the Old French *-ant* form is thus declining.[39]

Table 3.11. Frequency of the *-ant* form in the Early Old French and 12th-13th c. corpora

Period	**#*-ant* forms**	**#words**	**#*-ant* forms per 10 000 words**
Early Old French	33	8 957	36.84
12th-13th c.	1 989	807 404	24.63

The *Chanson de Roland* contains 131 *-ant* forms on a total number of 27 477 words. This equals 47.68 instances per 10 000 words. It is in this respect more similar to the Early Old French texts than to the 12th-13th c. texts. In Chapter 6, I will investigate whether this association of the *Chanson de Roland* with the earliest stage of Old French is also supported by the syntactic use of the *-ant* form.

As to the thematic distribution of the Old French *-ant* forms, more than half of them are used in the literary (36%) or religious texts (27%), in line with the thematic distribution of the words of the Old French corpus (see Figure 3.8). The number of instances in the didactical, legal, and historical texts accounts for respectively 18%, 14%, and 6% (Table 3.12 below). In relative terms, the frequency of the *-ant* form is highest in the didactical texts and lowest in the legal ones (Table 3.12).[40]

Table 3.12. Frequency of the Old French *-ant* form in the five thematic domains

Domain	**#*-ant* forms**	**#words**	**#*-ant* forms per 10 000 words**
Didactical	388	89 778	43.22
Literary	779	268 620	29.00
Historical	122	48 730	25.04
Legal	291	153 161	19.00
Religious	573	283 549	20.21

[39] A chi-square goodness-of-fit test indicates that this decline is statistically significant ($\chi 2 = 4.85$; df = 1; $p = 0.0276$).
[40] According to a chi-square goodness-of-fit test, these thematic differences are statistically highly significant ($\chi 2 = 179.88$; df = 4; $p < 0.0001$).

This result is in contrast with that obtained for the Late Latin gerund, which is most frequent in the legal texts (see Table 3.3), while it is similar to that of the Late Latin present participle, which is also least frequent in the legal texts (see Table 3.8). In Chapter 6, I will investigate to which extent the thematic differences in the frequency of the *-ant* form are related to differences on the level of its syntactic use. As stated earlier with respect to the Late Latin gerund and present participle, the unequal thematic distribution of the Old French instances will be taken into account in the evaluation of all quantitative results (see §3.6.2.2 and §3.6.3.1).

3.4.4. Final dataset

The final dataset of this thesis comprises 1 270 gerunds and 1 786 present participles in Classical Latin, 1 308 gerunds and 8 785 present participles in Late Latin, and 2 153 *-ant* forms in Old French. This yields a total number of 15 305 forms. In relative terms, the Classical Latin contains 49 gerunds and present participles per 10 000 words, the Late Latin corpus 237, and the Old French corpus only 26 (Table 3.13).

Table 3.13. Final dataset of this study

Language	Type of non-finite verb form	#instances	#instances per 10 000 words
Classical Latin	Gerund	1 270	20.32
	Present participle	1 789	28.57
Late Latin	Gerund	1 308	30.71
	Present participle	8 785	206.27
Old French	*-Ant* form	2 153	25.51

Table 3.13 highlights in particular the exceptionally high frequency of the Late Latin present participle in comparison with that of the Late Latin gerund or with that of both the gerund and the present participle in Classical Latin. As for the frequency of the Old French-*ant* form, it represents approximately half of the combined frequency of the gerund and the present participle in Classical Latin, and about a tenth of the total number of gerunds and present participles in Late Latin. These differences will be taken into account in the assessment of the evolution of the gerund and the present participle from Late Latin to Old French in Chapters 4 to 6.

3.5. Ambiguities with regard to the syntactic use of the gerund, present participle, and *-ant* form

The evolution of the gerund and the present participle in Late Latin and the categorial status of the *-ant* form in Old French will be mainly investigated on the basis of their external syntax. However, it is not

always easy to determine the syntactic use of the forms at stake. Hence, it is of paramount interest to explore the distinction between some uses, and to set out the criteria used to distinguish them.

These criteria combine syntactic and semantic arguments, and include a number of linguistic tests. It should be stressed that, as mentioned in §3.4.1.1, our ineluctable lack of linguistic intuition about dead language (e.g. Latin) or past stages of contemporary languages (e.g. Old French) makes that such tests should be used with caution. Their result should also be interpreted in terms of probability rather than certainty (*cf.* Schøsler 2007: 97 on Old French). Therefore, two general precautions have been taken in determining the syntactic use of all gerunds, present participles, and *-ant* forms. On the one hand, all forms have been analysed within their discourse context, so as to maximise the number of authentic syntactic and semantic clues in favour of this or that analysis. Instead of taking into account the small, but extendable, portion of the left and right contexts provided by the *Base de français médiéval* for all hits of a given query, I had at my disposal the full texts of the Late Latin and Old French corpora. I thus established the use of all gerunds, present participles, and *-ant* forms within their full discourse context. On the other hand, the use of all forms has been manually verified more than a year after the first annotation round, in order to maximise the objectivity and consistency of their analysis (especially of the ambiguous ones). Although the final analysis of some forms might still be subject to debate, the size of the dataset (n=12 246) is large enough to avoid that these instances distort the quantitative results. After all, the ambiguous forms are largely outnumbered by the unambiguous ones.

The following sections aim to explore the various cases of syntactic ambiguity encountered in the corpus of this study, and to expound the criteria used to resolve them. The types of ambiguity that will be examined relate to the distinction between: (i) adjuncts and adnominal phrases (§3.5.1); (ii) adjuncts and verb complements (§3.5.2); (iii) subject predicates and progressive constructions (§3.5.3); and (iv) progressive constructions and adjuncts (§3.5.4).

3.5.1. Adjuncts *vs* adnominal phrases

In Late Latin, the ambiguity between adjuncts and adnominal phrases applies to both the gerund and the present participle. It also holds for some *-ant* forms in Old French. Before discussing some cases of ambiguity between these two types of constituents (§3.5.1.2), I will define each of them in terms of their clearest cases (§3.5.1.1). The defining properties of prototypical adjuncts and adnominal phrases listed in §3.5.1.1 will serve as the starting point to analyse the dubious cases in §3.5.1.2.

3.5.1.1. Prototypical adjuncts vs *adnominal phrases*

The distinction between prototypical adjuncts and adnominal phrases is clear: adjuncts modify verbal predications and belong as such to the VP or the clause as a whole, whereas adnominal phrases relate to

a noun, and thus belong to the NP. To be more precise, adjuncts are syntactically and semantically optional constituents that modify the state of affairs designated by a verb in some way or other (Dik 1997: 87; Pinkster 2015: 12). For instance, the gerund *orando* 'by praying' (44) expresses the means by which is realised the state of affairs expressed by *suscitavit* 'he brought back to life', while the present participle *stans* 'standing' (45) and the *-ant* form clause *cler en riant* 'smiling clearly' (46) denote the circumstances accompanying the states of affairs expressed by respectively *leget* 'he reads' (45) and *ad dit* 'he said' (46).

(44) *[...] Petrus* *qui* *Tabitham* *mortuam* ***ora-nd-o***
Peter.NOM.M.SG REL.NOM.M.SG Tabitha.ACC.F.SG dead.ACC.F.SG pray-GER-ABL
suscitavit *[...].*
bring_back_to_life.PST.3SG
'Peter, who brought the dead Tabitha back to life by praying (...).' (Greg. M. *dial.* 2.30.26)

(45) *[...]* ***st-ans*** *ipse* *episcopus* *leget* *verba*
stand-PTCP.PRS.NOM.M.SG INTENS.NOM.M.SG bishop.NOM.M.SG read.PRS.3SG word.ACC.N.PL
Domini *[...].*
Lord.GEN.M.SG
'The bishop reads the words of the Lord while standing.' (*Peregr. Aeth.* 33.2)

(46) *Cler* *en* ***ri-ant*** *l'* *ad* *dit* *a* *Guenelun* *[...].*
clearly in smile-V.ANT it.OBJ.N.SG have.PRS.3SG say.PTCP.PST to Guenelon
'He said it to Guenelon with a big smile.' (*Roland* 619)

As they are syntactically and semantically optional, adjuncts can be omitted without making the sentence ungrammatical or changing its core meaning (Dik 1997: 89). This is shown for the adjuncts in (44-46) in respectively (47-49).

(47) *Petrus* *Tabitham* *mortuam* *suscitavit.*
Peter.NOM.M.SG Tabitha.ACC.F.SG dead.ACC.F.SG bring_back_to_life.PST.3SG
'Peter brought the dead Tabitha back to life.' (adapted from Greg. M. *dial.* 2.30.26)

(48) *Ipse* *episcopus* *leget* *verba* *Domini* *[...].*
INTENS.NOM.M.SG bishop.NOM.M.SG read.PRS.3SG word.ACC.N.PL Lord.GEN.M.SG
'The bishop reads the words of the Lord.' (adapted from *Peregr. Aeth.* 33.2)

(49) *L'* *ad* *dit* *a* *Guenelun* *[...].*
it.OBJ.N.SG have.PRS.3SG say.PTCP.PST to Guenelon
'He said it to Guenelon.' (adapted from *Roland* 619)

By contrast, adnominal phrases syntactically depend on a noun, and serve to define, describe, or classify the referent of this noun (Marouzeau 1910: 12, 22; Woodcock 1959: 50; Pinkster 2015: 965-966, 994-996). For example, the gerund *egrediendi* 'to leave' (50) defines the type of opportunity granted by the withdrawal of the bear, and the present participle *lactantem* 'suckling' (51) and the *-ant* form *culchant*

'setting' (52) specify respectively the subset of piglets whose theft is punishable by a financial penalty of 120 denarii (51) and the point of compass where the island of Guernsey is situated (52).

(50) *[...] removit se ab ostio ursa [...] atque*
withdraw.PST.3SG REFL.ACC.F.SG from doorway.ABL.N.SG bear.NOM.F.SG and
egredie-nd-i *ei praestitit aditum.*
leave-GER-GEN DEM.DAT.M.SG give.PST.3SG opportunity.ACC.M.SG
'The bear withdrew from the doorway and gave him the opportunity to leave.' (*Pass. Columb.* 1.5.11)

(51) *Si quis porcellum* ***lacta-nt-em*** *furaverit [...] CXX*
if INDF.NOM.M.SG piglet.ACC.M.SG suck-PTCP.PRS-ACC.M.SG steal.SBJV.PST.3SG 120
denarios [...] culpabilis iudicetur.
denarius.ACC.M.PL guilty.NOM.M.SG judge.FUT.PASS.3SG
'If someone steals a suckling piglet, he will be accused (to pay) 120 denarii.' (*Lex Sal.* 1.2)

(52) *[...] A Gernerui sunt arivé / Un isle vers*
at Guernsey be.PRS.3PL arrive.PTCP.PST ART.INDF.OBL.M.SG island.OBL.M.SG toward
soleil ***culch-ant*** *[...].*
sun.OBL.M.SG set-V.ANT
'They arrived in Guernsey, an island in the West. (lit. 'toward the setting sun').' (Wace *Brut* 14188-14189)

Within the group of the adnominal phrases, a distinction is to be made between semantically necessary and optional constituents, because only the latter may be close to analysis as adjuncts (see the discussion in §1.2.2.2.1 and §1.3.2.2.1). Compare the gerund phrases in (50) and (53): in (50), *egrediendi* 'to leave' is semantically necessary, since the meaning of the governing noun *aditum* 'opportunity' alone does not suffice to form a meaningful information unit, as shown in (54); in (53), on the contrary, *ad spargendum super nos* 'to sprinkle on us' is semantically optional, because the meaning of the noun *sal* 'salt' suffices to form a meaningful information unit on its own, as evidenced by (55).

(53) *[...] benedic [...] sal ad* ***sparge-nd-um*** *super nos [...].*
bless.IMP.PRS.2SG salt.ACC.M.SG to sprinkle-GER-ACC on we.ACC.M.PL
'Bless the salt to sprinkle on us.' (*Vit. Hugb.* 13)

(54) *?? Removit se ab ostio ursa atque*
withdraw.PST.3SG REFL.ACC.F.SG from doorway.ABL.N.SG bear.NOM.F.SG and
ei praestitit aditum.
DEM.DAT.M.SG give.PST.3SG opportunity.ACC.M.SG
'The bear withdrew from the doorway and gave him the opportunity.' (adapted from *Pass. Columb.* 1.5.11)

(55) *Benedic* *sal.*
bless.IMP.PRS.2SG salt.ACC.M.SG
'Bless the salt.' (adapted from *Vit. Hugb.* 13)

In the case of adnominal phrases with a present participle or *-ant* form, an additional distinction should be made between appositive and restrictive phrases, since only the former might give rise to an analysis as adjuncts (see §1.3.2.2.1). Appositive phrases provide accessory information, *i.e.* information that is not required to identify referent of the head noun (Poletto & Sanfelici 2017: 805). For instance, the present participle clause *validissime egrotans* '(being) very gravely ill' (56) and the *-ant* form *vaillant* '(being) worthy' (57) depend on respectively *infantulus* 'little boy' (56) and *clerc* 'clerk' (57), but the information conveyed by them does not restrict the referent of these nouns, contrary to the NPs *nomine Mummolenus* 'named Mummolenus' (56) and *Gerlant* 'Gerland' (57).

(56) *[...] infantulus* *quidam* *nomine* *Mummolenus* *validissime*
little_boy.NOM.M.SG INDF.NOM.M.SG name.ABL.N.SG Mummolenus.NOM.M.SG very_gravely
egrota-ns *ad extrema* *pene*
be_ill-PTCP.PRS.NOM.M.SG to final.ABL[ACC].F.SG torment.ABL[ACC].F.SG
deductus *est.*
bring-PTCP.PST.NOM.M.SG be.PRS.1SG
'Some little boy named Mummolenus, who is very gravely ill, is brought to its final torment.' (*Vit. Desid.* 46)

(57) *De* *iceo* *trai* *a* *guarant /* *Le* ***vaill-ant***
of DEM.OBL.N.SG bear.PRS.1SG as witness.OBL.M.SG ART.DEF.OBL.M.SG be_worthy-V.ANT
clerc *Gerlant* *[...].*
clerk.OBL.M.SG Gerland
'I bear the worthy clerk Gerland witness of this.' (Ph. de Thaon *Comput* 2951-2952)

Appositive adnominal phrases can therefore be omitted without changing the referent of the governing noun, as illustrated for the two instances in (56-57) in respectively (58-59).

(58) *Infantulus* *quidam* *nomine* *Mummolenus* *ad*
little_boy.NOM.M.SG INDF.NOM.M.SG name.ABL.N.SG Mummolenus.NOM.M.SG to
extrema *pene* *deductus* *est.*
final.ABL[ACC].F.SG torment.ABL[ACC].F.SG bring-PTCP.PST.NOM.M.SG be.PRS.1SG
'Some little boy named Mummolenus is brought to its final torment.' (adapted from *Vit. Desid.* 46)

(59) *De* *iceo* *trai* *a* *guarant /* *Le* *clerc*
of DEM.OBL.N.SG bear.PRS.1SG as witness.OBL.M.SG ART.DEF.OBL.M.SG clerk.OBL.M.SG
Gerlant.
Gerland
'I bear the clerk Gerland witness of this.' (adapted from Ph. de Thaon *Comput* 2951-2952)

By contrast, restrictive phrases provide information that is required to identify the referent of the head noun (Poletto & Sanfelici 2017: 805). Witness (51), in which *lactantem* 'suckling' is required in order to identify the subset of piglets whose theft is punishable by a financial penalty of 120 denarii, or (52), where *culchant* 'setting' enables identifying the part of the sun's daily trajectory that metonymically stands for the geographical situation of the island of Guernsey. For this reason, the omission of restrictive phrases changes the referent of the governing noun, as shown by the deletion of *lactantem* 'suckling' in (51) and of *culchant* 'setting' (52) in respectively (60-61).

(60) *Si quis* *porcellum* *furaverit* *CXX* *denarios*
if INDF.NOM.M.SG piglet.ACC.M.SG steal.SBJV.PST.3SG 120 denarius.ACC.M.PL
culpabilis *iudicetur.*
guilty.NOM.M.SG judge.FUT.PASS.3SG
'If someone steals a piglet, he will be accused (to pay) 120 denarii.' (adapted from *Lex Sal.* 1.2)

(61) *A* *Gernerui* *sunt* *arivé /* *Un* *isle* *vers*
at Guernsey be.PRS.3PL arrive.PTCP.PST ART.INDF.OBL.M.SG island.OBL.M.SG toward
soleil.
sun.OBL.M.SG
'They arrived in Guernsey, an island toward the sun.' (adapted from Wace *Brut* 14188-14189)

In (60), the financial penalty of 120 denarii no longer applies to the theft of suckling piglets, but to that of piglets in general. Thus, the deletion of the restrictive present participle changes the scope of the law. In (61), the geographical orientation of the island of Guernsey is no longer fixed in the West. Instead, it constantly changes in function of the sun's daily trajectory, which is absurd.

3.5.1.2. Ambiguous cases

Though sharp in theory, the distinction between adjuncts and adnominal phrases is often fluid in practice (Marouzeau 1910: 12, 22; Laughton 1964: 62, 65-66; Pinkster 2015: 994). Cases in point are the gerund phrase *ad habitandum* 'to live' (62), the present participle clause *omnia pacienter ferens* 'enduring everything with patience' (63), and the *-ant* form phrase *cler luisant* 'shining brightly' (64).

(62) *[...] ei=que* *domum* *ad* ***habita-nd-um*** *magna* *praeparavit*
DEM.DAT.M.SG=and house.ACC.F.SG to live-GER-ACC great.ABL.F.SG prepare.PST.3SG
sollertia.
skill.ABL.F.SG
'And with great skill he prepared for him a house to live.' (*Vit. Waldedr.* 2.9.15)

(63) *[...] vir* *Dei* *omnia* *pacienter* ***fere-ns***
man.NOM.M.SG God.GEN.M.SG all.ACC.N.PL patiently endure-PTCP.PRS.NOM.M.SG
cybum *et* *potum* *ei* *dare* *precepit.*
food.ACC.M.SG and drinks.ACC.M.SG DEM.DAT.M.SG give.INF.PRS order.PST.3SG
'As he endured anything with patience, the man of God ordered to give him food and drinks.' (*Vit. Pard.* 11)

(64) *Quant* *d'* *iloec* *la* *traistrent* *avant /* *Uns* *rais*
when from there it.OBJ.F.SG pull.PST.3PL forward ART.INDF.SBJ.M.SG ray.SBJ.M.SG
l' *ensiwi* *cler* ***luis-ant.***
it.OBJ.F.SG follow.PST.3SG brightly shine-V.ANT
'When they pulled it forward from there, a ray followed it, shining brightly.' (Adg. *Mir.* 44.137-138)

In order to determine the type of these constituents, different criteria can be put forward. As noted in the previous section, adjuncts are always semantically optional, while adnominal phrases can, but need not, be semantically optional. Hence, all constituents that are semantically necessary or required to identify the referent of some noun are adnominal phrases. However, this criterion is of little use, because it only allows to distinguish between adjuncts and semantically obligatory and/or restrictive adnominal phrases, distinction that is almost always clear. The true cases of syntactic ambiguity concern the semantically optional constituents, which makes the semantic typology of adnominal phrases in the previous section highly relevant.

Indeed, it is on account of their semantic optionality that the three constituents illustrated in (62-64) are syntactically ambiguous. Their optionality is evident from the comparison between (62-64) and (65-67), the latter corresponding to the examples in (62-64) deprived of respectively *ad habitandum* 'to live', *omnia pacienter ferens* 'enduring everything with patience', and *cler luisant* 'shining brightly'.

(65) *Ei* *domum* *magna* *praeparavit* *sollertia.*
DEM.DAT.M.SG house.ACC.F.SG great.ABL.F.SG prepare.PST.3SG skill.ABL.F.SG
'And with great skill he prepared for him a house.' (adapted from *Vit. Waldedr.* 2.9.15)

(66) *Vir* *Dei* *cybum* *et* *potum* *ei*
man.NOM.M.SG God.GEN.M.SG food.ACC.M.SG and drinks.ACC.M.SG DEM.DAT.M.SG
dare *precepit.*
give.INF.PRS order.PST.3SG
'The man of God ordered to give him food and drinks.' (adapted from *Vit. Pard.* 11)

(67) *Quant* *d'* *iloec* *la* *traistrent* *avant /* *Uns* *rais*
when from there it.OBJ.F.SG pull.PST.3PL forward ART.INDF.SBJ.M.SG ray.SBJ.M.SG
l' *ensiwi.*
it.OBJ.F.SG follow.PST.3SG
'When they pulled it forward from there, a ray followed it.' (adapted from Adg. *Mir.* 44.137-138)

The analysis of phrases like *ad habitandum* 'to live' (62), *omnia pacienter ferens* 'enduring everything with patience' (63), and *cler luisant* 'shining brightly' (64) thus needs to be established on the basis of other criteria.

The most obvious criterion that can be invoked concerns the essential distinction between adjuncts and adnominal phrases, *i.e.* that adjuncts modify a verbal predication, and thus belong to the VP or the clause as a whole, whereas adnominal phrases relate to a noun, and thus belong to the NP. As a corollary, constituents denoting a state of affairs that is in some way or other related to that expressed by another verb qualify as adjuncts, while constituents designating a property of a noun hold as adnominal phrases (Marouzeau 1910: 48; Eklund 1970: 19-20). However, while this criterion undeniably allows separating prototypical adjuncts (e.g. (44-46)) from prototypical adnominal phrases (e.g. 53-56)), it is not decisive for less prototypical instances, like those in (62-64). Witness the gerund phrase *ad habitandum* 'to live' (62): on the one hand, it can be seen as the modifier of the noun *domum* 'house', in which case it specifies an inherent property of this noun ('house to live' -> 'dwelling place'); on the other hand, it can be taken as the purpose adjunct of the state of affairs denoted by *praeparavit* 'he prepared' ('he prepared a house in order for him to live in it'). The analysis of this and similar forms has been determined on the basis of the following two criteria.

(i) Constituents that can be pronominalised along with the noun on which they potentially depend are adnominal phrases. *Ad habitandum* 'to live' (62) validates this criterion, as shown by (68), and so it is best considered adnominal.

(68) *Ei=que* *eam* *magna* *praeparavit* *sollertia.*
DEM.DAT.M.SG=and DEM.ACC.F.SG great.ABL.F.SG prepare.PST.3SG skill.ABL.F.SG
'And with great skill he prepared it for him.' (adapted from *Vit. Waldedr.* 2.9.15)

(ii) Constituents that cannot be replaced by a finite adjunct clause are adnominal phrases. This criterion confirms the adnominal analysis of *ad habitandum* 'to live' (62), since its replacement by a finite purpose adjunct clause leads to an ungrammatical sentence (69).[41]

(69) * *Eique* *domum* *magna* *praeparavit* *sollertia*
DEM.DAT.M.SG=and house.ACC.F.SG great.ABL.F.SG prepare.PST.3SG skill.ABL.F.SG
ut *habitaret.*
that live.SBJV.PST.3SG
'And with great skill he prepared a house for him, so that he could dwell.' (adapted from *Vit. Waldedr.* 2.9.15)

[41] Note that the sentence in (69) becomes grammatical when adding a spatial adjunct to the finite adjunct clause, like *ibi* 'there'. However, such an addition is not allowed in proclaiming the adjunct analysis of constituents on the basis of criterion (ii).

These same two criteria can be applied to the clause *cler luisant* ‘shining brightly’ (66). In theory, this form can be taken as either the modifier of the noun *rais* ‘ray’, in which case it expresses a property of this noun’s referent (‘a brightly shining ray’), or the adjunct of the state of affairs denoted by *ensiwi* ‘it followed’, in which case it evokes the circumstances under which the ray of light followed the removal of some symbol. However, *cler luisant* ‘shining brightly’ (64) can be pronominalised together with the noun *rais* ‘ray’ (see (70)), while it cannot be substituted by a finite temporal adjunct clause (see (71)).

(70) *Quant d' iloec la traistrent avant / Il l’ ensiwi.*[42]
when from there it.OBJ.F.SG pull.PST.3PL forward it.SBJ.M.SG it.OBJ.F.SG follow.PST.3SG
‘When they pulled it forward from there, it followed it.’ (adapted from Adg. *Mir*. 44.137-138)

(71) * *Quant d' iloec la traistrent avant / Uns rais*
when from there it.OBJ.F.SG pull.PST.3PL forward ART.INDF.SBJ.M.SG ray.SBJ.M.SG
l' ensiwi pendant qu’ il luisait cler.
it.OBJ.F.SG follow.PST.3SG during that it.SBJ.M.SG shine.PST.3SG brightly
‘When they pulled it forward from there, a ray followed it while it was shining brightly.’ (adapted from Adg. *Mir*. 44.137-138)

Moreover, *cler luisant* ‘shining brightly’ (64) can be replaced by a finite appositive relative clause (see (72)). This confirms its analysis as an adnominal phrase rather than as an adjunct.

(72) *Quant d' iloec la traistrent avant / Uns rais*
when from there it.OBJ.F.SG pull.PST.3PL forward ART.INDF.SBJ.M.SG ray.SBJ.M.SG
l' ensiwi qui cler luisait.
it.OBJ.F.SG follow.PST.3SG REL.SBJ.M.SG brightly shine.PST.3SG
‘When they pulled it forward from there, a ray that shone brightly followed it.’ (adapted from Adg. *Mir*. 44.137-138)

Finally, *cler luisant* ‘shining brightly’ (64) has a descriptive meaning. This type of meaning is more characteristic of adnominal phrases than of adjuncts (Marouzeau 1910: 48; Eklund 1970: 19-20).

Unlike *ad habitandum* ‘to live’ (62) and *cler luisant* ‘shining brightly’ (64), the present participle clause *omnia pacienter ferens* ‘enduring everything with patience’ (63) accumulates the functions of prototypical adjuncts and adnominal phrases: on the one hand, it provides accessory information about the NP *vir Dei* ‘man of God’; on the other hand, it expresses the state of affairs providing the temporal and even causal setting against which should be interpreted the state of affairs denoted by *precepit* ‘he ordered’, as evident from the discourse context, given in (73).

[42] The NP *uns rais cler luisant* ‘a brightly shining ray’ is indefinite, and can therefore in principle not be pronominalised by the definite personal pronoun *il* ‘it’, but this is less relevant here.

(73) *Statim cum ad ominem dei fuisset aductus, multis conviciis vel increpacionibus virum dei exprobrans, dicens latronem, falsatorem, inpostorem. Tunc vir dei, omnia pacienter* ***fere-ns****, cybum et potum ei dare precepit.*

‘Immediately when he was brought to the man of God, he reproved the man of God with many insults and reproaches, calling him a bandit, a fraud, an imposter. Then, as he endured everything with patience, the man of God ordered to give him food and drinks.’ (*Vit. Pard.* 11)

The combination of these two functions is not the exclusive property of Late Latin present participles. It is also well known for, e.g., a sub-type of French adverbs ending in *-ment* ‘-ly’, namely the “*adverbes de manière orientés vers le sujet*”, which specify both the manner of a state of affairs and the attitude of the subject toward it (Molinier 1990: 35-36). An example of such an adverb in contemporary French is *attentivement* ‘carefully’ (74).

(74)	*Paul*	*a*	*lu*	*attentivement*	*la*	*notice.*
	Paul	have.PRS.3SG	read.PTCP.PST	carefully	ART.DEF.F.SG	notice.F.SG

‘Paul read the notice carefully.’ (Molinier 1990: 35)

In this dissertation, constituents of the type exemplified in (63) have been analysed on the basis of their contextually most salient function. For instance, one function of the present participle clause in (63) consists of providing background information about the man of God, namely Pardulfus. However, this function is less important than its other function, which consists of providing the temporal and slightly causal setting against which should be interpreted the state of affairs denoted by *precepit* ‘he ordered’ – this is particularly clear in (73). Clauses like *omnia pacienter ferens* ‘enduring everything with patience’ thus primarily serve as so-called ‘frame-setters’ or ‘scene-setters’ for the subsequent discourse (Diessel 2005: 459-460). This analysis of the clause in (63) is supported by the fact that it is not pronominalised with the NP *vir Dei* ‘man of God’ in the demonstrative *ille* ‘he’ (see 75). Furthermore, it can be replaced by a finite adjunct clause (see (76)) – note that the conjunction *cum* ‘as’ also often combines a temporal and a causal value, just like many adjunct present participle phrases.

(75)	*Tunc*	*ille,*	*omnia*	*pacienter*	***fere-ns,***	*cybum*
	then	DEM.NOM.M.SG	all.ACC.N.PL	patiently	endure-PTCP.PRS.NOM.M.SG	food.ACC.M.SG
	et	*potum*	*ei*	*dare*	*precepit.*	
	and	drinks.ACC.M.SG	DEM.DAT.M.SG	give.INF.PRS	order.PST.3SG	

‘As he endured anything with patience, he ordered to give him food and drinks.’ (adapted from *Vit. Pard.* 11)

(76) *Vir* *Dei,* *cum* *omnia* *pacienter* ***ferret***
man.NOM.M.SG God.GEN.M.SG when all.ACC.N.PL patiently endure-SBJV.PST.3SG
cybum *et* *potum* *ei* *dare* *precepit.*
food.ACC.M.SG and drinks.ACC.M.SG DEM.DAT.M.SG give.INF.PRS order.PST.3SG
'As he endured anything with patience, the man of God ordered to give him food and drinks.' (adapted from *Vit. Pard.* 11)

Admittedly, *omnia pacienter ferens* 'enduring everything with patience' (63) can also be replaced by a finite relative clause (see (77)). However, since these clauses often establish an adverbial relation with the state of affairs denoted by the main verb, this criterion is less conclusive.

(77) *Vir* *Dei,* *qui* *omnia* *pacienter* *ferebat*
man.NOM.M.SG God.GEN.M.SG REL.NOM.M.SG all.ACC.N.PL patiently endure-PST.3SG
cybum *et* *potum* *ei* *dare* *precepit.*
food.ACC.M.SG and drinks.ACC.M.SG DEM.DAT.M.SG give.INF.PRS order.PST.3SG
'The man of God, who endured anything with patience, ordered to give him food and drinks.' (adapted from *Vit. Pard.* 11)

To conclude, the analysis of constituents containing a gerund, present participle, or *-ant* form as adjuncts or non-argumental/appositive adnominal phrases has essentially been based on their ability to be pronominalised and to be replaced by a finite adjunct clause. As a general rule, constituents for which an adverbial relation with the main clause can be (easily) inferred, like *omnia pacienter ferens* 'enduring everything with patience' (63), have been analysed as adjuncts rather than as adnominal phrases.

3.5.2. Adjuncts *vs* verb complements

The second type of syntactic ambiguity is restricted to the Late Latin gerund, and concerns the distinction between adjuncts and verb complements (Pinkster 2021: §16.100). As in the case of the preceding type of syntactic ambiguity, I will first explore the distinction between prototypical adjuncts and verb complements (§3.5.2.1), and then examine some dubious cases (§3.5.2.2).

3.5.2.1. Prototypical adjuncts vs *verb complements*

The distinction between prototypical adjuncts and verb complements is clear.[43] As mentioned in §3.5.1.1 (and as is well known), adjuncts are syntactically and semantically optional constituents that modify the state of affairs denoted by a verb in some way or other. By contrast, verb complements are required by

[43] For a detailed and critical discussion, see, e.g., Pinkster (1972: 79-82) and Dik (1997: 86-90).

(the meaning of) a predicate, and can as such not be omitted without making the sentence ungrammatical or changing its core meaning (Dik 1997: 89). For this reason, the PP *in Amsterdam* and the NP *a car* in (78) are respectively an adjunct and a verb complement, since the omission of the former (see (79)), but not of the latter (see 80)), makes the sentence ungrammatical.

(78) *John bought a car in Amsterdam.* (Dik 1997: 88)

(79) *John bought a car*. (Dik 1997: 88)

(80) **John bought in Amsterdam.* (adapted from Dik 1997: 88)

3.5.2.2. Ambiguous cases

While being clear-cut in theory, in practice it is sometimes "difficult to decide whether a given term has the status of an argument or a satellite" (Dik 1997: 87). Consider the clause *ad quemlibet parvum hortum fratribus excolendum* 'to cultivate a garden however small' (81), whose analysis hesitates between that as the complement of the verb *patebat* 'it is accessible' and as the purpose adjunct of this verb.

(81) *[...] ad* *quemlibet* *parvum* *hortum* *fratribus* ***excole-nd-um***
to INDF.ACC.M.SG small.ACC.M.SG garden.ACC.M.SG brother.DAT.M.PL cultivate-GER-ACC
nulla *patebat* *planities* *[...].*
no.NOM.F.SG be_accessible.PST.3SG plain.NOM.F.SG
'No plain was accessible for the brethren to cultivate a garden however small.' (Greg. M. *dial.* 1.7)

In this study, the analysis of such clauses has been based on the most basic distinction between adjuncts and verb complements, as defined and illustrated above. Hence, the gerund clause *ad quemlibet parvum hortum fratribus excolendum* 'to cultivate a garden however small' (81) qualifies as a verb complement: although its omission does not make the sentence ungrammatical, it triggers a semantic shift of *patebat* from 'it was accessible' to 'it stood open' (82).

(82) *Nulla* *patebat* *planities.*
no.NOM.F.SG be_accessible.PST.3SG plain.NOM.F.SG
'No plain stood open.' (adapted from Greg. M. *dial.* 1.7)

Likewise, *Christum praedicando* 'preaching about Christ' (83) cannot be omitted without causing the meaning of the verb *quievit* to shift from 'she stopped' in (83) to 'she rested' in (84).

(83) *[...]* *numquam* *sancta* *quievit* *Christum* ***praedica-nd-o.***
never blessed.NOM.F.SG stop.PST.3SG Christ.ACC.M.SG preach-GER-ABL
'The blessed (woman) never stopped preaching about Christ.' (*Pass. Pimen.* 1.14.15)

(84) *Numquam* *sancta* *quievit.*
never blessed.NOM.F.SG stop.PST.3SG
'The blessed (woman) never rested.' (adapted from *Pass. Pimen.* 1.14.15)

An example of a phrase acting as an adjunct rather than as a verb complement is *ad vescendum* 'to eat' (85). Indeed, its omission affects neither the grammaticality nor the core meaning of the sentence (86).

(85) *[...]* *convivium* *fecerunt,* *in* *quo* *ad* ***vesce-nd-um*** *carnes*
banquet.ACC.N.SG make.PST.3PL in REL.ABL.N.SG to eat-GER-ACC meat.ACC.F.PL
paratae *sunt* *[...].*
prepare.PTCP.PST.NOM.F.PL be.PRS.3PL
'They organised a banquet, in which meat was prepared to eat.' (Greg. M. *dial.* 1.1)

(86) *Convivium* *fecerunt,* *in* *quo* *carnes* *paratae*
banquet.ACC.N.SG make.PST.3PL in REL.ABL.N.SG meat.ACC.F.PL prepare.PTCP.PST.NOM.F.PL
sunt.
be.PRS.3PL
'They organised a banquet, in which meat was prepared.' (adapted from Greg. M. *dial.* 1.1)

3.5.3. Subject predicates *vs* forms used in a progressive construction

The next type of syntactic ambiguity concerns Late Latin present participles and Old French *-ant* forms, and relates to the distinction between subject predicates and forms used as the main verb of a progressive construction (Dietrich 1973: 289; Jensen 1990: 324-325). When a present participle or *-ant* form is combined with *esse* 'to be' in Late Latin or *être* 'to be' in Old French, it is indeed often difficult to determine whether it acts as the predicate of the subject or as the main verb of a progressive construction. In the former case, *esse* 'to be'/*être* 'to be' has the status of a copular verb, whereas in the latter case, it serves as an auxiliary grammaticalised in the expression of the progressive aspect. As in the previous sections, the ambiguous forms will be explored (§3.5.3.2) after a discussion of prototypical instances used as subject predicates and as the main verb of a progressive construction (§3.5.3.1).

3.5.3.1. Prototypical subject predicates vs *forms used in a progressive construction*

As in the previous cases, the distinction between prototypical forms acting as subject predicates and as the main verb of a progressive construction is clear. As noted in §1.3.2.2.2 with regard to the present participle in Classical Latin, subject predicates are syntactically obligatory constituents combined with a copular verb (or a verb used as such) in order to assign some property or temporary state to the subject of a proposition, independently of some other state of affairs (Quirk *et al.* 1985: 54-55; Rémi-Giraud

2013: 268-271; Pinkster 2015: 30). Consider (87), in which *habundans multitudine hominum* 'abundant with a multitude of people' is the predicate of the subject NP *ipsa civitas* 'the city', to whose referent it assigns the feature [+crowded]. Likewise, in (88) *semblant a Deu* 'resembling God' is the predicate of the subject *il* 'they', to the referent of which is ascribed the feature [+similar to God].

(87) *Ipsa* *etiam* *civitas* ***habunda-ns*** *multitudine*
INTENS.NOM.F.SG for city.NOM.F.SG abound-PTCP.PRS.NOM.F.SG multitude.ABL.F.SG
hominum *est* *[...].*
man.GEN.M.PL be.PRS.3SG
'For that city is abundant with a multitude of people.' (*Peregr. Aeth.* 19.1)

(88) *Car ço* *fu* *vaine* *gloire* *qu'* *il* *volrent*
for DEM.SBJ.N.SG be.PST.3SG vain.SBJ.F.SG glory.SBJ.F.SG that they.SBJ.M.PL want.PST.3PL
estre ***sembla-nt*** *a* *Deu* *[...].*
be.INF.PRS resemble-V.ANT to God.OBL.M.SG
'For it was a vain glory that they wanted to resemble God.' (*Comm. psaum.* 1)

The meaning of subject predicate present participles and *-ant* forms is often slightly different from that of the verb on which they are built. As mentioned in §3.4.2.1.2 and §3.4.3.1, this comes from the fact that they are used with an adjectival function and are often also deactualised. This deactualisation triggers a shift in the type of their meaning, *i.e.* from a state of affairs to a property or temporary state derived from this state of affairs.[44] Witness *habundans* 'abounding' (87) and *semblant* 'resembling' (88), which do not designate dynamic processes, but the static properties resulting from these processes. In a similar vein, the meaning of *iactans* (89) shifts from 'bragging' to '(being) arrogant' and that of the form *combatant* (90) from 'fighting' to 'combative'.

(89) *[...] si* *felicitas* *eluxerit,* *non* *sis*
if good_fortune.NOM.F.SG be_manifest.SBJV.PST.3SG NEG be.SBJV.PRS.2SG
iacta-ns *[...].*
brag-PTCP.PRS.NOM.M.SG
'If good fortune manifests itself, do not be arrogant.' (Isid. *synon.* 2.6)

(90) *Li* *emperere* *est* *ber* *e* ***cumbat-ant*** *[...].*
ART.DEF.SBJ.M.SG emperor.SBJ.M.SG be.PRS.3SG brave.SBJ.M.SG and fight-V.ANT
'The emperor is brave and combative.' (*Roland* 2737)

[44] It is well known that the use of forms in syntactic configurations characteristic of the members of another category (definable as contextual recategorisation) triggers a semantic effect (Goldberg 1995; Francis 1999; Francis & Michaelis 2004; Spencer 2005; Lauwers & Willems 2011). Consider the use of mass nouns like *café* 'coffee' and *thé* 'tea' in a count NPs like *Je veux un café/thé* 'I want a coffee/tea' in Modern French: the inherently mass interpretation of the nouns in question shifts towards a count interpretation, consisting of denoting a more or less conventionalised portion of coffee or tea (see Lauwers 2014). In the literature, this phenomenon of semantic reinterpretation is accounted for in terms of 'coercion' (e.g. Francis 1999; Francis & Michaelis 2004; Spencer 2005; Lauwers & Willems 2011; Lauwers 2014) or 'accommodation' (Goldberg 1995).

Subject predicates can usually be transformed into adnominal phrases. This confirms that they encode a property rather than a process. *Habundans multitudine hominum* ‘abundant with a multitude of people’ (87) and *semblant a Deu* ‘resembling God’ (88) allow this transformation, since their adnominal use in respectively (91) and (92) is not impossible.

(91) *Batanis* *est* *civitas* ***habunda-ns*** *multitudine*
Batanis.NOM.F.SG be.PRS.3SG city.NOM.F.SG abound-PTCP.PRS.NOM.F.SG multitude.ABL.F.SG
hominum.[45]
man.GEN.M.PL
‘Batanis is a city that abounds with a multitude of people.’ (adapted from *Peregr. Aeth.* 19.1)

(92) *Car ço* *fu* *vaine* *gloire* *qu'* *il* *volrent*
for DEM.SBJ.N.SG be.PST.3SG vain.SBJ.F.SG glory.SBJ.F.SG that they.SBJ.M.PL want.PST.3PL
estre *hum* ***sembl-ant*** *a* *Deu* *[...].*
be.INF.PRS man.SBJ.M.PL resemble-V.ANT to God.OBL.M.SG
‘For it was a vain glory that they wanted to be men resembling God.’ (adapted from *Comm. psaum.* 1)

Regarding progressive constructions, they are verbal periphrases made up of a verb that is more or less grammaticalised as an aspectual auxiliary and a present participle or *-ant* form serving as the syntactic and semantic main verb (Aalto 1949: 76; Vangaever 2019: 252-253; see §1.3.2.2.5). For example, *fuerunt* ‘they were’ (93) forms a progressive construction with the present participle *sequentes* ‘following’, and *est* ‘it is’ (94) with the *-ant* form *durant* ‘lasting’. The grammatical value of the auxiliaries *fuerent* ‘they were’ (93) and *est* ‘it is’ (94) scopes over the lexical meaning of *sequentes* ‘following (93) and *durant* ‘lasting’ (94), and presents, within this specific syntactic configuration, the state of affairs denoted by the present participle or *-ant* form as ongoing.

(93) *[...] invenerunt* *speluncam,* *quam* ***seque-nt-es*** *fuerunt*
find.PST.3PL cave.ACC.F.SG REL.ACC.F.SG follow-PTCP.PRS-NOM.M.PL be.PST.3PL
forsitan *per* *passus* *centum.*
about for step.ACC.M.PL hundred
‘They found a cave, which they have followed for about a hundred steps.’ (*Peregr. Aeth.* 14.6)

(94) *La* *glorie* *d'* *icest* *mund* *n'* *est*
ART.DEF.SBJ.F.SG glory.SBJ.F.SG of DEM.OBL.M.SG world.OBL.M.SG NEG be.PRS.3SG
lungement ***dur-ant.***
for_a_long_time last-V.ANT
‘The glory of this world is not lasting for a long time.’ (Guernes *Becket* 1245)

[45] The subject of this example, namely the proper noun *Batanis* ‘Batanis’, is the city to which Egeria refers in (87).

The meaning of present participles and *-ant* forms acting as the main verb of a progressive construction is identical to that of their corresponding finite verb forms, because they also denote a state of affairs. Therefore, progressive constructions can be replaced by a finite form of the verb on which the present participle or *-ant* form is built – this finite form needs to be inflected in the same tense, mood, and person as the auxiliary of the progressive construction. This replacement does not entail any semantic change other than an aspectual one (it may erase or simply background the progressive value of the state of affairs). This is illustrated for *sequentes fuerunt* 'they have been following' (93) and *est durant* 'it is lasting' (94) in respectively (95-96): the former is replaced by the perfect tense verb *secuti sunt* 'they followed' and the latter by the present tense verb *dure* 'it lasts'.

(95) *Invenerunt* *speluncam,* *quam* *secuti* *sunt* *forsitan*
find.PST.3PL cave.ACC.F.SG REL.ACC.F.SG follow.PTCP.PST.NOM.M.PL be.PRS.3PL about
per passus *centum.*
for step.ACC.M.PL hundred
'They found a cave, which they followed for about a hundred steps.' (adapted from *Peregr. Aeth.* 14.6)

(96) *La* *glorie* *d'* *icest* *mund* *ne* *dure*
ART.DEF.SBJ.F.SG glory.SBJ.F.SG of DEM.OBL.M.SG world.OBL.M.SG NEG last.PRS.3SG
lungement.
for_a_long_time
'The glory of this world does not last for a long time.' (adapted from Guernes *Becket* 1245)

3.5.3.2. Ambiguous cases

Though sharp in theory, the distinction between forms used as subject predicates and as the main verb of a progressive construction is sometimes fluid in practice. Witness the coordinated present participles *gaudentes* 'rejoicing' and *exultantes* 'exulting' in (97) and the form *escoulourjant* 'fading' (98).

(97) *Erant* *nam=que* *ibidem* ***gaude-nt-es*** *et* *quasi* ***exulta-nt-es***
be.PST.3PL for=and there rejoice-PTCP.PRS-NOM.M.PL and as_if exult-PTCP.PRS-NOM.M.SG
leticia *inenarrabili.*
happiness.ABL.F.SG indescribable.ABL.F.SG
'For they were rejoicing there and, as it were, exulting with an indescribable happiness.' (*Vit. Adelph.* 11)

(98) *Mes* *voir* *est* *que* *pour* *ce* *que* *memoires* *sont*
but true.SBJ.N.SG be.PRS.3SG that for DEM.OBL.N.SG that memory.SBJ.F.PL be.PRS.3PL
escoulourj-ant *[...].*
fade-V.ANT
'But it is true that because memories are fading (...).' (Ph. de Beau. *Coutumes* 211)

The discussion in §3.5.3.1 above provides three criteria to resolve this kind of syntactic ambiguity:

(i) If the interpretation of the present participle or *-ant* form shows a shift in the type of meaning of the corresponding finite verb from a state of affairs to a property derived from this state of affairs, the present participle or *-ant* form acts as a subject predicate rather than as the main verb of a progressive construction. Based on this criterion, *gaudentes* 'rejoicing' and *exultantes* 'exulting' (97) function as the main verb of a progressive construction, since they denote a state of affairs and have the same meaning as the finite forms of *gaudere* 'to rejoice' and *exultare* 'to exult'. In contrast, *escoulourjant* 'fading' (98) is the predicate of the subject *memoires* 'memories': as apparent from the discourse context, provided in (99) below, *escoulourjant* 'fading' denotes a general property of memories instead of a temporary, durative state of affairs realised by them. Hence, its meaning is slightly different from that of its corresponding finite verb ('fading, disappearing' > 'volatile, transient').

(99) *Mes voir est que pour ce que memoires sont* ***escoulourjant*** *et que fort chose seroit a retenir si grant plenté de paroles [...] li baillis ou la justice puet et doit arester en escrit briement ce seur quoi les parties entendent a avoir jugement.*
'But because memories are fading and because it would be a hard thing to remember such a large amount of words, it is true that the bailiff or the judicial authorities can or should briefly write down about what the parties intent to have a judgment.' (Ph. de Beau. *Coutumes* 211)

(ii) If the present participle or *-ant* form constituent can be transformed into an adnominal phrase, it functions as a subject predicate rather than as the main verb of a progressive construction. This criterion confirms the analysis of *gaudentes* 'rejoicing'/*exultantes* 'exulting' (97) as the main verb of a progressive construction, and of *escoulourjant* 'fading' (98) as a subject predicate. Witness (100-101): in (100), the adnominal use of *gaudentes* 'rejoicing' and *exultantes* 'exulting' changes the meaning and syntax of the sentence (*erant* 'they were' becomes an existential verb and acquires a presentative function, and *gaudentes* 'rejoicing' and *exultantes* 'exulting' are restrictive modifiers defining the type of people present); in (101), on the contrary, the adnominal use of *escoulourjant* 'fading' does not change the core meaning or syntax of the sentence (*sont* 'they are' is still a copular verb accompanied by a subject predicate, the sole difference being that *escoulourjant* 'fading' now acts as the restrictive modifier of the noun *choses* 'things' instead of as a subject predicate).

(100) *Erant* *nam=que ibidem* *homines* ***gaude-nt-es*** *et* *quasi*
be.PST.3PL for=and there man.NOM.M.PL rejoice-PTCP.PRS-NOM.M.PL and as_if
exulta-nt-es *leticia* *inenarrabili.*
exult-PTCP.PRS-NOM.M.SG happiness.ABL.F.SG indescribable.ABL.F.SG
'For there were people there who were rejoicing and, as it were, exulting with an indescribable happiness.' (adapted from *Vit. Adelph.* 11)

(101) *Mes voir est que pour ce que memoires sont*
but true.SBJ.N.SG be.PRS.3SG that for DEM.OBL.N.SG that memory.SBJ.F.PL be.PRS.3PL
choses ***escoulourj-anz*** *[...].*
things.SBJ.F.PL fade-V.ANT.SBJ.F.PL
'But because memories are things that fade, it is true that (...).' (adapted from Ph. de Beau. *Coutumes* 211)

(iii) If the verb *esse* 'to be' or *être* 'to be' can be omitted and the present participle or *-ant* form replaced by the finite form of the verb inflected in the same tense, mood, and person as the deleted form of *esse* 'to be' or *être* 'to be' without triggering a semantic change other than an aspectual one, the present participle or *-ant* form acts as the main verb of a progressive construction rather than as a subject predicate. This criterion confirms the analysis of *gaudentes* 'rejoicing' and *exultantes* 'exulting' (97) as the main verb of a progressive construction (see (102)), and of the form *escoulourjant* 'fading' (98) as a subject predicate (see (103)).

(102) *Nam=que ibidem gaudebant et quasi exultabant leticia*
for=and there rejoice.PST.3PL and as_if exult.PST.3PL happiness.ABL.F.SG
inenarrabili.
indescribable.ABL.F.SG
'For there they rejoiced and, as it were, exulted with an indescribable happiness.' (adapted from *Vit. Adelph.* 11)

(103) *Mes voir est que pour ce que memoires escoulourjent.*
but true.SBJ.N.SG be.PRS.3SG that for DEM.OBL.N.SG that memory.SBJ.F.PL fade.PRS.3PL
'But because memories fade, it is true that (...).' (Ph. de Beau. *Coutumes* 211)

Admittedly, *sont escoulourjant* 'they are fading' can be substituted by a finite form of *escolourger* 'to fade', as shown in (103). However, this finite form has a generic meaning and denotes a property of the subject *memoires* 'memories' rather than a temporary, but durative state of affairs. This is at odds with what holds for *gaudebant* 'they rejoiced' and *exultabant* 'they exulted' (102). Therefore, *escoulourjant* 'fading' is a subject predicate rather than the main verb of a progressive construction.

It is worth noting that the distinction between subject predicates and main verbs of a progressive construction greatly benefits from the analysis of the present participles and *-ant* forms within their discourse context. This has been illustrated in (ii) for the subject predicate analysis of *escoulourjant* 'fading' (98), and will now be demonstrated for the analysis of *gaudentes* 'rejoicing' and *exultantes* 'exulting' (97) as the main verbs of a progressive construction. The discourse context of these instances, given in (104), describes the atmosphere in some place. The two participles each denote a state of affairs that positively contributes to the charm of this place.

(104) *Moxque locus ille inenarrabili dulcedine atque odore suavitatis repletus enituit. Erant namque ibidem* ***gaudentes*** *et quasi* ***exultantes*** *leticia inenarrabili.*
'That place soon sparkled, filled with an indescribable sweetness and smell of charm. For they were rejoicing there and, as it were, exulting with an indescribable happiness.' (*Vit. Adelph.* 11)

Occasionally, the syntactic context may also give clues in favor of one or the other analysis. For instance, when the present participle or *-ant* form is coordinated with a regular adjective, they are subject predicates (Eklund 1970: 20; Jensen 1990: 325). Witness *patientes* 'patient' and *obedientes* 'obedient' (105), coordinated with the regular adjectives *mites* 'mild' and *humiles* 'humble'.

(105) *Estote* *mites* *et* *humiles,* ***patie-nt-es****,*
be.IMP.PRS.2PL mild.NOM.M.PL and humble.NOM.M.SG endure-PTCP.PRS-NOM.M.PL
obedie-nt-es *[...].*
obey-PTCP.PRS-NOM.M.PL
'Be mild and humble, patient, (and) obedient.' (*Epist. Merov.* 11)

This criterion is less critical for the analysis of the present participles in (105), because *patientes* 'patient' and *obedientes* 'obedient' undoubtedly act as subject predicates even without taking into account their coordination with the adjectives *mites* 'mild' and *humiles* 'humble'. However, it is decisive in (106): the coordination of *soef oulant* 'smelling sweet' with the adjective *blanche* 'white' points toward the subject predicate analysis of the *-ant* form, whereas an analysis of *estoit soef oulant* 'it was good-smelling' as a progressive construction could have been defended in the absence of a coordination with this adjective.

(106) *[...] et* *cele* *qui* *estoit* *d'* *Abel* *estoit* *blanche*
and DEM.SBJ.F.SG REL.SBJ.F.SG be.PST.3SG of Abel be.PST.3SG white.SBJ.F.S
et *soef* ***oul-ant****.*
and sweetly smell-V.ANT
'And that (the smoke) of Abel was white and good-smelling.' (*Graal* 254)

The analysis so far relied on the external syntax of the present participle or *-ant* form. As to their internal syntax, it proves to be a less reliable criterion to address their syntactic ambiguity. Since subject predicate forms have adjective external syntax, whereas forms serving as the main verb of a progressive construction have verbal external syntax, it could be argued that present participles and *-ant* forms with adjectival internal syntax qualify as subject predicates, while those with verbal internal syntax act as the main verb of a progressive construction. However, this reasoning does not stand up to empirical evidence. Witness *habentes* 'having' (107) and *queranz* 'seeking' (108): these occurrences act unquestionably as subject predicates, despite the fact that they have verbal instead of adjectival internal syntax. Indeed, the former assigns the accusative to its internal argument, *viz.* the NP *divitis et opulentas eclesias* 'rich and wealthy churches' – as do finite forms of *habere* 'to have' –, and the latter assigns the oblique case to its internal argument, *i.e.* the noun *pain* 'bread' – just like finite forms of *quérir* 'to seek'.

(107) *Sunt* *Greci* *episcopi* ***habe-nt-es*** *divitis* *et*
be.PRS.3PL Greek.NOM.M.PL bishop.NOM.M.PL have-PTCP.PRS-NOM.M.PL rich.ACC.F.PL and
opolentas *eclesias* *[...].*
wealthy.ACC.F.PL church.ACC.F.PL
'The Greek bishops have rich and wealthy churches.' (*Epist. Merov.* 4)

(108) *[...] povre* *devint* *et* *pain* ***quer-anz*** *[...].*
poor.SBJ.M.SG become.PST.3SG and bread.OBL.M.SG seek-V.ANT
'He became poor and short of food (lit. 'bread-seeking').' (J. de Meun *Rose* 14505)

3.5.4. Adjuncts *vs* forms used in a progressive construction

The final type of syntactic ambiguity to be discussed involves the three types of forms explored in this study, *viz.* the Late Latin gerund, the Late Latin present participle, and the Old French *-ant* form. It concerns the distinction between the use of these forms as the main verb of a progressive construction and as the head of an adjunct (e.g. Schøsler 2007: 96-97 on Old French). As in the case of the previous types of syntactic ambiguity, I will first investigate the distinction between prototypical forms used in adjuncts and as the main verb of a progressive construction (§3.5.4.1), and then examine some dubious cases (§3.5.4.2).

3.5.4.1. Prototypical adjuncts vs *forms used in a progressive construction*

As mentioned earlier (§1.3.2.2.5, §2.1.1.2.2.3, and §2.1.2.2.3.1), the use of the Latin gerund and present participle as the main verb of a progressive construction historically derives from their use as the head of an elaborating conjunct adjunct expressing either the manner of the state of affairs denoted by *esse* 'to be', a posture verb (e.g. *stare* 'to stand'), or a motion verb (e.g. *vadere* 'to go'), or the circumstances accompanying this state of affairs (Aalto 1949: 76; Vangaever 2019: 254-258). In the emergence of the progressive construction, the lexical meaning of *esse* 'to be' or the posture or motion verb is gradually backgrounded and eventually lost in favour of its grammatical meaning. This latter meaning consists of presenting the state of affairs denoted by the gerund or present participle as ongoing, that is to say, "in its uninterrupted duration or continuity" (Garey 1957: 91). The lexical meaning of the gerund or present participle, as for it, is not only preserved, but also foregrounded (*cf.* Heine 1993: 54, 2002: 86). In this way, *esse* 'to be' or the posture or motion verb shifts from the status of main verb to that of auxiliary grammaticalised in the expression of the progressive aspect, while the gerund or present participle shifts from the status of head of an adjunct to that of semantic and syntactic main verb. The result is a verbal periphrasis whose formal and functional properties differ from those of the bi-clausal structure that gave rise to it. At least in theory, the distinction between the two uses of the gerund and the present participle

involved is therefore sharp. Witness (109) and (110), in which where the present participles *veniens* ‘coming’ (109) and *respondentes* ‘answering’ (110) combine with the same verb, *viz. stare* ‘to stand’, but have nonetheless a different function.

(109) *Propius vero magister militum* ***venie-ns*** *sine*
closer but chief.NOM.M.SG soldier.GEN.M.PL come-PTCP.PRS.NOM.M.SG without
comite stetit [...].
official.ABL.M.SG stand.PST.3SG
‘But after coming closer, the chief of the army stood still without an official.’ (*Pass. Eustach*. 1.4)

(110) *Et diacono dicente singulorum nomina semper*
and deacon.ABL.M.SG say.PTCP.PRS.ABL.M.SG each.GEN.M.PL name.ACC.N.PL always
pisinni plurimi stant ***responde-nt-es*** *semper [...].*
child.NOM.M.PL many.NOM.M.PL stand.PRS.3PL anwer-PTCP.PRS-NOM.M.SG always
‘And always, as the deacon says the names of each (of them), many children are always answering (...).’ (*Peregr. Aeth*. 24.6)

In (109), *stetit* ‘he stood’ is used as a lexical posture verb and *veniens* ‘coming’ as the head of an adjunct, since it can be deleted without making the sentence ungrammatical or altering the meaning of the posture verb, as evidenced in (111).

(111) *Vero magister militum sine comite stetit.*
but chief.NOM.M.SG soldier.GEN.M.PL without official.ABL.M.SG stand.PST.3SG
‘But the chief of the army stood still without an official.’ (adapted from *Pass. Eustach*. 1.4)

By contrast, in (110) the posture verb *stant* ‘they stand’ is used as an auxiliary, because it does no longer evoke the position of a body. *Respondentes* ‘answering’ acts in this case as the main verb of a progressive construction. The main verb status of this form is clear from the fact that its omission alters the meaning of *stant* ‘they stand’, by activating its full lexical meaning as a posture verb (see (112)).

(112) *Et diacono dicente singulorum nomina semper*
and deacon.ABL.M.SG say.PTCP.PRS.ABL.M.SG each.GEN.M.PL name.ACC.N.PL always
pisinni plurimi stant.
child.NOM.M.PL many.NOM.M.PL stand.PRS.3PL
‘And always, as the deacon says the names of each (of them), many children stand still.’ (adapted from *Peregr. Aeth*. 24.6)

3.5.4.2. Ambiguous cases

In practice, it is sometimes difficult to decide whether a Late Latin gerund or present participle acts as an adjunct or as the main verb of a progressive construction, especially when it combines with a posture

or motion verb. This is due to the fact that the lexical meaning of these verbs is often not entirely lost, but co-exists with their grammatical meaning as a backgrounded value, phenomenon called ‘persistence’ by Hopper (1991: 22; see also Heine 2002: 86). In such cases, the posture or motion verb is used neither as a full lexical verb nor as a completely grammaticalised marker of the progressive aspect, thus having a status between a prototypical main verb and a prototypical auxiliary. Examples of such syntactically ambivalent forms are the gerund *cunctando* ‘hesitating’ (113), discussed at length in §2.1.1.2.2.3, and the coordinated present participles *pastinantes* ‘ploughing’, *pangentes* ‘planting’, and *componentes* ‘arranging’ (114).

(113) *[...] cum prope silvam venisset [...] stetit dux*
when near forest.ACC.F.SG come.SBJV.PST.3SG stand.PST.3SG general.NOM.M.SG
diu ***cuncta-nd-o***.
for_some_time hesitate-GER-ABL
‘When he had come to a forest, the general stood in hesitation for some time.’ (Amm. 17.1.8)

(114) *[...] in quibus campis stabant rustici* ***pastina-nt-es***
in REL.ABL.M.PL land.ABL.M.PL stand.PST.3PL farmer.NOM.M.PL plough-PTCP.PRS-NOM.M.PL
et cum omni studio sarmenta ***pange-nt-es*** *atque*
and with all.ABL.N.SG zeal.ABL.N.SG seed.ACC.N.PL plant-PTCP.PRS-NOM.M.PL and
spinosa surcula rosarum animose et cautissime
thorny.ACC.N.PL stem.ACC.N.PL rose.GEN.F.PL ardently and cautiously
compone-nt-es.
arrange-PTCP.PRS-NOM.M.PL
‘(...) on which lands farmers stood ploughing, planting seeds with the highest zeal, and ardently and cautiously arranging the thorny stems of roses.’ (*Pass. Caec*. 1.18.13)

This type of ambiguity is preserved in the transition from Late Latin to Old French, for the simple reason that the bi-clausal structure giving rise to the progressive construction continues to exist alongside this progressive construction, resulting in a situation of ‘layering’ (Hopper 1991: 22). A clear example of an ambiguous Old French *-ant* form is *preeschant* ‘preaching’ (115).

(115) *Ichis prestres estoit molt preudons et molt boins*
DEM.SBJ.M.SG priest.SBJ.M.SG be.PST.3SG very loyal_man.SBJ.M.SG and very good.SBJ.M.SG
clercs, et aloit ***preesch-ant*** *par les teres*
clerk.SBJ.M.SG and go.PST.3SG preach-V.ANT through ART.DEF.OBL.F.PL land.OBL.F.PL
des crois [...].
of;ART.DEF.OBL.F.PL cross.OBL.F.PL
‘This priest was a very loyal man and a very good clerk, and went preaching in the lands of the cross.’ (*Constantinople* 1)

In order to determine whether gerunds, present participles, or *-ant* forms act as adjuncts or as the main verb of a progressive construction, four criteria can be put forward.

(i) Forms used as adjuncts are syntactically optional, while those used as the main verb of a progressive construction are syntactically obligatory. Hence, the first criterion to identify the use of ambiguous instances is their omissibility: if they cannot be deleted without making the sentence ungrammatical or altering the meaning of the posture or motion verb, they serve as the main verb of a progressive construction. This holds for the gerund *trahendo* 'dragging' (116), the present participles *proficiens* 'prospering' and *succrescens* 'growing' (117), and the *-ant* forms *demenant* 'driving about' and *abatant* 'knocking down' (118), as shown in respectively (119) to (121): the omission of the non-finite verb forms induces an interpretation as lexical motion verbs of the various forms of 'to go', namely *ire* 'go' (119), *ibat* 'he went' (120), and *vunt* 'they go' (121), while this interpretation is lacking in the original examples.[46]

(116) *[...] credas* *ut* *stellas* *ire* ***trahe-nd-o*** *comas.*[47]
believe.SBJV.PRS.2SG that star.ACC.F.PL go.INF.PRS drag-GER-ABL ray.ACC.F.PL
'You would believe that stars go dragging their rays.' (Ven. Fort. *carm*. 5.5.118)

(117) *Et* *locupletatus* *est* *homo* *et* *ibat*
and enrich.PTCP.PST.NOM.M.SG be.PRS.3SG man.NOM.M.SG and go.PST.3SG
proficie-ns *atque* ***succresce-ns*** *donec* *magnus*
prosper-PTCP.PRS.NOM.M.SG and grow-PTCP.PRS.NOM.M.SG until great.NOM.M.SG
vehementer *effectus* *est.*
exceedingly make.PTCP.PST.NOM.M.SG be.PRS.3SG
'And the man became rich and went prospering and growing until he became exceedingly wealthy.' (*Vulg. Gen*. 26.13)

(118) *Bretun* *les* *vunt* *mult* ***demen-ant*** */* *E* *a* *granz*
Briton.SBJ.M.PL they.OBJ.M.PL go.PRS.3PL heavily pursue-V.ANT and in large.OBL.F.PL
turbes ***abat-ant*** *[...].*
crowd.OBL.F.PL slay-V.ANT
'The Britons go heavily pursuing them and slaying them in large numbers.' (Wace *Brut* 12069-12070)

(119) *Credas* *ut* *stellas* *ire.*
believe.SBJV.PRS.2SG that star.ACC.F.PL go.INF.PRS
'You would believe that stars go.' (adapted from Ven. Fort. *carm*. 5.5.118)

[46] In Late Latin, *ire* 'to go' can be used in an absolute way, that is, without a spatial constituent acting as its second argument. Therefore, the omission of the gerund phrase in (116) and of the present participles in (117) does not render the sentences ungrammatical. By contrast, in Old French, the motion verb *aller* 'to go' cannot be used in an absolute way. The omission of the *-ant* form clause in (118) thus provokes the ungrammaticality of the sentence.

[47] Based on the criterion in (i) (and on other criteria to be discussed below), *trahendo* 'dragging' (116) undoubtedly functions as the main verb of a progressive construction. This analysis of *trahendo* 'dragging' (116) is also defended by, e.g. Aalto (1949: 75), Hofmann & Szantyr (1965: 380), and Dietrich (1973: 309). In contrast, Pinkster (2021: §21.14) takes this form as the head of an adjunct.

(120) *Et* *locupletatus* *est* *homo* *et* *ibat* *donec*
and enrich.PTCP.PST.NOM.M.SG be.PRS.3SG man.NOM.M.SG and go.PST.3SG until
magnus *vehementer* *effectus* *est.*
great.NOM.M.SG exceedingly make.PTCP.PST.NOM.M.SG be.PRS.3SG
'And the man became rich and went until he became exceedingly wealthy.' (adapted from *Vulg. Gen.* 26.13)

(121) * *Bretun* *vunt.*
Briton.SBJ.M.PL go.PRS.3PL
'The Britons go.' (adapted from Wace *Brut* 12069-12070)

Crucially, even if the non-finite verb form can be omitted without making the sentence ungrammatical, it will be taken as the main verb of a progressive construction if its omission alters the core meaning of the sentence (e.g. (116-117)). In many cases, the choice between the two analyses requires evaluating the informational contribution of the non-finite verbal form in relation to the broader discourse context, as shown in detail for *cunctando* 'hesitating' (113) in §2.1.1.2.2.3 (*cf.* Diewald 2002; Heine 2002). As mentioned there, this form conveys the most informative part of the sentence, while the primary function of *stetit* 'he stands' is to present the general's hesitations in their ongoing duration. The lexical source meaning of the posture verb is not necessarily excluded, but it is in any case relegated to the background. For this reason, *cunctando* 'hesitating' (113) acts as the main verb of a progressive construction rather than as the head of an adjunct. The same conclusion can be drawn for the Old French form *preeschant* 'preaching' (115): the PP *par les teres des crois* 'in the lands of the cross' could in principle be taken as the spatial argument of *aloit* 'he went'. Hence, the omission of *preeschant* 'preaching' does not make the sentence ungrammatical (122). However, the absence of *preeschant* 'preaching' makes the clause *aloit par les teres des crois* 'he went in the lands of the cross' much less informative within the specific context of the preceding discourse.

(122) *Ichis* *prestres* *estoit* *molt* *preudons* *et* *molt boins*
DEM.SBJ.M.SG priest.SBJ.M.SG be.PST.3SG very loyal_man.SBJ.M.SG and very good.SBJ.M.SG
clercs, *et* *aloit* *par* *les* *teres*
clerk.SBJ.M.SG and go.PST.3SG through ART.DEF.OBL.F.PL land.OBL.F.PL
des *crois* *[...].*
of;ART.DEF.OBL.F.PL cross.OBL.F.PL
'This priest was a very loyal man and a very good clerk, and went in the lands of the cross.' (adapted from *Constantinople* 1)

Therefore, the combination of *aloit* 'he went' and *preeschant* 'preaching' (115) is best taken as a verbal periphrasis, in which the grammatical meaning of *aloit* 'he went' prevails over its lexical meaning. The same argument applies to the present participles *pastinantes* 'ploughing', *pangentes* 'planting', and *componentes* 'arranging' (114), at least when they are analysed in their discourse context, given in (123):

(123) *[...] iocantes et ridentes et variis deliciis affluentes vidi glaciali tempore transire per campos in quibus campis stabant rustici* ***pastinantes*** *et cum omni studio sarmenta* ***pangentes*** *atque spinosa surcula rosarum animose et cautissime* ***componentes****.*
'During the ice age, I saw joking and laughing people and people abounding with various delights cross lands on which farmers stood ploughing, planting seeds with the highest zeal, and ardently and cautiously arranging the thorny stems of roses.' (*Pass. Caec*. 1.18.13)

The opposite conclusion can be drawn for the present participle *respiciens* 'looking at' (124), which is combined with the same verb as the forms in (123), *viz. stare* 'to stand'.

(124) *Et postea sic debet in casa sua intrare et de quatuor angulos terrae pulverem in pugno colligere debet, et sic postea in duropello, hoc est in limitare, stare debet, intus in casa* ***respiciens****, et sic de sinistra manu de illa terra trans scapulas suas iactare super illum, quem proximio rem parentem habet.*
'And thereafter he should enter his house and collect dust from its four corners in his hand, and then he should stand on the *duropello*, that is, on the threshold, while looking into the house, and then with his left hand he should throw the earth over his shoulders onto him who is his nearest relative.' (*Lex Sal.* 58.2)

The passage in (124) contains a series of instructions that a murderer has to perform in his house if he cannot pay his composition. After having collected dust from his house, he must stand on its threshold with his face turned and throw the dust over his shoulders. Within this context, *stare* 'to stand' is clearly used as a full lexical posture verb and *respiciens* 'looking at' as the head of an adjunct specifying the circumstances that need to accompany the posture of the murderer. The fact that this murderer must stand on the threshold of his house while looking inside is an important part of this official ritual. Hence, *stare* 'to stand' cannot be taken as a grammatical marker of the progressive aspect. The combination of *stare* 'to stand' and *respiciens* 'looking at' thus does not form a verbal periphrasis, but a bi-clausal structure equivalent to that containing *veniens* 'coming' and *stetit* 'he stood' in (109).

(ii) If the gerund, present participle, or *-ant* form is combined with a motion verb, its function can sometimes be determined on the basis of the animacy of its subject (*cf.* Schøsler 2007: 95-96). Used as full lexical verbs (without a metaphorical interpretation), motion verbs require an animate subject, but grammaticalised as auxiliaries, they can no longer impose semantic restrictions on their subject, and become as such compatible with inanimate subjects (Heine 1993: 55). Consequently, forms combined with a motion verb and an animate subject can either act as the head of an adjunct or as the main verb of a progressive construction, while those with inanimate subject can only serve as the main verb of a progressive construction – unless they are interpreted in a metaphorical way (Vangaever 2019: 258). Examples of this latter type of forms are scarce in Late Latin, but frequent in Old French. The gerund *trahendo* 'dragging' (116) can be cited as a Late Latin example, although

its subject, *viz.* the noun *stellas* ‘stars’, can in some way be conceived of as animate, at least within the Greco-Roman context of conceiving the movements of celestial objects. Two unambiguous Old French examples are given in (125): the subject of *aluignant* ‘lengthening’ corresponds to the NP *li jurn* ‘the days’, and that of *acurzant* ‘shortening’ to the NP *les nuiz* ‘the nights’.

(125) *Li* *jurn* *vunt* ***aluign-ant /*** *E* *les*
ART.DEF.SBJ.M.PL day.SBJ.M.PL go.PRS.3PL lengthen-V.ANT and ART.DEF.SBJ.F.PL
nuiz ***acurz-ant.***
night.SBJ.F.PL shorten-V.ANT
‘The days go lengthening and the nights shortening.’ (Ph. de Thaon *Comput* 379-380)

The analysis of the forms *aluignant* ‘lengthening’ and *acurzant* ‘shortening’ (125) as the main verbs of a progressive construction is further confirmed by the fact that they cannot be omitted without affecting the grammaticality of the sentence (see (126)), in line with the criterion in (i).

(126) * *Li* *jurn* *et* *les* *nuiz* *vunt.*
ART.DEF.SBJ.M.PL day.SBJ.M.PL and ART.DEF.SBJ.F.PL night.SBJ.F.PL go.PRS.3PL
‘The days and the nights go.’ (adapted from Ph. de Thaon *Comput* 379-380)

If the motion verb allows a metaphorical interpretation, it is compatible with an inanimate subject while keeping its status as a full lexical verb. In this case, the analysis of the gerund, present participle, or *-ant* form depends on other criteria. Consider *degutant* ‘dropping’ (127).

(127) *Li* *sans* *vait* ***degut-ant /*** *Sur* *les*
ART.DEF.SBJ.M.SG blood.SBJ.M.SG go.PRS.3SG drop-V.ANT on ART.DEF.OBL.M.PL
oisels *chaant* *[...].*
bird.OBL.M.PL sing.V-ANT
‘The blood goes dropping on the singing birds.’ (Ph. de Thaon *Bestiaire* 2361)

Vait ‘it goes’ (127) can be interpreted metaphorically. In this case, it takes the inanimate NP *li sans* ‘the blood’ as its subject and the spatial PP *sur les oisels chant* ‘on the singing birds’ as its second argument. *Degutant* ‘dropping’ acts in this case as the manner adjunct of *vait* ‘it goes’ and can as such be omitted without affecting the grammaticality of the sentence or altering its core meaning, as shown by (128).

(128) *Li* *sans* *vait* *sur les* *oisels* *chaant.*
ART.DEF.SBJ.M.SG blood.SBJ.M.SG go.PRS.3SG on ART.DEF.OBL.M.PL bird.OBL.M.PL sing.V-ANT
‘The blood runs on the singing birds.’ (adapted from Ph. de Thaon *Bestiaire* 2361)

However, the motion expressed by *vait* ‘it goes’ is backgrounded in favour of that denoted by the form *degutant* ‘dropping’. Hence, the former can nonetheless be taken as a grammaticalised auxiliary, serving to present the dropping of the blood as ongoing. *Degutant* ‘dropping’ (127) acts in this case as the main

verb of a progressive construction rather than as a manner adjunct. This analysis will be confirmed by the remaining two criteria.

Before exploring these criteria, it is important to recall that many combinations of a motion verb and a gerund, present participle, or *-ant* form built on a motion verb itself (e.g. *vait najant* 'he goes swimming') remain ambiguous (see §2.2.2.3.1). This is due to the fact that the non-finite verb form reactivates the lexical meaning of the motion verb by expressing a motion itself (Anglade 1958: 172; Buridant 2000: 357, 2019: 517; Becker 2005: 313-314; Vangaever & Carlier 2020: 251). As mentioned in §2.2.2.3.1, this reactivation gives rise to a division of labor: the motion verb functions as a directional verb marking a move away from or closer to a given landmark, while the gerund, present participle, or *-ant* form specifies the manner of the motion – to the image of satellite-framed constructions (*cf.* Talmy 1985, 2000; Schøsler 2008). As such, the non-finite verb form can in theory still be analysed as an adjunct. However, this form is nonetheless taken by most authors as the main verb of a progressive construction, mainly because the lexical meaning of the motion verb is mostly backgrounded in favour of a progressive value (Gougenheim 1929; Anglade 1958: 215-216; Ménard 1973: 172; Becker 2005: 313-314; Vangaever & Carlier 2020: 251). This position will also be taken in this thesis.

(iii) As mentioned in §3.5.3.2, progressive constructions composed of the auxiliary *esse* 'to be'/*être* 'to be' and a gerund, present participle, or *-ant* form can be replaced – without any semantic change other than an aspectual one – by a finite verb form inflected in the same tense, mood, and person as the auxiliary in the initial construction. This substitution criterion can also be applied to determine the use of gerunds, present participles, or *-ant* forms combined with a posture or motion verb (*cf.* Schøsler 2007: 96). If this operation affects the grammaticality of the sentence or alters its core meaning, the non-finite verb form is the head of an adjunct. If this is not the case, the form involved acts as the main verb of a progressive construction. On the basis of this criterion, the present participles *ingemescens* 'sighing' and *dicens* 'saying' (129) function as the main verbs of a progressive construction, since their replacement by the finite imperfect tense forms *ingemescebat* 'he sighed' and *dicebat* 'he said' and the omission of the motion verb *ibat* 'he goes' does not affect the grammaticality of the sentence nor induces a change in its core meaning, as shown by (130).

(129) *[...] reliquit uxorem suam et accipiens duos*
leave.PST.3SG wife.ACC.F.SG his.ACC.F.SG and take.PTCP.PRS.NOM.M.SG two.ACC.M.PL
infantes suos ibat ***ingemesce-ns*** *et*
child.ACC.M.PL his.ACC.M.PL go.PST.3SG sigh-PTCP.PRS.NOM.M.SG and
dice-ns *[...].*
say-PTCP.PRS.NOM.M.SG
'He left his wife and, after he took his two children, he went sighing and saying (...).' (*Pass. Eustach.* 1.10)

(130) *Reliquit* *uxorem* *suam* *et* *accipiens* *duos*
leave.PST.3SG wife.ACC.F.SG his.ACC.F.SG and take.PTCP.PRS.NOM.M.SG two.ACC.M.PL
infantes *suos* *ingemescebat* *et* *dicebat* *[...].*
child.ACC.M.PL his.ACC.M.PL sigh.PST.3SG and say.PST.3SG
'He left his wife and after he took his two children he sighed and said (...).' (adapted from *Pass. Eustach.* 1.10)

This criterion also confirms the analysis of *trahendo* 'dragging' (116) and *degutant* 'dropping' (127) as the main verbs of a progressive construction. This is evidenced by the grammaticality of respectively (131-132) and by the fact that the meaning of these examples is similar to that of the original examples.

(131) *Credas* *ut* *stellas* *trahere* *comas.*
believe.SBJV.2SG that star.ACC.F.PL drag.INF.PRS ray.ACC.F.PL
'You would believe that stars drag their rays.' (adapted from Ven. Fort. *carm*. 5.5.118)

(132) *Li* *sans* *degute /* *Sur* *les* *oisels* *chaant.*
ART.DEF.SBJ.M.SG blood.SBJ.M.SG drop.PRS.3SG on ART.DEF.OBL.M.PL bird.OBL.M.PL sing.V-ANT
'The blood drops on the singing birds.' (adapted from Ph. de Thaon *Bestiaire* 2361)

Most forms combined with a motion verb and built on a motion verb themselves validate this criterion, and act therefore as the main verb of a progressive construction. *Najant* 'swimming' (133) is a case in point. Indeed, its replacement by the infinitive *najer* 'to swim' used in coordination with *aller* 'to go' (134) has no implications for the grammaticality or core meaning of the sentence.

(133) *[...] car* *il* *a* *travaillié* *maint* *jor* *d'* *aller*
for he.SBJ.M.SG have.PRS.3SG toil.PTCP.PST many.OBL.M.PL day.OBL.M.PL of go.INF.PRS
naj-ant *par* *cele* *mer.*
swim-V.ANT on DEM.OBL.F.SG sea.OBL.F.SG
'For he toiled many days swimming on this sea.' (*Eneas* 3301)

(134) *[...] car* *il* *a* *travaillié* *maint* *jor* *de*
for he.SBJ.M.SG have.PRS.3SG toil.PTCP.PST many.OBL.M.PL day.OBL.M.PL of
najer *par* *cele* *mer.*
swim.INF.PRS on DEM.OBL.F.SG sea.OBL.F.SG
'For he toiled many days swimming on this sea.' (adapted from *Eneas* 3301)

Conversely, *criant* 'shouting' (135) does not validate this criterion. Hence, it functions as the head of an adjunct. Indeed, the deletion of the finite verb *s'an vet* 'he goes' (and of the spatial constituent *vers la presse* to the crowd' serving as its second argument) and the substitution of the *-ant* form by the finite present tense form *crie* 'he shouts' alters the core meaning of the sentence, as illustrated by (136).

(135) *Vers la presse [...] / S' an vet* ***cri-ant*** *[...].*
to ART.DEF.OBL.F.SG crowd.OBL.F.SG REFL.OBJ.M.SG INCH go.PRS.3SG shout-V.ANT
'He goes to the crowd while shouting (...).' (Chr. de Troyes *Yvain* 4329-4330)

(136) *Crie [...].*
shout.PRS.3SG
'He shouts (...).' (adapted from Chr. de Troyes *Yvain* 4329-4330)

The same observation can be made for the present participle *osculans* 'kissing' (137) and the gerund *peccando* 'sinning' (138), combined with the motion verb *vadere* 'go': the omission of the motion verb and its arguments, namely *ad oracionem* 'to a prayer' (137) and *in deterius* 'to something worse' (138), and the replacement of the non-finite verb forms by the finite present tense forms *osculat* 'he kissed' (139) and *pecces* 'you sin' (140) changes the basic meaning of the sentence.

(137) *Mox ad oracionem vadit cum suspirio et lacrimis altaris*
soon to prayer.ACC.F.SG go.PRS.3SG with sigh.ABL.N.SG and tear.ABL.F.PL altar.GEN.N.SG
cornu ***oscula-ns***.
vessel.ACC.N.SG kiss-PTCP.PRS.NOM.M.SG
'He soon starts a prayer, kissing the vessel of the alter with sighs and tears.' (*Vit. Hugb.* 12)

(138) *[...] vide ne umquam* ***pecca-nd-o*** *in deterius vadas.*
see.IMP.PRS.2SG that_not ever sin-GER-ABL to worse.ACC.N.SG go.SBJV.PRS.2SG
'See that you never go to something worse by sinning.' (Isid. *synon.* 1.38)

(139) *Mox cum suspirio et lacrimis altaris cornu osculat.*
soon with sigh.ABL.N.SG and tear.ABL.F.PL altar.GEN.N.SG vessel.ACC.N.SG kiss.PRS.3SG
'He kisses the vessel of the alter with sighs and tears.' (adapted from *Vit. Hugb.* 12)

(140) *Vide ne umquam pecces.*
see.IMP.PRS.2SG that_not ever sin.SBJV.PRS.2SG
'See that you never sinn.' (adapted from Isid. *synon.* 1.38)

(iv) The fourth and final criterion is the coordination of the posture or motion verb with the finite form of the gerund, present participle, or *-ant* form inflected in the same tense, mood, and person (Schøsler 2007: 96-97). If this coordination is possible without making the sentence ungrammatical or altering its essential meaning, the non-finite verb form acts as an adjunct and the accompanying verb as a full lexical posture or motion verb. If not, the non-finite verb form is the main verb of a progressive construction and its accompanying posture or motion verb its auxiliary. This criterion confirms the analysis of all forms discussed with respect to criterion (iii). On the one hand, the substitution of the present participles *ingemescens* 'sighing'/*dicens* 'saying' (129) and of the gerund *trahendo* 'dragging' (116) by respectively *ingemescebat* 'he sighed'/*dicebat* 'he said' (141) and *trahere* 'to drag' (142) used in coordination with *ibat* 'he went' (141) and *ire* 'to go' (142) does not

make the sentence ungrammatical (due to the ability of *ire* ‘to go’ to be used in an absolute way), but this procedure leads to the addition of a motion event that is lacking in the original examples.

(141) ??*Reliquit* *uxorem* *suam* *et* *accipiens* *duos*
leave.PST.3SG wife.ACC.F.SG his.ACC.F.SG and take.PTCP.PRS.NOM.M.SG two.ACC.M.PL
infantes *suos* *ibat* *et* *ingemescebat* *et* *dicebat* *[...].*
child.ACC.M.PL his.ACC.M.PL go.PST.3SG and sigh.PST.3SG and say.PST.3SG
‘He left his wife and, after he took his two children, he went and sighed and said (...).’ (adapted from *Pass. Eustach.* 1.10)

(142) ??*Credas* *ut* *stellas* *ire* *et* *trahere* *comas.*
believe.SBJV.2SG that star.ACC.F.PL go.INF.PRS and drag.INF.PRS ray.ACC.F.PL
‘You would believe that stars go and drag their rays.’ (adapted from Ven. Fort. *carm*. 5.5.118)

On the other hand, the replacement of *degutant* ‘dropping’ (127) and *najant* ‘swimming’ (133) by the forms *degute* ‘it drops’ (143) and *najer* ‘to swim’ (144) used in coordination with *vait* ‘it goes’ (143) and *aller* ‘to go’ (144) leads to ungrammatical sentences, because the spatial constituents *sur les oisels chaant* ‘on the singing birds’ (143) and *par cele mer* ‘on this sea’ (144) are unlikely to act as the second arguments of *vait* ‘it goes’ (143) and *aller* ‘to go’ (144) instead of as the adjuncts of the *-ant* forms converted into finite forms.

(143) * *Li* *sans* *vait* *et* *degute /* *Sur* *les*
ART.DEF.SBJ.M.SG blood.SBJ.M.SG go.PRS.3SG and drop.PRS.3SG on ART.DEF.OBL.M.PL
oisels *chaant.*
bird.OBL.M.PL sing.V-ANT
‘The blood goes and drops on the singing birds.’ (adapted from Ph. de Thaon *Bestiaire* 2361)

(144) * *[...]* *car* *il* *a* *travaillié* *maint* *jor* *d’*
for he.SBJ.M.SG have.PRS.3SG toil.PTCP.PST many.OBL.M.PL day.OBL.M.PL of
aller *et* *najer* *par* *cele* *mer.*
go.INF.PRS and swim.INF.PRS on DEM.OBL.F.SG sea.OBL.F.SG
‘For he toiled many days going and swimming on this sea.’ (adapted from *Eneas* 3301)

Conversely, the replacement of the *-ant* form *criant* ‘shouting’ (135), the present participle *osculans* ‘kissing’ (137), and the gerund *peccando* ‘sinning’ (138) by respectively *crie* ‘he shouts’, *osculat* ‘he kisses’, and *pecces* ‘you sin’ used in coordination with *s’an vet* ‘he goes, *vadit* ‘he goes’, and *vadas* ‘you go’ does not affect the grammaticality of the sentence nor causes a significant semantic change, as evident from respectively (145-147).

(145) *Vers* *la* *presse /* *S'* *an* *vet* *et* *crie* *[...].*
to ART.DEF.OBL.F.SG crowd.OBL.F.SG REFL.OBJ.M.SG INCH go.PRS.3SG and shout-PRS.3SG
‘He goes to the crowd and shouts (...).’ (adapted from Chr. de Troyes *Yvain* 4329-4330)

(146) *Mox ad oracionem vadit et cum suspirio et lacrimis*
soon to prayer.ACC.F.SG go.PRS.3SG and with sigh.ABL.N.SG and tear.ABL.F.PL
altaris cornu osculat.
altar.GEN.N.SG vessel.ACC.N.SG kiss-PRS.3SG
'He soon starts a prayer and kisses the vessel of the alter with sighs and tears.' (adapted from *Vit. Hugb.* 12)

(147) *Vide ne umquam pecces et in deterius vadas*
see.IMP.PRS.2SG that_not ever sin-SBJV.PRS.2SG and to worse.ACC.N.SG go.SBJV.PRS.2SG
'See that you never sinn and go to something worse.' (adapted from Isid. *synon.* 1.38)

Thus, the first series of forms function as the main verb of a progressive construction, while the latter are used as the head of an adjunct. As manifest from the preceding discussion, the four criteria used to distinguish between the two uses are complementary, and usually lead to the same analysis. Forms that remain nonetheless ambiguous have been analysed as the main verb of a progressive construction if the lexical meaning of the posture or motion verb can be conceived of as backgrounded compared to its grammatical (*i.e.* aspectual-progressive) meaning. This practice is in line both with the analysis of most authors (e.g. Gougenheim 1929; Anglade 1958: 215-216; Ménard 1973: 172; Becker 2005: 313-314; Vangaever & Carlier 2020: 251) and with the more general principle that in discourse contexts where a pragmatic inference overrides the coded meaning of a form, this inference typically offers "a more plausible interpretation of the utterance concerned" (Heine 2002: 86). In our case, the pragmatic inference corresponds to the progressive value of the posture or motion verbs Therefore, the auxiliary analysis of these verbs is typically more plausible than their analysis as full lexical verbs.

3.6. Research procedure and methodology

The aim of the final section of this chapter is twofold. First, I will set out the procedure that will be used to empirically examine the evolution of the gerund and the present participle in Late Latin (§3.6.1), on the one hand, and to explore on the basis of this investigation the impact of their morphological merging in Old French on their categorial distinction (§3.6.2), on the other. Next, I will detail the methodology that will be used to objectively assess these issues (§3.6.3).

3.6.1. Evolution of the gerund and the present participle in Late Latin

Before outlining the procedure that will be used to explore the evolution of the gerund and the present participle in Late Latin (§3.6.1.2), I will briefly recapitulate the main research questions regarding this evolution (§3.6.1.1).

3.6.1.1. Recapitulation of the research questions

It is commonly hypothesised that, in Late Latin, the gerund specialises in adverbial external syntax due to its gradual substitution by the infinitive in nominal external syntax, on the one hand, and to the gradual replacement of the present participle by the gerund in adverbial external syntax, on the other. In view of this hypothesis, the Late Latin corpus is expected to show an increasing frequency of adjunct gerunds (e.g. *bellando* 'by fighting' (148)) at the expense of gerunds used in adnominal phrases (e.g. *videndi* 'to see' (149)), verb complements (e.g. *revellandum* 'to revolt' (150)), and adjective complements (e.g. *ad oboediendum* 'to obey' (151)).

(148) *[...] castro Claremonte rex* ***bella-nd-o*** *ceperat [...].*
fort.ABL[ACC].N.SG Clermont.ABL[ACC].N.SG king.NOM.M.SG fight-BER-ABL take.PST.3SG
'The king had taken the fort of Clermont by fighting.' (Fredeg. *cont.* 46)

(149) *[...] copiam* ***vide-nd-i*** *recoepit.*
ability.ACC.F.SG see-GER-GEN get_back.PST.3SG
'She got back the ability to see.' (*Vit. Austr.* 1.11)

(150) *Cum=que [...] Radulfus [...] contra Sigybertum* ***revella-nd-um***
when=and Radulfus.NOM.M.SG against Sigebert.ACC.M.SG revolt-GER-ACC
disposuissit [...].
order.SBJV.PST.3SG
'When Radulfus had ordered to revolt against Sigebert (...).' (Fredeg. *chron.* 4.87)

(151) *Tunc ipsi pueri [...] prompti ad* ***oboedie-nd-um*** *[...] me*
then INTENS.NOM.M.PL kid.NOM.M.PL prompt.NOM.M.PL to obey-GER-ACC I.ACC.M.SG
usque ad praedictum locum duxerunt.
all_the_way to aforesaid.ACC.M.SG place.ACC.M.SG bring-PST.3PL
'Then the kids, prompt to obey, brought me all the way to the aforesaid place.' (*Visio Bar.* 13)

A key role in the gradual replacement of the present participle by the gerund in adverbial external syntax is argued to be played by the fact that the bare ablative gerund progressively loosens its association with its original manner/instrumental/causal value (e.g. *bellando* 'fighting' (148)), and increasingly expresses the default temporal semantic value of the present participle, which consists of denoting a state of affairs co-occurring with the main state of affairs (e.g. *stando* 'standing' (152)).

(152) *[...] ille, qui iactabat merita sua et*
DEM.NOM.M.SG REL.NOM.M.SG throw.PST.3SG merit.ACC.N.PL his.ACC.N.PL and
sta-nd-o *orabat.*
stand-GER-ABL pray.PST.3SG
'He who threw (around) his merits and prayed while standing.' (*Epist. Merov.* 16)

The substitution of the present participle by the gerund in adverbial external syntax is held to cause the present participle to specialise in adjectival external syntax. It is therefore expected that the Late Latin corpus shows a decline of present participles used in adjuncts (e.g. *adstans* ‘standing’ (153)) in favour of forms occurring in adnominal phrases (e.g. *circumstans* ‘standing around’ (154)), subject predicates (e.g. *ovans* ‘rejoicing’ (155)), and object predicates (e.g. *tumentem* ‘swollen’ (156)).

(153) *Dehinc* *super* *sepulchrum* *ipsum* ***adsta-ns*** *oravit*
then on grave.ACC.N.SG INTENS.ACC.N.SG stand_on-PTCP.PRS.NOM.M.SG pray.PST.3SG
ad *dominum* *[...].*
to Lord.ACC.M.SG
‘Then he prayed to the Lord while standing on the grave.’ (Sulp. Sev. *Mart.* 1.11.4)

(154) *Cum=que* *haec* *audisset* ***circumsta-ns*** *populus* *[...].*
when=and DEM.ACC.N.PL hear.SBJV.PST.3SG stand_around-PTCP.PRS.NOM.M.SG people.NOM.M.SG
‘When the people standing around had heard this (...).’ (*Pass. Vit.* 2.1.16.9)

(155) *[...]* *famulus* *dei* *permansit* ***ova-ns*** *atque*
servant.NOM.M.SG God.GEN.M.SG remain.PST.3SG rejoice-PTCP.PRS.NOM.M.SG and
intrepidus.
fearless.NOM.M.SG
‘The servant of God remained happy (lit. ‘rejoicing’) and fearless.’ (*Vit. Pard.* 15)

(156) *[...]* *totum=que* *illius* *vultum* ***tume-nt-em*** *ac*
all.ACC.M.SG=and DEM.GEN.M.SG face.ACC.M.SG be_swollen-PTCP.PRS-ACC.M.SG and
lividum *reddidit.*
bluish.ACC.M.SG make.PST.3SG
‘And he made his whole face swollen and bluish.’ (Greg. M. *dial.* 1.2.11)

Like adjunct present participles, present participles used in progressive constructions are considered to be gradually replaced by gerunds. Therefore, the Late Latin corpus is also expected to show a decreasing frequency of progressive present participle constructions (e.g. *erat reconcilians* ‘he was conciliating’ (157)) in favour of their gerund competitors (e.g. *stetit cunctando* ‘he stood in hesitation’ (158)).

(157) *Deus* *erat* *in* *Christo* *mundum* ***reconcilia-ns***
God.NOM.M.SG be.PST.3SG in Christ.ABL.M.SG world.ACC.M.SG conciliate-PTCP.PRS.NOM.M.SG
sibi?
REFL.DAT.M.SG
‘Was God conciliating the world for himself in the body of the Christ? (*Epist. Merov.* 1)

(158) *[...] cum prope silvam venisset [...] stetit dux*
when near forest.ACC.F.SG come.SBJV.PST.3SG stand.PST.3SG general.NOM.M.SG
diu ***cuncta-nd-o***.
for_some_timehesitate-GER-ABL
'When he had come to a forest, the general stood in hesitation for some time.' (Amm. 17.1.8)

As for the two remaining uses of the present participle, *i.e.* as the main verb of a presentative progressive construction (e.g. *decantantem* 'singing' and *agentem* 'doing' (159)) and as a syntactically finite verb (e.g. *salutans* 'saluting' (160)), they are not subject to competition with the gerund. Hence, no hypothesis can be formulated about their frequency on the basis of the competition between the gerund and the present participle.

(159) *[...] audierunt eum* ***decanta-nt-em*** *in camino laudes*
hear.PST.3PL DEM.ACC.M.SG sing-PTCP.PRS-ACC.M.SG in furnace.ABL.M.SG praise.ACC.F.PL
deo et gratias ***age-nt-em***.
God.DAT.M.SG and gratitude.ACC.F.PL do-PTCP.PRS-ACC.M.SG
'They heard him singing praise to the Lord and thanking him in the middle of the flames.' (*Pass. Vict.* 1.642.20)

(160) ***Saluta-ns*** *gloriam vestram et commendo familiarem*
salute-PTCP.PRS.NOM.M.SG glory.ACC.F.SG your.ACC.F.SG and entrust.PRS.1SG friend.ACC.M.SG
meum presbyterum Maccolum [...].
my.ACC.M.SG priest.ACC.M.SG Maccolus.ACC.M.SG
'I salute your glory and give trust in my friend, the priest Maccolus.' (*Epist. Austr.* 1)

3.6.1.2. Research procedure

In order to determine to which extent the gerund specialises in adverbial external syntax and the present participle in adjectival external syntax, I will investigate the frequency of the adverbial gerund and the adjectival present participle in the Classical and Late Latin corpora. Within the Late Latin corpus, a comparison will also be made between Imperial, Merovingian, and Early Medieval Latin. For each of these periods, the frequency of adverbial gerunds and adjectival present participles will be examined on the basis of two measurements: (i) their normalised absolute frequency, *i.e.* the number of instances per 10 000 words in the period in issue; and (ii) their proportion to the total number of gerunds or present participles per period. The second measurement is most important, because only this method can detect shifts in the conditions of use of the gerund and the present participle suggesting specialisation in either adverbial and adjectival external syntax.

Yet, detailed insight into the shifts in the conditions of use of the gerund and the present participle can only be gained by exploring the frequency pattern of all uses of the gerund and the present participle. The proportion of these uses will allow establishing the external syntactic profile of the gerund and the present participle, as well as their morphosyntactic and typological profiles. This bottom-up procedure has been outlined in Chapter 1 for the gerund and the present participle Classical Latin, and will be used in Chapters 4 and 5 for the study of the respectively the gerund and the present participle in Late Latin. The standard hypothesis about the evolution of the gerund and the present participle in Late Latin will be mainly evaluated on the basis of their morphosyntactic profile, since these profiles most clearly show to which extent the two forms specialise in either adverbial or adjectival external syntax.

The frequency pattern of the various uses of the gerund and the present participle from Classical to Late Latin and within the period of Late Latin itself will be statistically evaluated by means of chi-square goodness-of-fit tests, so as to distinguish random trends from those reflecting ongoing linguistic changes. Due to the difference in frequency of the Late Latin gerund and present participle in legal texts, on the one hand, and religious and historical texts, on the other, the frequency study of the syntactic uses of the gerund and the present participle in Late Latin will be refined by the study of their frequency in the three thematic domains, taking also into account the (attested) productivity of the various types of gerund and present participle phrases in these domains. A methodological summary adapted to the study of the evolution of the two forms in Late Latin will be offered at the beginning of Chapters 4 and 5.

3.6.2. Categorial status of the *-ant* form in Old French

As in the previous section, I will set out the procedure that will be used to examine the categorial status of the *-ant* form in Old French (§3.6.2.2) after recapitulating the main research questions about this issue (§3.6.2.1).

3.6.2.1. Recapitulation of the research questions

The results of the evolution of the gerund and the present participle in Late Latin will be used to tackle the categorial status of the *-ant* form in Old French. As mentioned earlier, morphological and phonetic evolutions affecting the endings of the gerund and the present participle in the transition from Late Latin to Old French lead to the same form for the two types of non-finite verbs. This form has the invariant ending *-ant* or shows at least a development toward the generalisation of this ending. Due to this morphological merging, the category of *-ant* forms can no longer be determined on the basis of morphological criteria. However, two exceptions can be made. On the one hand, only the Late Latin gerund can be governed by a preposition, and hence all prepositional Old French *-ant* forms can in

principle be taken as gerunds. On the other hand, only the Late Latin present participle agrees with a noun in case, gender, and number. Hence, all Old French *-ant* forms with an inflectional variant of the ending *-ant* can in theory be analysed as present participles. However, these morphological criteria only apply if, in the transition from Late Latin to Old French and within the period of Old French itself, the gerund and the present participle do not encroach on each other's morphology. Such encroachment is theoretically possible and can therefore not be excluded (*cf.* De Smet 2014: 40), although it cannot be empirically investigated.

Since the category of *-ant* forms cannot be identified on the basis of morphological criteria, except perhaps for the two groups of forms just mentioned, the only basis for resolving their categorial indeterminacy is their syntactic use, approached from a retrospective historical perspective (*cf.* Aspland 1968: 151, 152, 166). This is precisely why the empirical investigation of the evolution of the gerund and the present participle in Late Latin is a *conditio sine qua non* to study the categorial status of the *-ant* form in Old French. Two opposite scenarios can be distinguished and, depending on the one emerging from the evolution of the gerund and the present participle in Late Latin, two distinct methods to examine the categorial status of the Old French *-ant* form.

3.6.2.2. Research procedure

In the first scenario, the presumed shift toward functional and morphosyntactic differentiation of the gerund and the present participle in Late Latin is supported by empirical evidence: the gerund gradually replaces the present participle in adjuncts and progressive constructions, and forces the present participle to specialise in adnominal phrases, subject predicates, object predicates, and presentative progressive constructions. In this scenario, the categorial indeterminacy of the Old French *-ant* form can be resolved on functional grounds alone: the forms used in adjuncts and progressive constructions qualify as gerunds, whereas those occurring in adnominal phrases, subject predicates, object predicates, and presentative progressive constructions hold as present participles. Since all *-ant* forms can be taken as gerunds or present participles with absolute certainty, this scenario blocks the categorial indeterminacy of the Old French *-ant* form. Hence, the very existence of the categories of the gerund and present participle in Old French and their distinction is 'saved'. However, even if this scenario emerged from the empirical investigation of the evolution of the gerund and the present participle in Late Latin, two important issues remain. First, like the morphological criteria mentioned above, this functional criterion is only reliable if we assume that the gerund and the present participle do not encroach on each other's distribution, neither in the transition from Late Latin to Old French, nor during the Old French period. However, as pointed out in §2.2.1, some forms undoubtedly demonstrate such encroachment, and thus call into question the reliability of this criterion. Second, the existence of *-ant* forms with morphological properties of a gerund, but used in a way inaccessible to the Late Latin gerund, and of *-ant* forms having

morphological properties of a present participle, but used with a function inaccessible to the Late Latin present participle (see §2.1.1), reveals a conflict between the form and function of the forms involved. This conflict requires a discussion that may eventually jeopardise the categorial distinction between the gerund and the present participle after all, and, as a corollary, the very existence of these categories.

In the second scenario, the presumed shift toward functional and morphosyntactic differentiation of the gerund and the present participle in Late Latin is not corroborated by empirical evidence. In this scenario, the categorial indeterminacy of the Old French *-ant* form can be resolved on the basis of functional grounds for some, but not for all forms. Provided, as always, that the gerund and the present participle do not encroach on each other's distribution, all *-ant* forms used with a function inaccessible to the Late Latin gerund could be considered present participles (Old French *-ant* forms do not perform any function inaccessible to the Late Latin present participle, and hence the opposite does not apply). This holds for all instances occurring in adnominal phrases, subject and object predicates, and presentative progressive constructions. In contrast, the occurrences used in adjuncts and progressive constructions would be categorially indeterminate, because in Late Latin, these functions are accessible to both the gerund and the present participle. Some of these indeterminate forms could nonetheless be categorised on the basis of the morphological criteria set out above, unless the gerund encroaches on the morphology of the present participle, or *vice versa*. In any case, the majority of the forms would remain indeterminate. These forms would not only challenge the categorial distinction between the gerund and the present participle in Old French, but also, and more fundamentally, the very existence of the two categories. Thus, the theoretical problems raised by this second scenario are more significant than in the case of the first scenario. However, in order to properly evaluate these issues, it is necessary to quantify the exact degree of categorial indeterminacy of the Old French *-ant* form. If this degree turned out to be low, *i.e.* affecting a small number of *-ant* forms, its theoretical implications would be modest and the existence of the categories of the gerund and the present participle could perhaps be 'saved'. If, on the contrary, this degree turned out to be high, *i.e.* affecting a large number of forms, its theoretical implications would be significant and threaten the very existence of the two categories in Old French.

Depending on the scenario emerging from the empirical examination of the gerund and the present participle in Late Latin (Chapters 4 and 5), the exact method used to tackle the categorial status of the Old French *-ant* form will be defined at the beginning of Chapter 6. For now, it suffices to note that the categorial indeterminacy of the Old French *-ant* verb will be investigated on the basis of the frequency study of the different uses of the *-ant* form, and that the frequency of these uses will be statistically evaluated by means of chi-square goodness-of-fit tests, as in the case of the gerund and the present participle in Late Latin. A comparison will also be made between Early Old French and the 12th-13th c., so as to determine whether the *-ant* form undergoes functional evolutions within the period of Old French and therefore possibly also a shift in its degree of categorial indeterminacy. As noted in §3.3.3, the *Chanson de Roland* cannot be unambiguously assigned to Early Old French or the 12th-13th c. This

text will be systematically compared with these two periods, in order to contribute to the debate on its periodisation by assigning it to either Early Old French or the 12th-13th c. on the basis of linguistic features. As in the case of the gerund and the present participle in Late Latin, the frequency study of the different uses of the *-ant* form in Old French will be refined by the study of their frequency and productivity in the distinct thematic domains.

3.6.3. Quantitative methods: statistical significance and productivity measures

As mentioned above, the frequency of the gerund and the present participle from Classical to Late Latin and of the *-ant* form in Old French will be statistically evaluated by means of chi-square goodness-of-fit tests. Their frequency study will furthermore be paired with a study of their productivity in the various thematic domains. The aim of this section is to present in more detail the statistical method of chi-square goodness-of-fit testing (§3.6.3.1), on the one hand, and the concept of linguistic productivity (§3.6.3.2), on the other. This methodological presentation will be somewhat technical, but in Chapters 4 to 6, all statistical results and productivity measurements will be translated into non-technical, linguistic terms.

3.6.3.1. Chi-square goodness-of-fit testing

Chi-square goodness-of-fit tests are statistical tests that allow comparing the observed, *i.e.* attested, and expected frequencies of some phenomenon in two or more datasets. They determine to which extent its observed frequency in the datasets in issue is higher or lower than would be expected if all instances were, proportionally speaking, equally distributed among the datasets (Gries 2013: 165).[48] In this study, chi-square goodness-of-fit tests will be run in order to compare the observed and expected frequencies of the various uses of the gerund and the present participle from Classical to Late Latin and of the *-ant* form in Old French. These comparisons will indicate whether the increasing or decreasing frequencies of these uses are random or symptoms of language change. Only the latter type of frequency shifts are linguistically relevant. In what follows, I will first provide the technical details of chi-square goodness-of-fit tests, and then give a simple illustration to demonstrate their interest for this study.

The statistical values provided by chi-square goodness-of-fit tests betoken how much difference there is between the observed and expected frequencies of some phenomenon in two or more datasets (the so-called 'chi-square or $\chi 2$ value'). They also indicate whether these differences are statistically significant (the so-called 'probability or p-value'), that is, "large enough for us to assume that, given the size of the sample(s), it is probably not a random difference" (Gries 2013: 28). P-values equal to or

[48] In this thesis, all chi-square goodness-of-fit tests have been performed manually using VassarStats. This is an online, freely accessible application for statistical computation (http://vassarstats.net).

higher than 0.05 indicate that the differences are statistically not significant, while p-values smaller than 0.05 indicate that they are highly significant ($p < 0.001$), very significant ($0.001 \leq p < 0.01$), or simply significant ($0.01 \leq p < 0.05$) (Gries 2013: 29). Standardised residuals show for each dataset involved the normalised difference between the observed and expected frequencies, whereby positive values indicate that the observed frequency is higher than the expected one, while negative values show that the opposite trend (Levshina 2015: 120, 221). Standardised residuals smaller than -1.96 or higher than +1.96 suggest that the observed frequency in some dataset is significantly lower or higher than expected at a statistical significance level equal to or lower than $p = 0.05$ (Levshina 2015: 221). At a statistical significance level lower than $p = 0.01$, the thresholds are respectively -2.58 and +2.58 (Levshina 2015: 221). When the observed and expected frequencies are compared between two datasets, standardised residuals are less relevant, since it is always clear which observed frequency contributes most to the obtained chi-square values (Levshina 2015: 221). By contrast, standardised residuals play a crucial role when the observed and expected frequencies are compared between three or more datasets, because they unambiguously indicate how much each observed frequency contributes to the obtained chi-square values (Levshina 2015: 120, 221). Chi-square goodness-of-fit tests can be carried out for datasets with low frequencies, but they are not recommendable when the expected frequency of some phenomenon is smaller than 5 in at least one dataset (Levshina 2015: 29).

So as to illustrate this technical description, I will compare the observed and expected frequencies of the gerund in the Classical and Late Latin corpora of this study based on a chi-square goodness-of-fit test. This comparison will be based on normalised frequencies, calculated as the number of gerunds per 10 000 words. As mentioned in §3.4.4, the observed frequency of the gerund in the Classical and Late Latin corpora is respectively 1 270 and 1 308, yielding a total number of 2 578. If this number of gerunds was equally distributed among the Classical and Late Latin corpora, which contain respectively 625 034 and 425 903 words, the Classical Latin corpus would contain 1 533 gerunds instead of 1 270, while the Late Latin corpus would comprise 1 045 forms instead of 1 308.[49] That is, the observed frequency of the gerund in the Classical Latin corpus is lower than its expected frequency, while the observed frequency of the gerund in the Late Latin corpus is higher than its expected frequency. These differences show an increasing trend in the frequency of the gerund from Classical to Late Latin, but they do not indicate whether this trend reflects a linguistic change or a random difference. A chi-square goodness-of-fit test allows answering this question by statistically evaluating the observed and expected frequencies of the gerund in the two corpora. According to such a test, the rising frequency of the gerund between Classical and Late Latin is statistically highly significant. Indeed, the gerund is underrepresented in the Classical Latin corpus and overrepresented in the Late Latin corpus in a statistically highly significant way ($\chi 2 = 111.09$; $df = 1$; $p < 0.0001$) (Table 3.14).

[49] The numbers of 1533 and 1 045 gerunds in respectively the Classical and Late Latin corpora are the outcome of the equations [(1270+625094)*(1270+1308)]/(2578+1050937) and [(1308+425903)*(1270+1308)]/(2578+1050937), respectively (see, e.g., Levshina 2015: 210-211 for the formula to calculate the expected frequency of some phenomenon).

Table 3.14. Observed *vs* expected frequency of the gerund in the Classical and Late Latin corpora

Period	Observed frequency	Expected frequency	Standardised residuals
Classical Latin	1 270	1 533	-6.72
Late Latin	1 308	1 044	+8.14

Hence, the frequency rise of the gerund from Classical to Late Latin is "large enough for us to assume that, given the size of the sample(s), it is probably not a random difference" (Gries 2013: 28). Thus, the increasing frequency of the gerund might reflect an ongoing linguistic change, which the linguist is then invited to further examine and, if possible, explain (this will be done in Chapter 4). Chi-square goodness-of-fit tests allow as such separating evolutions that are most likely random, and should therefore not be further investigated, from evolutions that are probably not random, and merit therefore a more detailed examination. As to the standardised residuals in Table 3.14, they exceed the required threshold of ±2.58 at $p < 0.01$ in both periods. Hence, they show that the underrepresentation of the gerund in the Classical Latin corpus and its overrepresentation in the Late Latin corpus both contribute to the chi-square values. This reinforces the conclusion that the frequency of the gerund significantly increases between Classical and Late Latin (see Chapter 4).

3.6.3.2. Productivity

In linguistics, the notion of productivity covers at least three distinct concepts (Barðdal 2008: 20-22). The first one defines productivity as "generality", and is described in terms of "having a wide coverage", "default", "schematically open or non-restricted", or "schematic (as opposed to listable)" (Barðdal 2008: 22). The second concept conceives of productivity in terms of "regularity". It is related to descriptions like "regular", "rule-based", "easily combinable", or "transparent or compositional" (Barðdal 2008: 22). The third and final concept is of productivity as "extensibility", describable in terms of "developing new functions", "occurring with new/novel/nonce items", "attracting already existing items", or "deviating from adult language" (Barðdal 2008: 20). In this study, productivity will be thought of in terms of the first concept, namely that of generality or attested schematicity: it will be examined to which extent the different syntactic configurations comprising a gerund or present participle or an *-ant* form are schematic in the Late Latin and Old French corpora.

In the past, the concept of productivity has primarily been studied in the field of morphology, in particular to explore the formation of new words (see, e.g., Aronoff 1976, 1983; Lieber 1981; Baayen & Lieber 1991; Baayen 1992, 1993; Bybee 1995; Bybee & Thompson 1997; Bauer 2001; Booij 2010). In the two last decades, this concept has proven to be relevant also in the domain of syntax (e.g. Barðdal 2008 for Icelandic; Zeldes 2012 and Hilpert 2013 for English; Zeldes 2012 for German; Gyselinck 2018 for Dutch; Ilioaia 2020 for Romanian; Vangaever & Carlier 2020 for Old and Modern French). The

study of the productivity of the different uses of the gerund and the present participle in Late Latin and of the *-ant* form in Old French belongs to this second line of research, namely the study of syntactic productivity. In this thesis, the productivity of these syntactic uses will be measured in function of the lexical variation between the non-finite verb forms and the items used for another constitutive element of the syntactic configurations, such as the head noun in the case of an adnominal gerund. For practical reasons, however, I will simply speak of, e.g., 'the productivity of the adnominal gerund' instead of 'the productivity of the syntactic configurations combining a noun and an adnominal gerund'. As a general rule, the more attested lexical variation there is, the more productive is the gerund or present participle (Barðdal 2008: 9).

In order to measure the productivity of a syntactic construction in function of the lexical variation between its constitutive parts, different factors, borrowed from the study of morphological productivity, can be used: (i) its token frequency, which corresponds to its total number of instances in a given corpus, and thus to the total number of lexical combinations (Aronoff 1983; Bybee 1985); (ii) its type frequency, which corresponds to the total number of distinct types in a given corpus, that is to say, the total number of distinct lexical combinations (Bybee 1985; Goldberg 1995, 2006; Bybee & Thompson 1997); (iii) the number of hapaxes, which corresponds to the total number of types (*i.e.* distinct lexical combinations) occurring once in a given corpus (Baayen & Lieber 1991); and (iv) the semantic coherence between the lexemes used in the slots examined (Aronoff 1976; Baayen 1992; Bybee 1995; Goldberg 1995, 2006; Bybee & Hopper 1997; Barðdal 2008).

Based on these parameters, different formulae can be put forward to measure the productivity of a syntactic structure. In this study, the productivity of the gerund and the present participle in Late Latin and of the *-ant* form in Old French will be measured on the basis of two formulae that have originally been proposed in order to measure morphological productivity. The first formula consists of dividing the number of hapaxes by the token frequency of some structure: the higher is the number of hapaxes in proportion to the total number of tokens, the more productive is the structure (Baayen & Lieber 1991; Baayen 2005: 244). The second formula consists of dividing the type frequency of some structure by its token frequency: the higher is the type frequency in relation to the token frequency, the more productive is the structure (Lieber 1981: 114-115).[50] These two formulae, called respectively the 'hapax-token ratio' and the 'type-token ratio', do not give an absolute indication of the productivity of a syntactic structure, but only a relative one. In this study, the productivity of the Late Latin gerund and present participle and of the Old French *-ant* form will be compared from a synchronic point of view in the distinct thematic domains represented in the Late Latin and Old French corpora.[51]

[50] For an overview and critical discussion of different productivity measurements in the field of morphology, see, e.g., Rainer (1987), Plag (1999), or Bauer (2001). See also Barðdal (2008: 25).
[51] Barðdal (2008: 35) holds that the productivity of a syntactic structure results from its type frequency, its semantic coherence, and the inverse relation between them: "[...] the higher the type frequency of a construction, the lower the degree of semantic

coherence is needed for a construction to be productive. Conversely, the lower the type frequency of a construction, the higher degree of semantic coherence is needed for a construction to be extendable" (Barðdal 2008 : 34). Although this is undoubtedly the best way to measure the productivity of a syntactic structure, the semantic coherence of the lexemes used in the slots of the different types of gerund and present participle constituents in Late Latin and of the *-ant* form constituents in Old French will not be taken into account in this study. At least two reasons can be mentioned. First, the concept of productivity is not at the center of this study, so that a more basic approach largely suffices. And second, due to the large size of the dataset of this study, it would be methodologically hard to measure the semantic coherence for all gerund, present participle, and *-ant* form phrases in a consistent way.

Chapter 4. The gerund in Late Latin

4.1. Introduction

4.1.1. Aim of the chapter

It is claimed that in Late Latin, the evolution of the gerund is mainly driven by its functional competition with the infinitive (Aalto 1949: 73; Hofmann & Szantyr 1965: 369; Harris 1978: 199; Bauer 1993) and with the present participle (Aalto 1949: 73; Elcock 1960: 111; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 384; Bauer 1993, 2005; Pinkster 2015: 549 fn. 237, 2021: §21.14). Its competition with the infinitive involves its nominal external syntax and its use in purpose adjuncts, and is held to gradually settle in favour of the infinitive. Put differently, gerunds occurring in adnominal phrases (e.g. *peccandi* 'of sinning' (1)), verb complements (e.g. *ad sacrificandum* 'to offer' (2)), adjective complements (e.g. *ad construendum* 'to build' (3)), and purpose adjuncts (e.g. *ad auxiliandum* 'to help' (4)) are argued to be gradually replaced by infinitives.

(1) *[...] contra consuetudinem* ***pecca-nd-i*** *[...] repugna.*
against custom.ACC.F.SG sin-GER-GEN fight.IMP.PRS.2SG
'Fight against the custom of sinning.' (Isid. *synon.* 1.46)

(2) *[...] eos [...] hortabatur ut ad* ***sacrifica-nd-um*** *idolis consentirent.*
DEM.ACC.M.PL urge.PST.3SG that to sacrifice-GER-ACC idol.DAT.N.PL agree.SBJV.PST.3PL
'He urged them to agree making offers to the idols.' (*Pass. Symph.* 1.552.16)

(3) *[...] invenisti [...] aptum locum ad* ***construe-nd-um*** *oraculum [...].*
find.PST.2SG suitable.ACC.M.SG place.ACC.M.SG to build-GER-ACC oracle.ACC.N.SG
'You found a place suitable to build an oracle.' (*Vit. Gal. Wett.* 1.10)

(4) *[...] reges [...] ad* ***auxilia-nd-um*** *uno animo convenerunt.*
king.NOM.M.PL to help-GER-ACC one.ABL.M.SG spirit.ABL.M.SG gather.PST.3PL
'The kings gathered with one spirit in order to help.' (Fredeg. *cont.* 31)

The gradual substitution of the gerund by the infinitive in nominal syntactic configurations and purpose adjuncts is expected to reduce both the absolute frequency of these types of gerunds and their proportion to the total number of gerunds. As a corollary, the proportion of gerunds used in non-purpose adjuncts (e.g. *lamentando* 'lamenting' (5)) and as the main verb of a progressive construction (e.g. *cunctando* 'hesitating' (6)) is expected to increase, even if their absolute frequency does not rise.

(5) *[...]* ***lamenta-nd-o*** *ad fletum me commovisti [...].*
lament-GER-ABL to tears.ACC.M.SG I.ACC.M.SG move.PST.2SG
'You moved me to tears by lamenting.' (Isid. *synon.* 1.75)

(6) *[...] cum prope silvam venisset [...] stetit dux*
when near forest.ACC.F.SG come.SBJV.PST.3SG stand.PST.3SG general.NOM.M.SG
diu ***cuncta-nd-o***.
for_some_time hesitate-GER-ABL
'When he had come to a forest, the general stood in hesitation for some time.' (Amm. 17.1.8)

In other words, the gradual replacement of nominal and adverbial purpose gerunds by infinitives leads – indirectly – to the specialisation of the gerund in adverbial and verbal external syntax.

As to the competition of the gerund with the present participle, it concerns their adverbial external syntax and their use in progressive constructions. Their competition in non-purpose adjuncts is claimed to settle in favour of the gerund, in particular the bare ablative gerund (Marouzeau 1910: 79; Kühner & Stegmann 1914[5]: 753; Lyer 1932; Aalto 1949: 65-66; Elcock 1960: 111; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 373, 377, 379-380, 384; Harris 1978: 200; Kooreman 1989; Bauer 1993, 2005; Maraldi 1994; Adams 2003: 748, 2013: 725-740; Pinkster 2021: §21.14). This type of gerund is held to gradually loosen its ties with its original manner/instrumental/causal value, so as to develop into a semantically more neuter and especially versatile strategy for adverbial subordination. The adverbial present participle is argued to be replaced by the bare ablative gerund even in its prototypical temporal value, which consists of denoting a state of affairs co-occurring with the main state of affairs. Thus, the language is considered to evolve from present participles such as *psallentes* 'singing psalms' (7) to bare ablative gerunds like *psallendo* 'singing psalms' (8).

(7) *[...] dum circuirent* ***psalle-nt-es***, *dedicavit ecclesiam.*
as go_around.SBJV.PST.3PL sing_psalms-PTCP.PRS-NOM.M.PL dedicate.PST.3SG church.ACC.F.SG
'As they went around (the temple) singing psalms, he dedicated the church.' (*Vit. Gall. Wal.* 1.6)

(8) *[...] cum [...] muros civitatis* ***psalle-nd-o*** *circuirent [...].*
when wall.ACC.M.PL city.GEN.F.SG sing_psalms-GER-ABL go_around.SBJV.PST.3PL
'When they went around the walls of the city singing psalms (...).' (*Hist. Franc.* 26)

The gradual replacement of the present participle by the (bare ablative) gerund in non-purpose adjuncts is expected to increase the absolute frequency of adverbial gerunds and, incidentally, their proportion to the total number of gerunds. Thus, this substitution is held to make the gerund – directly – specialise in adverbial external syntax.

The competition between the gerund and the present participle in progressive constructions is also held to settle in favour of the gerund (Lyer 1934: 169; Aalto 1949: 75; Dietrich 1973: 305, 307; Hofmann & Szantyr 1965: 380). Present participle constructions like *stant respondentes* 'they are answering' (9) are thus expected to be gradually subsituted by gerund constructions like *stetit cunctando* 'he stood in hesitation' (6).

(9) *Et* *diacono* *dicente* *singulorum* *nomina* *semper*
and deacon.ABL.M.SG say.PTCP.PRS.ABL.M.SG each.GEN.M.PL name.ACC.N.PL always
pisinni *plurimi* *stant* ***responde-nt-es*** *semper* *[...]*.
child.NOM.M.PL many.NOM.M.PL stand.PRS.3PL anwer-PTCP.PRS-NOM.M.SG always
'And always as the deacon says the names of each (of them), many children are always answering (...).'
(*Peregr. Aeth.* 24.6)

Yet, the replacement of the present participle by the gerund in progressive constructions is a tendency rather than a rule. Indeed, the present participle variant of this construction is occasionally attested in different Old Romance languages, such as Italian (Škerlj 1926; Filzi 1914: 35-36, 39-40; Squartini 1998: 28), Occitan (Squartini 1998: 28), and Romanian (Squartini 1998: 29). In these languages, the auxiliary of the present participle construction is usually an existential or posture verb, which might explain why most scholars analyse as present participles all Old French *-ant* forms used in a progressive construction with *être* 'to be', but as gerunds all forms combined with a motion verb (e.g. Gougenheim 1929; Anglade 1958: 215; Väänänen 1963[3]: 140-141; Ménard 1973: 171-172; Harris 1978: 201; Werner 1980: 370-380; Arnavielle 1984: 39; Squartini 1998: 27).

The aim of this chapter is to investigate to which extent the presumed specialisation of the gerund in adverbial and verbal external syntax in Late Latin is supported by empirical evidence.

4.1.2. Methodology

If the gerund specialises in adverbial external syntax in Late Latin, it is expected that the proportion of adverbial gerunds to the total number of gerunds rises both between Classical and Late Latin and within the period of Late Latin, at the cost of nominal gerunds. Moreover, the (normalised) absolute frequency of adverbial gerunds is expected to increase due to the substitution of the present participle by the (bare ablative) gerund in non-purpose adjuncts. Since the verbal gerund appears only in Late Latin (*cf.* Aalto 1949: 75-76; Väänänen 1963[3]: 141; Hofmann & Szantyr 1965: 380; Bertinetto 2000: 562; Haverling 2010: 497), its frequency in this period is expected to rise in (normalised) absolute numbers, but not in proportion to the total number of gerunds. This is due to the fact that progressive gerund constructions and their present participle competitors are rare throughout the period of Late Latin (Eklund 1970: 11-74; Pinkster 1998: 230), becoming more frequent only in the individual Romance languages (Bertinetto 2000: 563; Bertinetto *et al*. 2000: 538).

In order to empirically verify these hypotheses, the (normalised) absolute frequency of the various uses of the gerund in the Late Latin corpus will be calculated and compared with their frequency in the Classical Latin corpus. Additionally, and more importantly, I will compare the frequency of the various uses of the gerund in proportion to the total number of gerunds in the Classical and Late Latin corpora.

Within the Late Latin corpus, a comparison will be also made between the sub-periods of Imperial (4th-5th c.), Merovingian (6th-7th c.), and Early Medieval (8th-10th c.). All proportions will be statistically evaluated by means of chi-square goodness-of-fit tests, so as to distinguish random trends from those reflecting ongoing linguistic changes (Gries 2013: 28; Levshina 2015: 221). The frequency study of the various uses of the gerund in Late Latin will be refined by the study of their frequency and (attested) productivity in the three thematic domains represented in the Late Latin corpus, namely the historical, religious, and legal domains.

The results of this chapter are based on the 1 270 gerunds used in the Classical Latin corpus (see §1.1.2.2.6 and §3.4.1.4) and the 1 308 instances occurring in the Late Latin corpus (see §3.4.1.4). The Late Latin forms that cannot be unambiguously assigned to Imperial, Merovingian, or Early Medieval Latin will be discarded from the quantitative analyses pertaining to their evolution during the Late Latin period, but retained in all other quantitative analyses. This holds for 178 forms. Hence, the evolution of the external syntax of the gerund in Late Latin will be based on 1 130 datapoints (see §3.4.1.4). These 1 130 occurrences represent 86% of all Late Latin gerunds, so that the results emerging from them may be considered representative of the Late Latin corpus in general.

4.1.3. Structure of the chapter

The examination of the gerund will be structured according to the type of its syntactic use. First, I will investigate the gerunds having nominal external syntax (§4.2), then those with adverbial external syntax (§4.3), and finally those displaying verbal external syntax (§4.4). The results obtained in these sections will be collated in §4.5, in order to establish the external syntactic profile of the gerund. On the basis of this profile, I will then establish the morphosyntactic (§4.6) and typological (§4.7) profile of the gerund. A conclusion will be drawn in §4.8.

4.2. The nominal gerund

The specialisation of the Late Latin gerund in adverbial and verbal external syntax is claimed to be partly (and also indirectly) due to the gradual replacement of the gerund by the infinitive in nominal syntactic configurations. It is therefore expected that the (normalised) frequency of adnominal, verb complement, adjective complement, and adverb complement gerunds decreases both between Classical and Late Latin and within the period of Late Latin. The same decline is expected for the proportion of these gerunds to the total number of gerunds.

The Classical and Late Latin corpora do not contain any adverb complement gerund. The absence of such instances supports Pinkster's (2021: §17.35) claim that subordinate clauses almost never depend

on an adverb, due to the risk of "an overload of information" at a relatively low level in the hierarchical structure of the sentence. Attention will thus be restricted to gerunds used in adnominal phrases (§4.2.1), verb complements (§4.2.2), and adjective complements (§4.2.3). The results obtained in §4.2.1 to §4.2.3 will be combined and evaluated in §4.2.4.

4.2.1. Adnominal gerunds

A first type of gerunds occurring in nominal syntactic configurations are adnominal gerunds. Examples of such forms are *nocendi* 'of harming' (10) and *videndi* 'to see' (11).

(10) *[...] mille* ***noce-nd-i*** *artibus* *sanctum* *virum* *conabatur*
thousand harm-GER-GEN method.ABL.F.PL holy.ACC.M.SG man.ACC.M.SG try.PST.3SG
inludere *[...].*
mistreat.INF.PRS
'He tried mistreating the holy man with thousand methods of harming.' (Sulp. Sev. *Mart.* 1.22.1)

(11) *[...] copiam* ***vide-nd-i*** *recoepit.*
ability.ACC.F.SG see.GER-GEN get_back.PST.3SG
'She got back the ability to see.' (*Vit. Austr.* 1.11)

This section aims to examine the frequency of adnominal gerunds from Classical to Late Latin (§4.2.1.1) and during the Late Latin period (§4.2.1.2). Their frequency in Late Latin will be further investigated in the light of their frequency and productivity in the historical, religious, and legal texts (§4.2.1.3). A final aspect of these forms that will be studied is their morphological marking (§4.2.1.4).

4.2.1.1. Frequency from Classical to Late Latin

Table 4.1 shows that the normalised absolute frequency of the adnominal gerund declines from Classical to Late Latin (*i.e.* from about 12 to 9 instances per 10 000 words), whereas the gerund as a whole gains in frequency (*i.e.* from approximately 20 to 31 instances per 10 000 words). More importantly, however, adnominal gerunds represent more than half of all gerunds in Classical Latin (60%), while in Late Latin, they account for only about a quarter (28%). These decreasing absolute and relative frequencies are in line with what is expected in view of the gradual replacement of the gerund by the infinitive in adnominal phrases. In §4.3.1, I will examine whether the declining proportion of adnominal gerunds is also due – though indirectly – to an increasing absolute frequency of adverbial gerunds (at the expense of adverbial present participles).

Table 4.1. Frequency of adnominal gerunds in Classical and Late Latin[1]

Period	#adnominal gerunds (per 10 000 words)	#gerunds (per 10 000 words)	#adnominal gerunds/ #gerunds
Classical Latin	756 (12.10)	1 270 (20.32)	59,53%
Late Latin	366 (8.59)	1 308 (30.71)	27,98%

According to a chi-square goodness-of-fit test, the decreasing proportion of the adnominal gerund is not random. Hence, it might reflect an ongoing linguistic change. Indeed, this portion is higher than expected in Classical Latin and lower than expected in Late Latin in a statistically highly significant way ($\chi 2$ = 146.61; df = 1; $p < 0.0001$) (Table 4.2).

Table 4.2. Observed *vs* expected proportion of adnominal gerunds to the total number of gerunds in Classical and Late Latin

Period	Observed frequency (%)	Expected frequency (%)	Standardised residuals
Classical Latin	756 (59,53%)	553 (43,54%)	+8.65
Late Latin	366 (27,98%)	569 (43,50%)	-8.52

The declining proportion of adnominal gerunds might be due to their gradual replacement by infinitives. However, in the absence of corpus studies of the external syntax of the infinitive from Classical to Late Latin, this hypothesis remains speculative. After all, the fraction of adnominal gerunds is also expected to drop – indirectly – due to the rising absolute frequency of adverbial gerunds at the expense of present participles.

Yet, the Late Latin corpus provides unambiguous evidence that the decreasing trend in Table 4.1 is at least partly due to the gradual replacement of adnominal gerunds by infinitives. Compare (12) and (13): in (12), the noun *potestatem* ‘power’ governs the coordinated genitive gerunds *habendi* ‘to have’, *tenendi* ‘to hold’, and *faciendi* ‘to do’ as its adnominal arguments, while in (13) and in other passages of the same text, the genitive gerund *faciendi* ‘to do’ is replaced by the more innovative bare infinitive *facire* ‘to do’.

[1] The columns ‘#adnominal gerunds’ and ‘#gerunds’ show first the raw absolute number of instances in the period concerned (e.g. 756 in Classical Latin) and then, between brackets, their normalised absolute frequency, calculated as the number of forms per 10 000 words in the period involved (e.g. 12.10 in Classical Latin). The same presentation is adopted in all following tables in this and the following chapters.

(12) *[...] ita ut ab hac die unusquis ex ipsis*
so that from DEM.ABL.F.SG day.ABL.F.SG each.NOM.M.SG from INTENS.ABL.M.PL
quod accepit ***habe-nd-i***, ***tene-nd-i*** *vel quicquid*
REL.ACC.N.SG receive.PST.3SG have-GER-GEN hold-GER-GEN or INDF.ACC.N.SG
exinde elegerint ***facie-nd-i*** *liberam habeant potestatem.*
thereafter choose.FUT.3PL do-GER-GEN free.ACC.F.SG have.SBJV.PRS.3PL power.ACC.F.SG
'So that from this day (onward) each of them may have the free power to have and to hold what he received, and to do thereafter (with it) whatever they will choose.' (*Form. Marc.* 2.24)

(13) *[...] ita ut ab hac die unusquis ex ipsis*
so that from DEM.ABL.F.SG day.ABL.F.SG each.NOM.M.SG from INTENS.ABL.M.PL
memorata loca, quod acciperunt ***habe-nd-i***,
mention.PTCP.PST.ACC.N.PL place.ACC.N.PL REL.ACC.N.SG receive.PST.3PL have-GER-GEN
tene-nd-i *vel quicquid exinde pro eorum oportunitate et*
hold-GER-GEN or INDF.ACC.N.SG thereafter for DEM.GEN.M.PL benefit.ABL.F.SG and
conpendio facire elegerint liberum perfruantur arbitrium.
profit.ABL.N.SG do.INF.PRS choose.FUT.3PL free.ACC.N.SG enjoy.SBJV.PRS.3PL power.ACC.F.SG
'So that from this day (onward) each of them may have the free power to have and to hold the mentioned places, which they have received, and to thereafter do (with them) whatever they will choose for their benefit and profit.' (*Form. Marc.* 2.23)

4.2.1.2. Frequency within the period of Late Latin

During the Late Latin period, the (normalised) absolute frequency of the adnominal gerund slightly rises, contrary to what is expected in the light of its competition with the infinitive (Table 4.3). However, the gerund as a whole also gains in frequency, and more steeply than the adnominal gerund. Therefore, this result is most likely hazardous. As to the proportion of adnominal gerunds to the total number of gerunds, it declines from Imperial to Early Medieval Latin, but, against predictions, not in a rectilinear way.

Table 4.3. Frequency of adnominal gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	**#adnominal gerunds (per 10 000 words)**		**#gerunds (per 10 000 words)**		**#adnominal gerunds/ #gerunds**
Imperial Latin	18	(6.00)	52	(17.33)	34,62%
Merovingian Latin	129	(6.88)	525	(28.01)	24,57%
Early Medieval Latin	162	(9.47)	553	(32.34)	29,29%

A chi-square goodness-of-fit test shows that the proportion of adnominal gerunds is higher than expected in Imperial and Early Medieval Latin and lower than expected in Merovingian Latin. Nevertheless, the

differences between the three periods are statistically insignificant ($\chi 2 = 3.25$; df = 2; $p = 0.1969$) (Table 4.4).

Table 4.4. Observed *vs* expected proportion of adnominal gerunds to the total number of gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	18	(34,62%)	14	(26,92%)	+1.00
Merovingian Latin	129	(24,57%)	144	(27,43%)	-1.22
Early Medieval Latin	162	(29,29%)	151	(27,31%)	+0.88

Hence, the fluctuating decline of the proportion of adnominal gerunds is probably random. This finding suggests that, within the Late Latin period, the gerund is not increasingly substituted by the infinitive in adnominal phrases. However, it might also indicate that the gerund does not progressively replace the present participle in non-purpose adjuncts, because this would increase the absolute number of adverbial gerunds and, incidentally, their fraction to the total number of gerunds – at the expense of the proportion of adnominal gerunds. The first hypothesis remains speculative due to the lack of corpus-based studies of the external syntax of the infinitive from Classical to Late Latin. The second one will be examined in §4.3.2.

4.2.1.3. Frequency and productivity in the three thematic domains

In the Late Latin corpus, the adnominal gerund is most frequent in the legal texts, both in (normalised) absolute numbers and in relation to the total number of gerunds (Table 4.5). Note that the (normalised) frequency of the gerund in general is also highest in the legal texts.

Table 4.5. Frequency of adnominal gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	#adnominal gerunds (per 10 000 words)		#gerunds (per 10 000 words)		#adnominal gerunds/ #gerunds
Historical	33	(4.22)	213	(27.26)	15,49%
Religious	173	(6.98)	720	(29.06)	24,03%
Legal	160	(16.00)	375	(37.49)	42,67%

A chi-square goodness-of-fit test shows that the high proportion of adnominal gerunds in the legal texts might not be random. Indeed, the proportion of these forms is higher than expected in the legal texts and lower than expected in the historical and religious texts in a statistically highly significant way ($\chi 2 = 44.80$; df = 2; $p < 0.0001$) (Table 4.6). The most significant contribution to this result is precisely made by the overrepresentation of adnominal gerunds in the legal texts.

Table 4.6. Observed *vs* expected proportion of adnominal gerunds to the total number of gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	33	(15,49%)	60	(28,17%)	-3.45
Religious	173	(24,03%)	201	(27,92%)	-2.01
Legal	160	(42,67%)	105	(28,00%)	+5.38

Thus, the question arises as to what distinguishes the use of the adnominal gerund in legal texts from its use in historical and religious texts. The answer lies in the productivity of the adnominal gerund.

I measured the productivity of the adnominal gerund in terms of the lexical variation between the gerund and its governing noun on the basis of the two formulae mentioned in §3.6.3.2: (i) the type-token ratio, which corresponds to the proportion of distinct lexical combinations to the total number of lexical combinations; and (ii) the hapax-token ratio, which consists of the proportion of lexical combinations occurring once to the total number of lexical combinations. Table 4.7 shows that the attested productivity of the adnominal gerund is remarkably lower in the legal texts than in the historical and religious texts, according to both productivity measurements.

Table 4.7. Productivity of the adnominal gerund in the historical, religious, and legal texts in Late Latin

	Historical	Religious	Legal
#tokens	33	173	160
#types	33	159	58
#hapaxes	33	147	33
#types/#tokens	**1.00**	**0.92**	**0.36**
#hapaxes/#tokens	**1.00**	**0.85**	**0.21**

Hence, the adnominal gerund is less schematic in the legal texts than in the historical and religious texts (*cf.* Barðdal 2008: 22). Noteworthily, the historical texts comprise the exact same number of hapaxes as the legal texts (n=33), but on a total number of tokens that is only about a fifth of that in the legal texts (33 against 160).

The low productivity of the adnominal gerund in the legal texts is not only due to the low number of types and hapaxes in these texts (see Table 4.7), but also to the relatively high frequency of particular lexical combinations of a noun and an adnominal gerund. In order to demonstrate this, let us explore the inventory and cumulative frequency of the five most frequent combinations in the legal and religious texts (the historical texts will be left out because all combinations in these texts are hapaxes) (Table 4.8).

Table 4.8. Inventory and cumulative frequency of the five most frequent lexical combinations of a noun and an adnominal gerund in the religious and legal texts in Late Latin

Thematic domain	Lexeme of noun	Lexeme of gerund	Frequency (%)	
Religious	*occasio* 'opportunity'	*peccare* 'to sin'	3	(1,73%)
	potestas 'power'	*mortificare* 'to kill'	3	(1,73%)
	finis 'end'	*vivere* 'to live'	2	(1,16%)
	spes 'hope'	*invenire* 'to find'	2	(1,16%)
	licentia 'permission'	*orare* 'to pray'	2	(1,16%)[2]
			12	**(6,94%)**
Legal	*potestas* 'power'	*facere* 'to do'	40	(25,00%)
	potestas 'power'	*tenere* 'to hold'	10	(6,25%)
	potestas 'power'	*habere* 'to have'	9	(5,63%)
	ponteficium 'authority'	*facere* 'to do'	9	(5,63%)
	mansus 'house'	*commanere* 'to stay'	6	(3,75%)
			74	**(46,25%)**

As shown in Table 4.8, the five most frequent lexical combinations of a noun and an adnominal gerund account for 46% of all combinations in the legal texts against only 7% in the religious texts. Even more tellingly, the legal texts contain one combination accounting for a quarter of all combinations in these texts, namely *potestas* 'power'/*facere* 'to do' (14).

(14) *[...] ut [...] liberam in omnibus habeat potestatem* ***facie-nd-i*** *[...].*
that free.ACC.F.SG in all.ABL.N.PL have.SBJV.PRS.3SG power.ACC.F.SG do-GER-GEN
'(...) that he may have in everything the free power to do (...) .' (*Form. Sal. Merk.* 20)

By contrast, the 'most frequent' lexical combination in the religious texts represents less than 2% of all combinations. There are two such combinations, *viz. occasio* 'opportunity'/*peccare* 'to sin' and *potestas* 'power'/*mortificare* 'to kill'. The first of these is exemplified in (15).

(15) *[...] occasionem* ***pecca-nd-i*** *amplexus sum.*
opportunity.ACC.F.SG sin-GER-GEN embrace.PTCP.PST.NOM.M.SG be.PRS.1SG
'I embraced the opportunity to sin.' (Isid. *synon.* 1.44)

Table 4.9 shows that the lexical variation of the adnominal gerunds alone is also lower in the legal texts than in the historical and religious texts. However, the difference with the religious texts is smaller than in the case of the lexical combinations of nouns and adnominal gerunds (Table 4.9).

[2] The religious texts contain seven other lexical combinations occurring twice.

Table 4.9. Lexical variation of the adnominal gerunds in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	33	173	160
#types	30	113	39
#hapaxes	28	86	22
#types/#tokens	**0.91**	**0.65**	**0.24**
#hapaxes/#tokens	**0.85**	**0.50**	**0.14**

It turns out that the low lexical variation of the adnominal gerunds in the legal texts is partially due to the relatively high frequency of specific lexemes. This is in line with what has been observed for some lexical combinations of a noun and an adnominal gerund. Indeed, the five most frequent lexemes account for 63% of all adnominal gerunds in the legal texts, *versus* only 24% in the historical texts and 21% in the religious texts. In addition, the most frequent lexeme alone represents 36% of all adnominal gerunds in the legal texts, against 9% and 8% in respectively the historical and the religious texts (Table 4.10).

Table 4.10. Inventory and cumulative frequency of the five most frequent lexemes used for adnominal gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	**Lexeme of gerund**	**Frequency (%)**	
Historical	*dicere* 'to say'	3	(9,09%)
	edere 'to eat'	2	(6,06%)
	revertere 'to return'	1	(3,03%)
	orare 'to pray'	1	(3,03%)
	venire 'to come'	1	(3,03%)[3]
		8	**(24,24%)**
Religious	*vivere* 'to live'	14	(8,09%)
	loqui 'to speak'	9	(5,20%)
	peccare 'to sin'	6	(3,47%)
	mortificare 'to kill'	4	(2,31%)
	orare 'to pray'	3	(1,73%)[4]
		36	**(20,81%)**
Legal	*facere* 'to do'	58	(36,25%)
	habere 'to have'	15	(9,38%)
	tenere 'to hold'	15	(9,38%)
	commanere 'to stay'	6	(3,75%)
	exigere 'to examine'	6	(3,75%)
		100	**(62,50%)**

[3] The remaining twenty-five adnominal gerunds in the historical texts are also hapaxes.
[4] There are seven more lexemes occurring three times in the religious texts.

The highly frequent lexeme *facere* ‘to do’ in the legal texts is illustrated in (13) and (14) above.[5] The most frequent lexemes in the historical and religious texts are respectively *dicere* ‘to say’ (16) and *vivere* ‘to live’ (17).

(16) *Optaveram* *[...]* *ut* *mihi* *subcumberit* *talia* ***dice-nd-i***
wish.PST.1SG that I.DAT.M.SG befall.SBJV.PST.3SG so_great.NOM.F.SG speak-GER-GEN
fagundia *[...].*
eloquence.NOM.F.SG
‘I had wished that I had such a great eloquence of speaking.’ (Fredeg. *chron. praef.* 4)

(17) *[...] impunita* *manet* *male* ***vive-nd-i*** *licentia*.
unpunished.NOM.F.SG remain.PRS.3SG badly live-GER-GEN possibility.NOM.F.SG
‘The possibility to live badly remains unpunished.’ (Isid. *synon.* 1.3)

The lexical variation of the nouns governing a gerund is also lower in the legal texts than in the historical and religious texts. Again, the difference is larger with the historical texts than with the religious texts, though the low absolute number of instances in the historical texts disallows drawing a firm conclusion from this (Table 4.11).

Table 4.11. Lexical variation of the nouns governing a gerund in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	33	173	160
#types	25	84	21
#hapaxes	20	52	12
#types/#tokens	**0.76**	**0.49**	**0.13**
#hapaxes/#tokens	**0.61**	**0.30**	**0.08**

To a greater extent than for the lexical variation of the gerunds, the low lexical variation of the nouns in the legal texts is strongly influenced by the high frequency of particular lexemes. On the one hand, the five most frequent lexemes represent 83% of all nouns in the legal texts *vs* 39% and 27% in respectively the historical and religious texts. On the other hand, the most frequent lexeme accounts for 49% in the legal texts, while it only represents 15% in the historical texts and 8% in the religious texts (Table 4.12).

[5] The high frequency of adnominal gerunds built on *facere* ‘to do’ in the legal texts is in line with the overall high frequency of this verb in legal texts. The frequent use of *facere* ‘to do’ in this type of texts is due to its semantic versatility and broadness, of which the 2nd-3rd c. jurist Papinian (*dig*. 50.16.218) explicitly testifies: “*verbum ‘facere’ omnem omnino faciendi causam complectitur dandi, solvendi, numerandi, indicandi, ambulandi*” (‘the word *facere* embraces completely all sorts of “doing”: “giving”, “paying”, “reckoning”, “declaring”, “walking”; transl. Galdi 2018: 244).

Table 4.12. Inventory and cumulative frequency of the five most frequent nouns governing a gerund in the historical, religious, and legal texts in Late Latin

Thematic domain	Lexeme of noun	Frequency (%)	
Historical	*aditus* 'opportunity'	5	(15,15%)
	occasio 'opportunity'	2	(6,06%)
	potestas 'power'	2	(6,06%)
	regnum 'power'	2	(6,06%)
	intentio 'intention'	2	(6,06%)
		13	**(39,39%)**
Religious	*potestas* 'power'	13	(7,51%)
	facultas 'ability'	12	(6,94%)
	licentia 'permission'	9	(5,2%)
	copia 'opportunity'	7	(4,05%)
	ars 'method'	5	(2,89%)
		46	**(26,59%)**
Legal	*potestas* 'power'	78	(48,75%)
	ponteficium 'authority'	19	(11,88%)
	arbitrium 'authority'	15	(9,38%)
	licentia 'permission'	15	(9,38%)
	mansus 'place'	6	(3,75%)
		133	**(83,13%)**

The lexeme *potestas* 'power' (e.g. (13-14)) represents approximately a quarter of all nouns governing a gerund in the Late Latin corpus (93 instances out of 366). It is also the most frequent lexeme in both the legal and the religious texts. The most frequent lexeme in the historical texts is *aditus* 'opportunity' (18).

(18) *[...] aditum* ***scribe-nd-i*** *graciae vestrae repperimus [...].*
opportunity.ACC.M.SG write-GER-GEN grace.DAT.F.SG your.DAT.F.SG find.PST.1PL
'We found the opportunity to write to your grace.' (*Epist. Desid.* 2.6)

Table 4.12 further shows that most nouns governing a gerund are abstract nouns, as in Classical Latin (*cf.* Kühner & Stegmann 1914[5]: 737; Aalto 1949: 58-59; Palmer 1964: 323; Hofmann & Szantyr 1965: 375; Menge *et al.* 2000: 738-739; Pinkster 2015: 966, 2021: §17.17-§17.18; see also §1.2.2.2.1).

4.2.1.4. Morphological marking of the gerund

The final aspect of the Late Latin adnominal gerund to be investigated is its morphological marking. As in Classical Latin, this type of gerund can stand in the bare genitive (e.g. *scribendi* 'to write' (18)), the

prepositional accusative (e.g. *ad peccandum* ‘to sin’ (19)), and the prepositional ablative (e.g. *in veniendo* ‘in coming’ (20)).

(19) *Qualis tibi fuit ad* ***pecca-nd-um*** *intentio, talis*
like.NOM.F.SG you.DAT.M.SG be.PST.3SG to sin-GER-ACC intention.NOM.F.SG such.NOM.F.SG
ad ***penite-nd-um*** *sit devotio.*
to repent-GER-ACC be.SBJV.PRS.3SG devotion.NOM.F.SG
‘May your devotion to repent be such as was your intention to sin.’ (Isid. *synon.* 2.24)

(20) *[…]ut nec in* ***venie-nd-o*** *sit tarditas et celerius inter*
that NEG in come-GER-ABL be.SBJV.PRS.3SG slowness.NOM.F.SG and more_quickly between
partes figantur placita oportuna […].[6]
party.ACC.F.PL establish.SBJV.PRS.PASS.3PL plea.NOM.N.PL suitable.NOM.N.PL
‘(...) that there is no slowness in coming and that suitable pleas between the parties are established more quickly.’ (*Epist. Austr.* 48)

In the Late Latin corpus, all prepositional accusative adnominal gerunds are governed by *ad* ‘to’, which usually has a purpose value (e.g. (19)) (Aalto 1949: 86-87; Pinkster 2021: §17.18, §17.20). The unique instance of a prepositional ablative gerund is governed by *in* ‘in’ (20), which has a temporal value (Aalto 1949: 71; Pinkster 2021: §17.20).

In addition to the markings just exemplified, the adnominal gerund sometimes stands in the bare accusative, marking that is absent in Classical Latin (Palmer 1964: 322; Hofmann & Szantyr 1965: 377; Pinkster 2015: 58). Witness *requirendum* ‘to ask’ (21), governed by the noun *pontificium* ‘authority’.

(21) *[...] ut nullus [...] de ipso alode genitoris eorum*
that no.NOM.M.SG from INTENS.ABL.M.SG land.ABL.M.SG father.GEN.M.SG DEM.GEN.M.PL
amplius ***require-nd-um*** *pontificium habere non debeat.*[7]
more ask-GER-ACC authority.ACC.N.SG have.INF.PRS NEG must.SBJV.PRS.3SG
‘(...) that no one should not have the authority to ask more from the land of their father.’ (*Form. Sal. Merk.* 21)

This bare accusative clause is syntactically and semantically equivalent to the bare genitive clause *de ipsa alode genetore eorum amplius requirendi* ‘to ask more from the land of their father’ exemplified in (22), which depends on the same noun and is also used in the same semantic context.

[6] The analysis of *in veniendo* ‘in coming’ (20) as an adnominal gerund is close to an analysis as an adjunct. On the basis of the criteria put forward in §3.5.1.2, it has been taken as an adnominal form. A central argument is its combination with the abstract noun *tarditas* ‘slowness’. As apparent from Table 4.11, this is the dominant type of nouns governing an adnominal gerund.
[7] There are no manuscript variants for this gerund (*cf.* Zeumer 1886: 249).

(22) *[...] ut nullus [...] de ipsa alode genetore*
that no.NOM.M.SG from INTENS.ABL.F[M].SG land.ABL.M.SG father.ABL[GEN].M.SG
eorum amplius ***require-nd-i*** *pontefitium habere non dibiat.*
DEM.GEN.M.PL more ask-GER-GEN authority.ACC.N.SG have.INF.PRS NEG must.SBJV.PRS.3SG
'(...) that no one should not have the authority to ask more from the land of their father.' (*Form. Marc.* 2.14)

As pointed out in §2.1.1.1, the emergence of the bare accusative marking might be a morphosyntactic symptom of the intensifying functional competition between the gerund and the infinitive (Hofmann & Szantyr 1965: 379; Pinkster 2021: §16.100). In particular, the increasing frequency of adnominal bare infinitives like *facire* 'to do' (13) might cause some adnominal gerunds to be marked analogically to their infinitive competitors. However, the bare accusative marking of adnominal gerunds might also be the result of hypercorrection: the preposition *ad* 'to' of an originally planned prepositional accusative phrase might have been wrongly omitted at a time when the Latin case system is under pressure due to the expansion of prepositional constituents (Meyer-Lübke 1894; Ernout 1914³: 9-10; Väänänen 1963³: 111; Herman 1998, 2000). These two factors are likely complementary rather than mutually exclusive: some bare accusative gerunds might be marked by analogy to their infinitive competitors, and others as a result of hypercorrection – and perhaps a third group by a combination of these two factors.

The *Formulae Turonenses* also contain three coordinated gerunds that are marked in the genitive, while at the same time being governed by the preposition *ad* 'to' (23).

(23) *[...] ut omnes res meas vel causis meis […] ad*
that all.ACC.F.PL case.ACC.F.PL my.ACC.F.PL or trial.ABL[ACC].F.PL my.ACC.F.PL to
proseque-nd-i, ***rationa-nd-i***, ***interpella-nd-i*** *cuicumque volueris*
pursue-GER-GEN conclude-GER-GEN interrupt-GER-GEN INDF.DAT.M.SG want.FUT.3SG
in omnibus habeas potestatem […].[8]
in all.ABL.N.PL have.SBJV.PRS.2SG power.ACC.F.SG
'(...) that you have in everything the power to pursue, conclude, and interrupt all my cases or trials for anyone you want.' (*Form. Turon. app.* 4)

Since *ad* 'to' normally assigns the accusative to its complement (*cf.* Pinkster 2015: 1230), the resulting gerund constituents are a morphosyntactic blend of a bare genitive and a prepositional accusative clause. This blend might also be triggered by the intensifying competition between the gerund and the infinitive, in particular the adnominal bare genitive gerund and the adnominal prepositional accusative infinitive (*cf.* Hofmann & Szantyr 1965: 379).

[8] There are no alternative readings for these forms (*cf.* Zeumer 1886: 165)

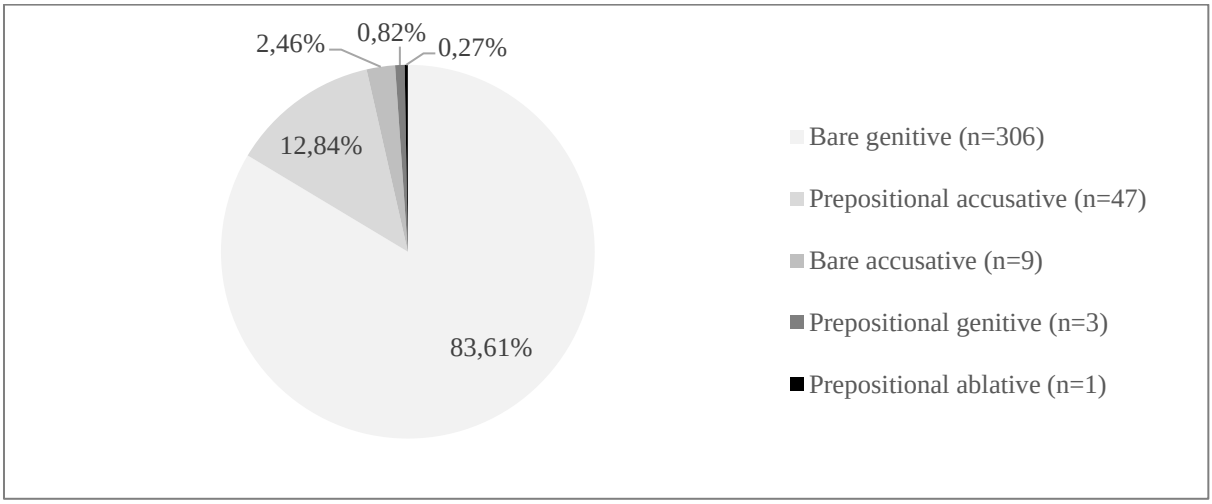
Finally, the Late Latin corpus comprises one adnominal gerund in *-ndo* that is not governed by a preposition, and thus has the form of a bare ablative or dative gerund (24).

(24) *Haec* *[...]* *omnia* *[...]* *tibi* *publicae* *trado* *adque* *transfundo*
DEM.ACC.N.PL all.ACC.N.PL you.DAT.M.SG publicly give.PRS.1SG and transfer.PRS.1SG
solemniter, *liberum* *exinde* *fruaris* *arbitrium* *et*
solemnly free.ACC.N.SG hereafter enjoy.SBJV.PRS.2SG authority.ACC.N.SG and
dominatione ***facie-nd-o*** *quod* *elegeris.*[9]
power.ABL[ACC].F.SG do-GER-ABL[ACC] REL.ACC.N.SG choose.FUT.2SG
'I publicly give and solemnly transfer all this to you, (so that) you may hereafter enjoy the free authority and power to do (with it) what you will choose.' (*Form. Bitur.* 15)

However, this form is to be taken as a bare accusative gerund whose ending is affected by two phonetic evolutions that are pervasive in Late Latin, namely the apocope of final /m/ and the vocalic confusion between /ō/ and /ŭ/ (Väänänen 1963³: 36-37, 66-67; see also §2.1.1.1). This quirkily marked accusative gerund is syntactically and semantically equivalent to the bare genitive gerund *faciendi* 'to do' in (12/14) and to the bare infinitive *facire* 'to do' in (13). It thus corroborates the conclusion drawn with respect to the bare accusative marking, namely that the increasing "confusion between the functions of the present infinitive and the gerund" (Pinkster 2021: §16.100) has also reflexes on the morphology of the forms in issue (see also Hofmann & Szantyr 1965: 379).

Figure 4.1 presents the frequency of the different markings of the adnominal gerund in Late Latin.

Figure 4.1. Morphological marking of the adnominal gerunds in Late Latin



As in Classical Latin (*cf.* Vangaever 2018: 17), adnominal gerunds in Late Latin are mostly marked in the bare genitive (84%). The prepositional accusative is not very frequent (13%) and the bare accusative

[9] This form has no manuscript variants either (*cf.* Zeumer 1886: 175).

is rare (2%). The prepositional genitive and the prepositional ablative are each restricted to one passage, in which the prepositional genitive happens to be marked on three coordinated gerunds.

4.2.1.5. Conclusion

The frequency of the adnominal gerund declines between Classical and Late Latin, both in (normalised) absolute terms (*i.e.* from 12 to 9 instances per 10 000 words) and in proportion to the total number of gerunds (*i.e.* from 60% to 28%). This evolution is in line with the predicted gradual substitution of the gerund by the infinitive in adnominal phrases. However, the declining proportion of adnominal gerunds might also be an indirect consequence of the gradual replacement of the present participle by the gerund in non-purpose adjuncts: this substitution increases the absolute number of adverbial gerunds and, hence, their proportion to the total number of gerunds, at the expense of the proportion of adnominal gerunds. This issue will be reevaluated in §4.3 in the light of the results of the adverbial gerund.

Against predictions, the proportion of adnominal gerunds does not significantly decrease within the period of Late Latin. Their (normalised) absolute frequency even slightly rises, though this trend is most likely random (it runs parallel to a frequency rise of the gerund in general). The frequency of the adnominal gerund is higher in legal texts than in historical and religious texts, difference that is related to a difference in use. Indeed, the productivity of the adnominal gerund is much lower in legal texts than in historical and religious texts.

Despite the sharply declining proportion of adnominal gerunds from Classical to Late Latin, *i.e.* from 60% to 28%, this proportion in Late Latin is still relatively high. This entails that there is a large gap between the use of the gerund in Late Latin and in most (Old) Romance languages, where it can no longer be adnominal (Aalto 1949: 73; Elcock 1960: 111; Väänänen 1963[3]: 139; Bauer 1993: 62; Schulte 2007: 88; see also §2.1.1.2.2.1.1.). In most (Old) Romance languages, the non-finite equivalent of the Late Latin adnominal gerund is the prepositional infinitive (*cf.* Harris 1978: 198-199; Schulte 2007: 88).

4.2.2. Verb complement gerunds

The next type of gerunds used in nominal syntactic configurations are verb complement gerunds, like *ad credendum* ‘to believe’ (25). This form acts as the third argument of *coartabat* ‘he brought’ and is as such semantically and syntactically obligatory, as shown by the presumed ungrammaticality of (26)).[10]

[10] Recall that the distinction between verb complement gerunds and adjunct gerunds is not always sharp. This holds in particular for forms that convey in some way or other a final meaning (e.g. *ad credendum* ‘to believe’ (25)). See the discussion in §3.5.2.

(25) *Cum* *fidem* *nullus* *adhiberet* *signis* *quibusdam,*
although faith.ACC.F.SG no.NOM.M.SG practice.SBJV.PST.3SG sign.ABL.N.PL particular.ABL.N.PL
plerosque *ad* ***crede-nd-um*** *coartabat.*
most_people.ACC.M.PL to believe-GER-ACC bring.PST.3SG
'Although nobody practiced faith with particular signs, he brought most people to believe.' (Sulp. Sev. *Mart.* 1.23.3)

(26) * *Cum* *fidem* *nullus* *adhiberet* *signis* ,
although faith.ACC.F.SG no.NOM.M.SG practice.SBJV.PST.3SG sign.ABL.N.PL
quibusdam *plerosque* *coartabat*
particular.ABL.N.PL most_people.ACC.M.PL bring.PST.3SG
'Although nobody practiced faith with particular signs, he brought most people.' (adapted from Sulp. Sev. *Mart.* 1.23.3)

The aim of this section is to examine the frequency of verb complement gerunds from Classical to Late Latin (§4.2.2.1) and during the Late Latin period (§4.2.2.2). As in the case of the adnominal gerund, the frequency study of the verb complement gerund in Late Latin will be refined by a study of its frequency and productivity in the historical, religious, and legal texts (§4.2.2.3). The final section will investigate the morphological marking of verb complement gerunds (§4.2.2.4).

4.2.2.1. Frequency from Classical to Late Latin

The (normalised) absolute frequency of verb complement gerunds is very low in both Classical and Late Latin, *i.e.* respectively 1 and 2 instances per 10 000 words (Table 4.13). A similar picture emerges from their proportion to the total number of gerunds (7% against 8%). Between Classical and Late Latin, the frequency of this type of gerunds slightly increases. This result is at odds with what is expected in view of the intensifying competition in Late Latin between the gerund and the infinitive, on the one hand, and between the gerund and the present participle, on the other.

Table 4.13. Frequency of verb complement gerunds in Classical and Late Latin

Period	**#verb complement gerunds (per 10 000 words)**	**#gerunds (per 10 000 words)**	**#verb complement gerunds/ #gerunds**
Classical Latin	85 (1.36)	1 270 (20.32)	6,69%
Late Latin	106 (2.49)	1 308 (30.71)	8,10%

However, the frequency rise of verb complement gerunds is too small to be significant. This is evidenced by a chi-square goodness-of-fit test: the proportion of verb complements gerunds is lower than expected

in Classical Latin and higher than expected in Late Latin, but in a statistically insignificant way ($\chi 2$ = 1.54; df = 1; p = 0.2146) (Table 4.14).

Table 4.14. Observed *vs* expected proportion of verb complement gerunds to the total number of gerunds in Classical and Late Latin

Period	Observed frequency (%)	Expected frequency (%)	Standardised residuals
Classical Latin	85 (6,69%)	94 (7,40%)	-0.94
Late Latin	106 (8,10%)	96 (7,34%)	+0.92

Thus, the proportion of verb complement gerunds does not show significant diachronic variation. This indicates that, in the Late Latin corpus, the gerund is not progressively replaced by the infinitive in verb complements. However, it might also suggest that the gerund does not increasingly substitute the present participle in non-purpose adjuncts, since this would increase the absolute number of adverbial gerunds and, as a corollary, their proportion to the total number of gerunds – at the cost of the proportion of verb complement. Whereas the first hypothesis remains speculative because of the absence of corpus-based studies of the external syntax of the infinitive in Late Latin, the second hypothesis will be examined in §4.3.2.

4.2.2.2. Frequency within the period of Late Latin

Within the period of Late Latin, the frequency of the verb complement gerund is about twice as high in Merovingian Latin than in Imperial and Early Medieval Latin, both in (normalised) absolute terms and in proportion to the total number of gerunds (Table 4.15). The frequency of this type of gerund thus does not show a rectilinear decline, against expectations.

Table 4.15. Frequency of verb complements gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	#verb complement gerunds (per 10 000 words)	#gerunds (per 10 000 words)	#verb complement gerunds/ #gerunds
Imperial Latin	3 (1.00)	52 (17.33)	5,77%
Merovingian Latin	58 (3.09)	525 (28.01)	11,05%
Early Medieval Latin	28 (1.64)	553 (32.34)	5,06%

A chi-square goodness-of-fit test shows that the proportion of verb complement gerunds is higher than expected in the Merovingian Latin period and lower than expected in Imperial and Early Medieval Latin in a statistically very significant way ($\chi 2$ = 12.55; df = 2; p = 0.0019) (Table 4.16). Note, however, that the only significant contribution to this result is made by the high proportion of instances in Merovingian Latin.

Table 4.16. Observed *vs* expected proportion of verb complement gerunds to the total number of gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	3	(5,77%)	4	(7,69%)	-0.54
Merovingian Latin	58	(11,05%)	41	(7,81%)	+2.59
Early Medieval Latin	28	(5,06%)	44	(7,96%)	-2.36

This high proportion of verb complement gerunds in Merovingian Latin might therefore not be random. Although the expected frequency of instances in Imperial Latin is smaller than five, so that a chi-square goodness-of-fit test is in principle not recommendable (*cf.* Levshina 2015: 29), this finding is reliable in view of the normalised frequencies in Table 4.15. A closer examination of the verb complement gerunds in Merovingian Latin shows that their high frequency in this period is partly due to their high number in one particular text, namely Fredegar's *Chronica*. This text contains fifteen such forms, *i.e.* more than a quarter of all verb complement gerunds in the Merovingian Latin corpus (n=58). An example of a verb complement gerund in this text is the bare accusative form *resistendum* 'to resist' (27).

(27) *[...] ipse* *vero eorum* *studio* *et* *utiletate*
INTENS.NOM.M.SG[PL] but DEM.GEN.M.PL devotion.ABL.N.SG and bravery.ABL.F.SG
Winidis ***resiste-nd-um*** *spondent* *[...].*
Venedes.DAT.M.PL resist-GER-ACC promise.PRS.3PL
'But they promise to resist the Venedes with devotion and bravery.' (Fredeg. *chron.* 4.74)

Hence, the high proportion of verb complement gerunds in Merovingian Latin probably does not reflect a general feature of the language in this period. It should also be pointed out in this regard that statistical significance does not necessarily mean that some tendency cannot be random. As Gries (2013: 28) puts it: "[T]he word *significant* is used in a technical sense here, meaning the effect (here, the difference) is large enough for us to **assume** that, given the size of the sample(s), it is **probably** not a random difference" (italics original, emphasis JV). That is, except for their relatively high number in Fredegar's *Chronica*, to be interpreted as an idiolectical feature, verb complement gerunds might be more frequent in the Merovingian Latin corpus than in the Imperial and Early Medieval Latin corpora by mere chance. This is without any doubt the most plausible explanation of the results in Tables 4.15 and 4.16. Like that of adnominal gerunds, the proportion of verb complement gerunds thus fluctuates between Imperial and Early Medieval Latin in a – presumably – linguistically insignificant way.

4.2.2.3. Frequency and productivity in the three thematic domains

The (normalised) absolute frequency of verb complement gerunds in the Late Latin corpus is highest in the historical texts, though the difference with the religious and especially the legal texts is small (Table

4.17). The portion of this type of gerunds to the total number of gerunds is also highest in the historical texts, but for this parameter, the difference with the religious and the legal texts is more pronounced.

Table 4.17. Frequency of verb complement gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	**#verb complement gerunds (per 10 000 words)**		**#gerunds (per 10 000 words)**		**#verb complement gerunds/ #gerunds**
Historical	29	(3.71)	213	(27.26)	13,62%
Religious	47	(1.90)	720	(29.06)	6,53%
Legal	30	(3.00)	375	(37.49)	8,00%

According to a chi-square goodness-of-fit test, the high proportion of verb complement gerunds in the historical texts might not be random. Indeed, their proportion is higher than expected in this type of texts and lower than expected in the religious and legal texts in a statistically very significant way ($\chi 2 = 10.19$; df = 2; p = 0.0061) (Table 4.18). Note, however, that the only significant contribution to these chi-square values is made by the overrepresentation of verb complement gerunds in the historical texts.

Table 4.18. Observed *vs* expected proportion of verb complement gerunds to the total number of gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Historical	29	(13,62%)	17	(7,98%)	+2.83
Religious	47	(6,53%)	58	(8,06%)	-1.49
Legal	30	(8,00%)	30	(8,00%)	-0.07

The high proportion of verb complement gerunds in the historical texts is to be explained along the same lines as their high proportion in the Merovingian Latin period. Indeed, Fredegar's *Chronica* belongs to the group of historical texts. Hence, the fifteen verb complement gerunds in this text account for half of all instances in the historical corpus. Therefore, the high proportion of verb complement gerunds in the historical texts is most likely not characteristic of the language used in this thematic domain in general, but an idiosyncratic feature of the language in Fredegar's *Chronica*.

The frequency of the verb complement gerund in the three thematic domains will now be further examined in the light of its productivity. I measured the productivity of this type of gerund in function of the lexical variation between the gerund and the governing verb. Though the low absolute number of instances in the three thematic domains does not allow drawing firm conclusions about the productivity of the verb complement gerund, it is clear that this form is less productive in legal texts than in historical and religious texts (Table 4.19). This result is in line with that obtained for the adnominal gerund.

Table 4.19. Productivity of the verb complement gerund in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	29	47	30
#types	28	47	19
#hapaxes	27	47	15
#types/#tokens	**0.97**	**1.00**	**0.63**
#hapaxes/#tokens	**0.93**	**1.00**	**0.50**

In other words, the verb complement gerund is less schematic (or 'lexically open') in legal texts than in historical and religious texts (*cf.* Barðdal 2008: 22). Within the group of the legal texts, the productivity of the verb complement gerund is much higher than that of the adnominal gerund, according to both the type-token ratio (0.63 *vs* 0.36) and the hapax-token ratio (0.50 *vs* 0.21).

As in the case of the adnominal gerund, the low productivity of the verb complement gerund in legal texts is partially due to the fact that these texts contain more lexical combinations with a relatively high frequency than the historical and religious texts. Indeed, the legal texts comprise one combination occurring eight times and thus representing more than a quarter of all combinations in these texts. The combination in issue is *decernere* 'to decide'/*ordinare* 'to ordain' (28), attested in eight distinct charters between the 7th and the 8th c.

(28) *[...] per presentem precepcione decernemus* ***ordena-nd-um***
by be_present.PTCP.PRS.ACC.F.SG charter.ABL[ACC].F.SG decide.PRS.1PL ordain-GER-ACC
quod in perpetium volemus esse mansurum [...].[11]
REL.ACC.N.SG to eternity.ACC.N.SG want.PRS.1PL be.INF.PRS remain.PTCP.FUT.ACC.N.SG
'By the present charter we decide to ordain what we want to remain for eternity.' (*Chart. Mer.* 150)

The legal texts further contain one combination occurring three times (*decernere* 'to decree'/*roborare* 'to strengthen') and two combinations used twice (*consentire* 'to consent'/*facere* 'to do' and *placere* 'to please'/*inserere* 'to insert'). In contrast, all combinations in the religious and historical texts are hapaxes, except *compungere* 'to incite'/*credere* 'to believe' (29), occurring twice in the historical texts.

(29) *[...] numquam conpunctus est miser ad* ***crede-nd-um***.
never incite.PTCP.PST.NOM.M.SG be.PRS.3SG miserable.NOM.M.SG to believe-GER-ACC
'This miserable (man) was never incited to believe.' (Greg. Tur. *Franc.* 6.5)

[11] The analysis of *ordenandum* 'to ordain' (28) as a bare accusative gerund is close to its analysis as an impersonal gerundive. In the latter case, it is used in a passive and deontic verbal periphrasis with the elliptic infinitive auxiliary *esse* 'to be', leading to the translation 'we decide that what we want to remain for eternity should be ordained'. However, *ordenandum* 'to ordain' can is replaceable by the present active infinitive *ordinare* 'to ordain'. This replacement criterion is one of the decisive criteria used to categorise *-ndum* forms as either gerunds or gerundives (see §3.4.1.1). Additionally, *ordenandum* 'to ordain' does not have an outspoken deontic value. Indeed, the passage in (28) is part of a charter by means of which the author himself issues an ordonnance. The analysis of the *-ndum* clause as an impersonal clause with a passive and deontic interpretation is thus less plausible than its analysis as a personal clause with an active interpretation.

As such, the five most frequent lexical combinations account for 53% of all combinations in the legal texts (16 instances out of 30), against only 21% in the historical texts (5 instances out of 29) and 11% in the religious texts (5 instances out of 47).

The low productivity of the verb complement gerund in legal texts is also manifest from the lexical variation of the gerunds separately. Table 4.20 shows that this variation is lowest in the legal texts, just like the lexical variation of the adnominal gerunds (see §4.2.1.3).

Table 4.20. Lexical variation of the verb complement gerunds in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	29	47	30
#types	27	43	16
#hapaxes	26	39	12
#types/#tokens	**0.93**	**0.91**	**0.53**
#hapaxes/#tokens	**0.90**	**0.83**	**0.40**

Moreover, the legal texts present more lexemes with a relatively high frequency than the historical and religious texts. Leaving out the hapaxes, the legal texts contain one lexeme used eight times (*ordinare* 'to order'), one lexeme occurring five times (*facere* 'to do'), one lexeme used three times (*roborare* 'to strengthen'), and one lexeme occurring twice (*inserere* 'to insert'). In contrast, the religious texts present only four lexemes occurring two times (*peccare* 'to sin', *sacrificare* 'to sacrifice', *credere* 'to believe', and *inquirere* 'to investigate'), and the historical texts one lexeme used thrice (*credere* 'to believe'). The five most frequent lexemes thus represent 63% of all verb complement gerunds in the legal texts (19 instances out of 30) *versus* 19% in the religious texts (9 instances out of 47) and 24% in the historical texts (7 instances out of 29). The most frequent lexeme in the legal texts is illustrated in (28) above; the runner-up is exemplified in (30).

(30) *[...] nos* *ita* ***facie-nd-um*** *ob* *hoc*
we.NOM.M.PL in_this_way do-GER-ACC because_of DEM.ACC.N[F].SG
ordinatione *recipimus* *[...].*
ordonnance.ABL[ACC].F.SG accept.PST.1PL
'We accept because of this ordonnance to act in this way.' (*Form. Marc.* 2.52)

A similar conclusion can be drawn for the lexical variation of the governing verbs: it is lower in legal texts than in historical and religious texts (Table 4.21). This runs parallel to what has been observed for the lexical variation of the nouns governing an adnominal gerund (see §4.2.1.3).

Table 4.21. Lexical variation of the verbs governing a verb complement gerund in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	29	47	30
#types	26	39	15
#hapaxes	24	34	10
#types/#tokens	0.90	0.83	0.50
#hapaxes/tokens	0.92	0.72	0.33

Excluding the hapaxes, the legal texts show one lexeme occurring eleven times (*decernere* 'to decree'), one lexeme used three times (*placer* 'to please') and three lexemes occurring twice (*constringere* 'to incite', *consentire* 'to consent', and *sufficere* 'to suffice'). The historical texts contain one lexeme used thrice (*spondere* 'to promise') and one lexeme occurring twice (*compungere* 'to incite'). The religious texts, as for them, show three lexemes used thrice (*consentire* 'to consent', *petere* 'to ask', and *desistere* 'to stop') and two lexemes occurring twice (*sufficere* 'to suffice' and *constringere* 'to incite'). The five most frequent lexemes account for 67% of all verbs governing a gerund in the legal texts (20 instances out of 30) against 28% in both the historical and the religious texts (respectively 9 instances out of 29 and 13 instances out of 47). The most frequent lexeme in the legal texts is systematically combined with the most frequent lexeme used for the gerund – the combination is exemplified in (28).

4.2.2.4. Morphological marking of the gerund

As in Classical Latin, verb complement gerunds in Late Latin can stand in the prepositional accusative (e.g. *ad scribendum* 'to write' (31)), the dative (e.g. *faciendo* 'to do' (32)), the bare ablative (e.g. *commonendo* 'to remind' (33)), and the prepositional ablative (e.g. *in veniendo* 'in coming' (34)).

(31) *[...] cum primum animum ad* ***scribe-nd-um*** *appuli [...].*
when first mind.ACC.M.SG to write-GER-ACC apply.PST.1SG
'When I first applied my mind to write (...).' (Sulp. Sev. *Mart.* 1.0.5)

(32) *[...] tam qui fecerit quam qui* ***facie-nd-o***
as_well_as REL.NOM.M.SG do.SBJV.PST.3SG as REL.NOM.M.SG do-GER-ABL
consenserit anathema sit [...].
consent.SBJV.PST.3SG anathema.NOM.N.SG be.SBJV.PRS.3SG
'Let both who did (it) and who consented to do (it) be anathema.' (*Form. Marc.* 2.4)

(33) *Itaque non destitit episcopus* ***commone-nd-o*** *[...].*
and_so NEG stop.PST.3SG bishop.NOM[ACC].M.SG[PL] remind-GER-ABL
'And so, he did not stop reminding the bishops (...).' (*Vit. Elig.* 1.35)

(34) *Si [...] abba in* ***venie-nd-o*** *moras innexuerit [...].*[12]
if abbot.NOM.M.SG in come-GER-ABL delay.ACC.F.PL fasten_to.SBJV.PST.3SG
'If the abbot fastened delay to his coming (...).' (*Vit. Sadalb.* 20)

All prepositional accusative verb complement gerunds are governed by *ad* 'to', while the prepositional ablative ones are introduced by *in* 'in' – as in the case of the adnominal gerund.

In addition to the markings in (31-34), the Late Latin corpus contains several verb complement gerunds in the bare accusative (e.g. 27/28/30)), marking unattested in Classical Latin (Odelstierna 1926: 45, 54; Aalto 1949: 61, 86; Palmer 1964: 322; Hofmann & Szantyr 1965: 378; Pinkster 2015: 58, 2021: §15.137-§15.138).[13] The emergence of the bare accusative marking might be explained in the same way as in the case of the adnominal gerund, *viz.* as a morphosyntactic symptom of the increasing competition between the gerund and the infinitive (*cf.* Hofmann & Szantyr 1965: 379; Pinkster 2021: 16.100). That is, some Late Latin verb complement gerunds might have come to be marked analogically to their bare accusative infinitive competitors, or simply be marked as such as the result of hypercorrection.

The Late Latin corpus also contains one verb complement gerund in the bare genitive, namely the form *faciendi* 'to doing', exemplified in (35) (*cf.* Hofmann & Szantyr 1965: 376).

(35) *[...] ubicumque aut undecumque nobis tribuistis* ***facie-nd-i****,*
wherever or in_whatever_direction we.DAT.M.PL grant.PST.2PL take_action-GER-GEN
Christo presule, adimplere agnovimus [...].
Christ.ABL.M.SG protector.ABL.M.SG accomplish.INF.PRS accept.PST.1PL
'In whatever place and direction you granted us to take action, we accepted to accomplish (it) under the protection of Christ.' (*Form. Sal. Merk.* 58)

This bare genitive marking is at the least surprising. Even in Late Latin, where the case system gradually collapses and where constituents are often marked in innovative ways, the direct object of a transitive verb like *tribuere* 'to grant' practically never stands in the bare genitive. Though the analysis of *faciendi* 'to do' as the bare genitive direct object of *tribuistis* 'you granted' cannot be excluded due to the absence of alternative readings (*cf.* Zeumer 1886: 261), it is more plausible that the bare genitive marking of this form is the result of anacoluthon: *faciendi* 'to do' is planned as the adnominal argument of an abstract noun like *potestatem* 'power' (as in (12)), cited in §4.2.1.1), but contextually assigned the function of direct object of *tribuistis* 'you granted' due to an interruption in the planned syntax, *i.c.* the omission of the originally planned head noun *potestatem* 'power'.

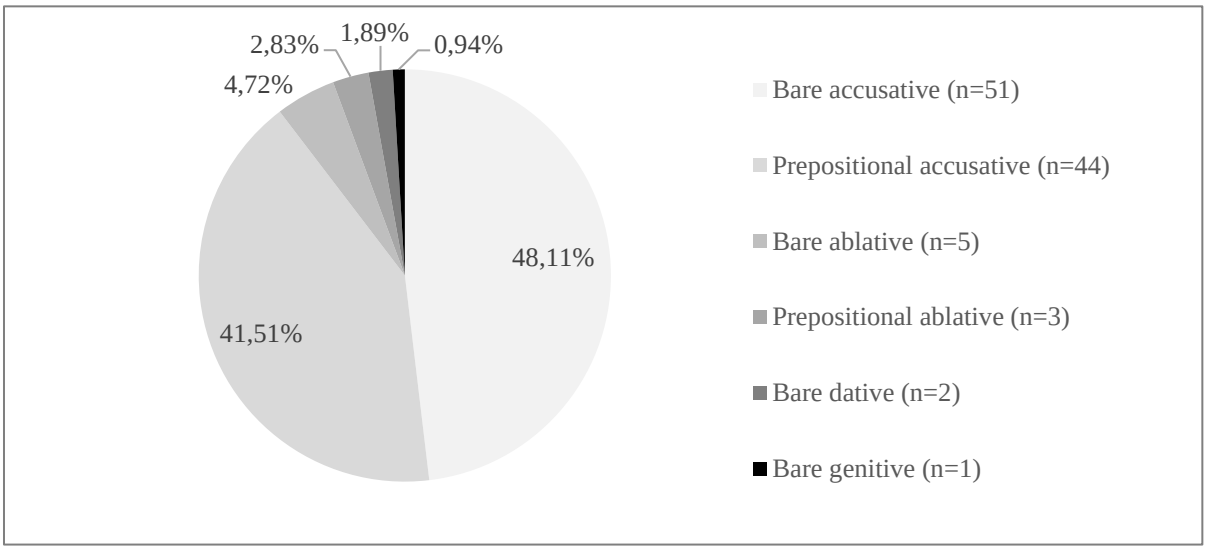
[12] Notice that the gerund *in veniendo* 'in coming' does not depend on *innexuerit* 'he fastened' alone, but on the combination of this verb with the noun *moras* 'delay'. This combination holds as a light verb construction (see also §2.1.1.2.2.1.2).
[13] Recall that some authors do nonetheless recognise the existence of bare accusative verb complement gerunds in the Classical period (e.g. Aalto 1949: 82-86; Blümel 1979: 86; Bauer 1993: 67). See the discussion in §1.2.1.

Finally, there are some verb complement gerunds that end in *-ndo* and thus take the form of dative or ablative gerunds, but that are best taken as accusative forms affected by the apocope of final /m/ and the vocalic confusion between /ō/ and /ŭ/, just like the adnominal gerund *faciendo* 'to do' (24) discussed in §4.2.1.4. The form *exemplando* 'to copy' (36) is a case in point.

(36) *Cui* *libet* *exinde* *aliqua* ***exempla-nd-o*** *faciat* *[...].*
INDF.DAT.M.SG please.PRS.3SG from_this INDF.ACC.N.PL copy-GER-ABL[ACC] do.SBJV.PRS.3SG
'If it pleases someone to copy something out of it, let him do.' (*Form. Marc. praef.* 1)

Figure 4.2 shows that, in the Late Latin corpus, verb complement gerunds are most often marked in the bare accusative (48%) or the prepositional accusative (42%). The other markings are extremely rare.

Figure 4.2. Morphological marking of the verb complement gerunds in Late Latin



Given the absence of bare accusative gerunds in Classical Latin, the dominance of this type of gerunds in Late Latin indicates that the intensifying competition between the gerund and the infinitive in verb complements manifests itself in two directions: although the long-term tendency consists of the gradual replacement of the gerund by the infinitive, the gerund may occasionally be used instead of an infinitive, even in its canonical function as the direct object of a transitive verb (e.g. (27/28/30)).

4.2.2.5. Conclusion

Against expectations, the frequency of verb complement gerunds does not decline from Classical to Late Latin nor during the Late Latin period, neither in (normalised) absolute terms nor in proportion to the total number of gerunds. Merovingian Latin shows an unexpectedly high proportion of verb complement gerunds (11%), but this result is mainly due to an idiolectic feature of Fredegar's *Chronica*. The portion of verb complement gerunds is considerably higher in the historical texts than in the religious and legal

texts, but this is again due to their relatively high number in Fredegar's *Chronica*. Like the adnominal gerund, the verb complement gerund is less productive in legal than in historical and religious texts.

In Late Latin, verb complement gerunds represent a small portion of the total number of gerunds (8%). In the transition to most (Old) Romance languages, these gerunds are substituted by infinitives. A crucial role in this replacement is played by the increasing use of prepositional infinitives, in particular infinitives governed by *ad* 'to' (Elcock 1960: 111; Väänänen 1963[3]: 139; Palmer 1964: 318; Bauer 1993: 62; Schulte 2007: Ch. 7; see also §2.1.1.2.2.1.2).

4.2.3. Adjective complement gerunds

The final type of gerunds used in nominal syntactic configurations are dependent on an adjective, such as *ad belligerandum* 'to wage war' (37) and *ad scribendum* 'to write' (38).

(37) *Erat* *[...]* *corde* *pius* *et* *animo* *etiam* *ad* ***belligera-nd-um***
be.PST.3SG heart.ABL.M.SG pious.NOM.M.SG and spirit.ABL.M.SG indeed to fight-GER-ACC
fortis.
brave.NOM.M.SG
'He was pious in his heart and in his spirit indeed brave to fight.' (*Vit. Elig.* 1.12)

(38) *[...] nec* *iam* *tremula* *ad* ***scribe-nd-um*** *manus* *est* *apta* *[...].*
NEG yet shaking.NOM.F.SG to write-GER-ACC hand.NOM.F.SG be.PRS.3SG ready.NOM.F.SG
'My shaking hand is not yet ready to write.' (*Form. Marc. praef.* 1)

This section aims to investigate the frequency of adjective complement gerunds from Classical to Late Latin (§4.2.3.1) and within the period of Late Latin (§4.2.3.2). As in the case of the adnominal and verb complement gerunds, the frequency of the adjective complement gerunds in Late Latin will be further explored in view of their frequency and productivity in the historical, religious, and legal texts (§4.2.3.3). The final section will be devoted to the morphological marking of this type of gerunds (§4.2.3.4).

4.2.3.1. Frequency from Classical to Late Latin

Adjective complement gerunds are not very frequent in both Classical and Late Latin (Table 4.22). This holds for both their (normalised) absolute frequency and their proportion to the total number of gerunds. Between Classical and Late Latin, both frequency parameters show a declining trend. This is in keeping with the predictions regarding the intensifying competition, in Late Latin, between the gerund and the infinitive, on the one hand, and between the gerund and the present participle, on the other.

Table 4.22. Frequency of adjective complement gerunds in Classical and Late Latin

Period	#adjective complement gerunds (per 10 000 words)	#gerunds (per 10 000 words)	#adjective complement gerunds/ #gerunds
Classical Latin	123 (1.97)	1 270 (20.32)	9,69%
Late Latin	41 (0.96)	1 308 (30.71)	3,13%

A chi-square goodness-of-fit test shows that the decreasing proportion of adjective complement gerunds might not be random: this proportion is higher than expected in Classical Latin and lower than expected in Late Latin in a statistically highly significant way ($\chi 2 = 42.22$; df = 1; $p < 0.0001$) (Table 4.23).

Table 4.23. Observed *vs* expected proportion of adjective complement gerunds to the total number of gerunds in Classical and Late Latin

Period	Observed frequency (%)	Expected frequency (%)	Standardised residuals
Classical Latin	123 (9,69%)	81 (6,38%)	+4.70
Late Latin	41 (3,13%)	83 (6,35%)	-4.63

Thus, the declining proportion of adjective complement gerunds might reflect a linguistic change. As in the case of the adnominal gerund (see §4.2.1.1), this decline might indicate that, in the Late Latin corpus, the gerund is increasingly replaced by the infinitive in adjective complements (*cf.* Aalto 1949: 73; Ernout & Thomas 1951: 269; Elcock 1960: 111; Hofmann & Szantyr 1965: 369, 378; Scherer 1975: 89; Harris 1978: 198-199; Fruyt 1996: 47, 56, 59). However, since corpus-based studies of the external syntax of the infinitive from Classical to Late Latin are currently lacking, this hypothesis remains speculative, all the more because the proportion of adjective complement gerunds is also expected to decline – indirectly – due to an increasing proportion of adjunct gerunds (see §4.3.1).

4.2.3.2. Frequency within the period of Late Latin

Due to their very low frequency in Late Latin, little can be said about the frequency pattern of adjective gerund complements during this period. Table 4.24 shows that, against expectations, the frequency of these forms does not show a rectilinear decreasing trend, neither in (normalised) absolute terms nor in proportion to the total number of gerunds. The absolute frequency of this type of gerunds even increases, though too modestly to be of significance.

Table 4.24. Frequency of adjective complement gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	#adjective complement gerunds (per 10 000 words)	#gerunds (per 10 000 words)	#adjective complement gerunds/#gerunds
Imperial Latin	1 (0.33)	52 (17.33)	1,92%
Merovingian Latin	15 (0.80)	525 (28.01)	2,86%
Early Medieval Latin	14 (0.82)	553 (32.34)	2,53%

According to a chi-square goodness-of-fit test, the diachronic variation in the proportion of adjective complement gerunds is probably random. Indeed, this proportion is lower than expected in Imperial and Early Medieval Latin and higher than expected in Merovingian Latin, but the differences between these periods are statistically insignificant ($\chi 2 = 0.22$; df = 2; p = 0.8958) (Table 4.25).

Table 4.25. Observed *vs* expected proportion of adjective complement gerunds to the total number of gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	1	(1,92%)	1	(1,92%)	-0.32
Merovingian Latin	15	(2,86%)	14	(2,67%)	+0.28
Early Medieval Latin	14	(2,53%)	15	(2,71%)	-0.18

Even though the expected frequency of adjective complement gerunds in Imperial Latin is smaller than five, so that a chi-square goodness-of-fit test is in principle not recommendable (*cf.* Levshina 2015: 29), this finding is highly reliable in view of the normalised frequencies in Table 4.24. Thus, the fluctuating proportion of adjective complement gerunds does not show a linguistically significant trend.

4.2.3.3. Frequency and productivity in the three thematic domains

In the Late Latin corpus, the frequency of adjective complement gerunds is highest in the religious texts, both in (normalised) absolute terms and in proportion to the total number of gerunds (Table 4.26). Yet, the difference with especially the legal texts is too small to be significant. However, the low frequency of this type of gerunds in the three textual domains does not allow drawing solid conclusions.

Table 4.26. Frequency of adjective complement gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	#adjective complement gerunds (per 10 000 words)		#gerunds (per 10 000 words)		#adjective complement gerunds/ #gerunds
Historical	4	(0.51)	213	(27.26)	1,88%
Religious	27	(1.09)	720	(29.06)	3,75%
Legal	10	(1.00)	375	(37.49)	2,67%

A chi-square goodness-of-fit test shows that the proportion of adjective complement gerunds is higher than expected in the religious texts and lower than expected in the historical and legal texts. However, the differences between the three thematic domains are statistically speaking insignificant ($\chi 2 = 2.93$; df = 2; p = 0.2311) (Table 4.27).

Table 4.27. Observed *vs* expected proportion of adjective complement gerunds to the total number of gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	4	(1,88%)	7	(3,29%)	-1.04
Religious	27	(3,75%)	23	(3,19%)	+0.93
Legal	10	(2,67%)	12	(3,20%)	-0.51

In other words, the proportion of adjective complement gerunds in the Late Latin corpus does not show significant thematic variation. This result contrasts this type of gerunds with both adnominal and verb complement gerunds, which are more frequent in respectively the legal and the historical texts.

Another difference between adjective complement gerunds and the two previous types of gerunds pertains to their productivity, measured in function of the lexical variation between the gerund and the governing adjective. Though its low absolute number of instances calls for some vigilance in evaluating its productivity, the adjective complement gerund is more or less equally productive in the three thematic domains (Table 4.28). This finding is at odds with what has been observed for the adnominal and verb complement gerunds, which are both less productive in legal texts than in historical and religious texts.

Table 4.28. Productivity of the adjective complement gerund in the historical, religious, and legal texts in Late Latin

	Historical	Religious	Legal
#tokens	4	27	10
#types	4	26	9
#hapaxes	4	25	8
#types/#tokens	**1.00**	**0.96**	**0.90**
#hapaxes/#tokens	**1.00**	**0.93**	**0.80**

Thus, the degree of schematicity of the adjective complement gerund does not appear to be sensitive to thematic variation (*cf.* Barðdal 2008: 22). On closer inspection, almost all combinations of a gerund and a governing adjective are hapaxes. Only two combinations occur twice: *aptus* ‘suitable’/*construere* ‘to build’ (39) and *condignus* ‘worthy’/*habitare* ‘to live’ (40) – the former is used in two different religious texts and the latter in two distinct legal texts.

(39) *[...] dixerunt, quod ei locum aptum ad* ***construe-nd-um***
say.PST.3PL that DEM.DAT.M.SG place.ACC.M.SG suitable.ACC.M.SG to build-GER-ACC
monasterium ostendere deberent.
monastery.ACC.N.SG show.INF.PRS must.SBJV.PST.3PL
‘They said that they should show him a place suitable to build a monastery.’ (*Vit. Amand.* 23)

(40) *[...] cum domo condignam ad* ***habita-nd-um*** *[...].*
with house.ABL.F.SG worthy.ACC[ABL].F.SG to inhabit-GER-ACC
'(...) with a house worthy to inhabit.' (*Form. Marc.* 2.15)

The similar degree of productivity of the adjective complement gerund in the three thematic domains is also apparent from the lexical variation of the gerunds separately. Table 4.29 shows that this variation is somewhat lower in the legal texts than in the historical and religious texts, but due to the low absolute number of instances in the three thematic domains, this difference is probably hazardous.

Table 4.29. Lexical variation of the adjective complement gerunds in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	4	27	10
#types	4	25	8
#hapaxes	4	23	6
#types/#tokens	**1.00**	**0.93**	**0.80**
#hapaxes/#tokens	**1.00**	**0.85**	**0.60**

The legal and religious texts each contain two lexemes occurring twice. In the legal texts, these lexemes are *habitare* 'to live' (40) and *dictare* 'to compose' (41), whereas in the religious texts, they correspond to *construere* 'to construe' (39) and *agere* 'to do' (42).

(41) *[...] et alios prudentissimos viros [...] ac rethores*
and other.ACC.M.PL very_prudent.ACC.M.PL man.ACC.M.PL and rhetorician.ACC.M.PL
et ad ***dictandum*** *peritus [...].*
and to compose-GER-ACC skilled.NOM[ACC].M.SG[PL]
'(...) and other very prudent men and rhetoricians and men skilled in composing.' (*Form. Marc. praef.* 1)

(42) *[...] ut quicquid despicabile in monasterio ad* ***agendum***
that INDF.ACC.N.SG contemptible.ACC.N.SG in monastery.ABL.N.SG to do-GER-ACC
esset, ipse assumeret.
be.SBJV.PST.3SG INTENS.NOM.M.SG take_on.SBJV.PST.3SG
'(...) that he would take on himself anything contemptible to do in the monastery.' (*Vit. Rom.* 4)

The lexical variation of the adjectives governing a gerund is similar in the legal and religious texts. It is slightly higher in the historical texts, but this is insignificant since there are only four instances in these texts – which happen to be all hapaxes (Table 4.30).

Table 4.30. Lexical variation of the adjectives governing a gerund in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	4	27	10
#types	4	20	7
#hapaxes	4	17	5
#types/#tokens	**1.00**	**0.74**	**0.70**
#hapaxes/tokens	**1.00**	**0.63**	**0.50**

In the legal texts, the adjectives occurring more than once correspond to the parasynonyms *condignus* 'worthy' (40) (n=3) and *dignus* 'worthy' (43) (n=2). In the religious texts, these lexemes are *paratus* 'ready' (44) (n=4), *aptus* 'suitable' (39) (n=3), and *promptus* 'ready' (45) (n=3).

(43) *[...] qui* *digni* *ad ipso* *officio*
REL.NOM.M.PL worthy.NOM.M.PL to INTENS.ABL[ACC].N.SG service.ABL[ACC].N.SG
guberna-nd-um *apparere* *noscuntur.*
direct-GER-ACC appear.INF.PRS know.PRS.PASS.3PL
'(...) who are known to appear worthy to direct this service.' (*Suppl. form. Marc.* 6)

(44) *[...] qui* *paratior* *est* *ad* ***deroga-nd-um*** *bonis*
REL.NOM.M.SG more_ready.NOM.M.SG be.PRS.3SG to detract-GER-ACC good.DAT.N.PL
potius *quam* *ad* ***imita-nd-um*** *[...].*
rather than to imitate-GER-ACC
'(...) who is more ready to detract good things than to imitate (them).' (*Vit. Genov.* 11)

(45) *Tunc ipsi* *pueri* *[...] prompti* *ad* ***oboedie-nd-um*** *[...] me*
then INTENS.NOM.M.SG kid.NOM.M.PL prompt.NOM.M.PL to obey-GER-ACC I.ACC.M.SG
usque *ad praedictum* *locum* *duxerunt.*
all_the_way to aforesaid.ACC.M.SG place.ACC.M.SG bring.PST.3PL
'Then the kids, prompt to obey, brought me all the way to the aforesaid place.' (*Visio Bar.* 13)

4.2.3.4. Morphological marking of the gerund

As in Classical Latin, adjective complement gerunds in Late Latin can be marked in the prepositional accusative (e.g. *ad oboediendum* 'to obey' (45)), the bare genitive (e.g. *evadendi* 'to escape' (46)), and the prepositional ablative (e.g. *in iudicando* 'in judging' (47)).

(46) *Sed ipse* *Erchanoldus* ***evade-nd-i*** *cupidus*
but INTENS.NOM.M.SG Erchinoald.NOM.M.SG escape-GER-GEN eager.NOM.M.SG
volens *exsilire* *[...].*
want.PTCP.PRS.NOM.M.SG leap.INF.PRS
'But when Erchinoald himself, eager to escape, wanted to leap (...).' (*Vit. Gall. Wett.* 2.35)

(47) *Erat* *[...]* *in* *iudiciis* *iustus,* *in* ***iudica-nd-o*** *cautissimus* *[...].*
be.PST.3SG in trial.ABL.N.PL fair.NOM.M.SG in judge-GER-ABL most_cautious.NOM.M.SG
'He was fair in trials, (and) most cautious in judging.' (Greg. Tur. *Franc.* 6.30)

As in the case of the adnominal and verb complement gerunds, all prepositional accusative forms are governed by *ad* 'to', while the unique prepositional ablative form is introduced by *in* 'in'. The Late Latin corpus does not contain dative instances, although this marking is in theory not excluded. It has in any case been attested in Classical Latin (Palmer 1964: 323; Pinkster 2021: §15.139; see also §1.2.2.2.3).

In addition to the markings mentioned above, there is also one adjective complement gerund that stands in the bare ablative, namely *abstinendo* 'abstaining' (48).

(48) *[...]* *ceteris* *quoque* *pius,* *sibi* ***abstine-nd-o*** *severus* *[...].*[14]
other.ABL.M.PL also pious.NOM.M.SG REFL.DAT.M.SG abstain-GER-ABL severe.NOM.M.SG
'(He was) also pious with others, (but) severe in his own abstinence.' (*Vit. Elig.* 2.10)

There are no manuscript variants for this form (*cf.* Krusch 1902: 701). In my opinion, its analysis as a bare ablative gerund is more plausible than as either a dative gerund or a hypercorrected bare accusative gerund (the ending *-ndo* being wrongly used instead of *-ndum* as a reaction against the spread of the apocope of final /m/ and the vocalic confusion between /ō/ and /ŭ/). The most plausible explanation of this bare ablative marking is that *abstinendo* 'abstaining' was planned as a prepositional ablative gerund introduced by *in* 'in', but that this preposition was – unintentionally – omitted due to the presence of the pronoun *sibi* 'himself', whose final vowel is identical to that of the monosyllabic preposition *in* 'in'.

Finally, there is one form that is marked in the genitive while at the same time being governed by the preposition *ad* 'to', which usually assigns the accusative to its complement (*cf.* Pinkster 2015: 1230).

(49) *Scio* *quia* *vobis=cum* *sunt* *[...]* *prudentissimi* *viri*
know.PRS.1SG that you.ABL.M.PL=with be.PRS.3PL very_prudent.NOM.M.PL man.NOM.M.PL
et *ad* ***dicta-nd-i*** *docti* *[...].*
and to compose-GER-GEN skilled.NOM.M.PL
'I know that men who are very prudent and skilled to compose are with you.' (*Form. Bitur. praef.* 1)

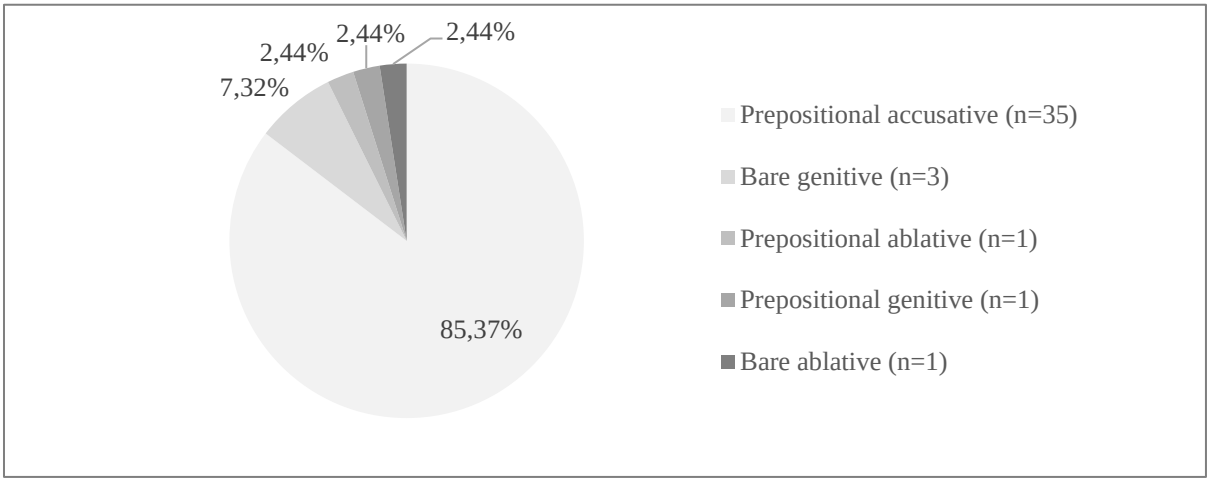
Like the adnominal forms *ad prosequendi* 'to pursue', *ad rationandi* 'to conclude', and *ad interpellandi* 'to interrupt' in (23), the adjective complement *ad dictandi* 'to compose' (49) is a morphosyntactic blend of a bare genitive and a prepositional accusative clause. This blend may have been be triggered by the intensifying competition in adjective complements (and elsewhere) between bare genitive gerunds and

[14] Notice that the syntactic analysis of this form is difficult to determine. On the one hand, it can be taken as the complement of the adjective *severus* 'severe', but on the other hand, it can be analysed as an adjunct. The adjective complement analysis adopted here is based on the fact that *abstinendo* 'abstaining' primarily serves to specify the domain of application of the quality expressed by the adjective *severus* 'severe'. Anyhow, this one instance does not have any impact on the quantitative results.

prepositional infinitives governed by *ad* 'to' (Hofmann & Szantyr 1965: 379). Another explanation is that *dictandi* 'to compose' was originally planned as the adnominal argument of a noun like *artem* 'art', but that for some reason or other, this noun is left unexpressed, hereby causing the contextual reanalysis of *ad dictandi* 'to compose' as the complement of *docti* 'skilled'.

Figure 4.3 presents the frequency of the different markings of the adjective complement gerunds in the Late Latin corpus.

Figure 4.3. Morphological marking of the adjective complement gerunds in Late Latin



As shown in Figure 4.3, the dominant marking is the prepositional accusative. The other markings are extremely rare or even restricted to one single instance. Given that the gradual replacement of the gerund by the infinitive in adjective complements is related to the increasing use of prepositional infinitives, in particular infinitives introduced by *ad* 'to' (Väänänen 1963[3]: 139; Palmer 1964: 318; Bauer 2005: 517; Schulte 2007: Ch. 7), the dominance of prepositional accusative gerunds in the Late Latin corpus might suggest that the use of prepositional infinitives instead of their prepositional gerund competitors is far from being generalised. Yet, a corpus-based study of the external syntax and morphological marking of the infinitive in Late Latin is required in order to verify this hypothesis.

4.2.3.5 Conclusion

In accord with predictions, the frequency of adjective complement gerunds decreases from Classical to Late Latin, both in (normalised) absolute terms and in proportion to the total number of gerunds. Against expectations, however, these frequencies do not decline during the Late Latin period. There are also no significant differences regarding the frequency or productivity of this type of gerunds in the three textual domains, unlike what has been observed for the adnominal and verb complement gerunds.

In Late Latin, the proportion of adjective complement gerunds to the total number of gerunds is extremely small (3%). In the transition to most (Old) Romance languages, this type of gerunds disappear

altogether, being replaced by infinitives and abstract (de)verbal NPs (Aalto 1949: 73; Ernout & Thomas 1951: 269; Elcock 1960: 111; Väänänen 1963[3]: 139; Hofmann & Szantyr 1965: 369, 378; Scherer 1975: 89; Harris 1978: 198-199; Bauer 1993: 62; see also §2.1.1.2.2.1.3).

4.2.4. General conclusion: the evolution of the nominal gerund

The preceding sections have investigated the frequency of adnominal, verb complement, and adjective complement gerunds between Classical and Late Latin and during the period of Late Latin separately. The aim of the current section is to collate the results obtained in these sections, in order to examine to which extent the presumed disassociation of the gerund from its nominal external syntax is backed up by empirical evidence.

The frequency of the nominal gerund is higher in Classical than in Late Latin (Table 4.31), both in (normalised) absolute terms and in relation to the total number of gerunds. However, the difference is much more pronounced according to the second parameter (76% *vs* 39%). In line with expectations, the data of this study thus show a decreasing use of the gerund in nominal syntactic configurations.

Table 4.31. Frequency of nominal gerunds in Classical and Late Latin

Period	**#nominal gerunds (per 10 000 words)**	**#gerunds (per 10 000 words)**	**#nominal gerunds/ #gerunds**
Classical Latin	964 (15.42)	1 270 (20.32)	75,91%
Late Latin	513 (12.04)	1 308 (30.71)	39,22%

Considering the extent of the decreasing proportion of nominal gerunds, it is not surprising that a chi-square goodness-of-fit test suggests that it reflects an ongoing linguistic change. Indeed, this proportion is higher than expected in Classical Latin and lower than expected in Late Latin in a statistically highly significant way ($\chi 2 = 150.72$; df = 1; $p < 0.0001$) (Table 4.32).

Table 4.32. Observed *vs* expected proportion of nominal gerunds to the total number of gerunds in Classical and Late Latin

Period	**Observed frequency (%)**	**Expected frequency (%)**	**Standardised residuals**
Classical Latin	964 (75,91%)	728 (57,32%)	+8.76
Late Latin	513 (39,22%)	749 (57,26%)	-8.64

As noted in §4.2.1.1 and §4.2.3.1 with regard to the decreasing proportion of adnominal and adjective complement gerunds separately, this change might consist of the gradual replacement of the gerund by the infinitive in nominal external syntax. However, in the absence of corpus-based studies of the external

syntax of the infinitive from Classical to Late Latin, this hypothesis remains speculative. After all, the proportion of nominal gerunds is also expected to decline indirectly, *i.c.* due to an increasing proportion of adverbial gerunds, caused by the progressive substitution of the present participle by the gerund in non-purpose adjuncts (see also §4.3.1). Moreover, nominal gerunds are also in competition with abstract (de)verbal NPs, by which they are also often replaced, though less frequently than by infinitive clauses (*cf.* Bauer 1993: 62). Therefore, it would be interesting to compare the results obtained in this study for the gerund with those obtained in a methodologically similar corpus study of not only the infinitive, but also of (a representative sample of) abstract (de)verbal NPs. Such a comparison could indicate to which extent the decline of nominal gerunds from Classical to Late Latin is actually due to their replacement by infinitives and abstract (de)verbal NPs. The indirect role played by adverbial gerunds in this decline will be examined in §4.3.1.

Despite the sharp decline from Classical to Late Latin, the proportion of nominal gerunds in Late Latin is still relatively high (39%), especially when considering that, in the transition to (most) Romance languages, the gerund entirely loses its ability to occur in nominal syntactic configurations (Aalto 1949: 73; Elcock 1960: 111; Väänänen 1963[3]: 139; Harris 1978: 197, 199; Bauer 1993: 62). This leads to the conclusion drawn earlier with respect to the adnominal gerund, namely that there is a large gap between the external syntax of the gerund in Late Latin, at least as observable in the written documents that have come down to us, and in most (Old) Romance languages.

During the Late Latin period, the (normalised) frequency of the nominal gerund rises, against all predictions (Table 4.33). However, this frequency rise is to be seen in the light of a rising frequency of the gerund in general. Hence, it is probably random. More tellingly, the proportion of nominal gerunds to the total number of gerunds declines, in accord with expectations. However, this decline is slight, and the nominal gerund still represents a large share of the total number of gerunds even in the latest period.

Table 4.33. Frequency of nominal gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	**#nominal gerunds (per 10 000 words)**		**#gerunds (per 10 000 words)**		**#nominal gerunds/ #gerunds**
Imperial Latin	22	(7.33)	52	(17.33)	42,31%
Merovingian Latin	202	(10.76)	525	(28.01)	38,48%
Early Medieval Latin	204	(11.93)	553	(32.34)	36,89%

A chi-square goodness-of-fit test shows that the proportion of nominal gerunds is higher than expected in Imperial and Merovingian Latin and lower than expected in Early Medieval Latin, but the differences between these periods are statistically insignificant ($\chi 2 = 0.46$; df = 1; $p = 0.7945$) (Table 4.34). Hence, the declining proportion observed in Table 4.33 is probably random, *i.e.* not symptomatic of an ongoing linguistic change.

Table 4.34. Observed *vs* expected proportion of nominal gerunds to the total number of gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	22	(42,31%)	20	(38,46%)	+0.52
Merovingian Latin	202	(38,48%)	199	(37,90%)	+0.22
Early Medieval Latin	204	(36,89%)	209	(37,79%)	-0.38

The absence of significant diachronic variation within the period of Late Latin suggests that the crucial period in the external syntactic evolution of the gerund is the period between Classical and Late Latin, not that between Imperial and Early Medieval Latin (see also §4.3).

While the frequency of nominal gerunds in the Late Latin corpus does not show great diachronic variation, it shows significant thematic variation (Table 4.35). Indeed, the frequency of these gerunds is much higher in legal texts than in historical and religious texts, both in (normalised) absolute terms and in relation to the total number of gerunds.

Table 4.35. Frequency of nominal gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	#nominal gerunds (per 10 000 words)		#gerunds (per 10 000 words)		#nominal gerunds/ #gerunds
Historical	66	(8.45)	213	(27.26)	30,99%
Religious	247	(9.97)	720	(29.06)	34,31%
Legal	200	(20.00)	375	(37.49)	53,33%

A chi-square goodness-of-fit test indicates that the high proportion of nominal gerunds in the legal texts is probably not random. Indeed, the proportion of these forms is higher than expected in the legal texts and lower than expected in the historical and religious texts in a statistically highly significant way ($\chi 2 = 27.16$; $df = 2$; $p < 0.0001$) (Table 4.36).

Table 4.36. Observed *vs* expected proportion of nominal gerunds to the total number of gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	66	(30,99%)	84	(39,44%)	-1.92
Religious	247	(34,31%)	282	(39,17%)	-2.11
Legal	200	(53,33%)	147	(39,20%)	+4.36

It is important to recall that the productivity of the nominal gerund is usually lower in legal texts than in historical and religious texts, except when used in adjective complements. Also, the legal texts contain more lexical combinations of a gerund and a governing noun or verb with a high token frequency than

the historical and religious texts. This might positively contribute to the higher share of nominal gerunds in these texts (see also §4.5).

4.3. The adverbial gerund

After having investigated the evolution of the nominal gerund, I will explore in this section the evolution of the adverbial gerund. Unlike the nominal gerund, the adverbial gerund can occur in only one type of constituents, *viz.* adjuncts. Two examples of adjunct gerunds are *ad praedandum* 'to plunder' (50) and *superbiendo* 'by being arrogant' (51).

(50) *[...] in regno Burgundie ad* ***praeda-nd-um*** *ambulare nitebatur.*
in region.ABL.N.SG Burgundy.GEN.F.SG to plunder-GER-ACC march.INF.PRS strive.PST.3SG
'He strove to march in the region of Burgundy (in order) to plunder.' (Fredeg. *cont.* 45)

(51) *Unde primus homo* ***superbie-nd-o*** *ceciderat [...].*
from_where first.NOM.M.SG man.NOM.M.SG be_arrogant-GER-ABL fall.PST.3SG
'From where the first man had fallen by being arrogant.' (*Vit. Madelb.* 2.4.1)

As noted throughout §4.2, the gradual replacement of the gerund by the infinitive in nominal syntactic configurations in Late Latin reduces the proportion of nominal gerunds to the total number of gerunds. Consequently, the proportion of adverbial gerunds rises, even if their (normalised) absolute frequency does not increase. This makes the gerund – indirectly – specialise in adverbial external syntax. Recall, however, that the gerund is also claimed to be substituted by the infinitive in purpose adjuncts (*cf.* Ernout & Thomas 1951: 256, 270; Elcock 1960: 111; Väänänen 1963[3]: 139; Hofmann & Szantyr 1965: 345, 378-379; Fruyt 1996: 55, 58-59; Bauer 1993: 67, 2005: 517, 519; Pinkster 2021: §16.86). In this type of adjuncts, the gerund can be marked in the prepositional accusative (e.g. *ad praedandum* 'to plunder' (55)), the bare accusative (e.g. *capiendum* 'to take' (52)), the prepositional genitive (e.g. *orandi causa* 'to pray' (53)), the bare genitive (e.g. *victitandi* 'to survive' (54)), or the dative (e.g. *lavando* 'to wash' (55)), but not in the ablative. Moreover, the gerund has only rarely a semantic value other than purpose in these markings. Hence, the replacement of the gerund by the infinitive in purpose adjuncts leads to a decline and the eventual loss of accusative, genitive, and dative adjunct gerunds. Therefore, the ablative is the only case in which the adjunct gerund survives in the Romance languages (Aalto 1949: 73; Ernout & Thomas 1951: 267; Elcock 1960: 111; Väänänen 1963[3]: 139; Hofmann & Szantyr 1965: 369; Adams 2003: 748).[15]

[15] While the gerund is gradually replaced by the infinitive in purpose adjuncts in Late Latin, in Romance, the adverbial gerund re-acquires the potential to express the purpose of the main state of affairs (Aalto 1949: 76-78). This evolution is not surprising considering the development of the bare ablative gerund in Late Latin toward semantic neutrality and versatility (see the running text). Hence, it is only to be expected that it increases its range of semantic values in Romance, and even starts being used with values inaccessible to its Late Latin (bare ablative) origin.

(52) *[...] tunc Chuni predas* ***capie-nd-um*** *adgrediebant [...].*
then Hun.NOM.M.PL spoil.ACC.F.PL take-GER-ACC approach.PST.3PL
'Then the Huns approached to take the spoils.' (Fredeg. *chron.* 4.48)

(53) *[...]* ***ora-nd-i*** *causa circuibat altaria.*
pray-GER-GEN in_order_to go_around.PST.3SG altar.ACC.N.PL
'He went around the altar in order to pray.' (*Vit. Austr.* 2.3)

(54) *[...]* ***victita-nd-i*** *helemosinam querebat.*
survive-GER-GEN alm.ACC.F.SG ask.PST.3SG
'He asked for alms in order to survive.' (*Vit. Austr.* 1.15)

(55) *Soror quaedam* ***lava-nd-o*** *vestimentorum sordes [...] ad*
sister.NOM.F.SG INDF.NOM.F.SG wash-GER-DAT clothes.GEN.N.PL dirt.ACC.F.PL to
cellam officinae [...] veniens [...].
room.ACC.F.SG process.GEN.F.SG come.PTCP.PRS.NOM.F.SG
'When some sister came to the laundry room (in order) to wash the dirty spots of the clothes (...).' (*Vit. Sadalb.* 21)

Despite its substitution by the infinitive in purpose adjuncts, the gerund in Late Latin is held to specialise in adverbial external syntax (*cf.* Marouzeau 1910: 79; Kühner & Stegmann 1914[5]: 753; Lyer 1932; Aalto 1949: 65-66; Elcock 1960: 111; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 373, 377, 379-380, 384; Harris 1978: 200; Kooreman 1989; Bauer 1993, 2005; Maraldi 1994; Adams 2003: 748, 2013: 725-740; Pinkster 2021: §21.14). This is argued to be due to the fact that the bare ablative gerund gradually loosens its ties with its original manner/instrumental/causal value (e.g. (51)), thus developing into a semantically more neuter and versatile strategy for adverbial subordination (Hofmann & Szantyr 1965: 379-380). Crucially, it is argued to be increasingly used with the temporal value characteristic of the adverbial present participle, which consist of expressing a state of affairs co-occurring with the main state of affairs, either entirely (56) or partially (57).

(56) *[...] proiecit se ad pedes Childeberti dicens*
throw.PST.3SG REFL.ACC.M.SG to foot.ACC.M.PL Childebert.GEN.M.SG say.PTCP.PRS.NOM.M.SG
fle-nd-o *[...].*
cry.GER-ABL
'He threw himself at the feet of Childebert and said in tears (...).' (*Hist. Franc.* 24)

(57) *Ista* ***dice-nd-o*** *[...] signum sonavit ad vespera [...].*
DEM.ACC.N.PL say-GER-ABL sign.NOM.N.SG resound.PST.3SG for vesper.ACC.M.PL
'When he was saying these things, the sign for the vespers resounded.' (*Visio Bar.* 5)

In the course of time, adjunct bare ablative gerunds are held to gradually replace their present participle counterparts. This shift increases the absolute frequency of adverbial gerunds, and, concomitantly, their

proportion to the total number of gerunds. In this way, the gerund specialises in adverbial external syntax also in direct way.

This section aims to examine to which extent the specialisation of the gerund in adverbial external syntax is corroborated by the data of this study. I will also investigate whether this specialisation is more the indirect result of the decline of nominal gerunds, and thus of the gradual substitution of the gerund by the infinitive in nominal syntactic configurations, or the direct result of the increasing frequency of adverbial gerunds, and thus of the gradual replacement of the present participle by the gerund in (non-purpose) adjuncts. In order to explore these issues, I will first examine the frequency of adjunct gerunds from Classical to Late Latin (§4.3.1) and within the period of Late Latin (§4.3.2). Their frequency study in Late Latin will be refined by the study of their frequency and productivity in the three textual domains (§4.3.3). The analysis of the adverbial gerund in Late Latin will be concluded by the examination of its morphological marking (§4.3.4) and, focusing on bare ablative forms, the frequency pattern of manner/ instrumental/causal gerunds (§4.3.5).

4.3.1. Frequency from Classical to Late Latin

The frequency of adjunct gerunds sharply rises between Classical and Late Latin, both in (normalised) absolute terms (from 5 to 19 instances per 10 000 words) and in proportion to the total number of gerunds (from 24% to 61%). This result is in keeping with the above-mentioned predictions.

Table 4.37. Frequency of adjunct gerunds in Classical and Late Latin

Period	**#adjunct gerunds (per 10 000 words)**		**#gerunds (per 10 000 words)**		**#adjunct gerunds/ #gerunds**
Classical Latin	306	(4.90)	1 270	(20.32)	24,09%
Late Latin	792	(18.60)	1 308	(30.71)	60,55%

Given the steepness of the increasing proportion of adjunct gerunds, it is not surprising that a chi-square goodness-of-fit test suggests that it reflects an ongoing linguistic change. Indeed, the proportion in issue is lower than expected in Classical Latin and higher than expected in Late Latin in a statistically highly significant way ($\chi 2 = 200.21$; $df = 1$; $p < 0.0001$) (Table 4.38).

Table 4.38. Observed *vs* expected proportion of adjunct gerunds to the total number of gerunds in Classical and Late Latin

Period	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Classical Latin	306	(24,09%)	541	(42,60%)	-10.91
Late Latin	792	(60,55%)	557	(42,58%)	+9.95

This change undeniably consists of a specialisation of the gerund in adverbial external syntax. However, the results in Tables 4.37 and 4.38 do not indicate to which extent this specialisation is the indirect result of the gradual substitution of the gerund by the infinitive in nominal syntactic configurations, on the one hand, and the direct result of the gradual replacement of the present participle by the gerund in adverbial external syntax, on the other. Yet, some insight in the dynamics behind this specialisation can be gained by comparing the frequency pattern of nominal gerunds and adverbial gerunds: whereas the proportion of these gerunds to the total number of gerunds respectively rises and declines in a more or less equally significant way, the (normalised) absolute frequency of the adverbial gerund sharply increases (*i.e.* from 5 to 19 instances per 10 000 words), while that of the nominal gerund decreases only modestly (*i.e.* from 15 to 12 instances per 10 000 words). This difference in (normalised) absolute frequency indicates that, in the Late Latin corpus of this study, the specialisation of the gerund in adverbial external syntax might be more due to the generalisation of the gerund in adjuncts at the expense of the present participle than to the generalisation of the infinitive in nominal syntactic configurations at the cost of the gerund (and to the concomitant declining frequency of nominal gerunds). This hypothesis will be verified in §4.3.5.

4.3.2. Frequency within the period of Late Latin

During the Late Latin period, the frequency of adjunct gerunds rises according to both parameters, *i.e.* their (normalised) absolute frequency and their proportion to the total number of gerunds (Table 4.39). This is in line with predictions. However, the frequency rise is modest, and hence probably hazardous.

Table 4.39. Frequency of adjunct gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	**#adjunct gerunds (per 10 000 words)**		**#gerunds (per 10 000 words)**		**#adjunct gerunds/ #gerunds**
Imperial Latin	29	(9.67)	52	(17.33)	55,77%
Merovingian Latin	322	(17.18)	525	(28.01)	61,33%
Early Medieval Latin	348	(20.35)	553	(32.34)	62,93%

This is confirmed by a chi-square goodness-of-fit test. The proportion of adjunct gerunds is lower than expected in Imperial and Merovingian Latin and higher than expected in Early Medieval Latin, but the differences between these three periods are statistically speaking insignificant ($\chi 2 = 0.44$; df = 2; p = 0.8025) (Table 4.40). Hence, the declining proportion of adjunct gerunds is most likely random.

Table 4.40. Observed *vs* expected proportion of adjunct gerunds to the total number of gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	29	(55,77%)	32	(61,54%)	-0.56
Merovingian Latin	322	(61,33%)	325	(61,90%)	-0.15
Early Medieval Latin	348	(62,93%)	342	(61,84%)	+0.32

These figures corroborate the conclusion drawn with regard to the nominal gerund, *viz.* that the external syntax of the gerund greatly changes from Classical to Late Latin, but remains relatively homogenous during the Late Latin period. Furthermore, despite their sharp frequency rise between Classical and Late Latin and although they are the dominant type of gerunds in Late Latin, the proportion of adjunct gerunds in Late Latin is lower than expected in the light of the intensifying competition of the gerund with the infinitive and the present participle. Since in most (Old) Romance languages, the gerund can only occur in adjuncts and progressive constructions (*cf.* Aalto 1949: 73, 75-76; Elcock 1960: 111; Väänänen 1963[3]: 139; Bauer 1993: 62; Adams 2013: 725; Vincent 2016: 45), the figures for the adverbial gerund support the issue raised in connection with the nominal gerund, namely that there is a large gap between the use of the gerund in Late Latin, at least in the written records transmitted to us, and in (Old) Romance.

4.3.3. Frequency and productivity in the three thematic domains

In the Late Latin corpus, the (normalised) absolute frequency of the adjunct gerund is highest in the religious texts (Table 4.41). However, the difference with the historical and legal texts is too small to be significant. By contrast, the proportion of this type of gerunds to the total number of gerunds is much lower in the legal texts than in the historical and religious texts.

Table 4.41. Frequency of adjunct gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	#adjunct gerunds (per 10 000 words)		#gerunds (per 10 000 words)		#adjunct gerunds/ #gerunds
Historical	145	(18.56)	213	(27.26)	68,08%
Religious	472	(19.05)	720	(29.06)	65,56%
Legal	175	(17.50)	375	(37.49)	46,67%

According to a chi-square goodness-of-fit test, the low proportion of adjunct gerunds in the legal texts is not random. Indeed, this proportion is lower than expected in these texts and higher than expected in the historical and religious texts in a statistically very significant way ($\chi 2 = 16.91$; df = 2; p = 0.0002) (Table 4.42).

Table 4.42. Observed *vs* expected proportion of adjunct gerunds to the total number of gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	145	(68,08%)	129	(60,56%)	+1.41
Religious	472	(65,56%)	436	(60,56%)	+1.73
Legal	175	(46,67%)	227	(60,53%)	-3.45

This result is the mirror image of that obtained for adnominal gerunds: whereas the legal texts contain the lowest proportion of adjunct gerunds, they comprise the highest density of adnominal gerunds. By contrast, the historical and religious texts are characterised by a high proportion of adjunct gerunds and a low proportion of adnominal gerunds (for the methodological implications of this, see §4.5).

The frequency of the adjunct gerunds in the three thematic domains will now be further examined in the light of their productivity, measured in terms of the lexical variation between the gerunds and the main verbs. Table 4.43 shows that this lexical variation is lower in the legal texts than in the historical and religious texts. This is in line with the trend observed in the case of adnominal and verb complement gerunds.

Table 4.43. Productivity of the adjunct gerund in the historical, religious, and legal texts in Late Latin

	Historical	Religious	Legal
#tokens	145	472	175
#types	134	454	107
#hapaxes	124	440	79
#types/#tokens	**0.92**	**0.96**	**0.61**
#hapaxes/#tokens	**0.86**	**0.93**	**0.45**

Thus, the adjunct gerund is least schematic in the legal texts (*cf.* Barðdal 2008: 22, 26). Within the group of legal texts, the productivity of the adjunct gerund is higher than that of the adnominal gerund, based on both the type-token ratio (0.61 *vs* 0.36) and the hapax-token ratio (0.45 *vs* 0.21), but about as high as that of the verb complement gerund, for which the type-token and hapax-token ratios are respectively 0.63 and 0.50.

Again, the low productivity of the adjunct gerund in the legal texts is partially due to the fact that these texts comprise more lexical combinations with a relatively high frequency. Yet, the influence of these combinations on the productivity of the adjunct gerund is less pronounced than in the case of the adnominal and verb complement gerunds. The five most frequent lexical combinations of an adjunct gerund and a main verb account for 19% of all combinations in the legal texts, against only 8% in the historical texts and 3% in the religious texts. Moreover, in the legal texts, the most frequent combination

represents 5% of all combinations, *vs* 2% and less than 1% in respectively the historical and the religious texts (Table 4.44).

Table 4.44. Inventory and cumulative frequency of the five most frequent lexical combinations of a main verb and an adjunct gerund in the historical, religious, and legal texts in Late Latin

Thematic domain	Lexeme of main verb	Lexeme of gerund	Frequency (%)
Historical	*mittere* 'to send'	*hiemare* 'to winter'	3 (2,07%)
	capere 'to seize'	*bellare* 'to fight'	2 (1,38%)
	irruere 'to invade'	*vastare* 'to ravage'	2 (1,38%)
	ingredi 'to enter'	*pugnare* 'to fight'	2 (1,38%)
	dimittere 'to send away'	*custodire* 'to guard'	2 (1,38%)[16]
			11 (7,59%)
Religious	*tradere* 'to deliver'	*crucifigere* 'to crucify'	3 (0,64%)
	divertere 'to divert'	*manere* 'to stay'	3 (0,64%)
	pergere 'to go on'	*orare* 'to pray'	3 (0,64%)
	venire 'to come'	*orare* 'to pray'	3 (0,64%)
	pergere 'to go on'	*sepelire* 'to bury'	2 (0,42%)[17]
			14 (2,97%)
Legal	*tradere* 'to bequeath'	*possidere* 'to possess'	9 (5,14%)
	relinquere 'to bequeath'	*possidere* 'to possess'	9 (5,14%)
	derelinquere 'to bequeath'	*possidere* 'to possess'	6 (3,43%)
	residere 'to sit down'	*audire* 'to listen'	5 (2,86%)
	relaxare 'to loosen'	*excolere* 'to cultivate'	5 (2,86%)[18]
			34 (19,43%)

The two most frequent combinations in the legal texts are *relinquere* 'to bequeath'/*possidere* 'to possess' (58) and *tradere* 'to bequeath'/*possidere* 'to possess' (59).

(58) *[...] ut [...] quicquid [...] teneat atque possedeat et*
that INDF.ACC.N.SG have.SBJV.PRS.3SG and possess.SBJV.PRS.3SG and
suis posteris ad ***posside-nd-um*** *relinquat [...].*
his.DAT.M.PL descendant.DAT.M.PL to possess-GER-ACC bequeath.SBJV.PRS.3SG
'(...) that he may have and possess and bequeath everything to his descendants (in order for them) to possess (it).' (*Form. Marc.* 1.30)

(59) *[...] ipso campo vobis [...] tradi* ***possede-nd-um***.
INTENS.ABL[ACC].M.SG field.ABL[ACC].M.SG you.DAT.M.PL bequeath.PST.1SG possess-GER-ACC
'I bequeathed you this field (in order for you) to possess (it).' (*Form. Marc.* 2.21)

[16] The historical texts contain five more lexical combinations occurring twice.
[17] There are nine more lexical combinations used twice in the religious texts.
[18] The legal texts present one more lexical combination occurring five times.

Table 4.44 also shows that, from a semantic point of view, the productivity of the adjunct gerund in the legal texts is even lower than suggested by the figures in this table, since the three most frequent lexical combinations are synonymous (*cf.* Barðdal 2008: 35).

Table 4.45 shows that a similar conclusion can be drawn from the lexical variation of the adjunct gerunds alone. Indeed, this variation is lower in the legal texts than in the historical and religious texts.

Table 4.45. Lexical variation of the adjunct gerunds in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	145	472	175
#types	100	301	57
#hapaxes	79	213	25
#types/#tokens	**0.69**	**0.64**	**0.33**
#hapaxes/#tokens	**0.54**	**0.45**	**0.14**

To a greater extent than the productivity of the adjunct gerund, the low lexical variation of the adjunct gerunds in the legal texts is influenced by the high frequency of specific lexemes. The five most frequent lexemes account for 42% in the legal texts against 17% in the historical texts and 11% in the religious texts. Also, the most frequent lexeme in the legal texts represents 20% of all gerunds, while it accounts for only 5% in both the historical and religious texts (Table 4.46).

Table 4.46. Inventory and cumulative frequency of the five most frequent lexemes used for adjunct gerunds in the historical, religious, and legal texts in Late Latin

Thematic domain	**Lexeme of gerund**	**Frequency (%)**
Historical	*hiemare* ‘to overwinter’	7 (4,83%)
	pugnare ‘to fight’	5 (3,45%)
	proeliare ‘to fight’	5 (3,45%)
	fugere ‘to flee’	4 (2,76%)
	vastare ‘to ravage’	4 (2,76%)[19]
		25 (17,24%)
Religious	*orare* ‘to pray’	24 (5,08%)
	legere ‘to read’	7 (1,48%)
	praedicare ‘to preach’	7 (1,48%)
	dicere ‘to say’	7 (1,48%)
	manere ‘to stay’	6 (1,27%)
		51 (10,81%)

[19] The historical texts contain three other lexemes occurring four times.

Legal	*possidere* 'to possess'	35 (20,00%)
	excolere 'to cultivate'	11 (6,29%)
	audire 'to listen'	10 (5,71%)
	facere 'to do'	9 (5,14%)
	dominare 'to dominate'	9 (5,14%)
		74 (42,29%)

The most frequent lexeme in the legal texts is *possidere* 'to possess' (e.g. (58-59)). The examples in (60) and (61) illustrate the most frequent lexeme in respectively the historical (*hiemare* 'to winter') and the religious texts (*orare* 'to pray').

(60) *Chuni* ***hiema-nd-um*** *annis* *singulis* *in* *Esclavos*
Hun.NOM.M.PL overwinter-GER-ACC year.ABL.M.PL every.ABL.M.PL to Slave.ACC.M.PL
veniebant *[...].*
come.PST.3PL
'The Huns came every year to the Slaves in order to overwinter.' (Fredeg. c*hron.* 4.48)

(61) *[...] sed* *ea* *quae* *sancti* *viri* ***ora-nd-o***
but DEM.NOM.N.PL REL.ACC.N.PL sacred.NOM.M.PL man.NOM.M.PL pray-GER-ABL
efficiunt *[...].*
accomplish.PRS.3PL
'But the things that sacred men accomplish by praying (...).' (Greg. M. *dial.* 1.8)

A similar picture emerges from the lexical variation of the main verbs. It is also lower in the legal texts than in the historical and religious texts (Table 4.47).

Table 4.47. Lexical variation of the verbs combined with an adjunct gerund in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	145	472	175
#types	89	278	51
#hapaxes	65	195	22
#types/#tokens	**0.61**	**0.59**	**0.29**
#hapaxes/#tokens	**0.45**	**0.41**	**0.13**

The five most frequent lexemes represent 41% of all lexemes in the legal texts *vs* 23% in the historical texts and 13% in the religious texts. Also, the most frequent lexeme alone accounts for 14% of all main verbs in the legal texts against 7% and 4% in respectively the historical and religious texts (Table 4.48).

Table 4.48. Inventory and cumulative frequency of the five most frequent lexemes used for verbs combined with an adjunct gerund in the historical, religious, and legal texts in Late Latin

Thematic domain	Lexeme of main verb	Frequency (%)
Historical	*mittere* 'to send'	10 (6,90%)
	dirigere 'to send'	7 (4,83%)
	venire 'to come'	6 (4,14%)
	pergere 'to go on'	6 (4,14%)
	ingredi 'to enter'	4 (2,76%)[20]
		33 (22,76%)
Religious	*venire* 'to come'	18 (3,81%)
	tradere 'to hand over'	17 (3,60%)
	pergere 'to go on'	11 (2,33%)
	dicere 'to say'	8 (1,69%)
	dare 'to give'	8 (1,69%)
		62 (13,14%)
Legal	*ingredi* 'to enter'	24 (13,71%)
	recipere 'to receive'	18 (10,29%)
	relaxare 'to loosen'	11 (6,29%)
	tradere 'to bequeath'	10 (5,71%)
	residere 'to sit down'	9 (5,14%)[21]
		72 (41,14%)

The most frequent lexemes in the historical (*mittere* 'to send'), religious (*venire* 'to come'), and legal texts (*ingredi* 'to enter') are exemplified in respectively (62-64).

(62) *[...] misit monachum suum ad* ***depreca-nd-um*** *iudici ut [...].*
send.PST.3SG monk.ACC.M.SG his.ACC.M.SG to beg-GER-ACC judge.DAT.M.SG that
'He sent his monk in order to beg the judge that (...).' (Greg. Tur. *Franc.* 6.8)

(63) *[...] cum venero ante tribunal Christi ad* ***accusa-nd-um*** *te [...].*
when come.FUT.1SG before tribunal.ACC.N.SG Christ.GEN.M.SG to accuse-GER-ACC you.ACC.M.SG
'When I will have come before the tribunal of Christ to accuse you (...).' (*Pass. Columb.* 1.8.16)

[20] The historical texts contain two other lexemes occurring four times.
[21] There is one more lexeme occurring nine times in the legal texts.

(64) *[...] ingressus* *est* *ille* *in loco*
enter.PTCP.PST.NOM.M.SG be.PRS.3SG DEF.NOM.M.SG in place.ABL.M.SG
nuncupante *illo* *[...] ad placitum* *suum*
be_called.PTCP.PRS.ABL.M.SG DEF.ABL.M.SG to plea.ACC.N.SG his.ACC.N.SG
custodie-nd-um *[...].*
watch_over-GER-ACC
'He entered that place called X in order to watch over his plea.' (*Form. Turon.* 31)

4.3.4. Morphological marking of the gerund

In order to examine whether the frequency of ablative adjunct gerunds increases from Classical to Late Latin and within the period of Late Latin, as expected in view of the intensifying competition of the gerund with the infinitive and the present participle in Late Latin, it is first necessary to explore the morphological marking of the adjunct gerunds in Late Latin. As in Classical Latin, these forms can stand in the prepositional accusative (e.g. *ad custodiendum* 'to watch over' (64)), the bare genitive (e.g. *orandi* 'to pray' (65)), the prepositional genitive (e.g. *explorandi causa* 'to explore' (66)), the (bare) dative (e.g. *devitando* 'to avoid' (67)), the bare ablative (e.g. *moriendo* 'dying' (68)), and the prepositional ablative (e.g. *pro redimendum* 'to redeem' (69)).[22]

(65) *[...]* ***ora-nd-i*** *extra civitate egrediens [...] dicebat [...].*
pray-GER-GEN out_of city.ABL[ACC].F.SG leave.PTCP.PRS.NOM.M.SG say.PST.3SG
'When leaving the city in order to pray, he said (...).' (*Vit. Hugb.* 6)

(66) *[...]* ***explora-nd-i*** *causa adiit urbem.*
explore-GER-GEN in_order_to go_to.PST.3SG city.ACC.F.SG
'He went to the city in order to explore it.' (*Vit. Gall. Wett.* 1.6)

(67) *[...] ibi=que diebus plurimis hanc infestacionem* ***devita-nd-o***
there=and day.ABL.M.PL many.ABL.M.PL DEM.ACC.F.SG threat.ACC.F.SG avoid-GER-DAT
et rigio temore residit.
and royal.ABL.M.SG fear.ABL.M.SG stay.PST.3SG
'And there he stayed many days (in order) to avoid this threat and out of fear for the king.' (Fredeg. *chron.* 4.83)

(68) *[...] daemones tuos* ***morie-nd-o*** *vicerunt [...].*
demon.ACC.M.PL your.ACC.M.PL die-GER-ABL defeat.PST.3PL
'They defeated your demons by dying.' (*Pass. Symph.* 1.552.19)

[22] The marking of *redimendum* 'to redeem' will be discussed below.

(69) *[...] ut aliquid [...] pro* ***redime-nd-um*** *ultionem nostram*
that INDF.ACC.N.SG for redeem-GER-ACC[ABL] retribution.ACC.F.SG our.ACC.F.SG
peccaminum Domino offerre deberimus [...].
sin.GEN.N.PL Lord.DAT.M.SG offer.INF.PRS must.SBJV.PST.1PL
'(...) that we must offer something to the Lord for redeeming the retribution of our sins.' (*Form. Sal. Bign.* 18)

When marked in the prepositional accusative, the gerund is mostly governed by *ad* 'to' (297 instances out of 305). The other prepositions are *inter* 'during' (n=3), *ob* 'for the sake of' (n=2), *propter* 'because of' (n=2), and *praeter* 'apart from' (n=1). In the prepositional ablative, the gerund is governed twice by *pro* 'in exchange for' and once by *de* 'concerning'. Surprisingly, there are no ablative gerunds governed by *in* 'in', although they account for approximately a quarter of all ablative adjunct gerunds in Classical Latin (Vangaever 2018: 13). The prepositional genitive forms are mostly governed by *gratia* 'for the sake of' (24 instances out of 38) or *causa* 'for the sake of' (8 instances), but a few instances are also found with *ad* 'to'. This marking is again a morphosyntactic blend of a bare genitive and a prepositional accusative pattern, as in the case of the three coordinated adnominal gerunds in (23) and the adjective complement gerund in (49). In (70), the quirkily marked prepositional genitive gerund *ad faciendi* 'to do' is coordinated with the canonically marked prepositional accusative *ad possidendum* 'to possess'.

(70) *[...] ins tua trado dominatione et potestate*
in your.ABL[ACC].F.SG leave.PRS.1SG possession.ABL[ACC].F.SG and power.ABL[ACC].F.SG
perpetualiter ad ***posside-nd-um*** *vel ad* ***facie-nd-i*** *[...] quicquid volueris.*[23]
eternally to possess-GER-ACC or to do-GER-GEN INDF.ACC.N.SG choose.FUT.2SG
'I leave (this) in your possession and power in order for you to eternally possess (it) and do (with it) whatever you will choose.' (*Form. Turon. app.* 3)

In addition to the markings just mentioned, some adjunct gerunds have been found in the bare accusative (e.g. *hiemandum* 'to winter' (60)). This marking is unattested in Classical Latin (see § 2.1.1.2.2.2).

Finally, like some adnominal and verb complement gerunds, some adjunct gerunds end in *-ndo* and thus take the form of dative or ablative gerunds, but are to be analysed instead as accusative forms affected by the apocope of final /m/ and the confusion between /ō/ and /ŭ/. This analysis is undeniable for all forms like *praenunciando* 'to announce' (71), since they are governed by the preposition *ad* 'to', which assigns the accusative to its complement (*cf.* Pinkster 2015: 1230).

(71) *[...] ad gloriam dei* ***praenuncia-nd-o*** *surgamus.*
to glory.ACC.F.SG God.GEN.M.SG announce-GER-ABL[ACC] rise.SBJV.PRS.1PL
'Les us rise in order to announce the glory of God.' (*Vit. Wandr.* 2)

[23] There are no alternative readings for the form *faciendi* 'to do' (*cf.* Zeumer 1886: 164).

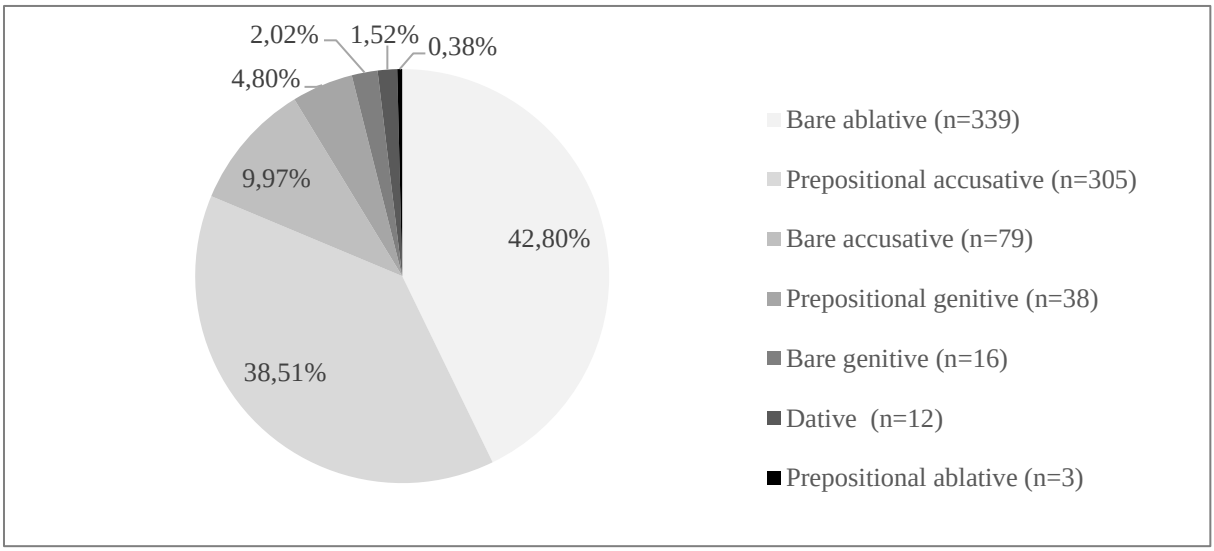
By contrast, all bare adjunct gerunds in *-ndo* bearing a semantic value that can be expressed by a dative or bare ablative gerund are best taken as such. For instance, purpose gerunds like *devitando* 'to avoid' (67) have been analysed as dative gerunds, while manner/instrumental/causal forms like *moriendo* 'by dying' (68) have been treated as bare ablative gerunds.

Conversely, some adjunct gerunds end in *-ndum* and thus look like bare accusative gerunds, but are to be taken as ablative gerunds with an ending that is hypercorrected for the phonetic evolutions just mentioned. This analysis is unquestionable for forms like *redimendum* 'redeeming' (69), which needs to be considered as an ablative gerund due to the presence of the preposition *pro* 'in exchange of', which assigns the ablative to its complement (*cf.* Pinkster 2015: 1230-1231).[24] This analysis also applies to all bare forms having a semantic value inaccessible to the bare accusative adjunct gerund, such as manner, instrument, or cause. In this way, instrumental *-ndum* gerunds like *fundendum* 'shedding' (72) should be regarded as hypercorrected bare ablative gerunds.[25]

(72) *[...] qui* *nos* *sanguinem* ***funde-nd-um*** *redemisti.*
REL.NOM.M.SG we.ACC.M.PL blood.ACC.M.SG shed-GER-ACC[ABL] redeem.PST.2SG
'(...) who redeemed us by shedding blood.' (*Visio Bar.* 10)

Figure 4.4 shows the frequency of the different markings of the adjunct gerunds in the Late Latin corpus.

Figure 4.4. Morphological marking of the adjunct gerunds in Late Latin



[24] It is interesting to note that the three Late Latin prepositional ablative adjunct gerunds have the hypercorrected ending *-ndum*. Due to the low absolute number of instances, however, it is impossible to determine whether or not this is accidental.
[25] The analysis of such forms as hypercorrected bare ablative gerunds is further supported by the fact that for several of these forms, including *fundendum* 'by shedding' (72), the non-hypercorrected ending *-ndo* is proposed as an alternative reading (*cf.* Levison 1910: 385).

As shown in Figure 4.4, the bare ablative is the dominant marking of adjunct gerunds (43%). However, the difference with the prepositional accusative (39%) is tiny. Except for the bare accusative, accounting for 10% of all adjunct gerunds, the other markings are extremely rare, each representing less than 5%. The most striking result in Figure 4.4 is that despite its dominance, the bare ablative is much less frequent than expected in view of the intensifying competition of the gerund with the infinitive and the present participle in Late Latin. In order to gain more insight into this result, I will investigate the frequency of ablative adjunct gerunds from Classical to Late Latin (§4.3.4.1) and within Late Latin (§4.3.4.2).

4.3.4.1. Frequency of ablative adjunct gerunds from Classical to Late Latin

In (normalised) absolute terms, the frequency of ablative adjunct gerunds increases between Classical and Late Latin, as expected (Table 4.49). However, this result is to be seen in the light of the increasing frequency of adjunct gerunds in general. Hence, it is likely random. More tellingly, against predictions, the proportion of ablative adjunct gerunds to the total number of adjunct gerunds sharply declines.

Table 4.49. Frequency of ablative adjunct gerunds in Classical and Late Latin

Period	**#ablative adjunct gerunds (per 10 000 words)**	**#adjunct gerunds (per 10 000 words)**	**#ablative adjunct gerunds/ #gerunds**
Classical Latin	245 (3.92)	306 (4.90)	80,07%
Late Latin	342 (8.03)	792 (18.60)	43,18%

A chi-square goodness-of-fit test shows that the proportion of ablative adjunct gerunds is higher than expected in Classical Latin and lower than expected in Late Latin in a statistically highly significant way ($\chi 2 = 55.48$; df = 1; $p < 0.0001$) (Table 4.50). Hence, the decline observed in Table 4.49 might not be random.

Table 4.50. Observed *vs* expected proportion of ablative adjunct gerunds to the total number of adjunct gerunds in Classical and Late Latin

Period	**Observed frequency (%)**	**Expected frequency (%)**	**Standardised residuals**
Classical Latin	245 (80,07%)	164 (53,59%)	+6.37
Late Latin	342 (43,18%)	423 (53,41%)	-3.96

As shown in Figure 4.4, the low proportion of ablative adjunct gerunds in Late Latin is due to the high proportion of accusative gerunds. These represent almost half of all adjunct gerunds in the Late Latin corpus (48%), while they account for only 20% in the Classical Latin corpus (61 instances out of 306). Thus, the question that arises is not why the proportion of ablative adjunct gerunds decreases between Classical and Late Latin, but why the proportion of accusative gerunds increases so drastically.

Recall that the gerund is marked based on its function or governing preposition. As mentioned in §4.3.4, the overwhelming majority of prepositional accusative adjunct gerunds in the Late Latin corpus are governed by *ad* 'to' (297 instances out of 305). This preposition usually bears a purpose value, as in (73) (Aalto 1949: 86-88).

(73) *[...] ad monasterium suum [...] ad* ***mane-nd-um*** *divertit.*
to monastery.ACC.N.SG his.ACC.N.SG to stay-GER-ACC divert.PST.3SG
'He diverted to his monastery (in order) to stay (there).' (*Vit. Elig.* 2.18)

This same value is also conveyed by most bare accusative gerunds (e.g. *pugnandum* 'to fight' (74)) (*cf.* Aalto 1949: 86).

(74) *[...] ad portam castri [...]* ***pugna-nd-um*** *perrexerunt.*
to door.ACC.F.SG camp.GEN.M.SG fight-GER-ACC march.PST.3PL
'They marched to the door of the camp in order to fight.' (Fredeg. *chron.* 4.87)

Unlike accusative adjunct gerunds, ablative adjunct gerunds cannot express the purpose of the main state of affairs.[26] This leads us to conclude that the high proportion of accusative adjunct gerunds and the low proportion of ablative adjunct gerunds in the Late Latin corpus has a semantic explanation (and that the accusative marking of purpose adjunct gerunds is preferred over the genitive and dative markings). The high fraction of accusative adjunct gerunds also suggests that, in the Late Latin corpus, purpose adjunct gerunds are barely substituted by infinitives, contrary to what is expected in the light of the intensifying competition between the gerund and the infinitive in this type of adjuncts.

4.3.4.2. Frequency of ablative adjunct gerunds within the period of Late Latin

During the Late Latin period, the frequency of ablative adjunct gerunds rises in (normalised) absolute terms, while it declines in proportion to the total number of adjunct gerunds (Table 4.51). The frequency rise in absolute terms is again to be seen in the context of the increasing frequency of adjunct gerunds in general, and hence it is probably hazardous. The declining proportion of ablative adjunct gerunds is more relevant here.

[26] As mentioned in §2.1.1.2.2.2 (fn. 15), some authors argue that, in Late Latin, the bare ablative adjunct gerund acquires the potential to express the purpose of the main state of affairs, as part of its more general development toward semantical neutrality and versatility (e.g. Aalto 1949: 76-78; Hofmann & Szantyr 1965: 380). However, the ablative gerund has the same morphology as the dative gerund, and the latter typically has a purpose value from the earliest texts onward. Therefore, there is no objective reason to consider purpose adjunct *-ndo* gerunds as ablative gerunds in Late Latin, but as dative gerunds in Classical Latin. Anyhow, the question whether these gerunds are dative or ablative forms has no impact on the quantitative results of this study, since the number of purpose adjunct *-ndo* gerunds in the Late Latin corpus is extremely low (12 instances out of 792).

Table 4.51. Frequency of ablative adjunct gerunds to the total number of adjunct gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	#ablative adjunct gerunds (per 10 000 words)		#adjunct gerunds (per 10 000 words)		#ablative adjunct gerunds/ #adjunct gerunds
Imperial Latin	18	(6.00)	29	(9.67)	62,07%
Merovingian Latin	155	(8.27)	322	(17.18)	48,14%
Early Medieval Latin	145	(8.48)	348	(20.35)	41,67%

However, a chi-square goodness-of-fit test suggests that this decrease is probably random. Indeed, the proportion of ablative adjunct gerunds is higher than expected in Imperial and Merovingian Latin and lower than expected in Early Medieval Latin, but the differences between these periods are statistically insignificant ($\chi 2 = 1.86$; df = 2; p = 0.3946) (Table 4.52).

Table 4.52. Observed *vs* expected proportion of ablative adjunct gerunds to the total number of adjunct gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	18	(62,07%)	15	(51,72%)	+0.88
Merovingian Latin	155	(48,14%)	148	(45,96%)	+0.60
Early Medieval Latin	145	(41,67%)	156	(44,83%)	-0.85

The declining proportion of ablative adjunct gerunds from Classical to Late Latin and within the period of Late Latin suggests that, against predictions, the present participle might not be increasingly replaced by the bare ablative gerund in adjuncts in the Late Latin corpus. At the same time, this decline suggests that, in this same Late Latin corpus, the gerund is not gradually substituted by the infinitive in purpose adjuncts (for this would reduce the absolute frequency of accusative, genitive, and dative gerunds, and, incidentally, their proportion to the total number of adjunct gerunds).

4.3.5. Frequency of manner/instrumental/causal bare ablative adjunct gerunds

It is held that, in Late Latin, the bare ablative adjunct gerund is increasingly used with a semantic value other than its original manner/instrumental/causal value, thus evolving into a semantically more neuter and versatile strategy for adverbial subordination (*cf.* Lyer 1932; Aalto 1949: 65-66; Elcock 1960: 111; Väänänen 1963³: 140-141; Hofmann & Szantyr 1965: 379-380; Bauer 1993, 2005; Adams 2003: 748, 2013: 725-740). In doing so, it is argued to progressively replace the adverbial present participle. Thus, the frequency of non-manner/instrumental/causal bare ablative gerunds is expected to increase between Classical and Late Latin and within the period of Late Latin itself. In order to empirically examine this

hypothesis, a binary distinction has been made between bare ablative adjunct gerunds with a manner/ instrumental/causal value, on the one hand, and those having another semantic value, on the other.

Manner gerunds express an inherent and descriptive property of the main state of affairs (Vester 1983: 109; Pinkster 2015: 858). For instance, in (75) *vociferando* ‘yelling’ specifies the way in which Pompinius shouted.

(75) *[...] Pompinius* *coepit* ***vocifera-nd-o*** *clamare* *[...].*
Pompinius.NOM.M.SG begin.PST.3SG yell-GER-ABL shout.INF.PRS
‘Pompinius began to shout yellingly.’ (*Pass. Proc.* 2.22.2)

Instrumental gerunds express the means by which is realised – in a controlled and intentional way – the main state of affairs (Vester 1983: 109; Pinkster 2015: 874). In (76), *tangendo* ‘by touching’ and *videndo* ‘by seeing’ denote the states of affairs through which the speaker is invited to acknowledge that some object is a rock.

(76) *Mitte* *manum* *tuam* *et* ***tange-nd-o*** *disce*
put.IMP.PRS.2SG hand.ACC.F.SG your.ACC.F.SG and touch-GER-ABL learn.IMP.PRS.2SG
saxum *hoc* *esse* *si* ***vide-nd-o*** *non* *nosti.*
rock.ACC.N.SG DEM.ACC.N.SG be.INF.PRS if see-GER-ABL NEG know.PST.2SG
‘Raise your hand and learn that this is a rock by touching (it) if you do not know it by sight.’ (*Pass. Caec.* 1.30.27)

Finally, causal gerunds express whatever brings about the main state of affairs in an uncontrolled and unintentional way (Vester 1983: 109; Pinkster 2015: 902). For example, in (77) the clause *nec orando sed moerendo* ‘not because of praying, but because of being sad’ specifies why the man of God was crying.

(77) *Cum=que [...]* *nec* *tamen* *vir* *domini* *ut* *consueverat*
when=and NEG nonetheless man.NOM.M.SG Lord.GEN.M.SG as become_used_to.PST.3SG
ora-nd-o *plangeret* *sed* ***moere-nd-o.***
pray-GER-ABL cry.SBJV.PST.3SG but be_sad-GER-ABL
‘When the man of the Lord did nonetheless not cry because he was praying, as he used to, but because he was sad.’ (Greg. M. *dial.* 2.17.7-8)

The semantic values expressed by non-manner/instrumental/causal gerunds are varied. They will not be further examined here, since the precise value of these forms is less relevant for the purpose of this study than their being non-manner/instrumental/causal.[27] Suffice it to note that the most frequent value of these

[27] For the inventory and frequency of these values in a Late Latin corpus of technical texts, see Galdi & Vangaever (2019: 100-103). See also Lyer (1932: 382-396) and Aalto (1949: 65-70).

forms is a temporal value, consisting of expressing a state of affairs concomitant with the main state of affairs, as in (78) (Galdi & Vangaever 2019: 101).

(78) *[...]* ***gratula-nd-o*** *ob* *talis* *patroni* *meritum* *ad*
rejoice-GER-ABL because_of so_great.GEN.M.SG patron.GEN.M.SG merit.ACC.N.SG to
propria *reversi* *sunt.*
own.ACC.N.PL return.PTCP.PST.NOM.M.PL be.PRS.3PL
'They returned to their homes rejoicing for the merit of so great a patron.' (*Vit. Gall. Wett.* 2.36)

In order to investigate to which extent the bare ablative adjunct gerund loosens its ties with its original manner/instrumental/causal value in Late Latin and evolves into a full-fledged substitute of the adverbial present participle, I will explore the frequency of manner/instrumental/causal bare ablative forms from Classical to Late Latin (§4.3.5.1) and during the Late Latin period (§4.3.5.2).

4.3.5.1. From Classical to Late Latin

Table 4.53 shows that the (normalised) absolute frequency of manner/instrumental/causal gerunds rises between Classical and Late Latin, against expectations. However, this trend is probably accidental, since the frequency of bare ablative adjunct gerunds in general also increases in this period. More importantly, the proportion of manner/instrumental/causal bare ablative adjunct gerunds to the total number of bare ablative gerund adjuncts decreases, as expected. In Table 4.53, the abbreviation MIC stands for '**m**anner/ **i**nstrumental/**c**ausal').

Table 4.53. Frequency of manner/instrumental/causal bare ablative adjunct gerunds in Classical and Late Latin

Period	**#MIC bare ablative adjunct gerunds (per 10 000 words)**	**#bare ablative adjunct gerunds (per 10 000 words)**	**#MIC bare ablative adjunct gerunds/ #bare ablative adjunct gerunds**
Classical Latin	165 (2.64)	180 (2.88)	91,67%
Late Latin	263 (6.18)	342 (8.03)	76,90%

However, a chi-square goodness-of-fit test indicates that this decline is probably random: the proportion of manner/instrumental/causal bare ablative adjunct gerunds is lower than expected in Classical Latin and higher than expected in Late Latin in a statistically insignificant way ($\chi 2 = 2.96$; df = 1; p = 0.0853) (Table 4.54).

Table 4.54. Observed *vs* expected proportion of manner/instrumental/causal bare ablative adjunct gerunds to the total number of bare ablative adjunct gerunds in Classical and Late Latin

Period	Observed frequency (%)	Expected frequency (%)	Standardised residuals
Classical Latin	165 (91,67%)	148 (82,22%)	+1.43
Late Latin	263 (76,90%)	280 (81,87%)	-1.04

In Late Latin, the link of the bare ablative adjunct gerund with its original manner/instrumental/causal value thus remains too strong for it to be regarded as semantically neuter or neutralised. Admittedly, the proportion of manner/instrumental/causal forms declines from Classical to Late Latin, but even in Late Latin, the overwhelming majority of bare ablative forms express one of their original values. This same conclusion was drawn by Galdi & Vangaever (2019: 100-103, 106-108) for a corpus of technical texts: the proportion of manner/instrumental/causal gerunds declines from Classical to Late Latin (see Table 4.55), but according to a chi-square goodness-of-fit test, this decrease is statistically insignificant ($\chi 2$ = 0.04; df = 1; p = 0.8415) (see Table 4.56). Note that Tables 4.55 and 4.56 do not provide the normalised absolute frequency of the gerunds involved, since the number of words in the corpora examined has not been calculated nor reported in Galdi & Vangaever (2019) – it is also less relevant here.

Table 4.2. Frequency of manner/instrumental/causal bare ablative adjunct gerunds in the Classical and Late Latin corpora investigated by Galdi & Vangaever (2019)

Period	#MIC bare ablative adjunct gerunds	#bare ablative adjunct gerunds	#MIC bare ablative adjunct gerunds/ #bare ablative adjunct gerunds
Classical Latin	84	99	84,85%
Late Latin	77	95	81,05%

Table 4.55. Observed *vs* expected proportion of manner/instrumental/causal bare ablative adjunct gerunds to the total number of bare ablative adjunct gerunds in the Classical and Late Latin corpora investigated by Galdi & Vangaever (2019)

Period	Observed frequency (%)	Expected frequency (%)	Standardised residuals
Classical Latin	84 (84,85%)	82 (82,83%)	+0.20
Late Latin	77 (81,05%)	79 (83,16%)	-0.21

The conclusion to be drawn from these independent corpus studies is that, in Late Latin, the bare ablative adjunct gerund tends to keep its ties with its original manner/instrumental/causal value, and thus does not develop into a full-fledged substitute of the adverbial present participle (see also Adams 2013: 725-740). In the transition to Romance, however, the bare ablative adjunct gerund does develop into this semantically neuter and versatile substitute of the adverbial present participle. One of the key factors that might have played a role in this evolution is the collapse of the case system: the loss of inflectional morphology weakens and eventually erases the association of the Romance outcome of the Latin bare

ablative gerund with its default, case-related manner/instrumental/causal value, hereby pushing it toward semantic neutrality and versatility.

4.3.5.2. Within the period of Late Latin

During the Late Latin period, the frequency of manner/instrumental/causal bare ablative adjunct gerunds does not show a rectilinear tendency, neither in (normalised) absolute terms nor in proportion to the total number of bare ablative adjunct gerunds (Table 4.57). Indeed, the absolute and relative frequency of this type of gerunds is fluctuating, the highest figures being found in Merovingian Latin.

Table 4.56. Frequency of manner/instrumental/causal bare ablative adjunct gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	**#MIC bare ablative adjunct gerunds (per 10 000 words)**		**#bare ablative adjunct gerunds (per 10 000 words)**		**#MIC bare ablative adjunct gerunds/ #bare ablative adjunct gerunds**
Imperial Latin	12	(4.00)	18	(6.00)	66,67%
Merovingian Latin	124	(6.61)	151	(8.06)	82,12%
Early Medieval Latin	103	(6.02)	143	(8.36)	72,03%

A chi-square goodness-of-fit test shows that the proportion of manner/instrumental/causal bare ablative adjunct gerunds is higher than expected in Imperial and Early Medieval Latin and lower than expected in Merovingian Latin, but the differences between these periods are statistically insignificant ($\chi 2 = 1.22$; df = 2; p = 0.5434) (Table 4.58).

Table 4.57. Observed *vs* expected proportion of manner/instrumental/causal bare ablative adjunct gerunds to the total number of bare ablative adjunct gerunds in Imperial, Merovingian, and Early Medieval Latin

Period	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Imperial Latin	12	(66,67%)	14	(77,78%)	-0.48
Merovingian Latin	124	(82,12%)	116	(76,82%)	+0.77
Early Medieval Latin	103	(72,03%)	110	(76,92%)	-0.62

These figures suggest that the fluctuation in Table 4.57 is probably random, and that the use of the bare ablative adjunct gerund is thus relatively homogenous within the Late Latin period. Put differently, the association of the bare ablative gerund with its original manner/instrumental/causal value remains strong throughout the period of Late Latin. This disallows regarding it as semantically neuter (or neutralised). This finding helps explaining the key factors behind the specialisation of the gerund in adverbial external syntax in the Late Latin corpus.

Since the gerund does not appear to evolve toward semantic neutrality, this specialisation is not due to an increasing substitution of present participles by gerunds in adjuncts. Yet, two other factors can be put forward. On the one hand, this specialisation in adverbial external syntax is partly – and indirectly – due to a gradual replacement of the gerund by the infinitive in nominal syntactic configurations. This hypothesis is supported by the decreasing frequency of nominal gerunds from Classical to Late Latin, both in (normalised) absolute terms and in proportion to the total number of gerunds (see Table 4.31 in §4.2.4). However, the role of this replacement may not be overestimated. Indeed, within the Late Latin period, the (normalised) absolute frequency of nominal gerunds rises (see Table 4.33 in §4.2.4), whereas the opposite tendency is expected if the gerund were progressively replaced by the infinitive in nominal external syntax. Yet, this hypothesis still stands, since the rising absolute frequency of nominal gerunds is to be seen within the light of a rising frequency of gerunds in general in this period (and the increase of gerunds in general is steeper than that of the nominal gerunds). On the other hand, the frequency rise of adverbial gerunds is also partly due to the increasing frequency of accusative purpose adjunct gerunds (see §4.3.4). Since this increase has a purely semantic explanation, however, it does not really show a syntactic specialisation of the gerund in adverbial external syntax.

Of the two main driving forces behind the specialisation of the gerund in adverbial external syntax hypothesised in the literature, *i.e.* the progressive substitution of the gerund by the infinitive in nominal syntactic configurations and the gradual replacement of the present participle by the gerund in adverbial external syntax, only the former thus seems to be at work in the corpus of this study, though less strongly than expected. A more general conclusion regarding this finding will be drawn in the following section.

4.3.6. Conclusion

As expected in the light of the intensifying competition of the gerund with the infinitive and the present participle in Late Latin, the frequency of adjunct gerunds rises from Classical to Late Latin. This holds for their (normalised) absolute frequency, but also, and more significantly, for their proportion to the total number of gerunds. The absolute and relative frequency of adverbial gerunds rises also within the Late Latin period, but in a statistically insignificant way – against predictions. Adjunct gerunds are less frequent and less productive in legal texts than in historical and religious texts.

Also against expectations, the fraction of ablative adjunct gerunds to the total number of gerunds declines, both from Classical to Late Latin and within the period of Late Latin. Additionally, the bare ablative adjunct gerund keeps its strong associations with its original manner/instrumental/causal value, impeding it to develop into a full-fledged substitute of the adverbial present participle. These findings suggest that the sharp frequency rise of adverbial gerunds from Classical to Late Latin is more the result of the gradual replacement of the gerund by the infinitive in nominal external syntax than of the gradual

substitution of the present participle by the gerund in adverbial external syntax. However, an important role is also played by the high frequency of accusative gerunds in the Late Latin corpus. This invites us to interpret the frequency rise of adverbial gerunds with care, since part of this increase thus has a purely semantic explanation rather than a syntactic one.

Notwithstanding their sharp frequency rise from Classical to Late Latin, adjunct gerunds account in Late Latin for a lower proportion of the total number of gerunds than expected in view of the Romance development (61%). The conclusion to be drawn from this is again that there is a large gap between the use of the gerund in Late Latin, at least in the written documents transmitted to us, and in most Romance languages, where it can only occur in adjuncts and in progressive constructions.

4.4. The verbal gerund

Having examined the evolution of the nominal and adverbial gerunds, I will explore in this section the evolution of the verbal gerund. In principle, this type of gerund can be used in only one way, *i.e.* as the main verb of a progressive construction (Aalto 1949: 75-76; Väänänen 1963[3]: 141; Hofmann & Szantyr 1965: 380; Dietrich 1973: 305-312; Haverling 2010: 497). Recall that the auxiliary (or the verb used as such) in this construction is some form of the existential verb *esse* 'to be' (e.g. *erat* 'he was' (79)), a posture verb (e.g. *stetit* 'he stood' (80)), or a motion verb (e.g. *ire* 'to go' (81)).

(79) *Tunc in monte erat Darius* ***vocifera-nd-o*** *et* ***congrega-nd-o***
then in mountain.ABL.M.SG be.PST.3SG Darius.NOM.M.SG scream-GER-ABL and gather-GER-ABL
multitudinem hostium [...].
multitude.ACC.F.SG enemy.GEN.M.PL
'Then, on the mountain, Darius was screaming and gathering a multitude of enemies.' (Leo *Alex*. 2.14)

(80) *[...] cum prope silvam venisset [...] stetit dux*
when near forest.ACC.F.SG come.SBJV.PST.3SG stand.PST.3SG general.NOM.M.SG
diu ***cuncta-nd-o***.
for_some_time hesitate-GER-ABL
'When he had come to a forest, the general stood in hesitation for some time.' (Amm. 17.1.8)

(81) *[...] credas ut stellas ire* ***trahe-nd-o*** *comas.*
believe.SBJV.PRS.2SG that star.ACC.F.PL go.INF.PRS drag-GER-ABL ray.ACC.F.PL
'You would believe that stars go dragging their rays.' (Ven. Fort. *carm*. 5.5.118)

In Late Latin, the gerund is held to gradually replace the present participle in progressive constructions (Lyer 1934: 169; Aalto 1949: 75; Dietrich 1973: 305, 307; Hofmann & Szantyr 1965: 380). However, the Late Latin corpus does not comprise any progressive gerund construction, while it does contain some instances of progressive present participle constructions (see §5.4.1). Hence, this hypothesis is not borne

out by empirical evidence (the examples in (79-81) above are cited from Aalto 1949: 75). The absence of progressive gerund constructions in the Late Latin corpus is in line with the status of this construction as an exploratory 'forerunner' (Bertinetto *et al.* 2000: 538) or 'precursor' (Bertinetto 2000: 563) of the Romance progressive construction, *viz.* a kind of 'experimental substitute' of synthetic imperfect tense verb forms (Pinkster 1998: 234; Haverling 2010: 492-493). It should also be recalled that the substitution of the present participle by the gerund in progressive constructions in the transition from Late Latin to Romance is a tendency rather than a rule, since the present participle variant is attested in several Old Romance languages (see §4.1.1 and §2.1.1.2.2.3).

Whereas the Late Latin corpus does not comprise gerunds used in a progressive construction, it does contain three gerunds functioning syntactically as a finite verb. This use has gone unnoticed for the gerund, but has been recognised for other types of non-finite verb forms, *i.c.* the infinitive and the present participle (see §2.1.2.2.2.3.3). The use of the gerund as a finite verb is undeniable in two of these three instances, while in the third, it may be subject to discussion.

The first example is *servandum* '(they) keep' (82). This form serves as the main verb of a clause coordinated with that containing the morphologically finite verb form *constringent* 'they tighten' – the coordination marker is the enclitic morpheme *-que* 'and'. The analysis of this form as a syntactically finite verb is corroborated by the absence of manuscript variants (*cf.* Krusch 1888: 164).

(82) *[...] eos* *benigne* *gobernantes* *eorum* *amiciciam*
DEM.ACC.M.PL kindly govern.PTCP.PRS.NOM.M.PL DEM.GEN.M.PL friendship.ACC.F.SG
constringent *semper=que* ***serva-nd-um***.
tighten.FUT.3PL always=and keep-GER-ACC
'By managing them kindly, they will tighten their friendship and keep it forever.' (Fredeg. *chron.* 4.85)

The second unambiguous example of a gerund used as a finite verb is *credendo* 'I believe' (83). This form is combined with the subordinating conjunction *ut* 'as', and heads a parenthetical clause indicating "to what extent or under which conditions the content of the sentence is presented as true" (Pinkster 2015: 926).[28]

(83) *De* *eius* *praesentem* *transitum* *[...], ut* ***crede-nd-o***,
about DEM.GEN.M.SG be_present.PTCP.PRS.ACC.M.SG passage.ACC.M.SG as believe-GER-ABL
rex *gaudet* *in* *caelo.*
king.NOM.M.SG rejoice.PRS.3SG in heaven.ABL.N.SG
'The king rejoices in heaven with his present passage, I believe.' (*Epist. Austr.* 1)

[28] Pinkster (2015: 926) labels such constituents 'qualified truth disjuncts'.

There are no alternative readings for this form (*cf.* Gundlach 1892: 113), but some editors replace it by the finite verb *credo* ‘I believe’. While this is the expected form according to Classical Latin standards (*cf.* Pinkster 2015: 926), its absence as an alternative reading in at least one manuscript precludes this editorial emendation. If anything, this emendation shows the discomfort of (some) editors in analysing this extremely rare, but interesting use of the bare ablative gerund.

The third and final instance of a gerund used as a finite verb is *ordinandum* ‘(they) appoint’ (84). This form occurs in a clause coordinated with that containing the finite verb *ducerent* ‘they bring’.

(84) *[...] ut beatum virum [...] ad urbem iam dictam*
that blessed.ACC.M.SG man.ACC.M.SG to city.ACC.F.SG already say.PTCP.PST.ACC.F.SG
ducerent atque pontificem ***ordina-nd-um.***
bring.SBJV.PST.3PL and priest.ACC.M.SG appoint-GER-ACC
‘(...) that they would bring the blessed man to the aforementioned city and appoint him priest.’ (*Vit. Euch.* 4)

As opposed to *servandum* ‘(they) keep’ (82) and *credendo* ‘I believe’ (83), *ordinandum* ‘(they) appoint’ (84) has an alternative reading in some manuscript variants: the finite subjunctive imperfect tense form *ordinarent* ‘they appoint’ (*cf.* Levison 1920: 48). This is the expected form to Classical Latin standards and resolves the conflict between the non-finite form of *ordinandum* ‘(they) appoint’ and its syntactic use as a finite verb. Hence, it could be argued that this alternative reading should be preferred over the gerund reading in (84). However, the existence of paleographically unambiguous gerunds serving as finite verbs (e.g. (82-83)) is compatible with a reading of *ordinandum* ‘(they) appoint’ (84) as a gerund. Hence, I stick to the gerund reading of this form.

As in the case of the present participle (see §2.1.2.2.2.3.3), the use of the gerund as a finite verb could result from anacoluthon rather than being deliberate, especially in syntactically complex sentences in which the gerund clause is embedded in a subordinate clause (*cf.* Eklund 1970: 117-205). However, irrespective of whether this use of the gerund is deliberate or the result of an interruption in the planned syntax, the forms in issue differ from all other types of gerunds. Hence, they merit a separate discussion. The extreme rareness of this use of the gerund certainly indicates that this use has never been generalised (and, incidentally, it is not preserved in the transition from Late Latin to Romance), but this marginal status should not prevent us from analysing the few forms involved as assuming the role of a finite verb.

The three gerunds used as finite verbs in the Late Latin corpus each belong to a different period (*i.e.* one instance in Imperial Latin, one in Merovingian Latin, and one in Early Medieval Latin). Two instances appear in the historical domain (82-83) and one in the religious domain (84). Needless to say, these forms represent a negligible part of the total number of gerunds (0,23%). Their normalised absolute

frequency is also extremely low (0.07 instances per 10 000 words in the Late Latin corpus). Hence, they have no impact on the external syntactic, morphosyntactic, and typological profile of the gerund.

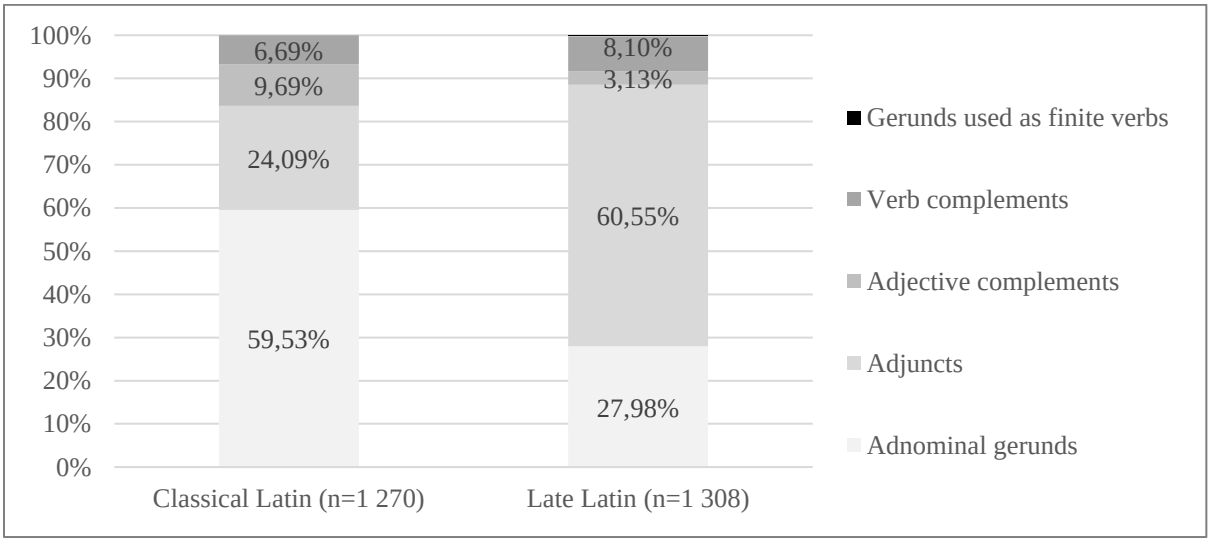
In sum, the data of this thesis do not show a specialisation of the gerund in verbal external syntax.

4.5. External syntactic profile

The preceding sections have explored the frequency of the different uses of the gerund from Classical to Late Latin and within the period of Late Latin. This section aims to collate these results, in order to establish and examine in more detail the external syntactic profile of the gerund. Since the frequency of the different uses of the gerund has been discussed at length in the previous sections, the figures showing the external syntactic profile of the gerund in the current section will be commented in a global way.

The external syntactic profile of the gerund is dominated by the same two uses in Classical and Late Latin, *viz.* in adnominal phrases and adjuncts (Figure 4.5). Together, these uses represent 84% of all gerunds in Classical Latin and 89% in Late Latin. However, while its adnominal use is dominant in Classical Latin (60%), its adjunct use is most common in Late Latin (61%). Hence, the external syntactic profile of the gerund drastically changes between these two periods. The remaining uses of the gerund each represent less than 10% in the two periods. Therefore, the impact of their frequency rise or decline on the external syntactic profile of the gerund is limited. For practical reasons, the frequency of gerunds used as finite verbs in Late Latin (0,23%) is not mentioned in Figure 4.5.

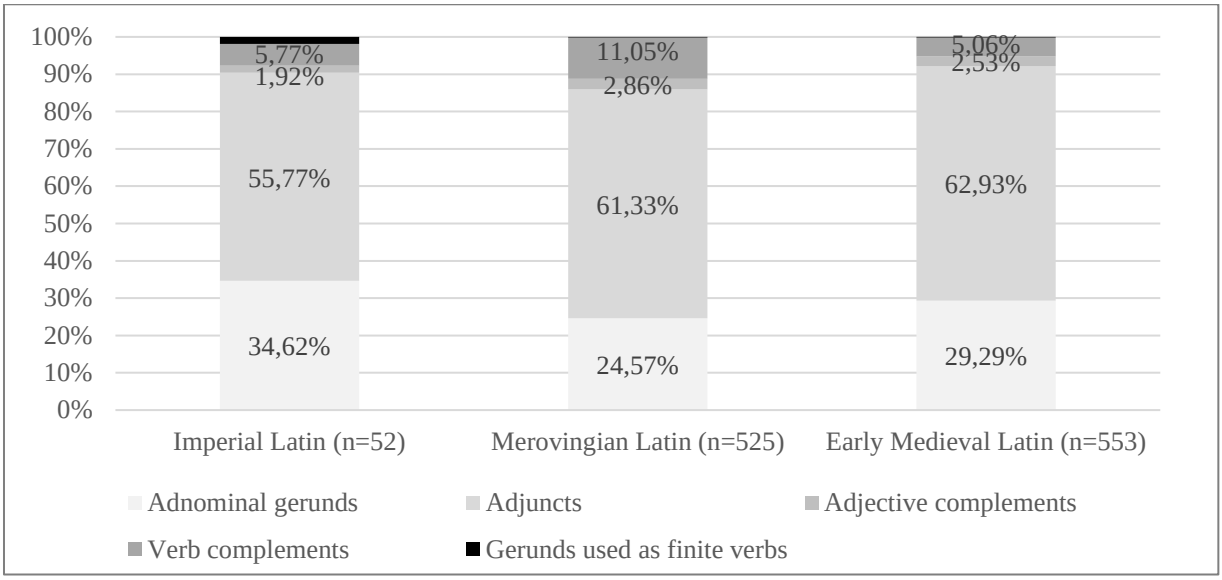
Figure 4.5. External syntactic profile of the gerund in Classical and Late Latin



Within the period of Late Latin, the external syntactic profile of the gerund remains relatively stable (Figure 4.6). Indeed, its two dominant uses jointly represent 90% of all gerunds in Imperial Latin, 86%

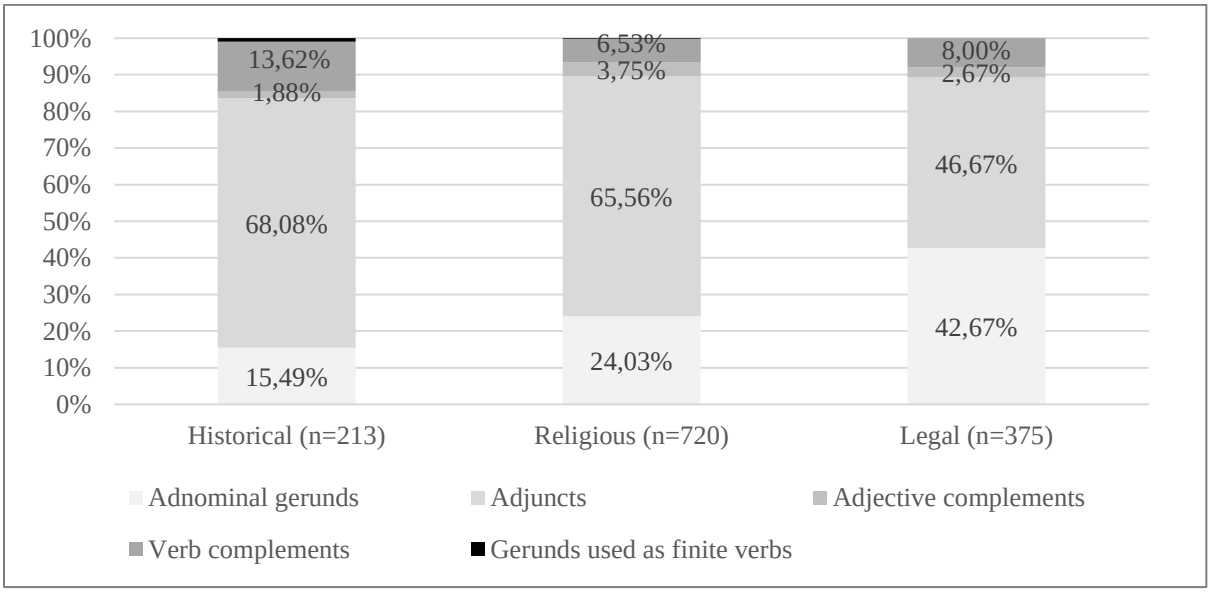
in Merovingian Latin, and 92% in Early Medieval Latin. The use of the gerund as a finite verb accounts for respectively 1,92%, 0,19%, and 0,18% (these proportions are not mentioned in Figure 4.6).

Figure 4.6. External syntactic profile of the gerund in Imperial, Merovingian, and Early Medieval Latin



While the external syntactic profile of the gerund in Late Latin does not show significant change on the diachronic axis, it does show relevant thematic variation (Figure 4.7). In particular, the legal texts greatly differ from the historical and religious texts. Most strikingly, the gerund is most often adnominal in the legal texts, while in the historical and religious texts, it predominantly occurs in adjuncts. However, the combined frequency of these two uses is similar in the three thematic domains, *viz.* 84% in the historical texts, 90% in the religious texts, and 89% in the legal texts. The frequency of the gerunds used as finite verbs, left out in Figure 4.7, are respectively 0,94%, 0,14%, and 0%.

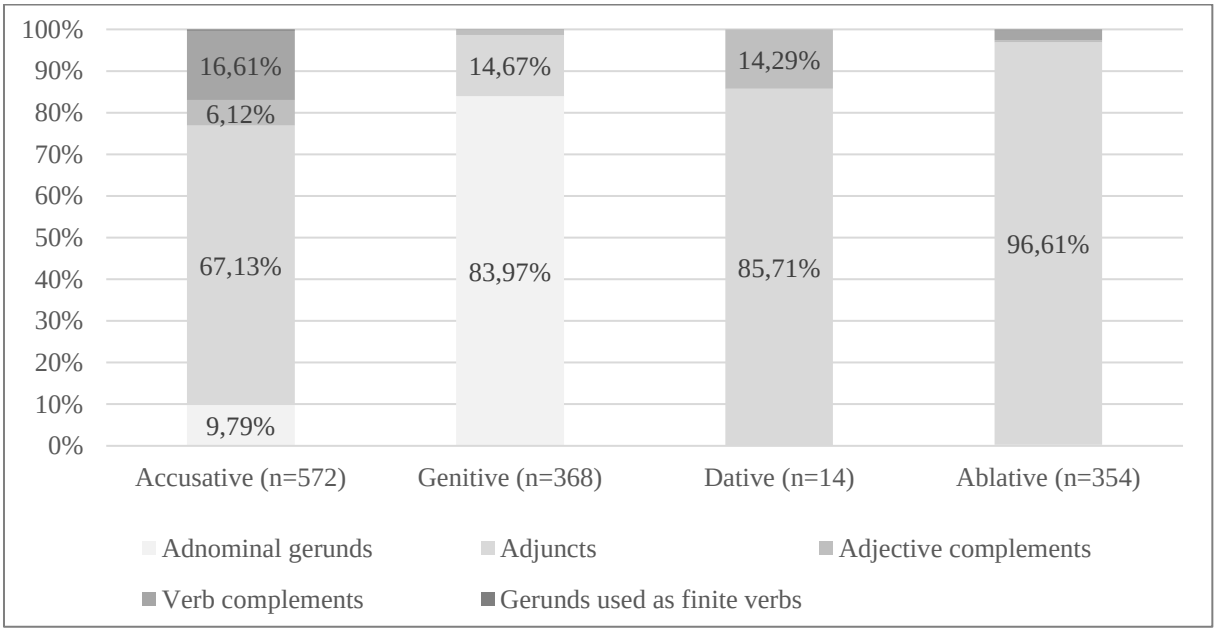
Figure 4.7. External syntactic profile of the gerund in the historical, religious, and legal texts in Late Latin



This result clearly shows that the language used in legal texts differs from that in historical and religious texts. An important methodological insight can be drawn from this: at least for Late Latin, it is advisable not to rely exclusively on legal texts to study language change, and to evaluate results from these texts separately from those obtained for other types of texts. The atypical character of the use of the gerund in legal texts might be due to the specific stylistic features of these texts. On the one hand, the archaic character of the juridical style might account for the high proportion of adnominal gerunds, which is reminiscent of Classical Latin (see Figure 4.5). On the other hand, the formulaic character of the juridical style might account for the larger number of gerunds with a low degree of productivity, which has been observed in particular for adnominal, verb complement, and adjunct gerunds.

Finally, the external syntactic profile of the gerund in Late Latin also differs according to its case form. Crucially, the gerund most often occurs in adjuncts in the accusative, the dative, and the ablative, whereas in the genitive, it is predominantly adnominal (Figure 4.8). The frequencies left unspecified in Figure 4.8 are of: (i) the accusative forms used as finite verbs (0,35%); (ii) the genitive forms used in adjective complements (1,09%) and verb complements (0,27%); and (iii) the ablative gerunds used in adnominal phrases (0,28%), adjective complements (0,56%), verb complements (2,26%), and as finite verbs (0,28%).

Figure 4.8. External syntactic profile of the gerund in Late Latin per case form



From a Romance perspective, the external syntactic profile of the ablative gerund is highly interesting: in the transition from Late Latin to Romance, the gerund only survives in the ablative (Aalto 1949: 73; Ernout & Thomas 1951: 267; Elcock 1960: 111; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 369; Buridant 2000: 237; Adams 2003: 748). Since practically all ablative gerunds occur in adjuncts, it comes as no surprise that in most Romance languages, the gerund only maintains this use (as well as its

use in progressive constructions, which is historically derived from it). Put differently, in the transition from Late Latin to most Romance languages, the gerund survives with an external syntactic profile that is not representative of the Late Latin gerund as a whole. This co-explains why the use of the Romance gerund is so different from its use in Late Latin.

4.6. Morphosyntactic profile

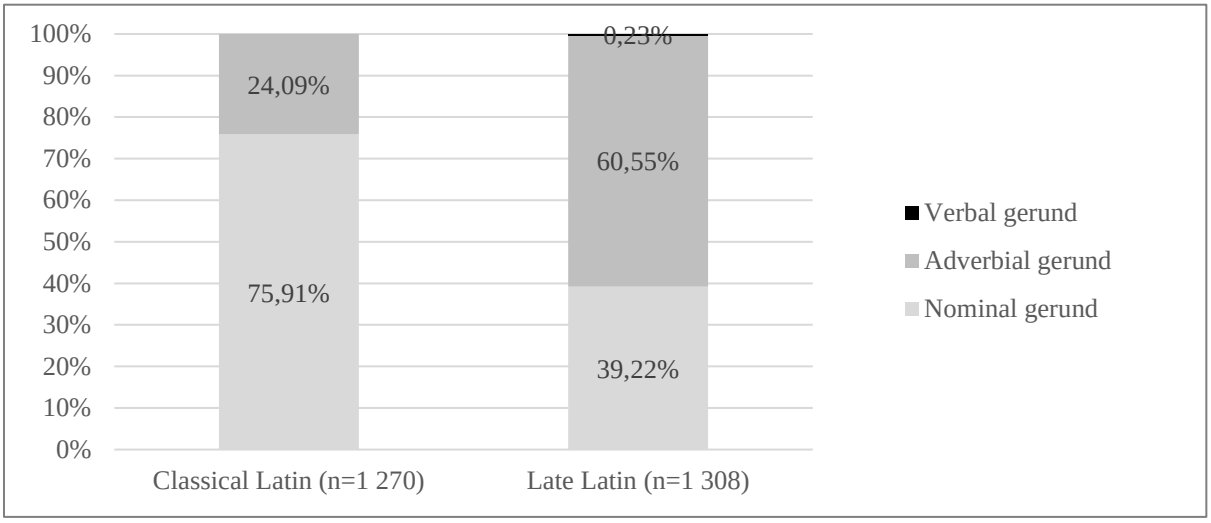
I will establish in this section the morphosyntactic profile of the gerund, and examine its evolution from Classical to Late Latin (§4.6.1) and within the period of Late Latin (§4.6.2). The morphosyntactic profile of the gerund in Late Latin will also be investigated comparatively in the historical, religious, and legal texts (§4.6.3). A comparison will also be made between the different case forms of the gerund (§4.6.4).

Remember that the morphosyntactic profile of the gerund is obtained by mapping its external syntactic profile on the morphosyntactic categories of Classical/Late Latin, while taking into account its morphological properties, which combine verbal and nominal features (see §1.2.1). As noted in §1.2.3 and §2.1.1.3 and operationalised in §4.2 to §4.4, this mapping yields three types of gerunds: (i) nominal gerunds, occurring in adnominal phrases, verb complements, and adjective complements; (ii) adverbial gerunds, used in adjuncts; and (iii) verbal gerunds, acting as the main verb of a progressive construction or as syntactically finite verbs.

4.6.1. From Classical to Late Latin

In line with the evolution of its external syntactic profile, the morphosyntactic profile of the gerund drastically changes between Classical and Late Latin: whereas the gerund has predominantly nominal external syntax in Classical Latin, its focus shifts toward adverbial external syntax in Late Latin (Figure 4.9). In contrast with Classical Latin, in Late Latin, the gerund can also display verbal external syntax, though on a much more sporadic basis.

Figure 4.9. Morphosyntactic profile of the gerund in Classical and Late Latin

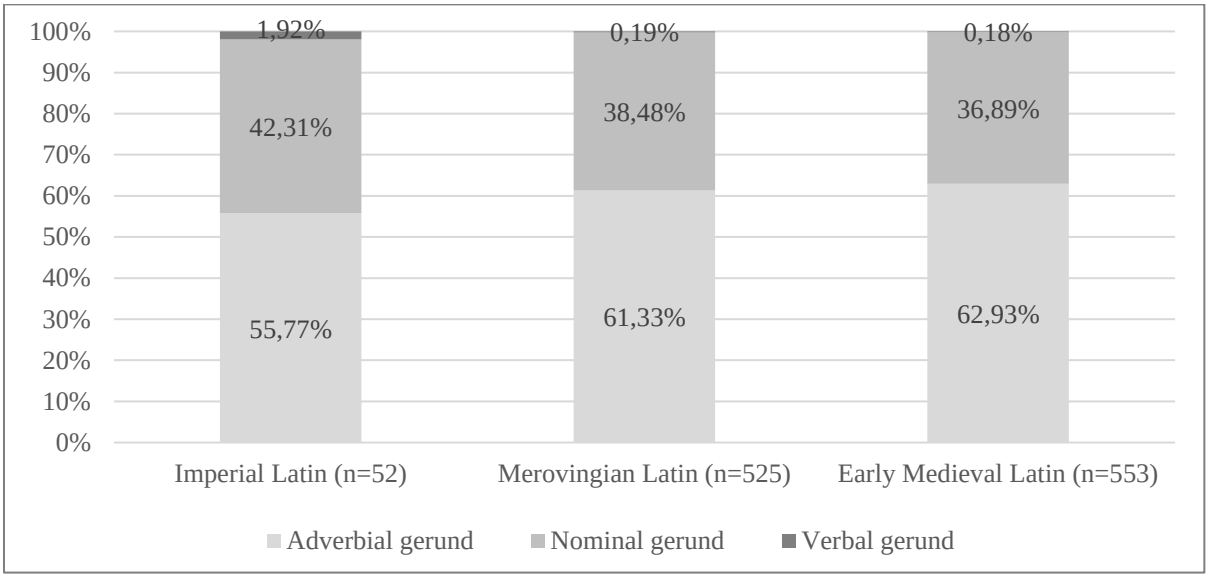


The decline of nominal gerunds and the rise of adverbial gerunds from Classical to Late Latin are both statistically highly significant (see §4.2.4 and §4.3.1). Hence, they probably reflect an ongoing linguistic change. This change undeniably consists of the specialisation of the gerund in adverbial external syntax, which is the predicted outcome of its functional competition with the infinitive and the present participle. However, these competitions do not condition the specialisation of the gerund in this syntax in the same way: the infinitive replaces the gerund in nominal syntactic configurations, evolution that increases the proportion of adverbial gerunds in an indirect way, while the present participle is replaced by the gerund in adverbial external syntax, evolution that increases the proportion of adverbial gerunds in a direct way. The results of this study indicate that the first type of replacement is more important. However, a corpus-based study of the external syntax of the infinitive from Classical to Late Latin is required in order to verify this hypothesis.

4.6.2. Within the period of Late Latin

During the Late Latin period, the morphosyntactic profile of the gerund remains relatively stable (Figure 4.10). The declining proportion of nominal gerunds and the rise proportion of adverbial gerunds are both statistically insignificant (see §4.2.4 and §4.3.2). Hence, they reflect random trends rather than linguistic changes.

Figure 4.10. Morphosyntactic profile of the gerund in Imperial, Merovingian, and Early Medieval Latin

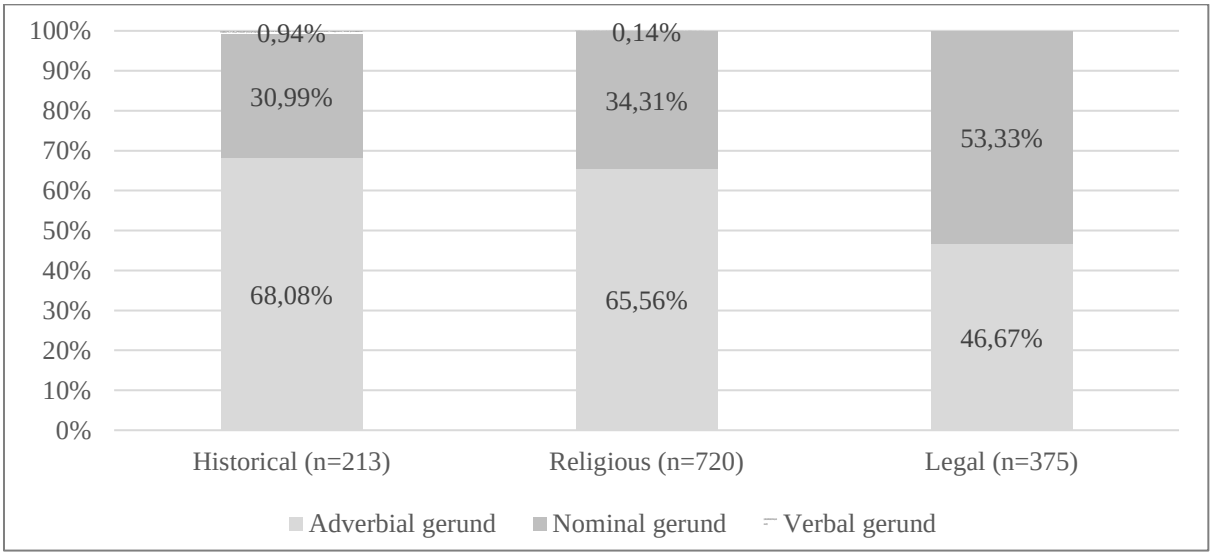


These figures corroborate the conclusion drawn for the nominal and the adverbial gerund separately, *i.e.* that the use of the gerund greatly changes between Classical and Late Latin, while remaining relatively homogenous within the period of Late Latin. Also, despite its sharply decreasing proportion to the total number of gerunds between Classical and Late Latin, *i.e.* from 76% to 39%, the nominal gerund still represents between 37% and 42% of all gerunds in Late Latin. The nominal use of the gerund having disappeared in most Romance languages, it appears again that there is a huge gap between the use of the gerund in Late Latin, at least as observable in the written texts transmitted to us, and in Romance.

4.6.3. Comparison between the three thematic domains

While the morphosyntactic profile of the gerund in Late Latin is relatively stable on the diachronic axis, it shows significant variation from a thematic point of view. Indeed, the morphosyntactic profile of the gerund is dominated by the nominal gerund in legal texts, but by the adverbial gerund in historical and religious texts. The dominance of the nominal gerund in legal texts is nonetheless less pronounced than that of the adverbial gerund in historical and religious texts (Figure 4.11).

Figure 4.11. Morphosyntactic profile of the gerund in the historical, religious, and legal texts in Late Latin

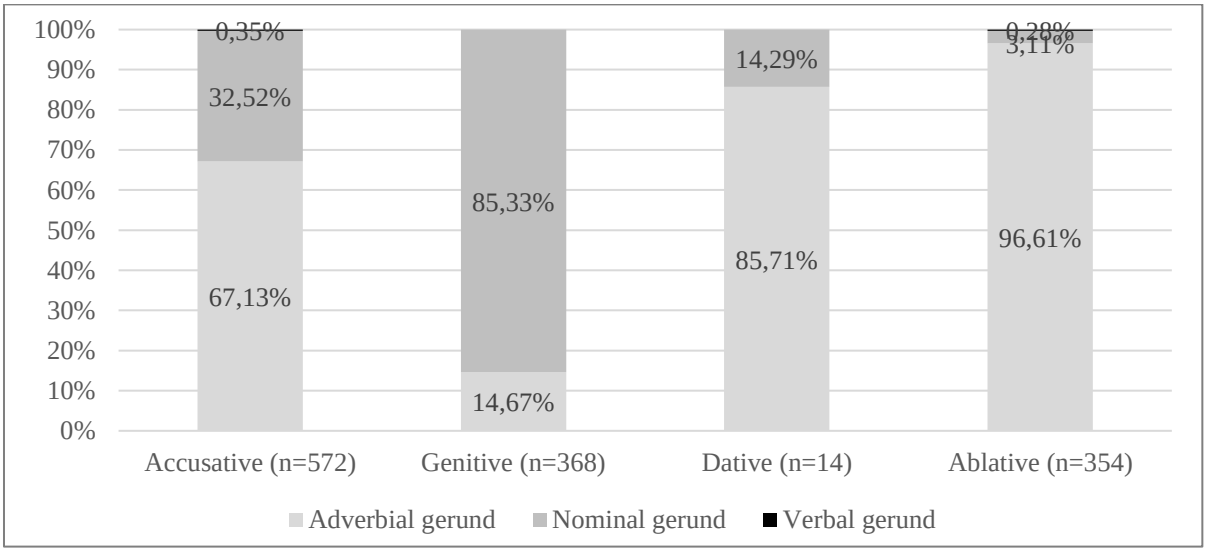


This finding confirms the issue raised in connection with the external syntactic profile of the gerund: the language used in legal texts differs from that in historical and religious texts. Therefore, at least for Late Latin, results gathered from legal texts should be evaluated independently from those obtained for other types of texts, such as historical and religious texts.

4.6.4. Comparison of the case forms

Like its external syntactic profile, the morphosyntactic profile of the gerund in Late Latin also differs depending on its case form. As shown in Figure 4.12, the morphosyntactic profile of the gerund in Late Latin is dominated by adverbial external syntax in the accusative, the dative, and the ablative, but by nominal external syntax in the genitive.

Figure 4.12. Morphosyntactic profile of the gerund in Late Latin per case form



Since in the transition from Late Latin to Romance, the gerund only survives in the ablative, Figure 4.12 shows that the gerund survives with a morphosyntactic profile that is not representative of the Late Latin gerund as a whole. This profile is almost completely covered by adverbial external syntax (97%). This is why the use of the gerund in Romance is so different from its use in Latin, even in the latest period. The same conclusion was drawn with regard to the external syntactic profile of the gerund.

4.7. Typological profile

The final step in describing the evolution of the gerund consists of establishing its typological profile. Recall that the typological profile of the gerund is obtained by mapping its morphosyntactic profile on Haspelmath's (1995: 4) typology of non-finite verbs, in which a distinction is made between: (i) masdars (*i.e.* forms with nominal external syntax); (ii) participles (*i.e.* forms having adjectival external syntax); and (iii) converbs (*i.e.* forms showing adverbial external syntax). The nominal gerund is subsumed under the masdar type, while the adverbial gerund falls under the converb type. The verbal gerund belongs to the converb type from a historical point of view, but from a synchronic perspective, it is not related to any of these types (see also §2.1.2.3). Hence, it will be left out in the following discussion.

In Classical Latin, the gerund predominantly falls under the masdar type (76%), its association with the converb type being relatively weak (24%). In Late Latin, the opposite tendency can be observed: the gerund is mainly subsumed under the converb type (61%), its link with the masdar type being weaker (39%). Since the labels 'masdar', 'participle', and 'converb' are used in this thesis as purely functional labels, the external syntactic evolution of the gerund between Classical and Late Latin can be described in terms of 'converbalisation', *viz.* the historical process in which a non-finite verb forms specialises in the external syntax of an adverb. This is not to say that the Late Latin gerund *is* or *becomes* a converb, just like the Classical Latin gerund *is* not a masdar. The Late Latin gerund *is* nothing but the Late Latin gerund, *i.e.* a language-specific category of non-finite verb forms with a unique set of morphological and syntactic properties and an equally unique morphosyntactic profile (see also §2.1.1.4).

In accord with its external syntactic and morphosyntactic profiles, the typological profile of the gerund remains relatively stable within the period of Late Latin. Its association with the converb type becomes stronger (from 56% to 63%), but in a statistically insignificant way (see §4.3.2). In other words, the crucial period for the converbalisation of the gerund is between Classical and Late Latin, not between Imperial and Early Medieval Latin. In the transition from Late Latin to Romance, the converbalisation of the gerund is completed, since in most Romance languages, the gerund only preserves its ability to have adverbial external syntax (or to occur in progressive constructions). This has led some scholars to conceive of the Romance gerund as a converb, *viz.* to assert that the Romance gerund *is* a converb (e.g. Haspelmath 1995: 2, 45). However, this practice is chiefly restricted to comparative and typological

linguistics, descriptive linguists usually retaining the traditional term ‘gerund’. In this study, both labels are used, but in a different way: the label ‘gerund’ is used to refer to a ‘descriptive category’ (Haspelmath 2010: 664; Lehmann 2018a: 33), *viz.* a language-specific category of non-finite verbs with a unique set of formal and functional properties, like the Classical or Late Latin gerund, while the label ‘converb’ is used as a ‘comparative concept’, *i.e.* a purely functional label “created by comparative linguists for the specific purpose of cross-linguistic comparison” (Haspelmath 2010: 665; see also Lehmann 2018a: 33).

4.8. Conclusion

The standard hypothesis of the competition of the gerund with the infinitive and the present participle predicts that, in Late Latin, the gerund undergoes a process of converbalisation. On the one hand, it is claimed to be gradually replaced by the infinitive in nominal external syntax. This substitution reduces the absolute number of nominal gerunds and, incidentally, their portion to the total number of gerunds. As a result, the proportion of adverbial gerunds rises, which makes the gerund converbalise in an indirect way. The gerund is also argued to be gradually replaced by the infinitive in purpose adjuncts. This leads to the disappearance of the gerund in a specific niche of its adverbial use. Hence, the converbalisation of the gerund is not a rectilinear evolution. On the other hand, the gerund is held to gradually substitute the present participle in adjuncts. This substitution increases the absolute number of adverbial gerunds and, concomitantly, their proportion to the total number of gerunds. Hence, the gerund converbalises also in a direct way. This specialisation of the gerund in the external syntax of the adverb is argued to mainly concern the bare ablative gerund. This form is held to gradually loosen its ties with its original manner/instrumental/causal value, thus developing into a semantically neuter and versatile strategy for adverbial subordination.

The converbalisation of the gerund is considered to be part of a more general evolution, *i.e.* the restructuring of the paradigm of non-finite verb forms (Elcock 1960: 110-119; Harris 1978: 195-203; Bauer 1993: 59, 2005). This evolution is characterised by an increasing degree of isomorphism and morphosyntactic specialisation. Roughly speaking, the infinitive specialises in nominal external syntax, and the gerund in adverbial external syntax. In the light of this tendency, the gerund ceases to act as the suppletive form of the infinitive. Instead, it develops into a non-finite verb form in its own right, having a position in the system of non-finite verb forms on a par with the infinitive (and the present participle, for instance). From a more general viewpoint, the evolution of the gerund in Late Latin illustrates the tendency of languages to maximise their degree of isomorphism through functional competition (*cf.* Bolinger 1968, 1977; Goldberg 1995; Fonteyn 2016: 31-32), and, focusing on the transition from Latin to Romance, the development toward a higher degree of morphosyntactic specialisation (*cf.* Carlier & Combettes 2015).

The converbalisation of the gerund in Late Latin is supported by the empirical data of this study, but only in a modest way. On the one hand, the proportion of nominal gerunds sharply declines from Classical to Late Latin (from 76% to 39%), while that of adverbial gerunds sharply rises (from 24% to 61%). However, within the period of Late Latin, these proportions remain relatively stable – or at least do not decrease or increase in a statistically significant way. Moreover, despite their sharp decline from Classical to Late Latin, nominal gerunds are still more frequent in Late Latin than expected (39%). On the other hand, the link of the bare ablative adjunct gerund with its original manner/instrumental/causal value remains largely in place between Classical and Late Latin, and does not weaken within the period of Late Latin. As a result, the Late Latin bare ablative adverbial gerund is far from being a full-fledged substitute of the adverbial present participle, that is to say, a semantically neuter or versatile strategy for adverbial subordination. In view of these results, the converbalisation of the gerund between Classical and Late Latin is probably more the result of the gradual replacement of the gerund by the infinitive in nominal syntactic configurations than of the gradual substitution of the present participle by the gerund in adverbial configurations. As a matter of fact, the only increasing tendency observed within the group of adverbial gerunds is a sharp frequency rise of accusative gerunds, which mostly express the purpose of the main state of affairs. This also suggests that, in the Late Latin corpus of this study, purpose adjunct gerunds are barely replaced by infinitives, against predictions.

Since this study is the first to empirically investigate the external syntactic and morphosyntactic evolution of the gerund from Classical to Late Latin and during the Late Latin period, its results have important implications for our understanding of the functional competition between the gerund and the present participle. Indeed, the present participle is claimed to specialise in adjectival external syntax as the result of the increasing replacement of the present participle by the gerund in adjuncts. However, since this replacement does not emerge from the data of this study, it is likely that the Late Latin present participle will not show signs of a specialisation in adjectival syntactic configurations – at least not in the corpus of this study. If this were the case, it would have far-reaching implications for the evolution of the gerund and the present participle from Late Latin to Old French, *i.c.* for the categorial status of the Old French *-ant* form. Indeed, if there is no decisive empirical evidence in favour of a specialisation of the Late Latin present participle in adjectival external syntax, it cannot simply be assumed that, in the transition from Late Latin to Old French, the present participle only survives in this syntax. As a result, the categorial indeterminacy of Old French *-ant* forms caused by the morphological merging of the gerund and the present participle could not be resolved on the basis of their external syntax, the adverbial forms qualifying as gerunds and the adjectival ones as present participles. This would not only challenge the distinction between the categories of the gerund and the present participle in Old French, but also their very existence in this language (*cf.* Adams 2003: 749; De Smet 2014: 40).

However, the finding that the gerund barely replaces the present participle in adverbial external syntax in the Late Latin corpus of this study does not necessarily mean that this evolution does not take place. For instance, it could be argued that the corpus of Late Latin texts is not sufficiently representative of the language used in the period examined. Despite the fact that, in comparison with the existing Late Latin corpora, the corpus elaborated within the context of the PaLaFra project and used as the Late Latin corpus of this study is large and varied, it is well known that, from a sociolinguistic point of view, there is a significant gap between written and spoken language (*cf.* Herman 2006: 186). Since language change typically emerges in the spoken language and reaches the written language only at a later stage, due to its more conservative character (Herman 2006: 186), it could be argued that the data of this study do not faithfully reflect the ongoing changes in the spoken language.

Though the absence of spoken records for this period makes it impossible to test this hypothesis, the fact that the Romance languages have emerged from different spoken varieties of Late Latin could give us an important clue. If the gerund does converbalise in spoken Late Latin, it is expected that there is a large gap between the use of the gerund in written Late Latin and the first written records of the Romance languages. This is certainly the case for Romance languages like Spanish and Italian, in which the gerund survived as a morphologically distinct form from the present participle and can only occur in adjuncts (and progressive constructions) (*cf.* Vincent 2016: 45). However, due to the morphological merging of the gerund and the present participle in Old French, this scenario cannot merely be assumed for the Old French *-ant* form. For how can we be sure that Old French adverbial (and verbal) *-ant* forms go back to Late Latin gerunds if Late Latin present participles can just as well occur in adjuncts (and progressive constructions)? In other words, the morphological merging of the gerund and the present participle in Old French particularises the distinction between these forms within the Romance family. Hence, this matter cannot be handled in the same way as in other Romance languages. All this indicates is that the categorial issue of the Old French *-ant* form cannot be resolved without an examination of the external syntactic and morphosyntactic evolution of the Latin present participle. This is the topic of the following chapter.

Chapter 5. The present participle in Late Latin

5.1. Introduction

5.1.1. Aim of the chapter

According to most authors, the evolution of the present participle in Late Latin is mainly driven by its functional competition with the gerund (Aalto 1949: 73; Elcock 1960: 111; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 384; Bauer 1993, 2005; Adams 2003: 748, 2013: 725-740; Pinkster 2021: §21.14). This competition concerns its use in adjuncts and in progressive construction, and is considered settling in favour of the gerund (Marouzeau 1910: 79; Kühner & Stegmann 1914[5]: 753; Lyer 1932, 1934: 169; Aalto 1949: 65-66, 75; Elcock 1960: 111; Väänänen 1963[3]: 140-141; Hofmann & Szantyr 1965: 373, 377, 379-380, 384; Harris 1978: 200; Kooreman 1989; Bauer 1993, 2005; Maraldi 1994; Adams 2003: 748, 2013: 725-740; Pinkster 2021: §21.14). On the one hand, adverbial present participles (e.g. *gestans* 'bearing' (1)) are thus claimed to be substituted by gerunds (e.g. *dicendo* 'singing' (2)), even in their prototypical use of denoting a state of affairs co-occurring with the main state of affairs (compare (1-2)).

(1) *[...] ipse [...] aurum suum clippeo*
INTENS.NOM.M.SG golden.ACC.N.SG his.ACC.N.SG shield.ABL[ACC].N.SG
gesta-ns *inmunis ad propria redeat.*
bear-PTCP.PRS.NOM.M.SG unharmed.NOM.M.SG to own.ACC.N.PL return.SBJV.PRS.3SG
'May he return to this house unharmed while bearing his golden shield.' (*Form. Bitur.* 17)

(2) *[...] sic redirent mature [...]* ***dice-nd-o*** *psalmos vel antiphonas [...].*
so return.SBJV.PST.3PL early say-GER-ABL psalm.ACC.M.PL or antiphon.ACC.F.PL
'So they returned early while singing psalms or antiphons.' (*Peregr. Aeth.* 15.5)

The gradual replacement of the present participle by the gerund in adjuncts is expected to – indirectly – reduce the proportion of adverbial present participles to the total number of present participles. As such, the proportion of present participles used in adjectival syntactic configurations, in particular adnominal phrases (e.g. *circunstantes* 'standing around' (3)), subject predicates (e.g. *habundans* 'abounding' (4)), and object predicates (e.g. *nocentem* 'harmful' (5)), is expected to increase, even without a (significant) rise of their absolute frequency.

(3) *Populi* *autem* ***circunsta-nt-es*** *admirabantur* *omnes*
people.NOM.M.PL but stand_around-PTCP.PRS-NOM.M.PL admire.PST.3PL all.ACC.F.PL
passiones *eius* *usque* *ad* *finem.*
passion.ACC.F.PL his.GEN.M.SG until to end.ACC.F.SG
'But the people standing around admired all his passions until the end.' (*Pass. Vict.* 1.644.22)

(4) *Ipsa* *etiam* *civitas* ***habunda-ns*** *multitudine*
INTENS.NOM.F.SG for city.NOM.F.SG abound-PTCP.PRS.NOM.F.SG multitude.ABL.F.SG
hominum *est* *[...].*
man.GEN.M.PL be.PRS.3SG
'For the city is abundant with a multitude of people.' (*Peregr. Aeth.* 19.1)

(5) *[...] ut* *ipse* *me* *faciat* ***noce-nt-em***.
that INTENS.NOM.M.SG I.ACC.M.SG make.SBJV.PRS.3SG harm-PTCP.PRS-ACC.M.SG
'(...) that he himself can make me harmful.' (*Pass. Caec.* 1.29.21)

To put it differently, the gradual substitution of the present participle by the gerund in adverbial external syntax is held to induce a specialisation of the present participle in adjectival external syntax (Marouzeau 1910: 79, 83-84; Elcock 1960: 111; Väänänen 1963³: 140-141; Hofmann & Szantyr 1965: 384; Harris 1978: 200; Kooreman 1989: 219-220; Bauer 1993, 2005).

On the other hand, present participles serving as the main verb of a progressive construction (e.g. *vociferans* 'shouting' (6)) are claimed to be increasingly replaced by gerunds (e.g. *cunctando* 'hesitating (7)) (Lyer 1934: 169; Aalto 1949: 75; Dietrich 1973: 305, 307; Hofmann & Szantyr 1965: 380).

(6) *[...] cum* *prope* *silvam* *venisset* *[...]* *stetit* *dux*
when near forest.ACC.F.SG come.SBJV.PST.3SG stand.PST.3SG general.NOM.M.SG
diu ***cuncta-nd-o***.
for_some_time hesitate-GER-ABL
'When he had come to a forest, the general stood in hesitation for some time.' (Amm. 17.1.8)

(7) *[...] ille* *vero* *ibat* *incessanter* ***vocifera-ns*** *hoc*
DEM.NOM.M.SG but go.PST.3SG continuously shout-PTCP.PRS.NOM.M.SG DEM.ACC.N.SG
illi *accidisse* *ob* *scelere* *quod* *in*
DEM.DAT.M.SG happen.INF.PST because_of crime.ACC.N.SG REL.ACC.N.SG against
servum *sancti* *Trudonis* *perpetrasset.*
servant.ACC.M.SG saint.GEN.M.SG Trudo.GEN.M.SG complete.SBJV.PST.3SG
'But he (the thief) was continuously shouting that this had happened to him because of the crime that he completed against the servant of saint Trudo.' (*Vit. Trud.* 26)

However, this substitution process is not completed in the transition from Late Latin to Romance, since sporadic instances of progressive present participle constructions are attested in different Old Romance

languages, such as Italian (Škerlj 1926; Filzi 1914: 35-36, 39-40; Squartini 1998: 28), Occitan (Squartini 1998: 28), and Romanian (Squartini 1998: 29) (see §2.1.2.2.2.3.1).

With respect to the two remaining uses of the present participle, *i.e.* in a presentative progressive construction (e.g. *venientes* 'coming' (8)) or as a syntactically finite verb (e.g. *veniens* 'coming' (9)), they do not undergo competition with the gerund. The former compete with infinitives and are replaced by them in the transition from Late Latin to Romance (Aspland 1974: 16), while the latter are replaced by their morphologically finite competitors.

(8) *[...] cum vidissent Egyptios post se* ***venie-nt-es****,*
when see.SBJV.PST.3PL Egyptian.ACC.M.PL after REFL.ACC.M.PL come-PTCP.PRS-ACC.M.PL
exclamaverunt.
shout.PST.3PL
'When they saw the Egyptians coming behind them, they shouted.' (*Peregr. Aeth.* 7.4)

(9) *Quidam [...] Vincentius nomine nummorum arcarius*
INDF.NOM.M.SG Vincentius.NOM.M.SG name.ABL.N.SG money.GEN.M.PL treasurer.NOM.M.SG
venie-ns *ad civitatem Gabis ut ex*
come-PTCP.PRS.NOM.M.SG to city.ACC.F.SG Gabi.ABL.M.PL in_order_to on_behalf_of
actionem auri publici munimen acciperet.
function.ACC[ABL].F.SG gold.GEN.N.SG public.GEN.N.SG protection.ACC.N.SG receive.SBJV.PST.3SG
'Someone named Vincentius, the treasurer of the public monies, came to the city of Gabi in order to receive protection on behalf of its function for the public gold.' (*Pass. Getul.* 1.99.1)

The aim of this chapter is to examine to which extent the presumed specialisation of the present participle in adjectival external syntax in Late Latin is corroborated by empirical evidence.

5.1.2. Methodology

If the present participle specialises in adjectival external syntax Late Latin, the proportion of adjectival present participles to the total number of present participles is expected to increase between Classical and Late Latin and within the period of Late Latin, at the expense the adverbial present participle. As to the verbal present participle, the proportion of instances used in progressive constructions is expected to decrease, while no hypotheses can be formulated about the proportion of forms used in presentative progressive constructions and as syntactically finite verbs, at least not in the light of the intensifying functional competition between the gerund and the present participle. Since the specialisation of the present participle in adjectival syntactic configurations is primarily argued to be the indirect effect of its substitution by the gerund in adverbial external syntax, the (normalised) absolute frequency of adjectival present participles is not necessarily expected to rise.

In order to verify these hypotheses, the same method will be applied as in the case of the gerund in the previous chapter (Chapter 4). I will calculate and compare the (normalised) absolute frequency of the various uses of the present participle in the Classical and Late Latin corpora, and, more importantly, their proportion to the total number of present participles. Within the Late Latin corpus, a comparison will be made between the periods of Imperial (4th-5th c.), Merovingian (6th-7th c.), and Early Medieval Latin (8th-10th c.). All proportions will be statistically evaluated by means of chi-square goodness-of-fit tests, in order to distinguish random trends from those reflecting ongoing linguistic changes (*cf.* Gries 2013: 28; Levshina 2015: 221). The frequency of the distinct uses of the present participle in Late Latin will be further evaluated in the light of their frequency and productivity in the historical, religious, and legal texts.

The results of this chapter are based on the 1 786 present participles in the Classical Latin corpus (see §1.3.2.2.8 and §3.4.2.3) and the 8 785 instances in the Late Latin corpus (see §3.4.2.3). The Late Latin occurrences that cannot be unambiguously assigned to Imperial, Merovingian, or Early Medieval Latin will be discarded from the quantitative analyses of their evolution during the Late Latin period, but retained in all other quantitative analyses. This holds for 798 forms. Hence, the external syntactic evolution of the present participle in Late Latin will be based on 7 987 instances (see §3.4.2.3). These datapoints account for 91% of all Late Latin present participles, so that the results emerging from them may be regarded as representative of the Late Latin corpus in general.

Recall that the Latin present participle is defined in this thesis in a very broad sense, comprising any non-finite verb form ending in *-ns* or an inflectional variant and built on a verb "used in the language current at the time when the text in question was written" (Eklund 1970: 12). Their formation may be regular or irregular, but their meaning needs to be the same as that of the corresponding finite verb or derivable from it through deactualisation or contextual recategorisation (see §3.4.1.2.4). The broadness of this definition will be taken into account in the evaluation of all quantitative results, but especially of those pertaining to the adjectival present participle.

5.1.3. Structure of the chapter

The analysis of the present participle will be structured according to the type of its syntactic use. First, I will investigate the forms with adverbial external syntax (§5.2), then those having adjectival external syntax (§5.3), and lastly those with verbal external syntax (§5.4). The results obtained in these sections will be collated in §5.5, in order to establish the external syntactic profile of the present participle. On the basis of this profile, I will define successively the morphosyntactic (§5.6) and the typological (§5.7) profile of the present participle. A conclusion will be drawn in §5.8.

5.2. The adverbial present participle

Like the adverbial gerund, the adverbial present participle can only occur in adjuncts. The forms studied in this section comprise all types of adjunct present participles, regardless of the reference of their subject (and thus of the distinction between conjunct and absolute forms). This subject can be coreferential with the subject of the main verb (10) or with another constituent of the main clause, e.g. a direct object (11). However, it may just as well not be coreferential with any constituent of the main clause (12).

(10) *Hoc* ***audie-nt-es*** *omnes* *qui* *in* *custodia*
DEM.ACC.N.SG hear-PTCP.PRS-NOM.M.PL all.NOM.M.PL REL.NOM.M.SG in custody.ABL.F.SG
erant *clamaverunt* *[...].*
be.PST.3PL shout.PST.3PL
'When everyone who was in custody heard this, they shouted (...).' (*Pass. Proc.* 1.6.1)

(11) *Cum* *eum* *idola* ***destrue-nte-m*** *cultro*
when DEM.ACC.M.SG idol.ACC.N.PL destroy-PTCP.PRS-ACC.M.SG knife.ABL.M.SG
quidam *ferire* *voluisset* *[...].*
INDF.NOM.M.SG hit.INF.PRS want.SBJV.PST.3SG
'When someone wanted to hit him with a knife as he was destroying the idols (...).' (Sulp. Sev. *Mart.* 1.15.1)

(12) *Hanc* *ergo consuetudinem* ***iube-nt-e*** *Deo* *semper* *tenuimus [...].*
DEM.ACC.F.SG so habit.ACC.F.SG order-PTCP.PRS-ABL.M.SG God.ABL.M.SG always hold.PST.1PL
'So by God's command we have always held this habit.' (*Peregr. Aeth.* 10.7)

As mentioned in §5.1.1, in Late Latin, the present participle is held to be gradually replaced in adjuncts by the gerund. Therefore, the frequency of adverbial present participles is expected to decline both from Classical to Late Latin and during the Late Latin period, in (normalised) absolute terms as well as in proportion to the total number of present participles. However, since the Late Latin corpus of this study does not provide evidence in favour of the evolution of the gerund into a full-fledged substitute of the adverbial present participle (see §4.3), it might neither show a decline of adverbial present participles.

The aim of this section is to investigate the frequency of adjunct present participles from Classical to Late Latin (§5.2.1) and within the period of Late Latin (§5.2.2). Their frequency study in Late Latin will be refined by the study of their frequency and productivity in the three thematic domains, namely the historical, religious, and legal domains (§5.2.3). The analysis of the adverbial present participle will be concluded by the examination of its case marking (§5.2.4).

5.2.1. Frequency from Classical to Late Latin

Against expectations, the (normalised) absolute frequency of adjunct present participles increases from Classical to Late Latin (Table 5.1). However, this (spectacular) frequency rise is to be seen within the light of the rising frequency of the present participle in general. Yet, the frequency of this type of present participles also increases in relation to the total number of present participles, against predictions. Hence, the increasing use of adjunct present participles between Classical and Late Latin might not be random.

Table 5.1. Frequency of adjunct present participles in Classical and Late Latin

Period	#adjunct present participles (per 10 000 words)	#present participles (per 10 000 words)	#adjunct present participles/ #present participles
Classical Latin	1 025 (16.40)	1 786 (28.57)	57,39%
Late Latin	6 412 (150.55)	8 785 (206.27)	72,99%

This is confirmed by a chi-square goodness-of-fit test: the proportion of adjunct present participles is lower than expected in Classical Latin and higher than expected in Late Latin in a statistically highly significant way ($\chi 2 = 51.1$; $df = 1$; $p < 0.0001$) (Table 5.2).

Table 5.2. Observed *vs* expected proportion of adjunct present participles to the total number of present participles in Classical and Late Latin

Period	Observed frequency (%)	Expected frequency (%)	Standardised residuals
Classical Latin	1 025 (57,39%)	1 257 (70,38%)	-6.53
Late Latin	6 412 (72,99%)	6 181 (70,36%)	+2.94

The rising proportion of adjunct present participles between Classical and Late Latin and their resulting – unexpectedly – high proportion in Late Latin can be explained by at least three factors.[1]

(i) The decline of adjunct present participles in Late Latin is in the first place considered the result of their gradual replacement by gerunds, in particular bare ablative gerunds. These gerunds are argued to gain in frequency due to their development into a semantically more neuter and versatile means for adverbial subordination (Lyer 1932; Aalto 1949: 65-66; Elcock 1960: 111; Väänänen 1963³: 140-141; Hofmann & Szantyr 1965: 379-380; Bauer 1993, 2005; Adams 2003: 748, 2013: 725-740; Pinkster 2015: Pinkster 2021: §21.14). However, the previous chapter has shown that the bare ablative adjunct gerund barely loosens its ties with its original manner/instrumental/causal value in

[1] Note that while the increasing frequency of adjunct present participles between Classical and Late Latin contrasts with what is expected in view of their competition with adjunct gerunds, it lines up with the observation made by various authors that the adjunct use of the present participle is particularly frequent in Late Latin narrative texts (e.g. Van Acker (2014: 130-131) with respect to passions; Combettes (2018: 404) with regard to Fredegar's *Chronica*). See also the running text below.

the Late Latin corpus, and that the segment of bare ablative adjunct gerunds with a semantic value other than manner, instrument, or cause barely increases (see §4.3). A rising frequency has neither been observed for bare ablative adjunct gerunds in general (see §4.3.4), nor even for adjunct forms (see §4.3.1-§4.3.2). Hence, it is not surprising that the adverbial present participle, which the gerund is considered to gradually replace, does not recede in this same Late Latin corpus. However, this does not explain why the proportion of adjunct present participles rises from Classical to Late Latin.

(ii) On closer inspection, this increasing proportion is partly due to the increasing use of adjunct present participles as a narrative strategy, that is to say, as a device serving to express a series of states of affairs succeeding each other on the temporal axis and/or serving as background for the subsequent discourse (Van Acker 2004: 130-131; see also Combettes 2018: 403-408).[2] The series of adjunct present participles usually ends with a finite verb, which is certainly the syntactic main verb of the sentence, but which does not necessarily carry the highest informational value. The states of affairs designated by the present participles are typically performed by the same subject as that of the finite main verb, and so the present participles are typically in the nominative. For instance, in (13) *quem videns* 'seeing him' and *desiderans eum capere* 'desiring to seize him' express respectively the temporal and the causal background against which should be interpreted the states of affairs denoted by the present participle clause *relinquens omnes* 'leaving everyone' and the finite main clause *cum paucis militibus eum insequitur* 'he followed him with a few soldiers'. At the same time, the state of affairs denoted by the present participle clause *relinquens omnes* 'leaving everyone' expresses additional temporal background information for the state of affairs designated by the finite main clause *cum paucis militibus eum insequitur* 'he followed him with a few soldiers'.

[2] Different factors might contribute to the increasing use of adjunct present participles as a narrative strategy in Late Latin. In any case, a central role is played by Latin translations of Biblical Greek (Haug 2012: 318-320). In Biblical Greek, the narrative use of the participle, including the present participle, is highly frequent. Given that Latin translators of Biblical Greek tend to maintain a present participle wherever such a form is used in the Greek original, the narrative use of these forms is more or less systematically taken over in Latin translations. Additionally, Latin present participles are often used to translate Greek aorist participles, the narrative use of which is also highly frequent (Haug 2012: 318). It is likely that this narrative use of the present participle in Latin translations of Biblical Greek spread to other, authentic Late Latin texts (perhaps first to religious texts, and then to other types of texts, such as historical texts). The growing success of these present participles in Late Latin, triggered by the influence of Biblical Greek, comes at the expense of finite clauses. The crucial advantage of present participle clauses over finite clauses is that they are more economic: they do not require a subordinating conjunction and they can easily share constituents with the main clause (*cf.* Lehmann 1988). Put differently, they are a highly condensed (or compact) means for adverbial subordination, which makes them particularly convenient in written texts. The Late Latin present participle shares this feature with its counterparts in other languages (e.g. Halmøy 2013: 280-281 with regard to the present participle in Modern French). Since they do not require a subordinating conjunction, adjunct present participle clauses have the further advantage to not have to overtly mark the semantic relation between the state of affairs denoted by them and the main state of affairs.

(13) *Quem* ***vide-ns*** *Placidus* *et* ***desidera-ns***
REL.ACC.M.SG see-PTCP.PRS.NOM.M.SG Placidus.NOM.M.SG and wish-PTCP.PRS.NOM.M.SG
eum *capere,* ***relinque-ns*** *omnes,* *cum* *paucis*
DEM.ACC.M.SG seize.INF.PRS leave-PTCP.PRS.NOM.M.SG all.ACC.M.PL with few.ABL.M.PL
militibus *eum* *insequitur.*
soldier.ABL.M.PL DEM.ACC.M.SG follow.PST.3SG
'When Placidus saw him and because he wanted to seize him, he left everyone and followed him with a few soldiers.' (*Pass. Eustach.* 1.3)

Occasionally, however, the subject of (one of the) present participles is not coreferential with that of the main verb. Witness (14), in which the subject of *venientes* 'coming' and *proeliantes* 'fighting' differs from that of the present participle *cernens* 'seeing' and the finite main verb *nititur* 'he strove'.

(14) ***Venie-nt-es*** *autem Chlodoveus* *et* *Ragnacharius* *ad*
come-PTCP.PRS-NOM.M.PL but Chlodoveus.NOM.M.SG and Ragnacharius.NOM.M.SG to
pugnam *fortiter=que* *inter* *se* ***proelia-nt-es,***
fight.ACC.F.SG bravely=and between REFL.ACC.M.PL fight-PTCP.PRS-NOM.M.PL
Ragnacharius *caesum* ***cerne-ns*** *exercitum*
Ragnacharius.NOM.M.SG slay.PTCP.PST.ACC.M.SG see-PTCP.PRS.NOM.M.SG army.ACC.M.SG
suum, *fugire* *nititur* *[...].*
his.ACC.M.SG flee.INF.PRS strive.PST.3SG
'But when Chlodoveus and Ragnacharius engaged in battle and bravely fought against each other, Ragnarius, when he saw that his army was slain, strove to flee.' (*Hist. Franc.* 18)

Yet, the present participles in (14) allow a similar analysis as those in (13). On the one hand, the clauses *venientes Chlodoveus et Ragnacharius ad pugnam* 'Chlodoveus and Ragnacharius engaging in battle' and *fortiter inter se proeiliantes* 'bravely fighting against each other' provide the temporal background for the states of affairs denoted by the present participle clause *caesum cernens exercitum suum* 'seeing that his army is slaughtered' and the finite main clause *Ragnacharius fugire nititur* 'Ragnacharius strove to flee'. On the other hand, the state of affairs denoted by the present participle clause *caesum cernens exercitum suum* 'seeing that his army is slaughtered' expresses additional temporal background for the state of affairs designated by the finite clause *Ragnacharius fugire nititur* 'Ragnacharius strove to flee'.

Since it is characterised by a succession of present participle clauses, the narrative use of adjunct present participles increases their absolute frequency, and, hence, their proportion to the total number of present participles. However, since this use is held to be characteristic of narrative texts (Van Acker 2004: 130-131), the frequency of adjunct present participles in Late Latin is expected to be higher in historical and religious texts than in legal texts. This hypothesis will be investigated in §5.2.3.

(iii) The increasing frequency of adjunct present participles from Classical to Late Latin is also partially due to their increasing use as markers of text structure. In languages without a proper punctuation system such as Latin, the only way to overtly structure written language is to use syntactic or lexical devices. Adjunct present participles are often used as a text-structuring device already in Classical Latin, but in Late Latin, they are increasingly so. Consider the example in (15).

(15) *Tunc dixerunt eis beatissimi apostoli Petrus*
then say.PST.3PL DEM.DAT.M.PL most_fortunate.NOM.M.PL apostle.NOM.M.PL Petrus.NOM.M.SG
cum Paulo: "[...]". Hoc ***audie-nt-es****, omnes*
with Paulus.ABL.M.SG DEM.ACC.N.SG hear-PTCP.PRS-NOM.M.PL all.NOM.M.PL
qui in custodia erant clamaverant unanimiter
REL.NOM.M.PL in custody.ABL.F.SG be.PST.3PL shout.PST.3PL unanimously
dice-nt-es*: "[...]".*
say-PTCP.PRS-NOM.M.PL
'Then the most fortunate apostles Peter and Paul said to them: "(...)". When they heard this, everyone who was in custody shouted unanimously, saying: "(...)".' (*Pass. Proc.* 1.6.1-2)

The clause *hoc audientes* 'hearing this' primarily functions as a so-called 'frame-setter' or 'scene-setter' (Chafe 1984; Diessel 2005: 459-460), because it sets the temporal frame within which the subsequent discourse should be interpreted. At the same time, it serves as a text-structuring device by explicitly marking the end of the direct speech. The link with the previous sentence is obvious: the pronoun *hoc* 'this' anaphorically refers to the direct speech, and the present participle *audientes* 'hearing' evokes the act of auditory perception accompanying the declarative act reported by this direct speech. In a similar way, the clause comprising *dicentes* 'saying' primarily functions as what Dik (1997: 311) calls a 'tail constituent': it further clarifies the main state of affairs, in this case by specifying the words shouted. At the same time, however, it functions as a text-structuring device by explicitly marking the beginning of a new direct speech, function for which contemporary punctuations systems use a colon and quotation marks. Especially this second text-structuring use of adjunct present participles, *i.e.* that of marking the beginning of a new direct speech, is characteristic of Late Latin. It is particularly frequent in religious texts, due to the relatively high number of Biblical citations in these texts.

Like their narrative use, the text-structuring use of adjunct present participles increases the overall absolute frequency of adjunct present participles, and, incidentally, their proportion to the total number of present participles.[3] However, the narrative and text-structuring uses of the adjunct present participle

[3] As mentioned in fn. 1, the increasing frequency of the narrative use of the present participle is strongly influenced by Biblical Greek. As to the text-structuring use of the present participle, it is particularly frequent in religious texts (see (iii)). Hence, the increasing proportion of adjunct present participles observed in Tables 5.1 and 5.2 is expected to be due to a particularly high frequency of these participles in religious texts. This hypothesis will be examined in §5.2.3.

alone do not explain the unexpectedly high frequency of adjunct present participles in Late Latin. Some other, more general factors that might play a role will be discussed at the end of this chapter (§5.8).

The result in Table 5.1 also shows that, in the Late Latin corpus, the dominant use of the present participle is the same as that of the gerund. Indeed, the two forms predominantly occur in adjuncts, the present participle even more often (73%) than the gerund (61%; see §4.3.1). This result contrasts with what is expected in the light of the intensifying competition between the two forms.

5.2.2. Frequency within the period of Late Latin

During the Late Latin period, the (normalised) absolute frequency of adjunct present participles rises, against predictions. However, this increase is again to be interpreted within the context of an increasing frequency of present participles in general (Table 5.3). The proportion of adjunct present participles to the total number of present participles, on the contrary, shows a declining trend, as expected.

Table 5.3. Frequency of adjunct present participles in Imperial, Merovingian, and Early Medieval Latin

Period	**#adjunct present participles (per 10 000 words)**		**#present participles (per 10 000 words)**		**#adjunct present participles/ #present participle**
Imperial Latin	313	(104.32)	406	(135.32)	77,09%
Merovingian Latin	2 855	(152.30)	3 741	(199.57)	76,32%
Early Medieval Latin	2 747	(160.66)	3 840	(224.58)	71,54%

A chi-square goodness-of-fit test shows that the proportion of adjunct present participles is higher than expected in Imperial and Merovingian Latin and lower than expected in the Early Medieval Latin period in a statistically significant way ($\chi 2 = 6.38$; df = 2; p = 0.0412) (Table 4.4). However, none of the three periods makes a significant contribution to the obtained chi-square values on its own.

Table 5.4. Observed *vs* expected proportion of adjunct present participles to the total number of present participles in Imperial, Merovingian, and Early Medieval Latin

Period	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Imperial Latin	313	(77,09%)	301	(74,14%)	+0.71
Merovingian Latin	2 855	(76,32%)	2 771	(74,07%)	+1.61
Early Medieval Latin	2 747	(71,54%)	2 844	(74,06%)	-1.82

Hence, the declining proportion in Table 5.3 is probably random, even between Merovingian and Early Medieval Latin. Thus, against predications, the data of this study do not display a disassociation of the

present participle from its adverbial external syntax, neither from Classical to Late Latin, nor within the period of Late Latin.

5.2.3. Frequency and productivity in the three thematic domains

In the Late Latin corpus, the frequency of adjunct present participles is much higher in the historical and religious texts than in the legal texts, both in (normalised) absolute terms and in proportion to the total number of present participles (Table 5.5).

Table 5.5. Frequency of adjunct present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	#adjunct present participles (per 10 000 words)		#present participles (per 10 000 words)		#adjunct present participles/ #present participles
Historical	1 493	(191.11)	1 849	(236.68)	80,75%
Religious	4 461	(180.05)	5 753	(232.20)	77,54%
Legal	458	(45.79)	1 183	(118.28)	38,72%

According to a chi-square goodness-of-fit test, the low proportion of adjunct present participles in the legal texts in comparison with the historical and religious texts is not random. Indeed, this proportion is lower than expected in the legal texts and higher than expected in the historical and religious texts in a statistically highly significant way ($\chi 2 = 221.98$; df = 2; $p < 0.0001$) (Table 5.6).

Table 5.6. Observed *vs* expected proportion of adjunct present participles to the total number of present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	1 493	(80,75%)	1 350	(73,01%)	+3.9
Religious	4 461	(77,54%)	4 199	(72,99%)	+4.04
Legal	458	(38,72%)	863	(72,95%)	-13.8

As we will see in §5.3.1.3, the low proportion of adjunct present participles in the legal texts is mirrored by a high proportion of adnominal forms in these texts. The high proportion of adjunct present participles in the historical and religious texts confirms the hypothesis – mentioned in §5.2.1 – that the narrative and perhaps also text-structuring use of these forms is characteristic of historical and religious texts. As noted in §5.2.1, these uses lead to an increasing absolute frequency of adjunct present participles, and, hence, to an increase of their proportion to the total number of present participles.

The frequency of adjunct present participles in the historical, religious, and legal texts will now be refined by the study of their (attested) productivity in these texts. I measured the productivity of these

forms in terms of the lexical variation between the present participles and the main verbs according to the same two formulae as those used to measure the productivity of the various types of gerunds: the type-token ratio and the hapax-token ratio (see also §3.6.3.2). As shown in Table 5.7, the adjunct present participle is less productive in the legal texts than in the historical and religious texts.

Table 5.7. Productivity of the adjunct present participle in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	1 493	4 461	458
#types	1 355	3 924	318
#hapaxes	1 265	3 664	263
#types/#tokens	**0.91**	**0.88**	**0.69**
#hapaxes/#tokens	**0.85**	**0.82**	**0.57**

Thus, the adjunct present participle is more schematic in historical and religious texts than in legal texts (*cf.* Barðdal 2008: 22). The same conclusion was drawn for the adjunct gerund (see §4.3.3).

Another parallel with the adjunct gerund is the fact that the low productivity of the adjunct present participle in the legal texts is not only due to the low number of types and hapaxes in these texts, but also to the relatively high frequency of specific lexical combinations. In order to demonstrate this, let us consider Table 5.8, showing the inventory and cumulative frequency of the five most frequent lexical combinations of a main verb and an adjunct present participle in the three thematic domains.

Table 5.8. Inventory and cumulative frequency of the five most frequent lexical combinations of a main verb and an adjunct present participle in the historical, religious, and legal texts in Late Latin

Thematic domain	**Lexeme of main verb**	**Lexeme of present participle**	**Frequency (%)**
Historical	*aio* ‘to say’	*dicere* ‘to say’	8 (0,54%)
	videre ‘to see’	*respicere* ‘to gaze at’	6 (0,40%)
	deprecari ‘to beg’	*flectere* ‘to bend’	5 (0,33%)
	dicere ‘to say’	*venire* ‘to come’	4 (0,27%)
	dare ‘to give’	*dicere* ‘to say’	4 (0,27%)[4]
			27 (1,81%)
Religious	*clamare* ‘to shout’	*dicere* ‘to say’	36 (0,81%)
	apparere ‘to appear’	*dicere* ‘to say’	15 (0,34%)
	exclamare ‘to exclaim’	*dicere* ‘to say’	13 (0,29%)
	dicere ‘to say’	*respondere* ‘to answer’	13 (0,29%)
	respondere ‘to answer’	*dicere* ‘to say’	12 (0,27%)[5]
			89 (2,00%)

[4] There are six other lexical combinations with a token frequency of four in the historical texts.
[5] The religious contain two more lexical combinations occurring twelve times.

Legal	*interpellare* ‘to prosecute’	*venire* ‘to come’	19 (4,15%)
	suggerere ‘to suggest’	*venire* ‘to come’	16 (3,49%)
	derelinquere ‘to leave’	*mori* ‘to die’	11 (2,40%)
	inferre ‘to bring’	*cogere* ‘to force’	10 (2,18%)
	consentire ‘to consent’	*subscribere* ‘to subscribe’	9 (1,97%)
			65 (14,19%)

An important difference can be observed between the legal texts and the historical and religious texts: the five most frequent lexical combinations account for 14% of all combinations in the legal texts against only 2% in both the historical and the legal texts. Moreover, the most frequent combination represents 4% of all combinations in the legal texts *versus* less than 1% in the historical and religious texts. The most frequent combination in the legal texts is *interpellare* ‘to prosecute’/*venire* ‘to come’ (16).

(16) *[...] ibi=que* ***venie-ns*** *ille* *illo* *interpellavit [...].*
there=and come-PTCP.PRS.NOM.M.SG DEM.NOM.M.SG DEM.ABL[ACC].M.SG prosecute.PST.3SG
‘And when he came there, he prosecuted him.’ (*Form. Marc.* 1.25)

Table 5.8 also shows that four of the five most frequent combinations in the religious texts contain two declarative verbs, in which case the present participle is typically used as a marker of text structure. The most frequent of these combinations in the religious texts is *clamare* ‘to shout’/*dicere* ‘to say’ (15). The most frequent combination in the historical texts, namely *aio* ‘to say’/*dicere* ‘to say’ also typically hosts a text-structuring present participle, as in (17).

(17) *Ille* *haec* *audiens* *ad Gundebergam* *secrecius*
DEM.NOM.M.SG DEM.ACC.N.PL hear.PTCP.PRS.NOM.M.SG to Gundeberga.NOM.M.SG secretly
ait ***dice-ns*** *[...].*
say.PST.3SG say-PTCP.PRS.NOM.M.SG
‘Hearing this, he secretly spoke to Gundeberga, saying: “(...)”.’ (Fredeg. *chron.* 4.51)

Contrary to what has been observed in the case of the adjunct gerund (see §4.3.3), the low productivity of the adjunct present participle in the legal texts does not appear from the lexical variation of the present participles separately. This variation is even higher in the legal texts than in both the historical and the religious texts, even though the differences are too small to draw firm conclusions (Table 5.9).

Table 5.9. Lexical variation of the adjunct present participles in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	1 493	4 461	458
#types	469	1 017	151
#hapaxes	237	443	90
#types/#tokens	**0.31**	**0.23**	**0.33**
#hapaxes/#tokens	**0.16**	**0.10**	**0.20**

Proportionally speaking, however, the legal texts contain more lexemes with a high frequency than the historical and religious texts. On the one hand, the five most frequent lexemes account for 32% of all lexemes in the legal texts *vs* 21% in the historical texts and 17% in the religious texts. On the other hand, the most frequent lexeme alone represents 17% of all lexemes in the legal texts, while it accounts for only 8% and 9% in respectively the historical and religious texts (Table 5.10).

Table 5.10. Inventory and cumulative frequency of the five most frequent lexemes used for adjunct present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	**Lexeme of present participle**	**Frequency (%)**
Historical	*dicere* ‘to say’	114 (7,64%)
	venire ‘to come’	83 (5,56%)
	audire ‘to hear’	46 (3,08%)
	cernere ‘to see’	43 (2,88%)
	videre ‘to see’	32 (2,14%)
		318 (21,30%)
Religious	*dicere* ‘to say’	418 (9,37%)
	audire ‘to hear’	117 (2,62%)
	venire ‘to come’	92 (2,06%)
	videre ‘to see’	89 (2,00%)
	agere ‘to act’	49 (1,10%)
		765 (17,15%)
Legal	*venire* ‘to come’	78 (17,03%)
	praeesse ‘to be present’	23 (5,02%)
	mori ‘to die’	16 (3,49%)
	cogere ‘to force’	15 (3,28%)
	facere ‘to do’	14 (3,06%)
		146 (31,88%)

As to the lexical variation of the main verbs, it is also higher in the legal texts than in the historical and religious texts (Table 5.11), unlike what has been observed in the case of the adjunct gerund (see §4.3.3).

Table 5.11. Lexical variation of the verbs combined with an adjunct present participle in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	1 493	4 461	458
#types	510	1 151	193
#hapaxes	243	535	107
#types/#tokens	**0.34**	**0.26**	**0.42**
#hapaxes/#tokens	**0.16**	**0.12**	**0.23**

The legal texts comprise again more lexemes with a relatively high frequency than the historical and religious texts, although the difference is less pronounced than for in the case of the lexical variation of the present participles (Table 5.12).

Table 5.12. Inventory and cumulative frequency of the five most frequent lexemes used for verbs combined with an adjunct present participle in the historical, religious, and legal texts in Late Latin

Thematic domain	**Lexeme of main verb**	**Frequency (%)**
Historical	*dirigere* 'to direct'	32 (2,14%)
	dicere 'to say'	31 (2,08%)
	aio 'to say'	30 (2,01%)
	interficere 'to kill'	28 (1,88%)
	venire 'to come'	27 (1,81%)
		148 (9,91%)
Religious	*dicere* 'to say'	144 (3,23%)
	aio 'to say'	78 (1,75%)
	pervenire 'to arrive'	74 (1,66%)
	pergere 'to go on'	70 (1,57%)
	iubere 'to order'	63 (1,41%)
		429 (9,62%)
Legal	*interpellare* 'to prosecute'	21 (4,59%)
	suggerere 'to suggest'	19 (4,15%)
	derelinquere 'to leave'	12 (2,62%)
	inferre 'to bring'	12 (2,62%)
	componere 'to collect'	11 (2,40%)
		75 (16,38%)

5.2.4. Case marking of the present participle

The final aspect of the Late Latin adjunct present participles to be examined is their case marking, and, related to this issue, the reference of their subject. All case forms have been attested, except the vocative.

In the nominative, the subject of the present participle is most often coreferential with the subject of the main verb – the present participle is thus predominantly a conjunct form (e.g. *agens* ‘doing’ and *dicens* ‘saying’ (18)).

(18) *At* *ille* *gratias* *Deo* ***age-ns***,
but DEM.NOM.M.SG gratitude.ACC.F.PL God.DAT.M.SG do-PTCP.PRS.NOM.M.SG
comitem *arcessiri* *iubet,* ***dice-ns*** *[...].*
companion.ACC.M.SG summon.INF.PRS.PASS order.PST.3SG say-PTCP.PRS.NOM.M.SG
‘But he, after he thanked God, ordered that its companion be summoned with the words: “(...)”.’ (Greg. Tur. *Franc.* 6.8)

However, the subject of nominative present participles does not need to be coreferential with the subject of the main clause. Witness (19), in which the subject of *benedicens* ‘blessing’ corresponds to a priest mentioned in the preceding discourse, whereas the subject of the main verb, *viz. facta est* ‘it was made’, corresponds to the noun *oratio* ‘prayer’. The resulting present participle is thus absolute.

(19) *[...] et* *denuo* ***benedice-ns*** *nos* *facta* *est*
and again bless-PTCP.PRS.NOM.M.SG we.ACC.M.PL make.PTCP.PST.NOM.F.SG be.PRS.3SG
oratio.
prayer.NOM.F.SG
‘And after he blessed us again, a prayer was said.’ (*Peregr. Aeth.* 19.16)

In the accusative, the subject of the present participle is typically coreferential with the direct object of the main verb (e.g. (20)).

(20) *Multis* *honoribus* *tum* *eam* ***eu-nt-em*** *hac*
many.ABL.M.PL honour.ABL.M.PL then DEM.ACC.F.SG go-PTCP.PRS-ACC.F.SG and
redeu-nt-em *universi* *honoraverunt.*
return-PTCP.PRS-ACC.F.SG all.NOM.M.PL honour.PST.3PL
‘Then, everyone honoured her with many honours as she left and returned.’ (*Vit. Genov.* 47)

However, if it is embedded in an accusative and infinitive construction, the subject of accusative present participles tends to be coreferential with the subject of the infinitive main verb. For instance, in (21) the subject of *stimulantem* ‘frenzying’ corresponds to the NP *quendam aequum* ‘some horse’, which is the accusative subject of the infinitive *currere* ‘to run’.

(21) *[...] vident* *eminus* *quondam* *aequum* *vehementer*
see.PRS.3PL from_afar INDF.ACC.M.SG horse.ACC.M.SG vehemently
stimula-nt-em *currere* *[...].*
urge_forward-PTCP.PRS-ACC.M.SG run.INF.PRS
‘From afar they see some horse running in a heavy frenzy.’ (*Vit. Desid.* 18)

Like those in (20-21), most accusative present participles are conjunct forms. Nevertheless, the corpus also contains a number of absolute accusative forms. *Advenientem* ‘approaching’ (22) is a case in point: its subject corresponds to the NP *sanctum Abraam* ‘saint Abraham’, while the subject of the main verb *optulit* ‘he offered’ is the NP *sanctus Melchisedech* ‘saint Melchisedech’.

(22) *[...] sanctus Melchisedech,* ***advenie-nt-em*** *sanctum*
saint.NOM.M.SG Melchisedech.NOM.M.SG approach-PTCP.PRS-ACC.M.SG saint.ACC.M.SG
Abraam, hostias Deo puras [...] optulit.
Abraham.ACC.M.SG sacrifice.ACC.F.PL God.DAT.M.SG pure.ACC.F.PL offer.PST.3SG
‘As saint Abraham was approaching, saint Melchisedech offered pure sacrifices to God.’ (*Peregr. Aeth.* 14.2)

The subject of genitive present participles is mostly coreferential with a non-argumental constituent of the main clause. Consider (23), in which the subject of *redeuntis* ‘returning’ is the NP *eiusdem sacerdotis* ‘of this same priest’, which serves as the adnominal argument of the noun *genibus* ‘knees’.

(23) *[...] presbyterum quondam inibi sacrosancta tractantem*
priest.ACC.M.SG INDF.ACC.M.SG there sacred.ACC.N.PL perform.PTCP.PRS.ACC.M.SG
mysteria conspexit, et consummationem sacrae actionis
rite.ACC.N.PL see.PST.3SG and completion.ACC.F.SG sacred.GEN.F.SG act.GEN.F.SG
opperiens, eiusdem sacerdotis ab officio
wait_for-PTCP.PRS.NOM.M.SG same.GEN.M.SG priest.GEN.M.SG from service.ABL.N.SG
redeu-nt-is *genibus advolvitur [...].*
return-PTCP.PRS-GEN.M.SG knee.DAT.M.PL fall.PST.3SG
‘He saw there some priest performing sacred rites and, after he waited for the completion of the sacred act, he fell to the knees of this same priest as he returned from service.’ (*Vit. Gall. Wal.* 2.41)

As to dative present participles, their subject is usually coreferential with the indirect object of the main verb. This is the case, for instance, for *vocanti* ‘asking’, whose subject corresponds to the indirect object noun *episcopo* ‘bishop’ (24).

(24) *Qui [...] altare constituit et noluit* ***voca-nt-i***
REL.NOM.M.SG altar.ACC.N.SG build.PST.3SG and not_want.PST.3SG ask-PTCP.PRS-DAT.M.SG
episcopo consentire [...].
bishop.DAT.M.SG consent.INF.PRS
‘He built an altar and did not want to consent to the bishop when he asked (for this).’ (*Epist. Merov.* 6)

Finally, the subject of ablative present participles is predominantly not coreferential with any constituent of the main clause. Thus, the participles are mostly absolute, like *orante* ‘praying’ and *appropinquante* ‘approaching’ (25)).

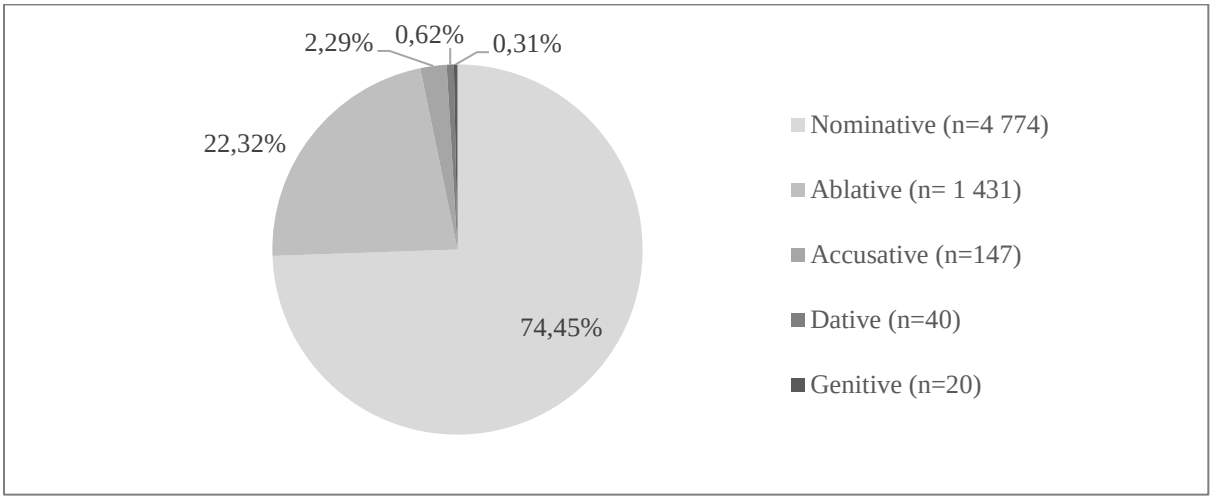
(25) *Ipsa* *denique* *in* *obscuro* *carceris* ***ora-nt-e***
INTENS.NOM.F.SG and_then in darkness.ABL.N.SG prison.GEN.M.SG pray-PTCP.PRS-ABL.F.SG
iam=que *aurora* *diei* ***appropinqua-nt-e*** *ecce*
already=and dawn.ABL.F.SG day.GEN.M.SG approach-PTCP.PRS-ABL.F.SG behold
angelus *domini* *[...]* *apparuit* *[...].*
angel.NOM.M.SG Lord.GEN.M.SG appear.PST.3SG
'And then, as she was praying in the darkness of the prison and as daybreak was already approaching, behold, the angel of the Lord appeared.' (*Pass. Bened.* 1.15.1)

On occasion, however, the subject of ablative forms is coreferential with a constituent of the main clause. Witness (26), in which the subject of *dicente* 'saying' is coreferential with the subject of the main verb *audivit* 'he heard'. Notice that this pro-dropped subject is cataphorically anticipated within the present participle clause by the pronoun *eo* 'him'.

(26) *Et* *haec* ***dice-nt-e*** *eo* *audivit* *vocem*
and DEM.ACC.N.PL say-PTCP.PRS-ABL.M.SG DEM.ABL.M.SG hear.PST.3SG voice.ACC.F.SG
de *celo* *[...].*
from heaven.ABL.N.SG
'And when he was saying this, he heard a voice from heaven.' (*Pass. Eustach.* 2.13)

A more comprehensive investigation of the relation between the case marking of the adjunct present participles and the referentiality of their subject would be interesting, but falls outside the scope of this study. What is more interesting for the purpose of this thesis is the frequency of the different case forms of the participles in issue. Figure 5.1 shows that the dominant case form is the nominative.

Figure 5.1. Case marking of the adjunct present participles in Late Latin



Since the subject of nominative present participles is typically coreferential with the subject of the main verb, the dominance of this type of adjunct present participles indirectly confirms the hypothesis stated

above that the high proportion of adjunct present participles in Late Latin is partly due to their frequent use as a narrative strategy. Indeed, as noted in §5.2.1, this use of the present participle is characterised by a succession of present participles denoting a series of state of affairs typically performed by one and the same referent, that of the subject of the finite main verb (Van Acker 2004: 130-131). The succession of such participles does not only increase the number of nominative adjunct present participles, but also that of adjunct present participles in general.

5.2.5. Conclusion

Against predications, the frequency of adjunct present participles rises between Classical and Late Latin, both in (normalised) absolute terms and in proportion to the total number of present participles. Their absolute frequency also rises during the Late Latin period, while their proportion to the total number of present participles declines in this period. Though in accordance with what is expected in the light of the intensifying competition between the present participle and the gerund in Late Latin, this declining proportion is statistically insignificant, and hence probably random. Adjunct present participles are less frequent and less productive in legal texts than in historical and religious texts.

The finding that adjunct present participles are the dominant type of present participles in Late Latin (73%) and that their proportion to the total number of present participles barely decreases during this period, after having considerably risen between Classical and Late Latin (*i.e.* from 57% to 73%), is all the more significant in view of the broad definition of the present participle adopted in this study. In a stricter definition, some adjectival present participles would hold as adjectives and hence be excluded from the dataset. As a corollary, the proportion of adverbial present participles would be higher. In this way, the predicted disassociation of the present participle from its adverbial external syntax in Late Latin would be disproven in an even more pronounced way.

The observation that the adverbial present participle represents 73% of all present participles in Late Latin in general and still 72% in the latest period (*i.e.* Early Medieval Latin), whereas the Romance present participle can no longer be used in adjuncts (Elcock 1960: 111; Väänänen 1963[3]: 140-141; Bauer 1993, 2005), brings up the same conclusion as that drawn with respect to the nominal and the adverbial gerund, namely that there is a large gap between the use of the present participle in Late Latin, at least in the written records that have come down to us, and in Romance.

5.3. The adjectival present participle

After having investigated the evolution of the adverbial present participle, I will explore in this section the evolution of the adjectival present participle. This form can be used in three types of constituents:

adnominal phrases, subject predicates, and object predicates. According to the standard hypothesis of the competition between the present participle and the gerund, the present participle specialises in Late Latin in adjectival syntactic configurations as the – indirect – result of its replacement by the gerund in adverbial external syntax (*cf.* Marouzeau 1910: 79, 83-84; Elcock 1960: 111; Väänänen 1963³: 140-141; Hofmann & Szantyr 1965: 384; Harris 1978: 200; Bauer 1993, 2005). Therefore, the proportion of adjectival present participles to the total number of present participles is expected to increase both between Classical and Late Latin and during the Late Latin period, at the cost of adverbial present participles, whereas their absolute frequency is not necessarily expected to rise – or decline. In order to verify this hypothesis, I will first explore the evolution of adnominal (§5.3.1), subject predicate (§5.3.2), and object predicate (§5.3.3) present participles separately. The results obtained for these forms will then be collated, so as to evaluate the evolution of the adjectival present participle as a whole (§5.4).

5.3.1. Adnominal present participles

A first type of present participles occurring in adjectival syntactic configurations are adnominal present participles. Examples are *ineunte* 'entering' (27) and *egrotans* 'being ill' (28), respectively a restrictive and an appositive present participle.

(27) *[...] si nosti ab* ***ineu-nt-e*** *etate [...].*
if know.PST.2SG from enter-PTCP.PRS-ABL.F.SG age.ABL.F.SG
'If you knew from a young age (...).' (*Vit. Amat.* 11)

(28) *[...] infantulus quidam nomine Mummolenus validissime*
little_boy.NOM.M.SG INDF.NOM.M.SG name.ABL.N.SG Mummolenus.NOM.M.SG very_gravely
egrota-ns *ad extrema pene*
be_ill-PTCP.PRS.NOM.M.SG to final.ABL[ACC].F.SG torment.ABL[ACC].F.SG
deductus est.
bring-PTCP.PST.NOM.M.SG be.PRS.1SG
'Some little boy named Mummolenus, who is very gravely ill, is brought to its final torment.' (*Vit. Desid.* 46)

This section aims to investigate the frequency of adnominal present participles from Classical Latin to Late Latin (§5.3.1.1) and within the period of Late Latin (§5.3.1.2). Their frequency in Late Latin will be further evaluated in the light of their frequency and productivity in the historical, religious, and legal texts (§5.3.1.3). The final aspect of these forms that will be examined is their case marking (§5.3.1.4).

5.3.1.1. Frequency from Classical to Late Latin

In (normalised) absolute terms, the frequency of adnominal present participles sharply increases from Classical to Late Latin, namely from 11 to 39 occurrences per 10 000 words (Table 5.13). However, the frequency of the present participle in general rises much more sharply, *i.e.* from 29 to 206 instances per 10 000 words. Therefore, the proportion of adnominal present participles to the total number of present participles decreases, against predications. This decline is considerable, *viz.* from 39% to 19%.

Table 5.13. Frequency of adnominal present participles in Classical and Late Latin

Period	**#adnominal present participles (per 10 000 words)**		**#present participles (per 10 000 words)**		**#adnominal present participles/ #present participles**
Classical Latin	690	(11.04)	1 786	(28.57)	38,63%
Late Latin	1 673	(39.28)	8 785	(206.27)	19,04%

A chi-square goodness-of-fit test shows that the fraction of adnominal present participles is higher than expected in Classical Latin and lower than expected in Late Latin in a statistically highly significant way ($\chi 2 = 253.94$; df = 1; $p < 0.0001$) (Table 5.14). Hence, the declining trend might not be random.

Table 5.14. Observed *vs* expected proportion of adnominal present participles to the total number of present participles in Classical and Late Latin

Period	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Classical Latin	690	(38,63%)	399	(22,34%)	+14.55
Late Latin	1 673	(19,04%)	1 964	(22,36%)	-6.56

While being opposite to what is expected in view of the standard hypothesis of the competition between the present participle and the gerund, this result is expected in the light of the rising share of adverbial present participles (see §5.2.1). Indeed, since the corpus of this study does not provide evidence in favour of the gradual replacement of the present participle by the gerund in adverbial external syntax, and thus of the disassociation of the present participle from this syntax, it is not unsurprising that this same corpus does not show a specialisation of the present participle in adnominal phrases. After all, this specialisation is primarily considered the – indirect – result of a decreasing proportion of adverbial present participles. Hence, it does not obtain when the segment of adverbial present participle gains instead of drops.

5.3.1.2. Frequency within the period of Late Latin

Within the period of Late Latin, the (normalised) absolute frequency of adnominal present participles rises, along with the frequency of the present participle in general (Table 5.15). The proportion of these

forms to the total number of present participles also increases, in accord with expectations, but only in a very slight way.

Table 5.15. Frequency of adnominal present participles in Imperial, Merovingian, and Early Medieval Latin

Period	**#adnominal present participles (per 10 000 words)**		**#present participles (per 10 000 words)**		**#adnominal present participles/ #present participle**
Imperial Latin	67	(22.33)	406	(135.32)	16,50%
Merovingian Latin	626	(33.39)	3 741	(199.57)	16,73%
Early Medieval Latin	748	(43.75)	3 840	(224.58)	19,48%

According to a chi-square goodness-of-fit test, the rising proportion of adnominal present participles is probably random. Indeed, this proportion is lower than expected in Imperial and Merovingian Latin and higher than expected in Early Medieval Latin in a statistically significant way, but none of these periods alone makes a significant contribution to the obtained chi-square values ($\chi 2 = 8.48$; df = 2; p = 0.0144) (Table 5.16).

Table 5.16. Observed *vs* expected proportion of adnominal present participles to the total number of present participles in Imperial, Merovingian, and Early Medieval Latin

Period	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Imperial Latin	67	(16,50%)	73	(17,98%)	-0.73
Merovingian Latin	626	(16,73%)	675	(18,04%)	-1.88
Early Medieval Latin	748	(19,48%)	693	(18,05%)	+2.10

The conclusion to be drawn is that the proportion of adnominal present participles is relatively stable within the period of Late Latin, after having sharply declined between Classical and Late Latin. In other words, the corpus of this study does not evidence a specialisation of the present participle in adnominal phrases, neither from Classical to Late Latin nor during the Late Latin period. This is confirmed by the evolution of the absolute frequency of the forms in issue: it rises both between Classical and Late Latin and within the period of Late Latin, but much less sharply than the frequency of the present participle in general. Hence, the present participle neither show signs of a direct specialisation in adnominal uses. Note that the slightly increasing proportion of adnominal present participles between Merovingian and Early Medieval Latin is mirrored by an equally slightly decreasing share of adverbial present participles (see Table 5.3). This confirms that the frequency pattern of these two types of participles are correlated.

5.3.1.3. Frequency and productivity in the three thematic domains

The frequency of adnominal present participles in the Late Latin corpus is highest in the legal texts, both in (normalised) absolute terms and in proportion to the total number of present participles (Table 5.17). This result is in line with that obtained for the adnominal gerund (see §4.2.1.3).

Table 5.17. Frequency of adnominal present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	**#adnominal present participles (per 10 000 words)**		**#present participles (per 10 000 words)**		**#adnominal present participles/ #present participles**
Historical	216	(27.65)	1 849	(236.68)	11,68%
Religious	811	(32.73)	5 753	(232.20)	14,09%
Legal	646	(64.59)	1 183	(118.28)	54,61%

Given the extent of this difference, it comes as no surprise that a chi-square goodness-of-fit test suggests that it is probably not random. Indeed, the share of adnominal present participles is lower than expected in the historical and religious texts and higher than expected in the legal texts in a statistically highly significant way ($\chi 2 = 912.20$; $df = 2$; $p < 0.0001$) (Table 5.18).

Table 5.18. Observed *vs* expected proportion of adnominal present participles to the total number of present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Historical	216	(11,68%)	352	(19,04%)	-7.25
Religious	811	(14,09%)	1 096	(19,05%)	-8.6
Legal	646	(54,61%)	225	(19,02%)	+28.03

Thus, the question arises as to what distinguishes the use of adnominal present participles in legal texts from their use in historical and religious texts. As in the case of the adnominal gerund, the answer lies in the productivity of the adnominal present participle.

The productivity of this form has been measured in function of the lexical variation between the present participle and the governing noun. Table 5.19 shows that the adnominal present participle is less productive in the legal texts than in the historical and religious texts, as has been observed with respect to both the adnominal gerund (see §4.2.1.3) and the adverbial present participle (see §5.2.3).

Table 5.19. Productivity of the adnominal present participle in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	216	811	646
#types	182	681	215
#hapaxes	167	618	147
#types/#tokens	**0.84**	**0.84**	**0.33**
#hapaxes/#tokens	**0.77**	**0.76**	**0.23**

Hence, the adnominal present participle is lexically less open (or less schematic) in legal texts than in historical and religious texts (*cf.* Barðdal 2008: 22). The number of hapaxes is lower in the legal texts than in the historical texts even in absolute numbers, although the total number of lexical combinations in the legal texts is almost three times as high as in the historical texts. Within the group of legal texts, the productivity of the adnominal present participle is lower than that of the adjunct present participle, for which the type-token and hapax-token ratios are respectively 0.69 and 0.57 (see §5.2.3, Table 5.7). The same conclusion was drawn for the productivity of the adnominal and adverbial gerund (see 4.2.1.3 and §4.3.3, respectively).

As in the case of the adnominal gerund and the adverbial present participle, the lower productivity of the adnominal present participle in the legal texts is not only due to the lower number of types and hapaxes in theses texts, but also to the relatively high frequency of certain lexical combinations. This is evident from Table 5.20, presenting the inventory and cumulative frequency of the five most frequent combinations in the three thematic domains.

Table 5.20. Inventory and cumulative frequency of the five most frequent lexical combinations of a noun and an adnominal present participle in the historical, religious, and legal texts in Late Latin

Thematic domain	**Lexeme of noun**	**Lexeme of present participle**	**Frequency (%)**	
Historical	*annus* ‘year’	*sequi* ‘to follow’	8	(3,70%)
	locus ‘place’	*nuncupare* ‘to call’	7	(3,24%)
	officium ‘service’	*praeesse* ‘to be present’	4	(1,85%)
	tempus ‘time’	*succedere* ‘to succeed’	4	(1,85%)
	vita ‘life’	*praeesse* ‘to be present’	4	(1,85%)
			27	**(12,50%)**
Religious	*dies* ‘day’	*sequi* ‘to follow’	11	(1,36%)
	vita ‘life’	*praeesse* ‘to be present’	10	(1,23%)
	saeculum ‘era’	*praeesse* ‘to be present’	8	(0,99%)
	locus ‘place’	*nuncupare* ‘to call’	7	(0,86%)
	dies ‘day’	*praeesse* ‘to be present’	5	(0,62%)[6]
			41	**(5,06%)**

[6] The religious texts contain three other lexical combinations occurring five times.

Legal	*locus* ‘place’	*nuncupare* ‘to call’	92	(14,24%)
	dies ‘day’	*praeesse* ‘to be present’	70	(10,84%)
	villa ‘house’	*nuncupare* ‘to call’	38	(5,88%)
	tempus ‘time’	*praeesse* ‘to be present’	36	(5,57%)
	epistula ‘letter’	*praeesse* ‘to be present’	24	(3,72%)
			260	**(34,76%)**

The five most frequent lexical combinations represent 35% of all combinations in the legal texts, against only 13% in the historical texts and 5% in the religious texts. Moreover, the most frequent combination alone accounts for 14% in the legal texts *vs* 4% in the historical texts and 1% in the religious texts. The most frequent combination in the legal texts is *dies* ‘day’/*praeesse* ‘to be present’ (29). The runner-up, also accounting for more than 10% of all combinations, is *locus* ‘place’/*nuncupare* ‘to call’ (30).

(29) *[...] dabo ergo tibi a die* ***praese-nt-i*** *[...].*
give.FUT.1SG so you.DAT.M.SG from day.ABL.M.SG be_present-PTCP.PRS-ABL.M.SG
‘So I will give you from this day (...).’ (*Form. Sal. Bign.* 10)

(30) *[...] quod [...] terra sua in loco* ***nuncupa-nt-e***
because land.ABL[ACC].F.SG his.ABL[ACC].F.SG in place.ABL.M.SG call-PTCP.PRS-ABL.M.SG
illo per fortia tullisset [...].
DEM.ABL.M.SG by force.ABL[ACC].N.PL take.SBJV.PST.3SG
‘(...) because he had taken by force his land in the place called X.’ (*Form. Marc.* 1.28)

The low productivity of the adnominal present participle in the legal texts also manifests itself in the lexical variation of present participles separately – as observed for the adnominal gerund, but not for the adverbial present participle. This variation is lower in the legal texts than in the historical and religious texts, although the difference with especially the religious texts is less significant than in the case of the lexical combinations of present participles and governing nouns (Table 5.21).

Table 5.21. Lexical variation of the adnominal present participles in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	216	811	646
#types	118	337	79
#hapaxes	89	206	37
#types/#tokens	**0.55**	**0.42**	**0.12**
#hapaxes/#tokens	**0.41**	**0.25**	**0.06**

On closer inspection, the low lexical variation of the adnominal present participles in the legal texts is partly due to the high frequency of certain lexemes. Indeed, the five most frequent lexemes represent

69% of all adnominal present participles in the legal texts *versus* only 31% and 19% in respectively the historical and religious texts. Furthermore, the most frequent lexeme accounts for 35% of all adnominal present participles in the legal texts, while representing 13% in the historical texts and 8% in the religious texts (Table 5.22).

Table 5.22. Inventory and cumulative frequency of the five most frequent lexemes used for adnominal present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	Lexeme of present participle	Frequency (%)	
Historical	*praeesse* 'to be present'	27	(12,5%)
	sequi 'to follow'	14	(6,48%)
	sapere 'to be wise'	10	(4,63%)
	habere 'to have'	9	(4,17%)
	nuncupare 'to call'	7	(3,24%)
		67	**(31,08%)**
Religious	*praeesse* 'to be present'	62	(7,64%)
	habere 'to have'	35	(4,32%)
	sequi 'to follow'	24	(2,96%)
	venire 'to come'	16	(1,97%)
	habitare 'to dwell'	16	(1,97%)
		153	**(18,87%)**
Legal	*praeesse* 'to be present'	227	(35,14%)
	nuncupare 'to call'	159	(24,61%)
	aspicere 'to face'	29	(4,49%)
	commanere 'to stay'	17	(2,63%)
	consistere 'to stay'	16	(2,48%)
		448	**(69,35%)**

Table 5.22 further shows that the three types of texts share their most frequent lexeme, *viz. praeesse* 'to be' (e.g. (30)). This lexeme alone represents about a fifth of all adnominal present participles in the Late Latin corpus (19% or 316 instances out of 1 673).

The lexical variation of the nouns governing a present participle is also lowest in the legal texts (Table 5.23).

Table 5.23. Lexical variation of the nouns governing a present participle in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	216	811	646
#types	132	377	154
#hapaxes	102	246	90
#types/#tokens	**0.61**	**0.46**	**0.24**
#hapaxes/#tokens	**0.47**	**0.30**	**0.14**

The low variation of these nouns in the legal texts is also positively influenced by the high frequency of specific lexemes, though less significantly than in the case of the present participles (see Table 5.24).

Table 5.24. Inventory and cumulative frequency of the five most frequent lexemes used for nouns governing a present participle in the historical, religious, and legal texts in Late Latin

Thematic domain	**Lexeme of noun**	**Frequency (%)**	
Historical	*annus* 'year'	11	(5,09%)
	homo 'man'	11	(5,09%)
	locus 'place'	10	(4,63%)
	tempus 'time'	9	(4,17%)
	animus 'spirit'	5	(2,31%)[7]
		46	**(21,30%)**
Religious	*vir* 'man'	37	(4,56%)
	omnis 'every'	30	(3,70%)
	cunctus 'all'	20	(2,47%)
	dies 'day'	18	(2,22%)
	frater 'brother'	15	(1,85%)
		120	**(14,80%)**
Legal	*locus* 'place'	96	(14,86%)
	dies 'day'	70	(10,84%)
	villa 'house'	41	(6,35%)
	tempus 'time'	38	(5,88%)
	homo 'man'	36	(5,57%)
		281	**(43,50%)**

The most frequent lexemes in the historical, religious, and legal texts are respectively *annus* 'year' (31), *vir* 'man' (32), and *locus* 'place' (30).

[7] The historical texts contain three more nouns governing a present participle with a token frequency of 5.

(31) *[...]* ***seque-nt-e*** *anno* *[...]* *ad Ligerem* *fluvium* *[...]*
follow-PTCP.PRS-ABL.M.SG year.ABL.M.SG to Loire.ACC.M.SG river.ACC.M.SG
venerunt.
come.PST.3PL
'The following year they came to the river Loire.' (Fredeg. *cont.* 28)

(32) *[...]* *audita* *est* *[...]* *vox* *virum* *Dei*
hear.PTCP.PST.NOM.F.SG be.PRS.3SG voice.NOM.F.SG man.GEN.M.PL God.GEN.M.SG
plange-nt-ium *[...].*
lament-PTCP.PRS-GEN.M.PL
'A voice was heard of men of God who were lamenting.' (*Vit. Gall. Wett.* 2.30)

5.3.1.4. Case marking of the present participle

The final aspect of the Late Latin adnominal present participles to be investigated is their case marking. However, since they are assigned case through agreement with a noun rather than on the basis of their function, the morphological marking of these forms is less relevant than that adnominal gerunds. Suffice it to mention that, in the Late Latin corpus, examples of adnominal present participles have been found in all case forms: the nominative (33), the accusative (34), the genitive (35), the dative (36), the ablative (37), and even the vocative (38).

(33) *Turba* *[...]* *circumquaque* ***commane-ns*** *adcurrere* *festinabat* *[...].*
crowd.NOM.F.SG all_around dwell-PTCP.PRS.NOM.F.SG approach.INF.PRS hurry.PST.3SG
'A crowd dwelling all around approached in a hurry.' (*Pass. Vit.* 1.1.10.17)

(34) *" Eustachi,* *vis* *modo* *accipere* ***immine-nt-em***
Eustachus.VOC.M.SG want.PRS.2SG now accept.INF.PRS threaten-PTCP.PRS-ACC.F.SG
tibi *temptationem* *[...]".*
you.DAT.M.SG temptation.ACC.F.SG
'"Eustachus, do you now wish to accept the temptation that threatens you?"' (*Pass. Eustach.* 1.7)

(35) *Habeant* *stulti* *lucrum* ***labe-nt-is*** *temporis.*
have.SBJV.PRS.3PL fool.NOM.M.SG profit.ACC.N.SG perish-PTCP.PRS-GEN.N.SG time.GEN.N.SG
'May the fools have profit in this perishable life.' (*Pass. Caec.* 1.16.4)

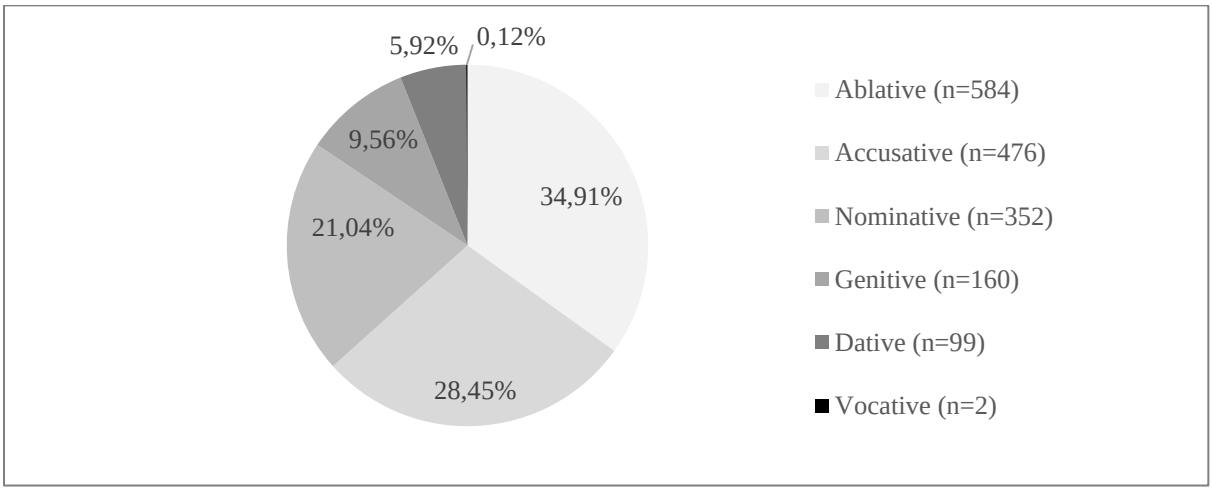
(36) *[...]* *et* *tegumentum* *distribuit* *ibi* ***mane-nt-ibus*** *viris*
and shelter.ACC.N.SG give.PST.3SG there dwell-PTCP.PRS-DAT.M.PL man.DAT.M.PL
timoratis.
devout.DAT.M.PL
'And he gave shelter to the devout men who dwelled there.' (*Vit. Gall. Wett.* 2.36)

(37) *[...] qui* ***arde-nt-i*** *desiderio orandi gratia*
REL.NOM.M.SG burn-PTCP.PRS.ABL.M.SG desire.ABL.N.SG pray.GER.GEN for_the_sake_of
perrexit ad urbem Turonicam.
go.PST.3SG to city.ACC.F.SG of_Tours.ACC.F.SG
'Who with a burning desire went to the city of Tours for the sake of praying.' (*Vit. Austr.* 2.9)

(38) *Nunc autem, fili* ***sapie-ns****, quaeso [...].*
now but son.VOC.M.SG be_wise-PTCP.PRS.VOC.M.SG beg.PRS.1SG
'But now I beg you, my wise son (...).' (*Epist. Austr.* 23)

Figure 5.2 shows the frequency of the case forms. As evident from this figure, present participles depend much more often on ablative, accusative, and nominative nouns than on genitive, dative, and vocative nouns. This result is more or less in line with the case distribution of NPs (*cf.* Pinkster 2015: 1180).

Figure 5.2. Case marking of the adnominal present participles in Late Latin



5.3.1.5. Conclusion

Against predictions, the share of adnominal present participles to the total number of present participles drops between Classical and Late Latin. It increases within the period of Late Latin, but in a statistically insignificant way. The (normalised) absolute frequency of these participles rises both from Classical to Late Latin and during the Late Latin period, but much less steeply than that of the present participle in general. Hence, the data of this study do not show any sign of a – direct or indirect – specialisation of the present participle in adnominal phrases. The frequency of adnominal present participles is higher in the legal texts than in the historical and religious texts. This difference is inversely related to a difference in productivity. A possible explanation of these thematic differences will be given in §5.5.

5.3.2. Subject predicate present participles

The next type of present participles occurring in adjectival syntactic configurations are subject predicate present participles (e.g. *timens* 'fearing' (39)).

(39) *[...] si fueris pius et misericors et* ***time-ns***
if be.SBJV.PST.3SG pious.NOM.M.SG and merciful.NOM.M.SG and fear-PTCP.PRS.NOM.M.SG
Deum [...].
God.ACC.M.SG
'If you were pious and merciful and God-fearing.' (*Epist. Merov.* 15)

The aim of this section is to investigate the frequency of this type of present participles between Classical and Late Latin (§5.3.2.1) and during the Late Latin period (§5.3.2.2). As for the previous types of present participles, the frequency study of subject predicate present participles in Late Latin will be refined by the study of their frequency and productivity in the historical, religious, and legal texts (§5.3.2.3). In this latter section, I will also explore the inventory of the copular verbs (or the verbs used as such). The examination of the participles in issue will be concluded by the analysis of their case marking (§5.3.2.4).

5.3.2.1. Frequency from Classical to Late Latin

Unlike adjunct and adnominal present participles, subject predicate present participles are rare, both in Classical and in Late Latin (Table 5.25). Hence, the quantitative results obtained for these forms should be interpreted with caution. Their (normalised) absolute frequency increases between Classical and Late Latin, but much less sharply than that of the present participle in general. Therefore, their proportion to the total number of present participles declines instead of rises, contrary to what is predicted in view of the intensifying competition between the present participle and the gerund in Late Latin.

Table 5.25. Frequency of subject predicate present participles in Classical and Late Latin

Period	**#subject predicate present participles (per 10 000 words)**		**#present participles (per 10 000 words)**		**#subject predicate present participles/#present participles**
Classical Latin	49	(0.78)	1 786	(28.57)	2,74%
Late Latin	154	(3.62)	8 785	(206.27)	1,75%

A chi-square goodness-of-fit test shows that the proportion of subject predicate present participles is higher than expected in Classical Latin and lower than expected in the Late Latin period in a statistically very significant way ($\chi 2 = 7.08$; df = 1; p = 0.0078) (Table 5.26). Hence, this declining proportion might reflect on ongoing linguistic change.

Table 5.26. Observed *vs* expected proportion of subject predicate present participles to the total number of present participles in Classical and Late Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Classical Latin	49	(2,74%)	34	(1,90%)	+2.51
Late Latin	154	(1,75%)	169	(1,92%)	-1.13

However, the decrease rate of only 1% and the low (normalised) absolute frequency of subject predicate present participles suggest that this decline is nonetheless random. Recall in this respect that statistical significance does not necessarily mean that some trend cannot be accidental. As Gries (2013: 28) puts it: "[T]he word *significant* is used in a technical sense here, meaning the effect (here, the difference) is large enough for us to **assume** that, given the size of the sample(s), it is **probably** not a random difference" (italics original, emphasis mine).

5.3.2.2. Frequency within the period of Late Latin

During the Late Latin period, the (normalised) absolute frequency of subject predicate present participles also rises, but again less steeply than that of the present participle in general (Table 5.27). The proportion of these forms to the total number of present participles does not show a rectilinear tendency. It remains relatively stable, while it is expected to rise in the light of the competition between the present participle and the gerund.

Table 5.27. Frequency of subject predicate present participles in Imperial, Merovingian, and Early Medieval Latin

Period	#subject predicate present participles (per 10 000 words)		#present participles (per 10 000 words)		#subject predicate present participles/ #present participle
Imperial Latin	7	(2.33)	406	(135.32)	1,72%
Merovingian Latin	62	(3.31)	3 741	(199.57)	1,66%
Early Medieval Latin	70	(4.09)	3 840	(224.58)	1,82%

According to a chi-square goodness-of-fit test, the modestly fluctuating proportion of subject predicate present participles is probably random. Indeed, this proportion is lower than expected in Imperial and Merovingian Latin and higher than expected in Early Medieval Latin, but the differences between these periods are statistically insignificant ($\chi 2 = 0.30$; df = 2; $p = 0.8607$) (Table 5.28).

Table 5.28. Observed *vs* expected proportion of subject predicate present participles to the total number of present participles in Imperial, Medieval, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	7	(1,72%)	7	(1,72%)	-0.03
Merovingian Latin	62	(1,66%)	65	(1,74%)	-0.39
Early Medieval Latin	70	(1,82%)	67	(1,74%)	+0.39

In other words, the data of this study does not evidence a specialisation of the present participle in subject predicates, neither between Classical and Late Latin nor within the period of Late Latin.

5.3.2.3. Frequency and productivity in the three thematic domains

In the Late Latin corpus, the frequency of subject predicate present participles is highest in the legal texts, both in (normalised) absolute terms and in proportion to the total number of present participles (Table 5.29). This result is in line with that obtained for adnominal present participles. Nevertheless, the low frequency of subject predicate present participles in the Late Latin corpus disallows drawing solid conclusions from these figures.

Table 5.29. Frequency of subject predicate present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	#subject predicate present participles (per 10 000 words)		#present participles (per 10 000 words)		#subject predicate present participles/#present participles
Historical	26	(3.33)	1 849	(236.68)	1,41%
Religious	78	(3.15)	5 753	(232.20)	1,36%
Legal	50	(5.00)	1 183	(118.28)	4,23%

Yet, a chi-square goodness-of-fit test betokens that the proportion of subject predicate present participles is lower than expected in the historical and religious texts, but higher than expected in the legal texts in a statistically highly significant way ($\chi 2 = 47.74$; $df = 2$; $p < 0.0001$) (Table 5.30). Hence, the differences between the legal texts, on the one hand, and the historical and religious texts, on the other, might not be random.

Table 5.30. Observed *vs* expected proportion of subject predicate present participles to the total number of present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	26	(1,41%)	32	(1,73%)	-1.13
Religious	78	(1,36%)	101	(1,76%)	-2.28
Legal	50	(4,23%)	21	(1,78%)	+6.42

As in the case of the adjunct and adnominal present participles, the question that arises is separates the use of subject predicate present participles in legal texts from their use in historical and religious texts. Again, the answer lies in the productivity of the forms at stake.

I measured the productivity of the subject predicate present participle in function of the lexical variation between the present participle and the copular verb (or the verb used as such). Although the low absolute number of subject predicate present participles does not allow drawing firm conclusions from the study of their productivity, it is clear that these forms are less productive in the legal texts than in the historical and religious texts (Table 5.31). This was also observed for both adjunct and adnominal present participles.

Table 5.31. Productivity of the subject predicate present participle in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	26	78	50
#types	15	43	10
#hapaxes	9	34	3
#types/#tokens	**0.58**	**0.55**	**0.20**
#hapaxes/#tokens	**0.35**	**0.44**	**0.06**

Thus, the subject predicate present participle is less schematic in the legal texts than in the historical and religious texts (*cf.* Barðdal 2008: 22). The number of types and hapaxes is lower in the legal texts than in the historical texts even in absolute numbers, although the total number of lexical combinations in the legal texts is about twice as high as in the historical texts.

As it turns out, the low productivity of the subject predicate present participle in the legal texts is partly due to the high frequency of one lexical combination, namely *apparere* ‘to appear’/*neglegere* ‘to neglect’ (40).

(40) *[...] si exinde* ***neglige-ns*** *aut tardus apparuero [...].*
if by_that_cause neglect-PTCP.PRS.NOM.M.SG or slow.NOM.M.SG appear.FUT.1SG
‘If I will have appeared negligent or slow by that cause (...).’ (*Form. Marc.* 2.27)

This is evident in Table 5.32, showing the inventory and cumulative frequency of the five most frequent lexical combinations of a copular verb and a subject predicate present participle in the three thematic domains.

Table 5.32. Inventory and cumulative frequency of the five most frequent lexical combinations of a copular verb and a subject predicate present participle in the historical, religious, and legal texts in Late Latin

Thematic domain	Lexeme of copular verb	Lexeme of present participle	Frequency (%)
Historical	*esse* 'to be'	*sapere* 'to be wise'	4 (15,38%)
	esse 'to be'	*timere* 'to fear'	3 (11,54%)
	esse 'to be'	*neglegere* 'to neglect'	3 (11,54%)
	esse 'to be'	*abundare* 'to abound'	3 (11,54%)
	esse 'to be'	*habere* 'to have'	2 (7,69%)[8]
			15 (57,69%)
Religious	*esse* 'to be'	*posse* 'to be master of'	15 (19,23%)
	esse 'to be'	*praeesse* 'to be present'	7 (8,97%)
	esse 'to be'	*sapere* 'to be wise'	6 (7,69%)
	esse 'to be'	*adesse* 'to be (present)'	4 (5,13%)
	esse 'to be'	*pati* 'to bear'	3 (3,85%)[9]
			35 (44,87%)
Legal	*apparere* 'to appear'	*neglegere* 'to neglect'	20 (40,00%)
	esse 'to be'	*praeesse* 'to be present'	6 (12,00%)
	adesse 'to be (present)'	*praeesse* 'to be present'	6 (12,00%)
	esse 'to be'	*neglegere* 'to neglect'	5 (10,00%)
	adesse 'to be (present)'	*neglegere* 'to neglect'	4 (8,00%)
			41 (82,00%)

The five most frequent lexical combinations account for 82% in the legal texts, *versus* 58% and 45% in respectively the historical and the religious texts. Furthermore, the most frequent combination represents 40% in the legal texts, against 15% in the historical texts 19% in the religious texts.

The low productivity of the subject predicate present participle in the legal texts is also apparent from the lexical variation of the present participles separately. This variation is much lower in the legal texts than in the historical and religious texts, in both absolute and relative terms (Table 5.33).

Table 5.33. Lexical variation of the subject predicate present participles in the historical, religious, and legal texts in Late Latin

	Historical	Religious	Legal
#tokens	26	78	50
#types	15	35	7
#hapaxes	9	24	3
#types/#tokens	**0.58**	**0.45**	**0.14**
#hapaxes/#tokens	**0.35**	**0.31**	**0.06**

[8] The historical texts contain one more lexical combination occurring twice.
[9] There is one more lexical combination occurring three times in the religious texts.

On closer inspection, the low lexical variation of the participles in the legal texts is strongly influenced by the high frequency of certain lexemes. On the one hand, the five most frequent lexemes account for 96% of all subject predicate present participles in the legal texts *versus* 58% in the historical texts and 21% in the religious texts. On the other hand, the most frequent lexeme in the legal texts represents 58% of all subject predicate present participles, while it accounts for 15% in the historical texts and 21% in the religious texts (Table 5.34).

Table 5.34. Inventory and cumulative frequency of the five most frequent lexemes used for subject predicate present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	Lexeme of present participle	Frequency (%)
Historical	*sapere* 'to be wise'	4 (15,38%)
	abundare 'to abound'	3 (11,54%)
	neglegere 'to neglect'	3 (11,54%)
	timere 'to fear'	3 (11,54%)
	habere 'to have'	2 (7,69%)[10]
		15 (57,69%)
Religious	*posse* 'to be able to'	16 (20,51%)
	praeesse 'to be present'	9 (11,54%)
	sapere 'to be wise'	8 (10,26%)
	abesse 'to be absent'	4 (5,13%)
	constare 'to stand firm'	3 (3,85%)[11]
		40 (51,28%)
Legal	*neglegere* 'to neglect'	29 (58,00%)
	praeesse 'to be present'	12 (24,00%)
	abesse 'to be absent'	3 (6,00%)
	conscire 'to know well'	3 (6,00%)
	valere 'to be strong'	1 (2,00%)[12]
		48 (96,00%)

The most frequent lexeme in the legal texts, *viz. neglegere* 'to neglect', is illustrated in (40). The lexemes with the highest frequency in the historical and religious texts are respectively *sapere* 'to be wise' (41) and *posse* 'to be able to' (42).[13]

(41) *[...] sacrifica* *diis* *et* *esto* ***sapie-ns***.
sacrifice.IMP.PRS.2SG god.DAT.M.PL and be.IMP.PRS.2SG be_wise-PTCP.PRS.NOM.M.SG
'Make offers to the gods and be wise.' (*Pass. Vict.* 1.642.40)

[10] The historical texts contain one more subject predicate present participle occurring twice.
[11] There are two more subject predicate present participles with a token frequency of three in the religious texts.
[12] The legal texts contain two other subject predicate present participles occurring once.
[13] Note that *potens* 'being able to' (43) has verbal internal syntax, since it governs an infinitive clause as its direct object.

(42) *[...]* ***pote-ns*** *est* *dominus* *parare* *mensam* *[...].*
be_able_to-PTCP.PRS.NOM.M.SG be.PRS.3SG Lord.NOM.M.SG prepare.INF.PRS meal.ACC.F.SG
'The Lord is able to prepare a meal.' (*Vit. Gall. Wal.* 1.28)

The lexical variation of the copular verbs is much smaller than that of the present participles, which is unsurprising given their grammatical status. Table 5.35 shows that these verbs show no lexical variation in the historical texts (1 type), a low variation in the legal texts (3 types), and a higher variation in the religious texts (11 types). In Table 5.35, these absolute numbers are more relevant than the type-token and hapax-token ratios, which are provided only for the sake of uniformity with §5.2.3 and §5.3.1.3.

Table 5.35. Lexical variation of the verbs combined with a subject predicate present participle in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	26	78	50
#types	1	11	3
#hapaxes	0	7	0
#types/#tokens	**0.04**	**0.14**	**0.06**
#hapaxes/#tokens	**0.00**	**0.09**	**0.00**

Table 5.36 presents the inventory and frequency of all copular verbs (or verbs used as such) in the three thematic domains.

Table 5.36. Inventory and frequency of the verbs combined with a subject predicate present participle in the historical, religious, and legal texts in Late Latin

Thematic domain	**Lexeme of copular verb**	**Frequency (%)**
Historical	*esse* 'to be'	26 (100,00%)
		26 (100,00%)
Religious	*esse* 'to be'	64 (82,05%)
	facere 'to do'	3 (3,85%)
	adesse 'to be (present)'	2 (2,56%)
	exstare 'to stand out'	2 (2,56%)
	exsistere 'to appear'	1 (1,28%)
	habere 'to consider'	1 (1,28%)
	permanere 'to remain'	1 (1,28%)
	superesse 'to remain'	1 (1,28%)
	testari 'to prove'	1 (1,28%)
	videre 'to see'	1 (1,28%)
		78 (100,00%)

Legal	*apparere* 'to appear'	20 (40,00%)
	esse 'to be'	20 (40,00%)
	adesse 'to be (present)'	10 (20,00%)
		50 (100,00%)

Globally speaking, *esse* 'to be' (41-42) is dominant: it accounts for 71% of all verbs combined with a subject predicate present participle (110 instances out of 154). Most of the remaining verbs are of the intransitive type, and thus occur in active syntactic configurations. This holds for *apparere* 'to appear' (40), *adesse* 'to be (present)' (43), *exstare* 'to stand out' (44), *exsistere* 'to appear' (45), *permanere* 'to remain' (46), and *superesse* 'to remain' (47).

(43) *[...] isdem vero homo [...]* ***praese-ns*** *aderat [...].*
same.NOM.M.SG but man.NOM.M.SG be_present-PTCP.PRS.NOM.M.SG be_present.PST.3SG
'But the same man was present.' (*Form. Sal. Lind.* 19)

(44) *[...] partibus Ariperthi* ***fave-ns*** *extitit [...].*
region.ABL.F.PL Ariperthus.GEN.M.SG favour-PTCP.PRS.NOM.M.SG stand_out.PST.3SG
'He stood favourable to the region of Ariperthus.' (*Vit. Bonit.* 23)

(45) *[...] Victor dixit: "Semper* ***sapie-ns*** *extiti."*
Victor.NOM.M.SG say.PST.3SG always be_wise.PTCP-PRS.NOM.M.SG appear.PST.3
'Victor said: "I always appeared wise".' (*Pass. Vict.* 1.642.41)

(46) *[...] famulus dei permansit* ***ova-ns*** *atque*
servant.NOM.M.SG God.GEN.M.SG remain.PST.3SG rejoice-PTCP.PRS.NOM.M.SG and
intrepidus.
fearless.NOM.M.SG
'The servant of God remained rejoicing and fearless.' (*Vit. Pard.* 15)

(47) *[...] quae hactenus [...] divinis* ***polle-ns***
REL.NOM.F.SG to_this_time divine.ABL.N.PL be_strong-PTCP.PRS.NOM.F.SG
privilegiis nunc superest.
privilege.ABL.N.PL now remain.PRS.3SG
'(...) who now remains to this time powerful in the laws of God.' (*Vit. Sadalb.* 11)

The other verbs are transitive verbs used as copular verbs in passive syntactic configurations: *testari* 'to testify' (48), *facere* 'to make' (49), *habere* 'to consider' (50), and *videre* 'to see' (51).[14]

(48) *[...] et ipsa* ***posside-ns*** *eclesia testatur [...].*
and INTENS.NOM.F.SG possess-PTCP.PRS.NOM.F.SG church.NOM.F.SG testify.PRS.3SG
'And the church proves wealthy.' (*Vit. Desid.* 28)

[14] *Testari* 'to testify' is originally a deponent verb. However, in Late Latin it becomes aligned on the model of the regular active verbs, just like other deponent verbs (e.g. *hortari* 'to incite') (*cf.* Väänänen 1963³: 101, 128; see also fn. 11 in §2.1.1.2.2.1.2).

(49) *Factus* *es* ***sapie-ns*** *sicut* *Ioseph* *[...].*
make.PTCP.PST.NOM.M.SG be.PRS. 2SG be_wise-PTCP.PRS.NOM.M.SG like Joseph.NOM.M.SG
'You are made wise, like Joseph.' (*Pass. Vict.* 1.643.40)

(50) *[...] ut* *[...]* ***pote-ns*** *etiam* *et* *vere* *apostolicus*
that be_able-PTCP.PRS.NOM.F.SG indeed and truly apostolic.NOM.M.SG
haberetur.
consider.SBJV.PST.PASS.3SG
'(...) that he was indeed considered powerful and truly apostolic.' (Sulp. Sev. *Mart.* 1.7.3)

(51) *[...] videbatur* ***sufficie-ns*** *et* *contentus.*
see.PST.PASS.3SG suffice-PTCP.PRS.NOM.M.SG and satisfactory.NOM.M.SG
'He was considered sufficient and satisfactory.' (*Vit. Walb.* 2.20.10)

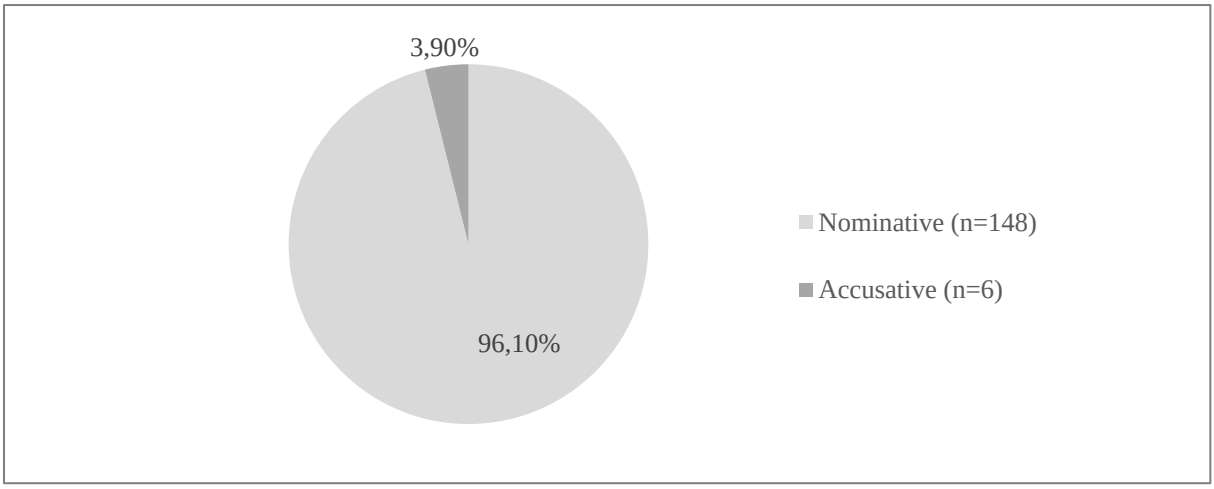
5.3.2.4. Case marking of the present participle

Subject predicate present participles are marked in either the nominative or the accusative (*cf.* Pinkster 2015: 1181-1184). The forms in (39) to (51) are all marked in the nominative, which is the default case of subjects and their agreeing dependents. By contrast, *absentem* 'absent' (52) stands in the accusative, since it is embedded in an accusative and infinitive construction. This is the only type of construction in which subjects and their agreeing dependents are marked in the accusative instead of the nominative.

(52) *[...] ut* *me* ***abse-nt-em*** *esse* *non* *sentiant* *[...].*
that I.ACC.M.SG be_absent-PTCP.PRS-ACC.M.SG be.INF.PRS NEG notice.SBJV.PRS.3PL
'(...) that they do not notice that I am absent.' (*Vit. Desid.* 34)

In the Late Latin corpus, the use of subject predicate present participles within accusative and infinitive constructions is rare. Hence, the overwhelming majority of the subject predicate present participles are marked in the nominative (Figure 5.3).

Figure 5.3. Case marking of the subject predicate present participles in Late Latin



5.3.2.5. Conclusion

Present participles are only rarely used in subject predicates, both in Classical and in Late Latin. Their (normalised) absolute frequency slightly increases between these two periods and during the Late Latin period itself, but much less steeply than the (normalised) frequency of the present participle in general. Hence, their proportion to the total number of present participles does not rise, against predictions. From Classical to Late Latin, this proportion even declines, while remaining relatively stable within the period of Late Latin. In other words, the present participle does not specialise in subject predicates, neither in a direct way, nor in an indirect way. Subject predicate present participles resemble adnominal present participles by being more frequent and less productive in legal texts than in historical and religious texts.

5.3.3. Object predicate present participles

The final type of adjectival present participles to be investigated are object predicates (e.g. *neclegentem* 'negligent' (54)).

(53) *[...] in nullo te invenimus* ***neclege-nt-em***.
in no.ABL.N.SG you.ACC.M.SG find.PST.1PL neglect-PTCP.PRS-ACC.M.SG
'In no way do we consider you negligent.' (*Form. Bitur.* 4)

This section aims to investigate the frequency of object predicate present participles from Classical Latin to Late Latin (§5.3.3.1) and within the period of Late Latin (§5.3.3.2). Their frequency in the Late Latin corpus will be further explored in view of their frequency and productivity in the three thematic domains (§5.3.3.3). All object predicate present participles stand in the accusative, and so their case marking will not be studied in a separate section.

5.3.3.1. Frequency from Classical to Late Latin

Like their subject counterparts, object predicate present participles are extremely rare, in both Classical and Late Latin (Table 5.37). Their (normalised) absolute frequency slightly rises between Classical and Late Latin, but, once again, much less sharply than the frequency of the present participle in general. As a consequence, their proportion to the total number of present participles decreases, contrary to what is expected in view of the competition between the present participle and the gerund. Considering the low frequency of this type of participles, all quantitative results obtained for them need to be interpreted with caution.

Table 5.37. Frequency of object predicate present participles in Classical and Late Latin

Period	#object predicate present participles (per 10 000 words)		#present participles (per 10 000 words)		#object predicate present participles/#present participles
Classical Latin	12	(0.19)	1 786	(28.57)	0,67%
Late Latin	16	(0.38)	8 785	(206.27)	0,18%

According to a chi-square goodness-of-fit test, the proportion of object predicate present participles is higher than expected in Classical Latin and lower than expected in Late Latin in a statistically highly significant way ($\chi 2 = 11.66$; df = 1; p = 0.0006) (Table 5.38).

Table 5.38. Observed *vs* expected proportion of object predicate present participles to the total number of present participles in Classical and Late Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Classical Latin	12	(0,67%)	5	(0,28%)	+3.34
Late Latin	16	(0,18%)	23	(0,26%)	-1.51

This suggest that the declining tendency observed in Table 5.37 might not be accidental. However, given the decrease rate of only 0,49% and the extremely low absolute frequency of object predicate present participles, this decline can hardly be interpreted as reflecting a linguistic change – as in the case of the decline of subject predicate present participles from Classical to Late Latin (see §5.3.2.1). Recall in this regard that statistical significance does not necessarily mean that some trend cannot be random.

5.3.3.2. Frequency within the period of Late Latin

Due to their extreme rarity in Late Latin, little can be said about the evolution of object predicate present participle during this period. Table 5.39 shows that the frequency of these forms slightly increases, both in (normalised) absolute terms and in proportion to the total number of n Late Latin. Though in line with expectations, this increase is too low to be significant.

Table 5.39. Frequency of object predicate present participles in Imperial, Merovingian, and Early Medieval Latin

Period	#object predicate present participles (per 10 000 words)		#present participles (per 10 000 words)		#object predicate present participles/ #present participle
Imperial Latin	0	(0.00)	406	(135.32)	0,00%
Merovingian Latin	7	(0.37)	3 741	(199.57)	0,19%
Early Medieval Latin	8	(0.47)	3 840	(224.58)	0,21%

This is confirmed by a chi-square goodness-of-fit test. Indeed, it indicates that the proportion of object predicate present participles is lower than expected in Imperial and Merovingian Latin and higher than expected in Early Medieval Latin, but the differences between the three periods are statistically speaking insignificant, and thus most likely random ($\chi 2 = 0.85$; df = 2; p = 0.6538) (Table 5.40).

Table 5.40. Observed *vs* expected proportion of object predicate present participles to the total number of present participles in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	0	(0,00%)	1	(0,25%)	-0.87
Merovingian Latin	7	(0,19%)	7	(0,19%)	-0.01
Early Medieval Latin	8	(0,21%)	7	(0,18%)	+0.29

The expected frequency of object predicate present participles is smaller than five in Imperial Latin, so that a chi-square goodness-of-fit test is in theory not recommendable (*cf.* Levshina 2015: 29). However, the conclusion emerging from this test, namely that the increasing frequency of object predicate present participles is random, is highly reliable in the light of the normalised results in Table 5.39.

To conclude, the data of this thesis do not provide evidence in favour of a – direct nor indirect – specialisation of the present participle in object predicates, neither between Classical and Late Latin nor during the Late Latin period. The same conclusion was drawn for their subject predicate counterparts.

5.3.3.3. Frequency and productivity in the three thematic domains

Due to their extremely low frequency in the Late Latin corpus, little can also be said about the frequency of object predicate present participles in the three thematic domains. Table 5.41 shows that the frequency of these forms is highest in the historical texts, in (normalised) absolute terms as well as in proportion to the total number of present participles – the qualification *highest* should be relativised here.

Table 5.41. Frequency of object predicate present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	#subject predicate present participles (per 10 000 words)		#present participles (per 10 000 words)		#subject predicate present participles/#present participles
Historical	6	(0.77)	1 849	(236.68)	0,32%
Religious	9	(0.36)	5 753	(232.20)	0,16%
Legal	1	(0.10)	1 183	(118.28)	0,08%

Due to their extreme rarity in the three types of texts, a chi-square goodness-of-fit test is less relevant. For the sake of completeness, however, the results of this test are shown in Table 5.42. As expected, the

differences between the three thematic domains are probably random. Indeed, the proportion of object predicate present participles is higher than expected in the historical texts and lower than expected in the religious and legal texts, but in a statistically insignificant way ($\chi 2 = 2.88$; df = 2; p = 0.2369).

Table 5.42. Observed *vs* expected proportion of object predicate present participles to the total number of present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	6	(0,32%)	3	(0,16%)	+1.43
Religious	9	(0,16%)	10	(0,17%)	-0.46
Legal	1	(0,08%)	2	(0,17%)	-0.78

The expected frequency of object predicate present participles is smaller than five in both the historical and the legal texts, so that a chi-square goodness-of-fit test is again not recommendable (*cf.* Levshina 2015: 29). However, the conclusion drawn on the basis of this test, *viz.* that the differences between the three thematic domains are random, is highly reliable in the light of the normalised frequencies reported in Table 5.41.

Due to the extreme rarity of object predicate present participles, it is also impossible to draw solid conclusions about their productivity. The productivity of these forms has been measured in terms of the lexical variation between the present participles and the main verbs. As for their subject counterparts, the low frequency of object predicate present participles makes that the absolute number of types and hapaxes is more relevant than the type-token and hapax-token ratios. As shown in Table 5.43, all lexical combinations are unique in the three thematic domains.

Table 5.43. Productivity of the object predicate present participle in the historical, religious, and legal texts in Late Latin

	Historical	Religious	Legal
#tokens	6	9	1
#types	6	9	1
#hapaxes	6	9	1
#types/#tokens	**1.00**	**1.00**	**1.00**
#hapaxes/#tokens	**1.00**	**1.00**	**1.00**

The same conclusion arises for the lexical variation of the present participles alone: in the three thematic domains, they are all realised by a different lexeme. Hence, the figures representing the lexical variation of the present participles are identical to those showing the productivity of the object predicate present participle (see Table 5.43).

In contrast, the lexical variation of the transitive main verbs is lowest in the religious texts. Yet, the difference with the historical texts is too small to be significant, especially in view of the low absolute number of instances (Table 5.44).

Table 5.44. Lexical variation of the verbs combined with an object predicate present participle in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	6	9	1
#types	6	6	1
#hapaxes	6	6	1
#types/#tokens	**1.00**	**0.67**	**1.00**
#hapaxes/#tokens	**1.00**	**0.67**	**1.00**

As it turns out, the religious texts contain only one lexeme occurring more than once, *viz.* the factitive verb *reddere* 'to render' (e.g. (55)), used four times.

(54) *[...] voluit* *se* *proicere* *in* *aqua,* *sed* *iterum*
want.PST.3SG REFL.ACC.M.SG throw.INF.PRS in water.ABL[ACC].F.SG but again
consta-nt-em *eum* *reddidit* *providentia*
stand_firm-PTCP.PRS-ACC.M.SG DEM.ACC.M.SG render.PST.3SG providence.NOM.F.SG
Dei *[...].*
God.GEN.M.SG
'He wanted to throw himself in the water, but the divine providence made him steadfast again.'
(*Pass. Eustach.* 1.10)

Table 5.45 shows the inventory and frequency of the verbs combining with an object predicate present participle in the three thematic domains. Due to their rarity, their frequency is only presented in absolute terms.

Table 5.45. Inventory and absolute frequency of the transitive main verbs combined with an object predicate present participle in the historical, religious, and legal texts in Late Latin

Thematic domain	**Lexeme of main verb**	**Frequency**
Historical	*cognoscere* 'to know'	1
	ferre 'to consider'	1
	ostendere 'to show'	1
	relinquere 'to leave'	1
	respicere 'to consider'	1
	videre 'to see'	1

Religious	*reddere* 'to render'	4
	facere 'to make'	1
	habere 'to have'	1
	ostendere 'to show'	1
	relinquere 'to leave'	1
	tradere 'to hand over'	1
Legal	*invenire* 'to consider'	1

From a semantic point of view, the verbs listed in Table 5.44 can be divided into three groups. The first group comprises *facere* 'to make' ((5), repeated below) and *reddere* 'to render' (e.g. (54)). These verbs indicate that their subject causes the direct object to be in a particular state or circumstance.

(5) *[...] ut ipse me faciat* ***noce-nt-em***.
that INTENS.NOM.M.SG I.ACC.M.SG make.SBJV.PRS.3SG harm-PTCP.PRS-ACC.M.SG
'(...) that he himself can make me harmful.' (*Pass. Caec.* 1.29.21)

The second group of verbs is composed of *cognoscere* 'to know' (55), *ferre* 'to consider' (56), *invenire* 'to consider' (57), *respicere* 'to consider' (58), *videre* 'to see' (59), and *ostendere* 'to show' (60). They all indicate how the subject perceives or conceives of the direct object.

(55) *[...] quem cognoverat sanctam relegionem* ***secta-nt-em*** *[...].*[15]
REL.ACC.M.SG know.PST.3SG holy.ACC.F.SG religion.ACC.F.SG pursue-PTCP.PRS-ACC.M.SG
'(...) whom he had known as pursuing of the holy religion.' (Fredeg. *chron.* 4.78)

(56) *Illum ferebat levem, alium superbum, illum* ***habunda-nt-em*** *[...].*
DEM.ACC.M.SG consider.PST.3SG capricious.ACC.M.SG other.ACC.M.SG arrogant.ACC.M.SG DEM.ACC.M.SG be_rich-PTCP.PRS-ACC.M.SG
'He considers this one capricious, that one arrogant, yet another one extravagant.' (Greg. Tur. *Franc.* 6.46)

(57) *[...] in nullo te invenimus* ***neclege-nt-em***.
in no.ABL.N.SG you.ACC.M.SG find.PST.1PL neglect-PTCP.PRS-ACC.M.SG
'In no way do we consider you negligent.' (*Form. Bitur.* 4) [=53]

(58) *[...] dum me* ***dole-nt-em*** *atque illum innocentem respicitis [...].*
as_long_as I.ACC.M.SG grieve-PTCP.PRS-ACC.M.SG and DEM.ACC.M.SG innocent.ACC.M.SG consider.PRS.2PL
'As long as you consider me grieving and him innocent.' (*Epist. Austr.* 44)

[15] This example clearly shows that even object predicate present participles can have verbal internal syntax. The analysis of *sectantem* 'pursuing' as the main verb of a presentative progressive construction is unlikely here, since *sanctam relegionem sectantem* 'pursuing the holy religion' denotes a property of the direct object of *cognoverat* 'he had known' rather than a state of affairs presented as ongoing. Moreover, *cognoverat* 'he had known' is used as a cognitive rather than a perception verb.

(59) *Qui* *cum* *eam* *vidissent* *pulchram,* *elegantem* *atque*
REL.NOM.M.PL when DEM.ACC.F.SG see.SBJV.PST.3PL pretty.ACC.F.SG elegant.ACC.F.SG and
sapie-nt-em, *Chlodoveo* *nunciaverunt* *haec.*[16]
be_wise-PTCP.PRS-ACC.F.SG Chlodoveus.DAT.M.SG report.PST.3PL DEM.ACC.N.PL
'As they found her pretty, elegant, and wise, they reported this to Chlodoveus.' (*Hist. Franc.* 11)

(60) *Sententia* *[...]* *vos* ***saevie-nt-es*** *et* *nos*
judgment.NOM.F.SG you.ACC.M.PL rage-PTCP.PRS-ACC.M.PL and we.ACC.M.PL
innocentes *ostendit.*
innocent.ACC.M.PL show.PRS.3SG
'The judgment shows you ferocious and us innocent.' (*Pass. Caec.* 1.29.5)

The final group of verbs comprise *relinquere* 'to leave' (61), *tradere* 'to hand over' (62), and *habere* 'to have' (63). They indicate that the direct object is involved in some state of affairs in a particular state or circumstance.

(61) *[...]* *non* *ibi* *maiorem* *hominem* ***vive-nt-em*** *reliquit* *[...].*
NEG there older.ACC.M.SG man.ACC.M.SG live-PTCP.PRS-ACC.M.SG leave.PST.3SG
'He did not leave there any old man alive.' (*Hist. Franc.* 41)

(62) *Fuit* *vir* *[...]* *quem* *reverentia* *paternalis*
be.PST.3SG man.NOM.M.SG REL.ACC.M.SG reverence.NOM.F.SG paternal.NOM.F.SG
nobis *tradidit* *Gallum* ***nuncupa-nt-e***.
we.DAT.M.PL hand_down.PST.3SG Gallus.ACC.M.SG call-PTCP.PRS-ABL[ACC].M.SG
'There was a man whom the paternal reverence handed down to us with the name Gallus.' (*Vit. Gall. Wett.* 1.1)

(63) *Ille,* *ne* *contristare* *eos* *videretur,* *quos* *potius*
DEM.NOM.M.SG lest sadden.INF.PRS DEM.ACC.M.PL see.SBJV.PST.PASS.3SG REL.ACC.M.PL rather
ova-nt-es *habere* *cupiebat* *[...].*
rejoice-PTCP.PRS-ACC.M.PL have.INF.PRS want.PST.3SG
'In order not to appear to sadden those whom he wanted to have rather rejoicing (...).' (*Vit. Austr.* 1.2)

5.3.3.4. Conclusion

Unlike adjunct and adnominal present participles, but like subject predicate present participles, object predicate present participles represent a very small or even negligible proportion of the total number of present participles in both Classical and Late Latin. Against expectations, this proportion drops between

[16] In this example, *sapientem* 'wise' could also be analysed as the subject predicate of *eam* 'her' in an accusative and infinitive construction, the infinitive *esse* 'to be' being implicit. However, the postulation of an implicit *esse* 'to be' is not necessary in order for the sentence to be grammatical or interpretable, and hence *sapientem* 'wise' has been taken as an object predicate. Anyhow, this analysis does not influence the quantitative results for either subject or object present participles.

these two periods and remains relatively stable during the Late Latin period. Their (normalised) absolute frequency rises between Classical and Late Latin and within the period of Late Latin, but less steeply than the frequency of the present participle in general and also too slightly to be significant. Hence, the present participle does not specialise in object predicates in the Late Latin period, neither directly, nor indirectly. The frequency and productivity of object predicate present participles do not show significant variation in the three thematic domains, contrary to what has been observed for adjunct, adnominal, and subject predicate present participles. However, the extreme rarity of object predicate present participles in the Late Latin corpus calls for some vigilance in evaluating this result.

5.3.4. General conclusion: the evolution of the adjectival present participle

The previous sections have explored the frequency of adnominal, subject predicate, and object predicate present participles from Classical to Late Latin and within the period of Late Latin separately. The aim of this section is to collate the results obtained in §5.3.1 to §5.3.3, in order to examine the evolution of the adjectival present participle as a whole.

Table 5.46 shows that the (normalised) absolute frequency of adjectival present participles rises between Classical and Late Latin. However, this increase is less steep than the frequency rise of present participles in general. As a corollary, the proportion of adjectival present participles decreases between the two periods, against predictions.

Table 5.46. Frequency of adjectival present participles in Classical and Late Latin

Period	#adjectival present participles (per 10 000 words)		#present participles (per 10 000 words)		#adjectival present participles/ #present participles
Classical Latin	722	(11.55)	1 786	(28.57)	40,43%
Late Latin	1 843	(43.27)	8 785	(206.27)	20,98%

According to a chi-square goodness-of-fit test, this decline might not be random. Indeed, the proportion of adjectival present participles is higher than expected in Classical Latin and lower than expected in Late Latin in a statistically highly significant way ($\chi 2 = 230.53$; $df = 1$; $p < 0.0001$) (Table 5.47).

Table 5.47. Observed *vs* expected proportion of adjectival present participles to the total number of present participles in Classical and Late Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Classical Latin	722	(40,43%)	433	(24,24%)	+13.87
Late Latin	1 843	(20,98%)	2 132	(24,27%)	-6.25

Put differently, the data of this study do not show a specialisation of the present participle in adjectival external syntax, but, on the contrary, a disassociation from this syntax. The question that arises is how to account for this unexpected decline of adjectival instances. The answer lies in the frequency pattern of the adverbial present participle, as noted with respect to the decrease of adnominal present participles separately (see §5.3.1.1). Indeed, the declining proportion of adjectival present participles contrasts with what is predicted by the competition of the present participle with the gerund, but is in line with what is expected in view of the rising proportion of adverbial present participles (see §5.2.1). Since the corpus of this study does not provide evidence in favour of the gradual replacement of the present participle by the gerund in adverbial external syntax, and thus of the disassociation of the present participle from this syntax, it is only logical that this same corpus does not show a specialisation of the present participle in adjectival external syntax. After all, this specialisation of this form in adjectival syntactic configurations is primarily considered the indirect result of a declining portion of adverbial present participles. Hence, this specialisation does not obtain if the proportion of adverbial present participle gains instead of drops. Some factors explaining the unexpected increase of adverbial present participles from Classical to Late Latin have been discussed in §5.2.1 (see also §5.8).

The decline instead of rise of adjectival present participles between Classical and Late Latin is all the more significant in the light of the broad definition of the present participle adopted in this study. In a narrower definition, some adjectival present participles would be considered adjectives, and would as such be excluded from the dataset. Therefore, the proportion of adjectival present participles would even be lower. As a corollary, the specialisation of the present participle in adjectival external syntax would be disproven in an even more pronounced way.

Additionally, the finding that the present participle has adjectival external syntax in only 21% of all instances in Late Latin, while in most Old Romance languages, it always has an adjectival function (or is occasionally used in a progressive construction), confirms the conclusion drawn with respect to the adverbial present participle, namely that there is a huge gap between the use of the present participle in Late Latin, at least in the written texts transmitted to us, and in Romance.

Within the period of Late Latin, the frequency of adjectival present participles increases, both in (normalised) absolute terms and in proportion to the total number of present participles (Table 5.48). However, their absolute frequency rises much less sharply than the frequency of the present participle in general. Hence, the rate of their increasing proportion is very modest.

Table 5.48. Frequency of adjectival present participles in Imperial, Merovingian, and Early Medieval Latin

Period	#adjectival present participles (per 10 000 words)		#present participles (per 10 000 words)		#adjectival present participles/#present participles
Imperial Latin	74	(24.66)	406	(135.32)	18,23%
Merovingian Latin	695	(37.08)	3 741	(199.57)	18,58%
Early Medieval Latin	826	(48.31)	3 840	(224.58)	21,51%

A chi-square goodness-of-fit test shows that the proportion of adjectival present participles is lower than expected in Imperial and Merovingian Latin and higher than expected in Early Medieval Latin in a statistically significant way ($\chi 2 = 8.81$; df = 2; p = 0.0122) (Table 5.49). However, none of these periods makes a significant contribution to the obtained chi-square values on its own. Therefore, the increasing proportion of adjectival present participles observed in Table 5.48 is probably random.

Table 5.49. Observed *vs* expected proportion of adjectival present participles to the total number of present participles in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	74	(18,23%)	81	(19,95%)	-0.79
Merovingian Latin	695	(18,58%)	747	(19,97%)	-1.91
Early Medieval Latin	826	(21,51%)	767	(19,97%)	+2.14

In other words, the data of this study neither provide evidence in favour of a specialisation of the present participle in adjectival external syntax within the period of Late Latin.

What the data of this study do show is that the frequency of adjectival present participles is much higher in the legal texts than in the historical and religious texts (Table 5.50). This holds for both their (normalised) absolute frequency and their proportion to the total number of present participles. The same tendency was observed for the nominal gerund (see §4.2.4).

Table 5.50. Frequency of adjectival present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	#adjectival present participles (per 10 000 words)		#present participles (per 10 000 words)		#adjectival present participles/ #present participles
Historical	248	(31.74)	1 849	(236.68)	13,41%
Religious	898	(36.24)	5 753	(232.20)	15,61%
Legal	697	(69.69)	1 183	(118.28)	58,92%

Not unsurprisingly, a chi-square goodness-of-fit test suggests that this difference between the legal texts, on the one hand, and the historical and religious texts, on the other, is not random. Indeed, the proportion of adjectival present participles is lower than expected in the historical and religious texts and higher

than expected in the legal texts in a statistically highly significant way ($\chi 2 = 941.19$; df = 2; $p < 0.0001$) (Table 5.51).

Table 5.51. Observed *vs* expected proportion of adjectival present participles to the total number of present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	248	(13,41%)	388	(20,98%)	-7.10
Religious	898	(15,61%)	1 207	(20,98%)	-8.89
Legal	697	(58,92%)	248	(20,96%)	+28.49

Noteworthily, this difference in frequency is related to a difference in use, *i.c.* in productivity. Indeed, the productivity of the adjectival present participle is usually lower in the legal texts than in the historical and religious texts. This conclusion was also drawn in the case of the nominal gerund (see §4.2.4). I will return to this issue in §5.5, when discussing the external syntactic profile of the present participle.

5.4. The verbal present participle

Having explored the evolution of the adverbial and the adjectival present participle, I will investigate in this section the evolution of the verbal present participle. This participle can be used in three ways: (i) as the main verb of a progressive construction, like *admirans* ‘admiring’ and *cernens* ‘contemplating’ (64); (ii) as the main verb of a presentative progressive construction (e.g. *exorantem* ‘praying’ (65)); or (iii) as a syntactically finite verb (e.g. *veniens* ‘coming’ (66)).

(64) *Et statim aperti sunt oculi eius et*
and immediately open.PTCP.PST.NOM.M.SG be.PRS.3PL eye.NOM.M.PL his.GEN.M.SG and
erat ***admira-ns*** ***cerne-ns****=que*
be.PST.3SG admire-PTCP.PRS.NOM.M.SG contemplate-PTCP.PRS.NOM.M.SG=and
magnalia Dei [...].
mighty_work.ACC.N.PL God.GEN.M.SG
‘And immediately his eyes opened, and he was admiring and contemplating the mighty works of God.’ (Greg. Tur. *Franc.* 6.6)

(65) *[...] milites* *[...] invenerunt* *Christi* *athletam* *Vitum* *circa*
soldier.NOM.M.PL find.PST.3PL Christ.GEN.M.SG servant.ACC.M.SG Vitus.ACC.M.SG near
fluvium *dominum* ***exora-nt-em***.[17]
river.ACC.N.SG Lord.ACC.M.SG pray-PTCP.PRS-ACC.M.SG
'The soldiers found the servant of Christ Vitus praying to the Lord near the river.' (*Pass. Vit.* 1.1.11.6)

(66) *Qui* ***venie-ns*** *in aecclesiam* *et* *nihil* *in*
REL.NOM.M.SG come-PTCP.PRS.NOM.M.SG to church.ACC.F.SG and nothing.ACC.N.SG in
eam *invenit* *[...]*.
DEM.ACC[ABL].F.SG find.PST.3SG
'He came to church and found nothing in it.' (*Vit. Wandr.* 19)

Not all verbal present participles compete with gerunds. Indeed, only the ones occurring in a progressive construction are part of this competition. However, the predicted evolution of these forms from Classical to Late Latin is less rectilinear than that of the adverbial and adjectival present participles (see below). Regarding the two other types of verbal present participles, though they do not compete with the gerund, some hypotheses about their evolution can be formulated. Given the lack of a unified hypothesis about the evolution of the verbal present participle in general, the hypotheses about the evolution of the three sub-types will be presented separately. This section will examine first the forms occurring in progressive constructions (§5.4.1), then those used in a presentative progressive construction (§5.4.2), and finally the ones used syntactically as finite verbs (§5.4.3). A conclusion will be drawn in §5.4.4.

5.4.1. Present participles used in a progressive construction

Progressive present participle constructions are extremely rare in Classical Latin, though they are found from the earliest texts onward, especially in substandard varieties (Aalto 1949: 75; Hofmann & Szantyr 1965: 388; Pinkster 2015: 544-545). They become more frequent only in Late Latin, according to some authors from the 3rd c. onward (Eklund 1970: 74; Pinkster 1998: 230), but according to others only from Merovingian Latin onward (Haverling 2010: 496). Their increasing frequency in Late Latin has been claimed to be strongly influenced by Biblical Greek (Haverling 2010: 492-495), although some scholars hold that the influence of Biblical Greek should not be overestimated (Amenta 2003: 146-148; Haverling

[17] It is worth stressing that verbs like *invenire* 'to find' can be combined with three types of present participles depending on their (primary) semantic value. Used as cognitive verbs, they combine with an object predicate present participle (e.g. (57)). The present participle expresses in this case a property of the object or, to be more precise, how this object is conceived of by the subject. Used as perception verbs, on the contrary, they combine with either an adjunct present participle or with a present participle serving as the main verb of a presentative progressive construction (see the discussion in §1.3.2.2.6). In the former case, the visual or auditory perception of the direct object is more important than the state of affairs performed by this object. In the latter case, in contrast, the state of affairs carried out by this object prevails over its being perceived. Used in a presentative progressive construction (e.g. (65)), the sensory value of the perception verb is backgrounded in favour of a grammatical value, consisting of introducing the state of affairs denoted by the present participle as new information, *viz.* as a thetic information unit.

2010: 495-496). In any case, even in Late Latin, the progressive present participle construction does not become highly frequent. Hence, it is ascribed the status of an exploratory 'forerunner' (Bertinetto *et al.* 2000: 538) or 'precursor' (Bertinetto 2000: 563) of the Romance progressive construction, *i.e.* a kind of 'experimental substitute' of synthetic imperfect tense verb forms (Pinkster 1998: 234; Haverling 2010: 492-493). Furthermore, the present participle is argued to be increasingly replaced by the gerund in this construction (Lyer 1934: 169; Aalto 1949: 75; Dietrich 1973: 305, 307; Hofmann & Szantyr 1965: 380). However, this substitution process is not absolute, since some Old Romance languages show occasional instances of progressive present participle constructions (see §2.1.2.2.2.3.1).

In view of these evolutions, the frequency of present participles used in progressive constructions is expected to be lower in Classical than in Late Latin in absolute terms, but not necessarily in proportion to the total number of present participles. No hypothesis can be formulated about their frequency pattern within the period of Late Latin, since there is a conflict between two trends: an increasing frequency due to the influence of Biblical Greek and a decreasing frequency due to the generalisation of the gerund at the expense of the present participle. Given the influence of Biblical Greek, the present participles used in a progressive construction in Late Latin are expected to be more frequent in religious than in historical and legal texts.

Due to the absence of progressive gerund constructions in the Late Latin corpus (see §4.4), there is no evidence in favour of the expansion of these constructions at the cost of their present participle competitors. Consequently, the Late Latin corpus is nonetheless expected to show a rising frequency of progressive present participle constructions, both from Classical to Late Latin and within the period of Late Latin – at least in absolute terms.

The aim of this section is to investigate the frequency of the present participles in issue between Classical and Late Latin (§5.4.1.1) and during the Late Latin period itself (§5.4.1.2). The frequency of the Late Latin instances will be further evaluated in the light of their frequency and productivity in the three thematic domains, in order to examine whether they are indeed more frequent in religious than in other types of texts (§5.4.1.3). The productivity study of the progressive present participle construction will also examine the inventory of the verbs used as grammatical markers of the progressive aspect. As to the case marking of the present participles, they are either in the nominative (64) or, when embedded in an accusative and infinitive construction, in the accusative (Vangaever 2019: 253). In the Late Latin corpus, however, no progressive present participle constructions have been found within an accusative and infinitive construction. Hence, all participles concerned are in the nominative. For this reason, their case marking will not be investigated in a separate section.

5.4.1.1. Frequency from Classical to Late Latin

Like subject and object predicate present participles, present participles functioning as the main verb of a progressive construction are extremely rare in both Classical and Late Latin (Table 5.52). In accord with predictions, their frequency increases between these two periods, in (normalised) absolute terms as well as in relation to the total number of present participles. However, the increase rate of both frequency measurements is extremely modest.

Table 5.52. Frequency of present participles used in a progressive construction in Classical and Late Latin

Period	**#present participles used in a progressive construction (per 10 000 words)**		**#present participles (per 10 000 words)**		**#present participles used in a progressive construction/ #present participles**
Classical Latin	2	(0.03)	1 786	(28.57)	0,11%
Late Latin	59	(1.39)	8 785	(206.27)	0,67%

According to a chi-square goodness-of-fit test, the increasing proportion of present participles used in a progressive construction might nonetheless not be random. Indeed, this portion is lower than expected in Classical Latin and higher than expected in Late Latin in a statistically very significant way ($\chi 2$ = 7.11; df = 1; p = 0.0077) (Table 5.53).

Table 5.53. Observed *vs* expected proportion of present participles used in a progressive construction to the total number of present participles in Classical and Late Latin

Period	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Classical Latin	2	(0,11%)	10	(0,56%)	-2.59
Late Latin	59	(0,67%)	51	(0,58%)	+1.17

Although this rise is in line with what is predicted by, e.g., Eklund (1970: 74), Pinkster (1998: 230), and Haverling (2010: 496), the increase rate of only 0,56% and the extremely low absolute number of forms in question disallows interpreting the rising proportion as linguistically significant, that is, as reflecting an ongoing linguistic change. Rather, the progressive present participle construction appears indeed as an exploratory construction (*cf.* Pinkster 1998: 234; Bertinetto 2000: 563; Bertinetto *et al.* 2000: 538; Haverling 2010: 492-493).

5.4.1.2. Frequency within the period of Late Latin

A similar conclusion can be drawn for the period of Late Latin alone: the frequency of present participles used in a progressive construction rises, in accord with expectations, but only in a very slight way (Table

5.54). This frequency increase holds for both the (normalised) absolute frequency of the forms involved and for their proportion to the total number of present participles.

Table 5.54. Frequency of present participles used in a progressive construction in Imperial, Merovingian, and Early Medieval Latin

Period	#present participles used in a progressive construction (per 10 000 words)		#present participles (per 10 000 words)		#present participles used in a progressive construction/ #present participles
Imperial Latin	2	(0.67)	406	(135.32)	0,49%
Merovingian Latin	19	(1.01)	3 741	(199.57)	0,51%
Early Medieval Latin	30	(1.75)	3 840	(224.58)	0,78%

Given the smallness of the increase rate of both frequency measurements, it comes as no surprise that a chi-square goodness-of-fit test suggests the rising proportion of present participles used in a progressive construction is probably random: this proportion is lower than expected in Imperial and Merovingian Latin and higher than expected in Early Medieval Latin, but the differences between the three periods are statistically insignificant ($\chi 2 = 2.36$; df = 2; p = 0.3073) (Table 5.55).

Table 5.55. Observed *vs* expected proportion of present participles used in a progressive construction to the total number of present participles in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	2	(0,49%)	3	(0,74%)	-0.73
Merovingian Latin	19	(0,51%)	24	(0,64%)	-1.88
Early Medieval Latin	30	(0,78%)	25	(0,65%)	+2.10

Since the expected frequency of present participles in progressive constructions is smaller than five in Imperial Latin, a chi-square goodness-of-fit test is in principle not recommendable (Levshina 2015: 29). Nevertheless, the conclusion that the increasing trend observed in Table 5.54 does not reflect a linguistic change is reliable in view of the normalised frequencies in this table. This further suggests that, in Late Latin, the progressive present participle construction has the status of an exploratory construction.

5.4.1.3. Frequency and productivity in the three thematic domains

As expected in the light of the hypothesised influence of Biblical Greek, Late Latin progressive present participle constructions are most frequent in the religious texts, both in (normalised) absolute terms and in proportion to the total number of present participles (Table 5.56). However, the difference between

the religious texts, on the one hand, and the historical and legal texts, on the other, is not enormous – this is not surprising given the overall rareness of this type of participles.

Table 5.56. Frequency of present participles used in a progressive construction in the historical, religious, and legal texts in Late Latin

Thematic domain	#present participles used in a progressive construction (per 10 000 words)		#present participles (per 10 000 words)		#present participles used in a progressive construction/ #present participles
Historical	7	(0.90)	1 849	(236.68)	0,37%
Religious	49	(1.98)	5 753	(232.20)	0,85%
Legal	3	(0.30)	1 183	(118.28)	0,25%

A chi-square goodness-of-fit test shows that the proportion of present participles used in a progressive construction is lower than expected in the historical and legal texts and higher than expected in the religious texts in a statistically significant way, but none of these thematic domains makes a significant contribution to the obtained chi-square values ($\chi 2 = 8.22$; df = 2; p = 0.0164) (Table 5.57).

Table 5.57. Observed *vs* expected proportion of present participles used in a progressive construction to the total number of present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	7	(0,37%)	12	(0,65%)	-1.54
Religious	49	(0,85%)	39	(0,68%)	+1.67
Legal	3	(0,25%)	8	(0,68%)	-1.76

Hence, the difference between the religious texts, on the one hand, and the historical and religious texts, on the other, might be random. Although the low frequency of these forms does not allow drawing firm conclusions, this result confirms the claim made by Amenta (2003: 146-148) and repeated by Haverling (2010: 495-496) that Biblical Greek certainly had an influence on the use of the present participle as the main verb of a progressive construction in Late Latin, but that this influence should not be overestimated. After all, the absolute number of this type of present participles is very low even in the religious texts: 49 instances on a total number of 5 753 present participles (*i.e.* 0,85%) and 247 763 words (*i.e.* 2 forms per 10 000 words) (see Table 5.56).

The frequency of the Late Latin progressive present participle construction will now be further examined in terms of its productivity, measured in function of the lexical variation between the present participles and the verbs used as grammatical markers of the progressive aspect (hence ‘auxiliaries’). Although no solid conclusions can be drawn from the study of its productivity due to its low absolute number of occurrences, the progressive present participle construction is more or less equally productive in the three thematic domains (Table 5.58). The lower type-token and hapax-token ratios in the religious

texts are insignificant because of the disequilibrium of the absolute number of instances in these texts and in the historical and legal texts.

Table 5.58. Productivity of the progressive present participle construction in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	7	49	3
#types	7	45	3
#hapaxes	7	41	3
#types/#tokens	**1.00**	**0.92**	**1.00**
#hapaxes/#tokens	**1.00**	**0.84**	**1.00**

In other words, the progressive present participle construction is more or less equally schematic in the three thematic domains. Table 5.58 also shows that the historical and legal texts contain no combinations occurring more than once. By contrast, the religious texts contain four combinations occurring twice: *esse* 'to be'/*agere* 'to do', *esse* 'to be'/*egredi* 'to exit', *esse* 'to be'/*laudare* 'to praise', and *esse* 'to be'/*custodire* 'to guard'. The latter is exemplified in (67).

(67) *Erant* *autem* ***custodie-nt-es*** *eosdem* *beatissimos*
be.PST.3PL but guard-PTCP.PRS-NOM.M.PL same.ACC.M.PL very_blessed.ACC.M.PL
apostolos *milites* *multi* *[...].*
apostle.ACC.M.PL soldier.NOM.M.PL many.NOM.M.PL
'But many soldiers were guarding these same very blessed apostles.' (*Pass. Proc.* 1.3.2)

Like the productivity of the progressive present participle construction in general, the lexical variation of the present participles alone is similar in the three thematic domains (Table 5.59).

Table 5.59. Lexical variation of the present participles used in a progressive construction in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	7	49	3
#types	7	43	3
#hapaxes	7	38	3
#types/#tokens	**1.00**	**0.88**	**1.00**
#hapaxes/#tokens	**1.00**	**0.78**	**1.00**

All lexemes in the historical and legal texts are hapaxes. Those occurring more than once in the religious texts are *laudare* 'to praise' (n=3), *agere* 'to do' (n=2), *custodire* 'to guard' (n=2), *dicere* 'to say' (n=2), and *egredi* 'to exit' (n=2). The first of these is illustrated in (68).

(68) *[...] pauperum voces [...]* ***lauda-nt-es*** *erant dominum [...].*
poor.GEN.M.PL voice.NOM.F.PL praise-PTCP.PRS-NOM.F.PL be.PST.3PL Lord.ACC.M.SG
'The voices of the poor were praising the Lord.' (*Vit. Aud.* 19)

Since the auxiliaries primarily serve a grammatical function, their lexical variation is smaller than that of the present participles. In the Late Latin corpus, the auxiliaries show a minimal variation in the legal texts (2 types). This variation is slightly higher in the historical texts (3 types) and highest in the religious texts (5 types), although it remains low even in this latter type of texts. In Table 5.60, these absolute numbers are more relevant than the type-token and hapax-token ratios.

Table 5.60. Lexical variation of the auxiliaries used in a progressive present participle construction in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	7	49	3
#types	3	5	2
#hapaxes	2	1	1
#types/#tokens	**0.43**	**0.10**	**0.67**
#hapaxes/#tokens	**0.29**	**0.02**	**0.33**

The inventory and frequency of the auxiliaries in the three types of texts are presented in Table 5.61.

Table 5.61. Inventory and frequency of the auxiliaries used in a progressive present participle construction in the historical, religious, and legal texts in Late Latin

Thematic domain	**Lexeme of auxiliary**	**Frequency (%)**
Historical	*esse* 'to be'	5 (71,43%)
	permanere 'to remain'	1 (14,29%)
	sedere 'to sit'	1 (14,29%)
		7 (100,00%)
Religious	*esse* 'to be'	33 (67,35%)
	stare 'to stand'	10 (20,41%)
	ire 'to go'	3 (6,12%)
	sedere 'to sit'	2 (4,08%)
	assistere 'to stand near'	1 (2,04%)
		49 (100,00%)
Legal	*astare* 'to stand near'	2 (66,67%)
	esse 'to be'	1 (33,33%)
		3 (100,00%)

The Late Latin corpus contains the three types of verbs capable of acting as the auxiliary of a progressive present participle construction: *esse* ‘to be’, posture verbs, and motion verbs. *Esse* ‘to be’ (69) prevails: it accounts for 66% of all auxiliaries (39 instances out of 59). The motion verbs are lexically restricted to *ire* ‘to go’ (70), while the posture verbs comprise five lexemes: *stare* ‘to stand’ (71), *permanere* ‘to remain’ (72), *sedere* ‘to sit’ (73), *assistere* ‘to stand near’ (74), and *astare* ‘to stand near’ (75).

(69) *Deus* *erat* *in* *Christo* *mundum* ***reconcilia-ns***
God.NOM.M.SG be.PST.3SG in Christ.ABL.M.SG world.ACC.M.SG conciliate-PTCP.PRS.NOM.M.SG
sibi?
REFL.DAT.M.SG
‘Was God conciliating the world for himself in the body of Christ? (*Epist. Merov.* 1)

(70) *[...]* *reliquit* *uxorem* *suam* *et* *accipiens* *duos*
leave.PST.3SG wife.ACC.F.SG his.ACC.F.SG and take.PTCP.PRS.NOM.M.SG two.ACC.M.PL
infantes *suos* *ibat* ***ingemesce-ns*** *et*
child.ACC.M.PL his.ACC.M.PL go.PST.3SG sigh-PTCP.PRS.NOM.M.SG and
dice-ns *[...].*
say-PTCP.PRS.NOM.M.SG
‘He left his wife and after he took his two children he went sighing and saying (...).’ (*Pass. Eustach.* 1.10)

(71) *Et* *diacono* *dicente* *singulorum* *nomina* *semper*
and deacon.ABL.M.SG say.PTCP.PRS.ABL.M.SG each.GEN.M.PL name.ACC.N.PL always
pisinni *plurimi* *stant* ***responde-nt-es*** *semper* *[...].*
child.NOM.M.PL many.NOM.M.PL stand.PRS.3PL anwer-PTCP.PRS-NOM.M.SG always
‘And always as the deacon says the names of each (of them), many children are always answering (...).’ (*Peregr. Aeth.* 24.6)

(72) *Si enim* *permanserit* *turbas* ***facie-ns*** *et* *sediciones*
if for remain.SBJV.PST.3SG uproar.ACC.F.PL make-PTCP.PRS.NOM.M.SG and rebellion.ACC.F.PL
aecclesie *[...].*
church.GEN.F.SG
‘For if he continued to cause uproar and rebellions against the church (...).’ (*Epist. Merov.* 6)

(73) *Fabricabat* *in* *usu* *regis* *utensilia* *[...]* *ex* *auro*
fabricate.PST.3SG in use.ABL[ACC].M.SG king.GEN.M.SG utensil.ACC.N.PL from gold.ABL.N.SG
et *gemmis.* *Sedebat* ***fabrica-ns*** *in* *defossum* *[...].*
and gems.ABL.F.PL sit.PST.3SG fabricate-PTCP.PRS.NOM.M.SG in digging_hole.ACC[ABL].N.SG
‘He fabricated utensils out of gold and gems for the use of the king. He was fabricating (them) in a digging hole.’ (*Vit. Elig.* 1.10)

(74) *[...] ait ad fratres, qui undique adsistebant*
say.PST.3SG to brother.ACC.M.PL REL.NOM.M.PL from_every_side stand_near.PST.3PL
ministra-nt-es *ei [...].*
serve-PTCP.PRS-NOM.M.PL DEM.DAT.M.SG
'He said to the brethren, who were serving him from every side (...).' (*Vit. Pard.* 21)

(75) *[...] ut [...] ex hoc in nostri presentia debuissent*
that because_of DEM.ABL.N.SG in our.GEN.M.SG presence.ABL.F.SG must.SBJV.PST.3PL
adstare ***causa-nt-es***.
stand_near.INF.PRS litigate-PTCP.PRS-NOM.M.PL
'(...) that they should litigate because of this in our presence.' (*Form. Marc.* 1.37)

It is worth recalling that the lexical meaning of the posture and motion verbs often co-exists with their grammatical meaning, which consists of presenting the state of affairs denoted by the present participle as ongoing (see §1.3.2.2.5, §2.2.2.2.2.3.1, but especially §3.5.4). For instance, the subject of *fabricans* 'fabricating' (73) is actually sitting while fabricating utensils for the king, as is evident from the sentence following the passage in (73), namely *sedens ergo Eligius ad opus praedictum* 'so, as Eligius was sitting near the aforesaid construction site (...)'. However, what matters most in (73) is that Eligius has been fabricating utensils for quite some time. As such, the lexical meaning of *sedebat* 'he sat' is contextually backgrounded in favour of its grammatical meaning (*cf.* Heine 2002: 86). Thus, the analysis of *fabricans* 'he was fabricating' as the main verb of a progressive construction is more likely than as the head of an adjunct clause specifying the circumstances accompanying the state of affairs denoted by *sedebat* 'he sat', in which analysis it functions a full lexical posture verb.

5.4.1.4. Conclusion

In line with its status as an exploratory forerunner of the Romance progressive construction (*cf.* Pinkster 1998: 234; Bertinetto 2000: 563; Bertinetto *et al.* 2000: 538; Haverling 2010: 492-493), the progressive present participle construction is infrequent in both Classical and Late Latin. Its frequency slightly rises between these two periods and during the Late Latin period, both in (normalised) absolute terms and in proportion to the total number of present participles, but only in a very slight and insignificant way. In the Late Latin corpus, progressive present participle constructions are more frequent in religious than in historical and legal texts, but the difference between the two groups of texts is statistically speaking not significant. This confirms Amenta's (2003: 146-148) claim that the influence exerted by Biblical Greek on this use of the present participle in Late Latin should not be overestimated. The progressive present participle construction is more or less equally schematic in the three thematic domains, even though its extreme rareness in the Late Latin corpus does not allow drawing a firm conclusion from its productivity

study. The auxiliary is most often realised by *esse* ‘to be’, but it can also be instantiated by a posture or motion verb.

5.4.2. Present participles used in a presentative progressive construction

The next type of verbal present participles to be discussed function as the main verb of a presentative progressive construction. In this construction, a present participle is combined with a NP and one of the following items: (i) a third person form of *habere* ‘to have’ (76); the presentative *ecce* ‘behold’ (77); or (iii) a verb of sensory perception, like *audi* ‘hear’ (78) (see §1.3.2.2.6).[18]

(76) *Habebat* *itaque* *in* *cubiculo* *suo* *multa* *sanctorum*
have.PST.3SG and_so in room.ABL.N.SG his.ABL.N.SG many.ACC.N.PL saint.GEN.M.PL
depende-nt-ia *pignora* *[…].*
hang-PTCP.PRS-ACC.N.PL symbol.ACC.N.PL
‘And so, in his room there hang many symbols of saints.’ (*Vit. Elig.* 1.12)

(77) *Cum* *ibidem* *prestolaretur* *adversarii* *adventum,* *ecce!*
when there wait.SBJV.PST.3SG adversary.GEN.M.SG arrival.ACC.M.SG behold
venie-ns *quidam* *ex* *ministris* *Betheleni.*
come_PTCP.PRS.NOM.M.SG INDF.NOM.M.SG from servant.ABL.M.PL Bethelnus.GEN.M.SG
‘When he waited there for the arrival of his adversary, behold, there came some servant of Bethelnus.’ (*Vit. Austr.* 1.4)

(78) *[...]* *apertius* *audi* *apostholum* ***protesta-nt-em*** *[...].*
more_openly hear.IMP.PRS.2SG apostle.ACC.M.SG protest-PTCP.PRS-ACC.M.SG
‘Hear the apostle protesting more openly: “(...)”.’ (*Epist. Merov.* 1)

As mentioned in §1.3.2.2.6, the lexical meaning of the perception verbs is typically backgrounded in favour of a grammatical meaning. The latter consists of presenting the state of affairs designated by the present participle as all-new, that is to say, as a thetic information unit. Besides their persistent lexical meaning and their grammatical function, the perception verbs also have an evidential value, since they express the source of information expressed by the present participle (Greco 2013: 179-180; Zheltova 2017: 317-319). As to the present participles, they denote a durative state of affairs, *i.e.* a state of affairs presented in its ongoing duration.

In this construction, the present participle does not compete with the gerund. Nonetheless, some hypotheses about the evolution of these participles can be formulated. Of particular interest is Greco’s

[18] The few instances of presentative progressive constructions with *habere* ‘to have’ are in fact ambiguous. Indeed, *habere* ‘to have’ cannot only be interpreted in an impersonal way, used with a presentative function, but also in a personal way, used with a possessive meaning. However, the possessive meaning of *habere* ‘to have’ seems backgrounded in favour of its grammatical function, which consists of introducing the state of affairs denoted by the present participle and the accompanying NP as new information. In any case, the low frequency of these constructions (n=5) does not impact the quantitative results.

(2013: 185) claim that they are more frequent between the 4th and the 6th c. than in earlier stages of the language. Therefore, the frequency of present participles used in a presentative progressive construction is expected to be lower in the Classical than in the Late Latin corpus – the latter covering in this thesis the period between the 4th and the 10th c. –, both in (normalised) absolute terms and in proportion to the total number of present participles.[19] Furthermore, Greco (2013: 185) states that the high number of present participles used in this construction between the 4th c. and the 6th c. is partly due to the influence of Biblical Greek. Hence, the absolute and relative frequency of these forms in the Late Latin corpus is expected to be higher in the religious texts than in the historical and legal texts.

The aim of this section is to examine these hypotheses. I will first investigate the frequency of the participles in issue from Classical to Late Latin (§5.4.2.1) and within the period of Late Latin (§5.4.2.2). Then, I will explore their frequency and productivity in the three thematic domains (§5.4.2.3). This latter section will also explore the inventory of the items acting as presentative markers. The analysis of this type of present participles will be concluded by the study of their morphological marking (§5.4.2.4).

5.4.2.1. Frequency from Classical to Late Latin

Both in Classical and in Late Latin, present participles occur more frequently in presentative progressive constructions than in progressive constructions. Yet, they do not have a high frequency in either period, neither in (normalised) absolute terms, nor in proportion to the total number of present participles (Table 5.62). The frequency of this type of present participles rises between the two periods according to both measurements, but the increase rate is very slight. Their rising absolute frequency is moreover to be seen within the light of a much more steeply rising frequency of present participles in general.

Table 5.62. Frequency of present participles used in a presentative progressive construction in Classical and Late Latin

Period	**#present participles used in a presentative progressive construction (per 10 000 words)**		**#present participles (per 10 000 words)**		**#present participles used in a presentative progressive construction/#present participles**
Classical Latin	37	(0.59)	1 786	(28.57)	2,07%
Late Latin	217	(5.10)	8 785	(206.27)	2,47%

The rising proportion of present participles used in a presentative progressive construction is probably random. Indeed, a chi-square goodness-of-fit test suggests that this proportion is lower than expected in

[19] The frequencies reported in Greco (2013) are absolute and not normalised. Hence, his claim about the frequency of present participles used in presentative progressive constructions is subject to caution, as he admits himself (Greco 2013: 183, fn. 29).

Classical Latin and higher than expected in Late Latin in a statistically insignificant way ($\chi 2 = 0.82$; df = 1; p = 0.3652) (Table 5.63).

Table 5.63. Observed *vs* expected proportion of present participles used in a presentative progressive construction to the total number of present participles in Classical and Late Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Classical Latin	37	(2,07%)	43	(0,56%)	-0.90
Late Latin	217	(2,47%)	211	(0,58%)	+0.41

This result is at odds with the prediction made on the basis of Greco's (2013: 185) claim, namely that the frequency of these participles forms is higher between the 4th and the 6th c. than in earlier stages of the language. Such a frequency difference has been observed, both in absolute and in relative terms, but, it is most likely due to chance.

5.4.2.2. Frequency within the period of Late Latin

Within the period of Late Latin, the (normalised) absolute frequency of present participles occurring in a presentative progressive construction does not show a rectilinear trend (Table 5.64). In contrast, their proportion to the total number of present participles declines, though in a very slight way.

Table 5.64. Frequency of present participles used in a presentative progressive construction in Imperial, Merovingian, and Early Medieval Latin

Period	#present participles used in a presentative progressive construction (per 10 000 words)		#present participles (per 10 000 words)		#present participles used in a presentative progressive construction/#present participles
Imperial Latin	14	(4.67)	406	(135.32)	3,44%
Merovingian Latin	99	(5.28)	3 741	(199.57)	2,64%
Early Medieval Latin	85	(4.97)	3 840	(224.58)	2,21%

A chi-square goodness-of-fit test shows that this proportion is higher than expected in the Imperial and Merovingian Latin periods and lower than expected in Early Medieval Latin, but the differences between these periods are statistically insignificant ($\chi 2 = 3.05$; df = 2; p = 0.2176) (Table 5.65).

Table 5.65. Observed *vs* expected proportion of present participles used in a presentative progressive construction to the total number of present participles in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	14	(3,44%)	10	(2,46%)	+1.24
Merovingian Latin	99	(2,64%)	93	(2,49%)	+0.65
Early Medieval Latin	85	(2,21%)	95	(2,47%)	-1.04

Hence, the declining proportion observed in Table 5.64 is probably random. The conclusion to be drawn is that, both between Classical and Late Latin and within the period of Late Latin, the frequency of this type of present participles is low, but more or less stable.

5.4.2.3. Frequency and productivity in the three thematic domains

In accord with Greco's (2013: 185) claim that, in Late Latin, the use of the present participle as the main verb of a presentative progressive construction is influenced by Biblical Greek, the frequency of this type of participles is highest in the religious texts of the Late Latin corpus, both in (normalised) absolute terms and in proportion to the total number of present participles (Table 5.66).

Table 5.66. Frequency of present participles used in a presentative progressive construction in the historical, religious, and legal texts in Late Latin

Thematic domain	#present participles used in a presentative progressive construction (per 10 000 words)		#present participles (per 10 000 words)		#present participles used in a presentative progressive construction/#present participles
Historical	16	(2.05)	1 849	(236.68)	0,87%
Religious	200	(8.07)	5 753	(232.20)	3,48%
Legal	1	(0.10)	1 183	(118.28)	0,08%

Greco's claim is further confirmed by a chi-square goodness-of-fit test: the proportion of the participles at stake is lower than expected in the historical and legal texts and higher than expected in the religious texts in a statistically highly significant way ($\chi 2 = 70.12$; $df = 2$; $p < 0.0001$) (Table 5.67).

Table 5.67. Observed *vs* expected proportion of present participles used in a presentative progressive construction to the total number of present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	16	(0,87%)	46	(2,49%)	-4.39
Religious	200	(3,48%)	142	(2,47%)	+4.86
Legal	1	(0,08%)	29	(2,45%)	-5.22

As it turns out, the high proportion of these participles in the religious texts is not correlated with a low degree of productivity, as opposed to what has been observed for, e.g., the high proportion of adverbial and adnominal present participles in the legal texts. The productivity of this type of constructions has been measured in terms of the lexical variation of the present participles and the presentative markers. As shown in Table 5.68, the productivity of this construction is higher in the religious texts than in the historical texts. However, due to the low absolute number of forms in the historical texts, this difference is probably hazardous. Since the legal texts contain only one instance of this type of present participles, there is no interest in comparing them with the historical and religious texts.

Table 5.68. Productivity of the presentative progressive present participle construction in the historical, religious, and legal texts in Late Latin

	Historical	**Religious**	**Legal**
#tokens	16	200	1
#types	9	156	1
#hapaxes	8	134	1
#types/#tokens	**0.56**	**0.78**	**1.00**
#hapaxes/#tokens	**0.50**	**0.67**	**1.00**

On closer scrutiny, the lower productivity in the historical texts is due to the fact that the same lexical combination accounts for half of all combinations in these texts. This combination involves the verb of auditory perception *audire* ‘to hear’ and the declarative verb *dicere* ‘to say’ (79).

(79) *Audite* *Dominum* ***dice-nt-em*** *[...].*
hear.IMP.PRS.2PL Lord.ACC.M.SG say-PTCP.PRS-ACC.M.SG
‘Here is what the Lord says: “(...)”.’ (*Epist. Merov.* 11)

This combination also represents the unique presentative progressive present participle construction in the legal texts, and it is also the most frequent combination in the religious texts (9 instances out of 200). The inventory and the cumulative frequency of the five most frequent combinations in the religious texts is presented in Table 5.69.

Table 5.69. Inventory and cumulative frequency of the five most frequent lexical combinations of a presentative marker and a present participle in the religious texts in Late Latin

Lexeme of presentative	Lexeme of present participle	Frequency (%)
audire 'to hear'	*dicere* 'to say'	9 (4,50%)
videre 'to see'	*venire* 'to come'	8 (4,00%)
videre 'to see'	*stare* 'to stand'	4 (2,00%)
audire 'to hear'	*clamare* 'to shout'	3 (1,50%)
videre 'to see'	*sedere* 'to sit'	3 (1,50%)[20]
		27 (13,50%)

Thus, the schematicity of this present participle construction is not significantly higher or lower in any thematic domain. However, the low absolute number of instances in the historical and especially legal texts does not allow drawing solid conclusions from their productivity study.

The same observation can be made with respect to the lexical variation of the present participles. Table 5.70 shows that this variation is more or less equally high in the historical and religious – the legal texts are again left out from this comparison because they contain only one instance.

Table 5.70. Lexical variation of the present participles used in a presentative progressive construction in the historical, religious, and legal texts in Late Latin

	Historical	Religious	Legal
#tokens	16	200	1
#types	9	115	1
#hapaxes	8	86	1
#types/#tokens	**0.56**	**0.58**	**1.00**
#hapaxes/#tokens	**0.50**	**0.43**	**1.00**

In the historical texts, the lexeme *dicere* 'to say' (e.g. (79)) represents half of the present participles. The other half are all hapaxes. *Dicere* 'to say' also represents the only form in the legal texts. The inventory and cumulative frequency of the five most frequent lexemes in the religious texts are shown in Table 5.71.

[20] The religious texts contain five other lexical combinations occurring three times.

Table 5.71. Inventory and cumulative frequency of the five most frequent lexemes used for present participles in a presentative progressive construction in the religious texts in Late Latin

Lexeme of present participle	Frequency (%)
dicere 'to say'	15 (7,50%)
venire 'to come'	12 (6,00%)
stare 'to stand'	8 (4,00%)
sedere 'to sit'	8 (4,00%)
iacere 'to lie'	8 (4,00%)
	51 (25,50%)

In the religious texts, the most frequent lexeme is the same as in the historical texts, *i.e. dicere* 'to say' (e.g. 79)). The runner-up is *venire* 'to come' (80).

(80) *[...] cum vidissent Egyptios post se* ***venie-nt-es****,*
when see.SBJV.PST.3PL Egyptian.ACC.M.PL after REFL.ACC.M.PL come-PTCP.PRS-ACC.M.PL
exclamaverunt.
shout.PST.3PL
'When they saw the Egyptians coming behind them, they shouted.' (*Peregr. Aeth.* 7.4)

Since the presentative markers primarily serve a grammatical function, their lexical variation is smaller than that of the present participles. In the Late Latin corpus, these markers show a small variation in the historical texts (4 types), but a relatively large variation in the religious texts – the legal texts are again less relevant here. In Table 5.72, these absolute numbers are more telling than the type-token and hapax-token ratios.

Table 5.72. Lexical variation of the presentative markers used in a presentative progressive present participle construction in the historical, religious, and legal texts in Late Latin

	Historical	Religious	Legal
#tokens	16	200	1
#types	4	12	1
#hapaxes	2	3	1
#types/#tokens	**0.25**	**0.06**	**1.00**
#hapaxes/#tokens	**0.13**	**0.02**	**1.00**

Table 5.73 shows the inventory and cumulative frequency of the items used as presentative markers in the three thematic domains.

Table 5.73. Inventory and frequency of the presentative markers used in a presentative progressive present participle construction in the historical, religious, and legal texts in Late Latin

Thematic domain	Lexeme of presentative marker	Frequency (%)	
Historical	*audire* 'to hear'	11	(68,75%)
	videre 'to see'	3	(18,75%)
	reperire 'to find'	1	(6,25%)
	invenire 'to find'	1	(6,25%)
		16	**(100,00%)**
Religious	*videre* 'to see'	72	(36,00%)
	invenire 'to find'	38	(19,00%)
	audire 'to hear'	35	(17,50%)
	cernere 'to see'	12	(6,00%)
	reperire 'to find'	12	(6,00%)
	ecce 'behold'	10	(5,00%)
	conspicere 'to observe'	8	(4,00%)
	aspicere 'to behold'	5	(2,50%)
	habere 'to have'	5	(2,50%)
	conspicari 'to observe'	1	(0,50%)
	intueri 'to look at'	1	(0,50%)
	meminisse 'to remember'	1	(0,50%)
		200	**(100,00%)**
Legal	*audire* 'to hear'	1	(100%)
		1	**(100%)**

Table 5.73 shows that the Late Latin corpus contains the three types of lexemes capable of acting as the presentative marker: at third person form of the verb *habere* 'to have' (81), the presentative *ecce* 'behold' (82), and verbs of visual or auditory perception (80/83). The verb of visual perception *videre* 'to see' is dominant, representing 35% of all presentative markers (75 instances out of 217).

(81) *Habebat* *autem* ***pende-nt-em*** *collo* *capsellam* *[...].*
have.PST.3SG but hang-PTCP.PRS-ACC.F.SG neck.ABL.N.SG small_box.ACC.F.SG
'But there was a small box hanging on his neck.' (*Vit. Gall. Wal.* 1.11)

(82) *[...] cum* *alveum* *Mosellae* *[...]* *transmeassent,* *ecce!*
when channel.ACC.M.SG Moselle.GEN.F.SG cross.SBJV.PST.3PL behold
venie-ns *sancta* *Tetta* *[...].*
come-PTCP.PRS-NOM.F.SG saint.NOM.F.SG Tetta.NOM.F.SG
'When they had crossed the channel of the Moselle, behold, there came saint Tetta.' (*Vit. Adelph.* 6)

(83) *[...] quia numquam te verba insana frustra*
because never you.ACC.M.SG word.ACC.N.PL demented.ACC.N.PL in_vain
loque-nt-em *audivimus.*
speak-PTCP.PRS-ACC.M.SG hear.PST.1PL
'Because we never heard you speaking demented words in vain.' (*Vit. Pard.* 21)

The dominant group of perception verbs contains only one verb denoting an act of auditory perception, *viz. audire* 'to hear' (83) (47 instances out of 217). As to the verbs denoting an act of visual perception, they are represented by eight distinct lexemes and jointly account for 71% of all presentative markers (154 instances out of 217). These verbs are *videre* 'to see' (84), *invenire* 'to find' (85), *cernere* 'to see' (86), *reperire* 'to find' (87), *conspicere* 'to observe' (88), *aspicere* 'to behold' (89), *conspicari* 'to observe' (90), and *intueri* 'to look at' (91).

(84) *[...] sanctus Moyses vidit filios Israhel*
saint.NOM.M.SG Moses.NOM.M.SG see.PST.3SG son.ACC.M.PL Israel.NOM.M.SG
habe-nt-es *choros his diebus [...].*
have-PTCP.PRS-ACC.M.PL chorus.ACC.M.PL DEM.ABL.M.PL day.ABL.M.PL
'Saint Moses saw the sons of Israel having choruses these days.' (*Peregr. Aeth.* 5.4)

(85) *Malignus vero spiritus unum seniorem monachum*
malicious.NOM.M.SG but spirit.NOM.M.SG one.ACC.M.SG senior.ACC.M.SG monk.ACC.M.SG
invenit aquam ***haurie-nt-em*** *[...].*
find.PST.3SG water.ACC.F.SG pour-PTCP.PRS-ACC.M.SG
'But the malicious spirit found an old monk pouring water.' (Greg. M. *dial.* 2.30.9)

(86) *[...] septem angelos "agius agius agius"* ***cane-nt-es*** *cernebat.*
seven angel.ACC.M.PL agius agius agius sing-PTCP.PRS-ACC.M.PL see.PST.3SG
'He saw seven angels singing: "agius, agius, agius".' (*Pass. Vit.* 3.1.7.10)

(87) *[...] ipsum=que verrem in ipso introitu*
INTENS.ACC.M.SG=and thief.ACC.M.SG in INTENS.ABL.M.SG entrance.ABL.M.SG
monasterii ***iace-nt-em*** *repperit [...].*
monastery.GEN.N.SG lie-PTCP.PRS-ACC.M.SG find.PST.3SG
'And he found the thief lying at the entrance of the monastery.' (*Vit. Trud.* 19)

(88) *[...] presbyterum quendam inibi sacrosancta* ***tracta-nt-em***
priest.ACC.M.SG INDF.ACC.M.SG in_that_place sacred.ACC.N.PL drag_about-PTCP.PRS-ACC.M.SG
mysteria conspexit [...].
mysterious_thing.ACC.N.PL observe.PST.3SG
'He saw some priest dragging about sacred mysterious things to that place.' (*Vit. Gall. Wal.* 2.41)

(89) *[...] credidimus* *dementes* *esse* *quos* ***fulge-nte-s***
believe.PST.1PL demented.ACC.M.PL be.INF.PRS REL.ACC.M.PL shine-PTCP.PRS-ACC.M.PL
nunc *aspicimus* *et* ***flore-nt-es***.
now behold.PRS.1PL and prosper-PTCP.PRS-ACC.M.PL
'We believed demented those whom we see now shining and prospering.' (*Pass. Caec.* 1.18.39)

(90) *[...] Genuvefa* *conspicata* *generis* *humani*
Genevieve.NOM.F.SG observe.PTCP.PST.NOM.F.SG kind.GEN.N.SG human.GEN.N.SG
adversarium *in* *ampulle* *ore* ***sede-nt-em*** *[...]*
enemy.ACC.M.SG in bottle.GEN.F.SG mouth.ABL.N.SG sit-PTCP.PRS-ACC.M.SG
insufflavit *in* *eum* *[...]*.
blow.PST.3SG to DEM.ACC.M.SG
'After she saw the enemy of the human kind sitting on the mouth of the bottle, Genevieve blew at him.' (*Vit. Genov.* 48)

(91) *[...] cum* *reginam* *cum* *principibus* ***defle-nt-em*** *intueretur* *[...]*.
when queen.ACC.F.SG with prince.ABL.M.PL weep-PTCP.PRS-ACC.F.SG look_at.SBJV.PST.3SG
'When he saw the queen weeping with the princes (...).' (*Vit. Elig.* 2.38)

There is also one verb that does not denote an act of sensory perception, but a cognitive activity, namely *meminisse* 'to remember' (93).

(92) *Memini,* *Domine,* ***dice-nt-em*** *te* *quod*
remember.IMP.PRS.2SG Lord.VOC.M.SG say-PTCP.PRS-ACC.M.SG you.ACC.M.SG that
oportet *me* *temptare* *[...]*.
be_necessary.PRS.3SG I.ACC.M.SG attempt.INF.PRS
'Lord, remember yourself saying that is necessary for me to attempt (...).' (*Pass. Eustach.* 1.11)

The use of this cognitive verb instead of a verb of sensory perception is not surprising given the semantic link between the two types of verbs (e.g. Willems 1983). It is interesting to note in this respect that the unique instance of a verb of cognition appears in one of the latest texts (10th c.).

From a morphosyntactic perspective, Table 5.73 shows that the presentative marker is most often instantiated by a verb (n=207), the use of the presentative *ecce* 'behold' being confined to 10 instances.

5.4.2.4. Case marking of the present participle

If the presentative marker is instantiated by a verb, the present participle and the NP with which it agrees are marked in the accusative in active syntactic configurations, as in all above-cited examples, but in the nominative in passive syntactic configurations, as in (93).

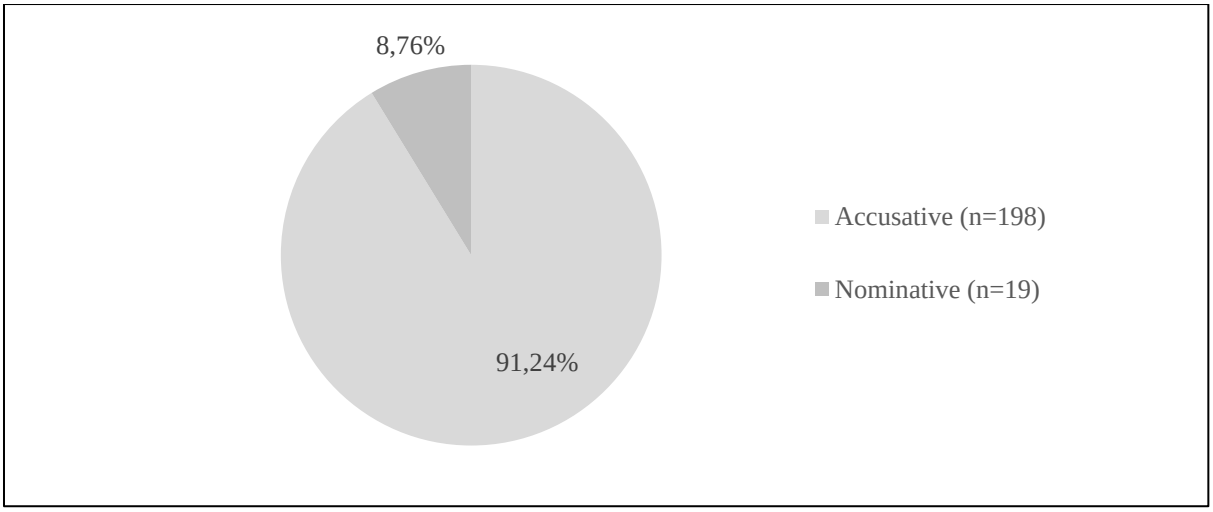
(93) *[...] et auditi sunt duo chori incredibili [...]*
and hear.PTCP.PST.NOM.M.PL be.PRS.3PL two choir.NOM.M.PL incredible.ABL.F.SG
dulcedine ***perstrepe-nt-es***.
sweetness.ABL.F.SG make_noise-PTCP.PRS-NOM.M.PL
'And two choirs were heard making noise with an incredible sweetness.' (*Vit. Gal. Walh.* 2.4)

If, on the contrary, the presentative is realised by *ecce* 'behold', the present participle and the NP are mostly in the nominative (77/82), though they can also stand in the accusative (94) (*cf.* Pinkster 2015: 368; see also §2.1.2.2.2.3.2).

(94) *Ecce dominum [...]* ***sta-nt-em*** *ad summitatem scale [...].*
behold Lord.ACC.M.SG stand-PTCP.PRS-ACC.M.SG at top.ACC.F.SG stairs.GEN.F.SG
'Behold the Lord standing at the top of the stairs.' (*Vit. Pard.* 8)

The frequency of these two case forms in the Late Latin corpus is presented in Figure 5.4.

Figure 5.4. Case marking of the present participles used in a presentative progressive construction in Late Latin



5.4.2.5. Conclusion

Present participles used in a presentative progressive construction become more frequent from Classical to Late Latin, both in normalised absolute terms and in relation of the total number of present participles. However, the frequency increase is modest and statistically insignificant. During the Late Latin period, no rectilinear trend can be observed for the absolute frequency of these participles, while their proportion to the total number of present participles declines, though in a statistically insignificant way. In line with Greco's (2013: 185) claim this use of the present participle in Late Latin is influenced by Biblical Greek, present participle acting as the main verb of a presentative progressive construction are more frequent in religious texts than in historical and legal texts. Although no solid conclusions can be drawn from the

study of its productivity, this present participle construction seems more or less equally productive in the three thematic domains. The presentative marker is mostly instantiated by a perception verb, but it can also be realised by the presentative *ecce* ‘behold’, a third person form of the verb *habere* ‘to have’, or even a cognitive verb.

In the transition from Late Latin to most Romance languages, the present participle is replaced in this construction by its sole competitor since the earliest stages of the Latin language, *i.e.* the infinitive (Aspland 1974: 16; see also §1.3.2.2.6 and §2.1.2.2.2.3.2).

5.4.3. Present participles used as syntactically finite verbs

The final type of present participles to be explored are the ones that are syntactically used as finite verbs. These forms have “a position such, that it seems to serve as a finite form and can be replaced – without any other changes being made in the sentence – by a finite form” (Eklund 1970: 119). As an example, consider *veniens* ‘coming’ (95), which can be replaced by the finite perfect tense verb *venit* ‘he came’.

(95) *Quidam* *[...]* *Vincentius* *nomine* *nummorum* *arcarius*
INDF.NOM.M.SG Vincentius.NOM.M.SG name.ABL.N.SG money.GEN.M.PL treasurer.NOM.M.SG
venie-ns *ad civitatem* *Gabis* *ut* *ex*
come-PTCP.PRS.NOM.M.SG to city.ACC.F.SG Gabi.ABL.M.PL in_order_to on_behalf_of
actionem *auri* *publici* *munimen* *acciperet.*
function.ACC[ABL].F.SG gold.GEN.N.SG public.GEN.N.SG protection.ACC.N.SG receive.SBJV.PST.3SG
‘Someone named Vincentius, the treasurer of the public monies, came to the city of Gabi in order to receive protection on behalf of its function for the public gold.’ (*Pass. Getul.* 1.99.1) [=9]

As mentioned in §2.1.2.2.2.3.3 and §4.4, the use as a finite verb is recognised for the present participle by most authors, while it has gone unnoticed for the gerund. Therefore, present participles used as finite verbs have not been taken into account in discussions of the competition between the present participle and the gerund. However, the Late Latin corpus contains a few instances of gerunds used as finite verbs, and these forms can undoubtedly be replaced by present participles (see §4.4). Nevertheless, due to the extreme rareness of this type of gerunds (n=3), it is most unlikely that the gerund became a full-fledged competitor of the present participle in this use. Hence, this question will not be further addressed.

Some hypotheses can nonetheless be formulated about the evolution of syntactically finite present participles. These forms are claimed to be extremely rare until at least the 2nd c., and to become more frequent from the 3rd c. onward, especially in religious texts (Hofmann & Szantyr 1965: 389; Eklund 1970: 117-205). Therefore, it is expected that the participles in issue are more frequent in the Late Latin

than in the Classical corpus, and that in the Late Latin corpus, they are more frequent in the religious texts than in the historical and legal texts.

The first hypothesis is confirmed by the data of this study: while the Classical Latin corpus does not contain any present participles used as finite verbs (see §1.3.2.2.8), the Late Latin corpus comprises 254 of them. This amounts to 3,12% of all Late Latin present participles (and to 6.43 forms per 10 000 words). Thus, this use of the present participle is more frequent than in both progressive and presentative progressive constructions. Due to the absence of syntactically finite present participles in the Classical Latin corpus, their frequency study will immediately focus on the Late Latin period (§5.4.3.1). Their frequency in Late Latin will be further examined in view of their frequency and productivity in the three thematic domains (§5.4.3.2). The final aspect of these forms that will be analysed is their case marking (§5.4.3.3).

5.4.3.1. Frequency within the period of Late Latin

Though the present participle is used more frequently as a finite verb than as the main verb of progressive or presentative progressive construction, its frequency in this use is still relatively low, both in absolute terms and in proportion to the total number of present participles (Table 5.74). On the diachronic axis, the frequency of the participles in question increases.

Table 5.74. Frequency of present participles used as finite verbs in Imperial, Merovingian, and Early Medieval Latin

Period	**#present participles used as finite verbs (per 10 000 words)**		**#present participles (per 10 000 words)**		**#present participles used as finite verbs/#present participles**
Imperial Latin	3	(1.00)	406	(135.32)	0,74%
Merovingian Latin	73	(3.89)	3 741	(199.57)	1,95%
Early Medieval Latin	152	(8.89)	3 840	(224.58)	3,96%

According to a chi-square goodness-of-fit test, the increasing proportion of syntactically finite present participles might not be random: this proportion is lower than expected in Imperial and Merovingian Latin and higher than expected in Early Medieval Latin in a statistically highly significant way ($\chi 2$ = 33.45; df = 2; $p < 0.0001$) (Table 5.75).

Table 5.75. Observed *vs* expected proportion of present participles used as finite verbs to the total number of present participles in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	3	(0,74%)	12	(2,96%)	-2.52
Merovingian Latin	73	(1,95%)	107	(2,86%)	-3.27
Early Medieval Latin	152	(3,96%)	110	(2,86%)	+4.05

The question thus arises as to what explains the increasing use of this type of present participles in Late Latin. The most plausible answer lies in the increasing use of adjunct present participles with a relatively high degree of syntactic autonomy, *i.e.* being only loosely connected to their syntactically superordinate clause (for nominative absolute forms, see, e.g., Horn 1918: 54-59 and Biese 1828: 75; for nominative conjunct forms, see, e.g., Galdi & Vangaever 2019: 106). This hypothesis is supported by the fact that absolute and conjunct adjunct nominative present participles are two of the possible sources of the use of the present participle as finite verbs (for absolute forms, see Löfstedt 1911: 158-159; Biese 1928: 82; Cavallin 1934: 77; Eriksson 1939: 65-66; Eklund 1970: 168-171; for conjunct forms, see Eklund 1970: 162-167). Another factor that might have contributed to the increasing use of the present participle as a finite verb is the expanding narrative use of adjunct nominative present participle (see §5.2.1). Indeed, this type of participles often denote a state of affairs as important as (or sometimes even more important than) the state of affairs denoted by the finite main verb (*cf.* Van Acker 2004: 130-131).

The figures in Table 5.75 further suggest that, although they are not extremely frequent, present participles occur frequently enough as syntactically finite verbs for us to assume that at least some of these forms are deliberately used as such, contrary to what is claimed by Adams (1976: 60-65). *Veniens* ‘coming’ (95) might be a case in point.

5.4.3.2. Frequency and productivity in the three thematic domains

In the Late Latin corpus, the frequency of syntactically finite present participles is higher in the historical texts than in the religious and legal texts, both in (normalised) absolute terms and in proportion to the total number of present participles (Table 5.76). This result conflicts with Eklund’s (1970: 117-205) claim that this use of the present participle is characteristic of the language used in religious texts.

Table 5.763. Frequency of present participles used as finite verbs in the historical, the religious, and the legal texts in Late Latin

Thematic domain	#present participles used as finite verbs (per 10 000 words)		#present participles (per 10 000 words)		#present participles used as finite verbs/#present participles
Historical	85	(10.88)	1 849	(236.68)	4,60%
Religious	145	(5.85)	5 753	(232.20)	2,52%
Legal	24	(2.40)	1 183	(118.28)	2,02%

What is more, a chi-square goodness-of-fit test indicates that this difference between the historical texts, on the one hand, and the religious and legal texts, on the other, might not be accidental. Indeed, the proportion of the forms in issue is lower than expected in the religious and legal texts and higher than expected in the historical texts in a statistically highly significant way ($\chi 2 = 24.39$; df = 2; $p < 0.0001$) (Table 5.77).

Table 5.77. Observed *vs* expected proportion of present participles used as finite verbs to the total number of present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	85	(4,60%)	53	(2,87%)	+4.31
Religious	145	(2,52%)	166	(2,89%)	-1.65
Legal	24	(2,02%)	34	(2,87%)	-1.74

However, closer inspection shows that the high proportion of present participles used as finite verbs in the historical texts is mainly due to their relatively high frequency in two texts: Fredegar's *Chronica* and the anonymous *Liber Historiae Francorum.* These texts contain respectively 37 and 33 instances. Hence, the high proportion of this type of present participles in the historical texts might be an idiolectic feature of the authors of these texts rather a linguistic feature of the language used in historical texts in general.

As for those used in a presentative progressive construction, the present participles used as finite verbs are more or less equally productive in the three thematic domains (Table 5.78). The productivity of these forms has been measured in terms of their lexical variation.

Table 5.78. Productivity of the present participles used as finite verbs in the historical, religious, and legal texts in Late Latin

	Historical	Religious	Legal
#tokens	85	145	24
#types	51	115	17
#hapaxes	40	90	14
#types/#tokens	**0.60**	**0.79**	**0.71**
#hapaxes/#tokens	**0.47**	**0.62**	**0.58**

In other words, the difference in frequency of syntactically finite present participles in historical texts, on the one hand, and religious and legal texts, on the other, is not related to a difference in productivity. Syntactically finite present participles are thus more or less equally schematic (or lexically open) in the three thematic domains.

However, a closer look at the lexical variation of the present participles reveals that the historical and especially legal texts contain more lexemes with a relatively high frequency than the religious texts.

On the one hand, the five most frequent lexemes represent 39% of all present participles used as finite verbs in the historical texts and 54% in the legal texts, against only 14% in the religious texts. On the other hand, the most frequent lexemes in the historical and legal texts account for respectively 16% and 25% all syntactically finite present participles *versus* 5% in the religious texts (Table 5.79).

Table 5.79. Inventory and cumulative frequency of the five most frequent lexemes used for syntactically finite present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	Lexeme of present participle	Frequency (%)
Historical	*venire* 'to come'	14 (16,47%)
	mittere 'to send'	7 (8,24%)
	dirigere 'to direct'	5 (5,88%)
	dicere 'to say'	4 (4,71%)
	petere 'to ask for'	3 (3,53%)
		33 (38,82%)
Religious	*venire* 'to come'	7 (4,82%)
	postulare 'to ask for'	4 (2,76%)
	deprecari 'to beg'	4 (2,76%)
	referre 'to report'	3 (2,07%)
	respondere 'to answer'	3 (2,07%)[21]
		21 (14,48%)
Legal	*praecipere* 'to order'	6 (25,00%)
	venire 'to come'	2 (8,33%)
	optare 'to wish'	3 (8,33%)
	orare 'to pray'	1 (4,17%)
	facere 'to do'	1 (4,17%)[22]
		13 (54,17%)

The historical and religious texts share their most frequent lexeme, *viz. venire* 'to come' (95). The most frequent lexeme in the legal texts is *praecipire* 'to order' (96).

(96) ***Precipie-nt-es*** *enim ut [...].*
order-PTCP.PRS-NOM.M.PL for that
'For we order that (...).' (*Form. Marc.* 1.17)

5.4.3.3. Case marking of the present participle

In the Late Latin corpus, the overwhelming majority of the present participles functioning as finite verbs are marked in the nominative (95-96). This is in line with the possible sources of this use of the present

[21] The religious texts contain two more lexemes occurring three times.
[22] The remaining eleven forms used as finite verbs in the legal texts are hapaxes.

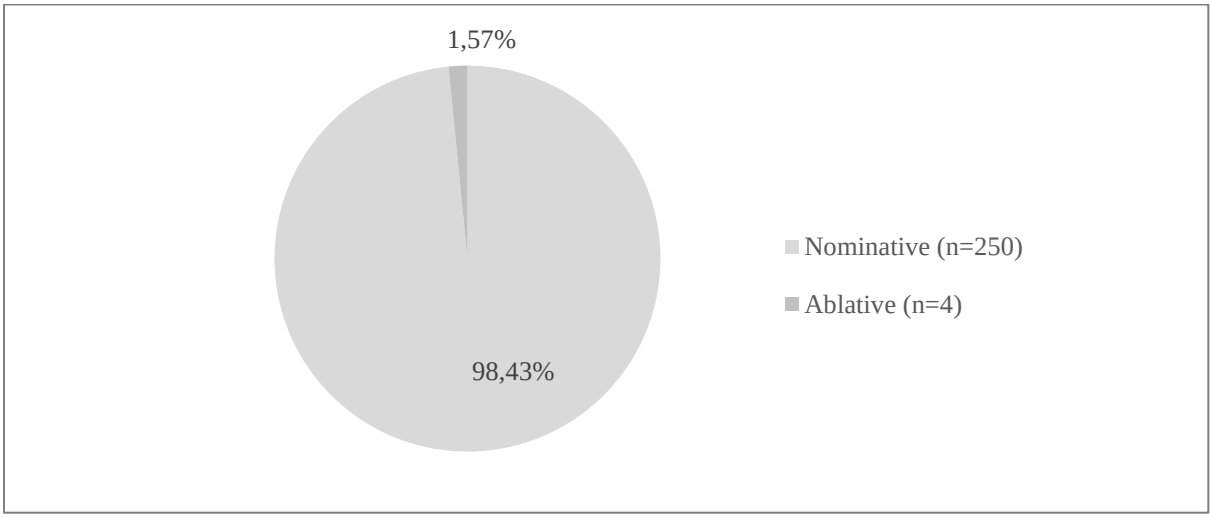
participle: as the main verb of a progressive construction, as the head of a nominative absolute adjunct, or as the head of a nominative conjunct adjunct (see §2.1.2.2.2.3.3). However, a few forms are marked in the ablative (e.g. *monente* ‘warning’ (97)).

(97) *Et apostolo* ***mone-nt-e:*** *“Quis nos separabit*
and apostle.ABL.M.SG warn-PTCP.PRS-ABL.M.SG INT.NOM.M.SG we.ACC.M.PL separate.FUT.3SG
a caritate Christi?”.
from charity.ABL.F.SG Christ.GEN.M.SG
‘And the apostle warned: “Who will isolate us from the charity of Christ?” (*Vit. Madelb.* 1.0.14)

The common view that the use of the present participle as a syntactically finite verb is undeliberate and often results from anacoluthon is particularly convincing for ablative forms like *monente* ‘warning’ (97). These forms are indeed much less often used in constituents that are claimed to be the at the basis of the syntactically finite use of the present participle.

The frequency of the nominative and ablative markings is presented in Figure 5.5.

Figure 5.5. Case marking of the present participles used as finite verbs in Late Latin



5.4.3.4. Conclusion

While there are no instances of syntactically finite present participles in the Classical Latin corpus, they are more frequent than those occurring in a progressive or presentative progressive construction in the Late Latin corpus. Though their – absolute as well as relative – frequency is still low in this period, it is high enough for us to assume that this use of the present participle is not always undeliberate. The forms in issue become more frequent in Late Latin and they are also more frequent in the historical texts than in the religious and legal texts. However, their higher frequency in the historical texts might be the result

of their high frequency in two particular texts: Fredegar's *Chronica* and the anonymous *Liber Historiae Francorum*. The productivity of this type of present participles does not significantly differ in the three thematic domains. The forms are mostly marked in the nominative, but a few instances are found marked in the ablative.

In the transition from Late Latin to Romance, present participles used as finite verbs are replaced by morphologically finite verbs. Given the mismatch between the morphologically non-finite form of the present participles and their syntactic use as finite verbs, this substitution is not surprising. It might be explained along the lines of Timberlake's (1977: 141) concept of 'actualisation': the process whereby the morphology of a linguistic item becomes aligned on its function. In our case, the non-finite form of the present participle becomes aligned on its syntactic use, giving rise to a morphologically finite verb exempt from the form-function mismatch just mentioned.

5.4.4. General conclusion

The preceding sections have investigated the frequency of present participles used in a progressive and presentative progressive construction and as syntactically finite verbs from Classical to Late Latin and within the period of Late Latin. The aim of this section is to collate the results obtained in these sections, in order to explore the evolution of the verbal present participle as a whole.

In Classical Latin, the present participle has only rarely verbal external syntax (2%). In Late Latin, this syntax occurs about three times as often (6%), although verbal present participles still represent a small portion of the total number of present participles (Table 5.80). In (normalised) absolute terms, the frequency of verbal present participles also rises relatively steeply, *i.e.* from 1 to 12 instances per 10 000 words.

Table 5.80. Frequency of verbal present participles in Classical and Late Latin

Period	**#verbal present participles (per 10 000 words)**		**#present participles (per 10 000 words)**		**#verbal present participles/ #present participles**
Classical Latin	39	(0.62)	1 786	(28.57)	2,18%
Late Latin	530	(12.44)	8 785	(206.27)	6,03%

According to a chi-square goodness-of-fit test, the increasing proportion of verbal present participles is probably not random. Indeed, this proportion is lower than expected in Classical Latin and higher than expected in Late Latin in a statistically highly significant way ($\chi 2 = 40.14$; df = 1; $p < 0.0001$) (Table 5.81).

Table 5.81. Observed *vs* expected proportion of verbal present participles to the total number of present participles in Classical and Late Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Classical Latin	39	(2,18%)	96	(5,38%)	-5.83
Late Latin	530	(6,03%)	473	(5,38%)	+2.63

As evident from the previous sections, this increase is mainly due to the rising frequency of syntactically present participles (the number of present participles used in a progressive construction is way too low to significantly contribute to this trend, and the number of present participles occurring in a presentative progressive construction rises too slightly and, in addition, in statistically insignificant way).

During the Late Latin period, the frequency of verbal present participles steadily increases, both in (normalised) absolute terms and in relation to the total number of present participles (Table 5.82).

Table 5.82. Frequency of verbal present participles in Imperial, Merovingian, and Early Medieval Latin

Period	#verbal present participles (per 10 000 words)		#present participles (per 10 000 words)		#verbal present participles/ #present participles
Imperial Latin	19	(6.33)	406	(135.32)	4,68%
Merovingian Latin	191	(10.19)	3 741	(199.57)	5,11%
Early Medieval Latin	267	(15.62)	3 840	(224.58)	6,95%

A chi-square goodness-of-fit test indicates that the proportion of verbal present participles is lower than expected in Imperial and Merovingian Latin and higher than expected in the Early Medieval Latin period in a statistically very significant way ($\chi 2 = 12.03$; df = 2; p = 0.0024) (Table 5.83). However, none of these periods makes a significant contribution to the obtained chi-square values on its own. Hence, the increasing proportion observed in Table 5.82 is probably random.

Table 5.83. Observed *vs* expected proportion of verbal present participles to the total number of present participles in Imperial, Merovingian, and Early Medieval Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	19	(4,68%)	24	(5,91%)	-1.07
Merovingian Latin	191	(5,11%)	223	(5,96%)	-2.17
Early Medieval Latin	267	(6,95%)	229	(5,96%)	+2.49

Put differently, the frequency of verbal present participles significantly increases from Classical to Late Latin, but remains relatively stable within the period of Late Latin.

Whereas the frequency of the verbal present participles in Late Latin does not show significant variation on the diachronic axis, it does show great variation in the three thematic domains. In particular,

the present participle has verbal external syntax more than twice as often in the historical and religious texts than in the legal texts (Table 5.84). The difference between the two groups of texts is also apparent in (normalised) absolute terms.

Table 5.84. Frequency of verbal present participles in the historical, religious, and legal texts in Late Latin

Thematic domain	#verbal present participles (per 10 000 words)		#present participles (per 10 000 words)		#verbal present participles/ #present participles
Historical	108	(13.82)	1 849	(236.68)	5,84%
Religious	394	(15.90)	5 753	(232.20)	6,85%
Legal	28	(2.80)	1 183	(118.28)	2,37%

A chi-square goodness-of-fit test suggests that these thematic differences might not be random. Indeed, the proportion of verbal present participles is lower than expected in the historical and legal texts and higher than expected in the religious texts in a statistically highly significant way ($\chi 2 = 32.81$; df = 2; $p < 0.0001$) (Table 5.85). However, the only significant contribution to the obtained chi-square values is made by the underrepresentation of verbal present participles in the legal texts.

Table 5.85. Observed *vs* expected proportion of verbal present participles to the total number of present participles in the historical, religious, and legal texts in Late Latin

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Imperial Latin	108	(5,84%)	112	(6,06%)	-0.34
Merovingian Latin	394	(6,85%)	347	(6,03%)	+2.52
Early Medieval Latin	28	(2,37%)	71	(6,00%)	-5.13

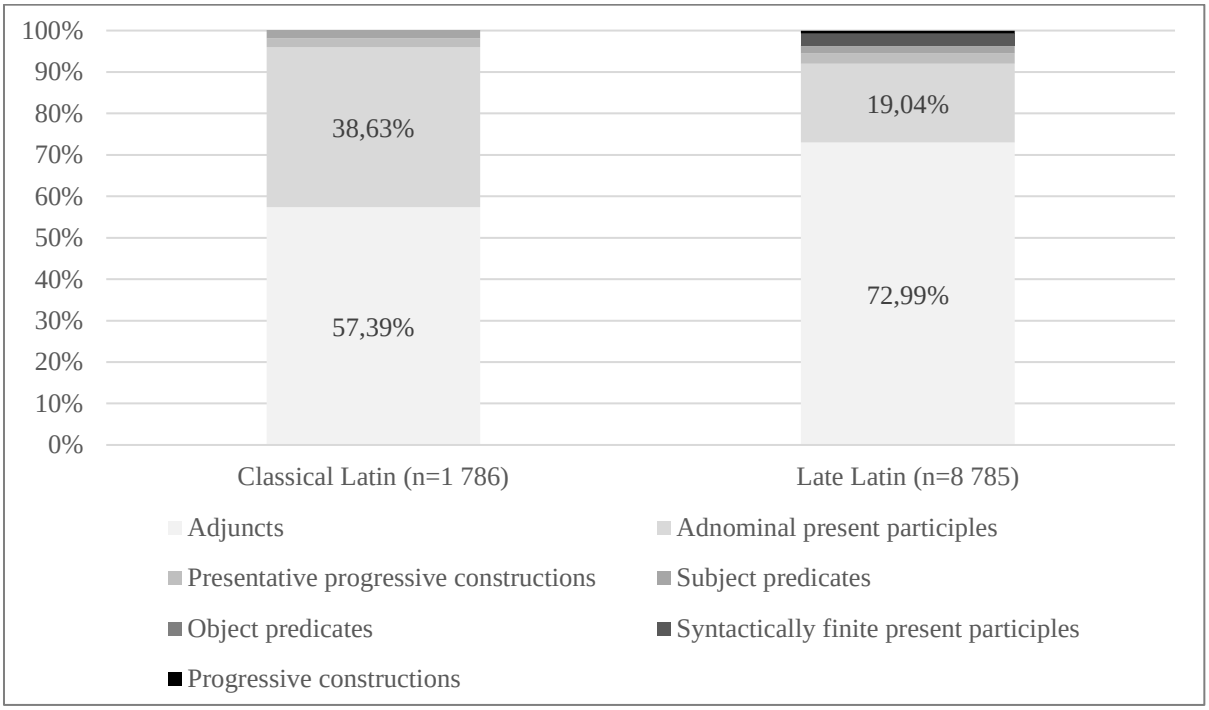
The conclusion arising from these figures is that the language used in legal texts greatly differs from its use in historical and religious texts, as already stated earlier. This difference between the legal texts and the historical and religious texts will be dealt with in more detail in the following section (§5.5).

5.5. External syntactic profile of the present participle

The preceding sections have explored the frequency of the different uses of the present participle from Classical to Late Latin and within the period of Late Latin. The aim of this section is to collate the results obtained in these sections, so as to examine the external syntactic profile of the present participle. Since the frequency of the different uses of the present participle has been discussed in detail in the previous sections, the figures presenting its external syntactic profile in the current section will be commented in a global way (as for the gerund in §4.5).

The external syntactic profile of the present participle is dominated by the same two uses in both Classical and Late Latin, namely in adjuncts and in adnominal phrases (Figure 5.6). Together, these uses represent no less than 96% of all present participles in Classical Latin and 92% in Late Latin. In both periods, the adjunct use of the present participle prevails over its adnominal use. Over time, it becomes even more dominant, contrary to what is predicted by the competition of the present participle with the gerund. The other uses of the present participle each account for less than 3% in the two periods, so that the impact of their frequency rise or decline on the external syntactic profile of the present participle is negligible. Globally speaking, the external syntax of the present participle is similar in the two periods, unlike what has been observed for the gerund (see §4.5). For practical reasons, the frequency of the uses smaller than 3% are not mentioned in Figure 5.6. For Classical Latin, these frequencies are: (i) 2,74% for subject predicate forms; (ii) 2,07% for instances used in a presentative progressive construction; (iii) 0,67% for object predicates present participles; (iv) 0,11% for forms used in a progressive construction; and 0% for syntactically finite present participles. For Late Latin, the frequencies amount to respectively 1,75%, 2,47%, 0,18%, 0,67%, and 2,89%.

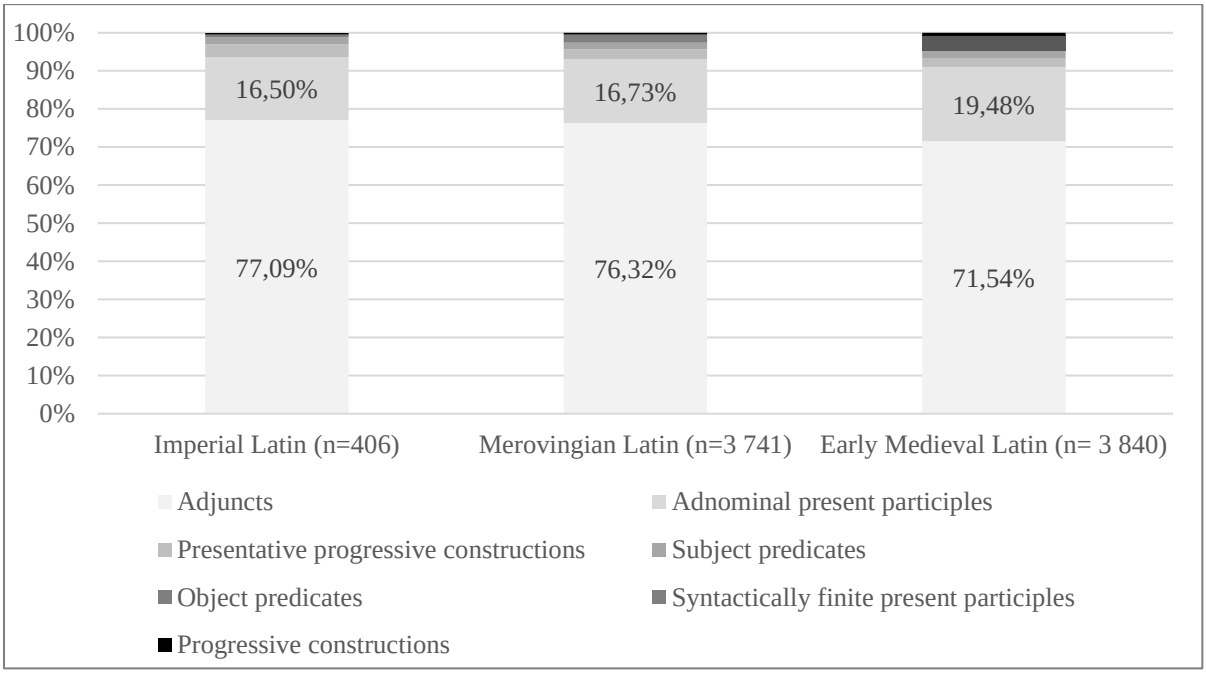
Figure 5.6. External syntactic profile of the present participle in Classical and Late Latin



Note that the two dominant uses of the present participle in Classical and Late Latin are the same as in the case of the gerund (see §4.5). Also, in the course of time, the adjunct use extends its dominance for both the present participle and the gerund. However, the frequency rise of the adjunct use is much more significant for the gerund (*i.e.* from 24% to 61%) than for the present participle (*i.e.* from 57% to 73%).

During the Late Latin period, the external syntactic profile of the present participle remains fairly stable (Figure 5.7) – as observed for the gerund (see §4.5). Indeed, its two dominant uses represent 94% of all present participles in Imperial Latin, 93% in Merovingian Latin, and 91% in Early Medieval Latin. Over time, the dominance of the adjunct use over the adnominal use is preserved, although the frequency difference between them grows smaller, from 61% in Imperial Latin to 52% in Early Medieval Latin. In Imperial Latin, the frequency of the other uses of the present participle, left unspecified in Figure 5.7, are: (i) 1,72% for subject predicates; (ii) 3,44% for presentative progressive constructions; (iii) 0% for object predicates; (iv) 0,49% for progressive constructions; and (v) 0,74% for syntactically finite forms. For Merovingian Latin, these percentages are respectively 1,66%, 2,64%, 0,19%, 0,51%, and 1,95%. For Early Medieval Latin, they amount to respectively 1,82%, 2,21%, 0,21%, 0,78%, and 3,96%.

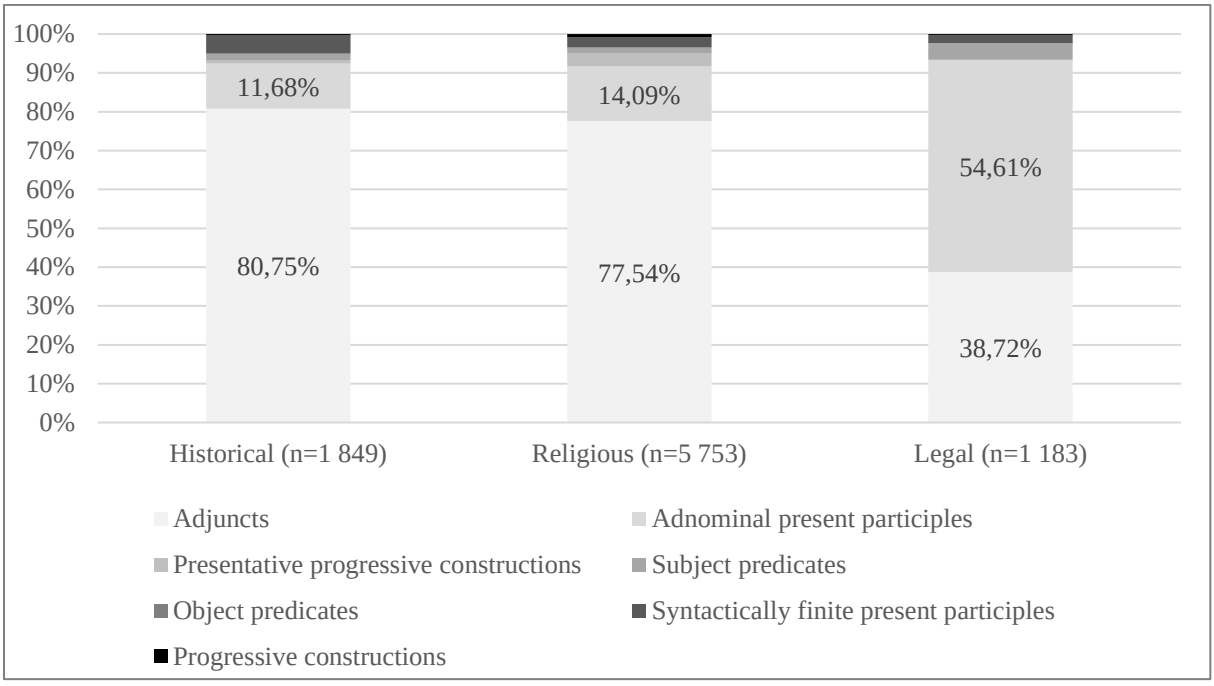
Figure 5.7. External syntactic profile of the present participle in Imperial, Merovingian, and Early Medieval Latin



While the external syntactic profile of the present participle in Late Latin does not show great variation from a diachronic point of view, it does show significant variation in the three thematic domains (Figure 5.8). As in the case of the gerund, the external syntactic profile of the present participle in the legal texts greatly differs from that in the historical and religious texts. Most strikingly, the present participle is predominantly adnominal in the legal texts, whereas in the historical and religious texts, it mostly occurs in adjuncts. However, the combined frequency of these two uses is similar in the three thematic domains, *viz.* 92% in the historical and religious texts and 93% in the legal texts. The percentages of the other uses of the present participle, *viz.* in subject predicates, in presentative progressive constructions, in object predicates, in progressive constructions, and as syntactically finite verbs are respectively 1,41%,

0,87%, 0,32%, 0,37%, and 4,60% for the historical texts; 1,36%, 3,48%, 0,16%, 0,85%, and 2,52% for the religious texts; and 4,23%, 0,08%, 0,08%, 0,25%, and 2,02% for the legal texts.

Figure 5.8. External syntactic profile of the present participle in the historical, religious, and legal texts in Late Latin



This result confirms the conclusion drawn earlier with respect to the gerund, namely that the language used in legal texts differs from that in historical and religious texts. As such, the same methodological insight can be drawn from these figures: at least for Late Latin, it is advisable not to rely exclusively on legal texts to study language change, and to evaluate results obtained from these texts separately from those form other types of texts. The atypical character of the use of the present participle in legal texts might be due to the specific stylistic features of these texts, as hypothesised with regard to the gerund (see §4.5). On the one hand, the archaic character of the juridical style might explain the dominance of adnominal instead of adjunct present participles, feature reminiscent of Classical Latin (see Figure 5.6). On the other hand, the formulaic character of the juridical style might account for the larger number of present participles with a low degree of productivity, observed in particular for this dominant group of adnominal present participles.

Like that of the gerund, the external syntactic profile of the present participle also varies with its case form. However, since the present participle is assigned case through agreement with a noun instead of on the basis of its function, this variation is less relevant. Hence, it will not be discussed (nor will it be in the following sections on the morphosyntactic and typological profiles of the present participle).

5.6. Morphosyntactic profile of the present participle

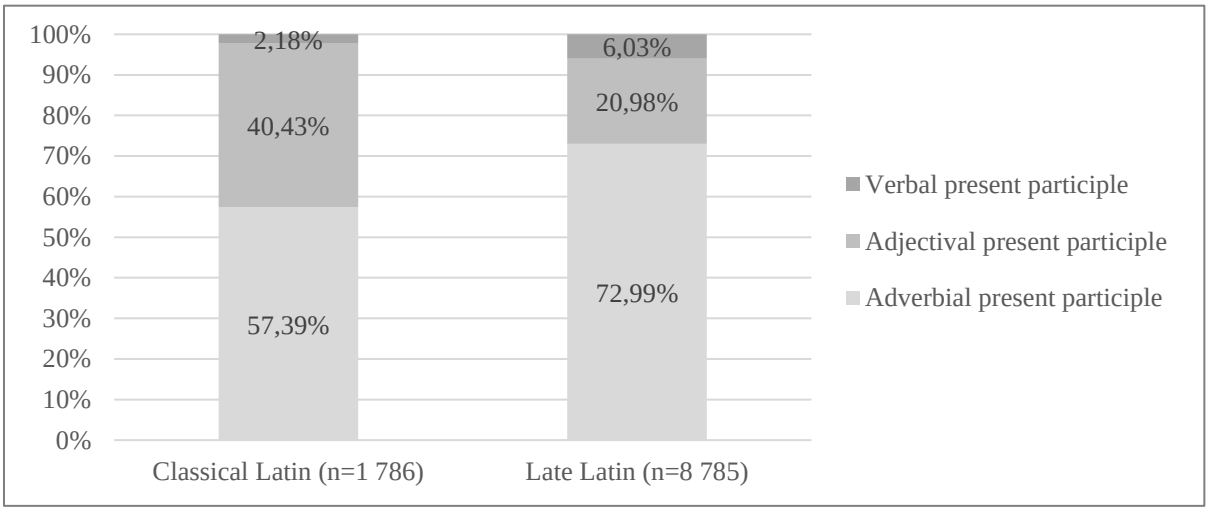
In this section, I will establish the morphosyntactic profile of the present participle, and investigate the evolution of this profile from Classical to Late Latin (§5.6.1) and within the period of Late Latin (§5.6.2). The morphosyntactic profile of the present participle in Late Latin will also be examined comparatively in the historical, religious, and legal texts (§4.6.3).

Remember that the morphosyntactic profile of the present participle is obtained by mapping its external syntactic profile on the morphosyntactic categories of Classical/Late Latin, while taking into account its specific morphological properties, which combine verbal and adjectival features (see §1.3.1). As mentioned in §1.3.3 and §2.1.1.3 and operationalised in §5.2 to §5.4, this mapping yields three types of present participles: (i) adverbial present participles, used in adjuncts; (ii) adjectival present participles, occurring in adnominal phrases, subject predicates, or object predicates; (iii) verbal present participles, used in progressive or presentative progressive constructions or functioning syntactically as finite verbs.

5.6.1. From Classical to Late Latin

There is no doubt that the morphosyntactic profile of the present participle changes from Classical to Late Latin. Nevertheless, the general tendency remains identical: the adverbial present participle prevails and followed first and foremost by the adjectival present participle (Figure 5.9). The verbal present participle is the least frequent.

Figure 5.9. Morphosyntactic profile of the present participle in Classical and in Late Latin



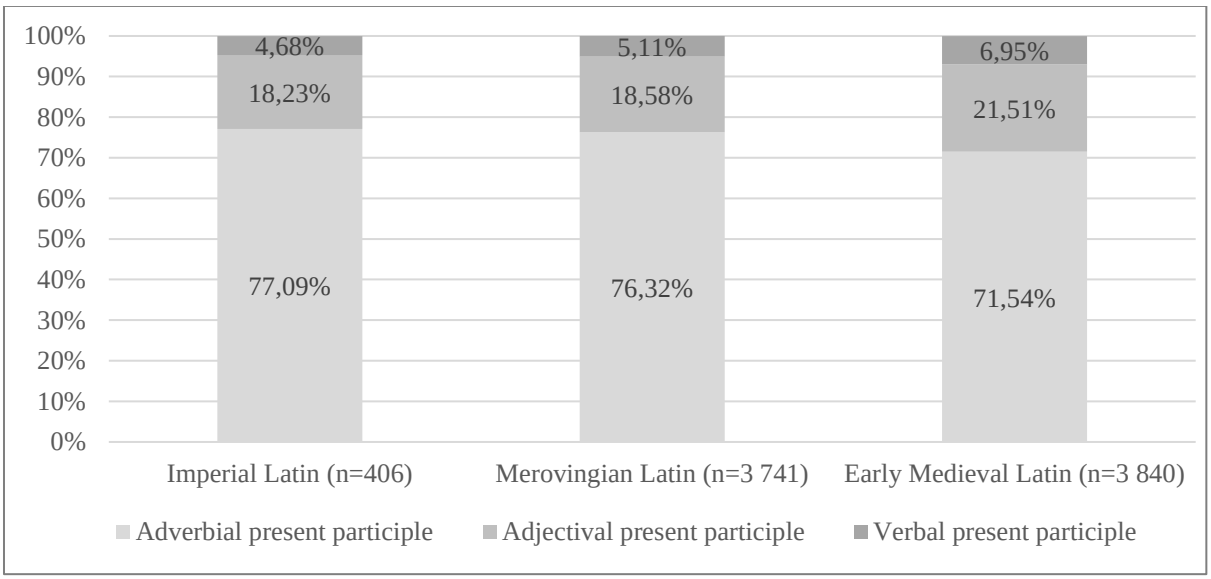
The increase of adverbial and verbal present participles and the decline of adjectival present participles are all three statistically highly significant, and therefore probably not random (see respectively §5.2.1,

§5.4.4, and §5.3.4). The increase of adverbial present participles and the decrease of adjectival present participles are at odds with what is predicted by the intensifying functional competition between the present participle and the gerund in Late Latin: the present participle is held to – indirectly – specialise in adjectival external syntax as the result of its gradual replacement by the gerund in adverbial external syntax. The data of this study show the opposite trend: we observe a further specialisation of the present participle in adverbial instead of adjectival external syntax (this specialisation is moreover direct, since the (normalised) absolute frequency of adverbial present participles sharply increases between Classical and Late Latin; see §5.2.1). This finding is in line with that obtained for the gerund in Chapter 4, *i.e.* that the gerund does not develop into a full-fledged substitute of the adverbial present participle, at least not in the texts of the Late Latin corpus of this study. Some factors explaining the unexpected rise of adverbial present participles between Classical and Late Latin have been discussed in §5.2.1.

5.6.2. Within the period of Late Latin

Within the period of Late Latin, the morphosyntactic profile of the present participle remains relatively stable, just like that of the gerund (see §4.6). The frequency of its adjectival and verbal uses increases, while its adverbial use declines (Figure 5.10), but none of these trends are statistically significant (see §5.2.2, §5.3.4, and §5.4.4). The conclusion to be drawn is that, from a morphosyntactic point of view, the use of the present participle is relatively homogeneous between Imperial and Early Medieval Latin.

Figure 5.10. Morphosyntactic profile of the present participle in Imperial, Merovingian, and Early Medieval Latin



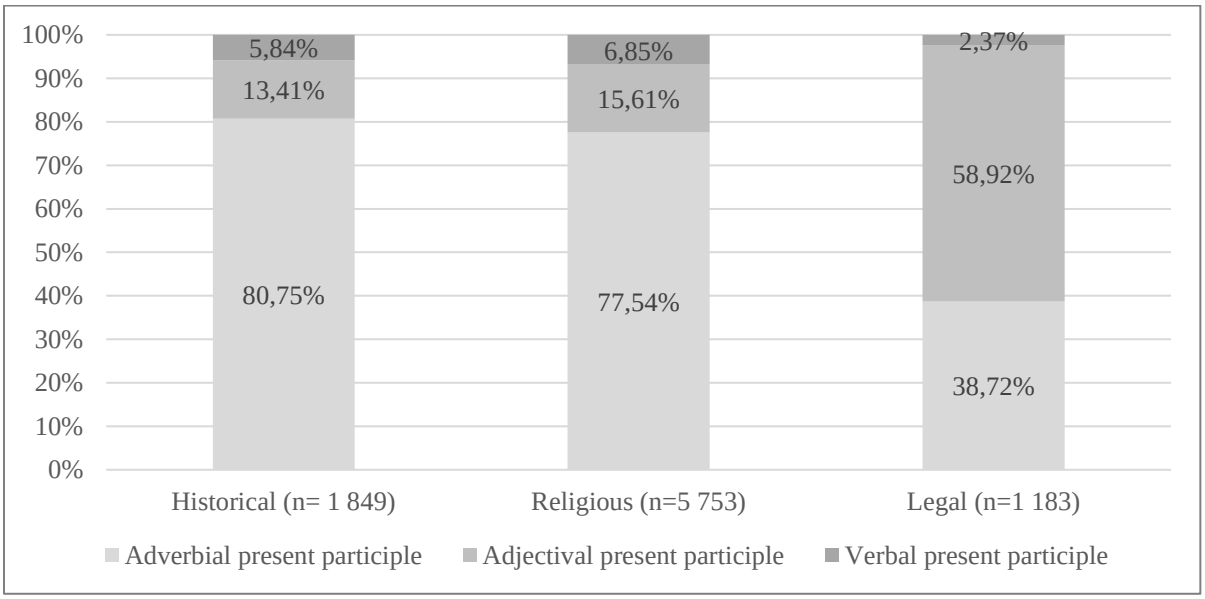
Thus, the data of this study neither show signs of a specialisation of the present participle in adjectival syntactic configurations during the Late Latin period. What is more, despite their declining frequency,

adverbial present participles still represent 72% of all present participles even in the latest period, *viz.* Early Medieval Latin. The adverbial use of the present participle having disappeared in the Romance languages, it appears again that there is a large gap between the use of the present participle in Late Latin, at least in the written records transmitted to us, and in Romance. This more general conclusion was also drawn in the case of the gerund (see §4.6.2).

5.6.3. Comparison between the thematic domains

Like its external syntactic profile, the morphosyntactic profile of the present participle in Late Latin shows great variation in the three thematic domains. Indeed, this profile is dominated by the adverbial present participle in the historical and religious texts, whereas in the legal texts, it is dominated by the adjectival present participle (Figure 5.11). However, the dominance of adverbial present participles in the historical and religious texts is much more pronounced than that of the adjectival present participles in the legal texts.

Figure 5.11. Morphosyntactic profile of the present participle in the historical, religious, and legal texts in Late Latin



These figures confirm the issue raised earlier with regard to the external syntactic profile of the present participle (and to the external syntactic and morphosyntactic profile of the gerund), namely that language used in legal texts significantly differs from that in historical and religious texts.

5.7. Typological profile of the present participle

The final step in describing the evolution of the present participle consists of establishing its typological profile. Recall that this profile is determined by mapping the morphosyntactic profile of the present

participles on Haspelmath's (1995: 4) typology of non-finite verbs, in which a three-type distinction is made between: (i) masdars (*i.e.* forms with nominal external syntax); (ii) participles (*i.e.* forms having adjectival external syntax); and (iii) converbs (*i.e.* forms with adverbial external syntax). The adverbial present participle is subsumed under the converb type, while the adjectival present participle falls under the participle type. Like the verbal gerund, the verbal present participle belongs to the converb type from a historical point of view, while from a synchronic perspective, it is not related to any of these types (see also §1.3.4). Hence, it will be left out in the following discussion.

In Classical Latin, the present participle predominantly falls under the converb type (57%). Its link with the participle type is weaker (40%), in contradiction with its language-specific label. In Late Latin, this trend is even more pronounced: the association of the present participle with the converb type is stronger (73%) and that with the participle type weaker (21%). Instead of undergoing a process of 'participialisation' between Classical and Late Latin, to be defined as the historical process in which a non-finite verb form specialises in the external syntax of an adjective, the present participle thus appears to undergo a process of converbalisation, like the gerund. However, unlike in the case of the gerund, the converbalisation process of the present participle ends within the period of Late Latin, because its link with the converb type slightly weakens between Imperial and Early Medieval Latin. Nonetheless, even in the latest stage, the present participle is much more strongly related to the converb type than to the participle type. This clearly illustrates the potentially misleading character of language-specific labels in comparative, typological, and possibly also diachronic research. Of course, this does not mean that the Late Latin present participle *is* a converb, just like the Classical Latin present participle *is* not a converb. The Late Latin present participle is nothing but the Late Latin present participle, that is to say, a language-specific category of non-finite verb forms with a unique set of morphological and syntactic properties and an equally unique morphosyntactic profile.

5.8. Conclusion

According to the standard hypothesis of the functional competition between the present participle and the gerund, the present participle undergoes in Late Latin a process of participialisation: it is claimed to be gradually substituted by the gerund in adverbial external syntax, and hereby forced to – indirectly – specialise in adjectival external syntax. The participialisation of the present participle is claimed to be part of a more general evolution, *i.e.* the restructuring of the paradigm of non-finite verb forms (Elcock 1960: 110-119; Harris 1978: 195-203; Bauer 1993: 59, 2005). This development is characterised by an increasing degree of isomorphism and morphosyntactic specialisation: roughly speaking, the infinitive specialises in nominal external syntax, the gerund in adverbial external syntax, and the present participle in adjectival external syntax.

However, the data of this study do not evidence a participialisation of the present participle: the adjectival present participle declines instead of rises between Classical and Late Latin, and increases within the period of Late Latin only in a slight and statistically insignificant way. Moreover, the decline of adjectival present participles between Classical and Late Latin, *i.e.* from 40% to 21%, is much more pronounced than their rise during the Late Latin period, *i.e.* from 18% in Imperial Latin to 22% in Early Medieval Latin. Finally, even in the latest period of Latin, more than seven out of ten present participles (72%) display adverbial rather than adjectival external syntax.

Since this study is the first to empirically investigate the external syntactic and morphosyntactic evolution of the present participle between Classical and Late Latin and within the period of Late Latin, its results have important implications for our understanding of the competition of the present participle with the gerund. However, the results of this and the previous chapter are even more important for the evolution of the gerund and the present participle from Late Latin to Old French, in particular for the categorial status of the Old French *-ant* form. Since there is no conclusive empirical evidence in favour of a specialisation of the Late Latin gerund in adverbial external syntax and of the Late Latin present participle in adjectival external syntax, it cannot be assumed that, in the transition from Late Latin to Old French, the present participle only survives in adjectival syntactic configurations. As a result, the categorial indeterminacy of the Old French *-ant* form, caused by the morphological merging of the gerund and the present participle, cannot be resolved on the basis of its external syntax – the adverbial forms qualifying as gerunds and the adjectival ones as present participles. This does not only challenge the distinction between the categories of the gerund and the present participle in Old French, but also threatens their very existence in this language (*cf.* Adams 2003: 749; De Smet 2014: 40).

However, as pointed out with respect to the gerund (see §4.8), the fact that the data of this study do not show a specialisation of the present participle in adjectival external syntax does not necessarily mean that this evolution does not take place. For instance, the corpus of Late Latin texts used in this study might not be sufficiently representative of the language used in the period investigated. Although the corpus elaborated within the context of the PaLaFra project and used as the Late Latin corpus of this study is large and varied in comparison with the existing Late Latin corpora, it is well known that, from a sociolinguistic point of view, there is a huge gap between written and spoken language (Herman 2006: 186). Given that language change typically emerges in the spoken language and reaches the written language at a later stage (Herman 2006: 186), it could be argued that the data of this dissertation do not faithfully reflect the ongoing changes in the spoken language.

The absence of spoken records of this period makes it impossible to verify this hypothesis, but the fact that the Romance languages have emerged from different spoken varieties of Late Latin could give us an important clue. If the present participle does participialise in spoken Late Latin, it is expected that there is a huge gap between the use of the present participle in written Late Latin and the first written

records of the Romance languages. This is undoubtedly the case for Romance languages like Spanish and Italian, in which the present participle survived as a morphologically distinct form from the gerund and can only have adjectival external syntax. However, the morphological merging of the gerund and the present participle in Old French makes that this scenario cannot merely be hypothesised for the Old French *-ant* form. For how can we be sure that Old French adverbial *-ant* forms go back to Late Latin gerunds if Late Latin present participles can just as well display adverbial external syntax (and have this syntax even more frequently)? Put differently, the morphological merging of the gerund and the present participle in Old French particularises their categorial distinction within the Romance family, and hence this matter cannot be handled in the same way as in other Romance languages. The way in which this topic should be dealt with will be expounded and operationalised in the next and final chapter of this thesis.

Chapter 6. The *-ant* form in Old French

6.1. Introduction

6.1.1. Aim of the chapter

In the transition from Late Latin to Old French, a series of morphological and phonetic evolutions affect the endings of the gerund and the present participle, and ultimately lead to the same form for the two types of non-finite verbs (Elcock 1960: 112; Ménard 1973: 170; Harris 1978: 200; Arnavielle 1984: 40; Buridant 2000: 237, 2019: 343; Wackernagel & Langlsow 2009: 352 fn. 15; De Smet 2014: 39-40; Bazin-Tacchella 2020: 852-853). This form is built on the present stem of a verb and contains the ending *-ant* (e.g. *dans-ant* 'dancing') – or at least tends to generalise this ending. Due to this morphological merging, the category of *-ant* forms can no longer be determined on the basis of morphological criteria (Bazin-Tacchella 2020: 852). However, two exceptions can be made from a retrospective historical approach, *i.e.* taking into account morphological criteria valid in Late Latin (*cf.* Arnavielle 1984: 38).

(i) In Late Latin, only the gerund can be governed by a preposition. Hence, all Old French prepositional *-ant* forms, like *en fuiant* 'when fleeing' (1), can in principle be taken as gerunds (Anglade 1958: 217; Ménard 1973: 173-175; Harris 1978: 199; Arnavielle 1984: 38-39; Jensen 1990: 322; De Smet 2014: 39).

(1) *Li* *leüns* *en* ***fui-ant*** / *Sa* *trace* *vait*
ART.DEF.SBJ.M.SG lion.SBJ.M.SG in flee-V.ANT his.OBL.F.SG track.OBL.F.SG go.PRS.3SG
cuvrant *[...]*.
cover.V.ANT
'The lion covers his track while fleeing.' (Ph. de Thaon *Bestiaire* 165-166)

(ii) Conversely, only the Late Latin present participle agrees with a noun in case, gender, and number. Hence, all Old French *-ant* forms with an inflectional variant of the ending *-ant*, such as *ardanz* 'burning' (2), can in theory be taken as present participles (*cf.* Bazin-Tacchella 2020: 852-853).[1]

[1] Recall from §2.2.1 that agreeing *-ant* forms are inflected on the model of the epicene adjectives of the type *grant* 'big', but that these adjectives and, incidentally, *-ant* forms are later aligned on the model of the non-epicene adjectives, like *dur* 'hard'. Hence, the inflectional ending of *-ant* forms shows some variation, as we will see in various examples cited in this chapter.

(2) *[...] S' el vient par aventure / U fus*
if she.SBJ.F.SG come.PRS.3SG by chance.OBL.F.SG where fire.SBJ.M.SG
ard-anz *serat [...].*
burn-V.ANT.SBJ.M.SG be.FUT.3SG
'If by chance it (a beast) comes where there will be a burning fire (...).' (Ph. de Thaon *Bestiaire* 1314-1315)

However, these morphological criteria only apply if we assume that the gerund and the present participle do not encroach on each other's morphology, neither in the transition from Late Latin to Old French nor during the Old French period itself. But, as pointed out by De Smet (2014: 40), empirical data testify of such encroachment. Witness *enhortanz* 'encouraging' (3): the fact that it is governed by the preposition *por* 'to' suggests that it should be taken as a gerund, while its morphological agreement with the subject *li apostoiles* 'the apostle' points to an analysis as a present participle.

(3) *[...] por les clers* ***enhort-anz*** *li*
to ART.DEF.OBL.M.PL clerk.OBL.M.PL encourage-V.ANT.OBL.M.PL ART.DEF.SBJ.M.SG
apostoiles i donat consentement
apostle.SBJ.M.SG to_it give.PST.3SG consent.OBL.M.SG
'The apostle gave his consent to it in order to encourage the clerks.' (*Dial. Greg.* 4)

Due to these conflicting features, *enhortanz* 'encouraging' (3) is to be taken as either an agreeing gerund or a prepositional present participle (*cf.* De Smet 2014: 40).[2] In the first scenario, it provides evidence in favour of morphological encroachment of the gerund on the present participle, while in the second one, it evidences morphological encroachment of the present participle on the gerund. In both scenarios, this and similar forms unambiguously show that morphological exchange takes place between the two types of non-finite verb forms in Old French. Consequently, the morphological criteria in (i-ii) are less reliable in categorising Old French -*ant* forms than has been suggested so far.

Since the category of -*ant* forms cannot be identified on the basis of morphological criteria, the only basis left to resolve their categorial indeterminacy is their syntactic use, approached again from a retrospective historical point of view: all forms are categorised depending on whether their syntactic use is reminiscent of the Late Latin gerund or present participle (*cf.* Arnavielle 1984: 38). As noted in §3.6.2, two opposite scenarios can be distinguished, and, depending on the scenario, two methods to investigate the categorial status of the Old French -*ant* form.

[2] Since the presence of a preposition is not a purely morphological criterion, but also a partly syntactic one, it should be given priority to the purely morphological agreement criterion. Hence, the status of *enhortanz* 'encouraging' (3) as an agreeing gerund is more likely than as a prepositional present participle. However, this issue is less relevant here. What matters more is that the forms concerned unambiguously show morphological encroachment between the gerund and the present participle.

(i) The first scenario presupposes that the Late Latin gerund and present participle specialise in distinct syntactic uses and survive in Old French with a different external syntactic profile. This scenario requires the validation of the standard hypothesis about the competition between the gerund and the present participle in Late Latin, namely of an evolution toward functional and morphosyntactic differentiation. Thus, it only holds if, in Late Latin: (i) the gerund shows signs of a converbalisation process and the present participle of a participialisation process; and (ii) the gerund also tends to substitute the present participle in progressive constructions. Would this scenario emerge from the empirical data, the categorial indeterminacy of the Old French *-ant* form could be resolved on purely functional grounds: the forms used in adjuncts and progressive constructions would qualify as gerunds, while those occurring in adnominal phrases, subject predicates, object predicates, and presentative progressive constructions would hold as present participles. All *-ant* forms could be categorised, without leaving any degree of categorial indeterminacy of the Old French *-ant* form. The existence of the gerund and the present participle in Old French as two distinct categories of non-finite verb forms would be undeniable.

(ii) In the second scenario, the presumed functional and morphosyntactic differentiation of the Late Latin gerund and present participle does not emerge from the empirical data. As such, the categorial indeterminacy of the Old French *-ant* form can be resolved for some, but not for all instances. Indeed, under the assumption that the gerund and the present participle do not encroach on each other's distribution in the transition from Late Latin to Old French nor within the period of Old French itself, all *-ant* forms used with a function inaccessible to the Late Latin gerund could be taken as present participles (the Old French *-ant* form does not perform any function inaccessible to the Late Latin present participle, and hence the opposite does not apply). This holds for all forms occurring in adnominal phrases, subject predicates, object predicates, and presentative progressive constructions. By contrast, the forms used in adjuncts and progressive constructions would be categorially indeterminate, because these functions are accessible to both the Late Latin gerund and present participle (*cf.* De Smet 2014: 39). Some of these indeterminate forms could nonetheless be categorised on the basis of the morphological criteria mentioned above, with the proviso that these criteria are not very reliable and that abstraction is made of the empirically observed morphological exchange between the gerund and the present participle. Most *-ant* forms would in any case remain indeterminate. These forms would challenge the categorial distinction between the gerund and the present participle in Old French, and, hence, the existence of these two categories in this language. The theoretical implications of this scenario would be paradigm-shifting, but in order to evaluate them appropriately, it would be necessary to determine the exact degree of categorial indeterminacy of the Old French *-ant* form. If this degree were low, the theoretical implications would be modest and the existence of the gerund and the present participle as two distinct categories could perhaps

be ‘saved’. If, on the contrary, it were high, the theoretical implications would be significant and threaten the very existence of the categories of the gerund and the present participle in Old French.

As apparent from the preceding discussion, all depends on the results of the empirical investigation of the Late Latin gerund and present participle conducted in Chapters 4 and 5. As we have seen there, these results show signs of a converbalisation of the Late Latin gerund. However, this evolution of the gerund is not a direct result of an expansion of the gerund at the expense of the present participle in adverbial external syntax, but rather the indirect result of its decline in nominal external syntax, where it is replaced by the infinitive. Secondly, the gerund does not substitute the present participle in progressive constructions. Finally, the present participle does not show any sign of a participialisation process. Thus, the scenario emerging from the Late Latin data is the second one, *viz.* that which does not allow a radical functional split between the gerund and the present participle. Consequently, the Old French -*ant* form is at least to some extent categorially indeterminate. The question that arises is how indeterminate this form is and what this degree of indeterminacy means for the categorial distinction between the gerund and the present participle.

The aim of this final chapter is to explore this question by empirically investigating the use of the -*ant* form in Old French.

6.1.2. Methodology

The degree of categorial indeterminacy of the Old French -*ant* form will be established by calculating the proportion of -*ant* forms that cannot be categorised as either gerunds or present participles on the basis of the syntactic and morphological criteria mentioned in the preceding section. Concretely, all prepositional forms will be taken as gerunds, while all agreeing forms and those performing a function inaccessible to the Late Latin gerund will be categorised as present participles (the Old French -*ant* form does not have any function inaccessible to the Late Latin present participle, so no forms can be taken as gerunds instead of present participles on the basis of syntactic criteria; see §6.1.1 above). The remaining forms are categorially indeterminate. These are the bare forms with the non-inflected ending -*ant* (or a phonetic or graphical variant) and a use accessible to both the Late Latin gerund and present participle.

The degree of categorial indeterminacy of the Old French -*ant* form will thus be calculated on the basis of its degree of categorial determinacy. The proportion of the categorially determinate forms will be calculated from a strict “retrospective historical approach” (*cf.* Aspland 1968: 151), *i.e.* assuming that the gerund and the present participle do not show morphological and/or distributional encroachment, neither in the transition from Late Latin to Old French, nor within the period of Old French itself. Such encroachment certainly took place (De Smet 2014: 40; see also §2.1.1), but the degree of morphological

and/or distributional exchange between the gerund and the present participle cannot be measured. One reason for this is the shift of the present participle toward morphological invariability. Indeed, for forms with the non-inflected ending *-ant* where an agreeing ending is expected, it is not clear whether they are (i) present participles encroaching on the morphology of the gerund, (ii) gerunds encroaching on the distribution of the present participle, or (iii) uninflected present participles (*cf.* De Smet 2014: 39-40). In any case, the existence of morphological and distributional encroachment between the gerund and the present participle will be taken into account in the evaluation of the degree of categorial indeterminacy of the Old French *-ant* form.

On the basis of this degree of categorial indeterminacy, I will assess the two hypotheses of the categorial distinction between the gerund and the present participle in Old French: the Splitter and the Lumper Hypothesis. Recall that the advocates of the Splitter Hypothesis argue that the gerund and the present participle exist in Old French as two distinct types of non-finite verb forms, just like in (Late) Latin (Gougenheim 1929; Anglade 1958: 215-217; Väänänen 1963³: 140-141; Ménard 1973: 169-175; Harris 1978: 199-201; Arnavielle 1982, 1984: 38, 1997; Jensen 1990: 322-334; Buridant 2000: 324-327, 2019: 461-469), while the proponents of the Lumper Hypothesis defend the view that the morphological merging of the gerund and the present participle in Old French suspends their categorial distinction and causes the two types of non-finite verb forms to merge also on a categorial level (Adams 2003: 749; De Smet 2014: 40).

In addition to its categorial status, I will examine the frequency of the various uses of the *-ant* form within the period of Old French, *i.e.* between Early Old French (9th-11th c.) and the 12th-13th c. As in the case of the Late Latin gerund and present participle in Chapters 4 and 5, the frequency of these uses will be further investigated in the light of their frequency and productivity in the different thematic domains. A comparison will also be made between versified texts and texts in prose, but only at the end of this chapter, when discussing the external syntactic and morphosyntactic profile of the Old French *-ant* form. All absolute frequencies will be normalised and all proportions will be statistically evaluated by means of chi-square goodness-of-fit tests, so as to distinguish random trends from those reflecting ongoing linguistic changes (*cf.* Gries 2013: 28; Levshina 2015: 221).

The results of this chapter are based on the 2 153 *-ant* forms occurring in the Old French corpus. The forms that cannot be unambiguously assigned to either Early Old French or the 12th-13th c. will be discarded from the quantitative analyses pertaining to their evolution during the Old French period, but retained in all other analyses. This holds for 131 instances used in the *Chanson de Roland*. As noted in §3.3.2, this is the only text on the verge between the two periods of Old French. The evolution of the *-ant* form in Old French will thus be based on 2 022 instances. These occurrences represent 94% of all Old French instances, and hence the results emerging from them are representative of the Old French corpus in general. The results for Early Old French and the 12th-13th c. will be systematically compared with

those obtained for the *Chanson de Roland*. At the end of this chapter, these findings will be collated, so as to determine whether the language used in this text is closer to that in the earlier or the later period.

Of the 2 022 periodisable -*ant* forms, 33 belong to the Early Old French period and 1 989 to the 12th-13th c. (*i.e.* respectively 2% and 98%). The extremely low number of instances in Early Old French obliges to consider all quantitative results obtained for this period with caution, despite the fact that all absolute frequencies will be normalised.

It should furthermore be reiterated that, like the Latin present participle, the Old French -*ant* form has been defined in a very broad sense, comprising any non-finite verb form with the ending -*ant* (or a phonetic/graphical/inflectional variant) and built on a verb "used in the language current at the time when the text in question was written" (Eklund 1970: 12). It may be formed regularly or irregularly, but needs to have either the same meaning as its corresponding finite verb or one that can be derived from it through deactualisation and/or contextual recategorisation (see §3.4.1.2.4). I will take the broadness of this definition into account in the evaluation of all quantitative results, but especially of those of the adjectival -*ant* form.

In contrast with the study of the Late Latin gerund and present participle, the analysis of the Old French -*ant* form will not consider its case marking. In the transition from Late Latin to Old French, the gerund acquires the invariable ending -*ant*, and is therefore neither subject nor oblique case. The present participle tends to generalise this same ending, and hence it also gradually falls outside the case system (which is in any case collapsing, especially in Anglo-Norman). Because of these developments and of the morphological merging of the gerund and the present participle, case marking becomes an irrelevant issue for the Old French -*ant* form – or at least irrelevant in this study.

6.1.3. Structure of the chapter

The examination of the Old French -*ant* form will be structured on the basis of its syntactic use. First, I will investigate the forms with adjectival external syntax (§6.2), then those displaying adverbial external syntax (§6.3), and finally those with verbal external syntax (§6.4). The results obtained in these sections will be collated in §6.5, so as to establish the external syntactic profile of the Old French -*ant* form. On the basis of this profile, I will then determine its morphosyntactic (§6.6) and typological (§6.7) profile. The degree of categorial determinacy of the -*ant* form will be measured for each of its uses separately throughout §6.2 to §6.4, and for the -*ant* form in general in §6.8. Section 6.9 aims to evaluate the degree of categorial indeterminacy of the Old French -*ant* form, in order to state a standpoint with regard to the Splitter and Lumper Hypothesis of the categorial distinction between the gerund and the present participle. A conclusion will be drawn in §6.10.

6.2. The adjectival -*ant* form

The -*ant* form can occur in three types of adjectival syntactic configurations, namely adnominal phrases (e.g. *curant* 'running' (4)), subject predicates (e.g. *bruianz* 'making noise' (5)), and object predicates (e.g. *querant* 'seeking' (6)).

(4) *En Rencesvals ad un' ewe* ***cur-ant*** *[…].*
in Roncevaux have.PRS.3SG ART.INDF.OBL.F.SG water.OBL.F.SG run-V.ANT
'In Roncevaux there is a running water (stream).' (*Roland* 2225)

(5) *[...] l' eve estoit roide et* ***brui-anz****.*
ART.DEF.SBJ.F.SG water.SBJ.F.SG be.PST.3SG swift.SBJ.F.SG and make_noise.V.ANT.SBJ.F.SG
'The water was swift and noisy.' (Chr. de Troyes *Yvain* 3083)

(6) *[...] Tost le fait pain* ***quer-ant*** *[...].*
soon he.OBJ.M.SG make.PRS.3SG bread.OBL.M.SG seek-V.ANT
'He soon impoverishes him (lit. 'makes him poor/bread-seeking').' (Ph. de Thaon *Bestiaire* 1012)

This section will examine successively the -*ant* forms in adnominal phrases (§6.1.1), subject predicates (§6.1.2), and object predicates (§6.1.3). Section 6.1.4 will collate these results, so as to draw conclusions for the adjectival -*ant* form in general.

In Late Latin, only the present participle can have adjectival external syntax. Hence, all adjectival -*ant* forms can in principle be categorised as present participles. For this reason, the contribution of the adnominal, subject predicate, and object predicate forms to the degree of categorial determinacy of the Old French -*ant* form will not be measured for each type of forms separately, but only for the adjectival forms in general (§6.1.4).

6.2.1. Adnominal -*ant* forms

I will explore first the frequency of adnominal -*ant* forms in the Old French corpus in general (§6.2.1.1), and then their frequency and productivity in the different thematic domains (§6.2.1.2).

6.2.1.1. Frequency

In the Old French corpus as a whole, adnominal -*ant* forms are not very frequent. Indeed, their absolute frequency amounts to only 6.17 instances per 10 000 words. This frequency is higher in the 12th-13th c. than in Early Old French, but the difference between the two periods is too small to be significant (Table 6.1). In relative terms, adnominal -*ant* forms represent almost a quarter of all -*ant* forms in the

Old French corpus (24% or 521 instances out of 2 153). This proportion is lower in Early Old French, but given the low absolute number of instances in this period, no firm conclusions can be drawn.

Table 6.1. Frequency of adnominal *-ant* forms in Early Old French and the 12th-13th c.

Period	**#adnominal *-ant* forms (per 10 000 words)**		**#*-ant* forms (per 10 000 words)**		**#adnominal *-ant* forms/ #*-ant* forms**
Early Old French	5	(5.58)	33	(36.84)	15,15%
12th-13th c.	475	(5.88)	1 989	(24.63)	23,88%

The *Chanson de Roland* comprises 41 adnominal *-ant* forms. This equals 14.92 occurrences per 10 000 words and 31% of all *-ant* forms in this text (n=131). The *Chanson de Roland* behaves in this respect more like 12th-13th c. texts than as Early Old French texts.

According to a chi-square goodness-of-fit test, the increasing proportion of adnominal *-ant* forms is probably random: this proportion is lower than expected in Early Old French and higher than expected in the 12th-13th c. in a statistically insignificant way ($\chi 2 = 0.71$; df = 1; p = 0.3994) (Table 6.2).

Table 6.2. Observed *vs* expected proportion of adnominal *-ant* forms to the total number of *-ant* forms in Early Old French and the 12th-13th c.

Period	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Early Old French	5	(15,15%)	8	(24,24%)	-1.01
12th-13th c.	475	(23,88%)	472	(23,73%)	+0.13

Within the period of Old French, the *-ant* form thus does not specialise in its adnominal use, contrary to what the figures in Table 6.1 might suggest.

6.2.1.2. Frequency and productivity in the five thematic domains

The frequency of adnominal *-ant* forms is highest in the didactical texts, both in (normalised) absolute terms and in relation to the total number of *-ant* forms (Table 6.3). The difference with the other thematic domains is larger in absolute terms than in relative terms. The (normalised) absolute frequency of this type of *-ant* forms is lowest in the legal texts, while their proportion to the total number of *-ant* forms is lowest in the historical texts.

Table 6.3. Frequency of adnominal *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**#adnominal *-ant* forms (per 10 000 words)**		**#*-ant* forms (per 10 000 words)**		**#adnominal *-ant* forms/ #*-ant* forms**
Historical	22	(4.51)	122	(25.04)	18,03%
Religious	128	(4.51)	573	(20.21)	22,34%
Literary	192	(7.14)	779	(29.00)	24,65%
Didactical	114	(12.70)	388	(43.22)	29,38%
Legal	65	(4.24)	291	(19.00)	22,34%

A chi-square goodness-of-fit test shows that the share of adnominal forms is higher than expected in the literary and didactical texts and lower than expected in the historical, religious, and legal texts. However, the differences between these five thematic domains are statistically insignificant ($\chi 2 = 7.52$; df = 4; p = 0.1108) (Table 6.4). Hence, they are most likely random.

Table 6.4. Observed *vs* expected proportion of adnominal *-ant* forms to the total number of *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Historical	22	(18,03%)	30	(24,59%)	-1.38
Religious	128	(22,34%)	139	(24,26%)	-0.91
Literary	192	(24,65%)	189	(24,26%)	+0.25
Didactical	114	(29,38%)	94	(24,23%)	+2.08
Legal	65	(22,34%)	70	(24,05%)	-0.65

The adnominal *-ant* form is thus not particularly frequent in legal texts, contrary to its present participle counterpart in Late Latin (see §5.3.1.3). Another difference with this Late Latin form involves its degree of productivity, measured in terms of the lexical variation between the *-ant* form and the governing noun on the basis of the type-token and hapax-token ratios (see §3.6.3.2). Table 6.5 shows that the adnominal *-ant* form is most productive in the religious texts and least productive in the literary texts, while having a similar degree of productivity in the historical, didactical, and legal texts.

Table 6.5. Productivity of the adnominal *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	22	128	192	114	65
#types	17	110	110	87	50
#hapaxes	14	99	79	71	40
#types/#tokens	**0.77**	**0.86**	**0.57**	**0.76**	**0.77**
#hapaxes/#tokens	**0.64**	**0.77**	**0.41**	**0.62**	**0.62**

However, the differences between the five textual domains are not enormous. Considering also the low absolute number of instances in the legal and especially historical texts, the figures in Table 6.5 therefore indicate that the use of adnominal *-ant* forms does not show significant thematic variation in terms of productivity. This result conflicts with that obtained for the adnominal present participle in Late Latin, which is much less productive in legal texts than in historical and religious texts (see §5.3.1.3).

A similar conclusion can be drawn from the study of the five most frequent lexical combinations of a noun and an adnominal *-ant* form. The cumulative frequency of these combinations ranges between 13% and 25% in the religious, literary, didactical, and legal texts, the highest frequency being observed in the literary texts and the lowest one in the religious texts. This percentage is considerably higher in the historical texts, *i.e.* 45%. However, the low absolute number of forms in these texts (n=22) makes that this result is probably hazardous (Table 6.6).

Table 6.6. Inventory and cumulative frequency of the five most frequent lexical combinations of a noun and an adnominal *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Lexeme of noun**	**Lexeme of *-ant* form**	**Frequency (%)**
Historical	*chevalier* ‘knight’	*valoir* ‘to be worthy’	4 (18,18%)
	gent ‘people’	*aider* ‘to help’	2 (9,09%)
	père ‘father’	*valoir* ‘to be worthy’	2 (9,09%)
	cheval ‘horse’	*courir* ‘to run’	1 (4,55%)
	étoile ‘star’	*luire* ‘to shine’	1 (4,55%)[3]
			10 (45,45%)
Religious	*feu* ‘fire’	*ardre* ‘to burn’	6 (4,69%)
	compagnie ‘company’	*valoir* ‘to be worthy’	4 (3,13%)
	four ‘oven’	*ardre* ‘to burn’	3 (2,34%)
	gent ‘people’	*mécroire* ‘to distrust’	2 (1,56%)
	vent ‘wind’	*porter* ‘to carry‘	2 (1,56%)[4]
			17 (13,28%)
Literary	*épée* ‘sword’	*trancher* ‘to cut’	18 (9,38%)
	chevalier ‘knight’	*errer* ‘to wander’	12 (6,25%)
	cheval ‘horse’	*courir* ‘to run’	7 (3,65%)
	chevalier ‘knight’	*valoir* ‘to be worthy’	7 (3,65%)
	destrier ‘war horse’	*courir* ‘to run’	4 (2,08%)[5]
			48 (25,00%)

[3] The remaining 55% of lexical combinations in the historical texts are represented by 12 more hapaxes.
[4] There are six more lexical combinations occurring twice in the religious texts.
[5] The literary texts contain four more lexical combinations with a token frequency of 4.

Didactical	*feu* ‘fire’	*ardre* ‘to burn’	6	(5,26%)
	homme ‘man’	*valoir* ‘to be worth’	5	(4,39%)
	homme ‘man’	*vivre* ‘to live’	4	(3,51%)
	soleil ‘sun’	*lever* ‘to rise’	3	(2,63%)
	homme ‘man’	*pouvoir* ‘to be able to’	3	(2,63%)
			21	**(18,42%)**
Legal	*procureur* ‘prosecutor’	*suffire* ‘to suffice’	5	(7,69%)
	soleil ‘sun’	*esconser* ‘to set’	3	(4,62%)
	homme ‘man’	*suffire* ‘to suffice’	3	(4,62%)
	homme ‘man’	*valoir* ‘to be worthy’	2	(3,08%)
	salaire ‘salary’	*suffire* ‘to suffice’	2	(3,08%)[6]
			15	**(23,08%)**

Moreover, except for the historical texts, the different types of texts do not greatly differ with respect to the proportion represented by the most frequent combination: this proportion is 5% in the religious and didactical texts, 8% in the legal texts, and 9% in the literary texts. The most frequent combination in this latter type of texts is *épée* ‘sword’/*trancher* ‘to cut’ (7).

(7) *Li* *cuens* *Amis* *tint* *l'* *espee*
ART.DEF.SBJ.M.SG count.SBJ.M.SG Amis hold.PST.3SG ART.DEF.OBL.F.SG sword.OBL.F.SG
tranch-ant *[...].*
cut-V.ANT
‘Count Amis held the sharp sword.’ (*Ami* 1563)

Table 6.7 focuses on the lexical variation of the -*ant* forms individually. This variation is similar in the religious, literary, didactical, and legal texts. It is lowest in the literary texts, but the difference with the religious, didactical, and legal texts is too small to be significant. The historical texts present the highest variation, but the low absolute number of datapoints in these texts makes it again impossible to draw a firm conclusion.

Table 6.7. Lexical variation of the adnominal -*ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	22	128	192	114	65
#types	13	43	49	44	23
#hapaxes	10	27	25	26	14
#types/#tokens	**0.59**	**0.34**	**0.26**	**0.39**	**0.35**
#hapaxes/#tokens	**0.45**	**0.21**	**0.13**	**0.23**	**0.22**

[6] There are five more lexical combinations occurring twice in the legal texts.

The cumulative frequency of the five most frequent lexemes gives an analogous result: it is higher in the historical, religious, and legal texts than in the literary and didactical texts, but even the difference between the highest and the lowest fraction is too small to be significant (65% in the legal texts *vs* 44% in the didactical texts) (Table 6.8). A globally similar picture emerges from the frequency of the most frequent lexeme alone (although the religious texts (20%) pattern here with the literary (14%) and didactical (15%) texts rather than with the historical (36%) and legal texts (37%)).

Table 6.8. Inventory and cumulative frequency of the five most frequent lexemes used for adnominal *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Lexeme of *-ant* form**	**Frequency (%)**
Historical	*valoir* 'to be worthy'	8 (36,36%)
	aider 'to help'	2 (9,09%)
	priser 'to take'	2 (9,09%)
	courir 'to run'	1 (4,55%)
	luire 'to shine'	1 (4,55%)[7]
		14 (63,64%)
Religious	*ardre* 'to burn'	26 (20,31%)
	valoir 'to be worthy'	19 (14,84%)
	pouvoir 'to be able to'	12 (9,38%)
	luire 'to shine'	9 (7,03%)
	peser 'to weigh'	6 (4,69%)
		72 (56,25%)
Literary	*trancher* 'to cut'	26 (13,54%)
	valoir 'to be worthy'	23 (11,98%)
	courir 'to run'	15 (7,81%)
	errer 'to wander'	14 (7,29%)
	pouvoir 'to be able to'	13 (6,77%)
		91 (47,40%)
Didactical	*valoir* 'to be worthy'	17 (14,91%)
	ardre 'to burn'	10 (8,77%)
	pouvoir 'to be able to'	9 (7,89%)
	plaire 'to please'	7 (6,14%)
	vivre 'to live'	7 (6,14%)
		50 (43,86%)

[7] The remaining 36% in the historical texts are represented by 8 more hapaxes.

Legal	*suffire* ‘to suffice’	24	(36,92%)
	valoir ‘to be worthy’	7	(10,77%)
	vivre ‘to live’	5	(7,69%)
	esconser ‘to set’	3	(4,62%)
	lever ‘to rise’	3	(4,62%)[8]
		42	**(64,62%)**

As shown by Table 6.8, the historical and legal texts are the only text types in which the most frequent lexeme accounts for more than a third of all adnominal -*ant* forms. These lexemes are respectively *valoir* ‘to be worthy’ (8) and *suffire* ‘to suffice’ (9).

(8) *[...] Er, le fiz Ydder, i fud morz /*
Er ART.DEF.SBJ.M.SG son.SBJ.M.SG Ider there be.PST.3SG dead.SBJ.M.SG
Uns chevaliers ***vaill-anz*** *e forz [...].*
ART.INDF.SBJ.M.SG knight.SBJ.M.SG be_worthy-V.ANT.SBJ.M.SG and strong.SBJ.M.SG
‘Er, Ider's son, died there, a strong and brave knight.’ (Wace *Brut* 12183-12184)

(9) *[...] doivent avoir salaire* ***soufis-ant*** *[...].*
must.PRS.3PL have.INF.PRS salary.OBL.M.SG suffice-V.ANT
‘They must have a sufficient salary.’ (Ph. de Beau. *Coutumes* 158)

The lexical variation of the nouns governing an -*ant* form yields an equivalent result. It is lowest in the literary texts and highest in the religious texts (Table 6.9). It is similar in the three other textual domains. However, the differences between the five thematic domains are too small to be of significance.

Table 6.9. Lexical variation of the nouns governing an -*ant* form in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	22	128	192	114	65
#types	13	92	86	70	40
#hapaxes	8	72	57	49	29
#types/#tokens	**0.59**	**0.72**	**0.45**	**0.61**	**0.62**
#hapaxes/#tokens	**0.36**	**0.56**	**0.30**	**0.43**	**0.45**

The cumulative frequency of the five most frequent lexemes is again higher in the historical texts than in the other types of texts (Table 6.10), but this difference is again probably hazardous. The differences between the other text types are higher than in the case of the lexical variation of the nouns in general, but still not high enough to be significant.

[8] There is one more lexeme occurring three times in the legal texts.

Table 6.10. Inventory and cumulative frequency of the five most frequent lexemes used for the nouns governing an *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	Lexeme of noun	Frequency (%)
Historical	*chevalier* 'knight'	4 (18,18%)
	gent 'people'	3 (13,64%)
	homme 'man'	3 (13,64%)
	père 'father'	2 (9,09%)
	fils 'son'	2 (9,09%)
		14 (63,64%)
Religious	*feu* 'fire'	7 (5,46%)
	homme 'man'	6 (4,69%)
	gens 'people'	4 (3,13%)
	compagnie 'company'	4 (3,13%)
	dame 'lady'	4 (3,13%)
		25 (19,53%)
Literary	*chevalier* 'knight'	24 (12,50%)
	épée 'sword'	21 (10,94%)
	cheval 'horse'	11 (5,73%)
	homme 'man'	6 (3,13%)
	roi 'king'	5 (2,60%)[9]
		67 (34,90%)
Didactical	*homme* 'man'	14 (12,28%)
	feu 'fire'	6 (5,26%)
	femme 'woman'	5 (4,39%)
	bête 'animal'	4 (3,51%)
	soleil 'sun'	3 (2,63%)[10]
		32 (28,07%)
Legal	*homme* 'man'	7 (10,77%)
	procureur 'prosecutor'	5 (7,69%)
	soleil 'sun'	5 (7,69%)
	hôte 'host'	4 (6,15%)
	chose 'thing'	3 (4,62%)
		24 (36,92%)

The historical texts share their most frequent lexeme with the literary texts, *viz. chevalier* 'knight' (8).

[9] There are two more lexemes with a token frequency of 5 in the literary texts.
[10] The didactical texts contain one more lexeme occurring thrice.

6.2.1.3. Conclusion

Adnominal -*ant* forms represent 24% of all -*ant* forms in the Old French corpus. This proportion is lower in Early Old French than in the 12th-13th c., but the difference between these two periods is statistically insignificant. Hence, the -*ant* form does not specialise in this use during the Old French period. The frequency and productivity of these forms does not show significant thematic variation.

6.2.2. Subject predicate -*ant* forms

The -*ant* form can also occur in subject predicates. For instance, *mordant* 'biting' (10) is the predicate of the relative pronoun *qui* 'which'. The antecedent of this pronoun is *moz* 'words', whose inanimate character causes the meaning of *mordant* to shift from 'biting' to 'offensive'. This property is predicated of the subject by means of the copular verb *samblent* 'they seem.

(10) *[...] se moz i trouvez ja mis qui*
if word.OBL.M.PL PRO.LOC find.PRS.2PL ever put.PTCP.PST.OBL.M.PL REL.SBJ.M.PL
samblent ***mord-ant*** *[...].*
seem.PRS.3PL bite-V.ANT
'If you ever find here some words written here that seem offensive (lit. 'biting') (...).' (J. de Meun *Rose* 15168-15169)

This section will examine first the frequency of subject predicate -*ant* forms in general (§6.2.2.1), and then their frequency and productivity in the five thematic domains (§6.2.2.2). In this latter section, I will also explore the inventory of the copular verbs (or the verbs used as such).

6.2.2.1. Frequency

Subject predicate -*ant* forms are less frequent than adnominal forms. Their absolute frequency amounts to 4.56 instances per 10 000 words in the Old French corpus as a whole. This frequency is lower in Early Old French, but the difference with the 12th-13th c. is not enormous (Table 6.11). These forms represent 18% of all -*ant* forms in the Old French corpus (385 instances out of 2 153). This proportion is much lower in Early Old French, where only one instance has been found. However, the low frequency of -*ant* forms in this period does not allow drawing a firm conclusion from this result.

Table 6.11. Frequency of subject predicate *-ant* forms in Early Old French and the 12th-13th c.

Period	#subject predicate *-ant* forms (per 10 000 words)		#*-ant* forms (per 10 000 words)		#subject predicate *-ant* forms/ #*-ant* forms
Early Old French	1	(1.12)	33	(36.84)	3,03%
12th-13th c.	356	(4.41)	1 989	(24.63)	17,90%

In the *Chanson de Roland*, the absolute frequency of subject predicate *-ant* forms corresponds to 10.19 instances per 10 000 words. In relative terms, these forms make up 21% of all *-ant* forms in this text (28 instances out of 131). The *Chanson de Roland* resembles in this regard more the 12th-13th c. texts than the Early Old French texts. This result is in line with that obtained for adnominal *-ant* forms.

A chi-square goodness-of-fit test indicates that the increasing proportion of subject predicate *-ant* forms between Early Old French and the 12th-13th c. is probably random. Indeed, the fraction of subject predicate forms is lower than expected in Early Old French and higher than expected in the 12th-13th c. in a statistically insignificant way ($\chi 2 = 3.26$; df = 1; $p = 0.071$) (Table 6.12).

Table 6.12. Observed *vs* expected proportion of subject predicate *-ant* forms to the total number of *-ant* forms in Early Old French and the 12th-13th c.

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Early Old French	1	(3,03%)	6	(18,18%)	-2.00
12th-13th c.	356	(17,90%)	351	(17,65%)	+0.26

During the Old French period, the *-ant* form thus does not specialise in this adjectival use.

6.2.2.2. Frequency and productivity in the five thematic domains

The (normalised) absolute frequency of subject predicate *-ant* forms is highest in the didactical texts, as in the case of adnominal *-ant* forms (Table 6.13). However, their proportion to the total number of *-ant* forms is highest in the religious texts, although the difference with the literary texts is negligible. The absolute frequency of subject predicate forms is lowest in the legal texts, while their share to the total number of *-ant* forms is lowest in the historical texts. All in all, the differences between the five thematic domains seem too small to be significant, as in the case of the adnominal *-ant* forms.

Table 6.13. Frequency of subject predicate *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**#subject predicate *-ant* forms (per 10 000 words)**		**#*-ant* forms (per 10 000 words)**		**#subject predicate *-ant* forms/ #*-ant* forms**
Historical	13	(2.67)	122	(25.04)	10,66%
Religious	116	(4.09)	573	(20.21)	20,24%
Literary	156	(5.81)	779	(29.00)	20,03%
Didactical	60	(6.68)	388	(43.22)	15,46%
Legal	40	(2.61)	291	(19.00)	13,75%

The lack of significant thematic variation is confirmed by a chi-square goodness-of-fit test. The segment of subject predicate forms is lower than expected in the historical, didactical, and legal texts and higher than expected in the religious and literary texts in a statistically significant way, but none of the thematic domains makes a significant contribution to the obtained chi-square values on its own ($\chi 2 = 11.41$; df = 4; $p = 0.0223$) (Table 6.14).

Table 6.14. Observed *vs* expected proportion of subject predicate *-ant* forms to the total number of *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Historical	13	(10,66%)	22	(18,03%)	-1.89
Religious	116	(20,24%)	102	(17,80%)	+1.34
Literary	156	(20,03%)	139	(17,84%)	+1.41
Didactical	60	(15,46%)	69	(17,78%)	-1.13
Legal	40	(13,75%)	52	(17,87%)	-1.67

The fact that the frequency of this type of *-ant* forms does not stand out in any thematic domain contrasts with what has been observed for the subject predicate present participles in Late Latin. These are much more frequent in legal texts than in historical and religious text (see §5.3.2.3). Since the same conclusion was drawn with respect to the adnominal forms (see §6.2.1.2), it appears that the language in legal texts greatly differs from that in other types of texts in Late Latin, but not in Old French. This issue (and its methodological implications) will be taken up in other sections of this chapter.

Another similarity between subject predicate and adnominal *-ant* forms in Old French relates to their productivity. The productivity of the subject predicate forms has been measured in function of the lexical variation between the *-ant* form and the copular verb (or the verb used as such). Table 6.15 shows that this productivity is highest in the legal texts and lowest in the literary texts. However, the difference between these texts (and with the other text types) is too small to be significant, especially considering the low absolute number of instances in some thematic domains.

Table 6.15. Productivity of the subject predicate *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	13	116	156	60	40
#types	7	46	51	29	23
#hapaxes	4	30	26	17	18
#types/#tokens	**0.54**	**0.40**	**0.33**	**0.48**	**0.58**
#hapaxes/#tokens	**0.31**	**0.26**	**0.17**	**0.28**	**0.45**

This finding opposes these forms again to their Late Latin present participle counterparts, which are less productive in legal texts than in historical and religious texts (see §5.3.2.3). Note, however, that the Old French *-ant* form is less productive in subject predicates than in adnominal phrases (compare Tables 6.5 and 6.15), as observed also in the case of the Late Latin present participle.

The lack of relevant thematic variation in the productivity of the subject predicate *-ant* form is confirmed by the study of the five most frequent lexical combinations. Leaving out of consideration the historical texts, for which no solid conclusions can be drawn due to the low absolute number of instances (n=13), the cumulative frequency of these combinations ranges from 40% in the literary texts to 55% in the legal texts (Table 6.16).

Table 6.16. Inventory and cumulative frequency of the five most frequent lexical combinations of a copular verb and a subject predicate *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Lexeme of copular verb**	**Lexeme of *-ant* form**	**Frequency (%)**
Historical	*être* 'to be'	*valoir* 'to be worthy'	4 (30,77%)
	être 'to be'	*pouvoir* 'to be able'	3 (23,08%)
	être 'to be'	*trancher* 'to cut'	2 (15,38%)
	être 'to be'	*suffire* 'to suffice'	1 (7,69%)
	être 'to be'	*apparoir* 'to appear'	1 (7,69%)[11]
			11 (84,62%)
Religious	*être* 'to be'	*pouvoir* 'to be able'	23 (19,83%)
	être 'to be'	*valoir* 'to be worthy'	15 (12,93%)
	être 'to be'	*plaire* 'to please'	6 (5,17%)
	être 'to be'	*obéir* 'to obey'	5 (4,31%)
	être 'to be'	*repentir* 'to repent'	5 (4,31%)[12]
			54 (46,55%)

[11] There are two more hapaxes in the historical texts.
[12] The religious texts contain one more lexical combination with a token frequency of 5.

Literary	*être* ‘to be’	*douloir* ‘to suffer’	21 (13,46%)
	être ‘to be’	*jouir* ‘to enjoy’	13 (8,33%)
	être ‘to be’	*recroire* ‘to renounce’	11 (7,05%)
	être ‘to be’	*peser* ‘to weigh’	9 (5,77%)
	être ‘to be’	*valoir* ‘to be worthy’	8 (5,13%)
			62 (39,74%)
Didactical	*être* ‘to be’	*pouvoir* ‘to be able’	7 (11,67%)
	être ‘to be’	*valoir* ‘to be worthy’	7 (11,67%)
	être ‘to be’	*plaire* ‘to please’	5 (8,33%)
	être ‘to be’	*douloir* ‘to suffer’	4 (6,67%)
	être ‘to be’	*ardre* ‘to burn’	3 (5,00%)[13]
			26 (43,33%)
Legal	*être* ‘to be’	*suffire* ‘to suffice’	11 (27,50%)
	être ‘to be’	*souffrir* ‘to suffer’	4 (10,00%)
	être ‘to be’	*écouter* ‘to listen’	3 (7,50%)
	être ‘to be’	*remembrer* ‘to remember’	2 (5,00%)
	être ‘to be’	*escolourger* ‘to slip’	2 (5,00%)
			22 (55,00%)

A similar point can be made on basis of the most frequent lexical combination alone, with this difference that the lowest proportion is observed here in the didactical instead of the literary texts. The two lexical combinations with the highest absolute frequency are *être* ‘to be’/*pouvoir* ‘to be able’ (11) (n=23) and *être* ‘to be’/ *douloir* ‘to suffer’ (12) (n=21), in respectively the religious and the literary texts.

(11) *Bels* *ert* *[...]* *et* ***po-ant*** *sur* *ses* *enemis.*
beautiful.SBJ.M.SG be.FUT.3SG and be_able-V.ANT against his.OBL.M.PL enemy.OBL.M.PL
‘He will be beautiful and powerful against his enemies.’ (*Lapid. alphab.* 1211-1212)

(12) *[...] Yvains* *an* *fu* ***dol-anz*** *[...].*
Yvan.SBJ.M.SG because_of_this be.PST.3SG suffer-V.ANT.SBJ.M.SG
‘Yvan was sad because of this.’ (Chr. de Troyes *Yvain* 676)

More or less the same picture emerges from the lexical variation of the -*ant* forms alone. Hence, Tables 6.17 and 6.18, presenting respectively the lexical variation of these forms in the five thematic domains and the inventory and cumulative frequency of the five most frequent lexemes, will be provided without further comments.

[13] There are three more lexical combinations occurring three times in the didactical texts.

Table 6.17. Lexical variation of the subject predicate *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	13	116	156	60	40
#types	7	43	47	29	22
#hapaxes	4	26	22	17	17
#types/#tokens	**0.54**	**0.37**	**0.30**	**0.48**	**0.55**
#hapaxes/#tokens	**0.31**	**0.22**	**0.14**	**0.28**	**0.43**

Table 6.18. Inventory and cumulative frequency of the five most frequent lexemes used for subject predicate *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Lexeme of *-ant* form**	**Frequency (%)**
Historical	*valoir* 'to be worthy'	4 (30,77%)
	pouvoir 'to be able'	3 (23,08%)
	trancher 'to cut'	2 (15,38%)
	suffire 'to suffice'	1 (7,69%)
	apparoir 'to appear'	1 (7,69%)[14]
		11 (84,62%)
Religious	*pouvoir* 'to be able'	23 (19,83%)
	valoir 'to be worthy'	15 (12,93%)
	plaire 'to please'	6 (5,17%)
	repentir 'to repent'	6 (5,17%)
	obéir 'to obey'	5 (4,31%)[15]
		55 (47,41%)
Literary	*douloir* 'to suffer'	21 (13,46%)
	jouir 'to enjoy'	14 (8,97%)
	recroire 'to renounce'	12 (7,69%)
	peser 'to weigh'	9 (5,77%)
	valoir 'to be worthy'	9 (5,77%)
		64 (41,03%)
Didactical	*pouvoir* 'to be able'	7 (11,67%)
	valoir 'to be worthy'	7 (11,67%)
	plaire 'to please'	5 (8,33%)
	douloir 'to suffer'	4 (6,67%)
	ardre 'to burn'	3 (5,00%)[16]
		26 (43,33%)

[14] There are two more hapaxes in the historical texts.
[15] The religious texts contain two more lexemes occurring five times.
[16] There are three more lexemes occurring thrice in the didactical texts.

Legal	*suffire* 'to suffice'	12	(30,00%)
	souffrir 'to suffer'	4	(10,00%)
	écouter 'to listen'	3	(7,50%)
	remembrer 'to remember'	2	(5,00%)
	escolourger 'to slip'	2	(5,00%)
		23	**(57,50%)**

The copular verbs (or the verbs used as such) serve a grammatical function, and show as such less lexical variation than the *-ant* forms. This variation is low in the religious, literary, didactical, and legal texts: it ranges from two lexemes in the religious texts to five in the didactical texts. In the historical texts, there is no variation at all. In Table 6.19, the absolute numbers are more relevant than the type-token and hapax-token ratios (which are nonetheless provided for the sake of uniformity with the tables in the other sections of this chapter).

Table 6.19. Lexical variation of the copular verbs combined with a subject predicate *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	13	116	156	60	40
#types	1	3	4	5	4
#hapaxes	0	1	2	4	1
#types/#tokens	**0.08**	**0.03**	**0.03**	**0.08**	**0.10**
#hapaxes/#tokens	**0.00**	**0.01**	**0.01**	**0.07**	**0.03**

The inventory and frequency of the copular verbs in the five thematic domains are given in Table 6.20.

Table 6.20. Inventory and frequency of the copular verbs combined with a subject predicate *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Lexeme of copular verb**	**Frequency (%)**	
Historical	*être* 'to be'	13	(100,00%)
		13	**(100,00%)**
Religious	*être* 'to be'	113	(97,41%)
	devenir 'to become'	2	(1,72%)
	faire 'to do'	1	(0,86%)
		116	(100,00%)
Literary	*être* 'to be'	151	(96,79%)
	devenir 'to become'	3	(1,92%)
	sembler 'to appear'	1	(0,64%)
	tenir pour 'to hold as'	1	(0,64%)
		156	**(100,00%)**

Didactical	*être* 'to be'	56	(93,33%)
	devenir 'to become'	1	(1,67%)
	sembler 'to appear'	1	(1,67%)
	rester 'to remain'	1	(1,67%)
	trouver 'to find'	1	(1,67%)
		60	**(100,00%)**
Legal	*être* 'to be'	35	(87,50%)
	tenir pour 'to hold as'	2	(5,00%)
	écrire 'to write'	2	(5,00%)
	mettre en écrit comme 'to write down as'	1	(2,50%)
		40	**(100,00%)**

As shown in Table 6.20, *être* 'to be' (11-12) is dominant: it accounts for no less than 96% of all verbs combined with a subject predicate *-ant* form (368 instances out of 385). However, eight other lexemes have been used. Three of these are canonical copular verbs: *devenir* 'to become' (13), *rester* 'to remain' (14), and *sembler* 'to appear' (illustrated in (10) above).

(13) *[...] povre devint et pain* ***quer-anz*** *[...].*[17]
poor.SBJ.M.SG become.PST.3SG and bread.OBL.M.SG seek-V.ANT.SBJ.M.SG
'He becomes poor and short of food (lit. 'bread-seeking').' (J. de Meun *Rose* 14505)

(14) *[...] rest la chose si* ***pes-anz*** *[...].*
remain.PRS.3SG ART.DEF.SBJ.F.SG situation.SBJ.F.SG so weigh-V.ANT.SBJ.F.SG
'Thus, the situation remains so grievous (...).' (J. de Meun *Rose* 10580)

The remaining lexemes are transitive verbs used as copular verbs in passive syntactic configurations: *faire* 'to do' (15), *mettre* 'to put' (16), *tenir pour* 'to hold as' (17), *trouver* 'to find' (18), and *mettre en écrit comme* 'to write down as' (19).

(15) *[...] ço est fai* ***apar-ant*** *[...].*
DEM.SBJ.N.SG be.PRS.3SG make.PTCP.PST.SBJ.N.SG appear-V.ANT
'This is made clear.' (*Comm. psaum.* 3)

(16) *[...] se la bonne est mise* ***joign-ant*** *de*
if ART.DEF.SBJ.F.SG marker.SBJ.F.SG be.PRS.3SG put.PTCP.PST.F.SG join-V.ANT of
mon eritage [...].
my.OBL.M.SG land.OBL.M.SG
'If the marker is put next to my land (...).' (Ph. de Beau. *Coutumes* 850)

[17] This example clearly shows that even subject predicate *-ant* forms can have verbal internal syntax: the direct object of *queranz* 'seeking', *viz.* the noun *pain* 'bread', is in the oblique case, just like when it is governed by a finite form of *quérir* 'to seek.

(17) *[...] est li contremans tenus pour* ***soufis-ans*** *[...].*
be.PRS.3SG ART.DEF.SBJ.M.SG delay.SBJ.M.SG hold.PTCP.PST.M.SG for suffice-V.ANT.SBJ.M.SG
'The delay is held (to be) sufficient.' (Ph. de Beau. *Coutumes* 111)

(18) *[...] se* ***recre-anz*** *iestes trovez [...].*
if renounce-V.ANT.SBJ.M.PL be.PRS.2PL find.PTCP.PST.M.PL
'If you are found harassed (...).' (J. de Meun *Rose* 15386)

(19) *Et tuit cil qui s' i acordent doivent*
and all.SBJ.M.PL DEM.SBJ.M.PL REL.SBJ.M.PL REFL.OBJ.M.PL to_it agree.PRS.3PL must.PRS.3PL
estre mis en escrit comme ***acord-ant*** *[...].*
be.INF.PRS put.PTCP.PST.M.PL in written_document.OBL.M.SG as consent-V.ANT
'And all those who agree with it should be written down as consenting.' (Ph. de Beau. *Coutumes* 154)

6.2.2.3. Conclusion

18% of all Old French -*ant* forms occur in subject predicates. This fraction is lower in Early Old French than in the 12th-13th c., but the difference between these periods is statistically insignificant. Hence, the -*ant* form does not specialise in this use. The frequency and productivity of this type of -*ant* forms does not show great thematic variation. These conclusions line up with those drawn for the adnominal -*ant* form.

6.2.3. Object predicate -*ant* forms

The final type of -*ant* forms occurring in adjectival syntactic configurations are object predicates. As an example, consider *joiant* 'being happy' (20), which ascribes the feature [+happy] to the direct object of the verb *feïst* 'he made'.

(20) *Cil me feïst* ***joi-ant*** *[...].*
DEM.SBJ.M.SG I.OBJ.M.SG make.PST.3SG be_happy-V.ANT
'That one made me happy.' (Chr. de Troyes *Yvain* 3694)

This section aims to explore the frequency of these forms in general (§6.2.3.1) as well as their frequency and productivity in the five thematic domains (§6.2.3.2).

6.2.3.1. Frequency

Object predicate -*ant* forms are extremely rare. They have an absolute frequency of 0.71 instances per 10 000 words and represent only 2,74% of all -*ant* forms in the Old French corpus (59 instances out of

2 153). All results obtained for them are thus subject to caution. No instances have been found in Early Old French, but this difference with the 12th-13th c. is probably hazardous (Table 6.21).

Table 6.21. Frequency of object predicate *-ant* forms in Early Old French and the 12th-13th c.

Period	**#object predicate *-ant* forms (per 10 000 words)**		**#*-ant* forms (per 10 000 words)**		**#object predicate *-ant* forms/ #*-ant* forms**
Early Old French	0	(0.00)	33	(36.84)	0,00%
12th-13th c.	57	(0.71)	1 989	(24.63)	2,87%

The *Chanson de Roland* contains two object predicate *-ant* forms. This equals an absolute frequency of 0.73 instances per 10 000 and 1,53% of all *-ant* forms in this text. On the basis of this result, the *Chanson de Roland* thus behaves more like 12th-13th c. texts than as Early Old French texts. The same conclusion was reached for the adnominal and subject predicate *-ant* forms. However, the extreme rareness of object predicate forms in both periods of Old French does not allow interpreting this result in a conclusive way.

Expectedly, a chi-square goodness-of-fit test suggests that the increasing proportion from Early Old French to the 12th-13th c. is likely random. Indeed, this proportion is lower than expected in Early Old French and higher than expected in the 12th-13th c. in a statistically insignificant way ($\chi 2 = 0.2$; df = 1; $p = 0.6547$) (Table 6.22).

Table 6.22. Observed *vs* expected proportion of object predicate *-ant* forms to the total number of *-ant* forms in Early Old French and the 12th-13th c.

Period	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Early Old French	0	(0,00%)	1	(3,03%)	-0.96
12th-13th c.	57	(2,87%)	56	(2,82%)	+0.12

Notice that the expected frequency of object predicates is smaller than five in Early Old French, so that a chi-square goodness-of-fit test is in principle not recommendable (Levshina 2015: 29). However, the conclusion emerging from this test, namely that the increasing proportion of object predicate *-ant* forms is random, is highly reliable in the light of both the normalised frequencies reported in Table 6.21 and the extreme rareness of instances in the Old French corpus in general. Thus, the *-ant* form does not show signs of a specialisation in object predicates, just as it does not specialise in its adnominal nor subject predicate uses.

6.2.3.2. Frequency and productivity in the five thematic domains

Due to their rareness, little can be said about the frequency of the object predicate *-ant* forms in the five thematic domains. Table 6.23 shows that their frequency is highest in the didactical texts and lowest in

the legal texts, both in (normalised) absolute terms and in relation to the total number of *-ant* forms. Yet, even in the didactical texts, the share of object predicate *-ant* forms does not exceed 4% of all *-ant* forms.

Table 6.23. Frequency of object predicate *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**#object predicate *-ant* forms (per 10 000 words)**		**#*-ant* forms (per 10 000 words)**		**#object predicate *-ant* forms/ #*-ant* forms**
Historical	2	(0.41)	122	(25.04)	1,64%
Religious	15	(0.53)	573	(20.21)	2,62%
Literary	24	(0.89)	779	(29.00)	3,08%
Didactical	16	(1.78)	388	(43.22)	4,12%
Legal	2	(0.13)	291	(19.00)	0,69%

According to a chi-square goodness-of-fit test, the share of object predicate forms is lower than expected in the historical, religious, and legal texts and higher than expected in the literary and didactical texts in a statistically insignificant way ($\chi 2 = 8.09$; df = 4; p = 0.0883) (Table 6.24). Therefore, the differences between the five thematic domains are probably random.

Table 6.24. Observed *vs* expected proportion of object predicate *-ant* forms in proportion to the total number of *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Historical	2	(1,64%)	3	(2,46%)	-0.73
Religious	15	(2,62%)	16	(2,79%)	-0.18
Literary	24	(3,08%)	21	(2,70%)	+0.57
Didactical	16	(4,12%)	11	(2,84%)	+1.65
Legal	2	(0,69%)	8	(2,75%)	-2.11

The expected frequency of object predicate forms is smaller than 5 in the historical texts, so that a chi-square goodness-of-fit test is again not recommendable. The conclusion drawn from the figures in Table 6.24, namely that the frequency of object predicate *-ant* forms does not stand out in any thematic domain, is nonetheless reliable in view of the result in Table 6.23. The object predicate forms behave in this regard like the adnominal and subject predicate forms (and like their present participles counterparts in the Late Latin corpus).

Given the low absolute number of object predicate forms, no firm conclusions can be drawn from the study of their productivity. Yet, their productivity, measured in terms of the lexical variation between the *-ant* form and the transitive main verb, is worth investigating, if only to explore whether they behave like the adnominal and subject predicate forms also in this regard. Table 6.25 confirms this parallelism:

the productivity of the object predicate forms does not greatly differ in the five thematic domains – the numbers for especially the historical and legal texts are too low for drawing solid conclusions.

Table 6.25. Productivity of the object predicate *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	2	15	24	16	2
#types	2	12	20	14	2
#hapaxes	2	9	18	12	2
#types/#tokens	**1.00**	**0.80**	**0.83**	**0.88**	**1.00**
#hapaxes/#tokens	**1.00**	**0.60**	**0.75**	**0.75**	**1.00**

The two combinations in the historical and legal texts are hapaxes. In the religious and didactical texts, there are respectively three and two combinations occurring twice. The literary texts contain one lexical combination occurring twice and one combination used three times, *i.e. rendre* 'to render'/*recroire* 'to renounce' (21).

(21) *[...] Rendre* *le* *quidet* *u* *mort* *o* ***recre-ant***.
render.INF.PRS he.OBJ.M.SG try.PRS.3SG or dead.OBL.M.SG or renounce-V.ANT
'He tries to make him dead or harmless.' (*Roland* 2733)

A slightly different image arises regarding the lexical variation of the *-ant* forms individually. Leaving aside the historical and legal texts, which contain only two instances, Table 6.26 shows that this variation is lower in the literary texts than in the religious and didactical texts.

Table 6.26. Lexical variation of the object predicate *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	2	15	24	16	2
#types	2	11	13	13	2
#hapaxes	2	8	18	10	2
#types/#tokens	**1.00**	**0.73**	**0.54**	**0.81**	**1.00**
#hapaxes/#tokens	**1.00**	**0.53**	**0.24**	**0.63**	**1.00**

Closer scrutiny reveals that the low variation in the literary texts is due to the fact that 9 of the 24 object predicate forms are instantiated by the same lexeme, namely *recroire* 'to renounce' (21). The atypical character of the literary texts emerging from Table 6.26 thus results from the relatively high frequency of one lexeme rather than from a more general idiosyncratic feature of this type of texts.

As to the lexical variation of the transitive main verbs, it is lowest in the religious texts and highest in the didactical texts (Table 6.27). The historical and legal texts are again excluded from this discussion. However, the difference between the thematic domains is not enormous. Given also the extremely low absolute number of instances, no hard conclusion can be drawn.

Table 6.27. Lexical variation of the verbs combined with an object predicate *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	2	15	24	16	2
#types	2	4	10	7	1
#hapaxes	2	1	4	4	0
#types/#tokens	**1.00**	**0.27**	**0.42**	**0.44**	**0.50**
#hapaxes/#tokens	**1.00**	**0.07**	**0.17**	**0.25**	**0.00**

As it turns out, the lower variation in the religious texts is due to the fact that more than half of the forms (9 out of 15) are realised by the same lexeme, *viz. faire* 'to make' (22).

(22) *[...] les alume é fait clers é* ***ard-anz****.*
it.OBJ.M.SG enlighten.PRS.3SG and make.PRS.3SG clear.OBL.M.PL and burn-V.ANT.OBL.M.PL
'He enlightens them and makes them clear and fiery.' (*Rois* 101)

This lexeme also represents 8 of the 24 instances in the literary texts and 7 of the 16 occurrences in the didactical texts. Thus, the slightly atypical character of the religious texts observed in Table 6.26 does not result from an idiosyncratic feature of these texts in general.

6.2.3.3. Conclusion

Object predicate *-ant* forms represent a negligible proportion of the total number of *-ant* forms in the Old French corpus (less than 3%). No instances have been found in Early Old French, but this difference with the 12th-13th c. is probably hazardous. There is no significant thematic variation in the frequency of these forms, nor in their productivity. These findings are similar to those obtained for the adnominal and subject predicate forms, on the one hand, and for the Late Latin object predicate present participles, on the other.

6.2.4. General conclusion: the evolution of the adjectival *-ant* form

The previous sections have explored the frequency of adnominal, subject predicate, and object predicate *-ant* forms separately. This section will collate the results obtained these sections, in order to investigate

the evolution of the adjectival *-ant* form as a whole. A conclusion will also be drawn with respect to the degree of categorial (in)determinacy of the Old French *-ant* form.

Adjectival *-ant* forms account for almost half of all *-ant* forms in the Old French corpus (45% or 965 instances out of 2 153). However, the absolute frequency of these forms is rather low, namely 11.44 instances per 10 000 words. These figures are considerably lower in Early Old French than in the 12th-13th c. (Table 6.28), but the low absolute number of datapoints in the earliest period hinders drawing solid conclusions.

Table 6.28. Frequency of adjectival *-ant* forms in Early Old French and the 12th-13th c.

Period	**#adjectival *-ant* forms (per 10 000 words)**		**#*-ant* forms (per 10 000 words)**		**#adjectival *-ant* forms/ #*-ant* forms**
Early Old French	6	(6.70)	33	(36.84)	18,18%
12th-13th c.	888	(11.00)	1 989	(24.63)	44,65%

Generally speaking, the *Chanson de Roland* behaves more like the 12th-13th c. texts than as the Early Old French texts: the absolute frequency of adjectival *-ant* forms amounts to 25.84 instances per 10 000 words and their proportion to the total number of *-ant* forms is 53% (71 instances out of 133). If it were to be periodised, this text should therefore be assigned to the 12th-13th c.

Contrary to what holds for the adjectival forms separately, a chi-square goodness-of-fit test shows that increasing proportion observed in Table 6.28 might not be random. Indeed, the fraction of adjectival forms proves to be lower than expected in Early Old French and higher than expected in the 12th-13th c. in a statistically significant way ($\chi 2 = 4.56$; df = 1; $p = 0.0327$) (Table 6.29).

Table 6.29. Observed *vs* expected proportion of adjectival *-ant* forms to the total number of *-ant* forms in Early Old French and the 12th-13th c.

Period	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Early Old French	6	(18,18%)	15	(45,45%)	-2.25
12th-13th c.	888	(44,65%)	879	(44,19%)	+0.29

Strictly speaking, this indicates a process of participialisation, that is to say, a specialisation of the *-ant* form in adjectival external syntax. However, the rareness of *-ant* forms in the Early Old French corpus (33 instances *vs* 1 989 in 12th-13th c. corpus) makes it impossible to interpret the increase in Table 6.29 as conclusive evidence in favour of such a participialisation process. It is worth recalling in this respect that statistical significance does not necessarily mean that some tendency cannot be random (*cf.* Gries 2013: 28).

Adopting a retrospective historical approach and assuming that the gerund does not acquire the potential to occur in adjectival syntactic configurations in the transition from Late Latin to Old French nor within the period of Old French itself, all adjectival *-ant* forms can be analysed as present participles. Hence, at least 45% of all *-ant* forms are categorially determinate. However, this percentage needs to be interpreted within the broad definition of the *-ant* form adopted in this study. In a narrower definition, some adjectival forms would qualify as adjectives and, hence, be excluded from the dataset. The absolute frequency of adjectival forms would be lower, and with this their proportion to the total number of *-ant* forms. This would decrease the number of forms categorisable as present participles, and thus the degree of categorial determinacy of the *-ant* form. For instance, the sole exclusion of forms built on *pouvoir* 'to be able to', which undoubtedly hold as adjectives in a narrower definition of the *-ant* form, reduces the absolute number of adjectival *-ant* forms by 75. If these forms are excluded from the dataset, the degree of categorial determinacy of the Old French *-ant* form drops from 45% to 43% (*i.e.* from 965 instances out of 2 153 to 890 instances out of 2 078).

As to the frequency of the adjectival *-ant* forms in the five thematic domains, it is highest in the didactical texts, both in (normalised) absolute terms and in relation to the total number of *-ant* forms (Table 6.30). Their absolute frequency is lowest in the legal texts, while their fraction to the total number of *-ant* forms is lowest in the historical texts.

Table 6.30. Frequency of adjectival *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**#adjectival *-ant* forms (per 10 000 words)**		**#*-ant* forms (per 10 000 words)**		**#adjectival *-ant* forms/ #*-ant* forms**
Historical	37	(7.59)	122	(25.04)	30,33%
Religious	259	(9.13)	573	(20.21)	45,20%
Literary	372	(13.85)	779	(29.00)	47,75%
Didactical	190	(21.16)	388	(43.22)	48,97%
Legal	107	(6.99)	291	(19.00)	36,77%

According to a chi-square goodness-of-fit test, the differences between the five text types are probably random, as in the case of the three types of adjectival forms separately: the share of adjectival forms is lower than expected in the historical and legal texts and higher than expected in the religious, literary, and didactical texts, but none of these thematic domains makes a significant contribution to the obtained chi-square values on its own ($\chi 2 = 12.93$; df = 4; p = 0.0116) (Table 6.31).

Table 6.31. Observed *vs* expected proportion of adjectival *-ant* forms to the total number of *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	37	(30,33%)	55	(45,08%)	-2.39
Religious	259	(45,20%)	257	(44,85%)	+0.14
Literary	372	(47,75%)	349	(44,80%)	+1.22
Didactical	190	(48,97%)	174	(44,85%)	+1.22
Legal	107	(36,77%)	130	(44,67%)	-2.05

Contrary to the Late Latin adjectival present participle, the Old French adjectival *-ant* form is thus not particularly frequent in legal texts (or in any other type of texts).

6.3. The adverbial *-ant* form

Having investigated the adjectival *-ant* forms, I will examine in this section the forms having adverbial external syntax, *i.e.* occurring in adjuncts (e.g. *lisant* 'reading' (23)).

(23) *E* *ço* *truvum* ***lis-ant*** */* *En Ovide le* *grant* *[...].*
and DEM.OBJ.N.SG find.PRS.1PL read-V.ANT in Ovid ART.DEF.OBL.M.SG great.OBL.M.SG
'And we find this reading in the great Ovid.' (Ph. de Thaon *Comput* 1291-1292)

The forms explored in this section comprise both conjunct (e.g. *lisant* 'reading' (23)) and absolute (e.g. *vivant* 'living' (24)) forms. Recall that the subject of the former can be coreferential not only with the subject of the main verb, as in (23), but also with another constituent of the main clause. Witness (25), where the subject of *noant* 'swimming' is coreferential with the direct object of *prent* 'it takes', namely the NP *le peissun* 'the fish'.

(24) *Quant* *aucuns* *en* *porte* *eritage* *le*
when INDF.SBJ.M.SG INCH take.PRS.3SG heritage.OBL.M.SG ART.DEF.OBL.M.SG
père *et* *la* *mere* ***viv-ant*** *[...].*
father.OBL.M.SG and ART.DEF.OBL.F.SG mother.OBL.F.SG live-V.ANT
'When someone starts taking inheritance during the life of his father and mother (...).' (Ph. de Beau. *Coutumes* 481)

(25) *[...]Le* *peissun* *prent* ***no-ant*** *[...].*
ART.DEF.OBL.M.SG fish.OBL.M.SG take.PRS.3SG swim-V.ANT
'It (the eagle) takes the fish as it swims.' (Ph. de Thaon *Bestiaire* 2024)

Adverbial *-ant* forms cannot be categorised as either gerunds or present participles on the basis of their external syntax, since the Late Latin gerund and present participle can both occur in adjuncts and since

the data of this study do not testify of a substitution of the Late Latin present participle by the gerund in this syntax. However, some of these forms can be categorised on the basis of morphological criteria: the prepositional forms can in principle be taken as gerunds and the agreeing forms as present participles, although these morphological criteria are not plainly reliable (see §6.1.1).

The aim of this section is twofold. First, I will examine the frequency of the adverbial *-ant* forms in general (§6.3.1) as well as their frequency and productivity in the five thematic domains (§6.3.2). Then, I will calculate the proportion of the forms categorisable as either gerunds or present participles on the basis of the morphological criteria just mentioned, in order to measure the degree of categorial determinacy of the adverbial *-ant* forms (§6.3.3).

6.3.1. Frequency

In absolute terms, adjunct *-ant* forms are less frequent than adjectival forms: they occur about 6.55 times per 10 000 words, against 11.44 instances of adjectival forms. The fraction of adjunct forms to the total number of *-ant* forms (26% or 553 instances out of 2 153) is also much lower than that of the adjectival forms (45% or 965 instances). Adjunct forms are about as frequent as adnominal forms, according to both frequency measurements (see §6.2.1.1). The frequency of adjunct forms is higher in the 12th-13th c. than in Early Old French according to both measurements, but the difference between the two periods is not enormous (Table 6.32). Furthermore, the number of instances in Early Old French is very low, making it once more impossible to draw solid conclusions.

Table 6.32. Frequency of adjunct *-ant* forms in Early Old French and the 12th-13th c.

Period	**#adjunct *-ant* forms (per 10 000 words)**		**#*-ant* forms (per 10 000 words)**		**#adjunct *-ant* forms/ #*-ant* forms**
Early Old French	7	(7.82)	33	(36.84)	21,21%
12th-13th c.	532	(6.59)	1 989	(24.63)	26,75%

The segment of adjunct forms is much smaller in the *Chanson de Roland* (11% or 14 instances out of 131). The absolute frequency of adjunct forms in this text is also smaller, namely 5.10 occurrences per 10 000 words. On the basis of this use of the *-ant* form, the *Chanson de Roland* behaves more like Early Old French texts than as 12th-13th c. texts. This finding is at odds with the results obtained for the three types of adjectival forms, but should be put in perspective due to the small difference between Early Old French and the 12th-13th c.

Noteworthily, the low frequency of adjunct *-ant* forms in the *Chanson de Roland* is conform to a more general feature of this text. Indeed, this text is a versified written rendering of a text that has in the

first place been transmitted orally. In this type of texts, preference is given to short sentences restricted to one verse or covering only a few verses (Giouffi 2020: 127). Coordinated and/or juxtaposed sentences are frequent in this and similar texts, but subordinated clauses are less frequent. Since adjunct *-ant* forms belong to the domain of adverbial subordination, their low frequency in the *Chanson de Roland* is less surprising. However, this feature is not restricted to the *Chanson de Roland*, but characteristic of the earliest texts in general (Giouffi 2020: 127). Hence, it is surprising that the *Chanson de Roland* shows a low number of adjunct *-ant* forms, while the Early Old French texts do not comprise significantly fewer adjunct forms than the 12th-13th c. texts.

A chi-square goodness-of-fit test suggests that the increasing proportion of adjunct *-ant* forms between Early Old French and the 12th-13th c. is probably random. Indeed, this proportion is lower than expected in Early Old French and higher than expected in the 12-13th c. in a statistically insignificant way ($\chi 2 = 0.19$; df = 1; p = 0.6629) (Table 6.33).

Table 6.33. Observed *vs* expected proportion of adjunct *-ant* forms to the total number of *-ant* forms in Early Old French and the 12th-13th c.

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Early Old French	7	(21,21%)	9	(27,27%)	-0.61
12th-13th c.	532	(26,75%)	530	(26,65%)	+0.08

Hence, during the Old French period, the *-ant* form does not show signs of a converbalisation process, *i.e.* specialisation in adverbial external syntax.

6.3.2. Frequency and productivity in the five thematic domains

The absolute number of adjunct *-ant* forms is highest in the didactical texts and lowest in the historical texts (though the difference with the literary texts is negligible) (Table 6.34). In contrast, their proportion to the total number of *-ant* forms is highest in the legal texts and lowest in the literary texts.

Table 6.34. Frequency of adjunct *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	#adjunct *-ant* forms (per 10 000 words)		#*-ant* forms (per 10 000 words)		#adjunct *-ant* forms/ #*-ant* forms
Historical	29	(5.95)	122	(25.04)	23,77%
Religious	177	(6.24)	573	(20.21)	30,89%
Literary	160	(5.96)	779	(29.00)	20,54%
Didactical	79	(8.80)	388	(43.22)	23,37%
Legal	108	(7.05)	291	(19.00)	37,11%

According to a chi-square goodness-of-fit test, the differences between the five thematic domains might not be random. Indeed, the proportion of adjunct forms is lower than expected in the historical, literary, and didactical texts and higher than expected in the religious and legal texts in a statistically highly significant way ($\chi 2 = 33.33$; df = 4; $p < 0.0001$) (Table 6.35). Closer scrutiny reveals that the only text types making a significant contribution to the obtained chi-square values are the literary and legal texts (only in these texts do the standardised residuals exceed the threshold of ±2.58 required at significance levels higher than $p = 0.01$; see Levshina 2015: 221).

Table 6.35. Observed *vs* expected proportion of adjunct *-ant* forms to the total number of *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	29	(23,77%)	31	(25,41%)	-0.42
Religious	177	(30,89%)	147	(25,65%)	+2.46
Literary	160	(20,54%)	200	(25,67%)	-2.83
Didactical	79	(23,37%)	100	(25,77%)	-2.07
Legal	108	(37,11%)	75	(25,77%)	+3.85

Thus, the question arises as to what distinguishes the use of adjunct *-ant* forms in the literary and legal texts from their use in the historical, religious, and didactical texts. The answer does not come from the productivity of the adjunct forms, measured in terms of the lexical variation between the *-ant* form and the main verb. As shown in Table 6.36, the productivity of this form shows some thematic variation, but the differences between the five domains are too small to be significant.

Table 6.36. Productivity of the adjunct *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	Religious	Literary	Didactical	Legal
#tokens	29	177	160	79	108
#types	29	144	127	59	87
#hapaxes	29	128	108	56	94
#types/#tokens	**1.00**	**0.81**	**0.79**	**0.75**	**0.87**
#hapaxes/#tokens	**1.00**	**0.72**	**0.68**	**0.71**	**0.81**

A similar picture arises from the five most frequent combinations. Their cumulative frequency ranges from 14% in the literary texts to 17% in the historical texts, the only exception being the didactical texts. In these texts, this frequency amounts to 32% (Table 6.37).

Table 6.37. Inventory and cumulative frequency of the five most frequent lexical combinations of a main verb and an adjunct *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	Lexeme of main verb	Lexeme of *-ant* form	Frequency (%)
Historical	*enfuir* 'to flee'	*quérir* 'to search'	1 (3,44%)
	mourir 'to die'	*fuir* 'to flee'	1 (3,44%)
	venir 'to come'	*crier* 'to shout'	1 (3,44%)
	passer 'to pass'	*occire* 'to kill'	1 (3,44%)
	orer 'to pray'	*pleurer* 'to cry'	1 (3,44%)[18]
			5 (17,24%)
Religious	*dire* 'to say'	*ouïr* 'to hear'	8 (4,52%)
	dire 'to say'	*pleurer* 'to cry'	7 (3,95%)
	aller 'to go'	*pleurer* 'to cry'	5 (2,82%)
	faire 'to do'	*voir* 'to see'	4 (2,26%)
	voir 'to see'	*songer* 'to think'	3 (1,69%)
			27 (15,25%)
Literary	*dire* 'to say'	*pleurer* 'to cry'	7 (4,38%)
	(s'en) tourner 'to return'	*fuir* 'to flee'	6 (3,75%)
	occire 'to kill'	*voire* 'to see'	3 (1,88%)
	dire 'to say'	*rire* 'to laugh'	3 (1,88%)
	départir 'to leave'	*pleurer* 'to cry'	3 (1,88%)[19]
			22 (13,75%)
Didactical	*trouver* 'to find'	*lire* 'to read'	15 (18,99%)
	trouver 'to find'	*dire* 'to say'	6 (7,59%)
	couvrir 'to cover'	*fuir* 'to flee'	2 (2,53%)
	douter 'to doubt'	*dormir* 'to sleep'	1 (1,27%)
	voir 'to see'	*penser* 'to think'	1 (1,27%)[20]
			25 (31,65%)
Legal	*mourir* 'to die'	*pendre* 'to hang'	6 (5,55%)
	prendre 'to take'	*faire* 'to do'	3 (2,78%)
	prendre 'to take'	*justicier* 'to punish'	3 (2,78%)
	faire 'to do'	*justicier* 'to punish'	3 (2,78%)
	acheter 'to buy'	*durer* 'to last'	2 (1,85%)[21]
			17 (15,74%)

On closer inspection, the high portion in the didactical texts is due to the high frequency of one lexical combination, namely *trouver* 'to find'/*lire* 'to read' (26).

[18] The remaining 24 lexical combinations in the historical texts are also hapaxes.
[19] There are two more lexical combinations occurring three times in the literary texts.
[20] The remaining combinations in the didactical texts are represented by 54 more hapaxes.
[21] The legal texts contain two more lexical combinations occurring twice.

(26) *Mais ço truvum* ***lis-ant*** */ En cel compot*
but DEM.OBJ.N.SG find.PRS.1PL read-V.ANT in DEM.OBL.M.SG computus.OBL.M.SG
Gerlant [...].
Gerland
'But we find this by reading in that computus of Gerland.' (Ph. de Thaon *Comput* 483-484)

The use of adjunct *-ant* forms in the literary and legal texts thus does not differ from their use in the historical, religious, and didactical texts in terms of productivity. Closer scrutiny furthermore shows that this thematic variation neither results from a difference in lexical variation of the main verbs and *-ant* forms separately. Indeed, the lexical variation of the *-ant* forms does not greatly differ in the religious, literary, and legal texts (Table 6.38). There is more variation in the didactical texts, but the difference with the three previous text types is too low to be significant. The variation is highest in the historical texts, but given the low absolute number of instances in these texts, this deviant character is probably hazardous.

Table 6.38. Lexical variation of the adjunct *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	29	177	160	79	108
#types	26	65	54	46	45
#hapaxes	23	45	34	36	31
#types/#tokens	**0.90**	**0.37**	**0.34**	**0.58**	**0.42**
#hapaxes/#tokens	**0.79**	**0.25**	**0.21**	**0.46**	**0.29**

Likewise, as shown in Table 6.39, the cumulative frequency of the five most frequent lexemes does not greatly differ among the religious, literary, didactical, and legal texts. In line with Table 6.38, this frequency is lower in the historical texts, with, however, the same proviso of a smaller number of tokens.

Table 6.39. Inventory and cumulative frequency of the five most frequent lexemes used for adjunct *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Lexeme of *-ant* form**	**Frequency (%)**
Historical	*crier* 'to shout'	2 (6,90%)
	parler 'to speak'	2 (6,90%)
	fuir 'to flee'	2 (6,90%)
	quérir 'to search'	1 (3,44%)
	vivre 'to live'	1 (3,44%)[22]
		8 (27,59%)

[22] The remaining 21 adjunct forms in *-ant* in the historical texts are also hapaxes.

Religious	*pleurer* ‘to cry’	29 (16,38%)
	voir ‘to see’	24 (13,56%)
	ouïr ‘to hear’	22 (12,43%)
	dormir ‘to sleep’	9 (5,08%)
	crier ‘to shout’	8 (4,52%)
		92 (51,98%)
Literary	*pleurer* ‘to cry’	26 (16,25%)
	voir ‘to see’	21 (13,13%)
	ouïr ‘to hear’	9 (5,63%)
	dormir ‘to sleep’	9 (5,63%)
	faire ‘to do’	7 (4,38%)[23]
		72 (45,00%)
Didactical	*lire* ‘to read’	15 (18,99%)
	dire ‘to say’	6 (7,59%)
	dormir ‘to sleep’	5 (6,33%)
	fuir ‘to flee’	5 (6,33%)
	pleurer ‘to cry’	2 (2,53%)[24]
		33 (41,77%)
Legal	*pendre* ‘to hang’	17 (15,74%)
	durer ‘to last’	12 (11,11%)
	justicier ‘to punish’	8 (7,41%)
	défendre ‘to defend’	7 (6,48%)
	dire ‘to say’	7 (6,48%)[25]
		51 (47,22%)

The most frequent lexeme in the religious, literary, didactical, and legal texts represents more than 15% of all adjunct *-ant* forms in these texts. The religious and literary texts share their most frequent lexeme, namely *pleurer* ‘to cry’ (27). The most recurrent lexemes in the didactical and legal texts are respectively *lire* ‘to read’ (23/26) and *pendre* ‘to hang’ (28).

(27) *Tristan* *l'* *a* ***plor-ant*** *salüee.*
Tristan she.OBJ.F.SG have.PRS.3SG cry-V.ANT greet.PTCP.PST.F.SG
‘Tristan greeted her while crying.’ (Bér. *Tristan* 3777)

(28) *Quant* *[...]* *il* *muert* *le* *plet* ***pend-ant*** *[...].*
when he.SBJ.M.SG die.PRS.3SG ART.DEF.OBL.M.SG process.OBL.M.SG hang-V.ANT
‘When he dies during the process (...).’ (Ph. de Beau. *Coutumes* 225)

[23] There is one more lexeme occurring seven times in the literary texts.
[24] The didactical texts contain five more lexemes occurring twice.
[25] There is one more lexeme with a token frequency of 7 in the legal texts.

A similar observation can be made with respect to the lexical variation of the main verbs. Hence, Table 6.40, showing this variation, will be presented without being further discussed.

Table 6.40. Lexical variation of the main verbs combined with an adjunct *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	29	177	160	79	108
#types	24	89	70	45	46
#hapaxes	20	64	43	34	27
#types/#tokens	**0.83**	**0.50**	**0.44**	**0.57**	**0.43**
#hapaxes/#tokens	**0.69**	**0.36**	**0.27**	**0.43**	**0.25**

Table 6.41 betokens that the same holds for the cumulative frequency of the five most frequent lexemes. The only difference is that this frequency in the historical texts does not greatly differ from that in the other text types, contrary to what has been observed for the lexical variation of the *-ant* forms.

Table 6.41. Inventory and cumulative frequency of the five most frequent lexemes used for verbs combined with an adjunct *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Lexeme of main verb**	**Frequency (%)**
Historical	*choir* ‘to fall’	3 (10,34%)
	navier ‘to navigate’	2 (6,90%)
	venir ‘to come’	2 (6,90%)
	mourir ‘to die’	2 (6,90%)
	fuir ‘to flee’	1 (3,45%)
		10 (34,48%)
Religious	*dire* ‘to say’	21 (11,86%)
	venir ‘to come’	12 (6,77%)
	faire ‘to do’	10 (5,65%)
	aller ‘to go’	10 (5,65%)
	courir ‘to run’	6 (3,39%)[26]
		59 (33,33%)
Literary	*dire* ‘to say’	16 (10,00%)
	aller ‘to go’	13 (8,13%)
	(s’en) tourner ‘to return’	10 (6,25%)
	venir ‘to come’	8 (5,00%)
	voir ‘to see’	7 (4,38%)
		54 (33,75%)

[26] There is one more lexeme with a token frequency of 6 in the religious texts.

Didactical	*trouver* 'to find'	23	(29,11%)
	aller 'to go'	3	(3,80%)
	venir 'to come'	3	(3,80%)
	prendre 'to take'	2	(2,53%)
	mettre 'to put'	2	(2,53%)[27]
		33	**(41,77%)**
Legal	*prendre* 'to take'	15	(10,77%)
	faire 'to do'	15	(7,69%)
	mourir 'to die'	6	(7,69%)
	être 'to be'	6	(6,15%)
	dire 'to say'	4	(4,62%)
		46	**(42,59%)**

In sum, the use of adjunct *-ant* forms in the literary and legal texts does not differ from their use in the historical, religious, and didactical texts with regard to their productivity, nor with respect to the lexical variation of the main verbs and *-ant* forms separately. So, why then are adjunct *-ant* forms more frequent in the legal texts and less frequent in the literary texts? No explanation has been found for their low frequency in the literary texts (the opposition between verse and prose did not prove relevant either). In contrast, their high frequency in the legal texts might be due to the textual composition of the Old French corpus. Indeed, this corpus comprises only three legal texts, namely the *Chartes de l'Aube*, the *Chartes du Hainaut*, and the *Coutumes de Beauvaisis*. Almost all adjunct forms in the legal domain occur in the latter text (103 instances out of 108), composed by Phillipe de Beaumanoir. Hence, the high frequency of adjunct forms in the legal texts might be an idiolectic feature of this particular author rather than a general feature of the language in legal texts. However, since statistical significance does exclude that some trend is random, the thematic differences in Tables 6.34 and 6.35 might also be accidental.

6.3.3. Degree of categorial determinacy

As noted *supra*, the degree of categorial determinacy of the adverbial *-ant* form will be calculated as the proportion of adjunct forms that are categorisable as either gerunds or present participles on the basis of the presence of respectively a preposition and an inflectional variant of the ending *-ant*.

34% of all adjunct forms are prepositional (188 instances out of 553). The overwhelming majority of these forms (n=178) are governed by *en* 'in', attested in five graphical variants: *en* (29), *a* (30), *am* (31), *an* (32), and *em* (33).

[27] The didactical texts contain six more lexemes occurring twice.

(29) *[...] sospira et en* ***plor-ant*** *li demanda [...].*
sigh.PST.3SG and in cry-V.ANT he.OBL.M.SG ask.PST.3SG
'She sighed and asked him while crying (...).' (*Eneas* 1676)

(30) *[...] s' ele est contraire a soi meisme a* ***respondant***
if she.SBJ.F.SG be.PRS.3SG contrary.SBJ.F.SG to REFL.OBL.F.SG self in answer-V.ANT
as demandes [...].
to;ART.DEF.OBL.F.PL question.OBL.F.PL
'If she contradicts herself in answering the questions (...).' (Ph. de Beau. *Coutumes* 929)

(31) *[...] ele use de ces II choses am* ***plor-ant****.*
she.SBJ.F.SG consume.PRS.3SG of DEM.OBL.F.PL two thing.OBL.F.PL in cry-V.ANT
'She consumes these two things while crying.' (*Vie de s. Genev.* 3)

(32) *[...] mot en parloient an* ***al-ent****.*
a_lot about_her speak.PST.3PL in go-V.ANT
'They spoke a lot about her while moving forth.' (Bér. *Tristan* 3534)

(33) *Il ploroit e disoit em* ***plor-ant*** *[...].*
he.SBJ.M.SG cry.PST.3SG and say.PST.3SG in cry-V.ANT
'He cried and said while crying (...).' (*Vie de s. Eust.* 23)

The remaining ten instances are introduced by *par* 'by' (34) or *sur* 'in' (35), each of them attested five times. *Sur* is graphically realised as *seur* and has a temporal value rather than its default spatial value.

(34) *[...] car adonques puet prendre l' oirs toutes*
for so can.PRS.3SG take.INF.PRS ART.DEF.SBJ.M.SG heir.SBJ.M.SG all.OBL.F.PL
les despueilles par le gaaignage ***pai-ant****.*
ART.DEF.OBL.F.PL harvest.OBL.F.PL by ART.DEF.OBL.M.SG land.OBL.M.SG pay-V.ANT
'For so the heir can take the whole harvest in return for payment of land.' (Ph. de Beau. *Coutumes* 449)

(35) *[...] la seconde manière [...] est de tuer*
ART.DEF.SBJ.F.SG second.SBJ.F.SG manner.SBJ.F.SG be.PRS.3SG by kill.INF.PRS
autrui seur soi ***defend-ant****.*
other.OBL.M.SG on REFL.OBL.M.SG defend-V.ANT
'The second manner is by killing someone in self-defense.' (Ph. de Beau. *Coutumes* 889)

Assuming that the present participle does not acquire the potential to be prepositional in the transition from Late Latin to Old French or during the Old French period itself, these prepositional forms can be taken as gerunds. Thus, the degree of categorial determinacy of the adverbial -*ant* form is at least 34%.

In addition, 46 adjunct -*ant* forms exhibit an inflectional variant of the ending -*ant*. This equals a relative frequency of 8%. The form *oianz* 'hearing' (36) is a case in point.

(36) *L'* *ymage* *dist,* ***oi-anz*** *les*
ART.DEF.SBJ.F.SG statue.SBJ.F.SG say.PST.3SG hear-V.ANT.OBL.F.PL ART.DEF.OBL.F.PL
genz *[...].*
people.OBL.F.PL
'The statue (of saint Mary) said in the presence of the people (...) (lit. 'while the people could hear (it)').
(Adg. *Mir.* 38.289)

Unless the gerund acquires the potential to agree with its subject in the transition from Late Latin to Old French or within the period of Old French, these agreeing forms can all be taken as present participles. Hence, the degree of categorial determinacy of the adverbial *-ant* form increases from 34% to 42%. In absolute numbers, this means that 234 forms are categorially determinate.

6.3.4. Conclusion

Adjunct *-ant* forms represent 26% of all *-ant* forms in the Old French corpus of this study. This portion is slightly lower in Early Old French, but in a statistically insignificant way. It is also higher in the legal texts than in the other types of texts, but this difference is not related to a difference in productivity, nor to a difference in lexical variation of the main verbs and *-ant* forms separately. It might result from an idiosyncratic feature of the language of one author (Philippe de Beaumanoir) or simply be hazardous.

Of this group of adjunct forms, 34% can be categorised as gerunds and 8% as present participles. This equals an absolute number of 234 forms. These 234 categorially determinate forms represent 11% of the total number of *-ant* forms. As a corollary, the degree of categorial determinacy of the Old French *-ant* form raises from 45% to 56% – the percentage of 45% was obtained on the basis of the adjectival forms. However, as stated in §6.2.4, this percentage needs to be interpreted within the broad definition of the *-ant* form adopted in this study. In a stricter definition, some adjectival instances would hold as adjectives, and would therefore be excluded from the dataset. The resulting lesser presence of adjectival forms would increase the proportion of adverbial forms. Since the latter, but not the former, have a low degree of categorial determinacy (34% *versus* 100%), the outcome would be a lower degree of categorial determinacy of the Old French *-ant* form in general.

6.4. The verbal *-ant* form

The last type of *-ant* forms to be examined are those exhibiting verbal external syntax. In principle, these forms can be used as the main verb of either a progressive construction (e.g. *demenant* 'pursue' and *abatant* 'slaying' (37)) or a presentative progressive construction (e.g. *seant* 'sitting' (38)) (see §2.2.2.3).

(37) *Bretun* *les* *vunt* *mult* ***demen-ant*** / *E* *a* *granz*
Briton.SBJ.M.PL they.OBJ.M.PL go.PRS.3PL much pursue-V.ANT and in large.OBL.F.PL
turbes ***abat-ant*** *[...].*
crowd.OBL.F.PL slay-V.ANT
'The Britons go heavily pursuing them and slaying them in large numbers.' (Wace *Brut* 12069-12070)

(38) *[...] Sur* *la* *roche* *u* *sunt* *venud* / *Trovent*
on ART.DEF.OBL.F.SG rock.OBL.F.SG where be.PRS.3PL come.PTCP.PST.M.PL find.PRS.3PL
se-ant *homme* *nud.*
sit-V.ANT man.OBL.M.SG naked.OBL.M.SG
'On the rock where they arrived, they found a naked man sitting.' (Ben. *Brendan* 1221-1222)

However, the corpus of this study also contains two forms used in a way that has gone unnoticed in the literature. Like those occurring in a progressive construction, these forms act as the main verb of a verbal periphrasis, but instead of denoting a durative state of affairs, this periphrasis expresses the starting point of the state of affairs denoted by the *-ant* form. The auxiliary (or the verb used as such) is thus (partly) grammaticalised as a marker of the inchoative aspect (*cf.* Comrie 1976: 19-20). The construction as a whole can as such be defined as an inchoative construction. The auxiliary of this construction is realised by two distinct, but semantically related lexemes: *se mettre* 'to put' (39) and *remettre* 'to put again' (40).

(39) *[...] suvent* *se* *mist* ***sigl-ant*** *en* *mer* *[...].*
often REFL.OBJ.M.SG put.PST.3SG sail-V.ANT in sea.OBL.F.SG
'He often set sail on the sea (lit. 'he often put himself to sail on the sea').' (Wace *Brut* 14169)

(40) *[...] et* *Perceval* *remest* ***dorm-ant*** *qui* *mout* *fu*
and Perceval.SBJ.M.SG put_again.PST.3SG sleep-V.ANT REL.SBJ.M.SG very be.PST.3SG
travailliez *de* *ceste* *avision.*
tired.SBJ.M.SG of DEM.OBL.F.SG vision.OBL.F.SG
'And Perceval, who was very tired because of this vision, went back to sleep.' (*Graal* 133)

Given its extreme rareness (2 instances out of 2 153 or 0,09%) and given the fact that it is not preserved in later stages of the language, the use of the *-ant* form in an inchoative construction has, according to the terminology of Harris & Campbell (1995: 54), the status of an exploratory expression: they are part of the set of universally available expressions that may turn up spontaneously in several languages for the sake of enhancing expressivity or avoiding ambiguity. They may either be further grammaticalised or simply remain hapaxes. Noteworthily, French did develop an inchoative construction, but the non-finite verb form used in this construction is an infinitive, as illustrated in the Modern French example in (41) (Verroens 2011).

(41) *Ils* *se* *mettaient* *à* ***lutter*** *contre* *eux.*
they.SBJ.M.PL REFL.M.PL put.PST.3PL to fight.INF.PRS against they.OBL.M.PL
'They started to fight against them.' (Verroens 2011: 11)

In Late Latin, the gerund nor the present participle can occur in an inchoative construction. Hence, the forms in (39-40) cannot be categorised from a retrospective historical approach, and are thus categorially indeterminate. By contrast, the forms used in a presentative progressive construction can be categorised as present participles, because this use is only accessible to the Late Latin present participle. As to the forms in a progressive construction, they are categorially indeterminate. Indeed, this use is accessible to both the Late Latin gerund and present participle, and the Late Latin data of this study do not provide evidence in favour of a replacement of the present participle by the gerund in this construction. However, as in the case of the adjunct forms, some of these instances can nonetheless be categorised on the basis of the presence of a preposition or an inflectional variant of the ending *-ant*, provided, as always, that the gerund and the present participle do not encroach on each other's morphology in the transition from Late Latin to Old French, nor within the period of Old French itself.

This section will examine respectively the *-ant* forms used in progressive (§6.4.1) and presentative progressive constructions (§6.4.2). I will bring together the results obtained for these forms in §6.4.3, in order to draw a conclusion for the verbal *-ant* form as a whole.

6.4.1. *-Ant* forms used in a progressive construction

-Ant forms functioning as the main verb of a progressive construction can be combined with two types of auxiliaries (or verbs used as such): existential/posture verbs (e.g. *être* 'to be' (42)) or motion verbs (e.g. *aller* 'to go' (43)).[28]

(42) *La* *glorie* *d'* *icest* *mund* *n'* *est*
ART.DEF.SBJ.F.SG glory.SBJ.F.SG of DEM.OBL.M.SG world.OBL.M.SG NEG be.PRS.3SG
lungement ***dur-ant.***
for_a_long_time last-V.ANT
'The glory of this world is not lasting for a long time.' (Guernes *Becket* 1245)

[28] Remember that, in the transition from Late Latin to Old French, the existential verb *esse* 'to be' and the posture verb *stare* 'to stand' survive as two distinct verbs (respectively *être* and *ester*), but that some of their forms merge morphologically. The result is a situation of lexical indeterminacy. Following convention, all forms in issue will be analysed as forms of *être*, all the more because no instances have been found of progressive constructions containing an auxiliary that undoubtedly qualifies as a form of *ester*. Due to the morphological merging of the two verbs, the static auxiliaries are best described as existential/posture verbs.

(43) *Li* *sans* *vait* ***degut-ant*** / *Sur* *les*
ART.DEF.SBJ.M.SG blood.SBJ.M.SG go.PRS.3SG drop-V.ANT on ART.DEF.OBL.M.PL
oisels *chaant* *[...]*.
bird.OBL.M.PL sing.V-ANT
'The blood goes dropping on the singing birds.' (Ph. de Thaon *Bestiaire* 2361)

The examination of this type of -*ant* forms will be conducted in two steps. First, I will investigate their frequency in general (§6.4.1.1) as well as their frequency and productivity in the five thematic domains (§6.4.1.2). The latter section will also explore the inventory of the verbs used as auxiliaries. Then, I will measure the degree of categorial determinacy of the -*ant* forms on the basis of the morphological criteria mentioned above (§6.4.1.3).

6.4.1.1. Frequency

-*Ant* forms occur about as often in progressive constructions as in adnominal phrases and adjuncts. Their absolute frequency amounts to 6.75 instances per 10 000 words (*versus* 6.17 adnominal forms and 6.55 adjunct forms). Their portion to the total number of -*ant* forms is thus also similar (26% or 570 instances out of 2 153, against 24% and 26% for respectively adnominal and adjunct forms). The frequency of this type of -*ant* forms is considerably higher in Early Old French than in the 12th-13th c., according to both measurements (Table 6.42).

Table 6.42. Frequency of -*ant* forms used in a progressive construction in Early Old French and the 12th-13th c.

Period	**#-*ant* forms used in a progressive construction (per 10 000 words)**		**#-*ant* forms (per 10 000 words)**		**#-*ant* forms used in a progressive construction/ #-*ant* forms**
Early Old French	19	(21.21)	33	(36.84)	57,58%
12th-13th c.	506	(6.27)	1 989	(24.63)	25,44%

The *Chanson de Roland* contains 16.38 -*ant* forms used in a progressive construction per 10 000 words. The proportion of these forms to the total number of -*ant* forms in this text is 34% (45 instances out of 131). On the basis of this use of the -*ant* form, the *Chanson de Roland* thus behaves more like 12th-13th c. texts than as Early Old French texts (the proportion of -*ant* forms to the total number of -*ant* forms is more telling than their (normalised) absolute frequency). This result is in line with that obtained for the three types of adjectival -*ant* forms, but at odds with that obtained for the adjunct forms.

According to a chi-square goodness-of-fit test, the decreasing proportion of -*ant* forms used in a progressive construction might reflect a linguistic change, since their fraction is higher than expected in

Early Old French and lower than expected in the 12th-13th c. in a statistically highly significant way ($\chi 2 = 11.7$; df = 1; p = 0.0006) (Table 6.43).

Table 6.43. Observed *vs* expected proportion of *-ant* forms used in a progressive construction to the total number of *-ant* forms in Early Old French and the 12th-13th c.

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Early Old French	19	(57,58%)	9	(27,27%)	+3.56
12th-13th c.	506	(25,44%)	516	(25,94%)	-0.46

However, the low frequency of *-ant* forms in Early Old French does not allow making conclusive claims. Hence, it is not excluded that the decline observed in Table 6.42 is nonetheless random, conformingly to the fact that statistical significance does not necessarily mean that some trend cannot be due to chance. Nonetheless, the high proportion of *-ant* forms used in a progressive construction in Early Old French in comparison with the 12th-13th c. might have something to do with the opposition between versified texts and texts written in prose. Indeed, all texts in the Early Old French corpus are versified. Hence, the high proportion of the *-ant* forms in issue in these texts might be due to their versified character. This is confirmed by the texts of the 12th-13th c. corpus: the use of *-ant* forms in a progressive construction is significantly more frequent in versified texts than in texts written in prose ($\chi 2 = 4.07$; df = 1; p = 0.0437) (Table 6.44).

Table 6.44. Observed *vs* expected proportion of *-ant* forms used in a progressive construction to the total number of *-ant* forms in versified texts and in texts written in prose in the 12th-13th c.

Form	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Prose	186	(36,76%)	209	(41,30%)	-1.58
Verse	320	(63,24%)	297	(58,70%)	+1.33

One of the factors contributing to the high frequency of this type of *-ant* forms in versified texts is that these forms easily allow end rhymes, as in (44).

(44) *Gran folcs aredre, gran davan: /gran e petit*
great.SBJ.M..SG crow.SBJ.M.SG behind great.SBJ.M..SG before great.SBJ.M.PL and little.SBJ.M.PL
Deu van ***laud-ant****. / Ensobre tot petiz enfan /*
God.OBL.M.SG go.PRS.3PL praise-V.ANT above all.SBJ.M.PL little.SBJ.M.PL child.SBJ.M.PL
osanna semper van ***clam-ant****.*
osanna always go.PRS.3PL shout-V.ANT
'A large crowd (goes) behind, and a large (crowd goes) before. Adults and children are praising God. Above, all the little children are always shouting: "Osanna". (*Passion* 45-48)

Other types of *-ant* forms also allow end rhymes (e.g. the adnominal form *chant* 'singing' in (43)), but the advantage of the forms used in a progressive construction is that they are part of a verbal periphrasis structurally equivalent to a finite verb form. As such, they do not complicate the syntax of the sentence by adding a subordinating clause, and can be introduced in a flexible way. This advantage is particularly relevant for the oldest texts, which, as stated in §6.3.1, are mostly versified written renderings of texts that have been transmitted orally and that usually contain short sentences and few subordinating clauses (*cf.* Giouffi 2020: 127).

6.4.1.2. Frequency and productivity in the five thematic domains

A closer look at the *-ant* forms used in a progressive construction reveals that their (normalised) absolute frequency is highest in the didactical texts, whereas their proportion to the total number of *-ant* forms is highest in the historical texts (Table 6.45). Both frequencies are lowest in the religious texts.

Table 6.45. Frequency of *-ant* forms used in a progressive construction in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**#-*ant* forms used in a progressive construction (per 10 000 words)**		**#-*ant* forms (per 10 000 words)**		**#-*ant* forms used in a progressive construction/#-*ant* forms**
Historical	52	(10.67)	122	(25.04)	42,62%
Religious	115	(4.06)	573	(20.21)	20,07%
Literary	217	(8.08)	779	(29.00)	27,86%
Didactical	116	(12.92)	388	(43.22)	29,90%
Legal	70	(4.57)	291	(19.00)	24,05%

A chi-square goodness-of-fit test shows that the proportion of the forms in issue is lower than expected in the religious and legal texts and higher than expected in the historical, literary, and didactical texts in a statistically highly significant way ($\chi 2 = 23.82$; df = 4; $p < 0.0001$) (Table 6.46).

Table 6.46. Observed *vs* expected proportion of *-ant* forms used in a progressive construction in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Observed frequency (%)**		**Expected frequency (%)**		**Standardised residuals**
Historical	52	(42,62%)	32	(26,23%)	+3.47
Religious	115	(20,07%)	152	(26,53%)	-2.98
Literary	217	(27,86%)	206	(26,44%)	+0.75
Didactical	116	(29,90%)	103	(26,55%)	+1.31
Legal	70	(24,05%)	77	(26,46%)	-0.80

However, the only significant contribution to the chi-square values is made by the overrepresentation of instances in the historical texts and by their underrepresentation in the religious texts. Thus, the question arises as to what distinguishes the use of these forms in the historical and religious texts from their use in the other thematic domains. In what follows, I will investigate whether this difference comes from a difference in productivity.

The productivity of the forms at stake has been measured in terms of the lexical variation between the *-ant* form and the auxiliary (or the verb used as such). Table 6.47 shows that this productivity degree displays a relatively modest thematic variation in the historical, religious, literary, and didactical texts. In the legal texts, on the contrary, their productivity is extremely low.

Table 6.47. Productivity of the progressive *-ant* form construction in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	52	115	217	116	70
#types	45	83	126	82	8
#hapaxes	40	64	100	66	4
#types/#tokens	**0.87**	**0.72**	**0.58**	**0.71**	**0.11**
#hapaxes/#tokens	**0.77**	**0.56**	**0.46**	**0.57**	**0.06**

In other words, the progressive *-ant* form construction is much less schematic in the legal texts than in the other thematic domains. However, closer scrutiny shows that the low figures in the legal texts are due to the high frequency of two combinations. This is evident in Table 6.48, presenting the inventory and cumulative frequency of the five most frequent lexical combinations in each thematic domain.

Table 6.48. Inventory and cumulative frequency of the five most frequent lexical combinations of a verb used as a progressive marker and an *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Lexeme of auxiliary**	**Lexeme of *-ant* form**	**Frequency (%)**
Historical	*aller* ‘to go’	*fuir* ‘to flee’	4 (7,69%)
	aller ‘to go’	*quérir* ‘to search’	2 (3,85%)
	aller ‘to go’	*navier* ‘to navigate	2 (3,85%)
	aller ‘to go’	*demander* ‘to ask’	2 (3,85%)
	venir ‘to come’	*suivre* ‘to follow’	2 (3,85%)
			12 (23,08%)

Religious	*venir* ‘to come’	*courir* ‘to run’	7	(6,09%)
	être ‘to be’	*manoir* ‘to stay’	4	(3,48%)
	aller ‘to go’	*crier* ‘to shout’	3	(2,61%)
	aller ‘to go’	*quérir* ‘to search’	3	(2,61%)
	aller ‘to go’	*parler* ‘to speak’	3	(2,61%)[29]
			20	**(17,39%)**
Literary	*aller* ‘to go’	*quérir* ‘to search’	34	(15,67%)
	aller ‘to go’	*fuir* ‘to flee’	13	(5,99%)
	venir ‘to come’	*courir* ‘to run’	6	(2,76%)
	aller ‘to go’	*dire* ‘to say’	5	(2,30%)
	aller ‘to go’	*regarder* ‘to watch’	5	(2,30%)[30]
			63	**(29,03%)**
Didactical	*aller* ‘to go’	*quérir* ‘to search’	7	(6,03%)
	être ‘to be’	*entendre* ‘to hear’	7	(6,03%)
	aller ‘to go’	*dire* ‘to say’	6	(5,17%)
	aller ‘to go’	*nager* ‘to swim’	3	(2,59%)
	venir ‘to come’	*voler* ‘to fly’	3	(2,59%)[31]
			26	**(22,41%)**
Legal	*être* ‘to be’	*coucher* ‘to sleep’	31	(44,29%)
	être ‘to be’	*lever* ‘to get up’	31	(44,29%)
	être ‘to be’	*manoir* ‘to remain’	2	(2,86%)
	être ‘to be’	*demeurer* ‘to stay’	2	(2,86%)
	être ‘to be’	*arrêter* ‘to stop’	1	(1,43%)[32]
			67	**(95,71%)**

The five most frequent combinations represent 96% of all lexical combinations in the legal texts, while they account for only between 17% and 29% in the other types of texts. Additionally, the most frequent combination accounts for 44% in the legal texts, against between 6% and 16% in the other text types. Moreover, the legal texts contain two combinations with a frequency of 44%. Hence, the overwhelming majority of the progressive constructions in these texts are represented by only two lexical combinations. These combinations are always used in coordination and confined to the *Coutumes de Beauvaisis*. The combinations in issue are *être* ‘to be’/*coucher* ‘to sleep’ and *être* ‘to be’/*lever* ‘to get up’ (45).

[29] There are three more lexical combinations occurring thrice in the religious texts.
[30] The literary texts contain one more lexical combination occurring five times.
[31] There are two more lexical combinations with a token frequency of 3 in the didactical texts.
[32] The legal texts contain three more hapaxes.

(45) *[...] devant le seigneur dessous qui il sont*
before ART.DEF.OBL.M.SG lord.OBL.M.SG under REL.SBJ.M.SG they.SBJ.M.PL be.PRS.3PL
couch-ant *et* ***lev-ant****.*
sleep-V.ANT and get_up-V.ANT
'In the presence of the lord under whom they are staying (lit. 'sleeping and getting up').' (Ph. de Beau. *Coutumes* 577)

Thus, the low productivity of the progressive construction in the legal texts might reflect an idiosyncratic feature of the language of one author, *i.e.* Philippe de Beaumanoir, rather than of the juridical language in general. The same conclusion was drawn for the high frequency of adjunct forms in the legal texts.

Table 6.48 also shows that the literary texts contain one particularly frequent lexical combination, *viz. aller* 'to go'/*quérir* 'to search' (46).

(46) *E quant ele at sei grant / Une*
and when she.SBJ.F.SG have.PRS.3SG thirst.OBL.F.SG great.OBL.F.SG ART.INDF.OBL.F.SG
eve vait ***quer-ant****.*
water.OBL.F.SG go.PRS.3SG look-V.ANT
'And when she has great thirst, she looks for water.' (Ph. de Thaon *Bestiaire* 769-770)

In sum, the productivity of the progressive construction in the historical and religious texts does not greatly differ from its productivity in the literary and didactical texts. The frequency difference of this construction between the historical and religious texts, on the one hand, and the literary and didactical texts, on the other, is thus not due to a difference in productivity. Only the legal texts behave differently, but their deviant character is probably due to an idiolectic feature of Philippe de Beaumanoir alone. This observation is important from the point of view of corpus building: at least for carrying out quantitative studies, it is preferable to include samples of texts from a plurality of authors rather than long texts from a few authors, in order to diversify the idiolects as much as possible with respect to different parameters, such as historical periods, textual genres, and thematic areas.

A similar conclusion emerges from the study of the lexical variation of the *-ant* forms separately. Therefore, Table 6.49 presenting this variation will be given without further discussion.

Table 6.49. Lexical variation of the *-ant* forms used in a progressive construction in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	52	115	217	116	70
#types	43	80	113	79	8
#hapaxes	38	59	84	62	4
#types/#tokens	0.83	0.70	0.52	0.68	0.11
#hapaxes/#tokens	0.73	0.51	0.39	0.53	0.06

The same holds for the cumulative frequency of the five most frequent lexemes (Table 6.50).

Table 6.50. Inventory and cumulative frequency of the five most frequent lexemes used for *-ant* forms in a progressive construction in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Lexeme of *-ant* form**	**Frequency (%)**
Historical	*fuir* 'to flee'	6 (11,54%)
	quérir 'to search'	2 (3,85%)
	suivre 'to follow'	2 (3,85%)
	navier 'to navigate'	2 (3,85%)
	demander 'to ask'	2 (3,85%)
		14 (26,92%)
Religious	*courir* 'to run'	8 (6,96%)
	manoir 'to remain	4 (3,48%)
	quérir 'to search'	3 (2,61%)
	parler 'to speak'	3 (2,61%)
	crier 'to shout'	3 (2,61%)[33]
		21 (18,26%)
Literary	*quérir* 'to search'	34 (15,67%)
	fuir 'to flee'	15 (6,91%)
	courir 'to run'	7 (3,23%)
	dormir 'to sleep'	6 (2,76%)
	faire 'to do'	5 (2,30%)[34]
		67 (30,88%)
Didactical	*quérir* 'to search'	7 (6,03%)
	entendre 'to hear'	7 (6,03%)
	dire 'to say'	6 (5,17%)
	voler 'to fly'	4 (3,45%)
	nager 'to swim'	3 (2,59%)[35]
		27 (23,28%)

[33] The religious texts contain three more lexemes occurring thrice.
[34] There are two more lexemes with a token frequency of 5 in the literary texts.
[35] The didactical texts contain three more lexemes used three times.

Legal	*coucher* 'to sleep'	31	(44,29%)
	lever 'to get up'	31	(44,29%)
	manoir 'to remain'	2	(2,86%)
	demeurer 'to stay'	2	(2,86%)
	arrêter 'to stop'	1	(1,43%)[36]
		67	**(95,71%)**

The verbs used as auxiliaries (primarily) serve a grammatical function. Hence, their lexical variation is lower than that of the *-ant* forms. Table 6.51 shows that their lexical variation is very low in the five text types, ranging between two and four types (the absolute number of types and hapaxes is more interesting here than the type-token and hapax-token rations).

Table 6.51. Lexical variation of the auxiliaries used in a progressive construction in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	52	115	217	116	70
#types	4	4	4	3	2
#hapaxes	1	0	1	0	1
#types/#tokens	**0.08**	**0.03**	**0.02**	**0.03**	**0.03**
#hapaxes/#tokens	**0.02**	**0.00**	**0.00**	**0.00**	**0.01**

Table 6.52 presents the inventory and frequency of the auxiliaries per thematic domain.

Table 6.52. Inventory and frequency of the auxiliaries used in a progressive construction in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Lexeme of auxiliary**	**Frequency (%)**	
Historical	*aller* 'to go'	42	(80,77%)
	venir 'to come'	7	(13,46%)
	être 'to be'	2	(3,85%)
	entrevenir 'to come'	1	(1,92%)
		52	**(100,00%)**
Religious	*aller* 'to go'	75	(65,22%)
	être 'to be'	23	(20,00%)
	venir 'to come'	14	(12,17%)
	gésir 'to lie'	3	(2,61%)
		115	**(100,00%)**

[36] There are three more hapaxes in the legal texts.

Literary	*aller* 'to go'	166	(76,50%)
	venir 'to come'	27	(12,44%)
	être 'to be'	23	(10,60%)
	remaindre 'to remain'	1	(0,46%)
		217	**(100,00%)**
Didactical	*aller* 'to go'	100	(86,21%)
	être 'to be'	11	(9,48%)
	venir 'to come'	5	(4,31%)
		116	**(100,00%)**
Legal	*être* 'to be'	69	(98,57%)
	aller 'to go'	1	(1,43%)
		70	**(100,00%)**

First and foremost, Table 6.52 shows the dominance of *aller* 'to go' (384 instances out of 570, *i.e.* 67%). However, it also shows that both types of verbs that can act as the auxiliary of a progressive construction are attested, *i.e.* existential/posture verbs and motion verbs. The former are represented by three distinct lexemes: *être* 'to be' (47), *gésir* 'to lie' (48), and *remaindre* 'to remain' (49).

(47) *Un* *prestres* *ert* *messe* ***chant-ant***.
ART.INDF.SBJ.M.SG priest.SBJ.M.SG be.PST.3SG Mass.OBL.F.SG sing-V.ANT
'A priest was singing the Mass.' (Adg. *Mir.* 9.1)

(48) *[...]* *é* *jurent* *partut* ***mangi-anz*** *é* ***bev-anz*** *é* *ensement*
and lie.PST.3PL everywhere eat-V.ANT.SBJ.M.PL and drink-V.ANT.SBJ.M.PL and thus
cume *feste* ***celebr-anz*** *[...]*.
as party.OBL.F.SG celebrate-V.ANT.SBJ.M.PL
'And everywhere they were eating and drinking and thus celebrating as at a party.' (*Rois* 58)

(49) *Et* *cil* *remaint* ***dorm-ant*** *toz* *seus* *[...]*.
and DEM.SBJ.M.SG remain.PST.3SG sleep-V.ANT entirely alone.SBJ.M.SG
'And that man kept sleeping all alone.' (Chr. de Troyes *Yvain* 2956)

Within the group of the motion verbs, three distinct lexemes occur: (i) *aller* 'to go' (50) and its variants *s'aller* 'to go' (51), *s'en aller* 'to go' (52), and *en aller* 'to go' (53); (ii) *venir* 'to come' (54), also attested under the forms *en venir* 'to come' (55) and *s'en venir* 'to come' (56); and (iii) *s'entrevenir* 'to come together' (57).

(50) *Mais* *alquant* *vunt* ***dis-ant*** / *Quë* *[...]*.
but some.SBJ.M.PL go.PRS.3PL say-V.ANT that
'But some are saying that (...).' (Ph. de Thaon *Comput* 655-656)

(51) *Bretun* *s'* *aloent* ***esmai-ant*** *[...].*
Briton.SBJ.M.PL REFL.OBJ.M.PL go.PST.3PL worry-V.ANT
'The Britons were worrying.' (Wace *Brut* 12199)

(52) *Idunches* *s'* *en* *ala* *li* *clers* ***repurpens-ant***
so REFL.OBL.M.SG INCH go.PST.3SG ART.DEF.SBJ.M.SG clerk.SBJ.M.SG think-V.ANT
coment *i* *avendra* *[...].*
how there get.FUT.3SG
'So, the clerk was thinking about how he could get there.' (Guernes *Becket* 6116)

(53) *[…]* *En* *paradis* *en* *irommez* ***chant-ant*** *[...].*
in paradise.OBL.M.SG INCH go-FUT.2PL sing-V.ANT
'You will be singing in paradise.' (*Ami* 3007)

(54) *Li* *oisels* *[...]* *al* *gupil* *vient*
ART.DEF.SBJ.M.SG bird.SBJ.M.SG to;ART.DEF.OBL.M.SG fox.OBL.M.SG come.PRS.3SG
vol-ant *[...].*
fly-V.ANT
'The bird comes flying to the fox.' (Ph. de Thaon *Bestiaire* 1785-1787)

(55) *[...]* *jusque* *en* *Alsis* *en* *vindrent* *dui* ***err-ant*** *[...].*
as_far_as in Alsis INCH come.PST.3PL two.SBJ.M.PL travel-V.ANT
'Two travelled (lit. 'came travelling') as far as into Alsis.' (*Alexis* 113)

(56) *[...]* *s'* *en* *vint* ***fui-ant*** *en* *Coustantinoble* *[...].*
REFL.OBJ.M.PL INCH come.PST.3SG flee-V.ANT to Constantinopel
'He came fleeing to Constantinopel.' (*Constantinople* 112)

(57) *[...]* *serreement* *[...]* *s'* *entrevindrent* ***entr'aprism-ant*** *[...].*
with_resolution REFL.OBJ.M.PL come_together.PST.3PL approach_each_other-V.ANT
'With resolution, they came closer to each other (lit. 'came approaching each other').' (Wace *Brut* 12541-12542)

Table 6.52 also shows that the motion verb *aller* 'to go' is dominant in the historical, religious, literary, and didactical texts, while the dominant auxiliary in the legal texts is *être* 'to be'.

In sum, the use of *-ant* forms in a progressive construction in the historical and religious texts does not significantly differ from their use in the literary and didactical texts with regard to either their productivity or the lexical variation of the auxiliaries and the *-ant* forms separately. Why then is this use of the *-ant* form more frequent in historical texts and less frequent in religious texts? While I could not find any explanation for its low frequency in the religious texts, its high frequency in the historical texts might again be due to an idiosyncratic feature of the language of one author rather than to a property of the language used in historical texts in general: almost all *-ant* forms used in a progressive construction in the historical texts come from a single text, namely Wace's *Brut* (45 instances out of 52).

6.4.1.3. Degree of categorial determinacy

As in the case of the adjunct forms, the degree of categorial indeterminacy of the -*ant* forms used in a progressive construction will be measured by calculating the proportion of forms categorisable as either gerunds or present participles based on the presence of respectively a preposition and an inflectional variant of the ending -*ant*.

Only one prepositional -*ant* form serving as the main verb of a progressive construction has been retrieved, *viz. en saltant* 'jumping' (58).

(58) *Saciez* *li* *elefant* *que* *il* *vunt* *en* ***salt-ant.***
know.IMP.PRS.2PL ART.DEF.SBJ.M.PL elephant.SBJ.M.PL that they.SBJ.M.PL go.PRS.3PL in jump.V.ANT
'Know that elephants go jumping.' (Ph. de Thaon *Bestiaire* 1561-1562)

As has been discussed in detail in §3.5.4, -*ant* forms can often be analysed as either manner adjuncts or the main verb of a progressive construction. In (58), the latter analysis of *saltant* 'jumping' is preferable due to its impossibility to be omitted. However, adjunct -*ant* forms are subject to the same categorisation problems as those used in a progressive construction, and so the syntactic ambiguity of *saltant* 'jumping' (58) does not influence the degree of categorial (in)determinacy of the Old French -*ant* form.

Under the assumption that the present participle does not become compatible with prepositions in the transition from Late Latin to Old French or within the period of Old French itself, the prepositional form in (58) can be analysed as a gerund. The impact of this unique instance on the degree of categorial determinacy of the -*ant* forms used in a progressive construction is negligible: 0,18% (1 instance out of 570).

As to the criterion of morphological inflection, the Old French corpus comprises 80 -*ant* forms in progressive constructions showing an inflectional variant of the ending -*ant* (e.g. the coordinated forms *mangianz* 'eating', *bevanz* 'drinking', and *celebranz* 'celebrating' in (48)). This number does not include the rare forms having a graphical or phonetic variant of the ending -*ant*, practically confined to two of the oldest texts. The variants -*an* (59), -*and* (60), -*en* (61), and -*end* (62) occur in the *Passion de Jésus-Christ* and the *Vie de saint Léger*, while the variant -*ent* is occasionally attested in later texts, for instance in Chrétien de Troyes' *Yvain* (63).

(59) *[...]* *per* *mals* *conselz* *van* ***demand-an*** *nostre* *sennior*
by bad.OBL.M.PL advice.OBL.M.PL go.PRS.3PL ask-V.ANT our.OBL.M.SG Lord.OBL.M.SG
cum *tradissant.*
that surrender.SBJV.PST.3PL
'By bad advice they are asking that our Lord be surrendered.' (*Passion* 79-80)

(60) *[...] fortment lo vant il* ***acus-and*** *[...].*
insistently he.OBJ.M.SG go.PRS.3PL they.SBJ.M.PL accuse-V.ANT
'They are accusing him with insistence.' (*Passion* 203)

(61) *[...] sanz Pedre sols* ***segw-en*** *lo vai [...].*
saint.SBJ.M.SG Peter alone.SBJ.M.SG follow-V.ANT he.OBJ.M.SG go.PRS.3SG
'Saint Peter alone is following him.' (*Passion* 167)

(62) *[...] de dobpla corda lz vai* ***fir-end****, tot*
with double.OBL.F.SG whip.OBL.F.SG he.OBJ.M.SG go.PRS.3SG beat-V.ANT all.OBL.M.SG
lor marched vai ***desfaz-end****.*
their.OBL.M.SG market.OBL.M.SG go.PRS.3SG destroy-V.ANT
'He is beating them with a double whip and destroying their whole market.' (*Passion* 75-76)

(63) *[...] Plus menuemant que brachez / Ne vet* ***trac-ent*** *perdriz*
more attentively than hound.SBJ.M.SG NEG go.PRS.3SG chase-V.ANT partridge.OBL.M.SG
ne caille.
NEG quail.OBL.M.SG
'(...) more meticulously than a hound tracks partridges or quails' (Chr. de Troyes *Yvain* 1264-1265)

The 80 forms with an inflectional variant of the ending *-ant* account for 14% of all *-ant* forms used in a progressive construction. Unless the gerund acquires the potential to agree with its subject between Late Latin and Old French or during the Old French period, these 14% can be taken as present participles.

On the basis of two morphological criteria just explored, 81 forms occurring in a progressive construction can be taken as either gerunds or present participles. The degree of categorial determinacy of these forms is thus 14% (81 instances out of 570). The remaining 86% are categorially indeterminate (n= 489).

6.4.1.4. Conclusion

-Ant forms serving as the main verb of a progressive construction represent 26% of all *-ant* forms. This proportion is higher in Early Old French than in the 12th-13th c., which might be due to the fact that all texts of the Early Old French corpus are versified – for this type of texts have been shown to comprise significantly more *-ant* forms used in a progressive construction than texts written in prose. Nonetheless, the low overall number of *-ant* forms in Early Old French invites us to interpret this result with caution. The historical texts contain more *-ant* forms in progressive constructions than the other text types. This difference is not related to a difference in productivity, but seems to result from an idiosyncratic feature of the language of one author, namely Wace.

One -*ant* form used as the main verb of a progressive construction can be categorised as a gerund, while 80 instances can be taken as present participles. These 81 forms represent 4% of the total number of -*ant* forms. Hence, the degree of categorial determinacy of the Old French -*ant* form raises from 56% to 59% (instead of 60% for reasons of rounding). The percentage of 56% was obtained on the basis of the adjectival and adverbial -*ant* forms. However, as mentioned before, this rate should be assessed in view of the broad definition of the -*ant* form in this study. In a stricter definition, the number of adjectival -*ant* forms would be lower, and, hence, the proportion of forms in progressive constructions would be higher. Since the former are categorially determinate, while the latter are predominantly indeterminate, the degree of categorial determinacy of the Old French -*ant* form would be lower.

6.4.2. -*Ant* forms used in a presentative progressive construction

The second type of -*ant* forms with the external syntax of the verb act as the main verb of a presentative progressive construction. In this construction, an -*ant* form combines with a NP and one of the following items: (i) a third person form of *avoir* 'to have' (64); (ii) the presentative *ès* 'behold' (65); (iii) a verb of sensory perception, such as *trovent* 'they find' (66) (see 2.2.2.3.2 and Vangaever 2021). The -*ant* form denotes a state of affairs presented as ongoing.

(64) *Une* *corune* *d'* *or* *out* *a* *la*
ART.INDF.OBL.F.SG crown.OBL.F.SG of gold.OBL.M.SG have.PST.3SG at ART.DEF.OBL.F.SG
croiz ***pend-ant*** *[...].*
cross.OBL.F.SG hang-V.ANT
'There was hanging a golden crown at the cross.' (Guernes *Becket* 6101)

(65) *Eis* *vus* ***puin-ant*** *li* *quens* *de* *Flandres* *[...].*
behold you.OBL.M.PL spur-V.ANT ART.DEF.SBJ.M.SG count.SBJ.M.SG of Flanders
'There is the count of Flanders spurring.' (*Gormont* 67)

(66) *L'* *ermite* *Ogrin trovent* ***lis-ant***.
ART.DEF. OBL.M.SG hermit. OBL.M.SG Ogrin find.PRS.3PL read-V.ANT
'They find the hermit Ogrin reading.' (Bér. *Tristan* 2292)

Recall that the lexical meaning of the perception verbs usually co-exists with their grammatical meaning, which consists of presenting the state of affairs expressed by the -*ant* form as all-new, that is, as a thetic information unit. This co-existence illustrates the concept of 'persistence' theorised by Hopper (1991: 22; see also Heine 2002: 86). In addition, the perception verbs often have an evidential value, since they usually express the source of information expressed by the -*ant* form or clause (*cf.* Greco 2013: 179-180 and Zheltova 2017: 317-319 with respect to Latin).

In Late Latin, the present participle, but not the gerund, can act as the main verb of a presentative progressive construction. Hence, all Old French *-ant* forms used in this construction can in principle be categorised as present participles, unless the gerund acquires this function in the course of time.

This section will examine the frequency of this type of *-ant* forms in general (§6.4.2.1) and in the five thematic domains (§6.4.2.2). In this latter section, I will also investigate the productivity of these forms and the inventory of the items used with a presentative function. The contribution of these forms to the degree of categorial determinacy of the Old French *-ant* form will be studied in §6.4.2.3.

6.4.2.1. Frequency

The use of *-ant* forms in a presentative progressive construction is extremely rare. They occur less than one time per 10 000 words (0.75), just like object predicate *-ant* forms (see §6.2.3.1). Their proportion to the total number of *-ant* forms is also low (2,93% or 63 instances out of 2 153). Hence, the quantitative results obtained for them should be taken with caution. The frequency of these forms is similar in Early Old French and in the 12th-13th c., according to both measurements (Table 6.53).

Table 6.53. Frequency of *-ant* forms used in a presentative progressive construction in Early Old French and 12th-13th c.

Period	**#-*ant* forms used in a presentative progressive construction (per 10 000 words)**		**#-*ant* forms (per 10 000 words)**		**#-*ant* forms used in a presentative progressive construction/ #-*ant* forms**
Early Old French	1	(1.12)	33	(36.84)	3,03%
12th-13th c.	61	(0.76)	1 989	(24.63)	3,07%

The *Chanson de Roland* contains only *-ant* form used in a presentative progressive construction. This yields an absolute frequency of 0.36 instances per 10 000 words and a proportion of 0,76% of the total number of *-ant* forms in this text. Given the more or less equal frequency in Early Old French and the 12th-13th c., this use of the *-ant* form does not allow subsuming the *Chanson de Roland* under either Early Old French or the 12th-13th c.

A chi-square goodness-of-fit test indicates that the proportion of *-ant* forms used in a presentative progressive construction in the two periods does not differ in a statistically significant way ($\chi 2 = 0$; df = 1; p = 1) (Table 6.54).

Table 6.54. Observed *vs* expected proportion of *-ant* forms used in a presentative progressive construction in proportion to the total number of *-ant* forms in Early Old French and 12th-13th c.

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Early Old French	1	(3,03%)	1	(3,03%)	-0.01
12th-13th c.	61	(3,07%)	61	(3,07%)	0.00

Again, the expected frequency of instances is smaller than five in Early Old French, so that a chi-square goodness-of-fit test is in principle not recommendable (Levshina 2015: 29). Yet, the conclusion drawn on the basis of this test, namely that there is no significant difference between Early Old French and the 12th-13th c., is reliable in view of the normalised frequencies reported in Table 6.53. The low frequency of these forms in both periods further adds to this conclusion.

6.4.2.2. Frequency and productivity in the five thematic domains

In the Old French corpus, the absolute frequency of *-ant* forms occurring in a presentative progressive construction is highest in the literary texts, while their proportion to the total number of *-ant* forms is highest in the religious texts, although the difference with the literary texts is negligible (Table 6.55). Their frequency is lowest in the didactical texts in both absolute and relative terms. However, the low absolute number of instances disallows drawing solid conclusions from these figures.

Table 6.55. Frequency of *-ant* forms used in a presentative progressive construction in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	#*-ant* forms used in a presentative progressive construction (per 10 000 words)		#*-ant* forms (per 10 000 words)		#*-ant* forms used in a presentative progressive construction/ #*-ant* forms
Historical	3	(0.62)	122	(25.04)	2,46%
Religious	22	(0.78)	573	(20.21)	3,84%
Literary	29	(1.08)	779	(29.00)	3,72%
Didactical	3	(0.33)	388	(43.22)	0,77%
Legal	6	(0.39)	291	(19.00)	2,06%

According to a chi-square goodness-of-fit test, the differences between the thematic domains might not be random, since the proportion of forms used in a presentative progressive construction is lower than expected in the historical, didactical, and legal texts and higher than expected in the religious and literary texts in a statistically significant way ($\chi 2 = 10.3$; df = 4; p = 0.0357) (Table 6.56).

Table 6.56. Observed *vs* expected proportion of *-ant* forms used in a presentative progressive construction to the total number of *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	3	(2,46%)	4	(3,28%)	-0.30
Religious	22	(3,84%)	17	(2,97%)	+1.28
Literary	29	(3,72%)	23	(2,95%)	+1.30
Didactical	3	(0,77%)	11	(2,84%)	-2.48
Legal	6	(2,06%)	9	(3,09%)	-0.86

However, the only significant contribution to the chi-square values is made by the underrepresentation of occurrences in the didactical texts. Given the extremely low number of instances in these texts, this result can hardly be considered significant. The fact that the expected frequency of these forms is lower than five in the historical texts, so that a chi-square goodness-of-fit test is in theory not recommendable, does not have an impact on this conclusion. After all, it also emerges from the normalised frequencies in Table 6.55.

Due to their low absolute number in the five thematic domains, no conclusive claims can be made about the productivity of the *-ant* forms in question. The productivity of these forms has been measured in terms of the lexical variation between the *-ant* forms and the items used as presentative markers. Table 6.57 shows that the productivity of these *-ant* forms is lower in the literary than in the religious texts, but the difference is too small to be significant (also considering the low absolute number of instances). The figures for the historical, didactical, and legal texts are given for the sake of completeness, but they do not convey relevant information.

Table 6.57. Productivity of the *-ant* forms in a presentative progressive construction in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	Religious	Literary	Didactical	Legal
#tokens	3	22	29	3	6
#types	3	19	19	3	5
#hapaxes	3	17	14	3	4
#types/#tokens	**1.00**	**0.86**	**0.66**	**1.00**	**0.83**
#hapaxes/#tokens	**1.00**	**0.77**	**0.48**	**1.00**	**0.67**

The lower type-token and hapax-token ratios in the literary texts in comparison with the religious texts are due to the fact that the former contain more combinations occurring several times. In particular, the five most frequent combinations represent 52% of all lexical combinations in these texts, against 36% in the religious texts (Table 6.58). In addition, the literary texts contain three combinations accounting each for more than 10%, while the religious texts comprise only one such lexical combination. All in all, the differences between the two text types are too small to be significant.

Table 6.58. Inventory and cumulative frequency of the five most frequent lexical combinations of a presentative marker and an *-ant* form in the religious and literary texts in Old French

Thematic domain	Lexeme of presentative	Lexeme of *-ant* form	Frequency (%)
Religious	*trouver* 'to find'	*dormir* 'to sleep'	3 (13,64%)
	ès 'behold'	*courir* 'to run'	2 (9,09%)
	ouïr 'to hear'	*crier* 'to shout'	1 (4,55%)
	avoir 'to have'	*pendre* 'to hang'	1 (4,55%)
	voir 'to see'	*quérir* 'to search'	1 (4,55%)[37]
			8 (36,36%)
Literary	*trouver* 'to find'	*dormir* 'to sleep'	4 (13,79%)
	ès 'behold'	*poindre* 'to spur'	4 (13,79%)
	trouver 'to find'	*gésir* 'to lie'	3 (10,34%)
	trouver 'to find'	*seoir* 'to seat'	2 (6,90%)
	voir 'to see'	*dormir* 'to sleep'	2 (6,90%)
			15 (51,72%)

Note that the religious texts share their most frequent combination with the literary texts, namely *trouver* 'to find'/*dormir* 'to sleep' (67). However, the literary texts comprise another combination with the exact same token frequency, *viz. ès* 'behold'/*poindre* 'to spur' (68).

(67) *[...] troverent leanz* ***dorm-anz*** *tretouz les soudaiers*
find.PST.3PL inside sleep-V.ANT.OBL.M.PL all.OBL.M.PL ART.DEF.OBL.M.PL soldier.OBL.M.PL
normanz.
Norman.OBL.M.PL
'They found all the Norman soldiers sleeping inside.' (J. de Meun *Rose* 12343-12344)

(68) *Es lor* ***puinn-ant*** *Gautier de Maus [...]*
behold they.OBL.M.PL spur-V.ANT Gauthier.OBL.M.PL of Mans
'Gauthier of Mans is spurring.' (*Gormont* 11)

The same observations can be made for the lexical variation of the *-ant* forms separately. For this reason, Table 6.59 presenting this variation in the five textual domains will be given without further discussion.

[37] The religious texts contain 14 more hapaxes.

Table 6.59. Lexical variation of the *-ant* forms used in a presentative progressive construction in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	3	22	29	3	6
#types	3	19	16	3	5
#hapaxes	3	17	11	3	4
#types/#tokens	**1.00**	**0.86**	**0.55**	**1.00**	**0.83**
#hapaxes/#tokens	**1.00**	**0.77**	**0.38**	**1.00**	**0.67**

This also holds for the cumulative frequency of the five most frequent lexemes in the religious and literary texts, though the difference between these two text types is slightly higher than in the case of the lexical variation between the presentative markers and the *-ant* forms (Table 6.60).

Table 6.60. Inventory and cumulative frequency of the five most frequent lexemes used for *-ant* forms in a presentative progressive construction in the religious and literary texts in Old French

Thematic domain	**Lexeme of *-ant* form**	**Frequency (%)**
Religious	*dormir* 'to sleep'	3 (13,64%)
	courir 'to run'	2 (9,09%)
	crier 'to shout'	1 (4,55%)
	pendre 'to hang'	1 (4,55%)
	quérir 'to search'	1 (4,55%)[38]
		8 (36,36%)
Literary	*dormir* 'to sleep'	6 (20,69%)
	poindre 'to spur'	4 (13,79%)
	gésir 'to lie'	4 (13,79%)
	crier 'to shout'	2 (6,90%)
	seoir 'to sit'	2 (6,90%)
		18 (62,07%)

Since the items used as presentative markers (also) serve a grammatical function, their lexical variation is lower than that of the *-ant* forms. As shown in Table 6.61, the absolute number of distinct lexemes is lowest in the historical and legal texts (n=2) and highest in the religious texts (n=6).

[38] There are 14 more hapaxes in the religious texts.

Table 6.61. Lexical variation of the items used as presentative markers in a presentative progressive construction in the historical, religious, literary, didactical, and legal texts in Old French

	Historical	**Religious**	**Literary**	**Didactical**	**Legal**
#tokens	3	22	29	3	6
#types	2	6	4	3	2
#hapaxes	1	3	1	3	1
#types/#tokens	**0.67**	**0.27**	**0.14**	**1.00**	**0.67**
#hapaxes/#tokens	**0.33**	**0.05**	**0.03**	**1.00**	**0.17**

Table 6.62 presents the inventory and frequency of all items used as presentative markers per text type.

Table 6.62. Inventory and frequency of the items used as presentative markers in a presentative progressive construction in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	**Lexeme of presentative**	**Frequency (%)**
Historical	*trouver* ‘to find’	2 (66,67%)
	ès ‘behold’	1 (33,33%)
		3 (100,00%)
Religious	*trouver* ‘to find’	9 (40,91%)
	voir ‘to see’	7 (31,82%)
	ès ‘behold’	3 (13,64%)
	avoir ‘to have’	1 (4,55%)
	revoir ‘to see again’	1 (4,55%)
	ouïr ‘to hear’	1 (4,55%)
		22 (100,00%)
Literary	*voir* ‘to see’	12 (41,38%)
	trouver ‘to find’	11 (37,93%)
	ès ‘behold’	5 (17,24%)
	avoir ‘to have’	1 (3,45%)
		29 (100,00%)
Didactical	*trouver* ‘to find’	1 (33,33%)
	voir ‘to see’	1 (33,33%)
	ouïr ‘to hear’	1 (33,33%)
		3 (100,00%)
Legal	*trouver* ‘to find’	5 (83,33%)
	voir ‘to see’	1 (16,67%)
		6 (100,00%)

Table 6.62 shows in the first place the dominance of the verbs *trouver* ‘to find’ and *voir* ‘to see’. These account for respectively 44% and 33% of all items used as presentative markers (28 and 21 instances out of 63). These forms belong to the group of perception verbs, which represent 83% of all presentative

markers (52 instances out of 63). Within this group of perception verbs, those evoking an act of visual perception largely outnumber the ones denoting an act of auditory perception (50 *versus* 2 occurrences). Moreover, the visual perception verbs are represented by three distinct lexemes, namely *trouver* 'to find' (67), *voir* 'to see' (69), and *revoir* 'to see again' (70), while the verbs of auditory perception are lexically restricted to *ouïr* 'to hear' (71).

(69) *Quant* *ge* *le* *vi* *tot* *seul* ***ven-ant*** *[...].*
when I.SBJ.M.SG he.OBJ.M.SG see.PST.1SG all alone.OBL.M.SG come-V.ANT
'When I saw him coming all alone (...).' (Chr. de Troyes *Yvain* 482)

(70) *[...]* *Revit* *le* *angele* *[...] /* *De* *maür*
see_again.PST.3SG ART.DEF.OBL.M.SG angel.OBL.M.SG with perfect.OBL.F.SG
clarté ***reluis-ant*** *[...].*
clarity.OBL.F.SG shine-V.ANT
'He again saw the angel shining with a perfect clarity.' (Adg. *Mir.* 32.73-74)

(71) *[...]* *quant* *oïrent* *le* *païsant /* *« Fuiez,* *fuiez,*
when hear.PST.3PL ART.DEF.OBL.M.SG peasant.OBL.M.SG flee.IMP.PRS.2PL flee.IMP.PRS.2PL
fuiez » ***dis-ant*** *[...].*
flee.IMP.PRS.2PL say-V.ANT
'When they heard the peasant say: "Flee, flee, flee" (...).' (J. de Meun *Rose* 14807-14808)

Besides these perception verbs, two other types of lexemes act as presentative markers: the presentative *ès* 'behold' (68) and the verb *avoir* 'to have' (72).

(72) *[...]* *Sanc* *ot* *et* *eve* *de* *vo* *costel*
blood.OBL.M.SG have.PRS.3SG and water.OBL.F.SG from your.OBL.M.SG flank.OBL.M.SG
iss-ant *[...].*
go_out-V.ANT
'There was blood and water flowing from your flank.' (*Ami* 1305)

The presentative *ès* 'behold' has been attested under five different variants: *es*/*ès* (68), *ez* (73), *ast* (74), *as* (75), and *eis* (76):

(73) *Ez* *Bricaudel* *par* *la* *ville* ***cri-ant*** *[...].*
behold Bricaudel through ART.DEF.OBL.F.SG city.OBL.F.SG shout-V.ANT
'Bricaudel is shouting through the city.' (*Ami* 2378)

(74) *[...]* *Ast* *vus* ***ven-ant*** *le* *Deu* *fedeil* *[...].*
behold you.OBL.M.PL come-V.ANT ART.DEF.OBL.M.SG God.OBL.M.SG trustee.OBL.M.SG
'The trustee of God is coming.' (Ben. *Brendan* 580)

(75) *As vos* ***poign-ant*** *Malprimis de Brigant [...].*
behold you.OBL.M.PL spur-V.ANT Malprimis of Brigal
'Malprimis of Brigal is spurring.' (*Roland* 889)

(76) *Eis lur* ***puinn-ant*** *Tierri de Termes [...].*
behold they.OBL.M.PL spur-V.ANT Thierry of Termes
'Thierry of Termes is spurring.' (*Gormont* 11)

The low frequency of *avoir* 'to have' and the presentative *ès* 'behold' is in line with the results obtained for the presentative progressive present participle construction in Late Latin. In this construction, the item used as a presentative marker is also mostly a perception verb (see §5.4.2.3).

6.4.2.3. Conclusion

Only 3% of all -*ant* forms occur in a presentative progressive construction. This share is nearly identical in Early Old French and the 12th-13th c., but lower in the didactical texts than in the other text types. However, due to the low absolute number of instances, no conclusive claims can be made in this respect.

From a retrospective historical approach, all -*ant* forms of this type can be categorised as present participles. An additional 3% of all Old French -*ant* forms are thus categorially determinate.

6.4.3. General conclusion: the evolution of the verbal -*ant* form

The previous sections have investigated the -*ant* forms used in progressive and presentative progressive constructions separately. The current section will bring together the results obtained in §6.4.1 and §6.4.2, in order to examine the evolution of the verbal -*ant* form as a whole. This synthesis also includes the two forms used in an inchoative construction (see (39-40)).

-*Ant* forms showing verbal external syntax account for 29% of all -*ant* forms (635 instances out of 2 153). Their absolute frequency amounts to 7.53 instances per 10 000 words, which is slightly higher than that of the adverbial forms. The frequency of verbal forms is considerably higher in the Early Old French period than in the 12th-13th c., according to both measurements (Table 6.63), but due to the low absolute number of -*ant* forms in Early Old French, no solid conclusions can be drawn.

Table 6.63. Frequency of verbal -*ant* forms in Early Old French and the 12th-13th c.

Period	**#verbal -*ant* forms (per 10 000 words)**		**#-*ant* forms (per 10 000 words)**		**#verbal -*ant* forms/ #-*ant* forms**
Early Old French	20	(22.33)	33	(36.84)	60,61%
12th-13th c.	569	(7.05)	1 989	(24.63)	28,61%

The *Chanson de Roland* behaves in this connection more like 12th-13th c. texts than as Early Old French texts: the share of verbal *-ant* forms amounts to 35% (46 instances out of 133), their absolute frequency being 16.74 instances per 10 000 words. This conclusion lines up with that emerging from the adjectival *-ant* form, but it contrasts with that drawn for the adverbial *-ant* form.

According to a chi-square goodness-of-fit test, the frequency difference between Early Old French and the 12th-13th c. might not be random: the proportion of verbal *-ant* forms is higher than expected in Early Old French and lower than expected in the 12th-13th c. in a statistically highly significant way ($\chi 2 = 10.34$; df = 1; p = 0.0013) (Table 6.64).

Table 6.64. Observed *vs* expected proportion of verbal *-ant* forms to the total number of *-ant* forms in Early Old French and the 12th-13th c.

Period	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Early Old French	20	(60,61%)	10	(30,30%)	+3.35
12th-13th c.	569	(28,61%)	579	(29,11%)	-0.43

Though the low absolute number of verbal forms in Early Old French disallows interpreting this result in a conclusive way, the exclusively versified character of the earliest texts might play a central role, as noted in §6.4.1.1 for the forms used in a progressive construction separately. The argument developed there also applies here for the verbal *-ant* forms in general, given that the forms used in a progressive construction make up 95% of all verbal *-ant* forms in Early Old French and 89% in the 12th-13th c.

From a thematic viewpoint, the absolute frequency of verbal *-ant* forms is highest in the didactical texts, but their proportion to the total number of *-ant* forms is highest in the historical texts, just like for the forms used in a progressive construction separately (Table 6.65).

Table 6.65. Frequency of verbal *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	#verbal *-ant* forms (per 10 000 words)		#*-ant* forms (per 10 000 words)		#verbal *-ant* forms/ #*-ant* forms
Historical	56	(11.49)	122	(25.04)	45,90%
Religious	137	(4.83)	573	(20.21)	23,91%
Literary	247	(9.20)	779	(29.00)	31,88%
Didactical	119	(13.25)	388	(43.22)	30,67%
Legal	76	(4.96)	291	(19.00)	26,12%

Expectedly, a chi-square goodness-of-fit test confirms the result obtained for the instances occurring in a progressive construction: the proportion of verbal *-ant* forms shows significant thematic variation, but

the only significant contribution is made by the overrepresentation of occurrences in the historical texts ($\chi 2 = 19.8$; df = 4; p = 0.0005) (Table 6.66).

Table 6.66. Observed *vs* expected proportion of verbal *-ant* forms in proportion to the total number of *-ant* forms in the historical, religious, literary, didactical, and legal texts in Old French

Thematic domain	Observed frequency (%)		Expected frequency (%)		Standardised residuals
Historical	56	(45,90%)	36	(29,51%)	+3.34
Religious	137	(23,91%)	169	(29,49%)	-2.46
Literary	247	(31,88%)	230	(29,53%)	+1.14
Didactical	119	(30,67%)	114	(29,38%)	+0.43
Legal	76	(26,12%)	86	(29,55%)	-1.06

It is worth recalling that the overrepresentation of forms used in a progressive construction and thus of verbal *-ant* forms in general might either be random or the result of an idiolectic feature of one author, *viz.* Wace. It is in any case unlikely that it is due to a general property of the language used in historical texts (see the discussion in §6.4.1.2).

With regard to the degree of categorial determinacy of the verbal *-ant* forms, all forms used in a presentative progressive construction can in principle be categorised as present participles (10% or 63 instances out of 635). One of the forms used in a progressive construction can be taken as a gerund and 80 of them can be analysed as present participles (13% or 81 instances out of 635). The two forms used in an inchoative construction are categorially indeterminate. Thus, the total number of categorisable verbal *-ant* forms amounts to 144. These 144 instances represent 23% of all verbal *-ant* forms. Only a minority of the verbal *-ant* forms are thus categorially determinate, which means that most of them are indeterminate (77% or 491 instances out of 635).

The 144 categorially determinate verbal *-ant* forms account for 7% of all *-ant* forms. Hence, the degree of categorial determinacy of the Old French *-ant* form raises from 56% to 62% (instead of 62% for reasons of rounding). Notice that the degree of 56% was achieved on the basis of the forms with adjectival and adverbial external syntax. This final degree of categorial determinacy of the Old French *-ant* form will be discussed in detail in §6.8 and §6.9, along with its theoretical implications. Prior to this, I will establish the external syntactic (§6.5), morphosyntactic (§6.6), and typological (§6.7) profile of the Old French *-ant* form.

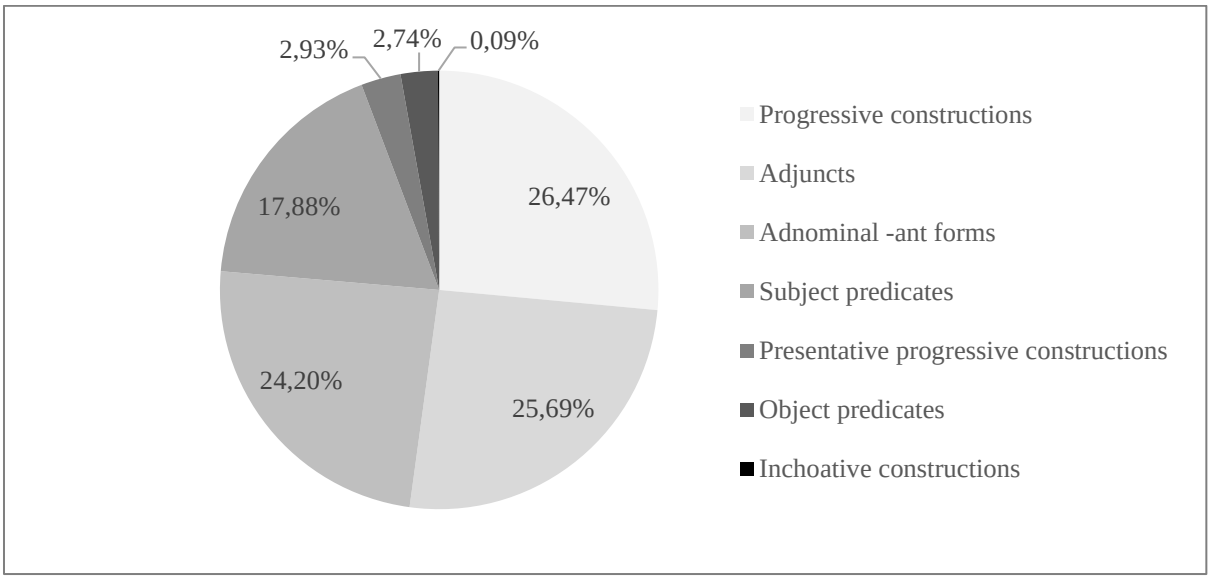
6.5. External syntactic profile of the *-ant* form

The preceding sections have explored the frequency of the different uses of the *-ant* form in Old French. This section will synthesise the results obtained in these sections, so as to establish the external syntactic

profile of this form. Given that the frequency of the various uses of the *-ant* form has been discussed in detail in the previous sections, the figures showing its external syntactic profile will be commented in a global way (as for the gerund and the present participle in Late Latin in Chapters 4 and 5).

Unlike in the case of the Late Latin gerund and present participle, the external syntactic profile of the Old French *-ant* form is not dominated by one particular use. As shown in Figure 6.1, this form has three uses that are more or less equally frequent: (i) as the main verb of a progressive construction (26%); (ii) in adjuncts (26%); and (iii) in adnominal phrases (24%). A fourth use, namely in subject predicates, is less frequent, but still represents 18% of all instances. Its use in a presentative progressive construction and in object predicates is rare (less than 3% each). Its use in an inchoative construction extremely rare, if not exploratory (0,09%).

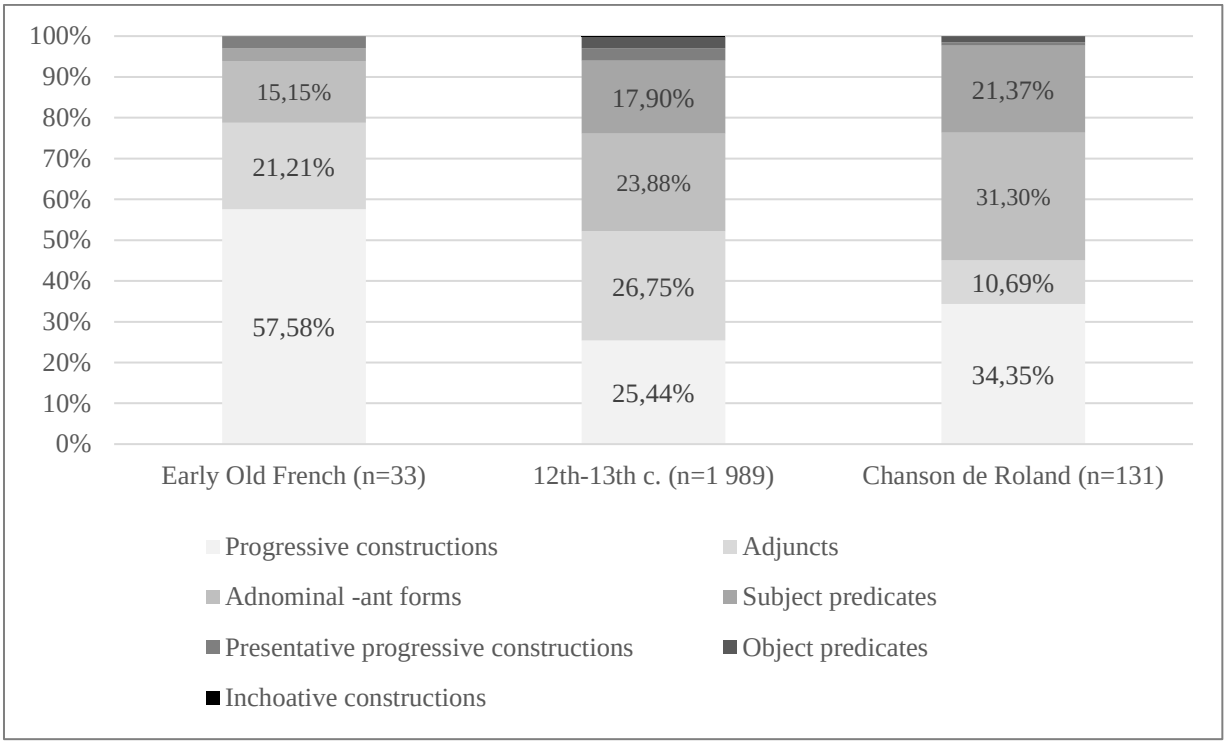
Figure 6.1. External syntactic profile of the *-ant* form in Old French



The external syntactic profile of the *-ant* form is different in Early Old French, but since this period is represented by a very low number of *-ant* forms (n=33), no hard conclusion can be drawn (Figure 6.2). As to the *Chanson de Roland*, Figure 6.2 shows that the use of the *-ant* form in this text is similar to that in the 12th-13th c., but different from that in the Early Old French texts. An interesting methodological insight can be drawn from this result: in diachronic corpus studies of Old French, this text written around 1100 and thus on the verge between Early Old French (9th-11th c.) and the 12th-13th c. is best subsumed under the group of the 12th-13th c. texts. In Figure 6.2, frequencies smaller than 5% are not mentioned for practical reasons. For Early Old French, they correspond to 3,03% for the instances occurring in both subject predicates and presentative progressive constructions. For the 12th-13th c., they are: (i) 3,07% for the forms used in a presentative progressive construction; (ii) 2,87% for the ones occurring in object predicates; and (iii) 0,10% for those in an inchoative construction. In the *Chanson de Roland*, these

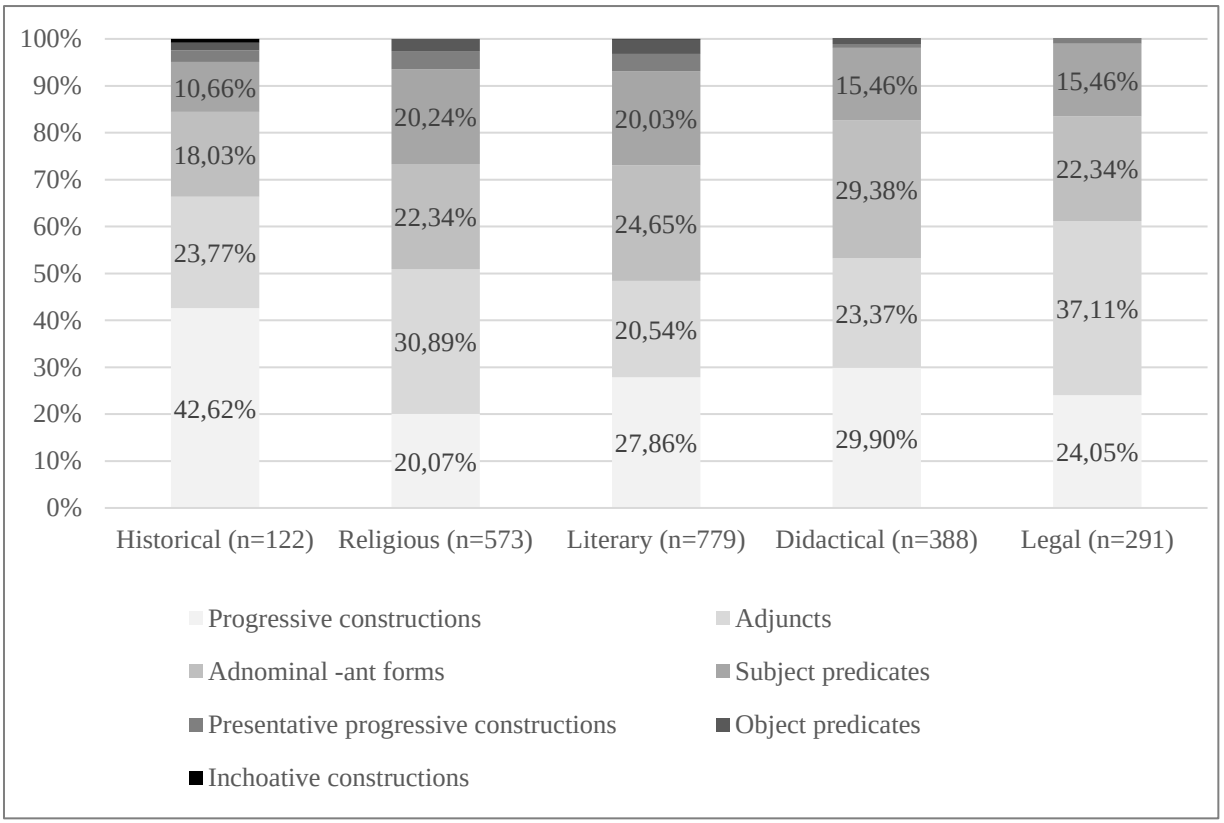
frequencies are 0,76% for the object predicate forms and 1,53% for those functioning as the main verb of a presentative progressive construction.

Figure 6.2. External syntactic profile of the *-ant* form in Early Old French, the 12th-13th c., and the *Chanson de Roland*



Another factor separating the Old French *-ant* form from the Late Latin gerund and present participle with respect to its external syntactic profile is that it does not significantly differ among the five thematic domains. Whereas the external syntactic profile of the Late Latin gerund and present participle is quite different in the legal texts, on the one hand, and the historical and religious texts, on the other hand, the external syntactic profile of the Old French *-ant* form is similar in the five thematic domains. The most deviant result is the high proportion of forms used in a progressive construction in the historical texts, which is due to their high frequency in one text, *i.e.* Wace's *Brut*. If not random, this high proportion in the historical texts is thus more likely due an idiolectic feature of one author than a general property of the language in historical texts.

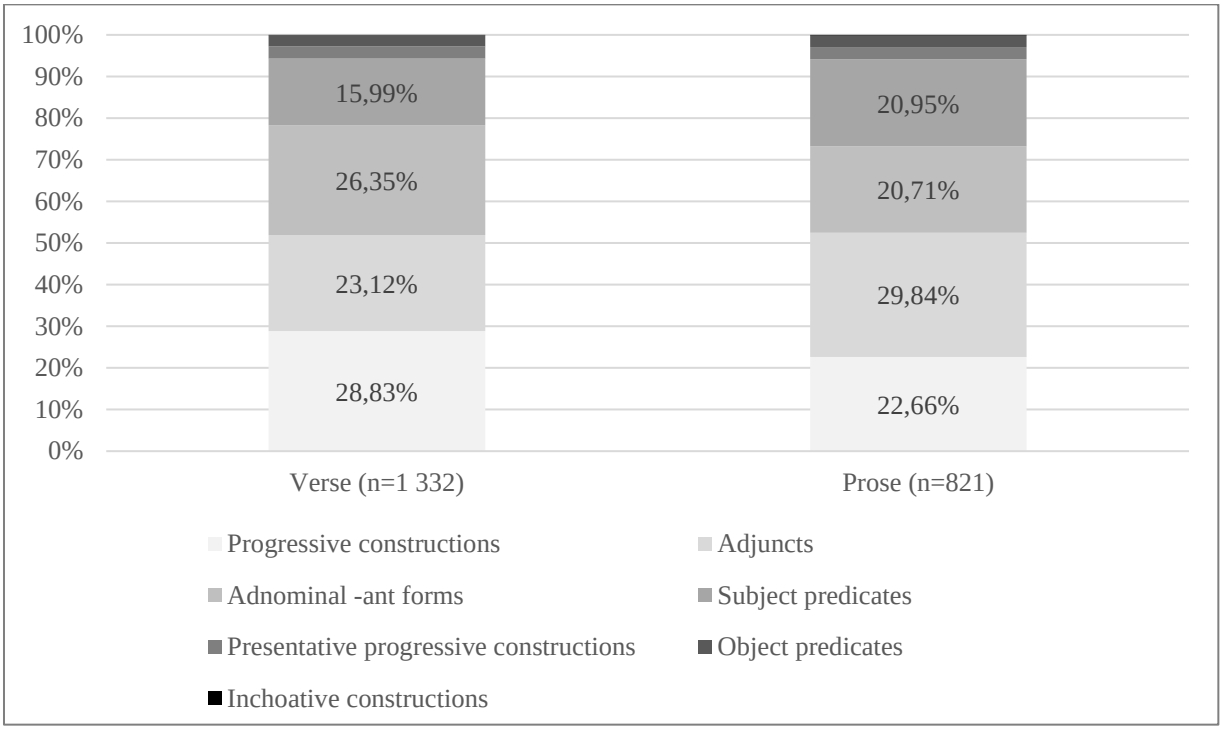
Figure 6.3. External syntactic profile of the *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French



Even if the empirical data relating to the use of the Old French *-ant* form do not show significant thematic variation, it remains nonetheless important to take this parameter into account when studying linguistic change, as evident from the analysis of the use of the Late Latin gerund and present participle.

Figure 6.4 furthermore shows that the external syntactic profile of the *-ant* form does not greatly differ between the versified texts and the texts written in prose. There are undoubtedly a few differences, such as the higher proportion of *-ant* forms in versified texts than in texts written in prose (see §6.4.1.1), but, globally speaking, the opposition between versified and prose texts does not appear to have a great influence on the syntactic use of the *-ant* form.

Figure 6.4. External syntactic profile of the *-ant* form in the versified and prose texts in Old French



This is confirmed by the use of the *-ant* form in the only text of the Old French corpus that combines versified passages and passages in prose, namely the chantefable *Aucassin et Nicolette.* Indeed, the use of the *-ant* form in the two types of passages does not show significant differences, though the relatively low absolute frequency of these forms (n=30) does not allow drawing solid conclusions. Due to this low absolute frequency, the figures in Table 6.67, presenting the use of the *-ant* form in *Aucassin et Nicolette*, are not calculated in proportion to the total number of instances in the versified and prose passages.

Table 6.67. Frequency of the uses of the *-ant* form in the versified and prose passages in *Aucassin et Nicolette*

Type of *-ant* form	**Verse (n=13)**	**Prose (n=17)**
Subject predicates	5	4
Progressive constructions	3	6
Adnominal *-ant* forms	3	3
Adjunct forms	1	4
Object predicates	1	0

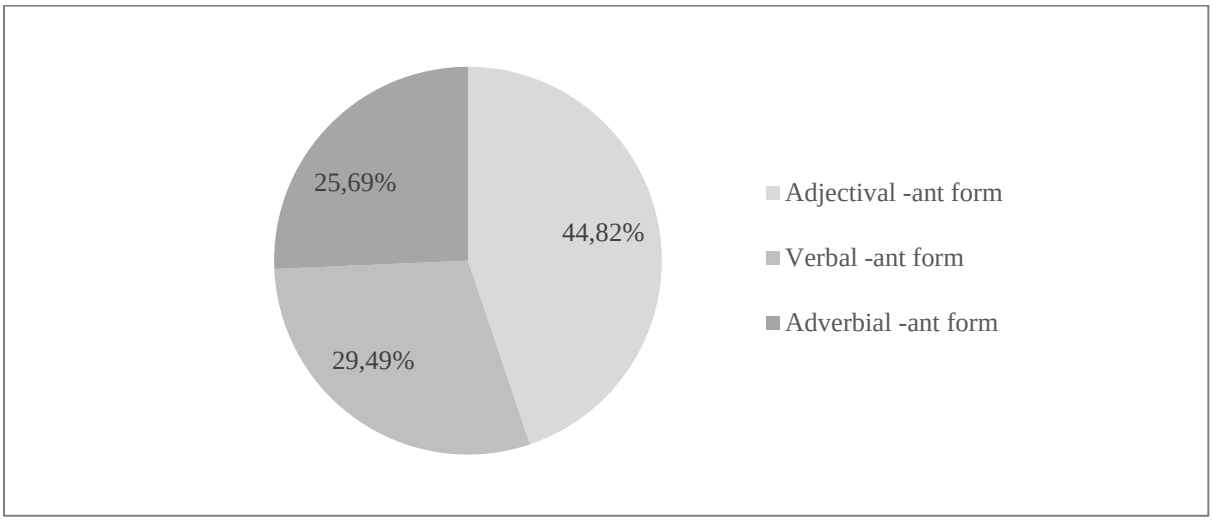
6.6. Morphosyntactic profile of the *-ant* form

After having established the external syntactic profile of the *-ant* form, I will determine in this section its morphosyntactic profile. This profile is obtained by mapping the external syntactic profile of the *-ant*

form on the morphosyntactic categories of Old French. As mentioned in §2.2.2 and operationalised in §6.2 to §6.4, this mapping yields three types of *-ant* forms: (i) adjectival forms, occurring in adnominal phrases, subject predicates, or object predicates; (ii) adverbial forms, used in adjuncts; and (iii) verbal forms, acting as the main verb of a progressive, presentative progressive, or inchoative construction.

Unlike in the case of the Late Latin gerund and present participle, the Old French *-ant* form has a morphosyntactic profile that is not dominated by a particular type. Admittedly, the adjectival forms are more frequent than the adverbial and verbal forms, but the difference is not large enough to consider the Old French *-ant* form specialised in adjectival syntactic configurations (Figure 6.5).

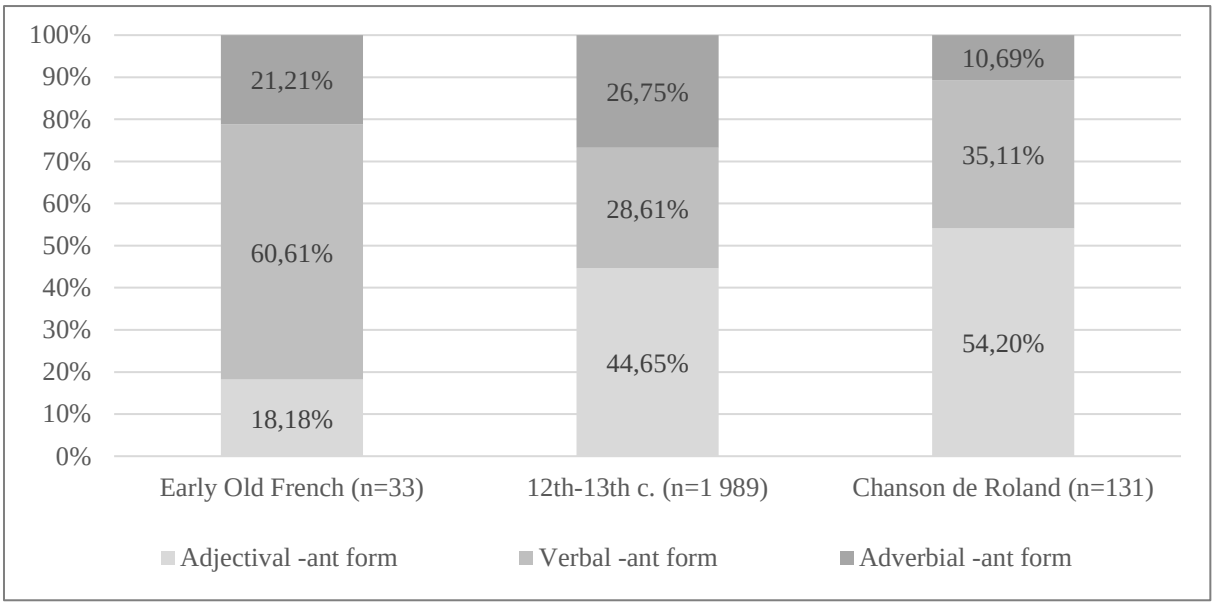
Figure 6.5. Morphosyntactic profile of the *-ant* form in Old French



This analysis is strengthened by the broadness of the definition of the *-ant* form adopted in this study. In a narrower definition, some adjectival forms qualify as adjectives, and would therefore be excluded from the dataset. As a corollary, the absolute frequency of adjectival instances would be lower, and, incidentally, their proportion to the total number of *-ant* forms. Consequently, the fraction of adverbial and verbal forms would be higher. In other words, the difference between the adjectival forms, on the one hand, and the adverbial and verbal forms, on the other, would be smaller. This revised ratio would more clearly highlight that the Old French *-ant* form is not specialised in adjectival external syntax.

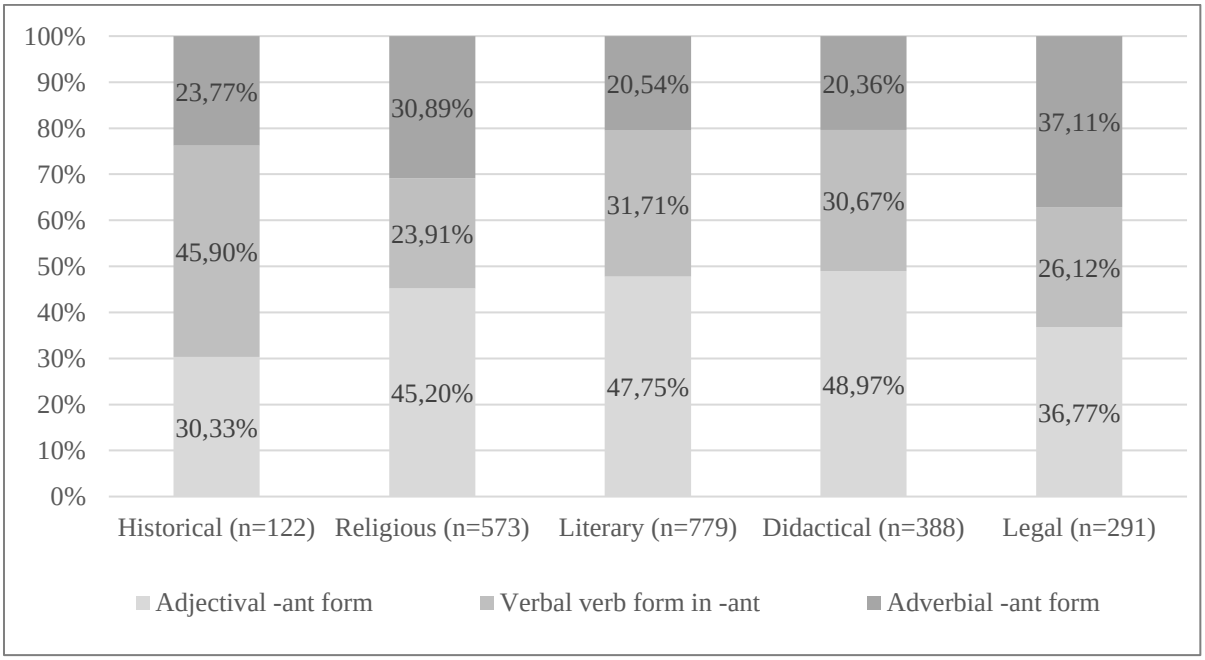
Like its external syntactic one, the morphosyntactic profile of the *-ant* form is somewhat different in Early Old French than in the 12-13th c. (Figure 6.6). As regards the *Chanson de Roland*, it behaves again more like 12th-13th c. texts than as Early Old French texts.

Figure 6.6. Morphosyntactic profile of the *-ant* form in Early Old French, the 12th-13th c., and the *Chanson de Roland*



As expected in view of its external syntactic profile, the morphosyntactic profile of the *-ant* form does not show significant thematic variation (Figure 6.7). The only noteworthy difference involves the high fraction of verbal instances in the historical texts, due to the comparatively high frequency of forms used in a progressive construction in these texts (see §6.5).

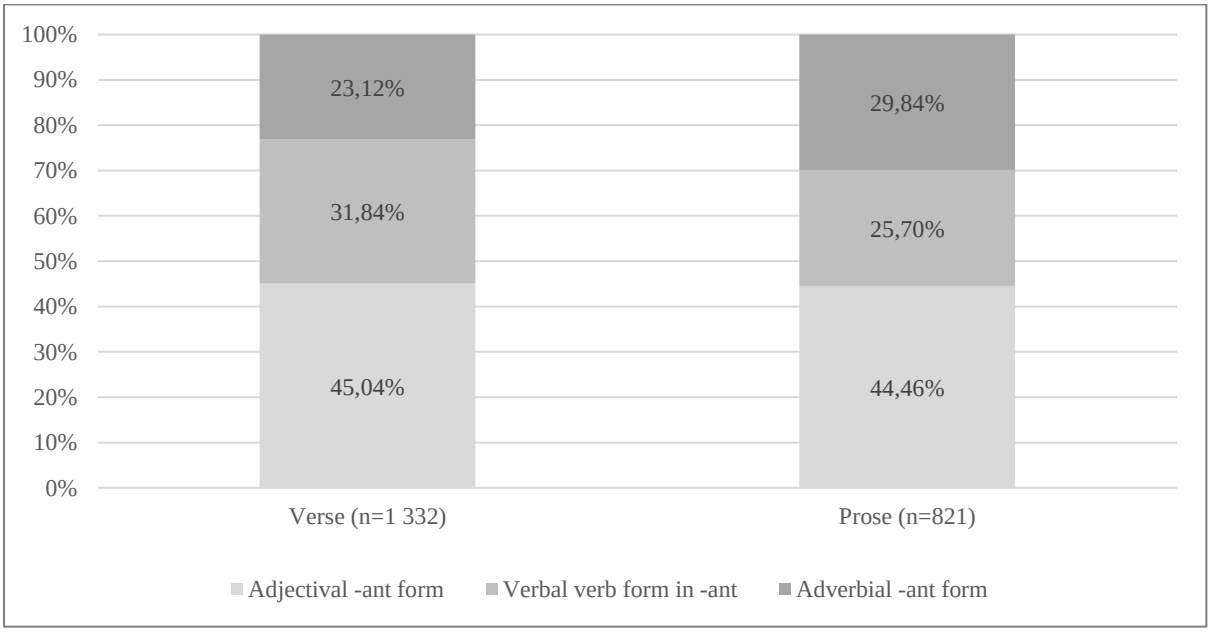
Figure 6.7. Morphosyntactic profile of the *-ant* form in the historical, religious, literary, didactical, and legal texts in Old French



This lack of significant thematic variation separates the morphosyntactic profile of the Old French *-ant* form from the morphosyntactic profile of the Late Latin gerund and present participle, which is different in the legal texts than in the historical and religious texts.

Figure 6.8 shows that, like its external syntactic profile, the morphosyntactic profile of the *-ant* form is very similary in the versified and prose texts. Thus, the use of the *-ant* form does not appear to be sensible to the verse-prose parameter.

Figure 6.8. Morphosyntactic profile of the *-ant* form in the versified and prose texts in Old French



6.7. Typological profile of the *-ant* form

The final step in describing the Old French *-ant* form consists of establishing its typological profile. This profile is obtained by mapping its morphosyntactic profile on Haspelmath's (1995: 4) typology of non-finite verb forms. In this typology, a distinction is made between (i) masdars, *i.e.* forms showing nominal external syntax; (ii) participles, *i.e.* forms with adjectival external syntax; and (iii) converbs, *i.e.* forms displaying adverbial external syntax. In this typology, the adjectival *-ant* forms fall under the participle type and the adverbial forms under the converb type. Parallel to the Late Latin verbal gerund and verbal present participle, the Old French verbal *-ant* form belongs to the converb type from a historical point of view, while from a synchronic perspective, it is not related to any of these types (see §2.2.2.4). Since almost a third of all *-ant* forms have verbal external syntax (29%), the association of the Old French *-ant* form with the participle and converb types should be put in perspective. This high proportion of verbal *-ant* forms further shows that, in contrast with its Late Latin gerund and present participle sources, the

Old French *-ant* form is particularly frequent in grammaticalised constructions, especially in progressive constructions.

The link of the *-ant* form with the participle type is stronger than with the converb type (45% *vs* 26%). However, even its association with the participle type is not extremely strong. This relation should moreover be evaluated in the context of the broad definition of the *-ant* form in this study. In a stricter definition, the link with the participle type would be weaker, while the link with the converb type would be stronger. If anything, this result shows that, unlike the Late Latin gerund and present participle, which are both strongly associated with the converb type, the Old French *-ant* form is not tightly related to any cross-linguistically recurrent type of non-finite verb forms. This also appears from the high proportion of verbal *-ant* forms, which fall outside Haspelmath's classification. I will return to this point in §6.9.

6.8. Degree of categorial (in)determinacy of the *-ant* form

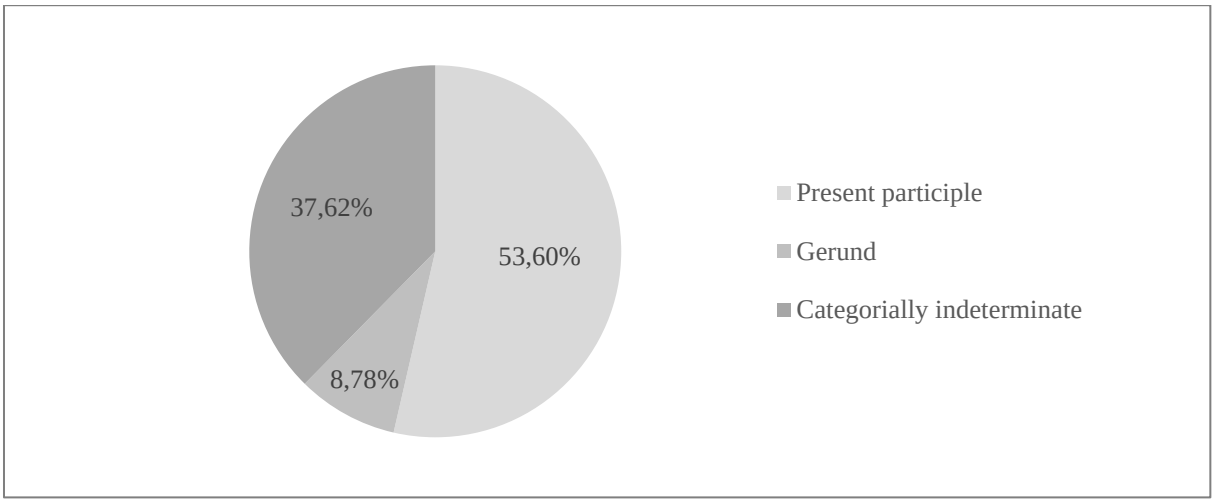
Let us lastly establish the degree of categorial (in)determinacy of the Old French *-ant* form (this section), and determine the implications of this degree for the categorial distinction between the gerund and the present participle in Old French (§6.9).

Sections 6.2 to 6.4 have shown that, from a retrospective historical approach and assuming that the gerund and the present participle do not show morphological and/or distributional encroachment in the transition from Late Latin to Old French nor within the period of Old French itself, some *-ant* forms can be categorised, while others cannot. All forms with adjectival external syntax (n=965) and all forms used in a presentative progressive construction (n=63) can be categorised as present participles on the basis of their syntactic use alone, irrespective of whether they agree with their subject NP. The forms with adverbial external syntax and those used in a progressive or inchoative construction are categorially indeterminate from a syntactic point of view. However, some of these forms can be taken as gerunds or present participles on the basis of morphological criteria, namely the presence of a preposition, on the one hand, and the presence of an inflectional variant of the ending *-ant*, on the other. Among the forms categorisable on the basis of these criteria are 189 gerunds (188 of which are used in adjuncts and one in a progressive construction) and 126 present participles (46 of which occur in adjuncts and 80 in a progressive construction). The remaining instances are categorially indeterminate. This is the case for 319 adjunct forms, 489 forms used in a progressive construction, and 2 forms occurring in an inchoative construction.

In sum, 1 343 *-ant* forms are categorisable, while 810 forms are not. Thus, the degree of categorial determinacy of the Old French *-ant* form amounts to 62%. Hence, its degree of categorial indeterminacy is 38%. Of the categorially determinate forms, most are present participles (n=1 154), while a minority are gerunds (n=189). Figure 6.9 summarises the degree of categorial determinacy and indeterminacy of

the Old French *-ant* form, as well as the percentages of categorially determinate forms categorisable as either gerunds or present participles.

Figure 6.9. Categoriality degrees of the *-ant* form in Old French



Although the categorially determinate forms outnumber the indeterminate ones, it is striking to observe that a quantitatively important number of Old French *-ant* forms cannot be categorised on the basis of syntactic and morphological criteria. The conclusion to be drawn is that the morphological merging of the gerund and the present participle in Old French raises a major problem for their categorial distinction, and, incidentally, for the grammatical description of the *-ant* form in Old French.

It is widely accepted that parts of speech should mainly be defined on the basis of morphological and syntactic criteria (Trask 1999: 281; Aarts 2007: 2; Pullum 2009: 257). The inability of such criteria to categorise all *-ant* forms in Old French suspends the distinction between the categories of the gerund and the present participle. Put differently, the data of this study do not provide evidence in favour of the existence of the gerund and the present participle as two clearly distinct categories in Old French.

This conclusion is again all the more significant in view of the broad definition of the Old French *-ant* form. In a stricter definition, the absolute number of adjectival forms would be lower, and, as a corollary, their proportion to the total number of *-ant* forms. Since all adjectival forms are categorially determinate (they all hold as present participles), the degree of categorial determinacy of the *-ant* form would decrease. Consequently, its degree of categorial indeterminacy would increase, and the fuzziness of the categorial distinction between the gerund and the present participle would be even more manifest.

On top of this, the degree of categorial determinacy of the Old French *-ant* form is measured from a retrospective historical approach and under the assumption that there is no morphological nor distributional exchange between the gerund and the present participle, neither in the transition from Late Latin to Old French, nor during the Old French period itself. However, this scenario of morphological

and/or distributional exchange cannot be excluded from a theoretical point of view. It even appears from scattered empirical evidence (De Smet 2014: 40). For instance, some instances display the non-inflected ending *-ant* instead of an agreeing ending in contexts where only a Late Latin present participle can be used. Witness *fuiant* 'fleeing' (76), used in a presentative progressive construction.

(77)	*[...]*	*De*	*toutes*	*pars*	*les*	*veïst*	*on*	***fui-ant.***
		from	all.OBL.F.PL	side.OBL.F.PL	they.OBJ.M.PL	see.PST.3SG	one.SBJ.M.SG	flee-V.ANT

'They were seen fleeing from all sides.' (*Narbonnais* 7534)

From a retrospective historical approach, this form is to be analysed as a present participle on the basis of its syntactic function, but it does not show the expected morphological agreement with its subject NP, *i.e. fuianz* instead of *fuiant* 'fleeing'. According to De Smet (2014: 40), these forms can be analysed in two ways: either they are present participles reinterpreted as gerunds through categorial incursion or they are gerunds encroaching on the distribution of the present participle due to analogical extension (see §2.2.1). Whatever the scenario, these forms show that distributional and/or morphological exchange between the gerund and the present participle does take place. Hence, it is in fact impossible to categorise any Old French *-ant* form with absolute certainty. For how could we know whether an *-ant* form is a (i) Latin-like gerund, (ii) a Latin-like present participle, or (iii) an innovative, categorially mixed form, be it (iiia) a gerund with features going back to the Late Latin present participle or (iiib) a present participle showing features characteristic of the Late Latin gerund. In other words, the suspension of the categorial distinction between the gerund and the present participle in Old French is complete.

On the basis of the previous discussion and of the quantitative results of the empirical examination (Figure 6.9), it is now possible to appropriately evaluate the two hypotheses of the categorial distinction between gerund and the present participle in Old French, *viz.* the Splitter and Lumper Hypothesis (§6.9).

6.9. Categorial distinction between the gerund and the present participle

According to the advocates of the Spitter Hypothesis, the gerund and the present participle exist in Old French as two distinct categories of non-finite verb forms, just like in (Late) Latin (Gougenheim 1929; Anglade 1958: 215-217; Väänänen 1963³: 140-141; Ménard 1973: 169-175; Harris 1978: 199-201; Arnavielle 1982, 1984: 38, 1997; Jensen 1990: 322-334; Buridant 2000: 324-327; see §2.2.3.1).[39] They

[39] As mentioned in §2.2.3.1, most of these authors regard the gerund and the present participle as distinct categories on the same level of abstraction (Anglade 1958: 215-217; Väänänen 1963³: 140-141; Ménard 1973: 169-175; Harris 1978: 199-201; Jensen 1990: 322-334), with the exception of Buridant (2000: 324-327). This author subcategorises the gerund under the present participle. However, as pointed out in §2.2.3.1, Buridant uses the term 'gerund' inconsistently, *i.e.* sometimes as a categorial label and sometimes as a functional label referring to a subtype of present participles. Therefore, it is even not clear whether he adheres to the Spitter or Lumper Hypothesis. If he takes this label as a functional label, he does not adhere to the Spitter Hypothesis, but to the Lumper Hypothesis, considering all *-ant* forms present participles. If, on the other hand, he takes it as a categorial label, he adheres to Splitter Hypothesis, in particular to the version of the theory that regards the gerund as a sub-category of the present participle.

(implicitly or explicitly) hold that the morphological merging of the gerund and the present participle does not blur their categorial distinction, but simply causes a homonymic collision. By contrast, the adherents of the Lumper Hypothesis argue that the morphological merging of the gerund and the present participle does not merely blur the categorial distinction between them, but abolishes it and causes the two types of non-finite verb forms to merge also on a categorial level (Adams 2003: 749; De Smet 2014: 40).[40] This categorial blend emerges as a new category, and combines properties of both the Late Latin gerund and present participle. Hence, "the all-purpose invariable non-finite form in *-ant* eventually left over is, in syntactic terms, neither a real gerund nor a real participle" (De Smet 2014: 40).

As shown in the discussion in the previous section, the Splitter Hypothesis is not compatible with the results of the empirical examination of this thesis: even when adopting a strict retrospective historical approach and assuming the absence of distributional and/or morphological exchange between the gerund and the present participle in the transition from Late Latin to Old French and within the period of Old French itself, only 62% of all *-ant* forms are categorially determinate. Given that there is no way to draw a clear line between the categories of the gerund and the present participle, the only viable hypothesis is in terms of categorial merging. It is worth recalling in this regard that the Lumper Hypothesis is also the most convincing hypothesis from a purely theoretical point of view (see §2.2.3).

The implications of the Lumper Hypothesis for the description of this part of Old French grammar are drastic: the categorial merging of the gerund and the present participle makes that these forms cease to exist as distinct linguistic categories, so that they can no longer be used to describe *-ant* forms in Old French. The discarding of categories that are so entrenched in the grammatical tradition of Old French (or of French grammar in general) is not evident. However, this is the only way in which the impact of the morphological merging of the gerund and the present participle on their categorial distinction can be convincingly accounted for, both in view of empirical data and from a theoretical stance. Additionally, this hypothesis is in line with the particularist approach of linguistic categories: it rightly separates Old French from the other Old Romance languages, where the gerund and the present participle do not merge morphologically, and thus do not undergo categorial blurring. Most importantly, however, the Lumper Hypothesis solves the fundamental problem of the categorial indeterminacy of the Old French *-ant* form, since these forms are all conceived of as belonging to the same category.

The question that remains to be answered is how this new category and the forms associated with it should be denominated. In §2.2.3.2, different labelling strategies have been mentioned and evaluated. The aim of the remainder of this section is to review these strategies in the light of the empirical study

[40] This might also be the position of Bazin-Tacchella (2020: 852). However, she does not explicitly discuss the fate of the categories of the gerund and the present participle, and hence one cannot be sure.

carried out in this chapter, in order to determine which label is most appropriate for the categorial blend in issue. Six strategies will be discussed.

(i) The category could be named after one of its source categories. This strategy underlies the term '*-ing* participle' used by Quirk *et al.* (1985: 1292) for the equivalent category of non-finite verb forms in English. On the basis of the result in Figure 6.9, *viz.* that most categorially determinate *-ant* forms are present participles rather than gerunds (54% *versus* 9%), the best option is the label 'present participle'. However, since only half of all *-ant* forms can be taken as present participles, this label is nonetheless not appropriate (and even less in view of the theoretical problem of the retrospective historical approach discussed in §6.8). Also, the use of the label 'present participle' runs the risk of wrongly evoking a one-to-one correspondence with the present participle in (Late) Latin, and, hence, of generating terminological confusion. For these reasons this first labelling strategy should be avoided.

(ii) Another possibility is to combine the labels of the source categories of the Old French blend. This strategy underpins the term 'gerund-participle' used by Huddleston (2002: 80) and Duffley (2006: 1) for English. The most obvious options are 'gerund-present participle' and 'present participle-gerund', but the shorter variants 'gerund-participle' and 'participle-gerund' are more practical. In view of the quantitative results obtained in Figure 6.9, the latter option ('participle-gerund') is to be preferred. This label has the advantage of explicitly marking the blended character of the category, but also of explicitly mentioning its source categories. However, it has the disadvantage of suggesting the priority of the first-mentioned source category. Since the *-ant* form is participle-like (read: has adjectival external syntax) in less than 50% of all of its uses (see Figure 6.5), such priority is uncalled for (especially considering the broad definition of the *-ant* form in this study). A further, but less substantial disadvantage of the label 'participle-gerund' is its morphologically complexity. All in all, this second label is to be rejected.

(iii) The third possibility is to forge a shorter, more practical version of the label 'participle-gerund', e.g. the acronym 'parger' (> **par**ticiple-**ger**und'). Since it does not transparently state its source categories (at least not in full words), this label downgrades the problems of the labels 'present participle' and 'participle-gerund' mentioned in (i-ii). Hence, it is more convenient. However, the label 'parund' (> **par**ticiple-ger**und**') is more convincing, mainly because it has the metalinguistic advantage of allowing a fully transparent equivalent in French, namely *parondif.* This label has the practical advantage of morphologically simple, but the metalinguistic disadvantage of being neological and, hence, difficult to successfully spread in the linguistic community (see also (vi) below).

(iv) Since the forms involved have the invariable ending *-ant* or at least tend to generalise this ending, yet another option is to use a formal label (*cf.* Haspelmath 2010: 674). This strategy endorses the

term '-*ing* form', also used by Quirk *et al*. (1985: 1292) for English. The most precise option is 'verb form in -*ant*'. This term has the theoretical advantage of being categorially neuter, but the practical disadvantage of being morphologically complex. The shorter variants 'form in -*ant*' and especially -*ant* form' are more practical, but have the disadvantage of not explicitly marking that the forms in issue are verb forms and differ in this connection from other types of -*ant* forms, like adjectives and nouns.

(v) A fifth option is to label the categorial blend of the gerund and the present participle on the basis of (one of) its functional properties (*cf*. Haspelmath 2010: 674; Lehmann 2018a: 36-37). It could be named, for instance, after one of the three cross-linguistically recurrent types of non-finite verb forms distinguished by Haspelmath (1995: 4) and handled in this thesis as comparative concepts, thus as purely functional labels (*cf.* Haspelmath 2010: 665; Lehmann 2018a: 33). As mentioned in §6.9, the Old French -*ant* form is related to two cross-linguistically recurrent types of non-finite verb forms: the participle and the converb. Its link with the participle type is stronger than with the converb type (45% *vs* 26%), and hence the label 'participle' is preferred. However, the affinity of the -*ant* form with the participle type is not very strong, so the label 'participle' is nonetheless less appropriate. Besides, this label raises the same problems as the terms 'present participle' and 'participle-gerund', like the risk of wrongly evoking a one-to-one correspondence with the present participle in (Late) Latin, and thus of generating terminological confusion. Therefore, this fifth labelling strategy should also be avoided.

(vi) Two final options are to assign the Old French blend an already existing, but non-linguistic label or to create an entirely new linguistic label, *i.e.* a neologism. Reference can be made in this respect to the terminology forged by Damourette & Pichon (1968-1971) for the description of French. In an attempt to neutralise the terminological confusion in the French grammatical tradition, these authors propose to replace some of the traditional labels by arbitrary terms, such as *assiette* 'plate' instead of *article* 'article'.[41] However, this strategy is radical and has not successfully spread in the linguistic community. Hence, this final strategy should be adopted only as a last resort, namely when none of the previous strategies yields an appropriate candidate.

In the light of the empirical examination conducted in this chapter, the best candidates for the categorial blend of the gerund and the present participle in Old French are 'parund' and '-*ant* form'. These labels are also most suitable from a theoretical perspective (see §2.2.3.2). From a theoretical standpoint, these labels are more or less equally justifiable, although the term '-*ant* form' is slightly less suitable because

[41] As mentioned in §2.2.3.2 (fn. 56), these authors propose the terms '*adjectif verbal'* and '*affonctif verbal'* for respectively the (present) participle and the gerund in Modern French. The former has to be rejected for the present participle because it generates categorial confusion with true verbal adjectives, such as *convaincants* 'convincing' in *il a donné des arguments convaincants* 'he gave convincing arguments' (*vs* the present participle *convainquant* 'convincing' in *il a donné des arguments convainquant tous les members du jury* 'he gave arguments that convinced all members of the jury'). The label '*affonctif verbal*' for the gerund is to be avoided for reasons of terminological obscurity.

it does not explicitly mention the verbal character of the forms at stake, so as to clearly distinguish these forms from regular adjectives and nouns in *-ant* (see (iv) above). From a cognitive viewpoint, the label 'parund' raises the issue of being idiosyncratic because of its neological character. Hence, it faces the afore-mentioned obstacle of getting neologisms accepted in the field of grammatical terminology. From a practical perspective, the label 'parund' is more appropriate than '*-ant* form' due to its morphological simplicity (compare, e.g., 'adnominal parunds' and 'adnominal *-ant* forms'). Thus, the choice ultimately depends on whether priority is given to the practical/theoretical advantage ('parund' > '*-ant* form') or the cognitive/metalinguistic advantage ('*-ant* form' > 'parund'). Since the term 'parund' runs the risk of not successfully spreading in the linguistic community, I propose to retain the purely formal label '*-ant* form'. This term is moreover parallel to the term '*-ing* form', used by many authors for the equivalent forms in English. Such parallelism is encouraged by, e.g., Lehmann (2018a: 35-37), since it facilitates cross-linguistic comparison and typological research (even if the formal marking of the forms involved is language-specific).

6.10. Conclusion

In the transition from Late Latin to Old French, a series of morphological and phonetic evolutions affect the endings of the gerund and the present participle, and ultimately lead to the same form for the two types of non-finite verbs. This morphological merging of the gerund and the present participle leads to a situation of categorial indeterminacy, since many forms can no longer be categorised as either gerunds or present participles on the basis of syntactic and/or morphological criteria. In view of the empirical study of the Late Latin gerund and present participle in Chapters 4- 5, this final chapter has examined the degree to which the Old French outcome of these forms is categorially indeterminate in a corpus of texts between the 9th and the 13th c. The results of this examination have been assessed in the light of the debate regarding the categorial distinction between the gerund and the present participle.

The degrees of categorial determinacy and indeterminacy of the Old French *-ant* form turn out to be respectively 62% and 38%. This means that 38% of all *-ant* forms cannot be taken as either gerunds or present participles on the basis of syntactic and/or morphological grounds, impeding the drawing of a sharp line between the gerund and the present participle. This rate would even be higher in a stricter definition of the *-ant* form. This result betokens that the morphological merging of the gerund and the present participle raises a major issue for their categorial distinction. As such, it is incompatible with the Splitter Hypothesis, and is instead to be taken in terms of categorial merging. This "conflation of the two categories" (Adams 2003: 749) leads to a categorial blend, described by De Smet (2014: 40) as an "all-purpose invariable non-finite form in *-ant*" that is "in syntactic terms neither a real gerund nor a real participle". The most suitable terms for this categorial blend are '*-ant* form' and 'parund': the former

is preferable from a cognitive/metalinguistic viewpoint and the latter from a practical/theoretical one. In my opinion, priority is to be given here to the cognitive/metalinguistic advantage of the former.

From a comparative viewpoint, the categorial merging of the gerund and the present participle in Old French distinguishes French from most other Romance languages, (e.g. Spanish and Italian), where the gerund and the present participle survive as morphologically and categorially distinct types of non-finite verb forms. Still from a Romance perspective, the categorial blending of the gerund and the present participle in Old French goes also against the general trend of morphosyntactic specialisation, normally more strongly pursued in the transition from Late Latin to Old French than to other Romance languages (*cf.* Carlier & Combettes 2015). Indeed, the categorial merging of the gerund and the present participle consists of a merging of adjectival, adverbial, and verbal forms, while in most other Romance languages, the present participle specialises in adjectival external syntax and the gerund in adverbial (and verbal) external syntax.

Note also that the morphological merging of the gerund and the present participle in Old French runs parallel to the morphological merging of their English equivalents between Old and Middle English (*cf.* Kisbye 1971: 54; Lass 1992: 146; Dalton-Puffer 1996: 90-91). Hence, it would prove interesting to verify to which extent the hypothesis of categorial merging of the gerund and the present participle in Old French can also be defended for English, on the basis of an empirical study comparable to the one carried out in this thesis.[42] Given the strong influence of French and in particular Anglo-Norman on English between the 9th and 13th c., the question also arises of the impact of the categorial fusion of the present participle and the gerund in Old French on the categorial distinction of their equivalents in English.

[42] As stated in §2.2.3.2, most authors regard the English gerund and present participle as two distinct categories of non-finite verbs, despite their morphological identity and partly overlapping functional properties. However, some forms cannot be taken as either gerunds or present participles on the basis of morphological and/or syntactic criteria with absolute certainty, e.g. those in a progressive construction (e.g. *he is* ***singing***) or conjunct adjunct (e.g. ***hearing*** *this, he opened the door*) (Huddleston & Pullum 2002: 82; Duffley 2006: 1). Like their Old French counterparts, these forms are analysed in different ways. Some authors categorise them as either gerunds or present participles, but due to the lack of conclusive criteria, their analysis often varies from author to author. Others do not categorise these forms, and refer to them in an indeterminate way by means of the formal label '-*ing* form' (e.g. Quirk *et al.* 1985: 1292; Fonteyn 2016: Ch. 8) or the terminological blend 'gerund-participle' (e.g. Huddleston & Pullum 2002: 80; Duffley 2006: 1). The crucial difference between the labels '-*ing* form' and 'gerund-participle' in English linguistics and the label '-*ant* form' proposed in this thesis for Old French is that the former are restricted to a sub-group of English gerunds and/or present participles, while the latter applies to all Old French -*ant* forms. In other words, in English, the categorial distinction between the gerund and the present participle is eliminated for only a subset of instances. The theoretical problem of this strategy is that it solves the terminological issue of the indeterminate forms, but does not address their categorial issue. Indeed, the forms at stake inherently belong to some category, but since the labels 'gerund-participle' and '-*ing* form' do not refer to a category of non-finite verbs distinct from those of the gerund and the present participle (which position would be hard to defend), they are either gerund or present participles. Put differently, the labels 'gerund-participle' and '-*ing* form' do not solve the categorial problem of the forms involved, but simply conceal it on a terminological level. It is, among other things, to avoid this theoretical problem that, in this thesis, I propose to eliminate the categorial distinction between the gerund and the present participle altogether, instead of recognising a group of gerunds, a group of present participles, and a residual group of in-between cases. It is in this sense that it would be interesting to compare the findings of this study of Old French with those of a methodologically equivalent, diachronic corpus study of English.

Conclusion: Discussion of main results and perspectives for future research

1. Discussion of the main results of this thesis with reference to previous research

This thesis has empirically examined the evolution of the gerund and the present participle in Late Latin, and investigated the impact of their morphological merging in Old French on their categorial distinction. The results of this study only partly confirm the standard hypothesis of the evolution of the two types of non-finite verb forms in Late Latin: they support a specialisation of the gerund in adverbial external syntax, but not of the present participle in adjectival external syntax. Thus, the gerund shows signs of a 'converbalisation' process, while the present participle does not undergo a process of 'participialisation'. Rather, the present participle has predominantly adverbial external syntax, just like the gerund. As such, it is more converb-like than participle-like (*cf.* Haspelmath 1995: 4).

Because of this functional similarity between the gerund and the present participle in Late Latin, their morphological merging in Old French raises a major problem for their categorial distinction. The present study has shown that a considerable proportion of all Old French verb forms in *-ant* (38%) are categorially indeterminate, that is, uncategorisable as either gerunds or present participles – even under the assumption that the two forms do not encroach on each other's distribution, neither in the transition from Late Latin to Old French, nor during the Old French period itself. This finding led to the conclusion that the morphological merging of the gerund and the present participle in Old French caused these two forms to merge also on a categorial level. The label I propose for this categorial blend in Old French is '*-ant* form', by analogy to the term '*-ing* form' used for the equivalent category in English.

However, the results of this thesis need to be evaluated within the light of the material limitations of this historical corpus study. First of all, this study is confronted with the general problem of historical linguistics: we can observe the language used in the remote past only through written records, whereas innovations usually turn up in the spoken language and reach the written language only in a later stage. In the case of the historical period examined here, this problem is further exacerbated by the fact that, because of the cultural prestige of the Latin language, the writing of the emergent French language was delayed and very sparse during the first centuries. Although the Latin texts of this period show varying degrees of interference with the vernacular language (e.g. Banniard 1992, 2018; Van Acker 2004) and the texts in the PaLaFra corpus have been selected in such a way as to give a glimpse of this vernacular, the fact remains that the Late Latin texts do not faithfully reflect the spoken language of the period in which they were written. The problem arises to a lesser extent for Old French. It is however not excluded that, in this period, the language in religious texts is under influence of Latin, because Latin remains the liturgical language. Additionally, and more generally speaking, all *literati* mastered Latin and may have been influenced in their Old French writing practices by the Latin language.

These limitations of access to empirical data are manifest in my results. For Late Latin, as a result of the gap between the spoken and the written language, the use of the gerund and the present participle in Late Latin texts is quite different from their use in Old Romance texts. Since the Romance languages emerged from distinct spoken varieties of Late Latin, the differences in the use of the gerund and the present participle in Late Latin and Old Romance texts can be analysed as the outcome of changes that have popped up in spoken Late Latin, but that have been filtered out in the written texts transmitted to us. In order to put in perspective the results of this dissertation, it is therefore necessary to reassess the evolution of the gerund and the present participle in spoken Late Latin on the basis of the comparison of their use in written Late Latin and Old Romance texts. This reconstruction corresponds to the standard hypothesis of the evolution of the gerund and the present participle in Late Latin, explored in detail in Chapter 2. In what follows, I will summarise this hypothesis and confront it with the results of my empirical study. I will focus first on the evolution in Late Latin (§1.1), then on the transition from Late Latin to Old French (§1.2 and §1.3).

1.1. The evolution of the gerund and the present participle in Late Latin

1.1.1. Predictions of the standard hypothesis

Classical Latin has an elaborate system of non-finite verb forms, comprising three ‘nominal forms’ (the infinitive, the gerund, and the supine) and two ‘adjectival forms’ (the participle and the gerundive). Most Old Romance languages possess a poorer system, consisting of one ‘nominal form’ (the infinitive), one ‘adjectival form’ (the participle), and one ‘adverbial form’ (the gerund). Despite this difference in the number of forms, the system of non-finite verb forms is about as tightly organised in Classical Latin and Old Romance, since the different types of forms are specialised in distinct functional domains. However, in Classical Latin, the functional differences between these forms are restricted to individual syntactic uses and/or semantic value(s) (e.g. the infinitive is specialised in verb complements, the gerund in adnominal phrases and manner/instrumental causal adjuncts, and the supine in adjective complements and purpose adjuncts), while in Old Romance, these differences concern groups of morphosyntactically related syntactic functions (*i.e.* the infinitive is specialised in nominal external syntax, the participle in adjectival external syntax, and the gerund in adverbial external syntax). In Late Latin, the system of non-finite verb forms thus evolves from a system based on syntactic and semantic oppositions to a system based on morphosyntactic oppositions. This evolution is in line with the more general development of the language of this period toward an increasing degree of morphosyntactic specialisation (*cf.* Carlier & Combettes 2015).

Like most cases of language change, this evolution from a syntactically/semantically organised system to a morphosyntactically organised system is a slow and gradual process, taking several centuries to be completed. Traces of this restructuring can be found already in the Classical period, especially in substandard varieties. However, it is only in Late Latin and in the transition to Romance that the system of non-finite verb forms undergoes the large-scale innovations adding up to its eventual restructuring. The driving force behind this restructuring is the concept of functional competition, *i.e.* "the selection struggle among alternative forms at language production" (Fonteyn 2019: 53; see also Berg 2014; De Smet *et al.* 2018: 198). At some point in time, speakers started using certain types of non-finite verb forms in innovative ways. Some of these innovations gave rise to functional competition. In choosing between the available forms, speakers seem to have been led by some kind of "system pressure" (Haiman 1980; Haspelmath 2014: 198). Given the more general tendency of the language toward an increasing degree of morphosyntactic specialisation, the pressure exerted by the system leads its speakers to progressively select one type of non-finite verb forms for one group of morphosyntactically related functions, e.g. the infinitive for all nominal functions at the expense of the gerund and the supine. The eventual outcome of these selection struggles is the tightly organised system based on morphosyntactic oppositions characteristic of most Old Romance languages.

In this restructuring of the system of non-finite verb forms, a crucial role is played by the evolution of the gerund and the present participle. This evolution is also driven by functional competition. Most significant are the competitions between the gerund and the present participle, on the one hand, and between the gerund and the infinitive, on the other. The latter compete in nominal syntactic functions and in purpose adjuncts. Both of these competitions settle in favour of the infinitive, which thus comes to specialise in nominal external syntax. Due to its substitution by the infinitive in this syntax, the gerund becomes entirely reliant on its adverbial external syntax and its use in progressive constructions. It is precisely in these uses that the gerund competes with the present participle. The latter can also occur in adjectival syntactic configurations, be used in a presentative progressive construction (a construction of the type *I see him coming*), or act as a syntactically finite verb form. It is claimed that the competition between the gerund and the present participle in adverbial syntax and in progressive constructions settles in favour of the gerund, causing the present participle to specialise in particular in its adjectival uses. In this way, the infinitive, the gerund, and the present participle gradually develop into respectively a nominal, an adverbial, and an adjectival form of the verb.

1.1.2. Some critical remarks

This development toward a morphosyntactically motivated division of labour calls for three important remarks.

(i) The specialisation of the infinitive and the gerund in respectively nominal and adverbial external syntax is not clear-cut, because the infinitive substitutes the gerund also in purpose adjuncts. Hence, it takes over part of its adverbial external syntax. The generalisation of the infinitive in this type of constituents might be syntactically motivated. As is well known, the distinction between verb complements and adjuncts is not discrete but rather gradient, giving rise to constituents that are neither prototypical verb complements nor prototypical adjuncts. These constituents may combine features of both prototypes, and are as such often difficult to analyse as either non-prototypical verb complements or non-prototypical adjuncts. A quantitatively important group of such ambiguous constituents are non-finite clauses with a purpose-like value (Pinkster 2021: §16.100). Witness the gerund clause *ad quemlibet parvum hortum fratribus excolendum* 'to cultivate a garden however small' (1), discussed in detail in §3.5.2.

(1) *[...] ad quemlibet parvum hortum fratribus* ***excole-nd-um***
to INDF.ACC.M.SG small.ACC.M.SG garden.ACC.M.SG brother.DAT.M.PL cultivate-GER-ACC
nulla patebat planities [...].
no.NOM.F.SG be_accessible.PST.3SG plain.NOM.F.SG
'No plain was accessible for the brethren to cultivate a garden however small.' (Greg. M. *dial.* 1.7)

Given that they are in between a status as verb complements and as adjuncts, such clauses are also in between a status of having respectively nominal and adverbial external syntax. Instead of setting in place a clear distinction between purpose verb complements and purpose adjuncts where such a sharp line is lacking, the system merges them in a single, but syntactically heterogeneous, group of purpose constituents. In line with the development of the language toward a higher degree of form-function isomorphism, this functional domain became the exclusive terrain of only one of the forms involved, *i.c.* the infinitive. The question as to why the infinitive generalised at the expense of the gerund instead of the other way around has to do with the emergence of the prepositional infinitive. One of the two dominant prepositions governing an infinitive in Late Latin (and in Romance) is *ad* 'to', whose default value is precisely a purpose value (Ernout & Thomas 1951: 256; Scherer 1975: 86; Harris 1978: 199; Schulte 2007: Ch. 7). The emergence of prepositional infinitives is one of the symptoms of the collapse of the case system, since it marks the shift from the synthetic marking of syntactic relations by means of inflectional morphology to their analytic marking by means of prepositions (Ernout 1914³: 9-10; Väänänen 1963³: 111). Hence, the victory of the more innovative prepositional infinitive over the existing bare and prepositional gerunds in purpose constituents is also part of a much more general process of language change.

(ii) The specialisation of the gerund in adverbial external syntax should also be understood in relation to its specialisation in progressive constructions. As mentioned in §2.1.1.2.2.3, the use of the gerund in a progressive construction is historically derived from its use in a specific type of adjuncts, *viz.*

bare ablative conjunct adjuncts with an elaborating function. Due to this historical relationship, it is not surprising that the gerund substitutes the present participle in both adjuncts and progressive constructions. As a result of this historical relation between adjunct gerunds and gerunds used in a progressive construction, the distinction between gerunds with adverbial and verbal external syntax is not clear-cut. This is due to the fact that language change is a slow and gradual process, in which synchronic stages are characterised by formal and/or functional ambiguity between an existing (or 'old') and an innovative (or 'new') analysis (Hopper 1991: 22-24; Hopper & Traugott 1993²: 124-126; Heine 1993: 54-56, 2002: 86). For this reason, descriptions such as 'the specialisation of the gerund in adverbial external syntax' should be understood within the context of this diachronic and synchronic relation between adjunct gerunds and gerunds used in a progressive construction.

(iii) The third and most critical remark is that, in the existing literature, the above-sketched evolution of the gerund and the present participle in Late Latin and in the transition to Old Romance has been traced on the basis of scattered empirical data, with a focus on specific forms and uses of the gerund and the present participle in Late Latin, on the one hand, and on empirical data taken from Old Romance languages and analysed retrospectively for Late Latin, on the other.

1.1.3. Novel insights emerging from the empirical investigation conducted in this thesis

This thesis is the first study to examine the evolution of the two types of non-finite verb forms in Late Latin on a large empirical basis. Hence, it allows for the first time to objectively verify the standard hypothesis of this evolution. To this end, the empirical investigation has been conducted on the basis of quantitative and statistically evaluated results, so as to distinguish random trends from those reflecting processes of language change. The results of this quantitative study, compared with the predictions of the standard hypothesis, shed new light on the evolution of the gerund and the present participle and its driving forces. Crucially, they do not fully support the hypothesis of morphosyntactic specialisation and differentiation of the gerund and the present participle in Late Latin. Rather, they show a more complex restructuring, in which this predicted specialisation and differentiation is only partial and seems to be a side-effect of an evolution related to another non-finite verb form, *i.e.* the infinitive. In the following sections, I will systematically contrast the predictions of the standard hypothesis with the quantitative results of this study, first for the gerund, and then for the present participle.

1.1.3.1. The evolution of the gerund in Late Latin

The Late Latin data show a specialisation of the gerund in adverbial external syntax or, put differently, a converbalisation of the gerund. However, this specialisation is not primarily due to the generalisation

of the (bare ablative) gerund at the expense of the present participle in adverbial configurations. On the contrary, the bare ablative gerund maintains a strong link with its original manner/instrumental/causal value in Late Latin. Hence, it does not turn into a full-fledged substitute of its semantically more neuter and versatile present participle competitor. In other words, the empirical evidence leads me to reject the widespread hypothesis that the converbalisation of the gerund in Late Latin is in the first place due to an increasing use of non-manner/instrumental/causal bare ablative adjunct gerunds at the cost of adjunct present participles.

It is hypothesised in this thesis that the main driving force behind the converbalisation of the gerund is the generalisation of the infinitive at the expense of the gerund in nominal syntactic configurations. This shift reduces the absolute number of nominal gerunds and, hence, their proportion to the total number of gerunds. As a result, the share of gerunds with adverbial (and verbal) external syntax increases, even if their absolute frequency remains relatively stable. The converbalisation of the gerund thus appears to be the indirect effect of the expansion of the infinitive in nominal external syntax (its 'masdarisation'). However, in the absence of corpus-based studies of the external syntax of the infinitive, this hypothesis remains somewhat speculative. So as to gain more insight into the dynamics behind the converbalisation of the gerund, it would therefore be interesting to carry out a diachronic corpus study of the external syntax of the infinitive comparable to that conducted for the gerund in this thesis, to collate the results obtained in these studies, and to interpret them in the light of the hypothesis put forward here.

The empirical study further shows that the crucial period in the converbalisation of the gerund is not the period of Late Latin itself, but rather the transition between Classical and Late Latin. Given the definition in this thesis of Classical Latin as the period between the 3rd c. BC and the 2nd c. AD and of Late Latin as that between the 3rd and the 10th c. AD, the shift from a predominantly nominal gerund to a predominantly adverbial gerund thus appears to have been realised in the first centuries of this era. Corpus studies of the use of the gerund in precisely this period, currently lacking, would be interesting in order to empirically verify this hypothesis.

The empirical study of the gerund in Late Latin has revealed other interesting findings.

(i) While the use of the gerund in Late Latin is relatively homogenous on the diachronic axis, it shows significant variation in the three thematic domains. In particular, the use of the gerund in legal texts greatly differs from its use in historical and religious texts, which I claim to be due to the specific stylistic features of the juridical language. This difference between the legal texts, on the one hand, and the historical and religious texts, on the other, yields an important methodological insight: at least for Late Latin, it is recommendable not to rely exclusively on legal texts to examine language change, and to evaluate results obtained for these texts separately from those obtained for other text types.

(ii) The data of this study do not comprise any gerund used in a progressive construction. Hence, they do not provide evidence in favour of the replacement of the present participle by the gerund in this construction. However, this use is also extremely rare for the present participle, so that in fact no solid conclusions can be drawn from this.

(iii) The corpus of this thesis reveals a use of the gerund that has gone unnoticed in the literature so far, *i.e.* as a syntactically finite verb. These forms are scarce and quantitatively insignificant (n=3), but at the same time they have some relevance for the competition between the gerund and the present participle: one of the main origins of the syntactically finite use of the present participle is its use in adjuncts, and since the Late Latin gerund is claimed to replace the present participle in adjuncts, it is not unlikely that the gerund comes to occasionally substitute the present participle also in a use derived from this adjunct use, *viz.* as a syntactically finite verb. While the rareness of syntactically finite gerunds suggests that the gerund does not replace the present participle in this use on a systematic basis, the mere existence of these forms undeniably shows that, within the Late Latin period, the gerund encroaches on the external syntax of the present participle.

Finally, the results of this study show that, despite the shift from a predominantly nominal gerund in Classical Latin to a predominantly adverbial gerund in Late Latin, there is still a considerable difference between the use of the gerund in Late Latin and in Old Romance – or at least in most Old Romance languages. Indeed, whereas the gerund can only occur in adjuncts and in progressive constructions in most Old Romance languages, these two uses represent only 61% of all gerunds in the Late Latin corpus of this thesis (this proportion corresponds in fact to the fraction of the adjunct gerunds alone, since the Late Latin corpus does not contain any gerund used in a progressive construction). This low proportion in the Late Latin corpus is due to the fact that the gerund does not substitute the present participle in adjuncts nor in progressive constructions. Hence, the absolute frequency of gerunds with adverbial and verbal external syntax does not increase. Thus, the question why there is a large difference between the use of the gerund in my Late Latin corpus and in most Old Romance languages boils essentially down to the question why the (bare ablative) adjunct gerund does not develop into a full-fledged competitor of the adjunct present participle in this corpus. As mentioned in the conclusion of Chapter 5 and in the introductory pages of this Conclusion, the most plausible answer has to do with the limitations of the empirical data. Though the corpus elaborated within the context of the PaLaFra project and used as the Late Latin corpus of this thesis is – in comparison with the existing Late Latin corpora – large and varied, it is well known that, from a sociolinguistic point of view, there is a significant gap between written and spoken language (*cf.* Herman 2006: 186). Hence, the texts of the Late Latin corpus might not faithfully reflect the ongoing changes in the spoken language. Evidence supporting this hypothesis comes from Old Romance languages. In most of these languages, the gerund can occur in adjuncts and in progressive constructions, while the present participle cannot (*cf.* Vincent 2016: 45). Since the Romance languages emerge from distinct spoken varieties of Late Latin, it can be assumed that, in the spoken vernaculars,

the gerund did substitute the present participle in these uses. For without this replacement, the system of non-finite verb forms in most Old Romance languages would not have been as tightly organised as it is. However, since no records of spoken Latino-Romance vernaculars are available from this period, there is no empirical evidence to settle this issue in a more precise way. Such indeterminacy, however, is a common price to pay in historical linguistics.

1.1.3.2. The evolution of the present participle in Late Latin

As to the present participle, the data of this study do not show any sign of specialisation of this form in adjectival external syntax or, put differently, of 'participialisation'. This finding is at odds with what is predicted by the standard hypothesis of its evolution. Instead of undergoing participialisation, it appears to specialise in adverbial external syntax, thus showing signs of converbalisation, just like the gerund. However, while the converbalisation of the gerund makes this form shift from a predominantly nominal external syntax in Classical Latin to a predominantly adverbial external syntax in Late Latin, the converbalisation of the present participle only strengthens the link of this form with its adverbial external syntax, since this syntax prevails already in Classical Latin. As in the case of the gerund, the crucial period in the converbalisation of the present participle is between Classical and Late Latin, rather than the period of Late Latin itself. Another parallel with the gerund is that the use of the present participle in Late Latin is relatively stable on the diachronic axis, while it shows large variation from a thematic point of view. The external syntax of the present participle is very different in legal texts in comparison with historical and religious texts, leading to the same methodological recommendation formulated with respect to the gerund. The difference between legal texts, on the one hand, and historical and religious texts, on the other, is nonetheless less pronounced in the case of the present participle than in the case of gerund.

The unexpected evolution of the present participle has at least three reasons.

(i) The first reason relates to the competition between the adverbial uses of the gerund and the present participle. As noted above, this competition is held to settle in favour of the (bare ablative) gerund, leading to the replacement of adjunct present participles by gerunds. Consequently, the absolute frequency of adjunct present participles and, hence, their proportion to the total number of present participles are thus expected to decline instead of rise. As a corollary, the share of present participles with adjectival (and verbal) external syntax is predicted to increase, even if their absolute number remains more or less stable. However, the data of this study do not provide evidence of an evolution of the gerund into a full-fledged substitute of the adverbial present participle. Unsurprisingly, then, the present participle is not replaced by the gerund in adverbial external syntax. This reason is able

to explain why the frequency of adverbial present participles does not decline, yet does not account for its increase.

(ii) One of the reasons of this frequency increase lies in the narrative and text-structuring uses of the adverbial present participle (*cf.* Combettes 2018: 404). Used as a narrative strategy, two or more present participles are combined so as to express a series of states of affairs succeeding each other on the temporal axis and/or serving as background for the subsequent discourse, as in (2) (Van Acker 2004: 130-131). Used as a text-structuring device, the present participle serves, among other things, to mark the beginning or end of a direct speech, as in (3).

(2) *Quem* ***vide-ns*** *Placidus* *et* ***desidera-ns***
REL.ACC.M.SG see-PTCP.PRS.NOM.M.SG Placidus.NOM.M.SG and wish-PTCP.PRS.NOM.M.SG
eum *capere,* ***relinque-ns*** *omnes,* *cum* *paucis*
DEM.ACC.M.SG seize.INF.PRS leave-PTCP.PRS.NOM.M.SG all.ACC.M.PL with few.ABL.M.PL
militibus *eum* *insequitur.*
soldier.ABL.M.PL DEM.ACC.M.SG follow.PST.3SG
'When Placidus saw him and because he wanted to seize him, he left everyone and followed him with a few soldiers.' (*Pass. Eustach.* 1.3)

(3) *Tunc* *dixerunt* *eis* *beatissimi* *apostoli* *Petrus*
then say.PST.3PL DEM.DAT.M.PL most_fortunate.NOM.M.PL apostle.NOM.M.PL Petrus.NOM.M.SG
cum *Paulo:* *"[...]".* *Hoc* ***audie-nt-es,*** *omnes*
with Paulus.ABL.M.SG DEM.ACC.N.SG hear-PTCP.PRS-NOM.M.PL all.NOM.M.PL
qui *in* *custodia* *erant* *clamaverant* *unanimiter*
REL.NOM.M.PL in custody.ABL.F.SG be.PST.3PL shout.PST.3PL unanimously
dice-nt-es*:* *"[...]".*
say-PTCP.PRS-NOM.M.PL
'Then the most fortunate apostles Peter and Paul said to them: "(...)". When they heard this, everyone who was in custody shouted unanimously, saying: "(...)".' (*Pass. Proc.* 1.6.1-2)

In Late Latin, the adverbial present participle is much more often used as a narrative strategy or text-structuring device than in Classical Latin. Since especially the narrative use of the present participle is characterised by a succession of adjunct forms, this naturally leads to a high frequency of adverbial present participles. The increasing narrative and text-structuring uses of the adverbial present participle also explain the spectacular frequency increase of the total number of present participles between Classical and Late Latin (see §3.4.2.3). Noteworthily, the narrative and text-structuring use of the adjunct present participle are particularly frequent in religious texts. Hence, the influence of Biblical Latin – be it authentic Latin or Latin translated from Biblical Greek – in this evolution may not be underestimated.

(iii) The third and final explanation for the unexpected evolution of the present participle is again related to the nature of the data examined. As already pointed out for the gerund, the corpus of this study only contains written texts, while language change typically emerges in spoken language. Hence, the use of the present participle in the Late Latin corpus might not faithfully reflect its presumably more innovative use in the spoken language. An argument in favour of this hypothesis comes again from Romance. In most Romance languages, the present participle has lost its adverbial external syntax and specialised in adjectival external syntax, though not necessarily as a fully productive (or lexically open) form (e.g. Rigau (2000: 352) on Spanish, where adnominal present participles can only be built on transitive and unaccusative intransitive verbs; see also other chapters in Ledgeway & Maiden 2016). Given that the Romance languages develop from varieties of Late Latin that are "particularly but not exclusively spoken" (Herman 2000: 7), and that the present participle can no longer show adverbial external syntax in these languages, it can be hypothesised that, in vernacular varieties of Late Latin, the present participle is nonetheless replaced by the gerund in this syntax. For without this shift, the present participle would not have been ousted from this adverbial use, so that the system of non-finite verb forms in most Romance languages would be less tightly organised as it is. In other words, we need to assume a large gap between the use of the present participle in written and spoken Late Latin in order to explain the important difference between its use in my Late Latin corpus and in Old Romance, and thus to account for its evolution from Late Latin to Old Romance.

1.2. The evolution of the gerund and the present participle from Late Latin to Old French

The above-mentioned evolution toward morphosyntactic specialisation and differentiation of the gerund and the present participle can readily be hypothesised for the transition from Late Latin to Romance languages such as Italian and Spanish, in which the gerund and the present participle survive as two morphologically distinct types of non-finite verb forms. Indeed, in these languages, the morphologically distinct forms show a distinct morphosyntactic profile and thus allow us to assume with a high degree of probability that this tendency toward morphosyntactic specialisation and differentiation was ongoing in Latino-Romance vernaculars, even if it is not or only partly corroborated by the Late Latin data that have come down to us. By contrast, this hypothesis is fragile for the transition from Late Latin to Old French, in which the gerund and the present participle merge morphologically in the *-ant* form. It could nonetheless be argued that the changes taking presumably place from Late Latin to other Old Romance languages are in fact pan-Romance, and thus need to be assumed also for Old French.

According to such a pan-Romance view, the evolution toward morphosyntactic specialisation and differentiation of the gerund and the present participle can be analysed in three ways.

(i) It might be a Late Latin evolution taking place in all substandard varieties serving as the basis for individual Romance languages. In this case, the evolution of the gerund and the present participle is completed in the mother varieties of the various Romance languages, and so it is naturally pan-Romance.

(ii) The shift toward (morpho)syntactic specialisation and differentiation of the gerund and the present participle might take place in the transition from Late Latin to the individual Romance languages. In this scenario, the pan-Romance character of the evolution can only be assumed if the gerund and the present participle do not only evolve in the same way in various geographical regions, but also more or less simultaneously and independently from one region to another.

(iii) The third option combines (i) and (ii): the evolution toward morphosyntactic specialisation and differentiation might set off in substandard varieties of Late Latin serving as the basis for individual Romance languages, while being completed only in the transition from Late Latin to the individual Romance languages.

As stated above, it cannot be empirically established whether the evolution of the gerund and the present participle takes mainly place within the period of Late Latin or in the transition to Romance. Hence, the two first scenarios cannot be assumed with absolute certainty. The third scenario is without any doubt the most convincing, also because the outcome of the evolution is not the same in the different Romance languages. But again, it is impossible to empirically show whether the evolution in issue is to be situated in the period of Late Latin or in the transition from Late Latin to the individual Romance languages. In sum, the analysis of the evolution toward (morpho)syntactic specialisation and differentiation of the gerund and the present participle as a pan-Romance development to be assumed also for Old French is not without problems.

Moreover, the analysis of the evolution toward morphosyntactic specialisation and differentiation of the gerund and the present participle as a pan-Romance development, which amounts to imposing it on the evolution of these forms from Late Latin to Old French, raises an important theoretical problem. Indeed, it violates the categorial particularism, *viz.* the idea that languages have their own categories and their own criteria for category assignment, and can as such not be described using the categories created for the description of other languages – at least not without a revision of their defining properties (Boas 1911; Joos 1957; Haspelmath 2010: 664, 669). So, even if the (morpho)syntactic evolution of the gerund and the present participle in the transition from Late Latin to Old French is the same as in the transition from Late Latin to the other Romance languages, it is compromised in Old French due to their morphological merging. Since linguistic categories are best defined on the basis of morphological and syntactic criteria (Trask 1999: 281; Aarts 2007: 2; Pullum 2009: 257), this morphological merging of the gerund and the present participle in Old French requires the criteria for category assignment in this language to be revised. The very revision of these criteria distinguishes Old French from the other

Romance languages, so that the evolutionary profile of the gerund and the present participle sketched on the basis of languages like Spanish and Italian cannot be assumed as such for Old French.

1.3. The impact of morphological merging and functional overlap of the gerund and the present participle on their categorial distinction

The empirical study of the Old French *-ant* form conducted in this thesis has important implications with respect to the categorial distinction between the gerund and the present participle in Old French. Due to the morphological merging of these forms, Old French verb forms in *-ant* can indeed not be categorised as either gerunds or present participles on morphological grounds. However, two exceptions can be made. On the one hand, all prepositional forms can be taken as gerunds, since in Late Latin, the gerund, but not the present participle, can be prepositional. On the other hand, all forms having an inflectional variant of the ending *-ant* can be categorised as present participles, because in Late Latin, the present participle, but not the gerund, agrees with a noun in case, gender, and number. In addition, some Old French verbal forms in *-ant* can be categorised on the basis of their syntactic function: all forms having a syntactic function accessible to the Late Latin present participle, but inaccessible to the Late Latin gerund, can be considered present participles (there are no Old French verb forms in *-ant* performing a syntactic function accessible to the Late Latin gerund, but inaccessible to the Late Latin present participle, and hence the opposite argument does not hold). In the Old French corpus of this study, the combination of these three criteria allows determining the category of 62% of all verb forms in *-ant*, among which 54% can be taken as present participles and 9% as gerunds (the sum of these percentages makes 62% instead of 63% for reasons of rounding off). However, this "retrospective historical approach" (Aspland 1968: 151) to categorise verb forms in *-ant* is based on the assumption that the gerund and the present participle do not encroach on each other's morphology and distribution, neither in the transition from Late Latin to Old French nor within the period of Old French itself. Yet, such encroachment cannot be excluded from a purely theoretical point of view. Moreover, empirical evidence suggests that such encroachment does take place (*cf.* De Smet 2014: 40). Witness forms like *enhortanz* 'encouraging' (4): on the one hand, it is governed by the preposition *por* 'in order to', and hence it should be analysed a gerund, but on the other hand, it agrees with the NP *li apostoiles* 'the apostle', on the basis of which it should be taken as a present participle.

(4) *[...] por les clers* ***enhort-anz*** *li*
to ART.DEF.OBL.M.PL clerk.OBL.M.PL encourage-V.ANT.OBL.M.PL ART.DEF.SBJ.M.SG
apostoiles i donat consentement.
apostle.SBJ.M.SG to_it give.PST.3SG consent.OBL.M.SG
'The apostle gave his consent to it in order to encourage the clerks.' (*Dial. Greg.* 4)

This and similar forms are to be regarded as either agreeing gerunds or prepositional present participles (*cf.* De Smet 2014: 40). Hence, they indicate that either the gerund encroaches on the morphology of the present participle or the present participle on the morphology of the gerund. Given this morphological exchange, the three criteria to categorise Old French *-ant* forms are only weakly reliable. Consequently, the 62% of the verb forms in *-ant* concerned are best taken as categorially indeterminate after all, just like the remaining 38% of unambiguously indeterminate occurrences. The empirical study thus reveals the extent of the categorial indeterminacy of the Old French *-ant* form.

The morphological merging of the gerund and the present participle in the transition from Late Latin to Old French and the lack of completely reliable morphological and syntactic criteria to establish their categorial distinction raise the fundamental question whether the gerund and the present participle survive in Old French as two distinct categories of non-finite verb forms or whether they merge into a single category (*cf.* Ménard 1973: 169; Adams 2003: 749; De Smet 2014: 39-40; Bazin-Tacchella 2020: 852). Both points of view can be evaluated here in the light of the previous discussion and of the results obtained in the empirical part of this study.

Most authors claim that the gerund and the present participle exist in Old French as two distinct categories of non-finite verb forms, just like in (Late) Latin (Gougenheim 1929; Anglade 1958: 215-217; Väänänen 1963[3]: 140-141; Ménard 1973: 169-175; Harris 1978: 199-201; Arnavielle 1982, 1984: 38, 1997; Jensen 1990: 322-334; Buridant 2000: 324-327, 2019: 461). Since their categorial distinction is held to be preserved, the main challenge of this hypothesis is to establish the criteria for category assignment enabling to draw a sharp line between the categories of the gerund and the present participle. Yet, such criteria are lacking, as shown in the foregoing discussion. Hence, the distinction between the two categories is blurred, which brings us to the second hypothesis, that of categorial blending.

Some authors dealing with this categorial distinction from outside the field of French historical linguistics, in particular the Latinist Adams (2003: 749) and the Anglicist De Smet (2014: 40), hold that the morphological merging of the gerund and the present participle causes these forms to merge also on a categorial level. Adams (2003: 749) speaks of a "conflation of the two categories", and De Smet (2014: 40) describes the resulting categorial blend as an "all-purpose invariable non-finite form in *-ant*" that is "in syntactic terms neither a real gerund nor a real participle". This hypothesis of categorial blurring has far-reaching implications for the grammatical description of Old French: it implies that the gerund and the present participle cease to exist as distinct linguistic categories, so that the labels 'gerund' and 'present participle' can no longer be used to describe Old French *-ant* forms. Though discarding category labels that are so entrenched in the French grammatical tradition is a major decision, it is the only way to convincingly account for the impact of the morphological merging of the gerund and the present participle on their categorial distinction, both in view of the empirical data and from a strictly theoretical perspective. This hypothesis is also in keeping with the particularist view on linguistic categories, in

that it separates Old French from the other Romance languages, in which the gerund and the present participle do not merge morphologically and are thus exempt from categorial blurring.

The question remains as to how to denominate this new category and the forms associated with it. Of the various labelling strategies explored in Chapter 6 (§6.9), the best options are the purely formal label '-*ant* form' and the terminological blend 'parund'. Due to the neological character of the latter and, hence, its risk of not successfully spreading in the linguistic community (a precedent in this respect is the terminology forged by Damourette & Pichon 1968-1971 for the grammatical description of French), the formal label '-*ant* form' is most appropriate. This term is moreover parallel to the term '-*ing* form', used by many authors to refer to the equivalent forms in English.

This new category could be easily integrated in the grammatical description of Old French. From a morphological viewpoint, the Old French -*ant* form is to be defined as a type of non-finite verb form built on the present stem of a verb and having (or at least generalising) the invariable ending -*ant*. It can moreover be bare (e.g. *plorant* 'crying' (5)) or prepositional (e.g. *en fuiant* 'when flying' (6)), just like the (Late) Latin gerund – the label 'V.ANT' stands for this categorial blend).

(5) *Tristan* *l'* *a* ***plor-ant*** *salüee.*
Tristan she.OBJ.F.SG have.PRS.3SG cry-V.ANT greet.PTCP.PST.F.SG
'Tristan greeted her while crying.' (Bér. *Tristan* 3777)

(6) *Li* *leüns* *en* ***fui-ant*** */* *Sa* *trace* *vait*
ART.DEF.SBJ.M.SG lion.SBJ.M.SG in flee-V.ANT his.OBL.F.SG track.OBL.F.SG go.PRS.3SG
cuvrant *[...].*
cover.V.ANT
'The lion covers his track while fleeing.' (Ph. de Thaon *Bestiaire* 165-166)

From a syntactic point of view, the -*ant* form can display the external syntax of an adjective, an adverb or a verb, just like the (Late) Latin present participle. In Old French, the adjectival -*ant* form occurs in adnominal phrases (e.g. *curant* 'running' (7)), subject predicates (e.g. *mordant* 'biting' (8)), or object predicates (e.g. *querant* 'seeking' (9)), while the adverbial -*ant* form is restricted to adjuncts (e.g. *plorant* 'crying' (5) and *en fuiant* 'while flying' (6)). As for the verbal -*ant* form, it can serve as the main verb of either a progressive (e.g. *demenant* 'pursuing'/*abatant* 'slaying' (10)) or a presentative progressive construction (e.g. *seant* 'sitting' (11)).

(7) *En* *Rencesvals* *ad* *un'* *ewe* ***cur-ant*** *[...].*
in Roncevaux have.PRS.3SG ART.INDF.OBL.F.SG water.OBL.F.SG run-V.ANT
'In Roncevaux there is a running water (stream).' (*Roland* 2225)

(8) *[...] se moz i trouvez ja mis qui*
if word.OBL.M.PL PRO.LOC find.PRS.2PL ever put.PTCP.PST.M.PL REL.NOM.M.PL
samblent ***mord-ant*** *[...].*
seem.PRS.3PL bite-V.ANT
'If you ever find some words written here that seem offensive (lit. 'biting') (...).' (J. de Meun *Rose* 15168-15169)

(9) *[...] Tost le fait pain* ***quer-ant*** *[...].*
soon he.OBJ.M.SG make.PRS.3SG bread.OBL.M.SG seek-V.ANT
'He soon appoverishes him (lit. 'makes him poor/bread-seeking').' (Ph. de Thaon *Bestiaire* 1012)

(10) *Bretun les vunt mult* ***demen-ant*** */ E a granz*
Briton.SBJ.M.PL they.OBJ.M.PL go.PRS.3PL heavily pursue-V.ANT and in large.OBL.F.PL
turbes ***abat-ant*** *[...].*
crowd.OBL.F.PL slay-V.ANT
'The Britons go heavily pursuing them and slaying them in large numbers.' (Wace *Brut* 12069-12070)

(11) *[...] Sur la roche u sunt venud / Trovent*
on ART.DEF.OBL.F.SG rock.OBL.F.SG where be.PRS.3PL come.PTCP.PST.M.PL find.PRS.3PL
se-ant *homme nud.*
sit-V.ANT man.OBL.M.SG naked.OBL.M.SG
'On the rock where they arrived, they found a naked man sitting.' (Ben. *Brendan* 1221-1222)

Since it can have the external syntax of the prototypical members of three distinct categories, the Old French *-ant* form holds as a 'tri-functional category of non-finite verb forms' (*cf.* Nedjalkov 1995: 105), just like the Late Latin gerund and present participle.

From a more general perspective, the categorial merging of the gerund and the present participle should be evaluated in view of the overall evolutionary tendency of the language toward an increasing degree of morphosyntactic specialisation. As shown by Carlier & Combettes (2015), within the family of the Romance language, this tendency is the most far-reaching in French. However, the evolution of the gerund and the present participle from Late Latin to Old French provides an important exception to this general evolutionary trend. In contrast with Romance languages such as Spanish and Italian, which have three distinct forms for the three main types of non-finite external syntax (the infinitive for nominal external syntax, the gerund for adverbial external syntax, and the participle for adjectival external syntax), Old French has one form specialised in nominal external syntax (*i.e.* the infinitive), one form compatible with both adverbial and adjectival external syntax (the *-ant* form), and one form specialised, though not exclusively, in adjectival external syntax (*i.e.* the past participle). The general conclusion to be drawn from this particular position of Old French is that large-scale evolutionary tendencies do not necessarily manifest themselves in all parts of grammar. Since linguistic items are pairings of both form and function (*cf.* de Saussure 1916; Goldberg 1995: 4, 2006: 3-5; Croft 2001: 18), large-scale functional

developments can in some parts of grammar be cancelled by formal evolutions. In our case, the general development of Old French toward morphosyntactic specialisation is neutralised in the evolution of the gerund and the present participle by a combination of morphological and phonetic evolutions.

2. Directions for future research

The hypothesis of categorial blending solves the fundamental problem of the categorial indeterminacy of the Old French *-ant* form, while at the same time suggesting avenues of future research with respect to the categorisation of the *-ant* form. Two of these will be developed here – the interest of carrying out a corpus-based study of the external syntax and morphosyntactic categorisation of the infinitive between Classical and Late Latin and during the Late Latin period has already been mentioned above.

Most obviously, the hypothesis of categorial merging raises the question as to how to account for the evolution of the *-ant* form in the further history of French. In the existing literature, the gerund and the present participle are recognised as distinct categories of non-finite verb forms, and their categorial distinction is considered to be definitively settled in the course of the 17th c. (Sarré 2000: 51; Bazin-Tacchella 2020: 852). In 1679, the *Académie française* prescribes the use of *en* 'in' before the gerund. Henceforth, all forms introduced by *en* are taken as gerunds and those without *en* as present participles. According to Sarré (2000: 51), this prescription is not artificial, but symptomatic of ongoing changes in language use: of all *-ant* forms with adverbial external syntax in Middle French (14th-16th c.) and being thus categorisable as gerunds from a retrospective historical (and comparative Romance) approach, 80% are preceded by *en* 'in'. However, this morphologically-based categorial distinction between the gerund and the present participle from the 17th c. onward raises two fundamental problems.

On the one hand, from a diachronic viewpoint, it is surprising to hypothesise a resurgence of the Latin categories of the gerund and the present participle, after they had disappeared in Medieval French. This appears to be the position defended by Bazin-Tacchella (2020: 852):

> *En ancien et moyen français, on parlera plutôt de formes en -ant, variables ou invariables, car les catégories de participe et de gérondif, adaptées à la grammaire latine, ne seront établies qu'à partir du 17e s.*

This is to say that the use of the categorial labels 'gerund' and 'present participle' for Classical French (17th-18th c.) is not justified by a diachronic continuity, because the categorial distinction in issue fades away in the transition from Late Latin to Old French, and that changes taking place after Medieval French are conceptualised without any problematisation within the grammatical framework developed for Latin. Moreover, the reintroduction of the term 'gerund' for the construction [*en* 'in' + *-ant* form] is

neither motivated by a similarity with the Classical Latin gerund, which mostly has nominal external syntax, nor with the Late Latin gerund, which has by no means the monopoly of adverbial uses, but is in competition with the present participle in these uses. In my view, the use of the Latin category labels ‘gerund’ and ‘present participle’ for the description of Classical French violates the principle of the categorial particularism and illustrates the enormous influence of the grammatical tradition of Latin on the grammatical description of other, in the first place Romance, languages.

On the other hand, the existence of the gerund in both a bare and a prepositional form is widely accepted until well into the 17th c. (*cf.* Sarré 2000). Hence, it is implausible that the official prescription of the *Académie française* in 1679 changes the situation radically, so that from this date onward, *all* prepositional *-ant* forms are to be categorised as gerunds, and all bare forms as present participles. As has been shown in great detail by Ayres-Bennett (2018), the *Remarqueurs* of the French Academy have mistakenly been called legislators, but were instead good observers of usage and of changing usage, and so it is likely that, throughout the history of French, adjunct *-ant* forms are increasingly introduced by *en* ‘in’, without there being any objective reasons to suddenly take only these forms as gerunds, while analysing all bare adjunct forms as present participles. The fact remains that the increasing use of *en* ‘in’ with adjunct *-ant* forms seems to have been wrongly evaluated in categorial terms, probably again under the weight of the Latin grammatical tradition.

In the light of the preceding discussion, the morphologically-based distinction between the gerund and the present participle imposed by the *Académie française* should be rejected, just like their categorial distinction in Old French. It would therefore be interesting to explore the evolution of the *-ant* form in the further history of French (*i.e.* in the stages after Old French) from the point of view of the categorial merging of the gerund and the present participle, in order to investigate to which extent this hypothesis of categorial blending might also account for the empirical data from Old French onward. At first glance, this hypothesis is compatible with empirical data. For instance, in Modern French, the subject of adjunct forms introduced by *en* ‘in’ is in theory coreferential with the subject of the main verb, while the subject of bare adjunct *-ant* forms is coreferential with the closest NP. Witness *sortant* ‘leaving’ (12-13), whose subject corresponds to the subject of the main verb in (12), but to its direct object in (13).

(12) *Max a rencontré Pierre en* ***sort-ant*** *du train.*
Max have.PRS.3SG meet.PTCP.PST Peter in leave-V.ANT from;ART.DEF.M.SG train.M.SG
‘Max met Peter as he (Max) was leaving the train.’

(13) *Max a rencontré Pierre* ***sort-ant*** *du train.*
Max have.PRS.3SG meet.PTCP.PST Peter leave-V.ANT from;ART.DEF.M.SG train.M.SG
‘Max met Peter as he (Peter) was leaving the train.’

Hence, the use of *en* 'in' could be a syntactic means to impose coreferentiality between the subject of the adjunct form and the subject of the main verb. In this way, the adjunct forms in (12) and (13) belong to the same category, that of the *-ant* form, and simply differ in terms of the reference of their subject, just like in Old French. The increasing use of *en* 'in' with subject-oriented adjunct forms in Middle French observed by Sarré (2000: 51) can then be analysed as the evolution toward this new, category-internal distinction between adjunct *-ant* forms specialised in subject-orientation, on the one hand, and adjunct *-ant* forms without such an orientation, on the other. In this evolution, *en* 'in' is best analysed as shifting from the status of preposition to that of marker of subject coreferentiality.[1] However, this hypothesis remains speculative until supported by a comprehensive, diachronic study of empirical data.

The second issue raised by the hypothesis of categorial merging of the gerund and the present participle and worth investigating in more detail pertains to the distinction between *-ant* forms displaying adjectival external syntax and (de)verbal adjectives in *-ant*. In this thesis, the verb form in *-ant* has been defined in a very broad sense, comprising any non-finite verb form ending in *-ant* (or with an inflectional variant of this ending) and built on a verb "used in the language current at the time when the text in question was written" (Eklund 1970: 12). Its formation may be regular or irregular, but the *-ant* form needs to have the same meaning as its corresponding finite verb or one that can be derived from it through deactualisation and/or contextual recategorisation (see §3.4.3). The broadness of this definition is recommendable for the specific purpose of this dissertation: in examining the degree of categorial indeterminacy of the Old French verb form in *-ant*, it allows measuring its maximal degree of categorial determinacy, and, as a corollary, its minimal degree of categorial indeterminacy. In a stricter definition, some forms exhibiting adjectival external syntax qualify as adjectives, and would therefore be excluded from the dataset. As a result, the absolute frequency of adjectival *-ant* forms would be lower, and, with this, their proportion to the total number of *-ant* forms. Consequently, the portion of forms categorisable as present participles would be lower, leading to a higher overall degree of categorial indeterminacy of the verb form in *-ant*. In this way, the implications of the morphological merging of the gerund and the present participle on their categorial distinction would be more drastic, and, hence, the hypothesis of their categorial merging (even) more convincing. In a certain sense, the broad definition of the *-ant* form adopted in this thesis strengthens the conclusion drawn from the study of its categorial indeterminacy.

However, having evaluated the impact of the morphological merging of the gerund and the present participle on their categorial distinction in terms of categorial merging, it would now be interesting to refine the description of this categorial blend by addressing the distinction between *-ant* forms displaying adjectival external syntax, on the one hand, and lexicalised (or lexicalising) (de)verbal adjectives, on the

[1] This analysis of *en* 'in' as the marker of subject coreferentiality instead of as a preposition is new. However, its analysis as a morpheme having left the category of the preposition is not. Indeed, some authors regard this morpheme in Modern French as the marker of the gerund (e.g. Halmøy 2003: 62-63, 2013: 275; Begioni & Rocchetti 2010: 81-83). My hypothesis is in contrast with this analysis, in that it treats this morpheme as an optional functional marker rather than as a mandatory category marker.

other. This matter is primarily to be approached from a qualitative point of view and based on the lexical stock of the forms used in adjectival configurations, but it would be relevant to implement the insights gathered from such a study in quantitative studies of the *-ant* form and (de)verbal adjectives in *-ant*. For instance, a stricter definition of the *-ant* form could serve to adjust the figures obtained for the external syntactic, morphosyntactic, and typological profile of the Old French *-ant* form in this dissertation. This adjustment could give us a more faithful idea of the functional properties of this form, and thus of its position in the Old French system of non-finite verb forms. This, in turn, would allow not only a more faithful study of the evolution of the *-ant* form in the further history of French, but also a more faithful comparison of the Old French *-ant* form with its source categories in Latin and their counterparts in other, especially, but not exclusively, Romance languages.

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Appendices

Appendix 1. List of quoted texts

This appendix presents all primary texts for which one or more examples have been cited in this thesis. The different sections list successively the Classical Latin (§1), Late Latin (§2), Old French (§3), and Romance texts (§4). All texts are arranged alphabetically, first on the basis of the full author name, then on the basis of the abbreviated title. Anonymous works are presented at the end of each table.

1. Classical Latin

The following table contains all Classical Latin texts cited in this dissertation. Recall that the Classical Latin period is defined in this thesis as the period between the 3rd c. BC and the 2nd c. AD, thus covering the following three periods distinguished by Haverling (1988: 20-23): Early Latin (240 BC – 90 BC), Classical Latin (90 BC – 14 AD), and Silver Latin (14 AD – 200 AD). The references to the texts follow the conventions of the *Thesaurus Linguae Latinae*.

Abbreviated author name	**Full author name**	**Abbreviated title**	**Full title**
Apul.	Apuleius	*flor.*	*Florida*
		met.	*Metamorphoses*
Caes.	Caesar	*Gall.*	*Commentarii de bello Gallico*
		civ.	*Commentarii de bello civili*
-	Cato	*agr.*	*De agri cultura*
Calp.	Calpurnius	*hist.*	*Historiae*
Cels.	Celsus	-	*De medicina*
Cic.	Cicero	*Att.*	*Epistulae ad Atticum*
		Brut.	*Brutus*
		Cael.	*Pro Caelio*
		de orat.	*De oratore*
		dom.	*De domo sua*
		fam.	*Epistulae ad familiares*
		fin.	*De finibus bonorum et malorum*
		har. resp.	*De haruspicum responsis*
		inv.	*De inventione*
		Lael.	*Laelius de amicitia*
		Manil.	*Pro lege Manilia*
		Mil.	*Pro Milone*
		Mur.	*Pro Murena*
		off.	*De officiis*

		Phil.	*Philippica*
		Pis.	*In Pisonem*
		p. red. in sen.	*Post reditum in senatu*
		Quinct.	*Pro Publio Quinctio*
		top.	*Topica*
		Tusc.	*Tusculanae disputationes*
		Vatin.	*In Vatinium*
		Verr.	*In Verrem*
		-	*Lucullus*
Enn.	Ennius	*ann.*	*Annales*
Hirt.	Hirtius	*Gall.*	*Commentarii de bello Gallico*
Liv.	Livius	-	*Ab urbe condita*
Mela	Pomponius Mela	-	*De chorographia*
Ov.	Ovidius	*rem.*	*Remedia amoris*
Plaut.	Plautus	*Amph.*	*Amphitryon*
		Asin.	*Asinaria*
		Bacch.	*Bacchides*
		Capt.	*Captivi*
		Cist.	*Cistellaria*
		Curc.	*Curculio*
		Epid.	*Epidicus*
		Men.	*Menaechmi*
		Mil.	*Miles gloriosus*
		Most.	*Mostellaria*
		Poen.	*Poenulus*
		Pseud.	*Pseudulus*
		Trin.	*Trinummus*
		Truc.	*Truculentus*
		-	*Persa*
Plin.	Plinius	*nat.*	*Naturalis Historia*
Prop.	Propertius	-	*Elegiae*
Quint.	Quintilianus	*inst.*	*Institutio oratoria*
Sen.	Seneca	*epist.*	*Epistulae ad Lucilium*
Stat.	Statius	*silv.*	*Silvae*
		Theb.	*Thebais*
Suet.	Suetonius	*Aug.*	*De vita caesarum Augustus*
Tac.	Tacitus	*hist.*	*Historiae*
		ann.	*Annales*
Ter.	Terentius	*Ad.*	*Adelphoe*

		Eun.	*Eunuchus*
		Haut.	*Heauton Timorumenos*
		Hec.	*Hecyra*
		Phorm.	*Phormio*
-	Varro	*ling.*	*De lingua latina*
		rust.	*De re rustica*
Verg.	Vergilius	*Aen.*	*Aeneis*
		georg.	*Georgica*
Vitr.	Vitruvius	-	*De architectura*
-	-	*Bell. Afr.*	*De bello Africo*
		Bell. Hisp.	*De bello Hispaniensi*

2. Late Latin

The table in this section inventorises all Late Latin texts for which one or more examples are cited in this thesis. Remember that Late Latin is defined in this dissertation as the period between the 3rd and the 10th c. AD. Hence, it is larger than the period of Late Latin as defined by, e.g., Haverling (1988: 20-23), but nearly identical to that delimited by Banniard (2018: 29), covering the period between the 3rd c. and 900. The abbreviations of the author and the title of the texts follow again the conventions of the *Thesaurus Linguae Latinae*. The texts that are not cited in this dictionary, but that are quoted in Blaise's (1954) *Dictionnaire latin-français des auteurs chrétiens* are referred to on the basis of this author's recommendations. However, these references have been aligned on the (implicit) principles adopted in the *Thesaurus Linguae Latinae*, for the sake of uniformity. The texts that are cited in this thesis, but not in the *Thesaurus Linguae Latinae* nor in Blaise's (1954) *Dictionnaire latin-français des auteurs chrétiens* have been assigned an abbreviated title and author name (if relevant) on the basis of the same principles as for the texts quoted in these dictionaries.

Abbreviated author name	**Full author name**	**Abbreviated title**	**Full title**
Amm.	Ammianus	-	*Historiae*
Aug.	Augustinus	*serm.*	*Sermones*
-	Chiron	-	*Mulomedicina Chironis*
Clem.	Clemens	*ad Cor.*	*Epistula ad Corinthios*
Cypr.	Cyprianus	*epist.*	*Epistulae*
Donat.	Donatus	*Ad. praef.*	*Adelphoe praefatio*
Ven. Fort.	Venantius Fortunatus	*carm.*	*Carmina*
Fulg.	Fulgentius	*myth.*	*Mythologiae*
Fredeg.	Fredegar	*chron.*	*Chronica*

		cont.	*Continuationes*
Gennad.	Gennadius	*vir. ill.*	*De viris illustribus*
Greg. M.	Gregorius Magnus	*dial.*	*Dialogus*
Greg. Tur.	Gregorius Turonensis	*Franc.*	*Historia Francorum*
Hier.	Hieronymus	*in Matth.*	*Commentarii in Matthaeum*
		in Tit.	*Commentarii in epistulam Pauli ad Titum*
Hil.	Hilarius	*hymn.*	*Tractatus de mysteriis et hymni*
Isid.	Isidorus	*synon.*	*Synonyma de lamentatione animae peccatricis*
Iul. Val.	Iulius Valerius	-	*Res gestae Alexandri Macedonis*
-	Leo	*Alex.*	*Vita Alexandri Magni*
Papin.	Papinianus	*dig.*	*Digesta*
Sulp. Sev.	Sulpicius Severus	*Mart.*	*Vita sancti Martini*
Veg.	Vegetius	*mil.*	*De re militari*
		mulom.	*Mulomedicina*
Vict. Vit.	Victorius Vitensis	-	*Historiae*
-	-	*Act. Andr.*	*Acta Andreae et Matthiae*
		Anon. Vales.	*Anonymi Valesiani*
		Anton. Plac.	*Itinerarium Antonini Placentini*
		Carol. capit.	*Caroli Magni Capitularia*
		Chart. Merov.	*Chartae aevi Merovingici*
		CIL	*Corpus Inscriptionum Latinarum*
		Edict. Chlot.	*Edicta Chlotharii*
		Epist. Austr.	*Epistulae Austrasicae*
		Epist. Desid.	*Desiderii episcopi Cadurcensis epistulae*
		Epist. Merov.	*Epistulae aevi Merovingici collectae*
		Form. Andec.	*Formulae Andecavenses*
		Form. Bitur.	*Formulae Bituricenses*
		Form. Marc.	*Formulae Marculfi*
		Form. Sal. Bign.	*Formulae Salicae Bignonianae*
		Form. Sal. Lind.	*Formulae Salicae Lindenbrogianae*
		Form. Sal. Merk	*Formulae Salicae Merkelianae*
		Form. Turun.	*Formulae Turonenses vulgo Sirmondicae dictae*
		Hist. Franc.	*Liber Historiae Francorum*
		Ital. Ioh.	*Itala Iohannes*
		Inscr. Christ. Diehl	*Inscriptiones Latinae christianae veteres Diehl*
		Lex Sal.	*Pactus legis Salicae*

Pass. Agath.	*Passio Agathae*
Pass. Bened.	*Passio Benedictae*
Pass. Caec.	*Passio Caeciliae*
Pass. Columb.	*Passio Columbae*
Pass. Eustach.	*Passio sancti Eustachii*
Pass. Getul.	*Passio Getulii, Cerealis et soc.*
Pass. Iul.	*Passio Iuliae*
Pass. Pimen.	*Passio Pimenii*
Pass. Proc.	*Passio Processi et Martiniani*
Pass. Symph.	*Passio Symphorosae*
Pass. Vict.	*Passio Victoris et Coronae*
Pass. Vit.	*Passio Viti*
Peregr. Aeth.	*Peregrinatio Aetheriae*
Suppl. form. Marc.	*Supplementum Formulae Marculfi*
Vet. Lat. Marc.	*Vetus Latina (Marcus)*
Vet. Lat. Matth.	*Vetus Latina (Mattheus)*
Visio Bar.	*Visio Baronti Monachi Longoretensis*
Vit. Adelph.	*Vita Adelphii Abbatum Habendensis*
Vit. Amand.	*Vita sancti ac beatissimi Amandi episcopi et confessoris*
Vit. Amat.	*Vita Amati*
Vit. Aud.	*Vita Audoini episcopi Rotomagensis*
Vit. Austr.	*Vita sancti Austrigisili episcopi et confessoris*
Vit. Bonit.	*Vita Boniti episcopi Arverni*
Vit. Desid.	*Vita Desiderii Cadurcae urbis episcopi*
Vit. Elig.	*Vita Eligii episcopi Noviomagensis*
Vit. Euch.	*Vita Eucherii episcopi Aurelianensis*
Vit. Furs.	*Vita virtutesque Fursei abbatis Latiniacensis et de Fuilano additamentum Nivialense*
Vit. Hugb.	*Vita Hugberti episcopi Traiectensis*
Vit. Gall. Wal.	*Vita Galli Walahfrido*
Vit. Gall. Wett.	*Vita Galli auctore Wettino cum prologo metrico ad Gozbertum*
Vit. Genov.	*Vita Genovefae Virginis Parisiensis*
Vit. Madelb.	*Vita Madelbertae*
Vit. Pard.	*Vita Pardulfi abbatis Waractensis*
Vit. Sadalb.	*Vita Sadalbergae abbatissae Laudunensis*

Vit. Trud.	*Vita Trudonis confessoris Hasbaniensis auctore Donato*
Vit. Walb.	*Vita Walberti*
Vit. Waldedr.	*Vita Waldedrudis*
Vit. Wandr.	*Vita Wandregiseli abbatis Fontanellensis*
Vulg. Ex.	*Vulgata (Exodus)*
Vulg. Gen.	*Vulgata (Genesis)*
Vulg. Luc.	*Vulgata (Lucas)*
Vulg. Rom.	*Vulgata Romana*

3. Old French

The following table lists all Old French texts cited in this dissertation. For reasons of clarity, reference to these texts is not made according to the conventions in the *Dictionnaire Etymologique de l'Ancien Français*, which often lack transparency (e.g. *AmAmD* for *Ami et Amile*) – this strategy is followed by Buridant (2000, 2019). More transparent references are used in the *Grande Grammaire Historique du Français* (Marchello-Nizia *et al.* 2020; see pp. 46-53), but not for all texts. For the sake of uniformity, also with the references to the Latin texts, I assigned all Old French texts that are quoted in this thesis a transparent abbreviated author name and title. Whenever a transparent reference of this model is used in the *Grande Grammaire Historique du Français*, I used the reference proposed in this manual.

Abbreviated author name	**Full author name**	**Abbreviated title**	**Full title**
Adg.	Adgar	*Miracles*	*Collection de miracles*
Ben.	Benedeit	*Brendan*	*Voyage de saint Brendan*
Bér.	Béroul	*Tristan*	*Tristan*
-	Bodel	*Nicolas*	*Le Jeu de saint Nicolas*
Chr. de Troyes	Chrétien de Troyes	*Perceval*	*Perceval ou le Conte du Graal*
		Yvain	*Chevalier au Lion ou Yvain*
Guernes	Guernes de Pont-Saint-Maxence	*Becket*	*Vie de saint Thomas Becket*
J. de Meun	Jean de Meun	*Rose*	*Roman de la Rose*
Ph. de Beau.	Philippe de Beaumanoir	*Coutumes*	*Coutumes de Beauvaisis*
Ph. de Thaon	Philippe de Thaon	-	*Bestiaire*
		-	*Comput*
R. de Paris	Raimbert de Paris	*Ogier*	*La Chevalerie Ogier de Danemarche*
-	Wace	-	*Brut*

		Rou	*Le Roman de Rou*
-	-	*Alexis*	*Vie de saint Alexis*
		Ami	*Ami et Amile*
		Bibl. Mac. Rois	*La Bible de Macé de la Charité (Rois)*
		Comm. psaum.	*Commentaire en prose sur les psaumes I-XXXV*
		Constantinople	*Conquête de Constantinople*
		Dial. Greg.	*Li Dialoge Gregoire lo Pape*
		Floire	*Floire et Blanchefleur*
		Gormont	*Gormont et Isembart*
		Graal	*Queste del saint Graal*
		Huon	*Huon de Bordeaux*
		Lapid. alphab.	*Lapidaire alphabétique*
		Narbonnais	*Les Narbonnais*
		Passion	*Passion de Jésus-Christ ou Passion de Clermont*
		Rois	*Quatre Livres des Rois*
		Roland	*Chanson de Roland*
		Sages	*Les Sept Sages de Rome*
		Vie de s. Eust.	*Vie de saint Eustache*
		Vie de s. Genev.	*Vie de sainte Geneviève (version 3)*
		-	*Eneas*
		-	*Joufrois*

4. Romance

The following table contains the other texts cited in this dissertation, namely one Old Spanish text and one Old Italian text.

Abbreviated author name	**Full author name**	**Abbreviated title**	**Full title**
-	-	*Cid*	*Cantar de Mio Cid / El Poema del Cid*
	Fra' Guidotto	*Fiore*	*Fiore di rettorica*

Appendix 2. List of texts included in the corpus of this thesis

This appendix presents all texts included in the corpus of this thesis. The following sections list the texts of respectively the Classical Latin (§1), Late Latin (§2), and Old French (§3) corpora. All texts are arranged alphabetically, first on the basis of the author name, then on the basis of the title.

1. Classical Latin

This section inventorises all texts of the Classical Latin corpus of this thesis (n=62). Recall that this corpus coincides with that examined by Vangaever (2018) and comprises all texts of the Caesarian and Ciceronian corpora in the LASLA database. The texts that are subsumed under the Caesarian corpus in the LASLA database, but that are not written by Caesar himself, are not listed under this author in the following table. One of these texts is attributed to Hirtius. The three remaining texts are anonymous and presented at the end of the table. For each text, I added the thematic domain and the genre.

Author	**Title**	**Domain**	**Genre**
Caesar	*Commentarii de bello Gallico*	Historical	Historiography
	Commentarii de bello civili	Historical	Historiography
Cicero	*Contra Antonium et Catilinam competitores fragmenta*	Legal	Speech
	Contra contionem Metelli fragmenta	Legal	Speech
	Cum a ludis contionem avocavit fragmenta	Legal	Speech
	Cum quaestor Lilybaeo decederet fragmenta	Legal	Speech
	De domo sua	Legal	Speech
	De haruspicum responso	Legal	Speech
	De lege agraria	Legal	Speech
	De natura deorum	Didactical	Dialogue
	De officiis	Didactical	Treatise
	De provinciis consularibus	Legal	Speech
	De rege Alexandrino fragmenta	Legal	Speech
	De senectute	Didactical	Treatise
	Divinatio in Caecilium	Legal	Speech
	In C. Verrem actio prima	Legal	Speech
	In Catilinam	Legal	Speech
	In Clodium et Curionem fragmenta	Legal	Speech
	In Pisonem	Legal	Speech

In Vatinium	Legal	Speech
Incertarum orationum fragmenta	Legal	Speech
Interrogatio de aere alieno Milonis fragmenta	Legal	Speech
Laelius de amicitia	Didactical	Treatise
Philippica	Legal	Speech
Post reditum ad Quirites cum populo gratias egit	Legal	Speech
Post reditum in senatu cum senatui gratias egit	Legal	Speech
Pro Archia	Legal	Speech
Pro Balbo	Legal	Speech
Pro C. Fundanio fragmenta	Legal	Speech
Pro C. Manilio fragmenta	Legal	Speech
Pro Caecina	Legal	Speech
Pro Caelio	Legal	Speech
Pro Cluentio	Legal	Speech
Pro Cornelio I fragmenta	Legal	Speech
Pro Cornelio II fragmenta	Legal	Speech
Pro Flacco	Legal	Speech
Pro Fonteio	Legal	Speech
Pro L. Vareno fragmenta	Legal	Speech
Pro lege Manilia	Legal	Speech
Pro Ligario	Legal	Speech
Pro Marcello	Legal	Speech
Pro Milone	Legal	Speech
Pro Murena	Legal	Speech
Pro negotiatoribus Achaeis fragmenta	Legal	Speech
Pro Oppio fragmenta	Legal	Speech
Pro Plancio	Legal	Speech
Pro Publio Quinctio	Legal	Speech
Pro Q. Gallio fragmenta	Legal	Speech
Pro Rabirio	Legal	Speech
Pro Rabirio Postumo	Legal	Speech
Pro rege Deiotario	Legal	Speech
Pro Roscio Amerino	Legal	Speech
Pro Roscio Comoedo	Legal	Speech
Pro Scauro fragmenta	Legal	Speech
Pro Sestio	Legal	Speech
Pro Sulla	Legal	Speech

	Pro Tullio	Legal	Speech
	Pro Vatinio fragmenta	Legal	Speech
Hirtius	*Commentarii de bello Gallico*	Historical	Historiography
-	*De bello Alexandrino*	Historical	Historiography
	De bello Africano	Historical	Historiography
	De bello Hispaniensi	Historical	Historiography

2. Late Latin

This section presents all texts included in the Late Latin corpus of this thesis. The texts drawn from the BL2LAT corpus are listed in §2.1, while those taken from the PALAFRALAT-V2-0 corpus are shown in §2.2.

2.1. Texts from the BL2LAT corpus

The following table list all texts of the BL2LAT corpus included in the Late Latin corpus of this thesis (n=30). All texts are written in prose.

Period	**Century**	**Text**	**Author**	**Domain**	**Genre**
Imperial Latin	4th	*Peregrinatio Aetheriae*	Aetheria	Religious	Itinerary
		Vita Martini	Sulpicius Severus	Religious	Hagiography
	5th	*Passio Agnetis*	NA	Religious	Hagiography
		Passio Saturnini	NA	Religious	Hagiography
Imperial/ Merovingian Latin	5th-6th	*Passio Agathae*	NA	Religious	Hagiography
Merovingian Latin	6th	*Dialogus*	Gregorius Magnus	Religious	Dialogue
		Passio Caeciliae	NA	Religious	Hagiography
		Passio Marcelli et Apulei	NA	Religious	Hagiography
		Passio Pimenii	NA	Religious	Hagiography
		Passio Processi et Martiniani	NA	Religious	Hagiography
		Passio Symphorosae	NA	Religious	Hagiography
		Passio Vincentii	NA	Religious	Hagiography
		Vita Benedicti	Gregorius Magnus	Religious	Hagiography

	6th-7th	*Dialogus*	Isidorus	Religious	Dialogue
		Passio Nazarii et Celsi	NA	Religious	Hagiography
	7th	*Chronica*	Fredegarius	Historical	Chronicle
		Epistola beatissime Egerie laude conscripta fratrum bergidensium monachorum a Valerio conlata	Valerius of Bierzo	Religious	Letter
		Passio Getulii, Cerealis et soc.	NA	Religious	Hagiography
Merovingian/Early Medieval Latin	7th-8th	*Passio Victoris et Coronae*	NA	Religious	Hagiography
		Passio Viti 1	NA	Religious	Hagiography
		Passio Viti 2	NA	Religious	Hagiography
		Passio Viti 3	NA	Religious	Hagiography
Early Medieval Latin	8th	*Passio Ansani et Maximae*	NA	Religious	Hagiography
	8th-9th	*Passio Columbae*	NA	Religious	Hagiography
	9th	*Passio Benedictae*	NA	Religious	Hagiography
		Vita Waldredudis	NA	Religious	Hagiography
	10th	*Passio Iuliae*	NA	Religious	Hagiography
		Passio sancti Eustachii	NA	Religious	Hagiography
		Vita Madelbertae	NA	Religious	Hagiography
		Vita Walberti	Adson de Montier-en-Der	Religious	Hagiography

2.2. Texts from the PALAFRALAT-V2-0 corpus

The below table lists all texts of the PALAFRALAT-V2-0 corpus included in the Late Latin corpus of this thesis (n=182). All texts are again written in prose.

Period	**Century**	**Text**	**Author**	**Domain**	**Genre**
Imperial Latin	5th	*Epistula Auspici episcopi ecclesiae Tullensis ad Arbogastem comitem Treferorum*	Auspicus	Historical	Letter

		Epistula domni Remedii episcopi ad domnum Cholodveum regem	Remegius	Historical	Letter
		Item epistula domni Remedii episcopi ad domnum Chlodoveum regem	Remegius	Historical	Letter
Merovingian Latin	6th	*Ad patriarcham Constantinopolitanum*	Childebertus	Historical	Letter
		Epistula	Mauritius	Historical	Letter
		Epistula	NA	Historical	Letter
		Epistula ad imperatore de domno nomine	Childebertus	Historical	Letter
		Epistula ad patriarcam Laurentio de domini nomen	Childebertus	Historical	Letter
		Epistula Brunihildae ad Anastasiam augustam	Brunhildis	Historical	Letter
		Epistula Brunihildae ad Anastasiam augustam	Brunhildis	Historical	Letter
		Epistula Brunihildae reginę ad Athanagildo regi nepoti	Brunhildis	Historical	Letter
		Epistula Brunihildis reginę ad Mauricium imperatorem	Brunhildis	Historical	Letter
		Epistula Caesarii ad Richildem et Radegundem	Caesaria	Historical	Letter
		Epistula Cypriani episcopi ad Maximum Genavensem episcopum	Cyprianus	Historical	Letter
		Epistula Dinamii ad amicum	Dinamius	Historical	Letter
		Epistula Dinamii ad domnum Vilicum papam	Dinamius	Historical	Letter
		Epistula directa ad domnum Nicetium episcopum	NA	Historical	Letter

Epistula domni Aureliani episcopi ad domnum Theodebertum regem	Aurelianus	Historical	Letter
Epistula domni Mapini episcopi ad domnum Nicetium episcopum	Mapinius	Historical	Letter
Epistula domni Mapini episcopi ad domnum Vilicum episcopum	Mapinius	Historical	Letter
Epistula domni Nicetii episcopi ad Hlodosvindam reginam	Nicetius	Historical	Letter
Epistula domni Nicetii episcopi ad Iustinianum imperatorem	Nicetius	Historical	Letter
Epistula domni Remedii episcopi ad Falconem episcopum	Remegius	Historical	Letter
Epistula domni Remedii episcopi ad Heraclium, Leonem et Theodosium episcopos	Remegius	Historical	Letter
Epistula domni Rufi episcopi ad domnum Nicetium episcopum	Rufus	Historical	Letter
Epistula domni Theodeberti regis ad Iustinianum imperatorem	Theodebertus	Historical	Letter
Epistula Floriani ex monasterio Romeno ad domnum Nicecium episcopum	Florianus	Historical	Letter
Epistula Floriani servi Christi ad Nicecium archiepiscopum	Florianus	Historical	Letter
Epistula Furtunati ad domnum Magnericum episcopum	Furtunatus	Historical	Letter

Epistula Germani episcopi ad domnam Brunehildam reginam	Germanus	Historical	Letter
Epistula Gogoni ad Chamingum ducem	Gogonus	Historical	Letter
Epistula Gogonis ad Petrum papam	Gogonus	Historical	Letter
Epistula Gogonis ad Trasericum	Gogonus	Historical	Letter
Epistula Hildiberti regis ad Honoratum appocrisiarium	Hildebertus	Historical	Letter
Epistula Hildiberti regis ad Iohannem episcopum	Hildebertus	Historical	Letter
Epistula Hildiberti regis ad Mauricium imperatorem	Childebertus	Historical	Letter
Epistula Hildiberti regis Athanagildo regi	Hildebertus	Historical	Letter
Epistula Hildiberti regis Domitiano episcopo	Hildebertus	Historical	Letter
Epistula Hildiberti regis Italicae patriciae	Childebertus	Historical	Letter
Epistula Hildiberti regis Theodorom magistro	Childebertus	Historical	Letter
Epistula Leo episcopi ad Childebertum I. regem	Leo	Historical	Letter
Epistula Pelagii I. ad Sapaudum Arelatensis episcopum	Pelagius I	Historical	Letter
Epistula Pelagii I. ad Valerianum patricium	Pelagius	Historical	Letter
Epistula Pelagii II. ad Aunarium episcopum Autissiodorensis	Pelagius	Historical	Letter

Epistula Pelagii II. ad Aunarium episcopum Autissiodorensis	Pelagius	Historical	Letter
Epistula Romani ad Hildibertum regem	Romanus	Historical	Letter
Epistula Theodobaldi regis ad Iustinianum imperatorem	Theodebaldus	Historical	Letter
Epistula Troiani episcopi ad Eumerium Namnetensem episcopum	Troianus	Historical	Letter
Formulae Andecavenses	NA	Legal	Formulae
Historiarum liber sextus	Gregory Turonensis	Historical	Historiography
Item ad imperatorem epistula	Gogonus	Historical	Letter
Item ad Iohannem questorem	Childebertus	Historical	Letter
Item ad Megatam curatorem	Childebertus	Historical	Letter
Item dicta Furtuna ad filium imperatoris	Furtuna	Historical	Letter
Item epistula ad augustam de nomine Hildiberti	Brunhildis	Historical	Letter
Item epistula domni Theodoberti regis ad Iustinianum imperatorem	Theodebertus	Historical	Letter
Item epistula Hildiberti regis Paulo patrem imperatoris	Childebertus	Historical	Letter
Item epistula Hildiberti regis Venantio patricio	Childebertus	Historical	Letter
Item epistula imperatoris ad Hildibertum regem	Imperator	Historical	Letter
Lex Ribuaria	NA	Legal	Legislative

	Merovingian charter 28	Chlothachari-us	Legal	Charter
	Pactus legis Salicae	NA	Legal	Legislative
	Vita Genovefae Virginis Parisiensis	NA	Religious	Hagiography
6th-7th	*Epistula Stephani presbyteri ad Aunarium episcopum Autissiodorensis*	Stephanus	Historical	Letter
	Epistula Aunarii episcopi ad Stephanum presbyterum	Aunarius	Historical	Letter
	Merovingian charter 22	Chlothachari-us	Legal	Charter
7th	*Chaenulfus, Epistula Chaenulfi ad Desiderium episcopum Carducensem.*	Chaenulfus	Historical	Letter
	Epistula Abbi episcopi ad Desiderium episcopum Carducensem	Abbo	Historical	Letter
	Epistula Aviulfi episcopi ad Desiderium episcopum Carducensem	Aviulfus	Historical	Letter
	Epistula Bertegyseli abbatis ad Desiderium episcopum Carducensem	Bertegyselus	Historical	Letter
	Epistula Bonifatii IV. episcopi ad Florianum Arelatensem episcopum	Bonifatius	Historical	Letter
	Epistula Bonifatii IV. episcopi ad Theodericum II. regem	Bonifatius	Historical	Letter
	Epistula Chrodeberti	Chrodobertus	Historical	Letter
	Epistula Constantii episcopi ad Desiderium	Constantius	Historical	Letter

episcopum Carducensem			
Epistula Constantii et Dadi episcoporum ad Desiderium episcopum Carducensem	Constancius et Dado	Historical	Letter
Epistula Desiderii episcopi ad diversos	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Abbonem episcopum	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Aspasiam abbatissam	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Caesarium episcopum	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Chlodulfum episcopum	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Dadonem episcopum.	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Dagobertum I. regem	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad domnum Grimoaldum maiorem	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Felicem episcopum	Desiderius	Historical	Letter

Epistula Desiderii episcopi Cadurcensis ad Grimoaldum	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Modoaldum episcopum	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Paulum episcopum	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Salustinum episcopum	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Sigibertem III regem	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Sigibertem III regem 6	Desiderius	Historical	Letter
Epistula Desiderii episcopi Cadurcensis ad Sulpicium episcopum	Desiderius	Historical	Letter
Epistula Elegii episcopi ad Desiderium episcopum Carducensem	Elegius	Historical	Letter
Epistula episcopi	NA	Historical	Letter
Epistula Felicis episcopi ad Desiderium episcopum Carducensem	Felex	Historical	Letter
Epistula Galli episcopi ad Desiderium episcopum Carducensem	Gallus	Historical	Letter
Epistula Leodegarii ad Sigradem matrem suam	Leudegarius	Historical	Letter

Epistula Palladii episcopi ad Desiderium episcopum Carducensem	Palladius	Historical	Letter
Epistula Pauli episcopi ad Desiderium episcopum Carducensem	Paulus	Historical	Letter
Epistula Pauli episcopi ad Desiderium episcopum Carducensem	Paulus	Historical	Letter
Epistula Rauracii episcopi ad Desiderium episcopum Carducensem	Rauracius	Historical	Letter
Epistula Sigeberti III regis ad Desiderium episcopum Carducensem	Siggebertus	Historical	Letter
Epistula Sigeberti regi ad Desiderium episcopum Carducensem	Siggebertus	Historical	Letter
Epistula Sulpicii ad Desiderium	Sulpicius	Historical	Letter
Epistula Sulpicii episcopi Bituricensis ad Desiderium episcopum Carducensem	Sulpicius	Historical	Letter
Epistula Veri episcopi ad Desiderium episcopum Carducensem	Sulpicius	Historical	Letter
Epistula Veri episcopi ad Desiderium episcopum Carducensem	Verus	Historical	Letter
Epistula Veri episcopi ad Desiderium	Verus	Historical	Letter

episcopum Carducensem			
Epistula Warnecarii ad Ceraunium Pariensi episcopum	Warnecarius	Historical	Letter
Formulae Pithoei	NA	Legal	Formulae
Merovingian charter 121	Theudericus	Legal	Charter
Merovingian charter 122	Theudericus	Legal	Charter
Merovingian charter 123	Theudericus	Legal	Charter
Merovingian charter 126	Theudericus	Legal	Charter
Merovingian charter 131	Theudericus	Legal	Charter
Merovingian charter 135	Chlodovius	Legal	Charter
Merovingian charter 136	Chlodovius	Legal	Charter
Merovingian charter 137	Chlodovius	Legal	Charter
Merovingian charter 138	Chlodovius	Legal	Charter
Merovingian charter 141	Chlodovius	Legal	Charter
Merovingian charter 142	Childebertus	Legal	Charter
Merovingian charter 143	Childebertus	Legal	Charter
Merovingian charter 147	Childebertus	Legal	Charter
Merovingian charter 149	Chyldebercthus	Legal	Charter
Merovingian charter 150	Childebertus	Legal	Charter
Merovingian charter 32	Dagobertus	Legal	Charter
Merovingian charter 41	Dagobertus	Legal	Charter
Merovingian charter 72	Chlodovius	Legal	Charter
Merovingian charter 74	Chlodovius	Legal	Charter

		Merovingian charter 75	Chlodovius	Legal	Charter
		Merovingian charter 85	Chlodovius	Legal	Charter
		Merovingian charter 88	NA	Legal	Charter
		Merovingian charter 89	NA	Legal	Charter
		Merovingian charter 93	Chlothachari-us	Legal	Charter
		Merovingian charter 94	Chlothachari-us	Legal	Charter
		Merovingian charter 95	Chlothachari-us	Legal	Charter
		Visio Baronti Monachi Longoretensis	NA	Religious	Hagiography
		Vita Eligii episcopi Noviomagensis	Audoinus	Religious	Hagiography
		Vita Galli Vetustissima fragmentum	NA	Religious	Hagiography
		Vita Gaugerici episcopi Camaracensis	NA	Religious	Hagiography
		Vita Sadalbergae abbatissae Laudunensis	NA	Religious	Hagiography
		Vita Sulpicii episcopi Biturigi (A)	NA	Religious	Hagiography
		Vita virtutesque Fursei abbatis Latiniacensis et de Fuilano additamentum Nivialense	NA	Religious	Hagiography
Merovingian /Early Medieval Latin	7th-8th	*Formulae Marculfi*	Marculfus	Legal	Formulae
		Merovingian charter 144	Childebertus	Legal	Charter
		Supplementum formulae Marculfi	Marculfus	Legal	Formulae
		Vita Amati	NA	Religious	Hagiography
		Vita Wandregiseli abbatis Fontanellensis	NA	Religious	Hagiography
Early Medieval Latin	8th	*Charter of the Arnulfings n22*	Pippinus	Legal	Charter
		Charter of the Arnulfings n23	Pippinus	Legal	Charter

Epistula Pippini Gayroino abbati	Pippinus	Historical	Letter
Epistula Zachariae papae ad omnes Francorum episcopos et presbyteros	Zacharias	Historical	Letter
Formulae Salicae Bignonianae	NA	Legal	Formulary
Liber Historiae Francorum	NA	Historical	Historiography
Merovingian charter 153	Childebertus	Legal	Charter
Merovingian charter 155	Childebertus	Legal	Charter
Merovingian charter 156	Childebertus	Legal	Charter
Merovingian charter 157	Childebertus	Legal	Charter
Merovingian charter 166	Chilperichus	Legal	Charter
Merovingian charter 167	Chilperichus	Legal	Charter
Merovingian charter 168	Chilperichus	Legal	Charter
Merovingian charter 170	Chilperichus	Legal	Charter
Merovingian charter 173	Chilperichus	Legal	Charter
Vita Adelphii Abbatum Habendensis	NA	Religious	Hagiography
Vita Amandi episcopi I	NA	Religious	Hagiography
Vita Audoini episcopi rotomagensis	NA	Religious	Hagiography
Vita Boniti episcopi Arverni	NA	Religious	Hagiography
Vita Eucherii episcopi Aurelianensis	NA	Religious	Hagiography
Vita Filiberti abbatis Gemeticensis et Heriensis	NA	Religious	Hagiography

	Vita Hugberti episcopi Traiectensis	NA	Religious	Hagiography
	Vita Pardulfi abbatis Waractensis	NA	Religious	Hagiography
	Vita Richarii confessoris Centulensis	Alcuinus	Religious	Hagiography
	Vita Romarici abbatis Habendensis	NA	Religious	Hagiography
	Vita Trudonis confessoris Hasbaniensis auctore Donato	Donatus	Religious	Hagiography
8th-9th	*Formulae Bituricenses*	NA	Legal	Formulary
	Formulae Salicae Lindenbrogianae	NA	Legal	Formulary
	Formulae Turonenses vulgo Sirmondicae dictae	NA	Legal	Formulary
	Vita Bertilae abbatissae Calensis	NA	Religious	Hagiography
	Vita Desiderii Cadurcae urbis episcopi	NA	Religious	Hagiography
8th-10th	*Formulae Salicae Merkelianae*	NA	Legal	Formulary
9th	*Vita Austrigisili episcopi Biturigi*	NA	Religious	Hagiography
	Vita Galli auctore Wettino cum prologo metrico ad Gozbertum	Wettino	Religious	Hagiography
	Vita Galli Walahfrido	Walhafridus	Religious	Hagiography

3. Old French

The following table lists all texts from the PALAFRAFRO-V2-2 corpus included in the Old French corpus of this thesis (n=34).

List of texts included in the corpus of this thesis

Period	Century	Text	Author	Domain	Genre	Form
Early Old French	9th	*Séquence de sainte Eulalie*	NA	Religious	Hagiography	Verse
		Serments de Strasbourg	NA	Legal	Sermon	Prose
	10th-11th	*Passion de Jésus-Christ ou Passion de Clermont*	NA	Religious	Drama	Verse
		Vie de saint Léger	NA	Religious	Hagiography	Verse
	11th	*Vie de saint Alexis*	NA	Religious	Hagiography	Verse
Early Old French/ 12th-13th c.	11th-12th	*Chanson de Roland*	NA	Literary	Epic	Verse
12th-13th c.	12th	*Bestiaire*	Philippe de Thaon	Didactical	Bestiary	Verse
		Brut	Wace	Historical	Chronicle	Verse
		Chevalier au Lion ou Yvain	Chrétien de Troyes	Literary	Novel	Verse
		Collection de miracles	Adgar (or Guillaume)	Religious	Miracle	Verse
		Commentaire en prose sur les psaumes I-XXXV	NA	Religious	Commentary	Prose
		Comput	Philippe de Thaon	Didactical	Comput	Verse
		Description d'Engleterre	NA	Historical	Historiography	Verse
		Eneas	NA	Literary	Novel	Verse
		Gormont et Isembart	NA	Literary	Epic	Verse
		Lapidaire alphabétique	Philippe de Thaon	Didactical	Lapidary	Verse
		Lapidaire en prose	NA	Didactical	Lapidary	Prose
		Le Voyage de Saint Brendan	Benedeit	Religious	Hagiography	Verse

	Quatre fragments de miracles de la Vierge	NA	Religious	Miracle	Verse
	Quatre Livres des Rois	NA	Religious	History	Prose
	Tristan	Béroul	Literary	Novel	Verse
	Vie de saint Thomas Becket	Guernes de Pont-Sainte-Maxence	Religious	Hagiography	Verse
12th-13th	*Ami et Amile*	NA	Literary	Epic	Verse
13th	*Aucassin et Nicolette*	NA	Literary	Short novel	Verse/ prose
	Chartes de l'Aube	NA	Legal	Charter	Prose
	Chartes du Hainaut	NA	Legal	Charter	Prose
	Conquête de Constantinople	Robert de Clari	Historical	Chronicle	Prose
	Coutumes de Beauvaisis	Philippe de Beaumanoir	Legal	Treaty	Prose
	Queste del saint Graal	NA	Literary	Novel	Prose
	Roman de la Rose	Jean de Meung	Didactical	Novel	Verse
	Vie de saint Eustache	NA	Religious	Hagiography	Prose
	Vie de sainte Bathilde	NA	Religious	Hagiography	Prose
	Vie de sainte Geneviève (version I)	NA	Religious	Hagiography	Prose
	Vie de sainte Geneviève (version III)	NA	Religious	Hagiography	Prose

Résumé substantiel en français

1. Objet d'étude

Cette thèse est consacrée à l'étude des formes verbales non finies communément identifiées comme des « gérondifs » et des « participes présents ». Elle cherche à examiner empiriquement l'évolution de ces formes dans le passage du latin tardif à l'ancien français, afin de rendre compte des différences cruciales entre ces deux catégories de formes verbales en latin classique et en français moderne.

En latin classique, défini dans cette thèse comme la période entre le IIIe siècle avant J.-C. et le IIe siècle après J.-C., le gérondif et le participe présent sont deux catégories distinctes de formes verbales non finies. D'un point de vue morphologique, ils sont tous deux formés à partir du radical présent d'un verbe, mais à ce radical sont attachés des morphèmes bien différents : le gérondif présente l'infixe *-nd-* et une terminaison nominale (p. ex. *lege-nd-i* '(de) lire'), tandis que le participe présent contient l'infixe *-nt-* et une terminaison adjectivale (p. ex. *lege-nt-es* 'lisant') (Meiser 1998² : 226, 228 ; Pinkster 2015 : 58, 60). Conformément à leur terminaison nominale *vs* adjectivale, le gérondif reçoit sa forme casuelle sur la base de sa fonction ou de la préposition qui le régit, alors que le participe présent se voit attribuer sa forme casuelle (ainsi que son genre et son nombre) par accord avec un nom. Par exemple, dans (1), le gérondif *defendendi* 'de défendre' est au génitif, parce qu'il fonctionne comme l'argument adnominal de *potestatem* 'opportunité'. Dans (2), au contraire, le participe présent *ardentes* 'flamboyant' est fléchi au nominatif (féminin pluriel) par accord avec le nom *laminae* 'plaques de métal'.

(1) *[...] dat ipsa lex potestatem* ***defende-nd-i*** *[...].*
donner.PRS.3SG INTENS.NOM.F.SG loi.NOM.F.SG opportunité.ACC.F.SG défendre-GER-GEN
'La loi elle-même donne la possibilité de se défendre.' (Cic. *Mil.* 11.4)

(2) *Cum ignes* ***arde-nt-es****=que laminae [...]*
quand feu.NOM.M.PL flamboyer-PTCP.PRS-NOM.M.PL=et plaque_de_métal.NOM.F.PL
admovebantur [...].
apporter.PST.PASS.3PL
'Quand le feu et les plaques de métal flamboyant ont été apportés (...).' (Cic. *Verr.* 2.5.163.8)

En lien avec leurs propriétés morphologiques, le gérondif peut remplir une fonction caractéristique d'un nom, alors que le participe présent peut assurer une fonction typique d'un adjectif (Palmer 1964 : 320-321, 325 ; Pinkster 2015 : 58, 60). Par exemple, les deux formes connaissent un emploi adnominal, avec cette différence que cet emploi fait intervenir une forme prépositionnelle ou génitive dans le cas d'un gérondif (p. ex. *defendendi* 'défendre' (1)), mais une forme en accord avec un nom dans le cas d'un participe présent (p. ex. *ardentes* 'flamboyant' (2)). Cependant, les deux formes peuvent également être utilisées de manière adverbiale, à savoir dans des adjoints ou compléments circonstanciels (Kühner &

Stegmann 19145 : 731-754, 771-792 ; Palmer 1964 : 322-324, 326 ; Pinkster 2021 : §16.87-§16.104, §21.7). Le gérondif *pultando* ‘(en) frappant’ (3) et le participe présent *pugnans* ‘combattre’ (4) en sont des exemples nets.

(3) ***Pulta-nd-o*** *pedibus* *paene* *confregi* *has=ce* *[...]* *fores.*
frapper-GER-ABL pied.ABL.M.PL presque casser.PST.1SG DEM.ACC.F.PL=DEM porte.ACC.F.PL
‘J'ai presque cassé ces portes ici en donnant des coups de pieds (dessus).’ (Pl. *Mos.* 453)

(4) *Ibi L. Cotta* ***pugna-ns*** *interficitur* *[...].*
là L. Cotta.NOM.M.SG combattre-PTCP.PRS.NOM.M.SG tuer.PRS.PASS.3SG
‘L. Cotta est tué là, alors qu'il combattait.’ (Caes. *Gall.* 5.37.4)

Ainsi, le gérondif et le participe présent se chevauchent partiellement en ce qui concerne leur emploi syntaxique. Fait important, ce chevauchement fonctionnel ne soulève pas de problème catégoriel, parce que les formes présentant la syntaxe externe de l’adverbe (p. ex. (3-4)) peuvent toujours être catégorisées comme des gérondifs ou des participes présents sur la base de critères morphologiques.

En français moderne, les étiquettes « gérondif » et « participe présent » sont également utilisées pour désigner deux catégories distinctes de formes verbales non finies. En termes morphologiques, les deux types de formes sont construites du radical présent d’un verbe et de la terminaison invariable *-ant*, mais alors que le participe présent est une forme nue (p. ex. *dans-ant*), le gérondif est toujours précédé du morphème *en* (p. ex. *en dans-ant*) (Riegel *et al*. 1994[4] : 587-588). Sur le plan syntaxique, le participe présent peut s’utiliser dans des configurations adjectivales et adverbiales, comme la forme adnominale *donnant* (5) et la forme *sortant* (6) utilisée dans un adjoint, respectivement. Le gérondif, en revanche, a toujours la syntaxe externe de l’adverbe, et apparait à ce titre exclusivement dans des adjoints (p. ex. *en chantant* (7)).

(5) *Pierre ouvre la fenêtre* ***donnant*** *sur la rue.*
(6) ***Sortant*** *du métro, Pierre est tombé.*
(7) *Pierre est arrivé* ***en chantant****.*

Comme en latin classique, les propriétés fonctionnelles du gérondif et du participe présent en français moderne présentent donc un chevauchement partiel. Ici encore, ce chevauchement ne soulève pas de problème catégoriel en raison de leur distinction morphologique. En d’autres mots, toutes les « formes (verbales) en *-ant* » figurant dans des adjoints peuvent être catégorisées comme soit des gérondifs, soit des participes présents sur la base de la présence ou de l’absence du morphème *en*.

Une comparaison rapide des propriétés morphologiques et syntaxiques du gérondif et du participe présent en latin classique et en français moderne permet de formuler l’hypothèse suivante par rapport à leur évolution entre les deux langues : (i) d’un point de vue morphologique, le gérondif et le participe présent en viennent à se ressembler tout en restant distincts en raison de la présence *vs* absence de *en*

devant respectivement le gérondif et le participe présent ; (ii) d'un point de vue syntaxique, le gérondif se spécialise dans la syntaxe externe de l'adverbe au détriment de sa syntaxe externe nominale, alors que le participe présent conserve à la fois sa syntaxe externe adjectivale et adverbiale ; (iii) d'un point de vue morphosyntaxique, le gérondif se transforme en une forme adverbiale du verbe, tandis que le participe présent retient son statut ambivalent de forme à la fois adjectivale et adverbiale du verbe ; (iv) d'un point de vue catégoriel, le gérondif et le participe présent restent distincts.

Bien que convaincante au premier abord, cette hypothèse soulève une question fondamentale, à savoir comment expliquer l'emploi systématique, en français moderne, de *en* devant les gérondifs, mais pas devant les participes présents. En effet, comme la présence *vs* l'absence de ce morphème constitue la seule différence morphologique entre les deux types de formes verbales, l'émergence de son emploi systématique devant le gérondif joue un rôle crucial dans l'évolution globale du gérondif et du participe présent. Car sans cette évolution, le gérondif et le participe présent seraient formellement identiques. En raison de leur chevauchement fonctionnel, à savoir leur emploi commun dans des adjoints, il serait alors impossible de catégoriser les formes ayant la syntaxe externe de l'adverbe comme des gérondifs ou des participes présents avec certitude. Le résultat serait une situation de « indétermination catégorielle » (*cf.* Aarts 2007 : 4), *i.e.* une situation dans laquelle la frontière entre les catégories du gérondif et du participe présent sont floues. Les implications pour la description grammaticale de ces formes seraient drastiques.

Curieusement, la question de l'origine de l'emploi systématique de *en* devant le gérondif soulève plus de questions qu'elle n'apporte de réponses. En effet, bien que le gérondif puisse être introduit par *en* dès l'ancien français (p. ex. *en plorant* (8)), la présence de ce morphème devant le gérondif ne devient plus systématique qu'au courant du XVIIe s. (Sarré 2000 : 51 ; Bazin-Tacchella 2020 : 852). C'est ainsi qu'en 1679, l'Académie française prescrit l'emploi de *en* devant le gérondif, cristallisant de cette façon, comme le montre Sarré (2000 : 51), la tendance généralisante dans cette période d'utiliser ce morphème devant les formes en *-ant* figurant dans des adjoints, mais pas devant celles ayantt une autre fonction, p. ex. une fonction adnominale.

(8)	*[...]*	*sospira*	*et*	*en*	***plor-ant***	*li*	*demanda*	*[...].*
		soupirer.PST.3SG	et	en	pleurer-GER	il.OBJ.M.SG	demander.PST.3SG	

'Elle soupirait et lui demandait en pleurant (...).' (*Eneas* 1676)

Pourtant, la généralisation de *en* devant les formes en *-ant* figurant dans des adjoints ne s'est pas achevée, car de nombreuses formes intervenant dans ce type de constituants restent nues, *i.e.* non introduites par *en*, et ce même en français moderne, dont témoigne la forme *sortant* (6). La question qui se pose est de savoir si ces formes nues apparaissant des adjoints doivent être prises comme des participes présents ou comme des gérondifs. Dans la tradition grammaticale du français, il existe un consensus frappant pour l'analyse participiale de ces formes. Ainsi, la prescription des Remarqueurs de l'Académie française est

censée avoir été méticuleusement suivie et standardisée, menant au final à la distinction morphologique nette entre le gérondif et le participe présent caractéristique du français moderne.

Cependant, il est peu probable – ou du moins fort douteux – que la prescription de l'Académie française soit suivie méticuleusement et sans exception à partir de 1689. Ainsi, la question de savoir si les formes en *-ant* nues figurant dans des adjoints instancient des participes présents ou des gérondifs reste ouverte. Autrement dit, certaines formes en *-ant* sont toutefois catégoriellement indéterminées, ce qui rend impossible l'établissement d'une frontière nette entre les catégories du gérondif et du participe présent.

Ce problème catégoriel de la forme en *-ant* en français moderne ne peut être résolu que par une étude empirique de l'évolution du gérondif et du participe présent du latin classique au français moderne. Néanmoins, une étude de corpus approfondie sur les deux types de formes verbales non finies couvrant toute cette période de plus de 2 000 ans n'est pas réalisable dans les limites de cette thèse. Aussi, je me suis concentré sur la période la plus cruciale dans ce laps de temps, à savoir le passage du latin tardif à l'ancien français.

2. Questions de recherche

Afin d'examiner l'évolution du gérondif et du participe présent du latin tardif à l'ancien français à la lumière de leur distinction catégorielle, j'ai étudié les changements morphologiques et syntaxiques de ces formes et analysé dans quelle mesure ces changements conduisent à des changements au niveau de leur catégorisation morphosyntaxique. En adhérant au principe amplement reconnu que les catégories morphosyntaxiques sont le mieux définies sur la base de critères morphologiques et syntaxiques (Trask 1999 : 281 ; Aarts 2007 : 2 ; Pullum 2009 : 257), j'ai mesuré l'impact de la fusion morphologique du gérondif et du participe présent en ancien français sur leur distinction catégorielle. Cette fusion brouille-t-elle la distinction catégorielle entre ces deux types de formes verbales, conduisant à une sorte de blend catégoriel ? Ou bien la distinction entre ces formes se maintient-elle sur la base de critères syntaxiques, menant à une relation d'homonymie ?

Ces questions ont été abordées au moyen d'une étude de corpus à orientation quantitative. Cette thèse fournit la première étude quantitative de l'évolution en question et est donc pionnière pour faire le pont concerné entre le latin tardif et l'ancien français.

3. Structure de la thèse

L'évolution du gérondif et du participe présent du latin tardif à l'ancien français a été examinée en deux étapes. Dans une première partie, j'ai examiné comment cette évolution a été traitée dans la littérature existante (**Part 1. State of the art**). Dans la deuxième partie, j'ai étudié cette évolution empiriquement dans un vaste corpus de latin tardif et d'ancien français (**Part 2. Empirical investigation**).

La première partie est sous-divisée en deux chapitres. Le premier chapitre examine les propriétés morphologiques et syntaxiques du gérondif et du participe présent en latin classique (**Chapter 1. The gerund and the present participle in Classical Latin**), alors que le deuxième chapitre se concentre sur l'évolution des deux formes en latin tardif et dans le passage du latin tardif à l'ancien français (**Chapter 2. The gerund and the present participle from Late Latin to Old French**). Le premier chapitre sur le gérondif et le participe présent en latin classique constitue le point de départ indispensable pour l'étude de leur évolution en latin tardif et dans la période de transition entre le latin tardif et l'ancien français.

La deuxième partie est consacrée à l'étude empirique du gérondif et du participe présent du latin tardif à l'ancien français. Cette partie est subdivisée en quatre chapitres. Le chapitre 3 présente le corpus et les données, et décrit la méthodologie utilisée (**Chapter 3. Corpus, dataset, and methodology**). Les deux chapitres suivants sont voués successivement à l'examination empirique de l'évolution du gérondif (**Chapter 4. The gerund in Late Latin**) et du participe présent (**Chapter 5. The present participle in Late Latin**) en latin tardif. Le dernier chapitre étudie empiriquement le statut catégoriel de la forme en *-ant* en ancien français (**Chapter 6. The *-ant* form in Old French**). En accord avec l'objectif de cette thèse, les chapitres 4 et 5 explorent dans quelle mesure l'hypothèse traditionnelle de la spécialisation du gérondif et du participe présent en latin tardif dans la syntaxe externe de respectivement l'adverbe et l'adjectif est corroborée par des données empiriques, tandis que le chapitre 6 examine, sur la base de ces résultats, l'impact de la fusion morphologique du gérondif et du participe présent en ancien français sur leur distinction catégorielle.

La conclusion présente et discute les principaux résultats de l'étude empirique et fournit des pistes pour des études postérieures.

4. Objectif de ce résumé

L'objectif de ce résumé est de synthétiser les résultats essentiels de cette thèse. Pour ce faire, je résumerai successivement l'état de l'art de l'évolution du gérondif et du participe présent du latin tardif à l'ancien (§5), le corpus et les données de cette étude ainsi que la méthodologie utilisée (§6) et, enfin, les résultats majeurs de l'examen empirique (§7). Cette structure reflète celle la thèse.

5. Etat de l'art

Avant de présenter l'hypothèse standard sur l'évolution du gérondif et du participe présent du latin tardif à l'ancien français (§5.2 et §5.3), il convient de positionner ces deux formes dans le système global des formes verbales non finies en latin classique (§5.1).

5.1. Le gérondif et le participe présent en latin classique

Outre le gérondif et le participe présent, le système des formes verbales non finies en latin classique comprend sept autres types, à savoir le participe passé, le participe futur, l'infinitif présent, l'infinitif passé, l'infinitif futur, le *gerundivum* et le supin (Kühner & Stegmann 19145 : 662-792 ; Ernout & Thomas 1951 : 255-287 ; Palmer 1964 : 317-327 ; Hofmann & Szantyr 1965 : 341-395 ; Menge *et al.* 2000 : 661-751 ; Pinkster 2015 : 57-64). En fonction de leurs propriétés morphologiques et syntaxiques, ces formes sont typiquement divisées en deux groupes : des formes nominales et des formes adjectivales. Les formes nominales incluent le gérondif, le supin et les trois types d'infinitifs, tandis que les formes adjectivales comprennent le *gerundivum* et les trois types de participes.

En latin classique, ce système des formes verbales non finies est organisé relativement étroitement, car chaque type de formes est spécialisé dans des domaines fonctionnels distincts (Kühner & Stegmann 19145 : 662-792 ; Ernout & Thomas 1951 : 255-287 ; Palmer 1964 : 317-327 ; Hofmann & Szantyr 1965 : 341-395 ; Menge *et al.* 2000 : 661-751 ; Pinkster 2015 : 57-64). Par exemple, dans le groupe des formes nominales du verbe, (i) le gérondif apparait majoritairement dans des constituants adnominaux et dans des adjoints exprimant la manière, l'instrument ou la cause, (ii) l'infinitif dans des compléments du verbe, et (iii) le supin dans des adjoints ayant une valeur finale et dans des compléments de l'adjectif. Cependant, cette division du travail fonctionnelle est une tendance plutôt qu'une règle : plusieurs formes présentent un chevauchement de leur(s) domaine(s) fonctionnel(s) et sont ainsi en concurrence (Kühner & Stegmann 19145 : 662-792 ; Ernout & Thomas 1951 : 255-287 ; Palmer 1964 : 317-327 ; Hofmann & Szantyr 1965 : 341-395 ; Menge *et al.* 2000 : 661-751 ; Pinkster 2015 : 57-64, 2021 : Ch. 15-17, 21 *passim*). Par exemple, l'infinitif est en concurrence avec le gérondif dans certains types de constituants adnominaux (Kühner & Stegmann 19145 : 742-744 ; Ernout & Thomas 1951 : 269 ; Palmer 1964 : 320 ; Hofmann & Szantyr 1965 : 350-351, 376 ; Menge *et al.* 2000 : 746 ; Pinkster 2021 : §17.13, §17.15), et le gérondif et l'infinitif sont tous deux en concurrence avec le supin dans les adjoints exprimant le but, du moins lorsque le verbe principal dénote un mouvement ou un transfert (Ernout & Thomas 1951 : 260-262 ; Väänänen 19633 : 139 ; Hofmann & Szantyr 1965 : 344-345, 378, 381 ; Stempel 1994 : 236 ; Pinkster 2021 : §16.86, §16.103, §16.112).

Un autre exemple de concurrence concerne les deux formes au centre de cette thèse, à savoir le gérondif et le participe présent. En emploi adverbial, *i.e.* dans des adjoints, ces formes sont spécialisées dans des valeurs sémantiques différentes, ce qui donne lieu à une sorte de distribution complémentaire sémantique, mais parfois, le gérondif a une valeur caractéristique du participe présent, et inversement (Marouzeau 1910 : 27, 79 ; Kühner & Stegmann 19145 : 751-752 ; Lyer 1932 : 384-389 ; Aalto 1949 : 65-70 ; Ernout & Thomas 1951 : 266-267 ; Laughton 1964 : 21, 25-26 ; Palmer 1964 : 324 ; Hofmann & Szantyr 1965 : 379-380 ; Vester 1983 : 101-125, 134-135 ; Menge *et al.* 2000 : 740-741 ; Adams 2013 : 725-740 ; Galdi & Vangaever 2019 : 100-106 ; Pinkster 2021 : §21.14). Par exemple, les adjoints exprimant un procès verbal concomitant avec celui dénoté par le verbe principal sont typiquement font typiquement intervenir un participe présent (p. ex. *flens* ‘pleurant’ (9)), mais parfois un gérondif ablatif s’utilise à sa place (p. ex. *ornando* ‘acclamant’ et *celebrando* ‘fêtant’ (10)).

(9) *[...]* ***fle-ns*** *Petreius* *manipulos* *circumit* *[...]*
pleurer-PTCP.PRS.NOM.M.SG Pétreius.NOM.M.SG manipule.ACC.M.PL contourner.PRS.3SG
‘Pétreius contourne les manipules en pleurant.’ (Caes. *civ*. 1.76)

(10) *[...]* *vestrum* *egressum* ***orna-nd-o*** *atque* ***celebra-nd-o*** *[...]*
votre.ACC.N.SG départ.ACC.N.SG acclamer-GER-ABL et fêter-GER-ABL
prosequebantur.
escorter.PST.3PL
‘Ils ont escorté votre départ en applaudissant et en célébrant.’ (Cic. *Pis*. 3)

5.2. L’évolution du gérondif et du participe présent en latin tardif

En latin tardif, défini dans cette étude comme la période entre le IIIe et le Xe s. après J.-C., le système des formes verbales non finies est censé être progressivement restructuré (Elcock 1960 : 110-119 ; Harris 1978 : 195-203 ; Bauer 1993a : 59, 2005). Dans cette restructuration, un rôle central est dit être joué par l’évolution du gérondif et du participe présent, déclenchée par leur compétition fonctionnelle entre eux et avec d’autres types de formes verbales non finies. En général, le gérondif est considéré comme étant graduellement remplacé par l’infinitif dans des configurations syntaxiques nominales (p. ex. dans des constituants adnominaux, pour se spécialiser, indirectement, dans la syntaxe externe de l’adverbe, c’est-à-dire son emploi dans des adjoints.

Il est également prétendu que, durant la période du latin tardif, le gérondif se spécialise dans cette syntaxe externe adverbiale de manière directe, notamment en remplaçant progressivement le participe présent dans des adjoints. Corollairement, le participe présent est censé devenir complètement dépendant de son emploi dans des configurations syntaxiques adjectives (p. ex. dans des constituants adnominaux).

En raison de ce processus de substitution, le participe présent est communément tenu de se spécialiser, du moins indirectement, dans la syntaxe externe de l'adjectif.

Il importe de noter que le participe présent est également considéré comme étant progressivement remplacé par le gérondif dans des constructions progressives (Aalto 1949 : 75 ; Dietrich 1973 : 305, 307 ; Hofmann & Szantyr 1965 : 380). Cette hypothèse de substitution n'est pas surprenant, car l'emploi du gérondif et du participe présent dans cette construction est dérivé historiquement de leur emploi dans un type particulier d'adjoints. Les participes présents tel *accusantes* 'accusant' (11) sont donc réputés être graduellement remplacés par des gérondifs comme *mentiendo* 'mentant' (12).

(11) *Stabant* *etiam* *principes* *sacerdotum* *et* *scribae*
se_tenir_debout.PST.3PL car principal.NOM.M.SG prêtre.GEN.M.PL et scribe.NOM.M.PL
constanter ***accusa-nt-es*** *eum.*
constamment accuser-PTCP.PRS-NOM.M.PL DEM.ACC.M.SG
'Car les grands prêtres et les scribes l'accusaient constamment.' (*Vulg. Luc.* 23.9-10)

(12) *[...]* *contra* *illos* *qui* ***mentie-nd-o*** *vadunt* *[...].*
contre DEM.ACC.M.PL REL.NOM.M.SG mentir-GER-ABL aller.PRS.3PL
'(...) contre ceux qui vont mentant.' (*Carol. capit.* 1a.810)

En raison de ces évolutions, le système des formes verbales non finies est censé développer un degré plus élevé d'isomorphisme : l'infinitif se spécialise dans la syntaxe externe nominale, le gérondif dans la syntaxe externe adverbiale et le participe présent dans la syntaxe externe adjectivale.

Bien que démarrant en latin tardif, ces processus de spécialisation ne sont présumées s'achever que dans le passage aux langues romanes, conformément à la tendance évolutive plus générale vers la spécialisation morphosyntaxique dans cette période (*cf.* Carlier & Combettes 2015). Notons en passant que ces processus de spécialisation sont considérées avoir abouti dans la plupart des langues romanes, mais que certaines langues présentent toutefois un résultat légèrement différent pour une ou plusieurs formes (*cf.* les différents chapitres dans Ledgeway & Maiden 2016). Pour des raisons de simplicité, je parlerai cependant des langues romanes en général.

Les développements décrits ci-dessus résument l'hypothèse standard sur l'évolution du gérondif et du participe présent en latin tardif et du latin tardif aux langues romanes. Néanmoins, cette hypothèse n'a pas encore été examinée dans des études de corpus quantitatives. Ainsi, il reste incertain dans quelle mesure les présumés changements morphosyntaxiques sont confirmées par des données empiriques. En effet, l'hypothèse standard a été formulée principalement sur la base des deux types de données suivants.

(i) Etant donné que les langues romanes se développent à partir de différentes variétés substandard du latin tardif, l'évolution du gérondif et du participe présent en latin tardif et dans le passage du latin tardif aux langues romanes a été établie sur la base de données aussi représentatives que possible

de ce que l'on appelle le « latin vulgaire », à savoir « the set of all those innovations and trends that turned up in the usage, particularly but not exclusively spoken, of the Latin-speaking population who were little or not at all influenced by school education and by literary models » (Herman 2000 : 7 ; voir aussi Väänänen 1963³ : 3-6 ; Adams 2013 : 10). Cependant, les données étudiées à cet égard sont éparses et ont presque exclusivement été explorées d'une perspective qualitative (p. ex. Lyer 1932 et Adams 2013 : 725-740 pour les gérondifs ablatifs nus et les participes présents nominatifs utilisés dans des adjoints). De plus, la plupart des études se concentrent sur l'évolution d'emplois et de formes spécifiques du gérondif ou du participe présent séparément (p. ex. Lyer 1932 sur les gérondifs ablatifs nus figurant dans des adjoints), ou bien sur l'évolution d'un seul de leurs emplois concurrents (p. ex. Vester 1983 : 135-136, Adams 2013 : 725-740 et Galdi & Vangaever 2019 sur la concurrence entre le gérondif ablatif nu et le participe présent nominatif dans les adjoints). Or, comme l'évolution du gérondif et du participe présent est censée faire partie de la restructuration du système des formes verbales non finies dans sa globalité, elle ne peut pas être évaluée de manière appropriée sans étudier l'évolution des paradigmes du gérondif et du participe présent dans leur ensemble. Vu l'absence actuelle d'études portant sur l'évolution de toutes les formes et de tous les emplois du gérondif et du participe présent, la question de savoir dans quelle mesure la présumée spécialisation du gérondif dans la syntaxe externe de l'adverbe et du participe présent dans celle de l'adjectif est étayée par des données empiriques reste ouverte.

(ii) L'évolution du gérondif et du participe présent du latin tardif aux langues romanes a en outre été reconstruite à la lumière de données empiriques tirées des langues romanes. Dans la plupart de ces langues, le gérondif ne peut figurer que dans des adjoints et dans des constructions progressives, tandis que le participe présent ne peut avoir que la syntaxe externe de l'adjectif (Aalto 1949 : 73 ; Elcock 1960 : 110-111 ; Väänänen 1963³ : 140-141 ; voir aussi les différents articles dans Ledgeway & Maiden 2016). Cette répartition fonctionnelle dans les langues romanes a été analysée comme le résultat de changements en cours en latin vulgaire, et donc comme une preuve indirecte en faveur de la spécialisation du gérondif et du participe présent dans la syntaxe externe de respectivement l'adverbe et l'adjectif. Toutefois, la question reste de savoir dans quelle mesure ces spécialisations se manifestent de manière directe, c'est-à-dire dans des textes authentiques rédigés en latin tardif.

La question fondamentale qui se dégage de (i-ii) est de savoir dans quelle mesure l'hypothèse standard sur l'évolution du gérondif et du participe présent en latin tardif est corroborée par des changements quantitativement significatifs dans leur syntaxe externe et dans leur catégorisation morphosyntaxique.

5.3. L'évolution du gérondif et du participe présent du latin tardif à l'ancien français

Cette question est d'autant plus prégnante au vu de l'évolution des deux types de formes du latin tardif à l'ancien français. Dans cette période de transition, le gérondif et le participe présent sont tous deux affectés par une série d'évolutions morphologiques et phonétiques, qui aboutissent finalement à la même forme pour les deux types de verbes : une forme construite sur le radical présent d'un verbe et ayant (ou du moins développant) la terminaison invariable *-ant* (p. ex. *plorant* 'pleurant' (13)) (Elcock 1960 : 112 ; Ménard 1973 : 170 ; Harris 1978 : 200 ; Arnavielle 1984 : 40 ; Buridant 2000 : 237, 2019 : 343 ; Wackernagel & Langslow 2009 : 352 fn. 15 ; De Smet 2014 : 39-40 ; Bazin-Tacchella 2020 : 852-854).

(13) *Tristran* *l'* *a* ***plor-ant*** *salüee.*
Tristan elle.OBJ.F.SG avoir.PRS.3SG pleurer-V.ANT saluer.PTCP.PST.F.SG
'Tristan l'a saluée en pleurant.' (Bér. *Tristan* 3777)

En raison de cette fusion morphologique du gérondif et du participe présent, la catégorie des formes en *-ant* en ancien français ne peut plus être établie sur la base de critères morphologiques (Bazin-Tacchella 2020 : 852). Cependant, une « approche historique rétrospective » (Aspland 1968 : 151, 152, 166) admet deux exceptions.

(i) En latin (tardif), seul le gérondif peut être régi par une préposition. Ainsi, toutes les formes en *-ant* prépositionnelles en ancien français (p. ex. *en fuiant* 'en fuyant' (14)) peuvent en principe être catégorisées comme des gérondifs (Anglade 1958 : 217 ; Ménard 1973 : 173-175 ; Harris 1978 : 199 ; Arnavielle 1984 : 38-39 ; Jensen 1990 : 322 ; De Smet 2014 : 39).

(14) *Li* *leüns* *en* ***fui-ant*** */* *Sa* *trace* *vait*
ART.DEF.SBJ.M.SG lion.SBJ.M.SG en fuir-V.ANT son.OBL.F.SG trace.OBL.F.SG aller.PRS.3SG
cuvrant *[...].*
couvrir.V.ANT
'Le lion couvre ses traces en fuyant.' (Ph. de Thaon *Bestiaire* 165-166)

(ii) En latin (tardif), seul le participe présent s'accorde avec un nom en cas, en genre et en nombre. Par conséquent, toutes les formes en *-ant* en ancien français présentant une variante flexionnelle de la terminaison *-ant* (p. ex. *ardanz* (15)) peuvent en théorie être classées comme des participes présents (*cf.* Bazin-Tacchella 2020 : 852-853). Notons au passage qu'en ancien français, l'invariabilité du participe présent est encore généralisante, de sorte que des formes accordées rappelant leur origine latine continuent à être relevées, surtout dans des configurations syntaxiques adjectivales.

(15) *[...] S' el vient par aventure / U fus* ***ard-anz***
si elle.SBJ.F.SG venir.PRS.3SG par hasard.OBL.F.SG où feu.SBJ.M.SG brûler-V.ANT.SBJ.M.SG
serat [...].
être.FUT.3SG
'Si par hasard elle (une bête) vient là où il y aura un feu brûlant (...).' (Ph. de Thaon *Bestiaire* 1314-1315)

En outre, certaines formes en *-ant* se laisser catégoriser sur la base de critères syntaxiques (*cf.* Arnavielle 1984 : 38). Dans le cadre d'une approche historique rétrospective, les formes remplissant une fonction syntaxique accessible au gérondif, mais inaccessible au participe présent en latin tardif, peuvent être considérées comme des gérondifs, tandis que celles ayant une fonction accessible au participe présent, mais inaccessible au gérondif en latin tardif, peuvent être analysées comme des participes présents. Par exemple, en latin tardif seul le participe présent peut figurer dans des attributs du sujet. Ainsi, toutes les formes en *-ant* utilisées dans ce type de constituants (p. ex. *mordant* 'mordant' (15)) peuvent en théorie être catégorisées comme des participes présents.

(16) *[...] se moz i trouvez ja mis qui*
si mot.OBL.M.PL y trouver.PRS.2PL jamais mettre.PTCP.PST.M.PL REL.NOM.M.PL
samblent ***mord-ant*** *[...].*
sembler.PRS.3PL mordre-V.ANT
'Si jamais vous trouvez des mots écrits ici qui semblent offensifs (litt. 'mordant') (...).' (J. de Meun *Rose* 15168-15169)

Fait important, le gérondif et le participe présent en latin tardif partagent certains emplois, à savoir dans des adjoints et dans des constructions progressives. Pour cette raison, les formes nues en ancien français ayant la terminaison exacte *-ant* et apparaissant dans des adjoints (p. ex. *plorant* 'pleurant' (13)) ou des constructions progressives (p. ex. *cerchant* 'poursuivant' (17)) ne peuvent pas être classées comme soit des gérondifs, soit des participes présents (*cf.* De Smet 2014 : 39).

(17) *Forment alot Romeins* ***cerch-ant*** *[...].*
vigoureusement aller.PST.3SG Romain.OBL.M.PL poursuivre-V.ANT
'Il était en train de poursuivre les Romains vigoureusement.' (Wace *Brut* 12833)

Comme il n'existe pas de critères morphologiques et syntaxiques permettant de catégoriser toutes les formes en *-ant* en ancien français, la frontière entre les deux catégories est au moins partiellement floue. Confrontés à cette situation, les chercheurs ont traité la distinction entre les catégories du gérondif et du participe présent en ancien français de deux manières opposées.

La majorité des auteurs soutiennent l'hypothèse qu'en ancien français, le gérondif et le participe présent existent toujours comme deux catégories de formes bien distinctes, tout comme en latin tardif

(Gougenheim 1929 ; Anglade 1958 : 215-217 ; Väänänen 1963³ : 140-141 ; Ménard 1973 : 169-175 ; Harris 1978 : 199-201 ; Arnavielle 1984 : 38 ; Jensen 1990 : 322-334 ; Buridant 2000 : 324-327, 2019 : 461). Ils affirment que la fusion morphologique des deux formes en ancien français les inscrit dans une relation homonymique. En revanche, quelques chercheurs argumentent que cette fusion morphologique du gérondif et du participe présent les amène à fusionner également d'un point de vue catégoriel (Adams 2003 : 749 ; De Smet 2014 : 40). Cette « conflation of the two categories » (Adams 2003 : 749) est censée aboutir à un blend catégoriel, décrit par De Smet (2014 : 40) comme une « all-purpose invariable non-finite form in *-ant* » étant « in syntactic terms neither a real gerund nor a real participle ».

La question de savoir si le gérondif et le participe présent survivent en ancien français en tant que deux catégories distinctes ou si, au contraire, ils se confondent dans un blend catégoriel ne devrait pas être abordée d'un point de vue purement théorique. En effet, cette question a tout intérêt d'être exploré au moyen d'une étude de corpus à orientation quantitative, en premier lieu pour mesurer le degré exact d'indétermination catégorielle de la forme en *-ant* en ancien français. Une telle étude pourrait indiquer si l'indétermination catégorielle de cette forme soulève un problème grammatical mineur ou majeur, c'est-à-dire si elle concerne un petit ou un grand nombre d'occurrences. A la lumière de ce résultat, les deux hypothèses portant sur la distinction catégorielle entre le gérondif et le participe présent pourraient être évaluées de manière appropriée. Cependant, des études quantitatives sur la forme en *-ant* en ancien français à la lumière de son statut catégoriel font actuellement défaut. Aussi ce domaine de recherche reste-t-il en grande partie inexploré.

Comme mentionné dans §2, l'objectif de cette thèse est d'étudier empiriquement l'évolution du gérondif et du participe présent en latin tardif et d'examiner l'impact exact de leur fusion morphologique en ancien français sur leur distinction catégorielle. La section 7 discutera les principaux résultats de cette étude empirique. D'abord, il importe de présenter le corpus (§6.1) et les données (§6.2) de cette étude, ainsi que la méthodologie utilisée (§6.3).

6. Corpus, données et méthodologie

6.1. Corpus

L'examen empirique tire ses données essentiellement du corpus numérique latino-français élaboré dans le cadre du projet ANR/DFG PaLaFra (« Passage du latin au français : constitution et analyse d'un corpus numérique latino-français »). Ce projet est le premier projet international visant à explorer le « no man's land » (Herman 2006 : 184) linguistique et conceptuel entre le latin tardif et l'ancien français. Dans le cadre de ce projet a été compilé un vaste corpus de textes de latin tardif et d'ancien français présentant

un langage aussi représentatif que possible de la langue vernaculaire en Gaule durant l'Antiquité tardive et le Moyen Âge. Ce corpus est pionnier à cet égard et constitue ainsi une base empirique sans précédent pour aborder au mieux le sujet de cette thèse.

Deux corpus du projet PaLaFra sont retenus dans cette thèse. Le premier, PALAFRALAT-V2-0, regroupe 187 textes en latin tardif entre le Ve et le Xe s. Ces textes sont rédigés en prose et appartiennent aux domaines historique, juridique et religieux. Les textes historiques sont majoritairement des lettres, mais ils comprennent également deux historiographies et deux chroniques. Les textes religieux sont tous des hagiographies. La plupart des textes juridiques sont des chartes, mais il y a aussi neuf formulaires et deux lois. Tous les textes de ce corpus sont inclus dans le corpus de cette thèse, sauf cinq (voir §3.3.1.2). Les textes retenus contiennent conjointement 299 995 mots.

Le deuxième corpus, PALAFRAFRO-V2-2, comprend 44 textes composés entre le IXe et le XIVe s. La plupart sont écrits en prose ou en vers, mais un texte présente une alternance de passages en prose et en vers (*Aucassin et Nicolette*). D'un point de vue thématique, ces textes appartiennent aux domaines religieux, littéraire, didactique, juridique et historique. Les textes religieux sont majoritairement des hagiographies, mais ils comprennent également deux sermons, deux miracles, deux psautiers, un drame, un commentaire, une lettre et une historiographie. Les textes littéraires contiennent quatre romans, trois épopées et un roman bref. Parmi les textes didactiques, on retrouve deux dialogues, deux lapidaires, un roman, un bestiaire et un comput. Les textes juridiques, quant à eux, incluent deux chartes, un serment et un traité, tandis que les textes historiques comprennent deux chroniques et une historiographie. Le corpus de cette thèse contient tous les textes de ce corpus, sauf dix (voir §3.3.2). Le nombre de mots dans ces textes retenus est de 843 838.

A ces deux corpus tirés du projet PaLaFra ont été rajoutés deux autres corpus. Le premier, nommé BL2LAT, a été compilé dans un projet pilote du projet PaLaFra. Ce corpus contient 30 textes en latin tardif entre le IVe et le XIIe s., tous écrits en prose et appartenant au domaine religieux, à l'exception des *Chroniques* de Frédégaire, relevant du domaine historique. La grande majorité des textes religieux sont des hagiographies, mais il y a aussi deux dialogues, un itinéraire et une lettre. Le texte de Frédégaire est une chronique. Tous les textes de ce corpus sont inclus dans le corpus de cette thèse, sauf la *Vita Petri Venerabilis*, composé au XIIe s. et dépassant ainsi la période du latin prise en compte dans la présente étude. Les textes restants comprennent 125 908 mots.

Le deuxième corpus est un corpus de latin classique. Celui-ci comprend tous les textes césariens et cicéroniens inclus dans la base de données LASLA et examinées dans Vangaever (2018), une étude quantitative pilote de la syntaxe externe du gérondif et du participe présent. Le nombre de ces textes est de 88 ; ils comprennent conjointement 625 034 mots. Il importe de souligner que la langue utilisée dans ces textes reflète un usage standard de la langue, tandis que les textes des corpus élaborés dans le cadre du projet PaLaFra (et de son projet pilote) reflètent prioritairement un usage moins standard de la langue.

Cette différence entre les textes des corpus classique et tardif pourrait avoir un impact sur les résultats de l'évolution du gérondif et du participe présent du latin classique au latin tardif, même si elle est prise en compte dans l'évaluation de tous les résultats quantificatifs. Bien que la composition différente des deux corpus de latin soit regrettable, mon étude quantitative de 2018 sur la syntaxe externe du gérondif et du participe présent en latin classique est la première dans son genre. De cette manière, il est au moins possible de comparer les deux périodes sur la base de données empiriques traitées quantitativement.

En résumé, le corpus de cette thèse comprend (i) un corpus de latin classique (625 034 mots), (ii) un corpus de latin tardif (425 903 mots, dont 299 995 du corpus PALAFRALAT-V2-0 et 125 908 du corpus BL2LAT) et (iii) un corpus d'ancien français (843 838 mots).

Il convient de noter que, quoique le corpus latino-français compilé dans le cadre du projet PaLaFra (et de son projet pilote) soit – en comparaison avec les corpus existants – vaste et varié, il est bien connu que, d'un point de vue sociolinguistique, il existe un écart considérable entre la langue écrite et la langue parlée (*cf.* Herman 2006 : 186). Crucialement, le changement linguistique émerge généralement dans la langue parlée et n'atteint la langue écrite qu'à un stade ultérieur, en raison de son caractère conservateur. Ainsi, il est possible que la langue observable dans les textes (écrits) des corpus de latin tardif et d'ancien français ne reflète pas fidèlement les changements en cours dans la langue parlée. Or, comme il n'existe pas d'enregistrements de la langue parlée de cette période, il manque toute base empirique pour étudier l'évolution du gérondif et du participe présent d'une manière plus précise.

6.2. Données

Les données de cette thèse comprennent tous les gérondifs et tous les participes présents dans les corpus de latin classique et de latin tardif et toutes les formes en *-ant* dans le corpus d'ancien français. Pour le latin classique, il s'agit d'un nombre total de 1 270 gérondifs et 1 786 participes présents. Pour le latin tardifs, ces chiffres s'élèvent à respectivement 1 308 et 8 785. Le nombre de formes en *-ant* en ancien français est de 2 153. Au total, les résultats de cette thèse sont donc basées sur 15 305 formes.

6.3. Méthodologie

6.3.1. L'évolution du gérondif et du participe présent en latin tardif

Afin de déterminer dans quelle mesure, en latin tardif, le gérondif se spécialise dans la syntaxe externe de l'adverbe et le participe présent dans celle de l'adjectif, j'ai étudié la fréquence du gérondif adverbial et du participe présent adjectival dans les corpus de latin classique et de latin tardif. Dans le corpus de

latin tardif, une comparaison a également été faite entre le latin impérial (IVe-Ve s.), le latin mérovingien (VIe-VIIe s.) et le latin médiéval précoce (VIIIe-Xe s.). Pour chacune de ces périodes, la fréquence des gérondifs adverbiaux et des participes présents adjectivaux a été explorée sur la base de deux mesures : (i) leur fréquence absolue normalisée, c'est-à-dire le nombre d'occurrences par tranche de 10 000 mots dans la période en question, et (ii) leur fréquence relative ou leur proportion par rapport au nombre total de gérondifs ou de participes présents par période. La deuxième mesure est plus importante, car seule celle-ci permet de détecter des changements dans les conditions d'emploi du gérondif et du participe présent suggérant une spécialisation – ou non – dans la syntaxe externe de l'adverbe ou de l'adjectif.

Cependant, une vue détaillée des changements au niveau des conditions d'emploi du gérondif et du participe présent ne peut être obtenue qu'en explorant la fréquence de tous les emplois des deux formes. La proportion de ces emplois permet d'établir ce que j'appelle « le profil syntaxique externe » du gérondif et du participe présent, et, sur la base de ce profil, leur « profil morphosyntaxique » et leur « profil typologique ». L'hypothèse standard sur l'évolution du gérondif et du participe présent en latin tardif est principalement évaluée sur la base de leur profil morphosyntaxique, parce que ce profil montre le plus clairement dans quelle mesure les deux formes se spécialisent – ou non – dans la syntaxe externe de l'adverbe ou de l'adjectif.

La fréquence des différents emplois syntaxiques du gérondif et du participe présent est évaluée statistiquement au moyen de tests d'ajustement du chi carré (*chi-square goodness-of-fit tests*), afin de distinguer les tendances aléatoires de celles reflétant un changement linguistique en cours. En raison des différences de fréquence du gérondif et du participe présent dans les trois domaines thématiques en latin tardif, l'étude de la fréquence des emplois des deux formes en latin tardif est affinée par l'étude de leur fréquence dans les textes historiques, religieux et juridiques, en tenant examinant en même temps leur productivité (attestée) dans ces domaines thématiques.

6.3.2. La forme en -ant *en ancien français*

Le statut catégoriel de la forme en *-ant* en ancien français est examinée sur la base des résultats obtenus de l'étude empirique du gérondif et du participe présent en latin tardif, d'une part, et de la fréquence des différents emplois de cette forme, de l'autre. La fréquence de ces emplois syntaxiques est de nouveau évaluée statistiquement au moyen de tests d'ajustement du chi carré. Une comparaison est également faite entre la période du très ancien français (IXe-XIe s.) et les XIIe-XIIIe s., afin de déterminer si la forme en *-ant* subit des évolutions fonctionnelles durant la période de l'ancien français et/ou des changements dans son degré d'indétermination catégorielle. Comme pour le gérondif et le participe présent en latin tardif, l'étude de la fréquence des emplois syntaxiques de la forme en *-ant* en ancien français sera affinée par l'étude de leur fréquence et productivité dans les différents domaines thématiques.

7. Résultats de l'étude empirique et discussion

Les sections suivantes discuteront les principaux résultats de l'étude empirique, d'abord pour l'évolution du gérondif et du participe présent en latin tardif (§7.1) et ensuite pour leur évolution du latin tardif à l'ancien français (§7.2).

7.1. L'évolution du gérondif et du participe présent en latin tardif

Cette section portera successivement sur l'évolution du gérondif (§7.1.1) et du participe présent (§7.1.2).

7.1.1. L'évolution du gérondif

Les données de cette étude montrent une spécialisation du gérondif dans la syntaxe externe de l'adverbe, en accordance avec l'hypothèse standard de son évolution en latin tardif. Cependant, cette spécialisation n'est pas principalement due à la généralisation du gérondif (ablatif nu) au détriment du participe présent dans les configurations syntaxiques adverbiales (*i.e.* dans des adjoints). Au contraire, le gérondif ablatif nu maintient un lien fort avec sa valeur originelle de manière/instrument/cause en latin tardif. Ainsi, il ne se transforme pas en un substitut intégral de son concurrent sémantiquement plus neutre et polyvalent, à savoir le participe présent. En d'autres termes, les données empiriques m'amènent à rejeter l'hypothèse largement répandue selon laquelle la spécialisation du gérondif dans la syntaxe externe de l'adverbe en latin tardif est due en premier lieu à un emploi progressif de gérondifs ablatifs nus véhiculant une valeur autres que la maniéré, l'instrument ou la cause au détriment de participes présents dans des adjoints. De cette manière, la spécialisation morphosyntaxique du gérondif n'est pas une évolution directe, c'est-à-dire causée par une montée en fréquence de gérondifs figurant dans des adjoints.

Sur la base de ce résultat, je soutiens l'hypothèse que le principal moteur de cette spécialisation morphosyntaxique du gérondif en latin tardif est la généralisation de l'infinitif au détriment du gérondif dans des configurations syntaxiques nominales. Ce processus de substitution réduit le nombre absolu de gérondifs ayant la syntaxe externe d'un nom et, par conséquent, leur proportion par rapport au nombre total de gérondifs. En conséquence, la proportion des gérondifs ayant la syntaxe externe de l'adverbe augmente, même si leur fréquence absolue reste relativement stable. Ainsi, la spécialisation du gérondif dans la syntaxe externe adverbiale apparait principalement comme une évolution indirecte, c.-à-d. l'effet indirect de la généralisation de l'infinitif dans la syntaxe du nom. Néanmoins, en l'absence d'études de corpus quantitatives sur la syntaxe externe de l'infinitif du latin classique au latin tardif, cette hypothèse reste quelque peu spéculative. Afin de mieux comprendre la dynamique de la spécialisation du gérondif

dans la syntaxe externe de l'adverbe, il conviendrait donc de réaliser une étude de corpus sur la syntaxe externe de l'infinitif comparable à celle menée pour le gérondif dans cette thèse, de mettre en regard les résultats obtenus dans ces études et de les interpréter à la lumière de l'hypothèse proposée ici.

L'étude empirique montre en outre que la période cruciale dans la spécialisation du gérondif dans la syntaxe externe adverbiale n'est pas la période du latin tardif elle-même, mais plutôt la transition entre le latin classique et le latin tardif. Comme le latin classique est défini dans cette thèse comme la période entre le IIIe s. avant J.-C. et le IIe s. après J.-C. et le latin tardif comme celle entre le IIIe et le Xe s. après J.-C., le passage d'un gérondif principalement nominal à un gérondif principalement adverbial semble donc s'être réalisé durant les premiers siècles de cette ère. Des études de corpus sur l'emploi du gérondif dans cette période précise font actuellement défaut, mais sont à envisager pour vérifier empiriquement cette hypothèse.

L'examen empirique du gérondif en latin tardif a révélé d'autres résultats intéressants.

(i) Alors que la syntaxe externe du gérondif en latin tardif est relativement stable sur l'axe temporel, elle présente une grande variation d'un point de vue thématique. En particulier, l'emploi syntaxique du gérondif dans les textes juridiques diffère fortement de son emploi dans les textes historiques et religieux. Cette différence semble être due aux caractéristiques stylistiques spécifiques de la langue juridique et apporte un important éclairage méthodologique : au moins pour le latin tardif, il est recommandé de ne pas s'appuyer exclusivement sur les textes juridiques pour étudier des processus de changement linguistique, et d'évaluer les résultats obtenus pour ces textes séparément de ceux obtenus pour les autres types de textes.

(ii) Les données de cette étude ne contiennent aucun gérondif utilisé dans une construction progressive. Par conséquent, elles ne fournissent pas de preuve en faveur du remplacement du participe présent par le gérondif dans cette construction. Cependant, cet emploi est également extrêmement rare aussi pour le participe présent, de sorte qu'aucune conclusion solide ne peut en être tirée.

(iii) Le corpus de cette thèse révèle un usage du gérondif qui est passé inaperçu dans la littérature jusqu'à présent, à savoir comme un verbe syntaxiquement fini. Ces formes sont extrêmement rares, mais ont toutefois un intérêt pour la compétition entre le gérondif et le participe présent : une des origines principales de l'emploi syntaxiquement fini du participe présent est son emploi dans des adjoints. Comme le gérondif est censé remplacer le participe présent dans ce type de constituants en latin tardif, il n'est pas improbable que le gérondif en vienne à remplacer occasionnellement le participe présent aussi dans un emploi dérivé de cet emploi adverbial, *i.e.* comme un verbe syntaxiquement fini. Si la rareté de ce type de gérondifs suggère que le gérondif ne remplace pas systématiquement le participe présent dans cet emploi, leur simple existence démontre indéniablement que, en latin tardif, le gérondif empiète sur la syntaxe externe du participe présent.

Enfin, les résultats de cette étude montrent que, malgré le passage d'un gérondif principalement nominal en latin classique à un gérondif principalement adverbial en latin tardif, il existe une différence notable entre l'emploi du gérondif en latin tardif et dans les langues romanes. En effet, alors que le gérondif ne peut s'utiliser que dans des adjoints et dans des constructions progressives dans la plupart de ces langues, ces deux emplois ne représentent que 61% de tous les gérondifs dans le corpus de latin tardif de cette thèse (cette proportion correspond en fait à la fraction des gérondifs apparaissant dans des adjoints seuls, car le corpus de latin tardif ne contient aucun gérondif utilisé dans une construction progressive). Cette faible proportion est due au fait que le gérondif ne remplace pas le participe présent dans les adjoints ni dans des constructions progressives, du moins dans le corpus de cette étude. Par conséquent, la fréquence absolue des gérondifs ayant la syntaxe externe de l'adverbe n'augmente pas. Ainsi, la question de savoir pourquoi il existe une grande différence entre l'emploi du gérondif dans mon corpus de latin tardif et dans la plupart des langues romanes se résume essentiellement à la question de savoir pourquoi cette forme (et en particulier le gérondif ablatif nu) ne se développe pas en tant que concurrent à part entière du participe présent adverbial dans ce corpus.

La réponse la plus plausible à cette question est liée aux limites des données empiriques. Comme mentionné *supra* (§6.1), le corpus élaboré dans le cadre du projet PaLaFra et utilisé comme le corpus de latin tardif de cette thèse est vaste et diversifié. Néanmoins, il est bien connu que, d'un point de vue sociolinguistique, il existe un écart important entre la langue écrite et la langue parlée (Herman 2006 : 186). Ainsi, les textes du corpus de latin tardif pourraient ne pas refléter fidèlement les changements en cours dans la langue parlée. Des preuves à l'appui de cette hypothèse proviennent des langues romanes. Dans la plupart de ces langues, le gérondif peut apparaitre dans des adjoints et dans des constructions progressives, alors que le participe présent ne le peut pas (*cf.* Vincent 2016 : 45). Comme les langues romanes émergent de variétés substandard parlées du latin tardif, on peut supposer que, dans les langues vernaculaires parlées, le gérondif a effectivement remplacé le participe présent dans ces emplois. Car sans ce remplacement, le système des formes verbales non finies dans les langues romanes n'aurait pas été aussi étroitement organisé qu'il n'est. Cependant, comme on ne dispose d'aucun enregistrement des langues vernaculaires parlées à cette époque, il n'existe pas de base empirique permettant de trancher cette question de manière définitive. Cette indétermination est un prix courant à payer en linguistique historique.

7.1.2. L'évolution du participe présent

Les données de cette étude ne montrent aucun signe de spécialisation du participe présent dans la syntaxe externe de l'adjectif, en contraste avec l'hypothèse standard de son évolution en latin tardif. Au lieu de se spécialiser dans cette syntaxe, il se spécialise dans la syntaxe externe de l'adverbe, comme le gérondif. Toutefois, alors que cette spécialisation du gérondif fait passer cette forme d'une syntaxe principalement

nominale en latin classique à une syntaxe principalement adverbiale en latin tardif, la spécialisation du participe présent ne fait que renforcer le lien de cette forme avec sa syntaxe adverbiale, dominante déjà en latin classique. Comme dans le cas du gérondif, la période cruciale dans cette évolution du participe présent se situe entre le latin classique et le latin tardif, plutôt que durant la période du latin tardif. Un autre parallèle avec le gérondif est que l'emploi du participe présent en latin tardif est relativement stable sur l'axe diachronique, alors qu'il montre une grande variation d'un point de vue thématique. Ici encore, la syntaxe externe du participe présent est très différente dans les textes juridiques en comparaison avec les textes historiques et religieux, ce qui conduit à la même recommandation méthodologique que celle formulée à propos du gérondif. La différence entre les textes juridiques, d'une part, et les textes religieux et historiques, de l'autre, est cependant moins prononcée dans le cas du participe présent que dans le cas du gérondif.

L'évolution inattendue du participe présent a au moins trois raisons.

(i) La première raison est liée à la concurrence entre les emplois adverbiaux du gérondif et du participe présent. Comme noté *supra*, cette concurrence est censée se mettre en place en faveur du gérondif (ablatif nu), ayant pour résultat le remplacement progressif de participes présents par des gérondifs dans des adjoints. Ainsi, la fréquence absolue de participes présents adverbiaux et, par conséquent, leur proportion par rapport au nombre total de participes présents sont présumées diminuer au lieu d'augmenter. En corollaire, la part des participes présents ayant la syntaxe externe de l'adjectif est supposée augmenter, même si leur nombre absolu reste stable. Comme les données de cette thèse ne fournissent pas de preuve empirique d'un développement du gérondif (ablatif nu) en un substitut à part entière du participe présent adverbial, il n'est pas surprenant que le participe présent ne soit pas remplacé par le gérondif dans la syntaxe adverbiale. Cette première raison permet d'expliquer pourquoi la fréquence des participes présents adverbiaux ne diminue pas, mais ne permet pourtant pas d'expliquer son augmentation.

(ii) Une des raisons de cette augmentation de fréquence réside dans les emplois narratifs et structurants du participe présent adverbial (*cf.* Combettes 2018 : 404). Utilisé comme stratégie narrative, deux ou plusieurs participes présents sont combinés de manière à exprimer une série de procès verbaux se succédant sur l'axe temporel et/ou servant d'arrière-plan au discours subséquent (p. ex. (18)) (Van Acker 2004 : 130-131). Utilisé comme dispositif de structuration de texte, le participe présent sert, entre autres, à marquer le début ou la fin d'un discours direct (p. ex. (19)).

(18) *Quem* ***vide-ns*** *Placidus* *et* ***desidera-ns***
REL.ACC.M.SG voir-PTCP.PRS.NOM.M.SG Placidus.NOM.M.SG et désirer-PTCP.PRS.NOM.M.SG
eum *capere,* ***relinque-ns*** *omnes,* *cum* *paucis*
DEM.ACC.M.SG prendre.INF.PRS quitter-PTCP.PRS.NOM.M.SG tout.ACC.M.PL avec peu.ABL.M.PL
militibus *eum* *insequitur.*
soldat.ABL.M.PL DEM.ACC.M.SG suivre.PST.3SG
'Quand Placidus le voyait et parce qu'il voulait s'emparer de lui, il quitta tout le monde et le suivit avec quelques soldats'. (*Pass. Eustach.* 1.3)

(19) *Tunc* *dixerunt* *eis* *beatissimi* *apostoli* *Petrus*
puis dire.PST.3PL DEM.DAT.M.PL très_fortuné.NOM.M.PL apôtre.NOM.M.PL Petrus.NOM.M.SG
cum *Paulo:* *"[...]".* *Hoc* ***audie-nt-es,*** *omnes*
avec Paulus.ABL.M.SG DEM.ACC.N.SG entendre-PTCP.PRS-NOM.M.PL tout.NOM.M.PL
qui *in* *custodia* *erant* *clamaverant* *unanimiter*
REL.NOM.M.PL dans garde.ABL.F.SG être.PST.3PL crier.PST.3PL à_l'unanimité
dice-nt-es: *"[...]".*
dire-PTCP.PRS-NOM.M.PL
'Puis, les plus fortunés apôtres Pierre et Paul leur dirent : « (...) ». Quand ils entendirent cela, tous ceux qui étaient en garde crièrent à l'unanimité, disant : « (...) ».' (*Pass. Proc.* 1.6.1-2)

En latin tardif, le participe présent adverbial est beaucoup plus souvent utilisé comme stratégie narrative ou dispositif de structuration de texte qu'en latin classique. Comme que l'emploi narratif du participe présent est caractérisé par une succession de formes figurant dans des adjoints, il conduit naturellement à une fréquence élevée de participes présents adverbiaux. La montée en fréquence des emplois narratifs et textuels du participe présent explique aussi l'augmentation spectaculaire de la fréquence du nombre total de participes présents entre le latin classique et le latin tardif (voir §3.4.2.3). Il convient de noter que les emplois narratifs et structurants du participe présent sont particulièrement fréquents dans les textes religieux. Ainsi, l'influence du latin biblique – qu'il s'agisse de latin authentique ou de latin traduit du grec biblique – dans cette évolution ne devrait pas être sous-estimée.

(iii) La troisième et dernière explication de l'évolution inattendue du participe présent est de nouveau liée à la nature des données examinées. Comme souligné *supra* pour le gérondif, le corpus de cette étude ne contient que des textes écrits, alors que le changement linguistique apparait généralement dans la langue parlée. Aussi, l'emploi du participe présent dans le corpus de cette thèse pourrait ne pas refléter fidèlement son emploi présumé plus innovant dans la langue parlée. Un argument en faveur de cette hypothèse provient de nouveau des langues romanes. Dans la plupart de ces langues, le participe présent a perdu sa capacité d'avoir la syntaxe externe de l'adverbe et s'est spécialisé dans la syntaxe externe de l'adjectif, bien que pas nécessairement en tant que forme pleinement productive (voir p. ex. Rigau (2000 : 352) à propos de l'espagnol, où le participe présent adnominal

ne peut être construit que sur des verbes transitifs et intransitifs du type accusatif ; voir aussi les chapitres dans Ledgeway & Maiden 2016). Comme les langues romanes se développent à partir de variétés substandard parlées du latin tardif et comme le participe présent ne peut plus présenter la syntaxe externe de l'adverbe dans la plupart de ces langues, on peut faire l'hypothèse que, dans les variétés vernaculaires du latin tardif, le participe présent est toutefois remplacé par le gérondif dans cette syntaxe. Car sans cette substitution progressive, le participe présent n'aurait pas été évincé de son emploi adverbial, de sorte que le système des formes verbales non finies dans les différentes langues romanes serait moins bien organisé qu'il n'est. En d'autres termes, nous devons supposer un écart important entre l'emploi du participe présent en latin tardif écrit et parlé afin d'expliquer la différence notable entre son emploi dans mon corpus de latin tardif et les premiers textes romans, et donc de rendre compte de son évolution du latin tardif aux langues romanes.

7.2. L'évolution du gérondif et du participe présent du latin tardif à l'ancien français

Cette dernière section portera d'abord sur l'évolution du gérondif et du participe présent du latin tardif à l'ancien français (§7.2.1) et ensuite sur l'impact de la fusion morphologique des deux formes en ancien français et de leur chevauchement fonctionnel sur leur distinction catégorielle (§7.2.2).

7.2.1. L'évolution du gérondif et du participe présent du latin tardif à l'ancien français

L'évolution susmentionnée d'une spécialisation et différenciation morphosyntaxiques du gérondif et du participe présent peut aisément être supposée pour la transition du latin tardif aux langues romanes telles que l'italien et l'espagnol, dans lesquelles le gérondif et le participe présent survivent en tant que deux types de formes verbales non finies morphologiquement distinctes. En effet, dans ces langues, les formes en question ont un profil morphosyntaxique distinct et nous permettent donc de présumer avec un haut degré de probabilité que cette tendance à la spécialisation et à la différenciation morphosyntaxique était en cours dans les langues vernaculaires, même si elle n'est pas ou seulement partiellement corroborée par les données du latin tardif qui nous sont parvenues. En revanche, cette hypothèse est fragile pour le passage du latin tardif à l'ancien français, car le gérondif et le participe présent fusionnent formellement dans la forme en *-ant*. On pourrait néanmoins soutenir que les changements se produisant du latin tardif vers les autres langues romanes sont en fait panromanes, et doivent donc être supposés également pour l'ancien français.

Dans une vision panromane, l'évolution du gérondif et du participe présent vers la spécialisation et la différenciation morphosyntaxique peut être analysée de trois façons.

(i) Il pourrait s'agir d'une évolution du latin tardif se produisant dans toutes les variétés substandard servant de base aux langues romanes. Dans ce cas, l'évolution du gérondif et du participe présent est achevée dans les variétés mère des langues romanes, et est donc naturellement panromane.

(ii) Le passage à la spécialisation morphosyntaxique et à la différenciation du gérondif et du participe présent pourrait avoir lieu lors du passage du latin tardif aux différentes langues romanes. Dans ce scénario, le caractère panroman de l'évolution ne peut être assumé que si le gérondif et le participe présent n'évoluent pas seulement de la même manière dans diverses régions géographiques, mais aussi plus ou moins simultanément et indépendamment d'une région à l'autre.

(iii) La troisième option combine les scénarios dans (i) et (ii) : l'évolution vers la spécialisation et la différenciation morphosyntaxique pourrait commencer dans des variétés substandard du latin tardif servant de base aux langues romanes, tout en ne s'achevant que dans le passage du latin tardif aux différentes langues romanes.

Comme noté *supra*, il est impossible d'établir empiriquement si l'évolution du gérondif et du participe présent a lieu principalement durant la période du latin tardif ou dans le passage aux langues romanes. Ainsi, les deux premiers scénarios ne peuvent pas être assumés avec une certitude absolue. Le troisième scénario est sans aucun doute le plus convaincant, notamment parce que le résultat de l'évolution n'est pas le même dans les différentes variétés romanes. Mais toujours est-il qu'il reste impossible de montrer empiriquement si l'évolution en question doit être située principalement dans la période du latin tardif ou dans la transition entre le latin tardif et les langues romanes. En somme, l'analyse de l'évolution du gérondif et du participe présent vers la spécialisation et la différenciation morphosyntaxique comme une évolution panromane à supposer aussi pour l'ancien français n'est pas sans problèmes.

Par ailleurs, l'analyse de l'évolution du gérondif et du participe présent vers la spécialisation et la différenciation morphosyntaxique comme un développement panroman soulève un important problème théorique. En effet, elle viole le particularisme catégoriel, c.-à-d. l'idée que les langues ont leurs propres catégories et leurs propres critères d'attribution à des catégories, et qu'en tant que telles, elles ne peuvent pas être décrites en utilisant les catégories créées pour la description d'autres langues – du moins pas sans une révision de leurs propriétés définitoires (Boas 1911 ; Joos 1957 ; Haspelmath 2010 : 664, 669). Ainsi, même si l'évolution morphosyntaxique du gérondif et du participe présent dans la transition du latin tardif à l'ancien français est la même que dans celle dans le passage aux autres langues romanes, elle est compromise en ancien français en raison de leur fusion morphologique. Puisque les catégories linguistiques sont le mieux définies sur la base de critères morphologiques et syntaxiques (Trask 1999 : 281 ; Aarts 2007 : 2 ; Pullum 2009 : 257), cette fusion morphologique du gérondif et du participe présent en ancien français nécessite une révision des critères d'attribution catégorielle dans cette langue. Cette révision même distingue l'ancien français des autres langues romanes, de sorte que le profil évolutif du

gérondif et du participe présent esquissé sur la base de langues comme l'espagnol et l'italien ne peut pas être assumé comme tel pour l'ancien français.

7.2.2. L'impact de la fusion morphologique et du chevauchement fonctionnel du gérondif et du participe présent sur leur distinction catégorielle

L'examen empirique de la forme en *-ant* en ancien français menée dans cette thèse a des implications importantes pour la distinction catégorielle entre le gérondif et le participe présent en ancien français. En raison de la fusion morphologique de ces formes, les formes verbales en *-ant* en ancien français ne peuvent en effet être catégorisées ni comme des gérondifs ni comme des participes présents sur la base de critères morphologiques. Toutefois, deux exceptions peuvent être faites. D'une part, toutes les formes prépositionnelles peuvent être analysées comme des gérondifs, car en latin tardif, seul le gérondif peut être prépositionnel. D'autre part, toutes les formes présentant une variante flexionnelle de la terminaison *-ant* peuvent être classées comme des participes présents, car en latin tardif, seul le participe présent s'accorde avec un nom. De plus, certaines formes en *-ant* en ancien français peuvent être catégorisées sur la base de leur fonction syntaxique : toutes les formes ayant une fonction syntaxique accessible au participe présent, mais inaccessible au gérondif en latin tardif, peuvent être vues comme des participes présents (il n'existe pas de formes en *-ant* ayant une fonction syntaxique accessible au gérondif, mais inaccessible au participe présent en latin tardif, et donc l'argument contraire ne tient pas). Dans le corpus d'ancien français de cette étude, la combinaison de ces trois critères permet de déterminer la catégorie de 62% de toutes les formes verbales en *-ant*, parmi lesquelles 54% instancient des participes présents et 9% des gérondifs (la somme de ces pourcentages fait 62% au lieu de 63% pour des raisons d'arrondi). Cependant, cette « approche historique rétrospective » (Aspland 1968 : 151) pour catégoriser les formes verbales en *-ant* est basée sur l'hypothèse que le gérondif et le participe présent n'empiètent pas sur la morphologie et la distribution de l'autre, ni dans la transition du latin tardif à l'ancien français, ni dans la période de l'ancien français elle-même. Pourtant, un tel empiètement ne peut être exclu d'un point de vue purement théorique. De plus, des preuves empiriques démontrent qu'un tel empiètement a bien lieu (*cf.* De Smet 2014 : 40). Témoin des formes comme *enhortanz* 'encourageant' (20) : d'une part, elle est régie par la préposition *por* 'afin de', et devrait à ce titre être analysée comme un gérondif, mais d'autre part, elle s'accorde avec le SN *li apostoiles* 'l'apôtre', propriété pointant vers un statut comme participe présent.

(20) *[...] por les clers* ***enhort-anz*** *li*
pour ART.DEF.OBL.M.PL clerc.OBL.M.PL encourager-V.ANT.OBL.M.PL ART.DEF.SBJ.M.SG
apostoiles i donat consentement
apôtre.SBJ.M.SG y donner.PST.3SG consentement.OBL.M.SG
'L'apôtre y consentit afin d'encourager les clercs.' (*Dial. Greg.* 4)

Cette forme et les formes similaires doivent être considérées comme soit des gérondifs accordés soit des participes présents prépositionnels (*cf.* De Smet 2014 : 40). Aussi indiquent-elles que soit le gérondif empiète sur la morphologie du participe présent, soit le participe présent sur la morphologie du gérondif. Compte tenu de cet échange morphologique, les trois critères pour catégoriser les formes en *-ant* en ancien français ne sont que peu fiables. Ainsi, les 62% des formes en *-ant* concernées sont toutefois à considérer comme catégoriellement indéterminées, tout comme les 38% d'instances indéterminées sans la moindre ambiguïté. L'étude empirique révèle donc l'étendue de l'indétermination catégorielle de la forme en *-ant* en ancien français.

La fusion morphologique du gérondif et du participe présent dans la transition du latin tardif à l'ancien français et l'absence de critères morphologiques et syntaxiques pleinement fiables pour établir leur distinction catégorielle soulèvent la question fondamentale de savoir si le gérondif et le participe présent survivent en ancien français en tant que deux catégories distinctes de formes verbales non finies ou si, au contraire, ils fusionnent en une seule catégorie (*cf.* Ménard 1973 : 169 ; Adams 2003 : 749 ; De Smet 2014 : 39-40 ; Bazin-Tacchella 2020 : 852). Les deux points de vue peuvent être évalués ici à la lumière de la discussion précédente et des résultats obtenus dans la partie empirique de cette étude.

La plupart des auteurs affirment que le gérondif et le participe présent existent en ancien français comme deux catégories distinctes de formes verbales, tout comme en latin (tardif) (Gougenheim 1929 ; Anglade 1958 : 215-217 ; Väänänen 1963[3] : 140-141 ; Ménard 1973 : 169-175 ; Harris 1978 : 199-201 ; Arnavielle 1984 : 38 ; Jensen 1990 : 322-334 ; Buridant 2000 : 324-327, 2019 : 461). Comme leur distinction catégorielle est supposée préservée, le défi principal de cette hypothèse est d'établir les critères d'attribution catégorielle permettant de tracer une frontière nette entre les catégories du gérondif et du participe présent. Or, de tels critères font précisément défaut, comme le montre la discussion qui précède. La distinction entre les deux catégories est donc floue, ce qui nous amène à la deuxième hypothèse, celle du blend catégoriel.

Certains auteurs hors du champ de la linguistique historique française traitant de cette distinction catégorielle, notamment le latiniste Adams (2003 : 749) et l'angliciste De Smet (2014 : 40), argumentent que la fusion morphologique du gérondif et du participe présent entraine une fusion de ces formes aussi sur le plan catégoriel. Adams (2003 : 749) parle d'une « conflation of the two categories », et De Smet (2014 : 40) décrit le blend catégoriel qui en résulte comme une « all-purpose invariable non-finite form in *-ant* » étant « in syntactic terms neither a real gerund nor a real participle ». Cette hypothèse de brouillage catégoriel a des implications drastiques pour la description grammaticale de ces formes en ancien français : elle implique que le gérondif et le participe présent cessent d'exister comme catégories linguistiques distinctes, de sorte que les étiquettes « gérondif » et « participe présent » ne peuvent plus être utilisées pour décrire les formes héritées du latin tardif. Bien que l'abandon d'écarter des étiquettes catégorielles si bien ancrées dans la tradition grammaticale française est une décision majeure, c'est la

seule façon de rendre compte de manière convaincante de l'impact de la fusion morphologique et du chevauchement fonctionnel)du gérondif et du participe présent sur leur distinction catégorielle, tant au vu des données empiriques que dans une perspective purement théorique. Cette hypothèse est également conforme à la conception particulariste des catégories linguistiques : elle distingue l'ancien français des autres langues romanes, où le gérondif et le participe présent ne fusionnent pas morphologiquement et sont donc dispensés de ce brouillage catégoriel.

La question qui reste est de savoir comment dénommer cette nouvelle catégorie et les formes qui y sont associées. Parmi les différentes stratégies d'étiquetage explorées dans §6.9, les meilleures options sont l'étiquette purement formelle « forme (verbale) en *-ant* » et le blend terminologique « parondif ». En raison du caractère néologique de ce dernier et, ainsi, de son risque de ne pas se répandre avec succès dans la communauté linguistique (un précédent à cet égard est la terminologie forgée par Damourette & Pichon 1968-1971), l'étiquette formelle « forme (verbale) en *-ant* » est la plus appropriée. Ce terme est d'ailleurs parallèle au terme « -ing form » utilisé par de nombreux auteurs pour les formes équivalentes en anglais.

Nederlandse samenvatting

Dit proefschrift bestudeert op empirische wijze de evolutie van het gerundium en het tegenwoordig deelwoord in het Laatlatijn en onderzoekt op basis daarvan welke impact hun morfologische fusie in het Oudfrans heeft op hun categoriale onderscheid. De resultaten bevestigen de standaardhypothese over de evolutie van het gerundium en het tegenwoordig deelwoord in het Laatlatijn, maar slechts ten dele: zij tonen aan dat het gerundium zich specialiseert in adverbiale externe syntaxis, maar niet dat het tegenwoordig deelwoord zich toelegt op adjectivale syntaxis. Zo vertoont het gerundium tekenen van 'converbalisatie', terwijl het tegenwoordig deelwoord geen proces van 'participialisatie' ondergaat. Net als het gerundium heeft het tegenwoordig deelwoord een hoofdzakelijk adverbiale syntaxis, waardoor het functioneel-typologisch meer op een converb lijkt dan op een deelwoord (*cf.* Haspelmath 1995: 4). Door die functionele gelijkenis tussen het gerundium en het tegenwoordig deelwoord in het Laatlatijn vormt hun morfologische fusie in het Oudfrans een groot probleem voor hun categoriaal onderscheid. Een aanzienlijk deel van de Oudfranse -*ant*-vormen (38%) is namelijk categorisch onbepaald, d.w.z. onmogelijk te beschouwen als hetzij gerundia, hetzij tegenwoordige deelwoorden – zelfs als men aanneemt dat de twee vormen zich elkaars distributionele kenmerken niet toe-eigenen, noch in de overgang van het Laatlatijn naar het Oudfrans, noch tijdens de periode van het Oudfrans zelf. Daaruit (en uit andere theoretische overwegingen) kan geconcludeerd worden dat de morfologische fusie van de twee vormen in het Oudfrans ook leidt tot hun fusie op categoriaal niveau. Het voorgestelde etiket voor die categoriale blend is het louter formele label '-*ant*-vorm' (Fr. 'forme en -*ant'*), naar analogie met de term '-ing form', die vrij algemeen gebruikt wordt voor de equivalente vormen in het Engels.

Des catégories sous pression : le gérondif et le participe présent du latin tardif à l'ancien français

Résumé

Cette thèse étudie empiriquement l'évolution du gérondif et du participe présent en latin tardif et examine sur la base de cette étude l'impact de leur fusion morphologique en ancien français sur leur distinction catégorielle. Les résultats confirment l'hypothèse standard de l'évolution du gérondif et du participe présent en latin tardif, mais seulement en partie : ils soutiennent une spécialisation du gérondif dans la syntaxe externe de l'adverbe, mais pas du participe présent dans celle de l'adjectif. Ainsi, le gérondif montre des signes de « converbalisation », alors que le participe présent ne subit pas de processus de « participialisation ». Comme le gérondif, le participe présent a une syntaxe externe principalement adverbiale, et ressemble ainsi plus à un converbe qu'à un participe (*cf.* Haspelmath 1995 : 4). Cette similitude fonctionnelle entre le gérondif et le participe présent en latin tardif fait que leur fusion morphologique en ancien français pose un problème majeur pour leur distinction catégorielle. Une proportion considérable des formes en *-ant* en ancien français (38%) est catégoriellement indéterminée, *i.e.* non catégorisable comme des gérondifs ou des participes présents – même en supposant que le gérondif et le participe présent n'empiètent pas sur la distribution de l'autre, ni dans le passage du latin tardif à l'ancien français, ni durant la période de l'ancien français. Ce constat amène à conclure que la fusion morphologique du gérondif et du participe présent en ancien français entraine la fusion de ces deux types de formes verbales aussi sur le plan catégoriel. L'étiquette proposée pour ce blend catégoriel est purement formelle : « forme en *-ant* ».

Mots-clés : gérondif ; participe présent ; forme en *-ant* ; latin tardif ; ancien français ; catégorisation (morphosyntaxique)

Categories under pressure: the gerund and the present participle from Late Latin to Old French

Summary

This dissertation empirically investigates the evolution of the gerund and the present participle in Late Latin, and examines on the basis of this investigation the impact of their morphological merging in Old French on their categorial distinction. The results of this thesis confirm the standard hypothesis of the evolution of the gerund and the present participle in Late Latin, but only partly: they support a specialisation of the gerund in adverbial external syntax, but not of the present participle in adjectival external syntax. Thus, the gerund shows signs of 'converbalisation', while the present participle does not undergo a process of 'participialisation'. Like the gerund, the present participle in Late Latin has mostly adverbial external syntax, and is as such more converb-like than participle-like (*cf.* Haspelmath 1995: 4). This functional similarity between the gerund and the present participle in Late Latin makes that their morphological merging in Old French raises a major problem for their categorial distinction. A considerable proportion of all Old French ant forms (38%) is categorially indeterminate, that is, not categorisable as either gerunds or present participles – even under the assumption that the gerund and the present participle do not encroach on each other's distribution, neither in the transition from Late Latin to Old French, nor during the Old French period. This finding leads to the conclusion that the morphological merging of the gerund and the present participle in Old French causes these two types of non-finite verb forms to merge also on a categorial level. The label proposed for this categorial blend is the purely formal one '*-ant* form'.

Keywords : gerund; present participle; *-ant* form; Late Latin; Old French; (morphosyntactic) categorisation

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