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Constructions and halfly missed-grammaticalization:

A diachronic study of English posture verbs¹.

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Abstract

This article provides a diachronic constructional analysis of the three English cardinal posture verbs (hence CPVs) sit, stand and lie, based on two corpora covering the period of Early till Late Modern English (1500-1920). Contrary to their equivalents in typologically related languages, English CPVs have not grammaticalized into locative, progressive, or habitual markers nor have they grammaticalized into copulas. Based on a detailed diachronic analysis, the present paper argues that this is a story of "missed grammaticalization". Our corpus study has a double goal. First, it evaluates the degree of grammaticalisation in the earlier stages (as suggested by Lemmens 2014); secondly, it tries to find evidence for Newman's (2009) plausible hypothesis that the English CPVs did not further grammaticalise (or lost these uses) because of their increased use to refer to a dynamic event of getting into a sitting, standing or lying posture. This hypothesis seems to be mildly confirmed by our data with, however, some important nuances to be added, especially for lie. In addition, the data reveal that two (more strongly grammaticalised) copula constructions ([Subject + CPV + Adjective/Noun]) lingered on much longer, thereby constituting grammaticalised "islands", especially in idiomatic uses.

Keywords: *construction grammar, posture verbs, (missed) grammaticalization, Late Modern English, copular constructions*

1. Introduction

This article analyses the diachronic development of English cardinal posture verbs (henceforth, CPVs) *sit*, *stand* and *lie*. These three verbs are said to be cardinal since they refer to the three basic postures of human beings. In many unrelated languages, these verbs show considerable semantic extension and grammaticalisation patterns (cf., among others, Kvist-Darnell 2008, Serra Borneto 1996, Lemmens 2002, 2005a,

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Newman 2002, Newman & Rice 2006, or Van Oosten 1984). Newman and Rice (2006) provide a list of all grammaticalizations of 'sit', 'stand' and 'lie' attested across languages:

- SIT: progressive marker, present marker, habitual marker, copula, locative marker, concessive, counter-expectation marker ('not yet').
- STAND: (stative) progressive marker, durative marker, present marker, ingressive marker, copula, distributive marker, (motion) consecutive clause marker
- LIE : habitual marker, progressive marker.

As Newman & Rice point out, what is fascinating about CPVs is that “they enter into constructions which seem to have very little to do with either static configuration of a theme or its dynamic positioning” (2006: 352) and, in addition to referring to location, they have come to express more functional relations such as existence, tense/aspect, deixis, voice, classification, or social status (Newman 2002).

The Germanic languages illustrate such grammaticalised constructions quite nicely. For instance, in Dutch and the Scandinavian languages (but a bit less in German), the CPVs are used as basic locative markers for expressing the location of concrete entities in space, e.g., CUP (STAND) ON TABLE; CLOTHES (LIE) ON GROUND (cf., e.g., Lemmens 2002 on Dutch, Kvist-Darnell 2008 on Swedish, or Serra Borneto 1996 on German). Similarly, in these languages, the CPVs are used in as (semi-) auxiliaries to express the progressive aspect of an event, particularly in Dutch, e.g., *Ik zit maar wat rond te lopen* 'I just sit to walk around' = I am walking around; (cf. Lemmens 2005, 2015). However, English seems to be the odd one out in the family of Germanic languages, as it prefers the general verb *be* to express the location of entities in space (*The cup is on the table*) and also the progressive is built with *be + Ving*.² The special status of English in this regard is also remarked by Dunn *et al.* (2007). While their article is primarily concerned with locative verbs in four languages unrelated to the Germanic family (Saliba, Tiriyo, Chukchi and Lavukaleve), at the end of their article they mention the difference between Dutch and English:

In fact, if one compares English *sit*, *stand*, *lie*, and *hang* to [...] Dutch *zitten*, *staan*, *liggen*, and *hangen*, one is struck by the fact that the two sets of verbs are cognate and very close in meaning, yet the Dutch set forms

² See also Lemmens (2005b) on inter-Germanic differences in the use of posture verbs, relating them to motion verbs.

a real positional verb system, while the English set does not. It may be that languages like English, Saliba and Lavukaleve have a potential positional verb system, while Dutch [has] an actual positional verb system. (Dunn *et al.*, 2007: 189)

The question left unanswered by Dunn *et al.* is why English is different from the other Germanic languages as far as CPVs are concerned. This is the main research question that we address in this article. On the basis of a corpus-based study, we will investigate the use of the CPVs in the entire Modern English period (1500-1920) and will break this down into two more specific questions:

- (1) What was the degree of grammaticalisation of the English CPVs, especially in the earlier period? Based on OED data, Lemmens (2014) has shown that the English CPVs *were* used in patterns largely similar to those still found in Modern Dutch for example, but further confirmation of their entrenchment is still needed, which is what we aspire to offer here.
- (2) Can we find evidence for the demise of the grammaticalised uses of the English CPVs, notably when and why it occurred? In particular, we will compare the frequency of locative and copular uses of CPVs to that of the dynamic uses of these verbs, which Newman (2009) claims to be responsible for the demise.

In line with Himmelman (2004), our study considers the semantic bleaching and (possible) grammaticalisation of CPVs from a constructional perspective, where we not only take the syntagmatic environment into account, but also consider what larger effect it has on the grammaticalisation process as a whole. More particularly, via standard corpus linguistic methods, we evaluate the impact of the particle-less construction with CPVs (referring to dynamic situation) as the trigger of the demise of these verbs and the cutting short of their further grammaticalisation.

The article is organised as follows. First, in section 2, we will sketch the uses of the English CPVs in earlier periods, describing their evolution from postural to locational verbs, a form of semantic extension or bleaching (section 2.1), to even copular uses (section 2.2); we also discuss the three hypotheses that have been suggested by Lemmens (2014) to account for their demise (section 2.3). Next, in section 3, we will describe the corpora on which our study is based and the method of analysis. In section 4, we present our main findings with regard to their degree of grammaticalisation, notably by investigating two copula-like constructions

(CPV+Adjective, CPV+Noun) and their further diachronic development. As we will show, this is the story of a "missed grammaticalization"³.

2. The unexpected path of English Posture Verbs

2.1. From posture to location and beyond

On the basis of data from the *Oxford English Dictionary*, Lemmens (2014) shows that the English CPVs were used in contexts that are quite similar to those one still finds in contemporary Dutch or Swedish.⁴ More specifically, the English CPVs were amply used in locative contexts. In other words, next to postural uses referring to a human figure in one of the three postures, the verbs are attested in locative uses where the located element is an inanimate entity (as is still common in contemporary Dutch, for example). We cannot afford to give a full overview of all these uses here, but restrict ourselves to the major locative usages (and their motivations).⁵

In line with the verbs' prototypical meaning, referring to the three basic human postures, the basic opposition between *stand* and *lie* may at first sight seem to reside in the different ontological dimensions: *stand* refers to entities that are saliently vertical (similar to standing humans), whereas *lie* is used for entities that are saliently horizontal (in analogy to a lying human being). *Sit* would in this respect be neither horizontal nor vertical. However, while this holds for some cases, this is only partially correct, since in many contexts, it is not the real dimensions that play a role.

For example, similar to what one finds in contemporary Dutch, in earlier stages of English, *stand* is used to refer to objects placed on their base (analogous to human feet) and thus also in a functional position. Here are some examples of such older uses.⁶

- (1) Textrina,. ... a weauers shop or workehouse where his loomes *stand*. (1585, Higins Junius Nomencl. 183/2)
- (2) The Black Swan in Holborn where the Alisbury and other coaches *stand*. (1665, in Verney Mem. II. 241)
- (3) Some food *stood* on the table. (1818, Scott Hrt. Midl. xvii)

³ Translation of "grammaticalization r  t  e" (Lemmens 2014).

⁴ Lemmens (2014) focuses primarily on the uses of *stand*; the present discussion also considers *lie* and *sit*.

⁵ As the electronic version of the OED was used, any attestation with these three verbs has been extracted, not just those given in the respective lemma entries. The resulting data set contains in total 1,577 attestations (356 for *lie*, 436 for *sit*, and 785 for *stand*); this article will only consider these from a qualitative perspective.

⁶ Reference to the source of the example is taken over from the OED 'as is'.

In the last example, we have a straightforward case of metonymy, it is not the food but the receptacles in which is kept that are ‘standing’. Such uses are extremely common in Present-Day Dutch.

In short, the use of *stand* (as opposed to *lie*) can often be explained in terms of BE ON ONE’S BASE, where the base is the origin of a mental vertical scanning operation (cf. also Serra-Borneto 1996). The idea of an entity resting on its base also motivates the (older) use of *stand* to refer to plants that grow upward from their roots (=base), as in the following examples.⁷

- (4) a. I haue seene many trees *stand* so thicke... (1618, W. Lawson New Orch. & Gard. viii. (1623) 22)
b. If fyer ... cacche ... the corn *stondynge* in feeldis. (1382, Wyclif Exod. xxii. 6)

The mental scanning “away from the base” that underlies such uses, allows an image schematic transformation, i.e., rotation, where the base is no longer the lowest point and the mental scanning can be in any direction (i.e., not just vertical) as illustrated in the following example, where the scanning is going sideways:

- (5) His mustachies ... *standing* as stiffe as if he wore a Ruler in his mouth. (1592, Greene Defence Conny-catching Wks. (Grosart) XI. 72)

The semantic extension from “human being on feet” to “object on base” to “scanning away from origin” can be represented as in Figure 1 below (reproduced from Lemmens 2014):

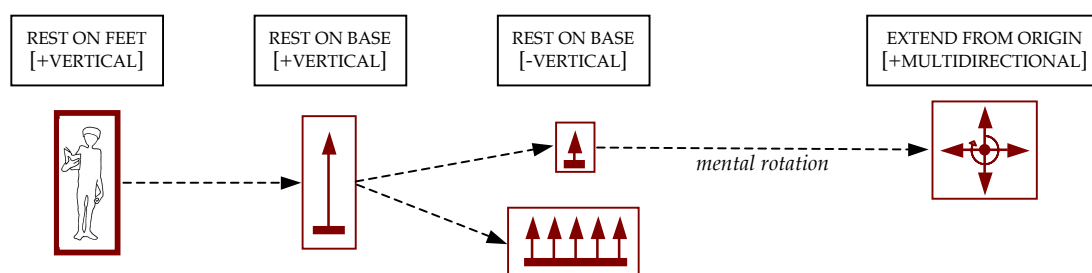


Figure 1: Simplified schematic network for stand

Another extended use of *stand* is its reference to a human or any other entity being in its functional position, a usage that can be related back to a human on its feet and thus being in its most functional position (as can also be said to be the case for objects on their base). In example (6), for example, the actual orientation of the sword is

⁷ Most likely, this usage underlies Present-Day English *a stand (of trees)*.

irrelevant, what *stand* expresses is that it is in a functional position; similarly, the use of *stand* in (7) express first and foremost the functional position of the fleet, ready to attack.⁸

- (6) þe suerd o soru thoru hir *stode*. (a1300, Cursor M. 11371)
 (7) The Roman fleet ... **stood** right across the Mediterranean to the nearest point of Africa. (1978, R. B. Smith Carthage 107)

In short, counter to what may often be thought intuitively, it is not the real vertical dimension of the entity that is central to a coding with *stand*, but the presence of a base and the functional position that is associated with it. The real dimensions come into play only in the absence of a base, for entities that display a (salient) difference in height and width. A book, for example, does not really have a base; if it is in an upright position (on its smallest side, like in a bookshelf) *stand* could (can) be used, whereas *lie* will be used if it is on its front or its back, as shown by the following contrastive pair:

- (8) a. My eye caught the title of a book *standing* open in a bookseller's window.
 (1866, Crown of Wild Olive)
 b. A Sawter..and an Hympner ... *lyggynge* in his saide closet. (1459, Test. Ebor.
 (Surtees) II. 227)

Strikingly, in Present-Day English the verb *sit* rather than *stand* is often used to express the location of objects on their base (Newman 2002 calls this "inactivity *sit*") where Dutch would use *staan*; English *stand* can be used as illustrated by the following contrasts (Internet examples):

- (9) a. ... the car *stood* in the dealer's yard ... / ... the car port under which the car was *sitting* ...
 b. The plate *stood* on the upper shelf ... / The plates were *sitting* on the table.
 c. The laptop *stands* on a separate table / ... the desk on which the laptop *sat*.

However, Newman considers such uses of *stand* to be "rather stilted, more literary than colloquial, a little pretentious almost" (Newman 2002:9).

⁸ See also Gibbs *et al.* (1994) and Gibbs (2002) for such more metaphorical uses of (Present-Day) English *stand*.

The contemporary use of *sit* is quite different from its earlier usages. The verb used to be used refer to the location of smaller animals such as frogs, birds, insects and serpents:

- (10) All maner of fowlys that *syt* in trees. (1486, Bk. St. Albans d ij b)
- (11) þe were icundere to one frogge þat *sit* at Mulne vnder cogge. (c1250, Owl & Night. 86)
- (12) How the Bee *Sits* on the Bloom. (1667, Milton P.L. v. 25)
- (13) Wormes and serpentes on hem *seeten*. (13., Pains of Hell (Vernon MS.) 217)

Strikingly (again), these uses find a perfect equivalent in contemporary Dutch where *zitten* 'sit' is to be used. The posture of birds and frogs (and rabbits and mice) arguably resembles that of a crouched human being (=sitting with legs bent); insects and legless creatures are close to the ground and can therefore be coded with *sit* (if they are said to be lying, they are dead).

One of the common extended uses of *sit* one finds in the older English data (but also, significantly again, in contemporary Dutch) is where it refers to "being in a fixed position" or "being (closely) contained"; here is a selection of such (older) uses of *sit*, including some metaphorical extensions:

- (14) Which Ring .. where it on a finger *sat* [etc.]. (1390, Gower Conf. II. 23)
- (15) Slots must be cut in the bottom half of them [sc. the horizontal pieces] where they meet the posts, so that they will *sit* nicely. (1958, Listener 28 Aug. 309/3)
- (16) Mark you what spirit *sits* in St. Johns eyes? (1821-2, Shelley Chas. I, ii. 34)
- (17) It wole make hise heeris longe & make hem *sitte* faste. (c1400, Lanfranc's Cirurg. 188)
- (18) A Coat that *sits* close to the Body. (1687, Miége Gt. Fr. Dict. ii. s.v.)
- (19) My sekenes *sat* ay so nigh my herte. (c1402, Lydg. Compl. Bl. Knt. 18)

Finally, also the verb *lie* could be used in a wider range of contexts than in contemporary English (even if here more uses seem to have been preserved, cf. also below). In addition to the use for entities not on their base (typically but not necessarily having an orientation that is more horizontal than vertical) already mentioned above, the verb was used to express the location (i) of round or symmetrical objects, as in example (20); (ii) of saliently elongated or horizontally extending entities like roads, bridges, and metaphorical extensions thereof, such as

lines or frontiers, as in the two examples in (21); and (iii) of substances that readily assume a horizontal extension under the force of gravity, as in the examples in (22).⁹

- (20) To make them buy their currantes (which *lay* vpon their handes) (1628, Digby Voyage Medit. (1868) 68)
- (21) a. The counties through which the road to London *lay*. (1849, Macaulay Hist. Eng. x. II. 567)
 b. There *lies* your way. (1596, Shakes. Tam. Shr. iii. ii. 212)
- (22) a. His blod on erth sced *lijs*. (a1300, Cursor M. 1129)
 b. Delicate persons, in whom the cold water tends to *lie* heavy on the stomach. (1897 Allbutt's Syst. Med. III. 704)

That round or symmetrical are coded with *lie* finds its explanation in the absence of dimensional differentiation (cf. Serra Borneto 1996); in other words, there is no opposition between vertical and horizontal (except when they have a base and functional position, which triggers a coding with *stand* if resting on their base). The absence of dimensional differentiation may also be the explanation for why *lie* is used to talk about abstract entities (a usage that continues till the present-day, cf. below):

- (23) We could not for a moment expect such indications to *lie* upon the surface. (1879, S. C. Bartlett Egypt to Pal. v. 99)
- (24) If the choice *lay* only between a tax on property and a tax on income. (1845, McCulloch Taxation i. iv. (1852) 109)

Another common use of *lie* is in reference to the locations of for cities, villages and the like where the verb designates their horizontal extension; Serra Borneto (1996) has termed this usage “geotopographical location” (cf. also Lemmens 2002; Lemmens & Perrez 2010 for examples of this use for Dutch *liggen* ‘lie’), illustrated in the following example:

- (25) We landed at a small port-town called Xamoschi, situated on the south-east part of Japan; the town *lies* on the western point [...] (1726 Swift Gulliver's Travels)

⁹ The expression *iets op z'n maag hebben liggen* ‘have something lie on one's stomach’ is quite common in contemporary Dutch, in reference to food that does not digest very well (as in the English example here) as well as in metaphorical use, referring to problems or issues that one has difficulty “digesting”.

The older data also provides interesting cases of coding variation for the location of towns and cities, as in example (26) below, but also for other entities, such as celestial bodies, example (27), or the wind, example (28).

- (26) a. The evylle Town, that *sytt* toward the ende of Hungarye. (c1400, Mandeville (1839) i. 7)
b. The toune *standeth* lowe, and the Ryver passeth thorough. (1548, Hall Chron., Edw. IV, 233 b)
c. The which tenement *syttyth* and *lyyth* by ye tenement of John Clerk. (1504, Bury Wills (Camden) 102)
- (27) a. The same wyse maistouzen..wheither the sterre *sitte* est or west or north. (c1391, Chaucer Astrol. ii. §33)
b. And the sunne and the mone *stoden*, to the tyme that [etc.]. (1382, Wyclif Josh. x. 13)
- (28) a. If the winde *stande* in that doore, it standth awry. (1546, J. Heywood Prov. (1867) 56)
b. When the wind *sitteth* West, it is alwaies rain. (1610, Holland Camden's Brit. 587)
c. When the East wind began to *lie*, which for certeine daies had blusted and raged. (1600, Holland Livy xxv. 569)

The different codings each impose their own conceptual imagery on the same reality. For the location of towns or cities, a coding with *lie* expresses its geotopographical location; the coding with *stand* situates the town's location on a vertical dimension (*stands lowe*), that with *sit* highlights the idea of the entity being fixed or contained. A similar motivation can be suggested for *sit* to express the location of the celestial bodies in example (27); *stand* can be interpreted as either expressing the idea of the vertical elevation of the celestial body ("standing high in the sky") or that of a halted movement, in which case the entity finds itself in its canonical position (like a human standing on its feet when the activity walking has been halted). In (28a), the coding with *stand* talks about the wind being active (=functional position) and possibly refers to its direction (a mental scanning away from its origin), *sit* in (28b) highlights its (fixed) location, and *lie* in (28c) refers to it no longer being active.

2.2. From location verb to existential copula

As already mentioned by Newman and Rice (2006), in several unrelated languages, the verb STAND has grammaticalized into a copula and/or existential marker. In the Germanic languages, for instance, existence is expressed through prefixed forms of STAND, e.g., Dutch *bestaan* (from *staan*), German *bestehen* (from *stehen*), and Swedish *bestå* (from *stå*). Lemmens (2014) argues that STAND, being the canonical position for both human entities and inanimate entities resting on their

bases, is the default position for human beings, which motivates the grammaticalization towards an existential copula where both the postural and the locational semantics have completely disappeared. Our historical corpora reveal traces of such a grammaticalization for English *stand*, as in *[He] stood Godfather to my little Girl that is now in her Mother's Arms. (1710-1780)*. This situation could also have been expressed by the neutral verb *be* (preferred coding in present-day English). Under the assumption that any difference of form implies a difference of conceptualization, Lemmens (2014) states that the use of *stand* as an existential copula emphasizes prolonged existence, whereas *be* expresses mere location and existence.

This semantic difference is also reflected in grammaticalisation patterns in other languages, such as in Spanish and French. In Spanish, *estar* which is the "contingency state *be*" (Comrie 1976:102), is derived from Latin *stare* 'stand' which in Spanish has developed into an auxiliary referring to being somewhere temporarily. In the same way, in French, Latin *stare* 'stand' is still present in some forms of *être* 'be': the imparfait allomorph ET- (*étais, était, étions*, etc.) and the infinitive form *être* all come from the basis **eter* (<*ester*<*estare*<*stare*) (Lemmens, 2014:11). In the grammaticalization process, both Spanish and French have lost all traces of the semantics of positional STAND in their usage as a copula. By contrast, in English, the uses of *stand* resembling such a copula are still well-tinted with prototypical anthropocentric standing posture and the idea of maintaining one's position, or that of resistance and endurance, as part of the verb's "existential cluster" as Newman has it.

From a constructional point of view, the copular construction can be summarized as a form-meaning pairing, the constructional schema of which Petré (2012) characterizes as [*SubjNP_{NOM}* + *Copular Verb* + *SubjCompXP_{NOM}*]; the subject complement can be introduced by a preposition (but this is not always so) and is formed of an adjective or a noun, both in the nominative case. Petré defines the meaning of the Copular Construction as follows: "The construction predicates a non-eventive Subject Complement of a non-agentive Subject, and adds tense and aspect to it through Copular Verb" (Pétré 2012:30). The qualifying adjectives occurring as the Subject Complement conform to the idea that the Copular Construction does not designate an action but a state or change of state. Concerning the Copular verb itself, Petré argues that it must have only one participant in terms of the event structure it evokes when it is *not* used in the Copular Construction. In other words, for a verb to fit well in the copular verb slot, it has to have the potential to be used intransitively. Consequently, verbs of (intransitive) motion, growth or position are perfect candidates for such Copular Constructions. While the posture verb *stand* is much

more common in this use in (older) English, copula-like patterns have also been attested in our corpora for *sit* and *lie*. On the basis of Petré's (2012) list of criteria according to which an intransitive positional verb can potentially evolve into a copula, all three verbs can thus be attributed a copular status when occurring in this constructional frame.

Petré distinguishes three subtypes of the more schematic Copular construction given above: (i) the *Nominal Copular Construction* [*SubjectNP* + *CPV* + *SubjCompNP*], as in example (29a) below; (ii) the *Adjectival Copular Construction* [*SubjectNP* + *CPV* + *SubjCompAdjP*], illustrated in (29b); and (iii) the *Prepositional Complement Construction*¹⁰ where the Subject Complement is introduced by a preposition, as in (29c).

- (29) a. I *stood* a calm spectator of the flames. (*stand*, 1710-1780)
b. You *stand* amazed at this preamble. (*stand*, 1710-1780)
c. I *sit* as a criminal judge on acts of his. (*sit*, 1710-1780)

In short, we consider these Copular Constructions as the most grammaticalised patterns attested in English; as we will show below, they do provide an interesting test case to trace the evolution of English CPVs throughout the Modern English period (1500-1920).

While the presentation above does not provide a full account of the rich semantic extensions of the English CPVs in earlier periods, it clearly emerges that they were used in ways that sound quite unfamiliar (or even plainly unidiomatic) to a speaker of contemporary English, while they sound perfectly natural to a speaker of contemporary Dutch. In other words, these data clearly suggest that at the time English was most likely not all that different from the other Germanic languages in its use of CPVs as basic locative verbs used to express the location of any entity in space as well as in metaphorical extensions thereof, and even in copular uses.

Even if the OED data quite convincingly reveal the more extended and even grammaticalised use of the English CPVs, further *quantitative* support is needed to confirm their entrenchment as basic locative verbs; this is precisely what we offer in section 4 below. However, before turning to these results, we present the hypotheses that have been suggested to explain the demise of the English CPVs.

¹⁰ This last construction is to be contrasted with the locational construction analysed in the previous section which presents two participants, the Figure -participant 1- being located in space in respect to the Ground -participant 2-. Petré states that these similarities are due to the fact that prepositional copular constructions probably develop out of locational constructions. (Petré 2012:32)

2.3. Possible causes for the demise of English posture verbs

If it is indeed the case that the English CPVs had more extensive uses in earlier periods, where especially the locative uses stand out to the contemporary speaker, then English must somehow have lost these along the way. Lemmens (2014) has suggested three different explanations for the ‘demise’ of the English CPVs.

The first hypothesis is that the posture verbs have disappeared under French influence. As is commonly known, English has borrowed massively from French, including verbs relating to either motion or location, such as *enter*, *exit*, *place*, *situate*, etc. These verbs do not fit the Germanic pattern very well, since they express the path (or location) in the verb when Germanic language typically express the path in a satellite (hence, Talmy’s 2000 characterisation of English as a satellite-framed language). This hypothesis is quite unlikely, as it suggests that only the location verbs but not the motion verbs were affected. In addition, as the OED data as well as those from our corpus show, the posture verbs were still used as locative verbs long after the French influence.

The second hypothesis suggested by Lemmens (2014) is that the demise of the posture verbs is due to important changes in the English aspectual system, notably the rise of the *-ing*-form.¹¹ As a rule, in contemporary English state verbs cannot occur in the *ing*-form, yet the CPVs form a notable exception to this: the CPVs can be used in the *ing*-form to denote a temporary situation (e.g., *She was sitting on the sofa*) while the base form is used for more permanent states (e.g., *The statue stands in the park*). The hypothesis (still to be evaluated empirically) is that at the time the *ing*-form came into being, its semantics was in conflict with the static semantics of the CPVs, disfavouring their use in locative contexts. The other Germanic languages have *not* developed an equivalent to the *ing*-form and the CPVs cannot occur in the alternative progressive constructions (cf. Lemmens 2005a, 2015).

The third, and possibly most plausible hypothesis, is drawn from Newman (2009:46):

The English posture verbs, to the extent they develop locative meanings, do so in relatively limited ways and it may be that the fluctuation in action/state interpretations of these verbs is relevant to understanding the limited nature of this type of extension.

In other words, Newman attributes the non-grammaticalization of English CPVs to a double yet opposite development of these verbs: they come to express the inchoative

¹¹ This hypothesis was suggested to M. Lemmens by Jaqueline Guéron (personal comm. 20/09/2003).

aspect *without* the expected particle expressing the path of motion (*down* for *sit* and *lie*, *up* for *stand*); at the same time, the verb-particle combinations themselves begin to be used to refer to a static situation (e.g., *sit down for hours*). Also here, English differs from the overall tendency found in the Germanic languages. As pointed out by Talmy (2000) the expression referring to the dynamic interpretation (“getting into a state”) is derived from the static expression via the addition of particles (*stand* > *stand up*; *sit* > *sit down*; *lie* > *lie down*). According to the Oxford English Dictionary, the particle appears in Late Old English but only regularized in Middle English when the phrasal verb system fully established itself (Brinton and Traugott 2005:123-125). However, in Present-Day English, the use of the particle with CPVs is not as delineated as it seems to be at first sight. Yamagushi and Newman (2002) notice that, for *sit*, it is still possible to have a state interpretation with *down* (which we will call the “augmented” CPV construction) or a dynamic interpretation without *down* (which we term the “bare CPV construction”). A similar observation holds for the two other CPVs as well. The differentiation between static and dynamic meanings is clearer in other Germanic languages where there is a sharp differentiation with two distinct lexical items or constructions. In German and Swedish, for example, the intransitive *sitzen/sitta* ‘sit’ refers to the state sense, while the transitive reflexive *sich (hin)setzen / sätta sig* (litt. ‘set yourself (down)’) refers to the dynamic sense.¹² Similarly, in Dutch intransitive *zitten* ‘sit’ refers to the state, *gaan zitten* (litt. ‘go sit’), to the inchoative.

It is particularly the development of the dynamic meaning of particle-less *sit*, *lie*, and *stand* that, as Newman has it, has prevented the English CPVs from developing into basic locative verbs. While promising, the empirical study he provides in support is based on only one of the three cardinal posture verbs (*sit*) in a small and fairly non-representative corpus (the King James' Bible). Nevertheless, as Newman's hypothesis seems to be the most plausible of the three hypotheses that Lemmens (2014) has suggested, we have taken this one as the starting point of our study which aspires to offer more reliable empirical evidence, based on a careful analysis of the three verbs in a much larger corpus.

3. Corpora and method

Our study analyses the usage of *sit*, *stand* and *lie* in two different corpora covering the period of Modern English. The first corpus is the *Penn-Helsinki Parsed Corpus of Early Modern English* (PPCEME) (cf. Kroch *et al*, 2004). Gathering 1,8 million words,

¹² Notice that in contemporary English ‘set’ is no longer the causative equivalent of *sit*, whereas in German and in Swedish (and partially in Dutch) the intransitive/transitive pairs continue to exist. See Lemmens (2006) or Gullberg (2009) for a more detailed discussion of the causative verbs in Germanic languages.

the corpus covers the period 1500-1710 divided in three 70-year periods. The second corpus is the *Corpus of Late Modern English Texts*, version 3.0 (cf. Diller *et al.* 2011). This corpus contains 34 million words and covers the period from 1710 to 1920, also divided in three 70-year periods: 1710-1780, 1780-1850, and 1850-1920. While different in size, the two corpora are balanced with respect to genre. All attestations have been extracted using the free concordance programme *AntConc*¹³; via regular expressions our queries have covered all possible inflected forms of the verb, i.e. infinitive, third person singular present, simple past, and present and past participle as well as all variant forms of these attested in the OED for Early Modern English, such as *lyeth, ligge, sitten, syteth, stoud, standith*. In total, for the three CPVs, there were 3,248 attestations in the PPCEME and 47,675 attestations in the CLMET. Given the small size of the PPCEME, all the attestations from this corpus have been coded for our analysis. However, to keep matters manageable, we have restricted our detailed analysis for the Late Modern English corpus (CLMET) to a random selection of 500 occurrences for each verb for each period.¹⁴ This gives a total of 1,500 sentences for each verb for the whole period and a grand total of 4,500 sentences.

Some of the attestations extracted via *AntConc* were incorrect, as they did not contain a CPV but a homographic form, such as the Latin word *sit* (inflected form of *esse* 'be'). Also, for *lie*, there is the confusion with the agentive form *lay* homophonous with the past tense form of *lie*, with the noun *lie* meaning 'falsehood', and with the corresponding verb *lie* ('not tell the truth'). Similarly, the regular expressions (in the query for *stand*) also retrieved attestations with *staid* (= stayed). All of these undesired attestations were manually removed. For the CLMET, each such incorrect attestation deleted from the random selection was replaced by the next attestation in the random list for the verb in question, such that the total of 500 attestations per verb per period was preserved. Once all the noise removed, we had for the two corpora and for the six periods 1,895 attestations for *sit*, 2,603 for *stand*, and 2,405 for *lie*. These attestations were subsequently annotated in a spreadsheet according to eleven different parameters, the most important of which are the type of Figure (human, inanimate, concrete or abstract), the usage of the verb (positional, locational, metaphorical), the presence of a Ground specification (for location events), the presence of a noun or an adjective and, most importantly for testing Newman's hypothesis, the presence of the particle (for the positional uses only).

The different parameters allow us to take a more constructional view on the uses of the CPVs. This article will mainly be concerned with three types of constructions:

¹³ <http://www.laurenceanthony.net/software/antconc/>

¹⁴ The random selection was made by assigning a random number to each sentence (using the *Random* function in Excel) and then sorting the sentences in decreasing order; the first 500 were subsequently selected for further analysis.

1. The **positional construction**, i.e. *Subject + CPV + (particle) + (locative complement)*, such as instantiated by *We sat down (at the feast)*. As the name suggests, this usage refers to the posture of a human Figure where the expression of the Ground (i.e., a locational complement) is optional.
2. The **locational construction**, i.e., *Subject + CPV + locative complement*, e.g., *The student's desk stood by the window*. The Figure is the entity (animate or inanimate) being located in respect to a second entity, the Ground which could be, like the Figure, either concrete or abstract. If either the Figure or the Ground is abstract, then we talk about "metaphorical location", as illustrated by *Dismay sat in every countenance*.
3. The **copular construction**, which can either be nominal (*Subject + CPV + Noun*, e.g., *[He] stood Godfather to my little Girl*) or adjectival (*Subject + CPV + Adjective*, e.g., *Convention Committees sit supreme over them*).

The construction in which the CPV occurs helps us to decide which use of the CPV it is (positional, locational, metaphorical, copula-like use), even if there is no systematic correspondence and a particular construction cannot be exclusively associated with one particular use of the CPV use. However, as we will see, such a constructional view gives a more accurate and a more nuanced view on the (non-)grammaticalisation of the CVPs compared to an analysis which exclusively hinges on the semantics of the CPV itself. The three constructions as listed above can actually be seen as building a cline of grammaticalised use, the positional construction being not a non-grammaticalised use of the CPV whereas the copular constructions are the most grammaticalised.

Unfortunately, for the period of Early Modern English within the PPCEME, the attestations with a positional use of the CPVs was too small to test Newman's hypothesis. For this particular part of the study (presented in section 4.3 below), an additional corpus was used for this period, the EEBO corpus¹⁵, from which 756 occurrences with postural meaning were coded for *sit*, 294 for *stand*, and 206 for *lie*. This extra corpus was only used for the testing of Newman's hypothesis.

4. Results

The two main research questions that our corpus study addresses are: (i) What was the degree of grammaticalisation of the English CPVs, especially in the earlier periods? and (ii) Can we find evidence for the demise of the grammaticalised uses of the English CPVs, notably when and why it occurred? This section presents the

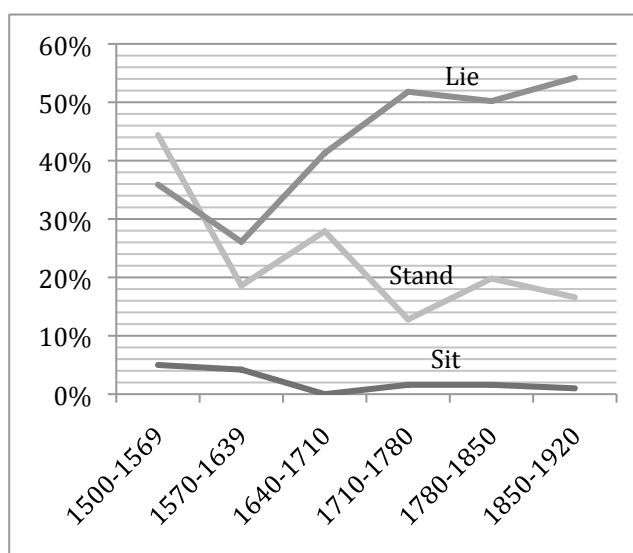
¹⁵ Developed by P. Petré (2014), the Early English Books Online corpus counts 525 million words covering the period 1474-1700. Though the corpus has its own concordancer, AntConc was used as for the other corpora.

results of our corpus analysis in answer to these questions. In the first subsection (4.1), we look at the locative uses of CPVs over the different periods, to establish their status as basic locative verbs and how those uses have evolved over time. The more interesting case study, however, is that of copular constructions as the most grammaticalised uses of CPVs (section 4.2) which we will analyse from both a quantitative and qualitative perspective. The last section (4.3) will empirically evaluate Newman's hypothesis for the demise of CPVs in English, by aligning the frequency of the dynamic uses of bare CPV constructions with that of the grammaticalised copular uses.

4.1 Locational uses

While Present-Day English tends not to use CPVs to express the location of entities in space but prefers the neutral verb *be* (a striking contrast with Dutch where the use of CPVs is fairly much obligatory), these verbs can nonetheless be used to static location. However, as said, such codings with CPVs are perceived as formal, odd or unnatural. As suggested above, English used to employ CPVs to express static location events much more frequently in earlier periods than it does today. This clearly suggests that there must have been a progressive decline of such locational uses of CPVs; as such, they can be said to have (unexpectedly) missed further entrenchment as basic locative verbs, also blocking any further grammaticalization.

The graph below presents the frequency of the locative uses of CPVs over the different periods covered by our corpora.



Graph 1 Evolution of the locational construction

As this graph shows, *sit* has always been very restricted in its use in the locational construction compared to the two other CPVs; nonetheless its decline is noticeable

from 1500 down to 1920 with a sharper decrease in the 17th century. A similar trend, but more noticeably, has occurred for *stand*; while overall the evolution is a clear descent there are two small peaks for this verb, one in the second half of the 17th century and one about a century later. The data does not reveal any particular reason for these peaks (such as possibly high frequency of particular idiomatic uses), which means we cannot exclude it being an effect of the data sampling. Quite strikingly, *lie* displays a different evolution as the locational construction markedly increases over time. A closer look at the data reveals that *lie* got entrenched in its metaphorical locational use with abstract Figures or Grounds. Allowing a wide range of abstract inanimate entities, *lie* is in fact the most metaphorical of the three verbs (as is also the case in Dutch). It has continued such metaphorical uses up till the present day, such as in:

- (38) The difficulty *lies*, as it always does, on the border lines between the respective spheres of influence: Logic and Faith. (Lie, 1850-1920)
- (39) Those were the men whom, if the choice had *lain* with him, he would have wished to command. (Lie, 1850-1920)

While some data sampling effects cannot be fully excluded for the intermediate periods, the data do reveal that the locational uses were fairly entrenched in the earlier periods, but that they declined in the evolution to Present-Day English, with metaphorical uses of *lie* being a clear exception to the overall trend.

4.2 Copular constructions

4.2.1 Quantitative analysis

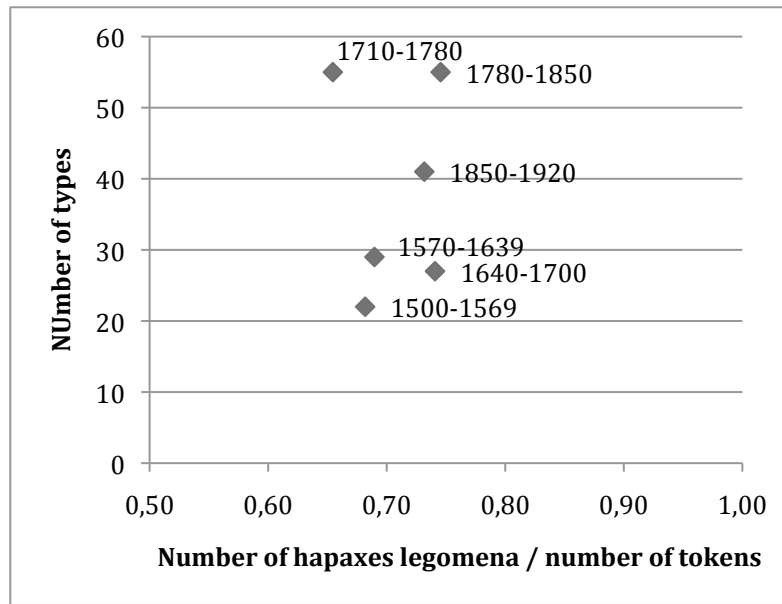
Following the assumptions of Construction Grammar, we can measure the degree of entrenchment of a certain construction by its degree of productivity. Under this view, we can establish the degree of grammaticalisation of CPVs by measuring to what extent they could be used productively in the Modern English period in the most grammaticalised construction, the copular construction. A method for measuring productivity has been suggested by Baayen and Lieber (1991) which is to dividing the number of *hapax legomena* (types that occur only once in the sample) by the total number of tokens; the underlying assumption is that hapaxes can be taken as indications of the degree to which a construction is open to new uses ('one off' cases). In other words, the higher the number of hapaxes compared to the total number of tokens, the higher the productivity rate. However, this productivity rate is not enough since in our diachronic perspective, we also want to measure the increase of decrease of types (in our case, that of the Subject Complement Phrase) over the different periods. The more types a construction has, the more productive it is, and

the more entrenched it may be. Following the method suggested by Petré (2012), the productivity of the construction can be represented in a graph which combines these two productivity indexes (which gives what Baayen (1992) has called the *global productivity*): the Y-axis presents the number of types, the X-axis, the productivity rate (number of hapaxes divided by the total number tokens).¹⁶

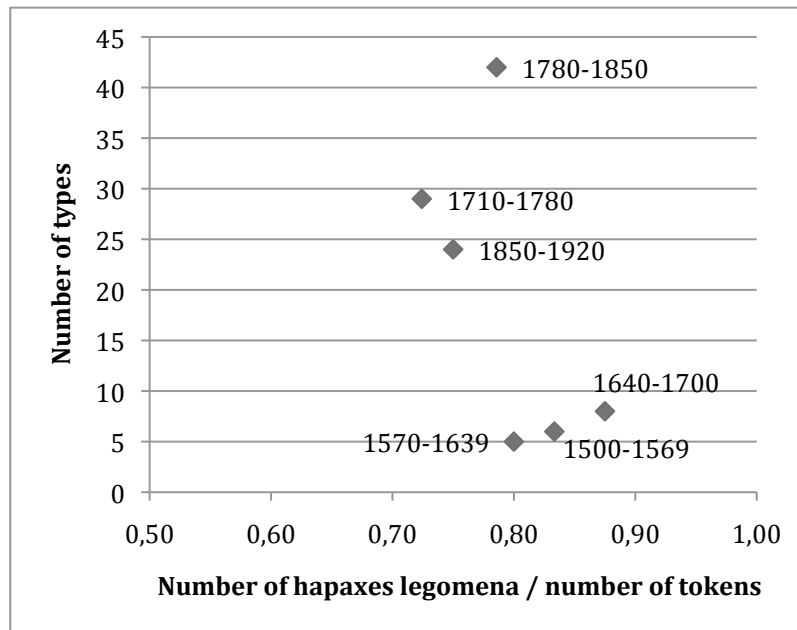
The following graphs show the productivity for each CPV in the adjectival copular construction; a similar analysis of the nominal construction was not possible because of too low frequencies. A cluster of points in the top right hand corner reflects high productivity as it implies a high number of types and a high productivity rate, a cluster in the top left hand corner reveals less productivity with a high number of types but with all types occurring only once. In fact, if the X value equals 1, this means that the construction's types are all *hapaxes*. Turning to the results for the CPVs, we see that the values for *sit* are closer to 1 than those for *stand* and *lie*. The Y-axis shows that as for the number of types, *stand* and *lie* are much higher, whereas *sit* shows fewer types.

Analyzing the evolution of the productivity index for each CPV in the graphs is to be done carefully since the two corpora, 1500-1710 and 1710-1920, are not of the same size. This is reflected in our graphs by two subclusters: one for Early Modern English, logically lower in types because of the reduced size of the corpus, and one for Late Modern English, higher on the Y axis because of the larger size of the corpus. Therefore, the two corpora are to be interpreted independently with respect to the Y-axis, but can be interpreted together for the X-axis whose value has been rescaled to a range between 0 and 1.

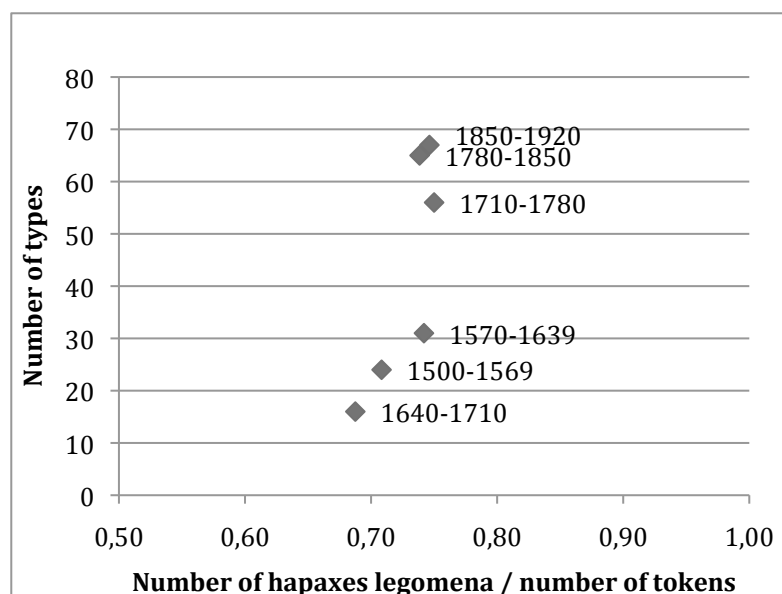
¹⁶ See also Schröder (2011:51ff) and Barðdal (2008:24ff) on these measurements of productivity.



Graph 2 Global productivity for [SubjectNP + stand + SubjCompAdjP]



Graph 3 Global productivity for [SubjectNP + sit + SubjCompAdjP]



Graph 4 Global productivity for [SubjectNP + lie + SubjCompAdjP]

A number of conclusions can be drawn from these calculations. Firstly, for *stand*, both in Early and Late Modern English, the number of types decreases and so does the productivity rate over the two corpora. Such evolution suggests a fixation or consolidation of some collocations; this will indeed be confirmed below by the qualitative analysis. Secondly, for *sit*, in Early Modern English, the number of types increases and the productivity rate increases as well. In Late Modern English, there are fewer types but productivity rate increases. Yet, globally for both corpora, the number of hapaxes decreases. This confirms the same tendency as for *stand*, viz. that some adjectives might form fixed collocations with the CPV and remain used throughout the years. Finally, for *lie*, in contrast, the X-value increases across the two corpora; while the number of types decreases in Early Modern English, it slightly increases in Late Modern English. This suggests that *lie* allows a wide range of adjectives but that they are not recurring enough to form fixed expressions. All these hypotheses need to be confirmed by a close qualitative analysis of the copular constructions, given next.

4.2.2 Qualitative analysis

For the adjectival copular construction, all the adjectives have been categorized based on their semantics. There are three categories: (i) locational adjectives (e.g., *deep*, *high*, *near*, etc.) specifying the location in space of a Figure; this category also contains relator adjectives (e.g., *close to*, *next to...*); (ii) adjectives pertaining to motion or the absence of it, which brings about a positional view of the event (e.g., *tight*, *firm*, *still* when in post verbal position, cf. Maizak 2002); (iii) all the other adjectives. This article exclusively focuses on the third category of adjectives, since being least tied to positional or locative semantics, they are most interesting for measuring the degree

of grammaticalisation. A close analysis of collocates reveals that there are indeed clusters of use directly linked to what Newman (2002) has called the experiential clusters associated with each of the verbs, as further illustrated below.

Right from Early Modern English on, *lie* co-occurs with adjectives referring to WEAKNESS such as *oppressed, sick, weak, prostrate, bedrid, concealed, or helpless*. There is also a cluster around LETHAL HARM or DEATH, e.g., *buried, dead, breathless, bloody, wounded* ('wounded'). Another cluster is linked to INACTIVITY with adjectives such as *asleep, idle, dormant, flat, becalmed, unactive*, with *asleep* and *idle* being the recurring collocates. There are also some other fixed expressions in our corpora such as *lie open* with inanimate Figures as in *The Oracles of God lie open to us* (Lie, 1640-1710, 116). This construction is also found with *stand*.

For *stand*, there is also a whole cluster of adjectives directly linked with the concepts of POWER and DOMINANCE that are frequent right from the Early Modern English period as well, e.g., *victorious, inflexible, rooted, invested, infallible* (sic.), *secure, armed, proudest, or firm*. *Stand* is also associated with RESISTANCE as reflected in our corpus with the recurring construction *stand fixed in X*, with X being *thought, silence, or meditation*. This idiomatic expression is of great interest since it combines the notion of RESISTANCE with that of INACTIVITY of the X slot components usually not associated with a standing position which requires physical action.

For *sit*, two adjectives that appear several times in the adjective slot in Late Modern English are *pensive* and *attentive* which can be linked to the idea of INTELLECTUAL ACTIVITY that is typically associated with this verb (cf. Newman 2002). CONTAINMENT-*sit* (cf. above) is also found in adjectives such as *absorbed in reflection, shrouded, or framed*. Surprisingly, from the Early Modern English period onwards, *sit* also collocates with adjectives that one would a priori associate with *lie* and that express INACTIVITY and WEAKNESS like *idle, sad, breathless, composed, abashed, confounded, desolate, or disordered*; similar ones have also been attested with *stand* (*fearful, indicted, repealed, sick, aghast, astonished, confused, and defenceless*). This shows that the three CPVs share the semantic domains of WEAKNESS and INACTIVITY while intuitively one would not expect this at all. In fact, there is a whole set of adjectives for each CPV which do not share any semantic features (or very little) but which can collocate with two or three CPVs, as is the case with motion and location adjectives. For instance, *sit/stand/lie alone* is a construction which seems to be productive for each of the three CPVs. It even becomes more and more common for *sit* and *stand* in the third period. Another noticeable fixed expression is *sit/stand silent*. What is interesting about this construction is that while it was more

frequent with *sit* in the first period, its frequency decreases in the second and third period and its occurrence with *stand* increases along the years.

The semantic domains shared between the three CPVs could be schematized as follows:

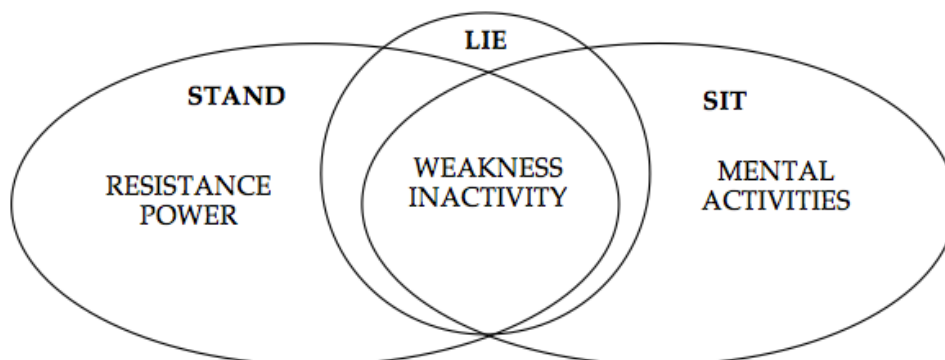


Figure 2. Semantic domains for the adjectival copular construction

The fact that they share these adjectives that at first sight may not be in line with the “usual” associations of the CPV in question, could be taken as evidence of their highly bleached character in these adjectival copula constructions where they have become almost interchangeable copulas.

In contrast to the adjectival construction, the nominal copular construction is not only much less frequent but the collocates of the three verbs are also much more diverse. There are nonetheless important tendencies to be observed with respect to the noun collocates occurring in this construction. First of all, *lie* stands out in this respect since there is no recurring pattern for the nominal construction. For *sit*, the collocating nouns all refer to ‘sitting professions’. Some nouns are introduced by the preposition *as* (prepositional copular construction) as in (40):

- (40) Troy saw his unconscious wife on high before him as described, *sitting as* queen of the tournament. (Sit, 1850-1920)

In our corpora, the construction *sit as* + *Noun* is attested with the following nouns: *chefest* (‘chief’), *criminal judge*, *God*, *judge*, *guardian*, *member*, *queen*, *stuart*. The nouns can also be directly linked to the CPV without the preposition, as it is the case with *bishop*, *supervisor*, *state auctioneer*, and *umpire*. Even though all these nouns appear only once in the corpora (except for *sit judge* which is a recurring collocation), the tendency for *sit* to occur with ‘sitting professions’ is clear.

Finally, for *stand*, there are different semantic clusters to be noticed. First, there is a set of ‘standing professions’: *knight*, *barrister*, *souveraign*, *spectator*, *arbitrator*, *bottle-*

holder, trumpeter, guard, member and, most frequent, *sentry|sentinel|centinel*. The common point to these nouns is the standing position while at work. A standing position also motivates the phrase *stand as an accused person* where the person can easily be depicted as standing in the witness box. Another semantic domain expressed by the collocating nouns is that of REPRESENTATION as in *stand as embodiment* or *stand proxy*. This notion of REPRESENTATION is also visible with the (recurring) noun collocate *godfather* as in (41):

- (41) [He was] condescended to toy with my Little Ones; appeared to take a huge Liking to my two eldest Boys; *stood* Godfather to my little Girl that is now in her Mother's Arms. (Stand, 1710-1780)

In this example, the collocation of *stand* with *godfather* can be interpreted in two ways; either one claims that the person is standing for the father of the little girl in front of God. This religious interpretation hinges on the image of REPRESENTATION. Alternatively, one considers FAMILY to imply SUPPORT, a notion that *stand* is also associated with. In fact, another frequent collocate, *friend* as in (42), points towards this second interpretation:

- (42) And though wee had a Caffeloe or Conuoy of two hundred strong, yet wee were glad to intreate the Captaine of that vnruely Crew to *stand* our friend. (Stand, 1570-1639, 243)

There is apparently no link between being someone's godfather or friend and the standing position, but there is certainly a metaphorical link whereby one's friends and godfathers are people one trusts and can rely on; they are thus standing next to you and take responsibility of your well-being. Clearly, within the nominal and prepositional copular constructions, the CPVs demonstrate clearer distinctive semantic domains of collocates.

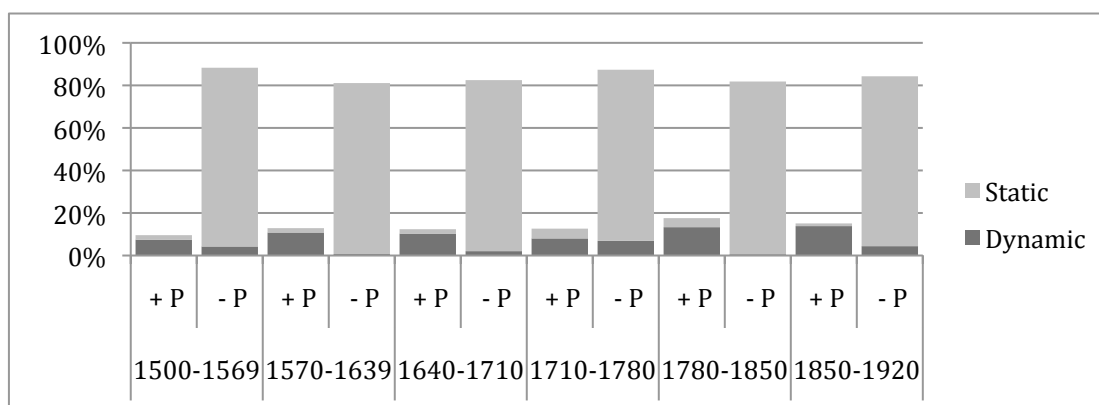
Most importantly, this section proves that while English CPVs do have the potential to be used as copula, they did so in a very constrained way; these uses were restricted to a number of relatively fixed expressions that can mostly still be related to the CPVs' experiential clusters. This is especially true for the nominal constructions, whose anthropocentric meaning has not been bleached completely; for the adjectival copular construction, there seemed to have been a higher degree of bleaching, almost to the point of the verbs having become interchangeable for some adjectives. In other words, the English CPVs did show patterns of (budding) grammaticalisation, but they may not have reached a full grammaticalized status.

4.3 Putting Newman's hypothesis to the test

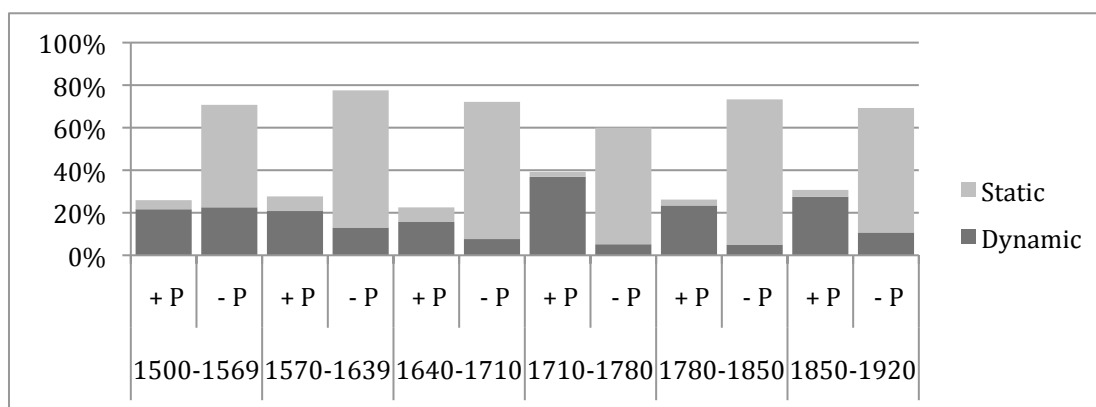
As will be recalled, Newman (2009) suggested that the evolution of the English CPVs to basic locative verbs and thus also further grammaticalisation was blocked by the rise of the use of bare CPVs (i.e., without a particle) to refer to the dynamic event of getting into a standing, sitting or lying position.

In order to test Newman's hypothesis, we need to look at the positional construction; more specifically, we need to compare the constructions with and without particle and what type of event they refer to. Recall that neither of these constructions can be exclusively restricted to the static or the dynamic interpretation, Newman's hypothesis being that it is precisely this fuzziness in the system that prevented the English CPVs to further grammaticalize into locative constructions. As mentioned earlier, because of the low number of positional uses for the period of Early Modern English, we have augmented our corpus with positional uses from the EEBO corpus (756 for *sit*, 294 for *stand*, and 206 for *lie*) so as to have a more reliable sample.

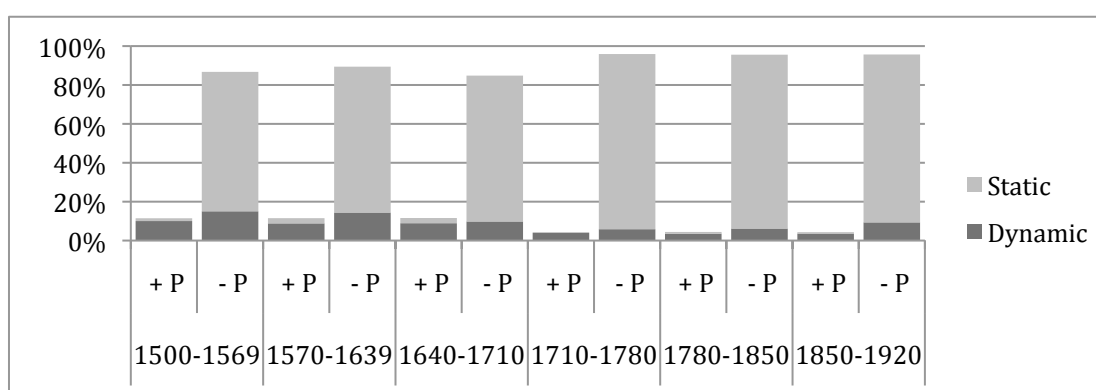
Our analysis relies on clustered and stacked columns allowing us to trace the evolution of the dynamic and static uses and how they are coded, without a particle (-P) or with a particle (+P); via this method, we also exclude that the increase of the bare dynamic use is due to the increase of the dynamic uses overall.



Graph 5 Evolution of the static and dynamic interpretations within particle and particle-less constructions for *lie*



Graph 6 Evolution of the static and dynamic interpretations within particle and particle-less constructions for sit



Graph 7 Evolution of the static and dynamic interpretations within particle and particle-less constructions for stand

As these graphs show, the static use of CPVs dominates overall, confirming Dunn's *et al.* (2007) findings, except for *sit* which appears much more divided and does not favour the static interpretation as also stated in Newman (2009). Furthermore, on the whole, all throughout the Modern English period, the expected prototypical constructional patterns have been attested: the construction without the particle, i.e. *Subject + CPV (+ preposition + Ground)*, to refer to a static event while the construction with a particle *Subject + CPV + particle (+ preposition + Ground)* expresses a dynamic event. Most importantly though, the static-dynamic fuzziness mentioned by Newman is also visible in these graphs, as there are clearly cases of particle constructions with a static interpretation and cases of particle-less constructions with a dynamic interpretation.

However, the evolution of the construction *Subject + CPV + (+ preposition + Ground)* with a dynamic interpretation is not clear. Some increase is noticeable for *sit* and *stand* in Late Modern English, from 1710, but not for Early Modern English, the period on which Newman bases his hypothesis. Moreover, when conflating the evolution of the particle-less construction with the evolution of the dynamic use as a

whole, it appears that both are decreasing for all the three CPVs, except for the last two periods 1780-1850 and 1850-1920, where both the dynamic interpretation and the particle-less dynamic construction are increasing. Therefore, while there is no proof of the non-prototypical construction gaining ground on the postural uses, there is a slight increase of the construction but not for the period Newman claims.

Evaluating Newman's hypothesis against corpus data also raises another issue. As the following table reveals, we are looking at a very specific construction, with fairly low frequencies.

Verb	Interpretation	Particle	PPCEME + EEBO			CLMET		
			1500-1569	1570-1639	1640-1710	1710-1780	1780-1850	1850-1920
<i>lie</i>	Dynamic	+p	14	16	10	7	22	22
		-p	8	1	2	6	1	7
	Static	+p	4	5	2	4	7	2
		-p	158	123	78	70	134	127
	Vague	+p	1	1	0	0	0	0
		-p	3	2	5	0	1	1
<i>sit</i>	Dynamic	+p	71	67	41	142	93	113
		-p	74	42	20	20	20	44
	Static	+p	14	6	18	9	11	13
		-p	158	198	169	211	271	240
	Vague	+p	3	2	4	0	0	0
		-p	8	7	10	3	2	0
<i>stand</i>	Dynamic	+p	28	19	10	7	8	10
		-p	42	31	11	10	14	26
	Static	+p	4	4	3	0	2	2
		-p	200	155	84	154	202	240
	Vague	+p	0	0	0	0	0	0
		-p	5	6	4	0	0	0

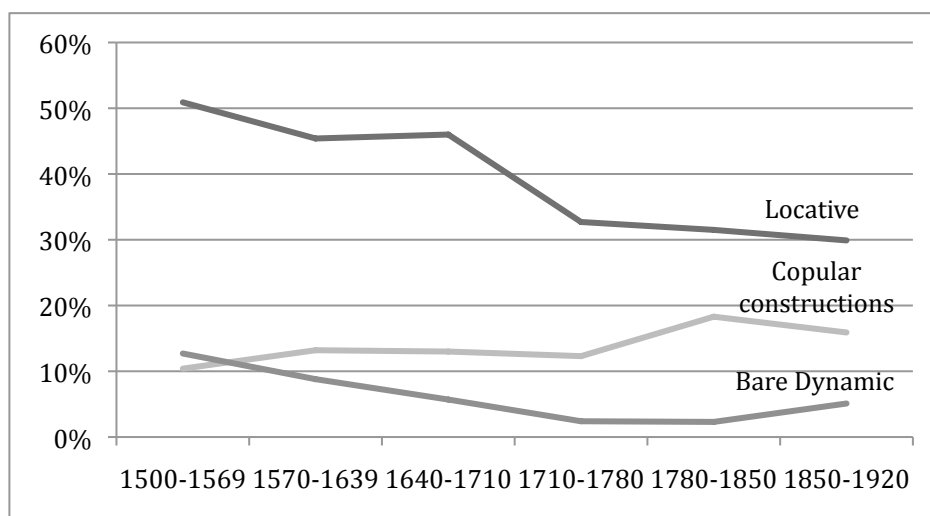
Table 1 Particle and particle-less constructions in Modern English

This table does show the fluctuation in the system Newman claims. Notably, *stand* occurs more in the construction without the particle for the dynamic interpretation. The rows with a bold frame are the non-prototypical constructions: the dynamic in a particle-less construction, and the static with a particle. These constructions are, according to Newman (2009), the ones that are to be held responsible for the fuzziness in the English CPVs system. However, these non-prototypical constructions represent a very small portion of the whole set of occurrences, invariably under 4% of the total number of occurrences per period¹⁷. This may

¹⁷ Only *sit* shows a larger portion for the bare dynamic construction with 11.2% in the first period, and 6.8% in the second period.

compromise the validity of Newman's hypothesis: to what extent can a phenomenon restricted to such a small set tilt the whole system of English CPVs preventing them from further grammaticalization? At first sight, it seems unlikely that a phenomenon with such low frequencies would have disrupted the overall grammaticalization of CPVs. However, these postural uses do constitute the prototypical uses of the CPVs, and prototypical centres are highly influential for the evolution of the entire category. Thus, the impact of the fluctuation between the static and dynamic interpretations may have been much higher than what the low percentages suggest, since the development of CPVs into locative markers exclusively depends on the prototypical anthropocentric uses (Dunn *et al.*, 2007). In sum, Newman's hypothesis may still be correct but our more extensive corpus provides no firm statistical evidence to confirm it.

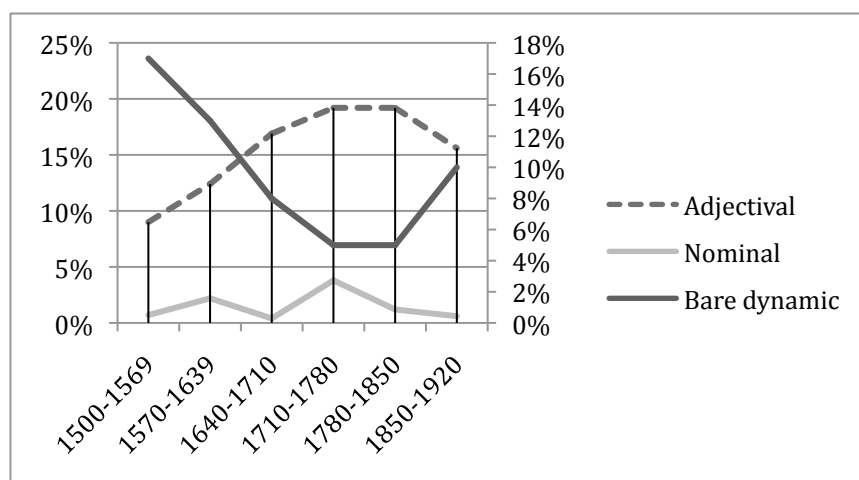
While taken on their own, the percentages of bare dynamic uses (i.e., without a particle), may not give a clear picture, our data allows to set them off against the frequency of locative and copular uses. In other words, if Newman's hypothesis is correct that the rise of the bare dynamic use is responsible for the demise of the English CPVs, then this evolution, even if minimal, should lead to a decrease of the locative and copular uses. This is what is presented in the graph below.



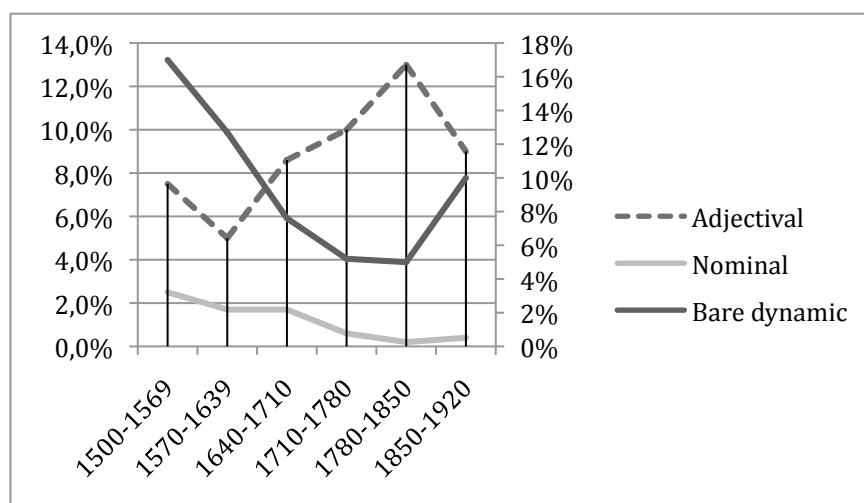
Graph 8 Evolution of the bare dynamic, locative and copular constructions

The picture that emerges is not entirely clear. First of all, the bare dynamic uses first go down, and then up again, but the percentages are very low and fairly close. The locative uses continue to decrease over the entire period. However, what is perhaps most relevant here is to look at the copular constructions, as the most grammaticalised uses of the CPVs. Their uses do rise at first, but decrease later on which co-occurs with the (slight) increase of the bare dynamic construction occurring between 1780 and 1920. The situation becomes clearer when we look at the copular uses for each of the CPVs individually, as presented in the graphs below. The

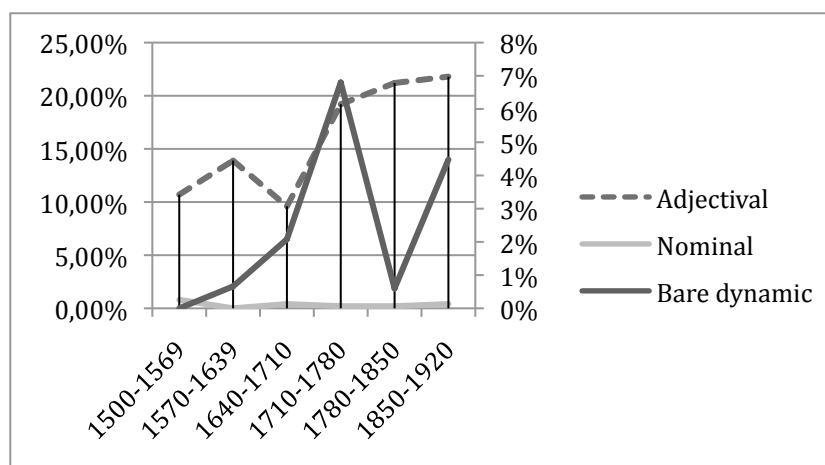
evolutions of copular constructions with *sit* and *stand* are quite clear: their decrease co-occurs with the rise of the bare dynamic uses.



Graph 9 Conflating the evolutions of the bare dynamic construction with the copular constructions for stand



Graph 10 Conflating the evolutions of the bare dynamic construction with the copular constructions for sit



Graph 11 Conflating the evolutions of the bare dynamic construction with the copular constructions for *lie*

In contrast, *lie* does not display any such inverse evolution (the bare dynamic construction increasing and the copular constructions decreasing) in Late Modern English. In fact, this crossing occurs earlier between the bare dynamic construction and the adjectival construction, in Early Modern English between the second and third periods. *Lie* has always behaved differently from its two companions *sit* and *stand*, notably because of its wide metaphorical side.

In sum, our data confirms some confusion between static and dynamic uses and construction type (with or without particle); however, the rise of the bare dynamic use is only minimal and while it does co-occur with an overall decrease of CPV use, it still remains an open question whether this rise is indeed the (sole) triggering factor.

5. Conclusion

Our corpus analysis reveals evidence that the English CPVs clearly had the potential to grammaticalize further into locative markers and copulas as they did in other languages. Our data reveal that they did grammaticalise to some extent, these verbs being amply used in locative constructions and copular constructions. For the latter type, while the adjectival copular construction was clearly more entrenched than the nominal one, the three CPVs display what could be referred to as "grammaticalized islands" with very fixed collocations which persisted throughout the period of Modern English, but eventually disappeared. Our data only partially confirm Newman's (2009) hypothesis attributing this demise to the constructional fuzziness between the dynamic and the static interpretations of the CPVs. Qualitatively, there is indeed some fuzziness in the system with the construction without the particle being interpreted as dynamic, yet quantitatively no clear and firm evolution of this construction could be found. Moreover, this hypothesis concerns a limited

phenomenon as it only applies to a tiny proportion of the whole data set (positional uses). However, as this concerns the CPVs' prototypical centre, it could still be maintained that it affected the entire CPV system in English. Zooming in on the copular uses, our analysis indeed reveals that the increase of the bare dynamic construction co-occurs with the decrease of the copular constructions. This inverse movement is very clear in Late Modern English for *sit* and *stand* but not for *lie*. The explanation for this may be found in the higher entrenchment of metaphorical uses of this verb, especially in the context of the location of abstract entities.

As an overall conclusion, our analysis confirms Traugott's view that "each micro-construction has its own history within the constraints of larger patterns" (2014:17). Looking at the constructions in which the English CPVs have occurred has allowed a more accurate study of their degree of grammaticalisation in earlier periods, and a more careful verification of the causes of their demise. The picture that has emerged is a nuanced and complex one, where certain constructions linger on as grammaticalised islands. Further research is necessary to confirm with more reliability what the exact causes were for the blocked grammaticalisation of the English cardinal posture verbs.

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