

Grammatical markers and grammatical relations in the simple clause in Old French

Nicolas Mazziotta

Universität Stuttgart

Institut für Linguistik/Romanistik

Germany

nicolas.mazziotta@ulg.ac.be

Abstract

The focus of this paper is the description of the surface syntax relations in the simple clause in Old French and the way they can be described in a dependency grammar. The declension system of Old French is not reliable enough to cope with the identification of the dependents of the main verb, but it remains true that related grammatical markers are still observable and obey rules that forbid them to appear in specific syntactic positions.

This study relies on three previous accounts; Igor Mel'čuk's "criteria B", the criteria that are used to determine which is the syntactic governor in a syntactic dependency relation, Thomas Groß's intra-word analysis, which grants morphs node status in the tree, and the concept of *specification* as used by Alain Lemaréchal, who understands grammatical markers as a set of formal constraints that stack over a relation.

I demonstrate that the structure of the nominal dependents of the verb is highly unstable, ranging from explicit marking of the relation to constructions that do not make use of any segmental marker: some structures use bound morphemes, some others use free morphemes and some use only semantic features to express the relations. Moreover, markers are mainly optional and can stack up in a hierarchical way, which results in variable structural organization of the nominal phrase.

1 Introduction

This paper investigates the grammatical markers at work in the structure of the simple clause in Old French (henceforth "OF") and the way they can be

described in a dependency framework (henceforth "DF"). As an introduction, I will first give a quick overview of OF (1.1), and define the focus of this study (1.2).

1.1 Old French: an overview

The term *Old French* roughly corresponds to a continuum of romance varieties that were spoken in the northern half of France, in Wallonia and in England during the Middle Ages (9th-13th C.). To carry on a description of OF, one has to systematize the common ground that all these idioms share as well as the major differences that distinguish the varieties. The paper will focus on that common ground, which can be seen as the direct ancestor of modern French.

From a grammatical point of view, OF is much more analytic than Latin is: many relations are introduced by prepositions. The traditional description of the nominal inflection tells us that Latin declension had shrunk in OF to a simple two-fold opposition between the nominative (Fr. *cas sujet*) and a universal oblique case (Fr. *cas régime*). Periphrastic verbal tenses had developed and the whole aspectual system had changed; the system had become clearly dominated by the opposition between bare forms and compound verbs (expressing aspectual/temporal anteriority).

The distribution of the major constituents of the clause tends to express information-structural properties rather than grammatical ones. Therefore, word order was a lot freer than it is in modern French.

1.2 Question

Others have demonstrated that the declension system of OF is not reliable enough to cope with the identification of dependents¹ of the verb. Several

¹In the remainder of this paper, when no additional precision is given, the terms *dependency*, *governor*, *dependent*, *actant*, *tree*, etc. as well as the \rightarrow symbol between a governor

studies have shown: 1/ that the valence of the verb as well as the semantic properties of the actants are more important than the declension patterns (Schøsler, 1984); 2/ that the declension pattern is so heterogeneous that it cannot be described as a systematic tool (Chambon, 2003; Chambon and Davidsdottir, 2007); 3/ that case markers are an additional mean to express dependencies that would exist without them.²

General grammatical descriptions acknowledge these conclusions, but still deliver long lists of tables describing the different “paradigms” (Buri-dant, 2000).

As unreliable as declension is, it is nevertheless a fact that related grammatical markers are still observable and appear to obey at least some rules. These rules ensure that declension is well integrated with the rest of the grammar, which is invoked as a whole during the communication process (Schøsler, 2013, 173-175). Apparently, the rules block the markers from appearing in certain specific syntactic positions. The purpose of this paper is to describe the syntactic structure of the constructions where they appear. I will make use of DF to model grammatical relations between words (and morphemes, see 2.2), focusing mainly on verbal dependents of the intransitive and transitive minimal clause. As it will appear in the following sections, identifying the dependencies is not a trivial matter, because one has to cope with an unreliable declension system. Even the simplest examples involve complex phenomena inside the noun phrase, that have not yet been described under the scope of DF.³

To achieve a proper description, three major theoretical choices (2) will be used to carry out the analyses (3).

2 Theoretical grounds

My study relies on three primary sources:

- Igor Mel’čuk’s “criteria B”, which, given a pair of forms united by a syntactic depen-

and a dependent, will fall under the scope of surface syntax (Mel’čuk, 2009, 6-7)

²Given the high level of instability of the system, some authors even claim their main purpose is sociolinguistic and indicates that “the speaker is well-integrated in the speech community” (Detges, 2009, esp. 117).

³As explained by Peter Stein and Claudia Benneckenstein (2006) (who mainly focus on the verb), as far as OF is concerned, hardly any question has been described under the scope of DF so far. Nevertheless, the works of Lene Schøsler, starting with her thesis (1984), makes use of Lucien Tesnière’s approach (1966).

ency relation, are used to distinguish between the governor and the dependent (2.1);

- Thomas Groß’s intra-word analysis, which treats morphs (surface expression of morphemes) in the syntactic tree (2.2);
- the concept of *specification* as employed by Alain Lemaréchal, who understands grammatical markers as a set of formal constraints over a relation (2.3).

2.1 Mel’čuk’s criteria for finding dependencies

Given two forms f_1 and f_2 , united by a dependency, which form is the governor? This crucial issue has been debated by so many scholars in many different frameworks that it would not be possible to name them all. From the DF perspective, it seems fair to assume that Arnold Zwicky (1985) has played a major role in clarifying things. Many criteria have been investigated since his work, but it seems that Igor Mel’čuk (2009) has given the most rigorous hierarchized list so far. There are three criteria: namely, in order of importance, B1, B2 and B3.⁴ It is important to note that these criteria are initially meant to be used when f_1 and f_2 are *words* (see sec. 2.2 about morphs).

B1. Igor Mel’čuk claims that the orientation of a dependency between f_1 and f_2 mainly depends on the syntactic criterion based of what he calls *passive valence*:

Passive syntactic valence of a lexeme/of a phrase: a set of syntactic roles which the lexeme/the phrase can take in larger constructions (maybe with some inflectional modifications). In other words, the passive syntactic valence of a lexeme/a phrase is its syntactic distribution. (Mel’čuk, 2009, 4)

The main idea is that the governor controls the passive valence; i.e., f_1 S-governs f_2 if the distribution of the phrase $f_1 + f_2$ is more the one of f_1 than the one of f_2 . In ex. 1, the word *horse* governs the word *white*, because the distribution of *white horse* is more the distribution of *horse* than of *white* (which can be deleted). Note that Igor Mel’čuk speaks about *syntactic* distribution only, without any reference to word order.

⁴C criteria (used to discriminate different dependencies) will not be discussed here (Mel’čuk, 2009, 34-40). A criteria (used to find dependencies between words) are discussed in sec. 2.2.

(1) *the white horse*

One should not confuse this criterion with the omissibility property. Most of the time, governors are not omissible, but it is not always the case; e.g.: in English, the subordination marker *that* constrains the distribution of the clause when it is present, but can be omitted in some cases (Mel'čuk, 2009, 42).

This criterion is a genuinely syntactic one. As such, it must be used first: B2 and B3 must be invoked only if B1 fails. B1 will be extensively used in sec. 3.

B2. Sometimes, B1 simply does not work, because both forms are required in a given context and it is not possible to tell which of the two forms is the one that most constrains the syntactic distribution. In such cases, Igor Mel'čuk invokes the morphological properties of the forms involved: the governor is either the form that controls agreement or morphological government outside of the phrase, or the form that is morphologically governed from outside the phrase.

E.g., the French finite clause must have a subject and the relation between the main verb and the subject is compulsory. Therefore, the distribution of the clause is constrained by both the subject and the verb and B1 does not apply. However, if the clause is subordinate, it is the verb in the subordinate clause that is morphologically dependent of the governing verb. Here, the syntactic governor is the *morphological contact point* of the phrase.

(2) *Je veux qu' il vienne*
I want that he comes-SUBJUNCTIVE
"I want him to come"

In ex. 2, the subjunctive mood of *viene* morphologically depends on the word *veux*. Therefore, at the syntactic level, *viene* governs *il* and *qu'* governs *viene*.

B3. If both B1 and B2 fail, one may then have a look at semantics. The governor is the form that expresses the referential class of the phrase most accurately.

(3) *I eat this jam sandwich*

Take *jam sandwich* in ex. 3; both terms have the same distribution (B1) and neither of the two words is the morphological contact point to some agreement outside the phrase (B2), but *jam sandwich* "refers to a kind of sandwich, rather than a

kind of jam (Mel'čuk, 2009, 31), quoting (Hudson, 1990). Hence, *sandwich* → *jam*.

2.2 Thomas Groß's intra-word analysis

Expanding the Meaning-Text Theory (henceforth "MTT") model (Mel'čuk, 2009) to handle intra-word syntactic dependencies can help produce a more explicit analysis of the relations between segmental units. Thomas Groß's (2011) suggestion will lead to reconsider some of the basic definitions provided by Igor Mel'čuk.

Grammatical markers in MTT. According to Igor Mel'čuk (2009, 23-24), there are only four linguistic means to express meaning:

- lexemes (free words);
- order of lexemes;
- prosody;
- inflection.

For Igor Mel'čuk, there are no other means; excepting inflection, they are all used in all languages in every sentence, and they can express semantic meaning as well as syntactic relations. Igor Mel'čuk also posits out that only lexical units ("full" words or "empty" ones, e.g. prepositions and conjunctions) must be represented in the tree. The order of the lexemes, the prosody and the inflection are not part of the tree: they merely permit one to build it. Let us have a look at a simple German example (ex. 4) from (Groß, 2011, 48).

(4) *mit Kind -er -n*
with child PLURAL DATIVE
"with children"

Fig. 1 displays the classic MTT tree of this phrase, where the bound morphemes expressing the plural and the dative are merged with the lexeme into a single word-form.



Figure 1: MTT analysis of Germ. *mit Kindern*

Extending DF trees to morphology. Thomas Groß (Groß, 2011) suggested that bound morphs too should be represented as well in trees (we will focus only on inflectional morphology, leaving aside constructional morphology). In other words, morphs can be granted node status in surface syntactic representations. The distinction be-

tween *morpheme* (abstract unit) and *morph* (surface realization of this abstract unit) is very important here: only morphs, are considered. The idea is not new, since that Leonard Bloomfield (1933, ch. 10) already considered immediate constituents can be bound or free morphemes and that analysis acknowledging inflection as a *functional head* is widely spread in the Government and Binding paradigm (Haegemann, 1994, esp. ch. 11).

The main argument backing the idea of an intra-word syntax is that bound morphs, which are segmental units, behave similar to grammatical words such as prepositions and conjunctions. Most of these morphs constrain the distribution of the word they are attached to (B1). Consequently, trees should represent intra-word dependencies, i.e. the relation between the lexeme and the bound morphs. This conception is very close to Gilbert Lazard’s idea of *tripartition of syntax* (Lazard, 1984). Gilbert Lazard distinguishes three levels: clause level, phrase level and intra-word level. The intra-word level is traditionally called *morphology*, but these classical terms fails to express the rules of distribution and the combination constraints that morphs undergo with regard to the organization at higher level (syntax). Thomas Groß suggests the tree in fig. 2 to represent the dependencies at work in ex. 4.⁵ The German preposi-

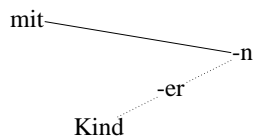


Figure 2: Groß’s analysis of Germ. *mit Kindern*

tion *mit* governs a dative complement, because the dative marker is compulsory with this preposition. The distribution of the dependent of *mit* is the one of any dative noun, but *only* dative nouns: an accusative form would not be grammatically correct. Therefore, *-n* governs the whole nominal phrase (B1). The plural marker *-er* also governs the lexeme, because *-n* must dominate a plural word.

Syntactic vs. morphological dependencies. One must pay attention to the distinction between

⁵The dotted lines represent intra-word dependencies and the hyphen represents lack of phonological autonomy. Also note that the tree somewhat represents word order. Although this aspect is not crucial for this paper, using this convention enhances readability.

morphological and syntactic dependencies⁶. Following Igor Mel’čuk (Mel’čuk, 2009, 12), one can define *morphological dependency* as follows:

The wordform w_2 is said to morphologically depend on the wordform w_1 in the given utterance if and only if at least one grammeme of w_2 is selected depending on w_1 .

On the other hand the existence of a syntactic dependency between two forms (f_1 and f_2) can be checked by the means of two criteria (A1 and A2) that must be met (2009, 25-27):

1. A1: the linear arrangement of f_1 and f_2 must be linearly constrained in a neutral utterance.
2. A2: the combination of f_1 and f_2 , or the combination of f_1 and the subtree governed by f_2 must form a potential prosodic unit (which is equivalent to a *phrase* in the MTT framework).

Of course, a morphological dependency can affect the same forms as a syntactic dependency; e.g.: in *It is blue*, the agreement between the verb and the subject is a morphological dependency, but there also exists a syntactic relation between *it* and *is*.

From the moment one chooses to split words in the syntactic dependency tree, the definition of morphological dependency cannot work any longer and must be revised. With bound morphs, there are fewer problems with A1 than with free lexemes. As far as A2 is concerned, it helps clarify things. In a phrase like *mit Kindern*, it is quite clear that *mit* and *-n* do not form a phrase, but the fact that *-n* governs the rest of the word is enough to ensure that A2 is met. There is no problem either with other intra-word dependencies. The main issue is about inter-word agreement. E.g., in ex. 5 (Groß, 2011, 59), the genitive marker *-es* licenses the occurrence of the word *Dankes*, but it also implies that the article has the form *des* (which could even be split in $d \rightarrow es$). However, the tree (fig. 3) does not display this dependency, but rather *Word* \rightarrow *des*.

- (5) *mit Wort -er -n des*
with word PLURAL DATIVE the-GEN
Dank -es
thank GEN
“with words of gratitude”

⁶The third major type of dependency, namely, semantic dependency, does not deal with morphs and does not need to be scrutinized here.

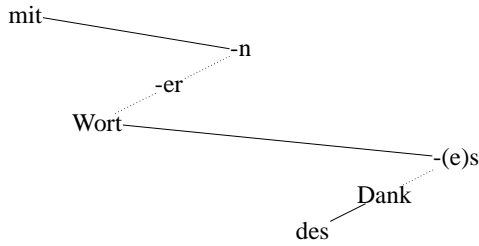


Figure 3: Groß’s analysis if Germ. *mit Wortern des Dankes*

This appears to be quite right because of criterion A2: the reason why *-es* → *des* is not a syntactic dependency is that it does not form a potential prosodic unit (phrase). Therefore, agreement is not a syntactic dependency. Agreement is not sufficient to bring together enough blocks of syntactic units to form a proper phrase. This lets us clearly define the distinction between morphological and syntactic dependencies in the case of form determination: in the case of a syntactic dependency, the form determination constrains the distribution at a higher level and must apply to the head of a phrase; in the case of a morphological dependency, form determination does not necessarily apply to the head of a phrase. This distinction is very different from the one proposed by Igor Mel’čuk.

The only problem that remains is that the presence of one case marker is sometimes compulsory in languages (e.g.: for most Latin nouns, case marking is compulsory). Nouns cannot form a phrase without inflection. Hence, if there is some adjective depending on the noun, such as *carum* in Latin *carum amicum* – see ex. 6 (indices distinguish between forms in the demonstration) and fig. 4 –, the dependency *amic* → *-um₂* seems not to satisfy the A2 criterion (it does not form a phrase).

- (6) *Amic -um₁ car -um₂ video*
 friend ACC dear Acc I see
 “I see (my) dear friend”

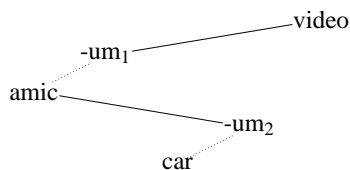


Figure 4: Analysis of Lat. *Amicum carum video*

To solve this kind of problem without losing the benefit of the A2 criterion, we have to posit:

Let $f_1 \rightarrow f_2$ be a compulsory intra-word syntactic dependency. For all inter-word dependencies $f_2 - f_3$, A2 holds if either $f_1 f_2 f_3$ or $f_1 f_2$ and the subtree governed by f_3 forms a potential prosodic unit (= phrase).

Since $-um_1 \rightarrow amic$ is a compulsory intra-word dependency and um_2 is the governor of *car*, there exist a relation between *amic* and um_2 because *carum amicum* is a potential prosodic unit. However, there is no syntactic relation between um_1 and um_2 because $-um carum$ is not a phrase – and $-um carum video$ is not a phrase either.

2.3 Alain Lemaréchal’s specification

Hierarchy of markers. My third theoretical milestone is the concept of *specification* as used by Alain Lemaréchal in his works (1997). The main assumption is that grammatical markers are hierarchized and that the parts of speech also play a role in the way the markers interconnect. Hence, the grammatical markers are the following, in decreasing order of importance:

1. integrative markers (prosody);
2. lexeme order;
3. part of speech compatibilities;
4. segmental units (free relational morphemes and inflection).

This hierarchy is based on the fact that the only compulsory markers are prosodic ones and that words can be connected simply because of their respective part of speech; e.g.: *John slept* (simple past) works because *John* is a noun and *slept* is a verb. In this conception, segmental markers are added at the very last level and are the least important for the relation to exist.

Markers and government. Alain Lemaréchal’s view basically contradicts the idea that prepositions, conjunctions and bound morphemes should often be seen as the governor of the relation. His point is that these markers are added to an existing relation and that they form a *stack* of grammatical constraints that *specify* the relation, both syntactically and semantically. Specifications are not compulsory to establish relations. In this framework, a morpheme such as a preposition behaves similar to what Lucien Tesnière calls a *translatif* (Tesnière, 1966): it changes the part of speech of

the words it combines with – e.g.: a preposition can change a noun to an adverb and allow this noun to be an adjunct.

Even if it belongs to a dependency framework, this analysis does not follow the same theoretical guidelines as the ones introduced in sec. 2.1 and sec. 2.2. However, Alain Lemaréchal (1997, 117) also adds a very important detail in his presentation: markers may not be compulsory, but if they appear, *they have to be the right ones*. He compares ex. 7 and 8. In ex. 7, the verbal form carries no segmental marker expressing the person and the sentence remains understandable (although not very satisfactory). In ex. 8, the bound morph *-ons* conflicts with the 3rd pers. sg. of the proper name. Hence, the sentence is not understandable at all.

(7) **Alfred chanter*
Alfred to sing

(8) **Alfred chantons*
Alfred we sing

If this point is transferred to the B1 criterion, it means that when such a specific marker is present, it firmly constrains the syntactic distribution of the construction.

Stacking markers. One other important point in Alain Lemaréchal’s model is the concept of *marker stacking* (Fr. *cumul des marques*). His idea is that homonyms do not exist among grammatical markers (Lemaréchal, 1983). Markers can be ambiguous, because they are not specific enough on their own. E.g., traditionally, in French, *que* has been described as a pronoun (*L’homme que tu vois* “The man you see”) or as a conjunction (*Je veux que tu viennes* “I want you to come”). If one takes into account that the clause beginning with *que* works with a noun (*homme*) or with a verb (*veux*), this ambiguity disappears. In other words, there is a stacking of markers that gradually specify the relation between words: instead of two different *que* one should see an undespecified *que* that stacks with part of speech compatibilities to specify several different relations.

3 Major relations in the clause in OF

This section investigates the grammatical means of expressing dependencies in the OF clause. The theoretical aspects described above will prove useful in order to achieve a description that encompasses the main characteristics of the phenomena

under study. The description reveals the striking instability of the system: DF trees will help demonstrate this lack of systematicity in a rigorous way.

I will give the classical idealized approach of the declension system in OF and underline the main problems (3.1). Then, we will see that the definite article plays an important role in the syntactic organization of the clause (3.2) and that some nouns have a syntactically specialized theme (3.3). Some structures that completely lack overt markers will also be introduced (3.4). I will conclude with a synthesis and point out historical concerns (3.5).

3.1 Classical approach to declension in OF

Ideal system. The traditional analysis of the declension system in OF relies on the fact that a few nouns are marked with a bound morpheme that indicates whether they assume the role of the subject or not. Following this point of view, OF distinguishes between two cases: the nominative case *cas sujet* and the universal oblique case *cas régime* (which is used for all functions but the subject).

Therefore, the minimal sentence in ex. 13 clearly shows that the noun *Charle* has an *-s* morph at the end.

(9) *Charle -s respunt*
Charles NOM answers
– Roland (Moignet, 1972, v. 156)

The resulting analysis would thus be the one shown in fig. 5.

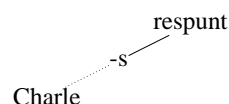


Figure 5: Analysis of OF *Charles respunt*

Problems. However, even with little knowledge of OF, one feels that the traditional analysis oversimplifies things.

The first issue is that the ideal system as described only affects a comparatively small subset of nouns: most feminine nouns do not follow any syntax-driven declension rule and nominal lexemes ending with *-s/-z* are invariable. Traditional description adopt a paradigmatic approach to this problem, in effect, multiplying nominal paradigms, with regard to the way they behave in the declension “system”.

The second issue is that the presence of *-s* is not compulsory even for the nouns that generally have a marked nominative form. Nevertheless, “inverse mistakes”, where *-s* appears in the oblique case are very seldom (Schøsler, 1984, 237-8), which means that Alain Lemaréchal’s prediction holds, that is, the markers must be correct when they do appear (sec. 2.3).

But there is a third problem: *-s* is highly syncretic in the grammar of OF, because it is also used to mark the plural form of the oblique case of the nouns that do follow the declension rules (for other nouns, *-s* merely marks the plural). In a nutshell, the classical paradigm is the one shown in tab. 1 (Moignet, 1988, 19). This paradigm contrasts with the one of most feminine nouns ending in *-e* (tab. 2).

	sg.	pl.
NOM	-s	-
OBL	-	-s

Table 1: Ideal case marker paradigm in OF

	sg.	pl.
NOM/OBL	-	-s

Table 2: Case marker paradigm for OF feminine nouns in *-e*

If one accepts that there is only one *-s* (last paragraph in sec. 2.3) that, as it will appear, may stack with other markers, one can say that the distribution of the nominal phrase is constrained by *-s*, *modulo* the syntactic distribution is not homogeneous, because the marker is underspecified.

3.2 Definite article

A more reliable marker. The definite article is a marker that can optionally specify the noun phrase in OF.⁷ It is more reliable than nominal inflection in determining the case, but, unlike its modern counterpart, it is by no means compulsory – all nouns can be used as a complete phrase without a determiner: when the latter is absent, the meaning is general (Moignet, 1988, 105-11).⁸

Some of the forms of this article are specific: for masculine nouns, *li* reliably corresponds to the

⁷Although this paper only discusses the definite article, OF has a wide range of determiners that can accompany the noun.

⁸The fact that a morph can be omitted does not mean it does not qualify as a governor (see sec. 2.1).

nominative (singular and plural), *le* corresponds to the oblique singular and *les* corresponds to the oblique plural. Therefore, let us assume that relations are most likely to be oriented this way: *li/le/les* → noun.

Marker stacking. Since the *-s* does not reliably fixate the distribution, it has to be demoted at least one level below the article when both markers are present. Still, one must bear in mind that “inverse mistakes” are rare, and that this *-s* does not have a random distribution. In ex. 12, *-s* does not mark the case, but when the article is present, *-s* may only appear if the article is compatible.

- (10) *Li nain -s [...] vient*
 The-NOM dwarf “stacking” *-s* comes
 “The dwarf comes” – Erec (Roques, 1952, v. 161)

It becomes clear that *-s* is a mere optional agreement with its morphological governor *li*. The resulting tree is shown in fig. 6. Note that the form

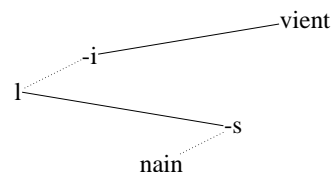


Figure 6: Analysis of OF *Li nains vient*

determination relation between *-i* and *-s* is purely morphological, according to the revision of the A2 criterion (sec. 2.2).

Intra-paradigm discrepancies. Nevertheless, feminine forms are not case-specific at all. Therefore, while *li* and *le* clearly constrain the

	MASC.		FEM.	
	sg.	pl.	sg.	pl.
NOM	li	li	la	les
OBL	le	les	la	les

Table 3: Definite article paradigm in OF

syntactic distribution of the noun phrase, *la* and *les* do not (tab. 3); they are left completely underspecified with regard to the distribution of the nominal phrase. The result is that the articles are set in different positions in the tree. Thus, the analysis of ex. 11 is given in fig. 7.

- (11) *La reine [...] voit le chevalier*
 The-FEM queen sees
 le chevalier
 the-MASC-DIROBJ knight
 – Erec (Roques, 1952, v. 149)

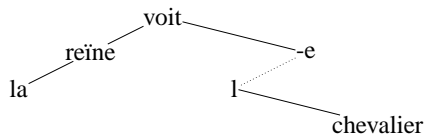


Figure 7: Analysis of OF *La reine voit le chevalier*

While it is true that *le* → *chevalier*, because of the existence of the phrase *li* → *chevalier(s)*, that has another distribution (subject), one must posit *reine* → *la*, because B1 does not apply well and *reine* serves as a morphological contact point for the feminine category (B2).

3.3 Theme variation

Another important feature of OF is the existence of variable nominal themes. A subset of nouns have two themes: one specifically corresponds to the nominative singular (the form is specialized in this function), the other is not specialized. Considering examples where the specialized form stacks with a specialized definite article, such as in ex. 12. In this example, *ber* is specifically a singular nominative (plural forms and accusative forms are built on another theme: *baron*).

- (12) *Cunquerrantment si finireit li*
 As a hero so would end the-NOM
ber -s
 noble man-NOM SG -s
 “The noble man would end like a hero”
 – Roland (Moignet, 1972, v. 2867)

In this example, both *ber* and *li* are specialized. Both of them correspond to the syntactic distribution of the phrase and B1 does not work well. Again, B2 works better, since it is the noun that would morphologically govern optional predicative adjectives in constructions using a copula – the copula would syntactically govern the adjective. Therefore, the hierarchy would be the one shown in fig. 8. The position of *-s* can be justified by at least two arguments: firstly, *ber* is the most specific form and should dominate the whole nominal phrase (sec. 2.1); secondly, *li... -s* would not form a phrase and the relation between *-i* and *-s* is purely morphological (see sec. 2.2, 2.2).

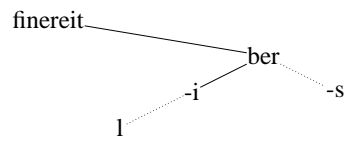


Figure 8: Analysis of OF *finireit li bers*

3.4 No overt marker at all

As a result of phenomena exposed in sec. 3.1 and sec. 3.2, segmental markers can be completely absent. A sentence where the subject and the object are both feminine nouns in *-e* displays no overt contrast between the dependents of the main verb – ex. 13 and ex. 14 (Schøsler, 1984, 34 and 41).

- (13) *La nouvele oït l’abesse*
 The news heard the abbess
 “The abbess heard the news”
- (14) *La dame esme la comtesse*
 The lady thinks highly of the countess
 “The lady thinks highly of the countess” or
 “The countess thinks highly of the lady”

Lene Schøsler claims that the semantic properties of the dependents is the only available clue within the scope of ex. 13 (*abesse* is animate, whereas *nouvele* is not), but to understand the structure of ex. 14, only contextual clues can help. This possibility also provides strong support to the claim that markers must be seen as an additional mean to express argument structure of sentences that are mostly understandable without them (Detges, 2009).

3.5 Synthesis and diachronics

As demonstrated in the previous sections, the structure of the nominal dependents in OF is highly unstable, ranging from a completely specified construction (ex. 12) to a completely underspecified one (ex. 14). Moreover, the level of specificity of the markers is also variable. This variable specificity entails that the presence of a more specific marker automatically demotes less specific ones through a stacking mechanism (sec. 3.2 and sec. 3.3).

Through this synchronic variation, change has chosen to favor the less specified construction over the others: modern French does not use nominal inflection to mark the dependents of the verb. Therefore, a regular utterance such as ex. 15 looks exactly like ex. 14.

- (15) *Le chat voit la souris*
The cat sees the mouse

Much as in English, the dependency type is expressed by the relative position of the phrases around the main verb and morphological agreement: the subject, with which the verb agrees, to the left, the object to the right⁹. The DF analysis of ex. 15 is sketched in fig. 9. The typological

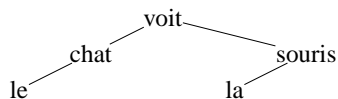


Figure 9: Analysis of Fr. *Le chat voit la souris*

contrast between Old French and modern French is strikingly clear. In the noun phrase, all morphemes (bound or free) intended to mark the relation between the verb and its arguments have disappeared. The immediate consequence of this language change is that the structure of the French noun phrase is now completely homogeneous.

4 Conclusion

DF is a great tool to emphasize the differences between the analyses of the various simple noun phrases that are described above. There is a temptation to simplify everything to give it a more coherent look and feel. From the point of perspective of this paper, this would clearly be a mistake because that would reduce syntax to a mere paradigmatic system. Why would one treat members of the same morphological paradigm exactly the same way if they behave differently at the syntactic level? On the contrary, I find it more interesting to redefine paradigms taking into account syntactic behavior.

By not smoothing trees too much, one also benefits from a powerful tool that helps discover underspecified markers. These markers are used in different trees and are demoted to lower levels when they stack with more specific ones. Therefore, DF is able to model the syntactic behavior

⁹Assuming that one accepts Willy Van Langendonck's demonstration (1994), the definite article has to be defined as a dependent of the noun. Note that transferring the idea that the determiner is the governor – "DP hypothesis", see the introduction in (Haegemann, 1994, 607-611) – from the Government and Binding framework to syntactic dependency does not change much to the conclusions of this paper: the form of the determiner does not distinguish between verbal dependents.

of units that have always been problematic for traditional descriptions simply by using its core mechanics: *hierarchy*.

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