

The nominalized infinitive in French: structure and change

Petra Sleeman
ACLC, University of Amsterdam

Abstract

Many European languages have both nominal and verbal nominalized infinitives. They differ, however, in the degree to which the nominalized infinitives possess nominal and verbal properties. In this paper, nominalized infinitives in French are analyzed. It is shown that, whereas Old French was like other Romance languages in possessing both nominal and verbal nominalized infinitives, Modern French differs parametrically from other Romance languages in not having verbal infinitives and in allowing nominal infinitives only in a scientific style of speech. An analysis is proposed, within a syntactic approach to morphology, that tries to account for the loss of the verbal properties of the nominalized infinitive in French. It is proposed that the loss results from a change in word order (the loss of the OV word order in favor of the VO word order) and a change in the morphological analysis of the nominalized infinitive: instead of a zero suffix analysis, a derivational analysis was adopted by the speakers of French. It is argued that the derivational analysis restricted nominalization to V^0 , which made nominalization of infinitives less “verbal” than in other Romance languages.

1. Introduction

Nominalized infinitives are so-called mixed categories. They are verbs used as nouns and they can present properties of both categories. In the literature, the more verbal types are generally called verbal infinitives and the nominal types are called nominal infinitives (e.g., Plann 1981, Alexiadou, Iordăchioaia & Schäfer 2010), a distinction that has also been made by Chomsky (1970) for English gerunds. Verbal properties are the combination with a subject, direct complementation, i.e. the combination with direct objects, the combination with auxiliaries, and the combination with adverbs. Nominal properties are the use of a determiner (article, possessive or demonstrative pronoun), modification by an adjective instead of an adverb, and the combination with genitives instead of a subject or a direct object, case marking and pluralization. In its most verbal use, the nominalized infinitive is used without a determiner, but occurs in argument position. In its most nominal use, the nominalized infinitive is lexicalized as a noun. Verbal infinitives and nominal infinitives are situated on a scale between these two extremes. The middle of the scale contains nominalized infinitives in which verbal and nominal properties are mixed.

Many European languages possess nominalized infinitives (or other non-derived nominalizations such as the gerund in English and the supine in Romanian). Alexiadou et al. (2010) argue that there is no parametric difference between Germanic and Romance languages with respect to the properties of non-derived nominalizations. The four Germanic and Romance languages that they analyze, viz. English, German, Spanish, and Romanian, possess both verbal and nominal non-derived nominalizations. Alexiadou et al. show, however, that there is variation between the non-derived nominalizations with respect to their position on the scale. In some

Germanic and Romance languages, they can be more “verbal”, i.e. can have more verbal properties, than in others.

In this paper, I show that there is not only variation with respect to the position on the scale for non-derived nominalizations between Germanic or Romance languages, but also between several stages in the development of the same language. More specifically, this paper deals with nominalized infinitives in French. I show that, whereas Old French was like other Romance languages, Modern French differs parametrically from other Romance languages in not having verbal infinitives and in allowing nominal infinitives only in a scientific style of speech.

In the first part of this paper, I present the properties of the nominalized infinitives in Old and Modern French, and I compare their properties to the properties of the four Germanic and Romance languages analyzed by Alexiadou et al. (2010), placing them on a scale containing the most verbal non-derived nominalizations on one side and lexicalized non-derived nominalizations on the other. In the second part of the paper, I try to account for the loss of the verbal properties of the nominalized infinitive in French.

The paper is organized as follows. In section 2, I present the properties of nominalized infinitives in Old and Modern French. In section 3, I present Alexiadou et al.’s (2010) analysis of non-derived nominalizations in four Germanic and Romance languages, and I extend their analysis to Old and Modern French. In section 4, I present some proposals that have been made in the literature for the fact that the nominalized infinitive in French lost its verbal properties in the course of its development. In section 5, I present an alternative account. More specifically, instead of the syntactic analyses that have been proposed in the past for the restriction on the use of the nominalized infinitive in French, I give a morphological analysis, within a syntactic approach to morphology. Finally, in section 6, I summarize the results of this paper.

2. Nominalized infinitives in Old French and Modern French

Just as Modern French, Old French had infinitives that were lexicalized as a noun. Buridant (2008) gives, e.g., the following examples:

- (1) *tot le savoir*
all the knowing
‘every knowledge’
- (2) *son panser*
his thinking
‘his thoughts’

Buridant provides a list of 23 lexicalized nominalized infinitives, some of which could also be used in a non-lexicalized way. Some examples from this list, besides (1) and (2), are the following: *l’avoir* ‘the possession’, *le baisier* ‘the kiss’, *le devoir* ‘the duty’, *le disner* ‘the dinner’, *le plaisir* ‘the pleasure’, and *le pooir* ‘le pouvoir’.

Old French also had non-lexicalized nominal infinitives. In the literature, two types are distinguished: verbal infinitives and nominal infinitives (e.g., Foulet 1980, Buridant 2008). Verbal infinitives predominantly have verbal properties such as the combination with a direct object, personal pronouns, an adverb, or negation:

- (3) *au mengier cuire*
for-the meal cooking
'for the preparation of the meal'
- (4) *au metre le en terre*
at-the put-him in ground
'at the moment of burying him'
- (5) *del aler ensemble*
of-the going together
'of going together'
- (6) *du non tenir*
of-the not keeping
'of not keeping'

Nominal infinitives predominantly have nominal properties such as the combination with a determiner, nominal inflection, adjectival or prepositional modifiers:

- (7) *son beau chanter*
her beautiful singing
- (8) *li porters dou rainsel*
the carrying.NOM of-the small-branch

Buridant (2008) states that at the end of the Old French period, which took place around the fourteenth century, the nominalization of infinitives is still a productive process, for instance in combination with an indirect object or a possessive pronoun:

- (9) *pour veoir que Madame diroit, le commencer à parler de celle dame*
to see what madam would-say the starting to speak of this lady
remist à elle
left to her
'in order to see what Madame would say, she left it to her to start to talk about this woman'
- (10) *et un autre de bonne taille pour vostre chevauchier a tous les jours.*
and an other of good size for your horse-riding at all the days
'and another one having a good size for your daily horse riding'

However, in this period already, nominalizations of infinitives are more restricted than before. This is illustrated by the 15th century prose version (Petit & Suard 1994) of Jakemes' Chastelain de Couci (late 13th century), where many nominalized infinitives have been replaced by other (sometimes more complicated) structures:

- (11) *après disner* (13th century) → *quand ce vint qu' ils eurent disné* (15th century)
after dining when it came that they had dined

In the 16th century, Du Bellay tries to revive nominalized infinitives, probably influenced by the productivity of this (Greek and Latin) construction in Italian. However, he does not succeed in

imposing this construction. There are also some other authors in this century that use non-lexicalized nominalized infinitives, being influenced by Italian authors. Nominalized infinitives are also used in translations of Italian or Spanish texts. Remarkable is the extensive use of non-lexicalized nominalized infinitives by Montaigne. Fournier (1998) observes that after 1650 the nominalized infinitive is only used in archaic styles or in special domains.

This is confirmed by Schapira (1996). She states that most of the infinitives in the list of nominalized infinitives given by Grevisse (1969) are lexicalized (*le baiser* ‘the kiss’, *le repentir* ‘the regret’, *le déjeuner* ‘the lunch’, *le rire* ‘the laugh’, etc.):

- (12) *avoir* ‘to have’, *baiser* ‘to kiss’, *boire* ‘to drink’, *coucher* ‘to sleep’, *déjeuner* ‘to lunch’, *devenir* ‘to become’, *devoir* ‘must’, *dîner* ‘to dine’, *dire* ‘to say’, *être* ‘to be’, *faire* ‘to make’, *goûter* ‘to taste’, *lâcher* ‘to release’, *laisser-aller* ‘to let go’, *laisser-croire* ‘to let believe’, *lever* ‘to rise’, *manger* ‘to eat’, *marcher* ‘to walk’, *paraître* ‘to appear’, *parler* ‘to speak’, *penser* ‘to think’, *pis aller* ‘to get worse’, *pouvoir* ‘can’, *repentir* ‘to regret’, *rire* ‘to laugh’, *savoir* ‘to know’, *savoir-faire* ‘to know to do’, *savoir-vivre* ‘to know to live’, *sortir* ‘to go out’, *souper* ‘to supper’, *sourire* ‘to smile’, *souvenir* ‘to remember’, *vivre* ‘to live’, *vouloir* ‘to want’.

However, Shapira observes that there are also some infinitives, belonging to the domain of philosophy, that are still verbal: *le devenir* ‘the becoming’, *l’être* ‘the being’, *le paraître* ‘the seeming’, and *le vouloir* ‘the willing’. She also states that since the beginning of the 20th century, the non-lexicalized use of infinitives is not limited anymore to philosophy, but is extended to psychology, sociology, and literary criticism. In the second half of the 20th century the use of nominalized infinitives has been extended to linguistics and semiotics.

This is also observed by Kerleroux (1990, 1996). Kerleroux claims that the use of the nominalized infinitive is still productive today and is also attested in the press. Kerleroux provides the following list of non-lexicalized nominalized infinitives found in the press:

- (13) *le gouverner* ‘the governing’, *l’habiter* ‘the living’, *l’oser* ‘the daring’, *le montrer* ‘the showing’, *l’agir* ‘the acting’, *le vouloir dire* ‘the wanting to say’, *le voir* ‘the seeing’, *le palper* ‘the palpating’, *l’obéir* ‘the obeying’, *le craindre* ‘the fearing’, *le croire* ‘the believing’, *le courir* ‘the running’, *le couler* ‘the flowing’, *le danser* ‘the dancing’, *le suivre* ‘the following’, *l’énoncer* ‘the enunciating’, *le signifier* ‘the meaning’, *le lire* ‘the reading’, *l’expliquer* ‘the explicating’, *le savoir raconter* ‘the knowing to tell’, *l’apprendre* ‘the learning’, *le comprendre* ‘the understanding’, *le survivre* ‘the surviving’, *le (double) entendre* ‘the (double) hearing/meaning’, *le mourir* ‘the dying’, *le parler (vrai)* ‘the speaking truthfully’, *l’écrire* ‘the writing’, *le dormir* ‘the sleeping’, *l’oublier* ‘the forgetting’, *le peindre* ‘the painting’, *le mentir* ‘the lying’, etc.

According to Buridant, the non-lexicalized nominalized infinitive is regularly used in the press to express a way of living or a way of feeling: *le bien vivre* ‘the good life’, *le vivre ensemble* ‘the fact of living together’, *le savoir-nager* ‘the fact of being able to swim’, etc.

Kerleroux shows, however, that the combinational properties of the newly emerging non-lexicalized nominalized infinitives are restricted. They only occur with modifiers of the noun and cannot be used in combination with arguments.

In this section, I have shown that nominalized infinitives in French have lost their verbal properties in the course of its development. In the next section, I determine how Old French and Modern French nominalized infinitives can be situated on a scale of properties of nominalizations, which range from purely verbal to purely nominal properties.

3. Old and Modern French nominalized infinitives on a scale of nominalizations

Alexiadou et al. (2010) show that Spanish, Romanian, German, and English all possess both verbal non-derived nominalizations and nominal non-derived nominalizations. Verbal properties are nominative and accusative case assignment, the occurrence with auxiliaries, and the licensing of adverbials. Nominal properties are the combination with a genitive subject or object, the presence of gender features, pluralization, the possibility to combine with all kinds of determiners.

Adopting a Distributed Morphology approach (Halle and Marantz 1993, 1994; Marantz 1997, 2001; Harley and Noyer 1999; Embick and Noyer, 2006), Alexiadou et al. account for the various properties of the non-derived nominalizations in the four analyzed languages by assigning them different internal structures, expressed by the presence or absence of various verbal or nominal functional projections (see also Alexiadou 2001). Verbal nominalizations consist of a lexical root dominated by vP, and VoiceP, and by the verbal Functional Projections TP and/or AspP, as illustrated in (14). Nominal nominalizations have mixed properties. They contain a lexical root dominated by AspP and/or vP and VoiceP, and by the nominal Functional Projections nP, ClassP, and/or NumP, which is illustrated in (15). Both types of nominalizations are dominated by DP:

(14) [DP [TP [Aspect [VoiceP [vP [Root]]]]]]

(15) [DP [(NumberP) [ClassP [nP [AspP [VoiceP [vP [Root]]]]]]]]

Alexiadou et al. analyze the Spanish verbal nominalized infinitive as the most verbal one, containing TP in its internal functional structure. Alexiadou et al. argue that the presence of TP is evidenced by the licensing of nominative subjects and reflexive object clitics in Spanish verbal nominalized infinitives:

(16) *el cantar yo la Traviata*
 the sing.INF I.NOM the.ACC Traviata
 ‘me singing the Traviata’

(17) *el afeitarse la barba Juan*
 the shaving-clitic the beard Juan
 ‘John shaving his beard’

The presence of AspP is evidenced by the presence of auxiliary verbs and/or aspectual adverbs. The English verbal gerund, the Spanish and the German verbal nominalized infinitive all contain AspP, as shown by Alexiadou et al. (2010):

(18) a. *His having read War and Peace*
 b. *Pat disapproved of John’s quietly leaving the room.*

- (19) a. [*El haber él escrito novelas*] *explica su fama.*
 the have.INF he written novels explains his fame
 ‘His having written novels explains his fame’
 b. *el escribir ella novelas constantemente*
 the write.INF she novels constantly
 ‘Her constantly writing novels’
- (20) a. [*Dauernd Kuchen Essen Wollen*] *nervt.*
 permanently cake eat.INF want.INF is-annoying
 ‘permanently wanting to eat cake is annoying’
 b. [*Häufig die Sterne Beobachten*] *macht Spass.*
 frequently the.ACC stars observe.INF makes fun
 ‘frequently observing the stars is nice’

Following Iordăchioaia & Soare (2008), Alexiadou et al. assume that the Romanian supine also contains AspP, which hosts a pluractional operator (Lasersohn 1995, Van Geenhoven 2004). According to the authors, this explains the compatibility of atelic *for*-PPs with inherently telic verbs (21a). The Romanian supine can also combine with aspectual adverbs (21b):

- (21) a. *sositul lui Ion cu întârziere timp de 3 ani*
 arrive.SUP-the John.GEN with delay for 3 years
 ‘John arriving with delay for 3 years’
 b. *citit(ul) constant al ziarelor*
 read.SUP-the constantly of journals.GEN
 ‘the constant reading of journals’

Nominal properties are the combination with a genitive/PP subject (22, Spanish), a genitive/PP object and the combination with adjectives (23, Romanian), gender features (24, Spanish), case on the nominalized form (25, German), pluralization (26, English), and the combination with all kinds of determiners (27, German). Although only the Romanian nominalized infinitive and the English nominal gerund can pluralize, whereas the Spanish and the German nominalized infinitives cannot, the other nominal properties are available for the nominal non-derived nominalizations in the four types of languages discussed by Alexiadou et al., except for gender on nominal gerunds in English. The following examples illustrate the various properties:

- (22) *el trabajar de Juan en el campo*
 the work.INF of John in the garden
 ‘John’s working in the garden’
- (23) *constanta omiterea unor informații*
 constant omit.INF-the of some infos
 ‘The constant omitting of some information’
- (24) *Accostumbrado al dulce mirar de su amada,*
 used to-the sweet gaze.INF of his beloved,

- ya no podía vivir sin él /*ello.*
 now not could live without him/it
 ‘Used to the sweet gaze of his loved one, he could no longer live without it.’
- (25) *wegen des Lesens eines Buches*
 because of-the.GEN read.INF.GEN a.GEN book
 ‘because of the reading of a book’
- (26) *the repeated killings of unarmed civilians*
- (27) *das/dieses/ein/kein/jedes Singen der Marseillaise*
 the/this/a/no/every sing.INF the.GEN Marseillaise
 ‘the/this/a/no/every singing of the Marseillaise’

Alexiadou et al. assume that adjectival modification and genitive case checking (for both the subject and the object, see Alexiadou 2001) are located within the nP. They assume furthermore that plural is available under NumberP, provided that ClassP is [+count]. Finally, they assume that gender and case of the nominal nominalization are checked in ClassP, by movement of n^o to Class^o. Furthermore, German nominalized infinitives can also be combined with low adverbs, which points to the additional presence of AspP above VoiceP in (15), according to Alexiadou et al.:

- (28) *Das dauernde laut Singen der Marseillaise*
 the constant loudly sing.INF the.GEN Marseillaise

On the basis of the nominal properties of non-derived nominalizations in the four languages under consideration, Alexiadou et al. arrive at the following distinctions:

- (29) a. [DP [ClassP [nP [AspectP [VoiceP [vP ...
 b. [DP [ClassP_[-count] [nP [VoiceP [vP ...
 c. [DP [(NumberP) [ClassP_[±count] [nP [VoiceP [vP ...

German nominal infinitives have structure (29a), Spanish nominal infinitives have structure (29b) and English and Romanian nominal infinitives have structure (29c).

Alexiadou et al. do not explicitly discuss the licensing of various kinds of determiners by the nominal nominalizations. We could assume that their licensing is related to the presence of ClassP and NumberP in the structure of nominal nominalizations. Alexiadou et al. do not discuss the licensing of accusative case by verbal nominalizations either. In Alexiadou (2001) accusative case assignment is licensed by v^o. We could assume that if nP is present, genitive case and not accusative case is assigned to the object, v becoming defective (see Alexiadou 2001). In the same spirit, if nP is present, the subject receives genitive case from n^o, and not nominative case from T^o, which is absent. Finally, Alexiadou et al. do not discuss the licensing of an agentive *by*-phrase. Under the Voice Hypothesis put forth in Kratzer (1994), passive Voice introduces the *by*-phrase. We could assume that if nP licenses a genitive subject, Voice does not license a *by*-phrase.

Alexiadou et al. show that non-derived nominalizations can also have mixed nominal and verbal properties. Whereas verbal nominalizations in English, Spanish, and German assign accusative case to their objects, as illustrated by (18-20), the Romanian supine assigns genitive case to its object, as shown in (21b). Alexiadou et al. relate this possibility in Romanian to the

suffixed article, which creates a (defective) nominal environment. As for nominal infinitives, we already saw that German nominal infinitives can be modified by adverbs (28, 29a). Furthermore, Alexiadou et al. show that, in Spanish, nominal infinitives appear with bare nouns, as in (30), but not with accusative DPs, as in (31) (Pérez Vázquez 2002). They follow Bosque (1989) in assuming that in (30) the bare noun is incorporated:

- (30) [*El cantar coplas de Lola*] *nos emociona*.
 the sing.INF songs.ACC of Lola us moves
 ‚Lola’s singing songs moves us’
- (31) [**El cantar estas coplas de Lola*] *nos emociona*
 the sing.INF these.ACC songs of Lola us moves

Spanish seems to be the most permissive language of the four languages analyzed by Alexiadou et al. (2010). In Spanish TP can be nominalized. There seem to be, however, even more permissive languages. Panagiotidis & Grohmann (2006) show that in Greek CP can be nominalized (see also Alexiadou 2002):

- (32) *ghnorizo to pos agonizeste sklira*
 know.1st SG the how fight.2nd PL hard
 ‚I knowing how to fight hard’
- (33) [_{DP} *to* [_{CP} *pos* [_{TP} *agonizeste sklira*]]]
 the how fight hard

In (34) I provide an example from Dutch, which I found on the Internet, and which suggests that in Dutch as well nominalization of a (reduced) CP is possible:

- (34) [_{DP} *het* [_{CP} *hoe* [_{TP} *te handelen*]]] *is nog niet duidelijk*
 the how to act is not yet clear
 ‚how to act is not yet clear’

In the previous section, I presented the properties of nominalized infinitives in Old French and in Modern French. Old French both had verbal nominalized infinitives and nominal infinitives. Verbal nominalized infinitives that appear with nominative subjects are not mentioned in the literature on the nominalized infinitive in Old French. Verbal nominalized infinitives in Old French could be combined with accusative complements and with aspectual or other adverbs. This suggests that the Old French verbal nominalized infinitive can be compared to the German verbal nominalized infinitive, to the Romanian supine, and to the English verbal gerund. In Old French, nominalization took place at a lower level in the structure than in Spanish and in Greek or Dutch. Whereas in Greek and Dutch a whole CP can be nominalized, in Spanish the highest level of nominalization seems to be TP, and in Old French it was AspP:

- (35) *au passer le cemetire*
 at-the crossing the graveyard
 ‚while crossing the graveyard’

- (36) *au souvent descochier*
 at-the often shooting-arrows
 ‘while shooting many arrows’

Nominal infinitives in Old French could be combined with adjectives, with all kinds of determiners and with genitives. Buridant (2008) also gives an example of a plural, which suggests that nominal infinitives in Old French had structure (29c). Since this is the only example of a plural that Buridant gives, it rather seems to be the case that Old French had structure (29b).

- (37) *divers maintenirs*
 different conducts

Alexiadou et al. consider the presence of case on the nominalized form to be a nominal property. However, Buridant provides several examples of verbal case-marked nominalized infinitives. This seems thus to be a mixed case:

- (38) *bien chanters anuie*
 good singing.NOM annoys
- (39) *li dormirs atemprement*
 the sleeping.NOM moderately
 ‘sleeping moderately’
- (40) *li parlars de li*
 the speaking.NOM of her
 ‘speaking of her’
- (41) *li retorners a la place ou il se logierent prumierement*
 the returning.NOM to the place where they REFL. resided first

According to Kerleroux (1996), in Modern French, verbal nominalization of infinitives does not exist anymore. Nominalized infinitives cannot be combined with objects or aspectual adverbs:

- (42) **Le donner des bonbons aux petits enfants est déconseillé.*
 the giving IND.PL.ART sweets to-the little children is unrecommended
- (43) **Le laver les mains avec du savon est très important.*
 the washing the hands with IND.SG.ART soap is very important
- (44) **le me voir*
 the me seeing
- (45) **le répondre à mes questions*
 the answering to my questions
- (46) **le souvent répéter*
 the often repeating

Kerleroux (1996) observes that nominalized infinitives are always used without arguments or modifiers, and only in scientific styles. Buridant (2008) shows, however, that nominalized

infinitives, in scientific styles, can be modified by adverbs such as ‘good’, ‘bad’, negation, and that the combination with a modal auxiliary is also possible:

- (47) *le bien dormir*
the well sleeping
‘sleeping well’
- (48) *le non croire*
the not believing
‘not believing’
- (49) *le savoir nager*
the knowing swim
‘being able to swim’

Often, however, the infinitive and the modifier or the auxiliary in the examples that Buridant gives are presented as hyphenated words (*le bien-vivre* ‘the good life’, *le savoir-nager* ‘being able to swim’, *le non-être* ‘the non-being’), which suggests that they form lexical units, and should not be distinguished from simple verbs. Other examples also occur as lexicalized nominalized forms in dictionaries, such as Le Petit Robert (2010):

- (50) *le savoir-vivre*
‘the savoir vivre’
- (51) *le laisser-aller*
‘the laxity’
- (52) *le mal-être*
‘the malaise’
- (53) *le bien-dire*
‘the eloquence’

If adverbial modifiers and arguments are excluded, cases such as (47-49) should thus be analyzed as nominal infinitives and not as verbal infinitives. Kerleroux (1996) suggests that nominal infinitives are still productive in Modern French. She gives some examples of nominal infinitives modified by an adjective, a genitive subject or introduced by a determiner different from a definite article, but she reports that pluralization is not allowed:

- (54) *un lire homothétique à celui qui caractérisera sa vie scolaire*
a reading homothetical to that which will characterize his life of school
‘reading identical to the one that will characterize his school life’
- (55) *l’être et le signifier du signe*
the being and the signifying of-the sign
‘the being and the significance of the sign’
- (56) *il raconte son mourir*
he tells his dying
‘he tells about his passing away’

Buridant also gives some examples of nominal infinitives:

- (57) *l' habiter humain*
 the living human
 'human living environment'
- (58) *son rapporter est ce qui rend possible tout rapport*
 his reporting is that what makes possible every report
 'his reporting makes any report possible'

We can thus conclude that Modern French only allows nominal infinitives (and especially in a scientific style of speech). They have a structure comparable to Spanish nominal infinitives (29b), just like the Old French nominal infinitives:

- (59) [DP [ClassP_[-count] [nP [VoiceP [vP ...

It seems thus that in Modern (scientific) French nominalized infinitives are restricted to type (29b), with the restriction that they cannot be combined with genitive objects, as shown by Kerleroux :

- (60) **l'habiter d'un pavillon*
 the occupying of a house
 'living in a house'

In this section, it was shown that, whereas Modern French only has nominal infinitives (without genitive objects and only in a scientific style), Old French also had verbal nominalized infinitives. In the next section, I present some studies that have tried to account for the loss of verbal properties (in scientific styles) or the loss of both types of nominalized infinitives (in standard French).

4. Explanations for the loss of argument structure

Buridant (2008) gives several possible reasons for the gradual loss of verbal nominalized infinitives in middle French. One of these reasons is the loss of the final *-r* of the infinitive in pronunciation. Because of this loss, the infinitive ending in *-er* and *-ir* became homophonous with the past participle, ending in *-é* or *-i*. This led to ambiguity, *l'aimer* 'the loving' becoming homophonous with *l'aimé* 'the loved one' (Wagner 1953). Another possible reason mentioned by Buridant is the development of abstract nouns ending in e.g., *-tion*, *-ment* or *-ance* (Wulff 1875). A third reason is the establishment of a form-function relation in the Middle French period. Whereas in the Old French period e.g. possessive or demonstrative pronouns could be used both with a nominal and an adjectival function, in Middle French a form-function correspondence was established: one form for the adjectival function and another form for the nominal function. In the same way, the infinitive lost one of its functions, viz. its function as a nominalized infinitive. A fourth reason is the substitution of nominalized infinitives with a temporal meaning (*au passer le cemetire* 'at the crossing of the graveyard') by gerunds ending in *-ant* (Combettes 2003). A final possible reason for the loss of argument structure advanced by Buridant is a change in the position of clitics with respect to the infinitive. Whereas in old French

clitics were used in enclisis with respect to the infinitive, in Middle French they became proclitic, which led to ambiguity (Schaefer 1911):

- (61) *pour le convoier*
to escort him / for the escort

Kerleroux (1996) also relates the loss of argument structure of nominalized infinitives to a change in the position of clitics with respect to infinitives. According to Kerleroux this created cacophony when the definite determiner was followed by a masculine singular pronoun:

- (62) **Le le voir malade me fait mal.*
the him see ill me does pain

Rochette (1988) relates the loss of nominalized infinitives to a parametric change: Infl became [–pronominal] in French. This parametric change led to various changes at the same time in Old/Middle French. This parametric change did not occur in other Romance languages such as Italian and Spanish, which would explain why these languages still have nominalized infinitives and also the other properties that are licensed by [+pronominal] Infl:

- loss of null subjects. Only [+pronominal] Infl licenses null subjects (Rizzi 1982):
- (63) *Donrai vos une offrande molt avenant.* → *
I-will-give you a present very beautiful
'I will give you a very beautiful present.'
- loss of restructuring in French (Rizzi 1982). In Italian, Spanish, and Old French, clitics raise to [+pronominal] Infl of the auxiliary verb. In Modern French, clitics do not raise independently of the verb to [–pronominal] Infl:
- (64) *Je le veux savoir.* → *Je veux le savoir.*
I it want know
'I want to know it.'
- loss of the postnominal position of clitics with respect to infinitives. In Italian, Spanish, and Old French, the clitic moves to [+pronominal] Infl dominating the infinitive, and the infinitive adjoins to the left of the clitic. In Modern French, the clitic left-adjoins to the infinitive, which does not raise to [–pronominal] Infl:
- (65) *Il ne cesse de proier la.* → *Il ne cesse de la proier.*
he not ceases to beg her
'He does not stop begging her.'
- loss of the nominalized infinitive in syntax. Whereas in Italian, Spanish, and Old French, there is a [+pronominal] Infl dominating the infinitive to which it moves, and which attracts the infinitive, in Modern French the infinitive does not move to [–pronominal] Infl, and, as a consequence, is not nominalized in syntax.

- (66) *Li chevauchiers me porroit moult nuire.* → *
 the horse-riding me could much damage
 ‘Horse-riding really could harm me.’

Pollock (1997) adopts Rochette’s analysis of the loss of nominalized infinitives in French. As an additional argument he advances the change in the position of negation with respect to the infinitive, which would suggest that the infinitive did not raise anymore to I^o, which had lost its [+pronominal] character:

- (67) ... *mais elle feignit ne vouloir pas jouer.*
 but she feigned NEG will NEG play
 ‘but she feigned that she didn’t want to play.’
 (68) ... *mais elle feignit de ne pas vouloir jouer.*

Most of the explanations Buridant (2008) advances for the loss of the verbal nominalized infinitive (see the beginning of this section) are not convincing. The context often resolves ambiguity (e.g., *le beau* ‘the beautiful man’ or ‘the beautiful thing’). In English, the verbal gerund exists next to the nominal gerund and derived nominalizations. A one form – one function correspondence is not common in French. French also has, e.g., nominalized adjectives. The temporal meaning was only one of the uses of the nominalized infinitive. The ambiguity caused by the raising of the clitic pronoun to a prenominal position can be resolved by the context or the intonation. A language like Dutch also has nominalized infinitives and pre-infinitival pronouns. However, in Dutch, the existence of pre-infinitival pronouns does not negatively influence the use of nominalized infinitives because of ambiguity:

- (69) *Ik hoor het regenen op het dak.*
 I hear it rain on the roof
 I hear the raining on the roof
 (70) *Ik wil het dromen.*
 I want it dream ‘I want to dream it.’
 I want the dreaming

This also holds for the presumed cacophony caused by the combination of the article with the pre-infinitival, homophonous, pronoun (Kerleroux 1996). In French, there are other cases of cacophony. Although the combination of *de de* is ruled out in French, other homophonous forms can co-occur:

- (71) **Il est accusé de de grands crimes.*
 he is accused of DET.IND. big crimes
 (72) *Laisse-le le prendre.*
 let him it take
 ‘Let him take it.’

- (73) *en en prenant connaissance*
 while of-it taking knowledge
 ‘while taking knowledge of it’

The parametric change of Infl into [-pronominal] is not a feasible reason either. Other languages, such as German discussed in the previous section, do not have null subjects, which suggests that they have a [-pronominal] Infl, but they have nominalized infinitives.

In the next section I present another recent analysis of nominalized infinitives, made within the Distributed Morphology framework, in which derived words are formed in Syntax, which will allow me to propose another reason for the loss of verbal nominalized infinitives in French.

5. Account of the change in French

In section 3, I presented Alexiadou et al.’s (2010) analysis within the framework of Distributed Morphology of verbal and nominal nominalized infinitives in several Romance and Germanic languages and my analysis of nominalized infinitives in Old and Modern French within this framework. It was shown that languages can differ slightly with respect to the presence or absence or the specification of verbal or nominal functional projections.

In this section, I present another analysis of nominalized infinitives within the framework of Distributed Morphology. This analysis more specifically focuses on the point in the syntactic structure where nominalization can take place.

Ackema & Neeleman (2004) show for Dutch that, although in principle nominalization can take place at every position in the syntactic structure,

Deze zanger is vervolgd voor...
 This singer has-been prosecuted for...

- | | | | | |
|------|-----|------------|-----------------|---------------------------------------|
| (74) | ... | <i>dat</i> | <i>stiekeme</i> | <i>jatten van succesvolle liedjes</i> |
| | | that | sneaky.ADJ | pinch of successful songs |
| (75) | ... | <i>dat</i> | <i>stiekeme</i> | <i>succesvolle liedjes jatten</i> |
| | | that | sneaky.ADJ | successful songs pinch |
| (76) | ... | <i>dat</i> | <i>stiekem</i> | <i>succesvolle liedjes jatten</i> |
| | | that | sneaky.ADV | successful songs pinch |

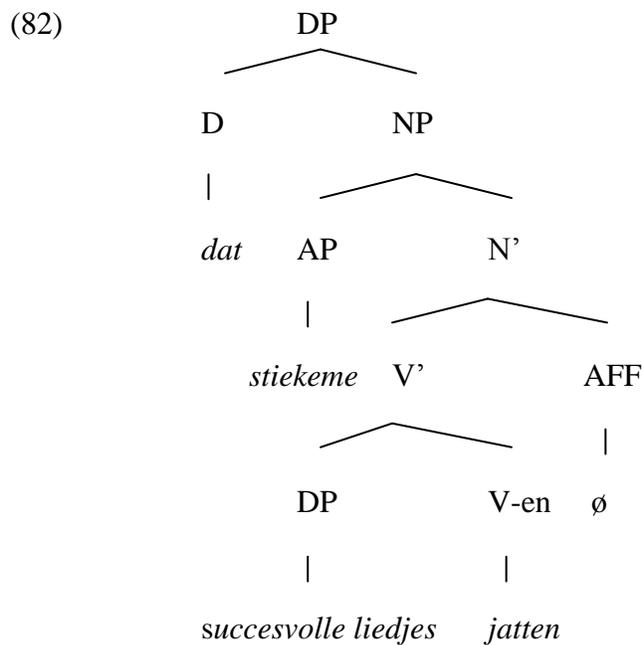
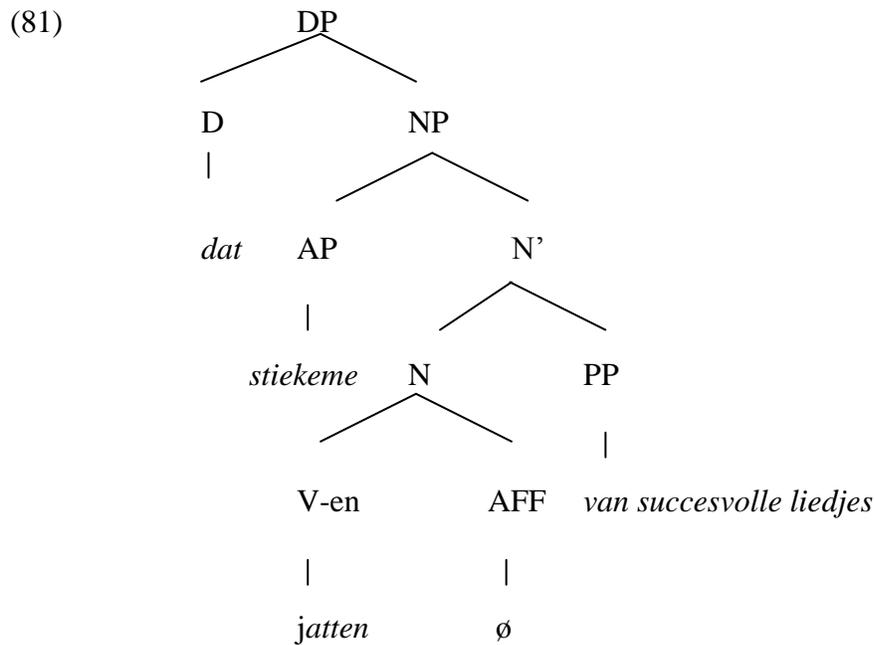
nominal projections have to dominate verbal projections:

Deze zanger is vervolgd voor...
 This singer has been prosecuted for...

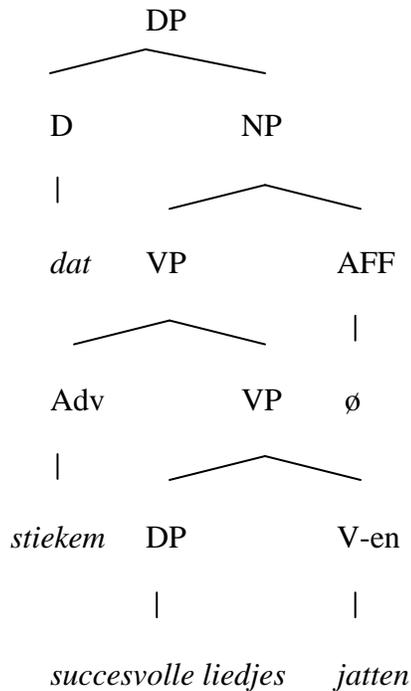
- | | | | | | |
|------|-----|------------|------------------|-----------------|-----------------------|
| (77) | ... | <i>dat</i> | <i>constante</i> | <i>stiekeme</i> | <i>liedjes jatten</i> |
| | | that | constant | sneaky | songs pinch-INF |
| (78) | ... | <i>dat</i> | <i>constante</i> | <i>stiekem</i> | <i>liedjes jatten</i> |
| | | that | constant | sneakily | songs pinch-INF |

- (79) ... **dat* constant *stiekeme* *liedjes jatten*
 that constantly sneaky songs pinch-INF
- (80) ... *dat* constant *stiekem* *liedjes jatten*
 that constantly sneakily songs pinch-INF

Ackema & Neeleman provide the following structures in order to show at which place in the structure the null suffix can produce a change of category:



(83)



Although these structures differ somehow from Alexiadou et al's (2010) structures presented in section 3, they illustrate the same thing. In (81), which represents (74), nominalization takes place at a low level in the syntactic structure. Only V^0 , i.e. the bare infinitive, is nominalized. The nominalized verb is combined with a PP that is the complement of N, and an adjective that is the specifier of NP. In (82), the null affix is attached to V' , i.e. the infinitive and its direct complement, which precedes the verb, Dutch being an SOV language. The adjectival modifier is again in Spec,NP. This structure represents (75). In (83), the whole VP, including the adverbial modifier, is nominalized. This structure represents (76).

In the spirit of Williams' (1981) Right-Hand Head Rule Ackema & Neeleman claim that whereas a null suffix can attach both to OV and VO constituents, an overt suffix can only attach to OV constituents:

(84)

	Null affixation	Overt affixation
SVO languages	+	-
SOV languages	+	+

English is an SVO language. It is thus predicted that English gerunds can be formed at any level by means of a null suffix. This prediction is borne out. In (85), the null suffix nominalizes a V constituent, whereas in (86) it nominalizes a VO constituent:

- (85) *John's constant* [_V singing] of the Marseillaise
 (86) *John's constantly* [_V singing the Marseillaise]

Spanish is also a VO-language. In Spanish, nominalized infinitives are also formed by means of a null suffix at any level (V in 87, VP in 88, and TP in 89):

- (87) *El tocar de la guitarra de María me pone nervioso.*
 the play-INF of the guitar of Maria me makes nervous
 'Maria's guitar playing makes me nervous.'
 (88) *El tocar la guitarra de María es muy elegante.*
 the play-INF the guitar of Maria is very elegant
 'Maria's guitar playing is very elegant.'
 (89) *El cantar yo La Traviata traerá malas consecuencias.*
 the sing-INF I La Traviata will-lead bad results
 'Me singing La Traviata will lead to bad results.'

Ackema & Neeleman analyze the *-ing* suffix in the VO-language Norwegian as a derivational, nominalizing, suffix. This accounts for the fact that only V°, and not VO, can be nominalized by the Norwegian suffix *-ing*, which results in a PP form of the object:

- (90) *den ulovlige kopieringen av populaere sanger*
 that illegal-DEF copying-DEF of popular-PL songs-PL

In an OV-language such as Dutch, the null suffix can be attached at any level of the syntactic structure, as shown in (81)-(83), and can thus also nominalize an OV-constituent. Ackema and Neeleman show that in OV-languages an overt derivational suffix can also be attached to an OV-constituent. One of these languages is Korean (example taken from Yoon 1996: 333):

- (91) [[*John-uy [chayk-ul ilk]-um*]-i] *nolawu-n sasil-i-ta*
 John-GEN book-ACC read-NOMINAL-NOM surprise-V.PRENOM fact-be-PRES-
 DECL
 'John's reading the book is a surprising thing.'

After having presented Ackema & Neeleman's analysis of constituents that can be nominalized, I turn again to nominalized infinitives in French, described in sections 2 and 3. On the basis of their analysis of the possible positions of nominalization within the syntactic structure, I propose another explanation of the loss of argument structure with nominalized infinitives in French than the ones presented and criticized in section 4.

Old French allowed both the (non literary) Latin VO word order and the Latin substrate and Germanic superstrate OV word orders, but at the end of the 12th century the VO order became the rule, although SOV is (rarely) attested until the end of the 15th century, and OVS (rarely) until the 17th century (Marchello-Nizia 1995). If nominalized infinitives involve the attachment of a null suffix, Ackema & Neeleman's theory cannot account for the loss of nominalized infinitives in French: null suffixes can be attached both to OV-constituents and to VO-constituents (whereas derivational suffixes can only attach to OV constituents). Ackema &

Neeleman predict that nominalized infinitives in Modern French would be possible, since null suffixes can attach to VO constituents. They claim their theory to be universal. If their theory is correct, it suggests that the loss of verbal infinitives in French is the consequence of the reinterpretation of the inflectional suffix of the infinitive as a derivational suffix. We saw above that whereas in English the suffix *-ing* is an inflectional suffix, it is a derivational suffix in Norwegian. Both languages are VO-languages. Since *-ing* is an inflectional suffix in English, there is a null suffix that can nominalize a VO-constituent in English, as in (86). Since, in Norwegian, *-ing* is analyzed as a derivational suffix, it cannot nominalize a VO-constituent. It can only nominalize V^o, which results in a nominal infinitive, modified by an adjective, genitive DPs, etc., as in (90).

I propose that this is what also happened at the end of the Old French period: the inflectional suffix of the infinitive was reinterpreted as a homophonous derivational suffix:

- (92) *au* [[vP *conquerir Jherusalem*] \emptyset N]
 at.the conquering Jerusalem
 ‘at the conquest of Jerusalem’
- (93) *l’* [[*oser*] \emptyset N]
 the daring
- (94) *l’* [[*os* [*er* N]]

Because of the existence of homophonous lexicalized nominalized infinitives or homophonous derivational suffixes such as *-é(e),-oir(e)/ois*, and *-i(e)* (recall that the *-r* ceased to be pronounced, at least in colloquial speech), the inflectional suffix of the nominalized infinitive was (and still is) reinterpreted as a derivational suffix, attaching to a low level in the structure, and not allowing the verb to take any kind of object, even not a genitive one (which might, in Alexiadou’s system discussed in section 3, be due to a defectiveness of v):

- (95) *le chevalchier* (inf.) ‘the horse riding’ vs. *le chevalchie* (noun)
 (96) *le penser* ‘the thinking’ (inf.) vs. *le pense* (noun) ‘the thought’
 (97) *le parler* ‘the speaking’ (inf.) vs. *le parler* (noun) ‘the language’
 (98) *le manoir* (inf.) ‘the staying’ vs. *le manoir* (noun) ‘the house’
 (99) *le rasoir* (noun) ‘the razor’
 (100) *le laboratoire* (noun) ‘the laboratory’
 (101) *le villageois* (noun) ‘the villager’
 (102) *le bouilli* (noun) ‘the boiled meat’

In a non scientific style of speech, the attachment of the suffix was blocked at any level, i.e. nominalization of infinitives became completely unproductive.

This might also hold for other inflectional suffixes. Whereas in the OV-language Dutch participles preceded by complements or modifiers can be nominalized (it is irrelevant whether the *-e* suffix is analyzed as a derivational suffix, as in Geerts et al. 1984, or an inflectional suffix, as in Kester 1996), in Modern French, which is a VO-language, complements or adverbial modifiers are excluded, and nominalization is restricted, which suggests that the suffix is interpreted as a derivational suffix:

- (103) *het vandaag geleerde*
 (104) **l' appris aujourd'hui*
 the learned today
 'what we have learned today'
 (105) *l' appris*
 the learned (thing)
- (106) *de door iedereen verlatene*
 the by everyone abandoned
 (107) **le délaissé par tout le monde*
 (108) *le délaissé*
 'the abandoned person'

Support for this analysis comes from the fact that the French participial suffixes *-é*, *-i*, and *-u* also serve as derivational suffixes (*le prieuré* 'the priory', *un félidé* 'a felid'; *un apprenti* 'an apprentice'; *un chevelu* 'a hairy person'). This suggests that the distinction between inflectional suffixes and derivational suffixes is not always clear. This also holds for the schwa in Dutch. As I mentioned above, the schwa in (103) and (106) has been analyzed in the literature as a derivational suffix and as an inflectional suffix. In the same way, the infinitival suffixes in French might have been reinterpreted as derivational suffixes. This might have provoked the loss of nominalized infinitives in French.

6. Concluding remarks

In this paper, I have shown that there is a parametric difference between French on the one hand and other Romance languages (Spanish, Italian, Romanian) and Germanic languages such as English, German, and Dutch on the other. Whereas most Romance and Germanic languages possess both verbal and nominal nominalized infinitives, standard French does not have either of these types, and nominal infinitives only exist in a scientific style of speech.

According to Rochette(1988), French lost nominalized infinitives because it became less 'Romance'. Differently from other Romance languages – like Spanish and Italian – French also lost null subjects, Restructuring, and enclitic pronouns on infinitives. Although it is clear that French became less 'Romance' than Spanish, Italian, the relation of the loss of the nominalized infinitive and other Romance characteristics is not very clear and therefore Rochette's account is not very convincing.

Old French had been profoundly influenced by Germanic (see, e.g. De Bakker 1997, Mathieu 2009). At the end of the Old French period, the Germanic characteristics of Old French were lost (see, e.g., Sleeman 2010). In this paper, I have argued that the loss of nominalized infinitives is related to the change in word order in Old/Middle French. Just like Latin, Old French both had a VO and an OV word order. The drift towards a VO word order in Old French was stopped through the influence of the Germanic superstrate, which kept the OV word order alive during the Old French period. When the influence of the Germanic superstrate faded away, OV changed into VO. In this paper, I relate the loss of nominalized infinitives in French to the loss of the OV order, i.e. to the loss of the Germanic influence on French. This means that a characteristic that is present in both Romance and Germanic was lost because of the loss of the

‘Germanic’ character of Old French, although, at the same time, French also became less ‘Romance’.

I have claimed that the syntactic possibilities of the nominalized infinitive became restricted in the SVO-language French because, instead of a zero suffix analysis, a derivational analysis was adopted by the speakers of French. This restricted nominalization to V^0 . This claim followed from Ackema & Neeleman’s (2008) theory of suffixation: derivational suffixes can only attach to OV sequences, but not to VO sequences. The validity of my claim will therefore depend on the further verification of Ackema & Neeleman’s theory.

References

- Ackema, P. & A. Neeleman (2004). *Beyond Morphology. Interface Conditions on Word Formation*. Oxford/New York: Oxford University Press.
- Alexiadou, A. (2001). *Functional Structure in Nominals: Nominalization and ergativity*. Amsterdam/Philadelphia: John Benjamins.
- Alexiadou, A., G. Iordăchioaia & F. Schäfer (2010), “Scaling the variation in Romance and Germanic nominalizations.” In P. Sleeman & H. Perridon (eds.), *The Noun Phrase in Romance and Germanic: Structure, variation and change*, 25-40. Amsterdam/Philadelphia: John Benjamins.
- Alexiadou, A. (2002). “Word order patterns in Greek nominals: aspects of diachronic change”. *ZASPI* 27, 91-108.
- Bakker, C. de (1997) *Germanic and Romance inversion in French: A diachronic study*, Ph.D. dissertation, University of Amsterdam, HIL dissertations 31, HAG, The Hague.
- Bosque, I. (1989), *Las Categorías Gramaticales*, Madrid: Síntesis.
- Buridant, C. (2008). *La Substantivation de l’Infinitif en Français: Etude Historique*. Paris: Honoré Champion.
- Chomsky, N. (1970). “Remarks on nominalization”. In R.A. Jacobs & P.S. Rosenbaum (eds), *Readings in Transformational Grammar*, 184–221. Waltham, Mass.: Ginn and Co.
- Combettes, B. (2003). “L’évolution de la forme en *-ant*: aspects syntaxiques et textuels”. *Langages* 149, 6-24.
- Embick, D. & R. Noyer (2006). “Distributed Morphology and the Syntax/Morphology interface”. In G. Ramchand & C. Reiss (eds.), *Oxford Handbook of Linguistic Interfaces*, 289-324. Oxford: Oxford University Press.
- Foulet, L. (1980). *Petite Syntaxe de l’Ancien Français*. Paris: Champion.
- Fournier, N. (1998). *Grammaire du Français Classique*. Paris: Belin.
- Geenhoven, V. van (2004). “For-adverbials, Frequentative Aspect, and Pluractionality”. *Natural Language Semantics* 12, 135–190.
- Geerts, G. et al., eds. (1984). *Algemene Nederlandse Spraakkunst*. Groningen/Leuven: Wolters-Noordhoff.
- Grevisse, M. (1969). *Le Bon Usage*. Gembloux: Duculot.
- Grimshaw, J. (1990). *Argument Structure*. Cambridge, Mass.: MIT Press.
- Halle, M. & A. Marantz (1993). “Distributed Morphology and the pieces of inflection”. In K. Hale & S. J. Keyser (eds.), *The View from Building 20*, 111-176. Cambridge, MA: MIT Press.

- Halle, M. & A. Marantz (1994). "Some key features of Distributed Morphology". *MIT Working Papers in Linguistics* 21, 275-288.
- Harley, H. & R. Noyer (1999). "Distributed Morphology". *Glott International* 4.4, 3-9.
- Iordăchioaia, G. & E. Soare (2008). "Two Kinds of Event Plurals: Evidence from Romanian Nominalizations". In O. Bonami & P. Cabredo-Hofherr (eds.), *Empirical Issues in Syntax and Semantics* 7.
- Kerleroux, F. (1990). "Du mode d'existence de l'infinitif substantivé en français contemporain". *Cahiers de Grammaire* 15, 55-99.
- Kerleroux, F. (1996). *La Coupure Invisible. Études de Syntaxe et de Morphologie*. Villeneuve d'Ascq: Presses Universitaires du Septentrion.
- Kester, E.-P. (1996). *The Syntax of Adjectival Inflection*. PhD Dissertation. OTS. Utrecht.
- Kratzer, A. 1994. "On External Arguments". In E. Benedicto & J. Runner (eds.), *University of Massachusetts Occasional Papers 17: Functional Projections*, 103-30. Amherst: University of Massachusetts, GLSA.
- Lasersohn, P.. 1995. *Plurality, Conjunction and Events*. Dordrecht: Kluwer.
- Marantz, A. (1997). "No escape from syntax: don't try morphological analysis in the privacy of your own lexicon". In A. Dimitriadis, L. Siegel, C. Surek-Clark & A. Williams, eds., *University of Pennsylvania Working Papers in Linguistics* 4.2, Proceedings of the 21st Annual Penn Linguistics Colloquium, 201-225.
- Marantz, A. (2001). "Words". Hand-out of a paper presented at West Coast Conference on Formal Linguistics, 23-25 February, University of Southern California.
- Marchello-Nizia, C. (1995). *L'évolution du Français: Ordre des mots, démonstratifs, accent tonique*. Paris: Armand Colin.
- Mathieu, E. (2009). "On the Germanic properties of Old French". In P. Crisma & G. Longobardi (eds.), *Historical Syntax and Linguistic Theory*. 344-358. Oxford: Oxford University Press.
- Panagiotidis, P. & K. Grohmann (2006). "On positioning categorial switches", paper presented at the conference : *Universality and Particularity in Parts-of-Speech Systems*. University of Amsterdam.
- Pérez Vázquez, E.. 2002. "A Mixed Extended Projection: The Nominalized Infinitive in Spanish and Italian". *Quaderni del Laboratorio di Linguistica* 14, 143-159. Pisa: Scuola Normale Superiore.
- Petit A. & F. Suard, eds. (1994) *Le Livre des Amours du Chastellain de Coucy et de la Dame de Fayel*. Lille: Presses Universitaires de Lille.
- Plann, S. (1981). "The Two *el* + *infinitive* Constructions in Spanish". *Linguistic Analysis* 7, 203-240.
- Pollock, J.-Y. (1997). *Langage et Cognition. Introduction au Programme Minimaliste de la Grammaire Générative*. Paris: PUF.
- Rey-Debove, J. & A. Rey (2010). *Le Nouveau Petit Robert: Dictionnaire alphabétique et analogique de la langue française*. Paris: Dictionnaires Le Robert.
- Rizzi, L. (1982). *Issues in Italian Syntax*. Dordrecht: Foris.
- Rochette, A. (1988). "Réseau de corrélations: sujet nul, montée et placement des clitiques et le caractère nominal des infinitives". *Revue Québécoise de Linguistique Théorique et Appliquée* 7.3, 175-192.

- Schaefer, C. (1911). "Der substantivierte Infinitiv im Französischen". *Romanische Forschungen* 29, 155-221.
- Schapiro, C. (1995). "La nominalisation de l'infinitif ou L'Abstraction au deuxième degré". In N. Flaux, M. Glatigny & D. Samain (eds.), *Les Noms Abstracts. Histoire et théories*, 395-402. Villeneuve d'Ascq : Presses du Septentrion.
- Sleeman, P. (2010). "L2 acquisition of clitics: Old French as an interlanguage". In V. Torrens, L. Escobar, A. Gavarro & J.G. Magado (eds.), *Movement and Clitics*, 363-390. Cambridge: Cambridge Scholars Publishing.
- Wagner, R.-L. (1953). "L'infinitif substantivé en français et sa disparition". *Grammaire et Philologie* 1.
- Williams, E. (1981). "Argument Structure and Morphology". *The Linguistic Review* 1, 81-114.
- Wulff, F.-A. (1875). "L'emploi de l'infinitif dans les plus anciens textes français". Dissertation, Lund.
- Yoon, J. (1996). "Nominal Gerund Phrases in English as Phrasal Zero Derivations". *Linguistics* 34, 329-356.