

# Remarks on State denoting nominalizations

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#### REMARKS ON STATE DENOTING NOMINALIZATIONS

#### 1. Introduction

Most studies devoted to nominalizations which denote a state limit themselves to deverbal nouns based on stative verbs e.g. *connaissance* 'knowledge' < *connaître* 'to know'. By contrast, the present study is interested in nominalizations which are formed from dynamic verbs or from verbs that at first glance appear so. It aims at showing that a stative interpretation systematically arises with certain nominalizations whenever they occur in syntactic contexts specifying duration. It will be shown that the nominalizations in question are all constructed on verbs whose semantics crucially involves a spatial relation. Data examined come mainly from French, but the conclusion drawn here should be extendable to other languages as well.

After a brief characterization of what is intended by 'nominalization' here (section 2), section 3 states the issue and provides us with arguments establishing the stative nature of the nominalizations in question. Section 4 addresses the issue of the extension of the class of the verbs in question, and section 5 tries to disentangle the various parameters playing a role in determining the emergence of the stative reading. Section 6 concludes the article.

#### 2. Characterizing nominalization

- **2.1.** I adopt a conception of nominalization which prevailed in early models of Generative Grammar (Rosenbaum 1967), both because it is more restrictive than others (cf. below) and fits better the data under examination. A noun will be considered a nominalization if it satisfies the three conditions stated in (1) (this case corresponds to 'action nominalization' in Comrie & Thompson 1985).
  - (1) A nominalization is an N
    - (i) morphologically constructed from a verbal predicate,
    - (ii) which allows one to refer in discourse to what this predicate denotes,

(iii) which shares most of the distributional and semantic properties of nouns

These criteria allow us to say that *redéploiement* in (2) is a nominalization, inasmuch as this N has the distribution of a typical noun and refers to the content of the VP appearing in the first clause. An appropriate paraphrase of its meaning would be 'action of redeploying the troops'.

(2) Il s'efforce de redéployer les effectifs, mais personne ne veut de ce redéploiement.

'He does his best to redeploy the troops but pobody wants this

'He does his best to redeploy the troops, but nobody wants this redeployment'

Criterion (1)(i) eliminates nouns derived from an adjective e.g. *fullness*, *falsehood* from the range of nominalizations. Criterion (1)(ii) eliminates deverbal nouns denoting any argument involved in a predication, be it an Agent as *chanteur* 'singer', a Patient as *poussette* 'pushchair, stroller' or a Place as *lavoir* 'wash-house'. The nominalizations investigated are derived nouns whose distinguished argument corresponds to Davidson's event argument, as illustrated in (3) (Davidson 1967), the lexical representation for *lavage* 'washing' (for the inverted cup cf. Chierchia 1985).

(3)  $\lambda y. \lambda x. \cap \lambda \underline{e}.$  wash' $(x, y, \underline{e})$ 

Criterion (1)(iii) elimitates infinitives from the set of nominalizations insofar as infinitives share almost no distributional properties with Ns in French (Creissels 2006). This is not the case in other Romance languages, however, where phrases headed by an infinitive V can occur in most NP positions (Kerleroux 1990; Meinschaefer 2007).

2.2. Like many other languages, French displays a large array of types of exponent for nominalization. The number of deverbal Ns satisfying criteria (1) varies in function of the exponent. In what follows, I will only consider those exponents which most frequently yield plain nominalizations, namely age, -ment, -ion and conversion, identified by  $\emptyset$ , - $\not EE$  here. The morphological processes using these suffixes are also the most productive ones. Although few studies provides us with a quantitative measure of their productivity,<sup>2</sup> an estimation based on qualitative criteria indicates that -age, ment and conversion are productive since they are used to coin many new lexemes e.g. floutage < flouter 'to blurr (an image)', démaquisage 'action of removing scrub', multiplexage 'multiplexing'; passement (de jambes) '[soccer] way of moving legs'; *la picole* 'heavy drinking' < *picoler* 'to drink', (se) vacher '[glider] to land on an unanticipated place'. As for -ion suffixation, it is only slightly productive by itself but applies to verbs formed through productive verb formation processes in -iser, -ifier mainly e.g. végétalisation < végétaliser 'make plants grow on walls', démoustication 'eradication of mosquitoes', chariatisation 'action of applying Sharia'.

There also exists in French (and other Romance languages) a whole host of complex nouns ending in *-ion* (less in *-ment*) which denote a property. These nouns are correlated to adjectives expressing an inherent property in the same way as quality nouns are, as (4) illustrates (cf. Rainer 1989).

- (4) a. indécision 'indecisiveness' < indécis 'indecisive', abjection 'abjectness' < abject 'abject', irréflexion 'thoughtlessness' < irréfléchi 'thoughless'
  - b. gentillesse 'kindness' < gentil 'kind', tranquillité 'quietness' < tranquille 'quiet', arrogance 'arrogance' < arrogant 'arrogant', avarice 'miserliness' < avare 'miserly', etc.

They also share the distributional properties of typical quality nouns:

- être d'UN (A) N 'show a great deal of N': Il est d'une grande (gentillesse | indécision)
- manifester (beaucoup de | un grand) N 'express a great deal of N': il manifeste beaucoup (de tranquillité / d'arrogance)
- **le comble de N, c'est de...** 'the heights of N is that...': *le comble de (l'avarice | l'irréflexion), c'est...*

These nouns can then safely be considered as quality nouns. They will be left aside in this study since, according to criteria (1), they fall outside the realm of nominalization. Capitalizing on previous works, Kerleroux clearly showed that these nouns are not derived in Romance languages but are direct adaptations of learned Latin terms (Kerleroux 2008). Note that homonymic pairs may arise, in which one member is a nominalization e.g. *soumission*<sup>1</sup> 'submission' < *soumettre* 'submit' vs. *soumission*<sup>2</sup> 'submissiveness' < *soumis* 'submissive'.

#### 3. The issue

Nominalizations in (5) are formed from a verb, which is the head of a verbal constellation, to adopt Smith's terms (Smith 1991), describing an event, the type of which is an accomplishment in the present case.<sup>3</sup>

- (5) a. Elle assista à la traduction du Kalevala.

  'She witnessed the translation of Kalevala'
  - b. *Marie a crié lors de l'emprisonnement du chauffeur*: 'Mary shouted during the driver's imprisonment'
  - c. Le balayage de la cour ennuie les élèves.
     'The sweeping of the courtyard bores pupils'
  - d. *Il assiste à l'impression du journal.* 'He attends the newspaper's printing'

The eventive nature of the eventuality reported by nominalizations in sentences (5) is shown by the fact that the deverbals in question pass test 1 of Table 1 that establishes whether a noun denotes an event (cf. (6)). This test belongs to a series of tests which have been proposed and discussed by (Godard & Jayez 1993, 1995) and (Kiefer & Gross 1995) among others and

are summed up in table 1. Test 1 is the only one which allows us to decide for sure that we have a "strong event", which is the term Godard and Jayez use to refer to a plain event. "Weak events" instead, such as symphony, pass tests 2-4 only. Their weakness stems from the fact that their basic semantic type (viz. event) is combined with an additional type (viz. informational\_object in the case of symphony).

Test	Construction	
1.	NP (avoir lieu   se produire)	NP (take place   happen)
2.	(avant   après   pendant) NP	(before   after   during) NP
3.	NP aspectual_V	NP aspectual_V
4.	un N de NUM Time_Unit	a Time_Unit NP

#### Table 1. Tests for eventhood

- (6) a. La traduction du Kalevala a eu lieu après la guerre. 'The translation of Kalevala took place after the war'
  - b. *L'emprisonnement du chauffeur a eu lieu secrètement.* 'The driver's jailing took place secretly'
  - c. Le balayage de la cour a eu lieu pendant la récréation.

    'The sweeping of the courtyard took place during the break'
  - d. L'impression du journal a lieu en plusieurs fois.

    'The printing of the newspaper took place in several times'

It has been noted that verbs *avoir lieu* and se *produire* cannot combine with phrases indicating the duration of the event when their subject NP denotes a complex event in the sense of Grimshaw (Grimshaw 1990) (D. Godard p.c. who owes the data to D. van de Velde cf. (7)).<sup>4</sup>

- (7) a. \*La traduction du Kalevala a eu lieu en 10 ans.
  - 'The translation of Kalevala took place in 10 years'
  - b. \*L'emprisonnement du chauffeur a eu lieu 5 minutes.
    - 'The driver's jailing took place in 5 minutes'
  - c. \*Le balayage de la cour a eu lieu en un quart d'heure.
    - 'The sweeping of the courtyard took place in a quarter of an hour'
  - d. \*L'impression du journal a eu lieu en une heure.
    - 'The printing of the newspaper took place in one hour'

Temporal indications can be expressed by an aspectual V (structure 3 of Table 1), by PP headed by a temporal preposition (structure 2) or through structure 4, as illustrated in examples (8)-(10).

- (8) a. Elle s'est mariée pendant la traduction du Kalevala. 'She got married during the translation of Kalevala'
  - b. *Pendant le balayage de la cour, il chante.* 
    - 'During the sweeping of the courtyard, he sings'
  - c. Pendant l'impression du journal, elle ne fume pas.

- 'During the printing of the newspaper, she does not smoke' d. Elle l'a rencontré pendant l'emprisonnement du chauffeur. 'She met him during the jailing of the driver'
- She met him during the jaming of the dif
- (9) a. (Une traduction | impression) de 3 mois 'A three months (translation | printing)'
  - b. *Un emprisonnement de 2 ans* 'A 2 years imprisonment'
- (10) a. La traduction du Kalevala a commencé voici un an. 'The translation of the Kalevala began a year ago'
  - b. Le balayage de la cour a commencé voici un mois.
     'The sweeping of the courtyard began a month ago'
  - c. *L'impression du journal a commencé voici une heure.* 'The printing of the newspaper began one hour ago'
  - d. L'emprisonnement du chauffeur a commencé voici un mois. 'The imprisonment of the driver began a month ago'

However, the deverbals mentioned in these examples are not interpreted in the same way. *Emprisonnement* has a stative interpretation, corresponding to (11d), while other nominalizations keep their eventive reading and, consequently, never entail (11a-c).

(11) a. Le Kalevala est traduit. 'Kalevala is translated' b. La cour est balayée. 'The courtyard is swept' c. Le journal est imprimé. 'The newspaper is printed' d. Le chauffeur est emprisonné. 'The driver is jailed'

For instance, whereas in (8b) pendant le balayage means 'during the action of sweeping the courtyard' and not 'while the courtyard is swept', durant l'emprisonnement du chauffeur in (8d) means 'while the driver was jailed' and not 'during the action of jailing the driver'. The same distinction repeats in (9) and (10). (9a) conveys the idea that the action of translating Y, and not the idea that Y is translated, lasts 3 months, whereas the opposite is true for (9b). (10c) expresses that it is the process of printing the newspaper which began one hour ago and not the fact that the newspaper is printed; on the contrary, what began one month ago in (10d) is the situation of the driver's being jailed and not the action of putting him in jail.

The interpretative distinctions that I have just put to the fore are reflected in the way the base-verb of these deverbal noun behaves. The verbal constellations headed by the base-verbs in question denote a quantized eventuality (an accomplishment) and as such are compatible with a *en* PP. Nevertheless, only *emprisonner* is dependent on the duration of the interval specified by this temporal PP: when the interval is short, the sentence is acceptable (not for all speakers though), but the more it grows, the less it is so. For instance, it is very difficult to conceive of how the action of putting somebody in jail could last one month, let alone one year, because the lexical meaning of *emprisonner* expresses a change of location with no duration,

much in the same way as other verbs of location change such as *sortir* 'go out' ou *entrer* 'go in'.

- (12) a. Perret a traduit le Kalevala en 10 ans. 'Perret translated the Kalevala in 10 years'
  - b. Jules a balayé la cour en un mois.'Julius swept the courtyard in one month'
  - c. Les ouvriers ont imprimé le journal en 2 heures. 'The workers printed the newspaper in 2 hours'
  - d. Le gouverneur a emprisonné le chauffeur en (?5 minutes |\*un mois).
    - 'The governor jailed the driver in (5 minutes | one month)'

With these change of location verbs, the affected referent (which corresponds to the Figure) is affected as a whole and the value for parameter Path is zeroed, as it were. For this reason, sentences (13) sound bad because the situation they describe is utterly weird under normal circonstances.<sup>6</sup>

- (13) a. \*Le gouverneur a progressivement emprisonné le chauffeur.
  - 'The governor progressively jailed the driver'
  - b. \*Marie est progressivement sortie de l'aéroport.
    'Mary progressively walked out of the airport'

Change of location verbs such as *emprisonner* or *sortir* can be made compatible with manner adverbs expressing gradualness either by replacing the NP denoting the affected referent with a plural definite NP (cf. (14) and note 6), or by assuming that the referent in question is itself the Path along which the movement takes place (cf. (15)). For instance in (15a), the progression of the roots is referred to Buddha's body.

- (14) a. Le gouverneur a progressivement emprisonné les opposants. 'The governor progressively put the opponents in jail'
  - b. Les passagers sont progressivement sortis de l'aéroport.
     'Passengers progressively walked out of the airport'
- (15) a. Les racines des arbres ont progressivement emprisonné le Bouddha. 'Tree roots progressively tightly gripped the Buddha'
  - b. Le papillon est progressivement sorti de sa chrysalide. 'The butterfly progressively got out of its chysalid'

It can be argued that examples (13a)-(14a) and (15a) belong to two different constructions of the verb EMPRISONNER, <sup>7</sup> corresponding respectively to (16a) and (16b). The first one involves both a Patient-Agent and a Spatial relationship, where the Figure is also the Patient in the agentive relationship. <sup>8</sup> The second one is a stative spatial relationship, where the subject NP corresponds to the Ground and the object NP to the Figure.

(16) a. NP0 emprisonner NP1 ([PP dans NP2]) NP0 = X, NP1 = Y, NP2 = Z

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'X put Y in Z', X = AGT, Y = PAT = FIG, Z = GRND = 'jail'
b. NP0 emprisonner NP1
NP0 = X, NP1 = Y
'X maintain Y in such way that Y cannot move', X = GRND, Y = FIG = PAT
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In (Fradin & Kerleroux 2003, 2009), it has been argued that verbs (or nouns) exhibiting several constructions must be considered different lexemes because derivational morphology usually associates distinct rules of derivation to distinct constructions.<sup>9</sup>

Each of the sentences in (12) entails the corresponding sentence in (17), where the base-verb has been substituted by the corresponding nominalization. While in (17a-c) the temporal PP uniformly indicates the duration of the event denoted by the verbal constellation, in (17d) it is ambiguous between this event reading and a state reading, wherein it is the state of being jailed that lasts n units of time. As in (12c), only the latter reading obtains when the PP expresses a long interval (duration dependency).

- (17) a. La traduction du Kalevala a duré 10 ans. 'The translation of Kalevala lasted 10 years'
  - b. Le balayage de la cour a duré un mois.
     'The sweeping of the courtyard lasted one month'
  - c. L'impression du journal a duré 2 heures.

    'The printing of the newspaper lasted 2 hours'
  - d. L'emprisonnement du chauffeur a duré (5 minutes | un mois). 'The driver's jailing lasted (5 minutes | one month)'

A similar contrast occurs with temporal PP headed by *depuis* 'since'. While *traduction* 'translation' in (18a) does not entail (18b), *emprisonnement* 'imprisonment' in (19a) does entail (19b).

- (18) a. La traduction du Kalevala dure depuis 10 ans. 'The translation of Kalevala has been lasting for 10 years'
  - b. Le Kalevala est traduit depuis 10 ans. 'Kalevala has been translated for 10 years'
- (19) a. L'emprisonnement du chauffeur dure depuis 10 ans. 'The driver's imprisonment has been lasting for 10 years'
  - b. Le chauffeur est emprisonné depuis 10 ans. 'The driver has been jailed for 10 years'

Both (18b) and (19b) express a resulting state (corresponding to (11a) and (11d) respectively). However, *traduction* in (18a) denotes an event whose culmination will result in resulting state (11a), while *emprisonnement* merely denotes state (11d). If we assume, very informally, that *depuis* applies to verbal predicates and measures up the time interval between the initial boundary of an eventuality located in the past and the reference time, <sup>10</sup> then we have to conclude that in (18a) *traduction* denotes an event which has not

yet reached its culmination, while *emprisonnement* denotes an event which has. In (18a), the initial boundary corresponds to the beginning of the process, while in (19a) it is fixed by the culmination and corresponds to the beginning of the resulting state.

The basic issue I would like to tackle in this article concerns the above mentioned contrasts between the behaviour of lexemes such as EMPRISONNEMENT on the one hand, and TRADUCTION, BALAYAGE, IMPRESSION on the other. Whereas both series denote an event when the V heads the NP in context (20a), only the first one may (or must) denote a state when it heads the NP in contexts (20b-e). What makes some nominalizations have a stative reading in these contexts? That is the question I would like to answer. But before going any further, it is worth examining the extension of the phenomenon in question.

- (20) a. NP (avoir lieu | se produire)
  - b. (avant | après | pendant) NP
  - c. NP durer[PRS] [PP depuis...]
  - d. NP commencer [PP temporal...]
  - e. un N de [NUM Time unit]

## 4. Extension of the phenomenon

Nominalizations that may have both an eventive and a stative reading are not very numerous. Some of them are examplified and discussed in section 4.1. The following section (4.2) examines nominalizations exhibiting only the stative reading. Finally, cases where nominalizations denote states that are not resulting states are addressed in section 4.3.

- **4.1.** Nominalizations in (21) denote events since they pass test 4 of Table 1, as the examples show. In (21), they only have an eventive reading.
  - (21) a. L'annexion de la Locanie eu lieu un 29 février.
    - 'The annexion of Locania took place on February the 29th'
    - $b. \quad \textit{L'isolement du village se produit chaque hiver}.$ 
      - 'The isolation of the village happens each winter'
    - c. L'encombrement du carrefour se produit chaque samedi.
      - 'The blocking of the crossroad happens every Saturday'
    - d. L'immersion de la nasse a lieu à l'aube.
      - 'The immersion of the fish trap takes place at dawn'

In (23), only the stative reading is allowed. In (22), (24), on the contrary, we may have both the eventive and the stative reading. The latter is slightly more prominent and corresponds to paraphrases in (25).

- (22) a. *?Elle s'est mariée pendant l'annexion de la Locanie.* 'She got married during the annexion of Locania'
  - b. ?Elle était venue pendant l'isolement du village. 'She came during the isolation of the village'

- c. Pendant l'immersion de la nasse, ils se reposent.'During the immersion of the fish trap, they take a rest'
- $(23) \quad a. \quad \textit{Une (annexion } | \textit{immersion) de 10 ans}.$

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- 'A 10 years (annexion | immersion)'
- b. *Un (encombrement | isolement) de 5 heures.* 
  - 'A five hours (blocking | isolation)'
- (24) a. L'annexion de la Locanie a commencé voici un an. 'The annexion of Locania began a year ago'
  - L'isolement du village a commencé le 2 février.
  - 'The isolation of the village began on February 2'
  - c. *L'encombrement du carrefour a commencé à 5 heures*. 'The blocking of the crossroads began at 5 hours'
- (25) a. La Locanie est annexée.
  b. Le village est isolé.
  c. Le carrefour est encombré.
  d. La nasse est immergée.
  'Locania is annexed'
  'The village is isolated'
  'The crossroad is blocked
  'The fish trap is immersed'

The semantic swap we observe between the two readings is conditioned by the interaction of the sentence's content with pragmatic knowledge. For instance, while the stative reading is the more natural in (22c), the eventive reading becomes the preferred one in (26a). As for isolement, it seems that we have to distinguish two constructions for the verb isoler, which share though the same syntactic structure NP0 isoler NP1 (de NP2). In the first one, the NP1's referent exists before the beginning of the process and is set alone or apart of the NP2's referent after the process has achieved. In the second one, the object NP's referent does not exist as a separate entity before the beginning of the process and comes to existence once the process has culminated. In the second construction NPO always refers to an Agent, a requirement not imposed in the first. ISOLEMENT 'isolation' corresponding to ISOLER<sup>1</sup> can have both readings, the stative one, as in (24b), and the eventive one, as in (26b).<sup>11</sup> But when it is correlated to ISOLER<sup>2</sup>, the deverbal has only the eventive reading illustrated in (26c). In other words, L'isolement du virus can never mean 'the state of being isolated2 of the virus'.

- (26) a. Pendant l'immersion de la nasse, ils doivent faire attention aux flotteurs.
  - 'During the immersion of the fish trap, they must take care of the floats'
  - Elle était venue après l'isolement du village par les troupes ennemies.
    - 'She came after the isolation of the village by ennemy troops'
  - c. L'isolement du virus par une équipe internationale...
    - 'Isolating the virus by an international team...'

Sentence (26a) is more readily interpreted with an eventive reading than with a stative one, while the opposite is true in (24c). The reason why it is so

seems to be tied to the degree of agentivity associated with the event denoted by the nominalization. In a nutshell, *annexion* involves an Agent whereas *encombrement* needs not. This can be substantiated using verbal construction 'NP0 *prendre* + CARD + Time\_unit', which requires its subject NP to refer to an event performed by an Agent as the ungrammaticality of (27a) shows. As expected, (27c) is perfect, on a par with (27d), while (27b) patterns like (27a), because usually people are not expected to block up roads voluntarily.

- (27) a. \*L'enneigement du plateau a pris une semaine.
  - 'The snow covering of the upland took a week'
  - b. *?\*L'encombrement du carrefour a pris deux heures.*'The blocking of the crossroad took two hours'
  - c. L'annexion de la Locanie a pris un an. 'The annexion of Locania took a year'
  - d. L'isolement du virus par une équipe internationale a pris un an. 'Isolating the virus by the international team took a year'

With a temporal PP headed by *depuis* in structure (20c), only the stative reading occurs, as was already saw in (19). <sup>12</sup> Each sentence of (28) entails the corresponding paraphrase of (25) e.g. *La vallée est annexée depuis 100 ans* 'The valley has been annexed for 100 years' for (28a), and so on.

- (28) a. L'annexion de la vallée dure depuis 100 ans.
  - 'The annexion of the valley has been lasting for 100 year
  - b. L'isolement du village dure depuis deux mois.
     'The isolation of the village has been lasting for two months'
  - c. L'immersion de la nasse dure depuis deux heures.
    - 'The immersion of the fishing trap has been lasting for two hours'

The examples presented in this section give but a small sample of the nominalizations that may have a stative reading. A more systematic view would suppose scrutinizing dozens of verbal lexemes, a goal which is beyond the limits of the present article. Nevertheless, the discussion shows us that this reading is not of limited extension and appears under specific conditions which have to do either with agentivity or with some spatial relation encoded in the verbal lexeme.

- **4.2.** There are nominalizations formed on base-verbs which never, or very rarely, occur in a finite form. These nominalizations necessarily denote a state insofar as the only form of the verb available is the adjectival V- $\acute{e}$  form. This case is illustrated by SURPEUPLEMENT 'overcrowding' and DÉSOEUVREMENT 'idleness' in (29)-(30).
  - (29) a. *Il est difficile de cacher le surpeuplement de la côte.* 'It is difficult to hide the Riviera's overcrowding'
    - b. Il est difficile de cacher que la côte est surpeuplée.
       'It is difficult to hide that the Riviera is overcrowded'
    - c. \*Il est difficile de cacher que les vacanciers surpeuplent la côte.

'It is difficult to hide that holydaymakers overcrowd the Riviera'

- (30) a. L'enquête ignore le désoeuvrement des jeunes.

  'The inquiry does not pay attention to young people's idleness'
  - b. L'enquête ignore que les jeunes sont désoeuvrés. 'The inquiry ignores that young people are idle'
  - c. \*L'enquête ignore que le chômage désoeuvre les jeunes.
     'The inquiry ignores that unemployment makes young people idle'

Sentences (29a) and (30a) mean what sentences (29b) and (30b) mean respectively, since no event denoting form of the base-verb is obtainable. These verbs can be considered as defective, even though a few non-V-é forms sometimes crop up. For instance, for the time-span 1800-2007, the Frantext corpus provides us with 134 occurrences of the verb (SE) SURPEUPLER of which 12 are instances of a finite form. For DÉSOEUVRER, over a total of 582 occurrences, only 9 are non-V-é forms (2 infinitives, 2 present participles and 5 finite forms). The percentage is as low for verbs such as ENSOLEILLER 'to make sunny' (total 1 006 occurrences, of which 17 are finite forms and 6 infinitives), ENNEIGER 'to cap with snow' (4 finite forms plus 1 infinitive over a total of 125 forms); as for SOUS-ALIMENTÉ 'undernourished' only the V-é form is attested (10 occurrences). This means that nominalizations SURPEUPLEMENT, ENSOLEILLEMENT, ENNEIGEMENT, SOUS-ALIMENTATION, etc. overwhelmingly denote a state expressed by a V-é form. This conclusion is supported by an additional argument, namely the fact that these Ns fail test 1 of table 1, which discriminates strong events from weak events (cf. (31)), and score pretty bad for most of the other tests (cf. (32)).

- (31) a. \*La sous-alimentation se produit deux fois par siècle.
  'Undernourishment occurs twice a century'
  - b. \*Le surpeuplement de la côte (se produit | a lieu) en été. 'The overcrowding of Riviera takes place in summer'
- (32) a. ?\*Il faut y aller avant le surpeuplement de l'été. 'You must go there before summer overcrowding'
  - \*Après la sous-alimentation, tout le monde est fatigué.
     'After the undernourishment, everybody is exhausted'
  - c. ??Les tiges repoussent pendant l'enneigement.

    'Stems grow again during the snow covering (period)'
  - d. L'ensoleillement du salon (?\*commence tôt | dure longtemps).
  - 'The sunlight of the living room (begins early | lasts a long time)'
  - e. *Un (??enneigement* | ?\*ensoleillement) de quinze jours est rare. 'A fifteen days (snow covering | sunshine) is unusual'

The *V-é* forms mentioned here share the distribution of adjectives e.g. *très* surpeuplé 'very overcrowded', *plage surpeuplée* 'overcrowded beach', *la* plage est surpeuplée 'the beach is overcrowded'. This is all the more inescapable as most of the verbs these forms are morphologically connected with lack the verbal tenses involving the past participle (viz. passé composé,

- etc.). This extends to *V-é* forms correlated with intransitive verbs e.g. POURRIR 'to rot' (Creissels 2000): the *V-é* form in *La viande est pourrie* has to be an adjective. <sup>13</sup> On the contrary, for verbs such as CAPITULER, the *V-é* form always corresponds to the past participle and never to the adjective cf. *Le régiment a capitulé* 'The regiment capitulated' vs. \**Le régiment est capitulé* 'the regiment is capitulated' (Lagae 2005 : 135). As a conclusion, (i) constructions 'X ÊTRE V-é' express a state, not necessarily a resultating state, (ii) adjectival V-é forms are derived from stem 12 of the verb (not from Past participle).
- **4.3.** Though sentence (33b) entails (33c), the latter does not denote a state but an ongoing action: it is the passive version of (33a), a sentence expressing an unbounded atelic eventuality (Depraetere 1995). The nominalization inherits atelicity from the verbal lexeme it is morphologically based on and which denotes an activity.
  - (33) a. Les Bordures bombardent l'Ingourie depuis 5 ans. 'Bordurian have been bombing Inguria for 5 years'
    - b. Le bombardement de l'Ingourie dure depuis 5 ans. 'The bombing of Inguria has been lasting for 5 years'
    - c. L'Ingourie est bombardée depuis 5 ans (par les Bordures). 'Inguria is been bombed for 5 years (by Bordurians)'

Similar remarks apply to nominalizations such as OBSTRUCTION. This N can be correlated to a passive V- $\acute{e}$  form built on an atelic verb and expressing a state, the origin of which can be natural (35a) or artefactual (35b).

- (34) a. L'obstruction (du vaisseau sanguin | de la rue).

  'The obstruction of (blood vessel | the street)'
  - b. Le (caillot | camion) obstrue (le vaisseau | la rue).

    'The (clot | lorry) is obstructing the (blood vessel | street)'
- (35) a. Le vaisseau sanguin est obstrué (par un caillot).

  'The blood vessel is obstructed (by a clot)'
  - b. La rue est obstruée (par un camion). 'The street is obstructed (by a lorry)'

In such cases, the *par*-PP expresses the 'means' which causes the state to happen (not the Agent). This means may also be realized as the subject of a sentence with a stative meaning, which also denotes an unbounded atelic eventuality and describes the same situation (cf. (34b)).<sup>14</sup> Therefore, the sentences in (35) do not express a resulative state. Consequently, the nominalizations in (36) do not denote a resultative state either, but a mere state.

(36) a. L'obstruction de la rue (par un camion) dure depuis 3 heures.

'The obstruction of the street (by a lorry) has been lasting for 3 hours'

L'inondation des ateliers dure depuis une semaine. 'The flood of the workshops has been lasting for a week'

## 5. Lexical conditioning

The goal of this section is to gain some insight into the behaviour of the verbal lexemes that can be used as base-verb to form nominalizations having a stative reading when occurring in contexts (20b-e). Section 5.1. shows that all lexemes of this group encode a spatial relationship in their core semantics. Section 5.2. investigates why some of the base verbs in question exhibit properties typical of scalar verbs with maximal endstate while other do not. Section 5.3. discloses how the semantic properties assigned to change of location verbs explain why they behave like achievements verbs with *almost*. Sections 5.4. and 5.5. illustrate how the combination of scalar and spatial properties explains the way nominalizations such as encombrement are interpreted and the interpretative variations they manifest.

- **5.1.** One of the reviewers suggested that '(avoir lieu | se produire) + locative complement' could be a better criterion of eventivity than the one proposed in Table 1, where the complement is temporal (cf. (5)). This idea is welcome and the criterion works inasmuch as the complement in question sets the stage on which the event denoted by the verbal constellation takes place (cf. lieu scénique or lieu du procès (Guillet & Leclère 1992 : 20) and locating adverbials (Smith 1991: 113)). Examples (37a, d) illustrate this case. However, the criterion becomes inoperative as soon as the semantics of the nominalization involves a spatial dimension. This is what happens in (38a, b, c) and, to a lesser extent, in (37c).
  - (37)La traduction du Kalevala a eu lieu dans ce salon. 'The translation of Kalevala took place in this living room'
    - L'emprisonnement du chauffeur a eu lieu en Suisse. 'The jailing of the driver took place in Switzerland'
    - ?\*Le balayage de la cour a eu lieu dans la caserne. 'The sweeping of the courtyard took place in the barracks'
    - L'impression du journal a lieu au sous-sol. 'The printing of the newspaper takes place in the underground'
  - (38)\*L'annexion de la Locanie eu lieu en Asie. a. 'The annexion of Locania took place in Asia'
    - \*L'isolement du village s'est produit à la montagne. b. 'The isolation of the village happened in the mountains'
    - \*L'encombrement du carrefour s'est produit dans le centre ville. 'The traffic jam of the crossroad happened downtown'
    - d. L'immersion de la nasse a lieu dans l'étang.
    - 'The immersion of the fish trap takes place in the pond'

The ungrammaticality of (38a, b, c) stems from the fact that the base-verb these nominalizations are correlated to specifies a spatial relation, which puts a ban on introducing an additional locative complement that would specify where the event takes place. The low acceptability of (37c), on the other hand, is tied to the fact that, normally, what people sweep is a ground located somewhere. This sentence is strange because it somehow implicates that the courtyard sweeping could be independent of the place where it actually takes place (within the barracks).

For a similar reason, although (37b) and (38d) sound perfect, their locative complement specifies the final location of the Figure (= the object NP's referent) involved in the spatial relation and not the place of occurrence of the event. Even if we add a second locative complement e.g. (a) L'emprisonnement du chauffeur a eu lieu en Suisse au château de Chillon 'The jailing... in Switzerland in Chillon Castle', the whole sequence of complements specifies a unique place, insofar as conceptually the smaller location is understood as a part of the larger one.

As a conclusion, we can say (i) that the proposed criterion is fully operative for a subset of verbs only, (ii) that the spatial verbs which it does not apply to are those which easily allow their correlated nominalization to have a stative reading.

- **5.2.** The occurrence of manner adverbs *graduellement*, *peu à peu* 'gradually' in sentences (39) indicates that a change is happening along a scale of change (Piñón 2000 : 449) associated to the V heading the verbal constellation. This property does not show up with the other verbs surveyed here, those of change of location such as EMPRISONNER, as already noticed in (13a) and attested again in (40). Consequently, the latter verbs will not be considered as scalar.
  - (39) a. La neige a graduellement isolé le village. 'The neige gradually isolated the village'
    - b. Les Bordures ont peu à peu annexé la vallée.
       'Bordurians gradually annexed the valley'
    - c. Les pêcheurs ont peu à peu immergé la nasse.

      'The fishermen gradually immersed the fishing trap'
  - (40) a. \*Le gouverneur a emprisonné le chauffeur peu à peu.
    - 'The governor imprisoned the driver gradually' b. \*Frédéric a graduellement embarqué.
    - b. \*Frédéric a graduellement embarqué.
       'Frederic gradually embarked'

Moreover, the possibility of inserting the adverb of completion *complètement* in (41) establishes that the scale in question is a closed scale with a maximal endpoint (Hay, Kennedy & Levin 1999; Kennedy & McNally 1999).

- (41) a. La neige a complètement isolé le village. 'The snow completely isolated the village'
  - b. Les Bordures ont complètement annexé la vallée. 'Bordurians completely annexed the valley'
  - c. Les pêcheurs ont complètement immergé la nasse.

'The fishermen completely immersed the fishing trap'

This point of view has been criticized by Kearns however. She contends that the mere acceptability of *completely* modification does not guarantee that an adjective has a closed scale with a maximal endstate (cf. her discussion of *cool* vs. *quiet* Kearns 2007: 42). For deadjectival verbs, the situation is the same (cf. her discussion of *to darken* vs. *to dry* Kearns 2007: 46-51). According to her, the appropriate criterion is provided by the comparative modification for adjectives (*x could be A-er*) and by modification with *completely* for verbs. If the sentence so modified is grammatical, then the endstate of the predicate is not maximal. If we try to extend her criterion to the scalar verbs examined here, it predicts that the accomplishment they denote does not entail the maximal endstate, for all sentences in (42) are grammatical but one.

- (42) a. La neige a isolé le village mais il ne fut pas complètement isolé. 'The snow isolated the village but it was not completely isolated'
  - Les Bordures annexèrent la vallée mais elle ne fut jamais complètement annexée.
    - 'Bordurians annexed the valley but it has never been completely annexed'
  - \*Les pêcheurs ont immergé la nasse mais elle ne fut pas complètement immergée.
    - 'The fishermen immersed the fishing trap but it was not completely immersed'

The odd behaviour of IMMERGER stems from its lexical meaning, which incorporates the idea of maximalness, since 'X immerger Y' means to put Y entirely within a liquid. Actually Kennedy and Levin (Kennedy & Levin 2008) rebutted Kearns's argument based upon data such as (42), arguing that the latter do no show that the verb's scale is lacking a maximal degree value, because what is denied in (42) is the fact that all parts of the direct object referent are affected by the property expressed by the V-é form, not the fact that this property has a maximal degree when it applies to the relevant subparts of the referent in question. To support their view, Kennedy and Levin note that the sentences in question become ungrammatical once it is specified that the whole referent is affected e.g. (b) \*La neige a isolé tout le village, mais il ne fut pas complètement isolé. This nicely echoes the ungrammaticality of (42c), which has exactly the same semantic origin. To put the things the other way around, verbal lexemes ISOLER, ANNEXER, IMMERGER, etc. are associated with a closed scale where the standard is the maximal endstate, because they introduce an incremental argument (Kennedy & McNally 2005 : 362). There is an homomorphism relationship between the unfolding of the event and the change brought about in their direct object's referent, that can be formally captured by the notion of Mapping to object (Krifka 1992). Verbal lexemes and adjectival V-é forms whose argument satisfy mapping to object have upper endpoints as standards (Kennedy &

McNally 2005 : 366). This is typically the case of *traduit / traduire*, *construit / construire*. As well-known, these accomplishment verbal lexemes entail the negation of the resulting state when the V is modified by a completion adverb such as *partially*, *halfway* (cf. (44))(Kennedy & McNally 1999, 2005). They exhibit the following typical pattern of inferences:

- (43) a. Perret a partiellement traduit le Kalevala. 'Perret has partially translated Kalevala'
  - b. ⊨ Perret n'a pas traduit le Kalevala. 'Perret did not translated Kalevala'
- (44) a. *Perret a traduit le Kalevala*. 'Perret translated Kalevala'
  - b. |= Le Kalevala est traduit. 'The Kalevala is translated'

As we already saw in (18) (repeated under (45)), nominalizations based on accomplishment verbs associated with a maximum standard may only denote an ongoing event, never a resulting state, if the main verb expresses duration.

- (45) a. La traduction du Kalevala dure depuis 10 ans. 'The translation of Kalevala has been lasting for 10 years'
  - b. ⊭ Le Kalevala est traduit depuis 10 ans.
     'Kalevala has been translated for 10 years'

I suppose that EMPRISONNER<sup>1</sup> is not scalar because none of its argument, when it denotes a singular entity, can 'measure out' the event with respect to the relation it describes. Some verbal lexemes describing a change of location (EMBARQUER<sup>1</sup>, SORTIR, etc.) behave the same. I claim that not only these verbs do not have a degree argument, contrary to degree achievement or activity verbs, but that they may not combine with a degree function  $\delta$  mapping events, objects and relation into degrees (Piñón 2000:454-455; 2005:163), presumably because their arguments have to be taken holistically: there is no way to access to their subparts, as function  $\delta$  requires. As a consequence, *L'emprisonnement du chauffeur dure depuis 10 ans* in (19a) cannot express the jailing action. But we still do not know why it must denote a resulting state (cf. section. 5.3).

In contradistinction to the just discussed change of location verbal lexemes, lexemes ISOLER, ANNEXER, IMMERGER, OCCUPER, etc. constitute a puzzle. Although they are scalar, their corresponding nominalizations, when occurring in structures (20b-e), generally denotes a state instead of an action as TRADUCTION does in (45)(cf. discussion in 4.1.). This means that scalarity properties are not the determining factor to explain why the state reading is mandatory in most cases. The puzzle in question will be addressed on section 5.4.

**5.3.** As a locatum verb, EMPRISONNER incorporates spatial relationship (46a), where y corresponds to the Figure and z to the Ground argument (Talmy 1978). The semantic representation of the stative construction of this verb (cf. (16b)) limits itself to (46b), while the agentive one (cf. (16a)) involves a causal relationship (cf. (46c)).

```
(46) a. LOC(y, INESS(z)), s)
b. λzλyλs. LOC(y, INESS(z)), s) ∧ jail(z)
c. λzλyλxλsλe. CAUSE(x, s, e) ∧ (LOC(y, INESS(z)), s) ∧ jail(z)
```

There is no degree argument in the (resultative) state in question: either the arguments satisfy the relation, or not. The causative event is not supposed to have temporal extension (hence the low acceptability of (12d)). The state is achieved only when the causative event has taken place (e < s). Hence the fully grammatical variant of (12d), namely (c) Le gouverneur a emprisonné le chauffeur 'The governor jailed the driver', does entail (11d) Le chauffeur est emprisonné. Since this state expresses the only content which has some duration, nominalization EMPRISONNEMENT will denote this state whenever it co-occurs with a duration predicate as in (19a) L'emprisonnement du chauffeur dure depuis 5 ans. For this reason, verbal lexemes denoting this type of spatial change will get a stative reading along those lines. The fact that the resulting state in question follows from a preceeding unasserted event looks like what we have with achievements. This similarity shows up through phenomena based upon modification by almost / presque.

Kearns (Kearns 2003: 629-630), following (Dowty 1979), noted that accomplishment verbs have two readings when modified by *almost*. For example, (47a) means either that John was on the verge of painting a picture but ultimately did not (a'), or that he began to paint a picture but did not finish it (a"). Although the distinction undoubtedly exists, the choice of each reading does not seem to be as free as the presentation in (47) suggests. <sup>19</sup>

- (47) a. John almost painted a picture.
  - a' John did not paint a picture
  - a" John painted a picture but not completely
  - b. Jean a presque crié.
  - 'John almost screamed' b' John did not scream
  - b" John shouted to a point that was almost screaming

Martin shows that this very distinction is in force in French for constructions including the 'FAILLIR + **Vinf**' structure or *presque* 'almost' (Martin 2005). She calls the first reading 'zero reading' and the second one 'partial reading'. When the sentence denotes a scalar accomplishment (the V can be modified by *gradually*), the partial reading is the prefered one (cf. (48)). <sup>20</sup> But when it denotes an achievement, only the zero reading is possible as illustrated in (49). The representations given below are schematic adaptations of some core ideas given in recent accounts under a formulation more accurate but far too

sophisticated for our purpose here (McNally & Kennedy 2008; Piñón 1997). Formula (48b) intends to capture the idea that verbal lexemes with closed scale (to dry, to translate) express the degree  $\delta$  to which a property holds of some argument participating in the event in function of the verbal process's unfolding. In the present case, since the process has been completed, the maximal endstate of the scale has been reached and the property is totally verified (value '1'). As shown by the negated formula (48b), the function of presque / almost is to deny that this degree has been reached on the one hand,  $^{21}$  and to entail that it has, but to a lesser extent (value '<' in (48c)) on the other hand. The latter entailment accounts for the partial reading with scalar accomplishments.

According to Piñón's analysis, an achievement such as 'reach the summit' is an event with a left boundary ending a motion event (climbing) and a right boundary beginning a state event (be at the summit)<sup>22</sup>, the latter being the resulting state. In this case, *presque* / *almost* conventionally implicates the negation of both components constituting the content (cf. (49d)). Since the verbal lexeme is not scalar, no content such as (49c) and parallel to (48c) is entailed and we only get the zero reading (49b).

- (48) a. Perret a presque traduit le Kalevala.

  'Perret almost translated the Kalevala'
  - b.  $= -\delta(e, translated, the Kalevala, Perret) = 1$
  - $\delta$ e.  $\delta$ (e, translated, the Kalevala, Perret) < 1
- (49) a. *Nazir a presque atteint le sommet*. 'Nazir almost reached the summit'
  - b. ⊨ ¬(the summit has been reached)
  - c. #the summit has been reached but not completely
  - d. ¬∃(End(e, climb, Nazir) ∧ ¬∃(Beg(e, Be-At(summit, Nazir))

Martin (Martin 2005: 463) notes that verbs describing an eventuality that cannot occur partially may only have a zero reading. EMPRISONNER and EMBARQUER 'embark' are of this type as the ungrammaticality of (40) attests. They are then expected to pattern like achievement verbs, which proves true as shown in (50).

- (50) a. Le gouverneur a presque emprisonné le chauffeur.
  - 'The governor almost imprisoned the driver'
  - ⊨ ¬(the driver was imprisoned)

#the driver was imprisoned but not completely

- b. Frédéric avait presque embarqué (quand...)
  - 'Frederic had almost embarked (when...)'
    - ⊨ ¬(Frederic had embarked)

#Frederic had embarked but not completely

In this case too, the 'zero reading' is tied to the fact that both components of the verbal content are negated (viz.  $\neg CAUSE(x, s, e) \land \neg (LOC(y, INESS(z)), s) \land$ 

jail(z)), whereas the absence of 'partial reading' follows from the absence of scale associated with the denoted event. As expected, verbal lexemes ISOLER, ANNEXER, IMMERGER, etc. behave like degree achievement verbs.

- (51) Les pêcheurs ont presque immergé la nasse.

  'The fishermen almost immersed the fishing trap'

  ⊨ ¬(the fishing trap is immersed)

  ⊨ the fishing trap is immersed but not completely
- **5.4.** Why nominalizations constructed on scalar verbal lexemes such as ISOLER, ANNEXER, IMMERGER, OCCUPER, etc. normally have a stative reading when they occur in structure (20b-d)? This is the question we must answer now. To begin with, the verbs mentioned do not occur in the same constructions. At least two of them have to be distinguished. In the first (52), the subject NP is an Agent and a Figure, whereas in the second (53) it is only a Figure, since the relation is purely stative (cf. (34)-(35)). Moreover, the closed-scale properties these verbal lexemes exhibit (cf. §5.2) require the introduction of a degree argument *d* in their semantic representation, on the model of what we have for 'degree achievements' (Piñón 2000 : 453; Kennedy & Levin 2008 : §3.2). This amounts to say that the way a Figure fills a space may be gradual and may be measured out either on the Figure argument (e.g. *immerger la nasse graduellement*) or on the Ground argument (e.g. *occuper la vallée peu à peu*).
  - $\begin{array}{lll} (52) & a. & NP0 \text{ immerger NP1 ([$_{PP}$ dans NP2])} \\ & b. & NP0 = x, NP1 = y, NP2 = y \\ & c. & \lambda z \lambda y \lambda x \lambda d \lambda s \lambda e. \text{ (CAUSE(x, s, e) } \wedge \text{ (LOC(y, INESS(z)), d, s))} \\ & x = AGT, y = PAT = FIG, z = GRND \end{array}$
  - a. NP0 occuper NP1
     b. NP0 = X, NP1 = Y
     c. λyλxλdλs. (LOC(x, INESS(y)), d, s)
     x = FIG, y = GRND

The verbs split up into each construction: IMMERGER, ANNEXER occur in (52), OCCUPER, ENCOMBRER, OBSTRUER, ISOLER<sup>1</sup>, INONDER in (53).<sup>23</sup> While a duration PP combined with the Indicative Present tense is fully compatible with the stative construction (cf. (54)), the same combination gives a poorly acceptable sentence with the agentive construction (cf. (55)). The latter impossibility recalls what we observe with achievement verbs and EMPRISONNER (cf. (56)). This confirms that the change involved in construction (52) has no duration. The contrast between (54) and (55) indicates, on the contrary, that the situation described in the former sentences holds from the beginning of the time span expressed by the duration PP.

- (54) a. Les Syldaves occupent la vallée depuis 1 000 ans. 'Syldavians have been occupying the valley for 1,000 years'
  - b. Les restes calcinés du bus encombrent la rue depuis 3 jours.

- 'The burnt remains of the bus have been blocking the street for 3 days'
- c. La neige isole le village depuis 8 jours.
  - 'Snow has been isolating the village for 8 days'
- d. L'Oubangui inonde le village depuis 8 jours.
   'The Ubangi has been flooding the village for 8 days'
- (55) a. ?\*Les pêcheurs immergent la nasse depuis 2 heures. 'Fishermen have been immersing the fishing trap for 2 hours'
  - b. ?\*Les Bordures annexent l'Ingourie depuis 5 ans. 'Bordurians have been annexing Inguria for 5 years'
- (56) a. \*Nizan atteint le sommet depuis une heure.
  - 'Nizan has been reaching the summit for one hour'
  - b. ?\*Le gouverneur emprisonne le chauffeur depuis 5 mois. 'The governor has been jailing the driver for 5 months'

Adverbial PP sans interruption 'non stop' provides us with an additional test supporting this view. Sans interruption literally means 'without any gap, free of gap', which entails that the state denoted by the verbal constellation is verified from the moment its starts onwards. We saw in section 4.3 that this state can be expressed equivalently by the V- $\acute{e}$  (passive) form. This is why the verbal lexemes in (54) entail the state expressed by the V- $\acute{e}$  form when they occur with sans interruption, as illustrated in (57).

- (57) a. Les Syldaves occupent la vallée sans interruption depuis 1 000 ans. 'Syldavians have been occupying the valley without interruption for 1,000 years'
  - b. = La vallée est occupée sans interruption depuis 1 000 ans.
     'The valley has been occupied without interruption for 1,000 years'

This means that, for all these verbs, once the spatial relation holds true, it holds true all the way afterwards. This behaviour is tied to the fact that the verbs in question include a spatial relationship in their semantics, which is satisfied (or not satisfied) in a non-gradual way. Accomplishment verbs associated with a closed scale whose standard is the maximum endstate cannot show the entailment illustrated in (57), since the outcome of the process they describe is a resulting state, which is not verified until the process has been completed. Besides, the sentences in question (58b)-(59b) are ungrammatical.<sup>24</sup>

- (58) a. Le soleil sèche les kimonos sans interruption depuis 2 heures. 'The sun is drying kimonos without interruption for 2 hours'
  - b. \*Les kimonos sont secs sans interruption depuis 2 heures. 'Kimonos are dry without interruption for 2 hours'
- (59) a. Pierre peint sa voiture sans interruption depuis 2 heures.

  'Peter has been painting his car without interruption for 2 hours'
  - b. \*Sa voiture est peinte sans interruption depuis 2 heures.

'His car has been painted without interruption for 2 hours'

The idea according to which, once a spatial relationship has been satisfied the state it denotes cannot be denied, can be assessed using a test based on ADV *jamais* 'never'. In (60), the second conjunct negates the idea that the event denoted in the first conjunct could be completed at any time in the future. This is perfectly possible since the event has not been completed at the speech time. In (61) on the contrary, a contradiction arises precisely because the first conjunct entails that the spatial relationship carried by the content of the verbal construction is verified, while the second conjunct says that it will never be so.

- (60) a. On construit le théâtre depuis 10 ans mais il ne sera jamais construit.
  - 'They have been building the theater for 10 years but it will never be built'
  - a. Elle remplit le bassin depuis 1 ans mais il ne sera jamais plein.
     'She has been filling the basin for 1 year but it will never be full'
- (61) a. \*On emprisonne les opposants depuis 10 ans mais ils ne seront jamais emprisonnés.
  - 'They have been imprisoning opponents for 10 years but they will never be imprisoned'
  - \*Les Syldaves occupent la vallée depuis 1 000 ans mais la vallée ne sera jamais occupée.
    - 'Syldavians have been occupying the valley for 1,000 years but it will never be occupied'

The important point for us is that the nominalizations based on verbal lexemes associated with construction schema (53) do entail the state reading when occurring with a duration verb or a duration PP.

- (62) a. L'occupation de la vallée dure depuis 1 000 ans.
  - 'The occupation of the valley has been lasting for 1,000 years'
  - a'. ⊨ La vallée est occupée depuis 1 000 ans.
    - 'The valley has been occupied for 1,000 years'
  - b. L'encombrement de la rue dure depuis 3 jours.
    - 'The blocking of the street has been lasting for 3 days'
  - b'. *⊨ La rue est encombrée depuis 3 jours.* 
    - 'The street has been blocked for 3 days'
  - c. L'isolement du village dure depuis 8 jours.
    - 'The isolation of the village has been lasting for 8 days'
  - c'. ⊨ Le village est isolé depuis 8 jours.
    - 'The village has been isolated for 8 days'
  - d. L'inondation du village dure depuis 8 jours.
    - 'The flooding of the village has been lasting for 8 days'
  - d'. ⊨ Le village est inondé depuis 8 jours.
    - 'The village has been flooded for 8 days'

This is expected if the nominalization inherits the spatial relationship as a core information from the verbal lexeme. The same is true of nominalizations formed on verbs associated with construction (52) (ANNEXER, IMMERGER, ect.) as we already saw in (28) e.g. *L'annexion de la vallée dure depuis 1 000 ans*. In this case, there is even less room for an agentive reading insofar as it may not be expressed uniformly at all tenses of the verb, as (55) illustrates.

- **5.5.** Scalar accomplishment verbs with a maximal standard (*to empty, to translate*) do not entail their resulting state when they are modified by a completion adverb expressing partiality e.g. à moitié 'halfway', partiellement 'partially' (Kennedy & McNally 2005: 360). Consequently, (63a) entails (63b) since it describes an event which has not been completed.
  - (63) a. Perret a partiellement traduit le Kalevala.

    'Perret has partially translated the Kalevala'
    - b. *⊨ Perret n'a pas traduit le Kalevala.*'Perret did not translated the Kalevala'

However, not all verbal lexemes associated with construction (53) behave this way, since some of them entail a positive sentence as (64)-(65) show.

- (64) a. Les Syldaves ont partiellement occupé la vallée.
   'Syldavians have partially occupied the valley'
  - b. |= Les Syldaves ont occupé la vallée. 'Syldavians occupied the valley'
- (65) a. Des restes calcinés encombrent partiellement la rue. 'Burnt remains have partially blocked the street'
  - b. *⊨ Des restes encombrent la rue.* 'Remains block up the street'

As suggested above (§5.2), the ADV here modifies the object NP and does not bear upon the relation conveyed by the verbal lexeme. In (64a) only a spatial relation is at stake, and since it is verified, entailment (64b) follows. In (65a) two semantic relationships are involved: the spatial relation between the remains and the street and the obstruction relation. Since both are verified, entailment (65b) holds equally. In (66) too, two relations are involved: the spatial relation and a confinment relation. But the latter is not verified inasmuch as the lexical meaning of ISOLER requires the referent of its object NP (GRND) be totally surrounded by the referent of its subject NP (FIG). Consequently, the entailment fails.

- (66) a. Les Bordures ont partiellement isolé le village. 'Bordurians have partially isolated the village'
  - b. ⊭ Les Bordures ont isolé le village.
     'Bordurians have isolated the village'

Note that in contradistinction to (64), the entailment is less straightforward in (67), as a reviewer pointed out to me.

- (67) a. Les Syldaves ont partiellement occupé la France. 'Syldavians have partially occupied France'
  - b. Les Syldaves ont occupé la France. 'Syldavians occupied France'

In this case however, it could be argued that the variation observed has a lexical origin and that OCCUPER is associated with two (related) constructions, one in which the meaning involves a purely spatial relationship (cf. (64)) and another one in which the idea of controlling the objet NP's referent is central (cf. *military occupation*). Sentence (67b) clearly points to this reading, whereas the ADV of completion in (67a), quite automatically, triggers the spatial reading. This clash makes the entailment difficult.<sup>25</sup>

The interesting point is that the interpretation of the nominalizations studied here reflects the semantic variations I have just brought to light. For instance, in (62a) L'occupation de la vallée does not imply that the valley was entirely occupied, whereas (d) L'occupation de la France par les Syldaves would. Neither (62b) L'encombrement de la rue..., nor (62d) L'inondation du village... imply anything about the extent the affected referent is blocked or flooded. On the other hand, the whole village is supposed to be isolated in (62c) L'isolement du village...

## 6. Conclusion

Nominalizations of verbs incorporating a spatial relationship in their semantic representation are liable to have a stative reading that can be paraphrased by a sentence of the form 'NP ÊTRE V-é'. The verbs in question exhibit distinctives properties in function of their being scalar or non-scalar, agentive or stative, spatial with movement or without. It has been shown that the values these various parameters can take are embodied in verbal constructions which thereby constitute the relevant domain of application of morphological derivational rules.

Spatial	Scalar	Agentive	Movement	
+	_	+	+	EMPRISONNER <sup>1</sup>
+	+	+	_	ANNEXER
+	+	+	+	IMMERGER
+	+	_	_	OCCUPER <sup>1</sup>
+	+	_	_	ENCOMBRER

Table 2. The variety of base-verbs

Actually, these rules apply to the verbal lexeme which heads the verbal construction and not to the verb, which is an inflectional—and syntactic—category. The variety of verbal lexemes investigated here that can be used to derive nominalizations with a stative reading is given in table 2. The stative reading appears quite obligatorily in duration contexts, which is those to which the present study confined itself. When the base verbal lexeme is agentive, the stative reading corresponds to a resulting state. The uncommon fact is that verbal lexemes associated with a closed scale with maximal standard can nevertheless be morphologically correlated with a stative nominalization (IMMERSION, OCCUPATION), whereas verbal lexemes having these properties normally cannot (TRADUCTION). The spatial relation included in the semantic represention of the verbal lexemes in question proves to play a crucial role to explain why it is so and consequently why the nominalizations in question get the interpretation they have.

As for the latter, it has been shown that it reflects accurately the semantic variations the verbal lexeme may exhibit in the relevant contexts. This suggests that the semantic import of the derivation rule reduces to little.

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A shortened version of this article has been published in *Recherches linguistiques de Vincennes*, 40:73-99 (2011). In the latter, section 5.3 is has been omitted and a few examples have been left aside, as well as some transitions. Otherwise, the analysis is the same.

- <sup>1</sup> Both Ø and ÉE illustrate conversion from verb. The first type is usually formed upon verbal stem 1, the one used for the Imparfait, e.g. /lyt/ for LUTTER. The second one is formed upon inflectional stem 12, which is the base of the Past Participle e.g. /pʁodui/ for PRODUIRE and adjectives (on stems in inflection cf. Bonami & Boyé 2002, 2003; Bonami, Boyé & Kerleroux 2009). Deverbal nouns belonging to the latter type also include suppletive nouns such as DESCENTE, CHUTE (Tribout 2010) cf. section 4.2.
- <sup>2</sup> The most adequate way to measure productivity of word formation processes is based on counting hapaxes in corpora, following proposals by Baayen (Baayen 1992, 1993). The lack of large accessible newspapers' corpora hinders studies on morphological productivity in French. However, see (Dal et al. 2008) which also gives some results about *ion* suffixation. A morphological process is qualitatively productive if it applies to acronyms, borrowings or forms lexemes unattested so far (cf. Dressler & Ladányi 2000).
- <sup>3</sup> The English translations only intend to give an idea of what is grammatically at stake in the French original. Some of them are not acurate.
- <sup>4</sup> The only attestations I found indeed involve simple events e.g. (i) "Sa mort a eu lieu en dix minutes", a déclaré le procureur, citant les expertises. (lesactualitesdudroit.20minutes-blogs.fr/.../anna-politkovskaia-le-proces-serapublic.html 27.1.2011) 'Her death took place in ten minutes, the state prosecutor said quoting experts' reports'; (ii) L'accouchement a eu lieu en une heure, sans complication. (www.algerie-dz.com/forums/archive/index 27.1.2011) 'The delivery took place in one hour, without complications'.
- <sup>5</sup> A more common way to say (8d) would be (i) *Elle l'a rencontré pendant que le chauffeur était en prison*. 'She met him while the driver was in jail'.
- <sup>6</sup> The situation is the same as the one discussed by Piñón (Piñón 2000) about verb rescue and buy e.g. (i) ?The lifeguard gradually rescued Peter (at the beach) (= Piñón's (18a)) In both cases, if we replace the relevant NPs with plural definite NPs, the result becomes grammatical (ii) The lifeguard gradually rescued the children (at the beach) (= (20a)). I refer to Piñón's article for an account of manner adverbs such as gradually.

- <sup>7</sup> Following a common practice in morphology, small capitals will note lexemes, while italics will note word-forms (cf. Matthews 1974). Since small caps will be introduced only when they prove useful, italics may note lexemes in some places, for convenience, when this does not hinder the comprehension.
- <sup>8</sup> Verbal relations of this type are discussed in (Davis 2001). The second lines in (16a-b) states the linking correlations.
- <sup>9</sup> For example, to recall a well-known case (Horn 1989), the derived Agent nominal FUMEUR 'smoker' may be formed on FUMER<sup>2</sup>, which involves an Agent-Patient construction e.g. (i) *Marie fume de nouveau. C'est la plus grande fumeuse que je connaisse* 'Mary resumed smoking. She is the heaviest smoker I know', and not on FUMER<sup>1</sup>, which is associated with an unaccusative construction; hence the ungrammaticality of (ii) \*La cheminée de l'usine fume de nouveau. C'est la plus haute fumeuse que je connaisse 'The factory chimney anew smokes. It is the highest smoker I know'. This implies that we have two lexemes EMPRISONNER but one verb only.<sup>9</sup> The verbal lexeme EMPRISONNER I am interested in here is the one associated with construction (16a) (EMPRISONNER<sup>1</sup>).
- <sup>10</sup> To that extent, *depuis* is close to the universal *since* (Mittwoch 1988), albeit both adverbials do not occur in similar syntactic contexts.
- <sup>11</sup> For some unclear reason, *pendant* is less natural than *après* 'after' or *avant* 'before' with some of the nominalizations examined here, as noted in (21a-b). Similarly, in isolation, (i) sounds more awkward than (26b): (i) ?Elle était venue pendant l'isolement du village par les troupes ennemies.
- <sup>12</sup> This correctly predicts the ungrammaticality of (i) \*L'isolement du virus dure depuis un an, since here the base-verb is ISOLER<sup>2</sup>.
- <sup>13</sup> Actually transitive uses of POURRIR can be found and are attested in Frantext corpus as noted by (Lagae 2005). Most of them have a literary flavour. Relevant remarks on *V-é* forms are given in (Carlier 2002).
- <sup>14</sup> Kratzer claims that (35a) and (35b) have a stative and an eventive meaning respectively (Kratzer 2000 : 303), because she fails to acknowledge the 'means' value of complement here (Fradin, 2011 #5291).

- $^{15}$  I have no idea of what would be the best way to state this impossibility. Much work is needed before assessing which items are concerned with this constraint. I recall that EMPRISONNER<sup>2</sup> may combine with the degree function  $\delta$  (cf. (15)), which emphasizes the necessity to distinguish between verb and lexeme.
- <sup>16</sup> Additional justification for (46a) can be found in (Wunderlich 1997: 102) and (Kracht 2002). *s* stands for state, *e* for event. Inessive, adessive, etc. are labels noting spatial relations instanciated by various adpositions in languages. Inessive has been chosen as the default value and may be overriden whenever needed cf. INONDER 'to flood' note 24 below.
- <sup>17</sup> Things are different for EMBARQUER cf. (i) *J'ai embarqué en 10 minutes* 'I embarked in 10 minutes', which maybe could be conceived of as including several subevents.
- <sup>18</sup> This state is a 'target state' according to the criteria proposed by Parson and Kratzer (Kratzer 2000; Parsons 1994). Unlike Resultant states, which hold forever, Target states are not permanent.
- <sup>19</sup> As a consequence, very few sentences can exhibit both readings in the same context. For instance, the French equivalent of (47a) is awkward in isolation: (i) *Jean a presque peint un tableau*. Usually, reading (a") is made explicit saying (ii) *Jean a presque fini de peindre un tableau* 'John almost finish painting a picture'. Conversely, when the object NP is definite, the first reading is more likely to occur: (iii) *Jean a presque peint son portrait*. Example (47b) is taken from (Jayez & Tovena 2008: 223).
- <sup>20</sup> Martin claims that the partial reading is mandatory with creation verbs. This is expected, but totally natural examples are difficult to come across. Example (i) sounds better, it seems to me, than example (ii) she proposes in her paper (Martin 2005: 463): (i) *On avait presque construit notre château de sable, quand une grosse vague l'a submergé* 'We had almost built our sandcastle when a big wave submerged it', (ii) *On a presque construit notre superbe château de sable* 'We almost built our wonderful sandcastle'. Martin argues that the FAILLIR + **Vinf** construction allows only a partial reading with achievements.

- <sup>21</sup> Jayez and Tovena argue that the negated content is a conventional implicature. They sum up their analysis as follows: " $Presque\ P$  (and  $almost\ P$ ) conventionally implicates  $\neg P$  and entails that the actual value is superior to the left threshold of P, but indiscernable from P for the purposes at issue." (Jayez & Tovena 2008: 237). I refer to their article for the definition of the specific terms and the formal account.
- <sup>22</sup> In Piñón's ontology, Beg and End are boundary happenings, unlike events which are normal happenings. Boundaries have no duration and consequently no participants. This accounts for instantaneity of achievements. Whereas all achievements involve Beg, not all involve End e.g. *recognize*.
- $^{23}$  Actually, INONDER occurs in syntactic structure (53a) but selects semantic structure (52c), with z lexically specified (= water). (54d) means (i) (CAUSE (Ubangi, s, e)  $\land$  (LOC(the\_village, SUBESS(water)), d, s)). The fact that flooding can happen without involving any river e.g. (ii) *Les champs sont inondés* 'The fields are flooded' supports the analysis proposed here.
- <sup>24</sup> Presumably because the adjectives in question are dense. A predicate is dense if it is true of a state that has to be maintained such in order to be true (Roy 2009). *Malade* 'ill', *ivre* 'drunk' are not dense predicates.
- <sup>25</sup> Suppose three students are working in a large room. You can say (i) *Des étudiants occupent la salle* but not (ii) ?\*Des étudiants occupent partiellement la salle. Sentence (i) means that the students use the room, which amounts to say that it is somehow under their control. Similar meaning variations can be observed with several of the verbs mentioned in this study.