Remarks on state denoting nominalizations

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ABSTRACT
Some nominalizations, morphologically formed on non-stative verbs e.g. *emprisonner/to jail*, are regularly associated with a stative reading when occurring in a duration context. This article shows that the nominalizations in question are all constructed on verbs whose semantics involves a spatial relation. The other dimensions that prove to be crucial in determining the occurrence of the stative interpretation are scalarity and agentivity. Normally verbal lexemes associated with a closed scale with maximal standard cannot be correlated with a nominalization exhibiting a stative reading e.g. *traduction*. However, the nominalizations studied here e.g. *immersion* ‘immersion’, *occupation* ‘occupation’ are precisely based on verbal lexemes that share these properties. The article addresses this puzzle and shows how it can be handled within the framework adopted here.

KEYWORDS
nominalization, stativity, spatiality, scalarity, derivation, French.
1. Introduction

Most studies devoted to nominalizations which denote a state limit themselves to deverbal nouns based on stative verbs e.g. knowledge < 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 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). A noun will be considered a nominalization if it satisfies the three conditions stated in (1).

(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.

According to these criteria, which give a more restrictive view of nominalizations than more recent views, redéploiement in (2) is a nominalization. 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 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)  \( \lambda y. \lambda x. \lambda g. \text{wash}'(x, y, e) \)

Criterion (1)(iii) eliminates infinitives from the set of nominalizations insofar as infinitives share almost no distributional properties with Ns in French.

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 Ø, -ée here.\(^1\) The morphological processes using these suffixes are also the most productive ones. An estimation based on qualitative criteria indicates that -age, -ment and conversion are productive\(^2\) since they are used to coin many new lexemes e.g. floutage < flouter ‘to blurr (an image)’; la picole ‘heavy drinking’ < picoler ‘to drink’. 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’.

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.

(4)  a. indécision ‘indecisiveness’ < indécis ‘indecisive’, irréflexion ‘thoughtlessness’ < irréfléchi ‘thoughless’

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1. 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. /pʁodɥi/ 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.

2. On this issue cf. (Dal et al. 2008). A morphological process is qualitatively productive if it applies to acronyms, borrowings or forms lexemes unattested so far (Dressler & Ladányi 2000).

They also share the distributional properties of typical quality nouns as attested by e.g. *Il est d’une grande (gentillesse | indécision)* ‘he show a great deal of N’ or *Il manifeste beaucoup (de tranquillité/d’arrogance)* ‘he express a great deal of N’ and can therefore 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 showed that they 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*1 ‘submission’ < *soumettre* ‘submit’ vs. *soumission*2 ‘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.3

(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 ennui les élèves.*  
   ‘The sweeping of the courtyard bores pupils’

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 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).

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3. The English translations only intend to give an idea of what is grammatically at stake in the French original. Some of them are not accurate.
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’

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 (7)-(8).

(7) 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. Elle l’a rencontré pendant l’emprisonnement du chauffeur.
   ‘She met him during the jailing of the driver’

(8) a. Une traduction de 3 mois
   ‘A three months translation’
   b. Un emprisonnement de 2 ans
   ‘A 2 years imprisonment’

(9) 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'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 (10c), while other nominalizations keep their eventive reading and, consequently, never entail (10a-b).
(10)  a. *Le Kalevala est traduit. ‘Kalevala is translated’
    b. La cour est balayée. ‘The courtyard is swept’
    c. Le chauffeur est emprisonné. ‘The driver is jailed’

Whereas in (7b) pendant le balayage means ‘during the action of sweeping the
courtyard’ and not ‘while the courtyard is swept’, durant l’emprisonnement du
chauffeur in (7d) means ‘while the driver was jailed’ and not ‘during the action
of jailing the driver’. The same distinction repeats in (8) and (9).

The interpretative distinctions that I have just drawn 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 accom-
plishment) 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 go out or go in.

(11)  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. Le duc a emprisonné le chauffeur en (?5 minutes | un mois).
      ‘The duke 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 (12) sound bad because the situation they
describe is utterly weird under normal circonstances.

(12)  a. *Le duc a progressivement emprisonné le chauffeur.

4. A more common way to say (7c) would be (i) Elle l’a rencontré pendant que le
chauffeur était en prison. ‘She met him while the driver was in jail’.
5. 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.
‘The duke 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. (13) and note 5), or by assuming that the referent in question is itself the Path along which the movement takes place (cf. (14)). For instance in (14a), the progression of the roots is referred to Buddha’s body.

(13) a. Le duc a progressivement emprisonné les opposants.
‘The duke progressively put the opponents in jail’

b. Les passagers sont progressivement sortis de l’aéroport.
‘Passengers progressively walked out of the airport’

(14) 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 (12a)-(13a) and (14a) belong to two different constructions of the verb emprisonner,⁶ corresponding respectively to (15a) and (15b). The first one – the one that interests me – involves both a Patient-Agent and a Spatial relationship, where the Figure is also the Patient in the agentive relationship.⁷ The second one is a stative spatial relationship, where the subject NP corresponds to the Ground and the object NP to the Figure.⁸

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6. Following a common practice in morphology, small capitals note lexemes, while italics note word-forms. Since small caps will be introduced only when they prove useful, italics may note lexemes for convenience, when this does not hinder the comprehension.

7. Verbal relations of this type are discussed in (Davis 2001). The second lines in (15a-b) state the linking correlations.

8. 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. For example, the derived Agent nominal fumeur ‘smoker’ may be formed on fumer², 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 fumer¹, 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
(15) a. NP0 emprisonner NP1 ([pp dans NP2])
NP0 = X, NP1 = Y, NP2 = Z
‘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

Each of the sentences in (11) entails the corresponding sentence in (16), where the base-verb has been substituted by the corresponding nominalization. While in (16a-b) the temporal PP uniformly indicates the duration of the event denoted by the verbal constellation, in (16c) 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 (11c), only the latter reading obtains when the PP expresses a long interval (duration dependency).

(16) 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'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 (17a) does not entail (17b), emprisonnement ‘imprisonment’ in (18a) does entail (18b).

(17) 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’

(18) 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 (17b) and (18b) express a resulting state (corresponding to (10a) and (10d) respectively). However, traduction in (17a) denotes an event whose highest smoker I know’. We then have two lexemes emprisonner but one verb only.
culmination will result in resulting state (10a), while *emprisonnement* merely denotes state (10d). 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, then we have to conclude that in (17a) *traduction* denotes an event which has not yet reached its culmination, while *emprisonnement* denotes an event which has. In (17a), the initial boundary corresponds to the beginning of the process, while in (18a) it is fixed by the culmination and corresponds to the beginning of the resulting state.

The basic issue I would like to tackle concerns the above mentioned contrasts between the behaviour of lexemes such as *emprisonnement* on the one hand, and *traduction*, *balayage* on the other. Whereas both series denote an event when the V heads the NP in context (19a), only the first one may (or must) denote a state when it heads the NP in contexts (19b-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.

(19) 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

4.1. Nominalizations in (20) denote events since they pass test 4 of Table 1, as the examples show. In (20), they only have an eventive reading.

(20) a. *L'annexion de la Locanie eu lieu un 29 février.*
    ‘The annexion of Locania took place on February the 29th’
   b. *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’

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9. To that extent, *depuis* is close to the universal *since* (Mittwoch 1988), albeit both adverbials do not occur in similar syntactic contexts.
In (22), only the stative reading is allowed. In (21), (23), on the contrary, we may have both the eventive and the stative reading. The latter is slightly more prominent and corresponds to paraphrases in (24).

(21) 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’

(22) a. Une (annexion | immersion) de 10 ans.
   ‘A 10 years (annexion | immersion)’
   b. Un (encombrement | isolement) de 5 heures.
   ‘A five hours (blocking | isolation)’

(23) a. L’annexion de la Locanie a commencé voici un an.
   ‘The annexion of Locania began a year ago’
   b. 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’

(24) a. La Locanie est annexée. ‘Locania is annexed’
   b. Le village est isolé. ‘The village is isolated’
   c. Le carrefour est encombré. ‘The crossroad is blocked’
   d. La nasse est immergée. ‘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 (21c), the eventive reading becomes the preferred one in (25a). As for isolation, 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 NPI’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 NP0 always refers to an Agent, a requirement not imposed in the first. ISOLEMENT ‘isolation’ corresponding to isoler1 can have both readings, the stative one, as in (23b), and the eventive one, as in (25b). But when it is correlated to isoler2,
the deverbal has only the eventive reading illustrated in (25c). In other words, *L'isolement du virus* can never mean ‘the state of being isolated’ of the virus.

(25)  

a. *Pendant l’immersion de la nasse, ils font attention aux flotteurs.*
   ‘During the immersion of the fish trap, they take care of the floats’

b. *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 (25a) is more readily interpreted with an eventive reading than with a stative one, while the opposite is true in (23c). 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 (26a) shows. As expected, (27c) is perfect, on a par with (26d), while (26b) patterns like (26a), because usually people are not expected to block up roads voluntarily.

(26)  

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 (19c), only the stative reading occurs, as was already saw in (18). Each sentence of (27) entails the corresponding paraphrase of (24) e.g. *La vallée est annexée depuis 100 ans* ‘The valley has been annexed for 100 years’ for (27a), and so on.

10. This correctly predicts the ungrammaticality of (i) *L’isolement du virus dure depuis un an*, since here the base-verb is *isoler*².
(27) a. *L’annexion de la vallée dure depuis 100 ans.
   ‘The annexation of the valley has been lasting for 100 years’

   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-é form. This case is illustrated by désœuvrement ‘idleness’ in (28).

(28) a. L’enquête ignore le désœuvrement des jeunes.
   ‘The inquiry does not pay attention to young people’s idleness’

   b. L’enquête ignore que les jeunes sont désœuvrés.
   ‘The inquiry ignores that young people are idle’

   c. *L’enquête ignore que le chômage désœuvre les jeunes.
   ‘The inquiry ignores that unemployment makes young people idle’

Sentences (28a) means what sentence (28b) means, 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 582 occurrences of the verb désœuvrer of which only 9 are non-V-é forms. The percentage is as low for ensoleiller ‘to make sunny’, enneiger ‘to cap with snow’, and for sous-alimenté ‘undernourished’ only the V-é form is attested. This means that nominalizations surpeuplement, ensoleillement, sous-alimentation, etc. overwhelmingly denote a state expressed by a V-é form. This conclusion is supported by the fact that these Ns fail test 1 of table 1 (cf. (29)), and score pretty bad for most of the other tests (cf. (30)).

(29) 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’
(30) a. *Après la sous-alimentation, tout le monde est fatigué.
   ‘After the undernourishment, everybody is exhausted’
b. L’ensoleillement du salon (?*commence tôt | dure longtemps).
   ‘The sunlight of the living room (begins early | lasts a long time)’

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 is an adjective. On the contrary, for 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 resulting state, (ii) adjectival V-é forms are derived from stem 12 of the V (not from Past participle).

4.3. Though sentence (31b) entails (31c), the latter does not denote a state but an ongoing action: it is the passive version of (31a), 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.

(31) 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-é form built on an atelic verb and expressing a state. In such cases, the par-PP expresses the ‘means’ which causes the state to happen, not the Agent (Fradin 2011).

(32) 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)’
c. Le vaisseau sanguin est obstrué (par un caillot).
‘The blood vessel is obstructed (by a clot)’

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. (32b)). Therefore, sentence (32c) does not express a resultative state. The nominalizations in (33) do not denote a resultative state either, but a mere state.

(33)  
   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 h’
   b.  *L’inondation des ateliers dure depuis une semaine.  
      ‘The flood of the workshops has been lasting for a week’

5. Lexical conditioning

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. locating adverbials (Smith 1991: 113)). Examples (34a) illustrates this case. However, the criterion becomes inoperative as soon as the semantics of the nominalization involves a spatial dimension. This is what happens in (35a, b, c) and, to a lesser extent, in (34c).

(34)  
   a.  La traduction du Kalevala a eu lieu dans ce salon.  
      ‘The translation of Kalevala took place in this living room’
   b.  L’emprisonnement du chauffeur a eu lieu en Suisse.  
      ‘The jailing of the driver took place in Switzerland’
   c.  *Le balayage de la cour a eu lieu dans la caserne.  
      ‘The sweeping of the courtyard took place in the barracks’

(35)  
      ‘The annexion of Locania took place in Asia’
   b.  *L’isolement du village s’est produit à la montagne.  
      ‘The isolation of the village happened in the mountains’
   c.  *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 (35a, 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 (34c), 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 (34b) and (35d) 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 (36) 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 (12a) and attested again in (37). Hence, the latter verbs will not be considered as scalar.

(36)  
<p>| | |</p>
<table>
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<tr>
<td>a.</td>
<td><em>La neige a graduellement isolé le village.</em>&lt;br&gt;‘The snow gradually isolated the village’</td>
</tr>
<tr>
<td>b.</td>
<td><em>Les Bordures ont peu à peu annexé la vallée.</em>&lt;br&gt;‘Bordurians gradually annexed the valley’</td>
</tr>
<tr>
<td>c.</td>
<td><em>Les pêcheurs ont peu à peu immergé la nasse.</em>&lt;br&gt;‘The fishermen gradually immersed the fishing trap’</td>
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Moreover, the possibility of inserting the adverb of completion **complètement** in (38) establishes that the scale in question is a closed scale with a maximal endpoint (Hay, Kennedy & Levin 1999; Kennedy & McNally 1999).
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. Extending her criterion to the verbs examined here predicts that the accomplishment they denote does not entail the maximal endstate, for all sentences in (39) are grammatical but one.

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 (39), arguing that the latter do not show that the verb’s scale is lacking a maximal degree value, because what is denied in (39) 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 (39c), 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 end-state, 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. (40))(Kennedy & McNally 1999, 2005). They exhibit the following typical pattern of inferences:

(40) 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’

(41) a. Perret a traduit le Kalevala.
   ‘Perret translated Kalevala’

   b. ⊨ Le Kalevala est traduit.
   ‘The Kalevala is translated’

As we already saw in (17), 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. I suppose that EMPRISONNER\(^1\) 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\(^1\), 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 (18a) cannot express the jailing action.

As a locatum verb, EMPRISONNER incorporates spatial relationship (42a), where \(y\) corresponds to the Figure and \(z\) to the Ground argument (Talmy 1978).\(^{11}\)

\(^8\) REMARKS ON STATE DENOTING NOMINALIZATIONS

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11. Justification for (46a) can be found in (Wunderlich 1997: 102). \(s\) 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
The semantic representation of the stative construction of this verb (cf. (15b)) limits itself to (42b), while the agentive one (cf. (15a)) involves a causal relationship (cf. (42c)).

(42) a. \text{loc}(y, \text{iness}(z)), s)  
b. \lambda z \lambda y \lambda s. \text{loc}(y, \text{iness}(z)), s) \land \text{jail}(z)  
c. \lambda z \lambda y \lambda x \lambda s \lambda e. \text{cause}(x, s, e) \land (\text{loc}(y, \text{iness}(z)), s) \land \text{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 (11c)). The state is achieved only when the causative event has taken place (e < s). Hence the fully grammatical variant of (11c), namely (c) \text{Le duc a emprisonné le chauffeur} ‘The duke jailed the driver’, does entail (10c) \text{Le chauffeur est emprisonné}. Since this state expresses the only content which has some duration, nominalization \text{emprisonnement} will denote this state whenever it co-occurs with a duration predicate as in (18a) \text{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 preceding unasserted event looks like what we have with achievements. This similarity shows up through phenomena based upon modification by \text{almost/presque}. For space reasons, I shall leave their discussion aside in this study.

5.3. Why nominalizations constructed on scalar verbal lexemes such as \text{isoler}, \text{annexer}, \text{immerge}, \text{occuper}, etc. normally have a stative reading when they occur in structure (19b-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 (43), the subject NP is an Agent, whereas in the second (44) it is a Figure, since the relation is purely stative (cf. (32)). Moreover, the closed-scale properties these verbal lexemes exhibit (cf. §5.2) require the introduction of a degree argument \text{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 saying that the way a Figure fills a space may be gradual and may be measured out either on the Figure argument (e.g. \text{immerger la nasse graduellement}) or on the Ground argument (e.g. \text{occuper la vallée peu à peu}).

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may be overridden cf. \text{inonder} note 13 below.

12. 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.
The verbs split up into each construction: *immerger*, *annexer* occur in (43), *occuper*, *encombrer*, *obstruer*, *isoler*1, *inonder* in (44).13 While a duration PP combined with the Indicative Present tense is fully compatible with the stative construction (*cf.* (45)), the same combination gives a poorly acceptable sentence with the agentive construction (*cf.* (46)). The latter impossibility recalls what we observe with achievement verbs and *emprisonner* (*cf.* (47)). This confirms that the change involved in construction (43) has no duration. The contrast between (45) and (46) 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.

(45) a. *Les Syldaves occupent la vallée depuis 1 000 ans.*
    ‘Syldavians have been occupying the valley for 1,000 years’

b. *Les restes du bus encombrent la rue depuis 3 jours.*
    ‘The 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’

    ‘Fishermen have been immersing the fishing trap for 2 hours’

    ‘Bordurians have been annexing Inguria for 5 years’

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13. Actually, *inonder* occurs in syntactic structure (44a) but selects semantic structure (43c), with \( z \) lexically specified (= water). (45d) means (i) \((\text{CAUSE} (\text{Ubangi}, s, e) \land (\text{LOC}(\text{the_village}, \text{SUBESS(water)}), d, s))\). 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.
(47) a. * Nizan atteint le sommet depuis une heure.
   ‘Nizan has been reaching the summit for one hour’
b. ?*Le duc emprisonne le chauffeur depuis 5 mois.
   ‘The duke 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 it starts onwards. We saw in section 4.3 that this state can be expressed equivalently by the V-é (passive) form. This is why the verbal lexemes in (45) entail the state expressed by the V-é form when they occur with sans interruption, as illustrated in (48).

(48) 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 (48), since the outcome of the process they describe is a resulting state, which is not verified until the process has been completed. Besides, the corresponding sentences (49b)-(50b) are ungrammatical. 14

(49) a. Le soleil sèche les kimonos sans interruption depuis 2 heures.
   ‘The sun is drying kimonos without interruption for 2 hours’
   ‘Kimonos are dry without interruption for 2 hours’

(50) 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’

14. 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.
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 (51), 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 (52) 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.

(51) 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 an mais il ne sera jamais plein.
   ‘She has been filling the basin for 1 year but it will never be full’

(52) 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’
b. *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 (44) do entail the state reading when occurring with a duration verb or a duration PP.

(53) 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 (43) (ANNEXER, IMMERGER, etc.) as we already saw in (27) e.g. L’annexion de la vallée dure depuis 100 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 (46) illustrates.

5.4. 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, (54a) entails (54b) since it describes an event which has not been completed.

(54) 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 schema (44) behave this way. Some of them entail a positive sentence as (55)-(56) show.

(55) 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’

(56) 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 (55a) only a spatial relation is at stake, and since it is verified, entailment (55b) follows. In (56a) two semantic relationships are involved: the spatial relation between the remains and the street and the obstruction relation. Since both are verified, entailment (56b) holds equally. In (57) too, two relations are involved: the spatial relation and a confinement 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.

(57)  
      ‘Bordurians have partially isolated the village’
  b. Les Bordures ont isolé le village.
      ‘Bordurians have isolated the village’

Note that in contradistinction to (55), the entailment is less straightforward in (58), as a reviewer pointed out to me.

(58)  
  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. (55)) and another one in which the idea of controlling the objet NP’s referent is central (cf. military occupation). Sentence (58b) clearly points to this reading, whereas the ADV of completion in (58a), quite automatically, triggers the spatial reading. This clash makes the entailment difficult.  

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 (53a) *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 (53b) *L’encombrement de la rue*..., nor (53d) *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 (53c) *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

15. 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.
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. 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 stative reading appears quite obligatorily in duration contexts, which are 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 representation of the verbal lexemes in question plays 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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REFERENCES


**Résumé**

Certaines nominalisations, formées morphologiquement sur la base de verbes non statifs comme *emprisonner*, sont régulièrement associées à une lecture stative lorsqu’elles apparaissent dans le contexte d’un modifieur ou d’un prédicat de durée. Cet article montre que les nominalisations en question sont toutes construites sur des verbes dont la sémantique comporte une relation spatiale. Les autres facteurs entrant en ligne de compte pour déterminer le caractère statif de l’interprétation sont la scalarité et la stativité du verbe. En général, les lexèmes verbaux ayant une échelle fermée dont le standard correspond au maximum ne peuvent pas avoir de nominalisation présentant une lecture stative comme *traduction*. Les nominalisations étudiées ici, par exemple *immersion*, *occupation*, sont construites sur des léxèmes verbaux présentant ce type de propriété. L’article se propose d’éclaircir pourquoi la lecture stative est néanmoins possible et montre comment on peut y arriver dans le cadre qu’il se donne.

**Mots-clés**

nominalisations, stativité, spatialité, scalarité, dérivation, français.