From NP to DP
Volume II: The expression of possession in noun phrases

Edited by Martine Coene
Yves D’hulst
From NP to DP
Linguistik Aktuell/Linguistics Today

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**Volume 56**

*From NP to DP: Volume 2: The expression of possession in noun phrases*  
Edited by Martine Coene and Yves D’hulst
From NP to DP
Volume 2: The expression of possession in noun phrases

Edited by
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Abbreviations

1  First person
2  Second person
3  Third person
ACC  Accusative
AGR  Agreement
AGT  Passive agent
AN  Action nominal
ANIM  Animative
ART  Article
CL  Classifier
DAT  Dative
DEF  Definite
dem  Demonstrative
det  Determiner
f  Feminine
gen  Genitive
hu  Human
in  Inalienable (possession)
indef  Indefinite
loc  Locative
m  Masculine
n  Neuter
nom  Nominative
obj  Object
pers  Person
pl  Plural
poss  Possession, Possessive
pres  Present tense
part  Participle
prt  Particle
subj  Subject
sg  Singular
st  Strong
wk  Weak
Introduction

The syntactic relationship between possessor and possessee has played a crucial role in what has come to be known as the DP-hypothesis. In the eighties several authors have argued in favor of a clausal-like analysis of nominal constituents on the basis of evidence directly relating to possessor constituents: Szabolcsi (1983), Fukui and Speas (1986) and Abney (1987) showed that possessors display properties that are very similar to the properties of clausal subjects, and Horrocks and Stavrou (1985) have argued that *wh*-possessors (and focalized constituents) move cyclically towards A’ positions, in ways that resemble cyclic *wh*-movement in the clause (see the introduction of the first volume for a more extensive discussion of these proposals).

The conclusions of these contributions can be summarized as follows: nominal arguments are DP’s containing NP’s rather than just NP’s, and between the projections of D and N may intervene several functional projections. The resemblance between nominal and verbal syntax is sketched in (1) (XP and YP stand for any intermediate functional projection that may appear between D and N, as e.g. PossP, NumP, GenP, etc.).

\[(1) \ a. \ \text{Nominal syntax:} \]
\[\text{[DP . . . [XP . . . [YP . . . [NP . . .]]]]} \]
\[\text{b. \ \text{Clausal syntax:}} \]
\[\text{[CP . . . [AgrsP . . . [TP . . . [VP . . .]]]]} \]

The basic insights provided by the DP hypothesis have paved the way for a fruitful line of research, engaged in unraveling the fine syntax and semantics of nominal constituents in area’s related to the typology of determiners, the relationship between determiners and nouns, adjectival modification, the expression of possession, the morpho-syntactic relationship between clitics and determiners, the status of number features and many more.
1. Diversity

The initial evidence leading to the DP-hypothesis might suggest that the syntactic and semantic status of possessor-expressions and their relationship to the overall DP are straightforward. This impression is, of course, strongly misleading on several points.

1.1 Categorial status

First, the categorial status of the constituents expressing possessive relations ranges DP-internally over possessive pronouns (or adjectives) (2a), nominal (2b) and adjectival constituents (2c).

(2) a. his villa
   b. Palladio’s villa
   c. a palladian villa

Within the first two realizations, there is a huge amount of variation – both language-internal and cross-linguistic – in the formal makeup of these categories.

Spanish, e.g., has both a determiner-like possessive pronoun and an adjectival one as illustrated in (3) and Dutch allows nominal possessors to be realized as Saxon genitive’s (4a), prepositional phrases (4b) or construct states (4c).

(3) a. mi amigo
    my friend
   b. un amigo mio
    a friend my/mine

(4) a. Jans huis
    John-s house
   b. het huis van Jan
    the house of John
   c. huize Gezelle
    house John

The categorial ambiguity of items like his in (2a) and distributionally equivalent forms (my, your, our, their) is manifested in the traditional grammar’s indeterminacy to call these forms either “possessive pronouns” or “possessive adjectives”. While, in general, terminological issues can hardly be considered of significant interest to modern linguistic research, in this case the indeterminacy is revealing in two ways:
i. It links possessives both to other pronouns, to be more precise personal pronouns occupying argument positions in the clause (I, me, you, etc.) and to other nominal modifiers like adjectives.

ii. It patterns with the cross-linguistic and language-internal morphological and distributional difference that by times shows up in two distinct sets of possessive forms, as illustrated for Spanish in the examples in (3).

The Spanish pattern is representative for the Romance languages quite generally: possessives that morphologically behave as adjectives (mío, mía, míos, mías) appear DP-internally and do not impose definiteness restrictions on that DP; while possessives that belong to a non-adjectival paradigm (invariant Spanish mi, or the French paradigm of mon which, although displaying gender (ma) and number (mes) variation like adjectives, does not have the morphological make-up of adjectival gender and number agreement displayed in e.g. mignon, mignonne, mignons, mignonnes) generally occur in complementary distribution with (definite) determiners and convey definiteness on the overall DP.

(5) Italian
   a. *mio amico
      my friend
   b. il/un/questo mio amico
      the/a/this my friend

(6) French
   a. mon ami
      my friend
   b. *le/un/ce mon ami
      the/a/this my friend

Although the adjectival-like possessive of Italian mio and Spanish mío is not available in all Romance languages in the same way, even a language like French which has only determiner-like possessives in regular DP’s has the other paradigm as well: forms like mien, tien, sien have regular adjectival morphology (mien, mienne, miens, mignonnes like the adjective ancien, ancienne, anciens, anciennes ‘old’). This adjectival-like series is used in modern language only in elliptical and/or predicative DP’s (7) and requires the presence of an overt definite determiner showing that the adjectival possessive has no definiteness feature of its own, just like Italian mio (in old French, the use of this possessive paradigm was even less constrained, behaving much like Italian possessives).
The variation in (3)–(7) shows that the intuitive typological division (see a.o. Cardinaletti 1998 and Schoorlemmer 1998) between adjectival possessive Romance languages like Italian (or Romanian where the typological classification interferes with other properties of the language, see a.o. D’hulst, Coene, & Tasmowski and references), on the one hand, and determiner-like possessive Romance languages like French, on the other is not clear-cut and that especially in the area of determiner-like possessive languages residues of adjectival possessives can still be found (French, Spanish . . .).

A similar conclusion can be drawn even from apparent strong determiner-like possessive languages like Dutch. In DP-internal possession, Dutch only allows for this kind of possessive modifier: possessives are in complementary distribution with (definite) determiners, convey definiteness to the entire DP and do not show any adjectival agreement (see the contrast between (9) and (10)). However, just like French *mien, this form appears in elliptical and/or predicative constructions. But in this environment it takes up adjectival-like agreement (10) and even the nominal plural morpheme *-en (11).

(8) a. *de mijn vrienden
    the my friends
b. mijn vrienden
    my friends
c. *mijne vrienden
    my-AGR friends

(9) a. *de nieuw vrienden
    the new friends
b. de nieuwe vrienden
    the new-AGR friends

(10) a. *de mijn
    the my-AGR
    ‘mine’
b. de mijne
    ‘mine’

(11) de mijnen
    the my-AGR-PL
    ‘mine, my family’
The terminological indeterminacy thus appears to be well-grounded in the morphological variation language-internally and cross-linguistically. Still, the terminological problem is somewhat misleading, as one can infer from the discussion: while Italian (with the sole exception of the invariant third person plural possessive form *loro*; see Cardinaletti 1998) possessives categorically qualify as adjectives, French or Dutch possessives do not qualify as pronouns, but rather behave like (definite) determiners.

The pronominal character of possessives thus seems to refer only to the interpretive similarity with argumental pronouns and holds for determiner-like and adjectival possessives alike. However, Cardinaletti (1998) and Ihsane (this volume) argue that possessives mimic pronouns yet in another way: they can surface either as weak or strong forms. This distinction comes close to the three-way distinction of clitic, weak and strong pronouns (Cardinaletti & Starke 1995). Actually the difference between possessives and pronouns may be further narrowed down if one takes into account the clitic possessives that appear in the context of kinship terms in some southern and central Italian dialects (12) (see Rohlfs 1968) or Romanian (13) (see also Schürcks & Wunderlich (this volume) for similar Bulgarian data).

(12) Calabres
e suorma
sister-my$_{f,sg}$

(13) Romanian
frate-su
brother-his

1.2 Thematic interpretation

Even more complex is the thematic status and interpretive contribution of possessors: while (2a–b), repeated in (14a–b), have a non-exclusive but nevertheless natural interpretation of property (the house Palladio owns), (2c), repeated in (14c), is endowed with an agentive interpretation (the villa Palladio built or designed), strongly disfavoring the property interpretation.

(14) a. *his* villa
b. *Palladio’s* villa
c. a *palladian* villa

Barker (1995), following Chomsky (1970), argues that the interpretive diversity follows from the lexical-semantic properties of the possessee noun which
may be relational or not. In the first category, he distinguishes between derived nominals where the status of the possessor resembles that of verbal arguments (15a), kinship terms (15b), body part terms (15c), nouns that enter a part-whole relation (15d) and arbitrarily relational nouns (15e) (examples from Barker 1995:8).

(15)  
   a. John’s purchase  
   b. John’s child  
   c. John’s nose  
   d. the table’s top  
   e. the woman’s pen pal

This classification, straightforward as it may seem, at best can only qualify as a rough approximation. As is acknowledged by Barker himself, and by many others following the classical grammatical tradition that distinguishes between subjective and objective genitives, derived nominals allow the possessor to realize a variety of thematic roles: agent (16a), theme (16b), experiencer (16c), goal (16d), container (16e), etc. (see also Chomsky 1970).

(16)  
   a. John’s objection  
   b. John’s nomination  
   c. John’s fear  
   d. the letter’s appendix  
   e. the bottle’s content

Within the class of kinship and body part terms, there is evidence that a distinction be made between constant and variant members. While there is a reasonable ground on which items like son and child are considered kinship terms, Italian draws a clear line between these two in preventing the definite determiner to co-occur with the possessive pronoun (adjective) in the former, but not in the latter case. This syntactic distinction pairs with a semantic distinction: kinship terms like son are inherently relational, presupposing the existence of at least one individual with whom a blood relationship can be established (see Delfitto & D’hulst 1995 for a more extensive discussion). Terms like child do not entail this presupposition as firmly. Moreover predicates like son are permanent while predicates like child are not (John’s child will eventually loose his childhood, but not his status as John’s son).

(17)  
   a. *(il) suo figlio  
       the his son
b. *(il) suo bambino
   the his child

With respect to body part terms, equally often referred to as inalienable nouns, a similar distinction can be made between stronger and weaker members: it is a well-known fact that true body part terms (like nose, arm, mouth, etc.) behave alike in all Romance languages with respect to the overt expression of the possessor in inalienable constructions (see a.o. Vergnaud & Zubizarreta 1992), and that inalienables by extension (terms for personal belongings such as cloths, homes, cars, etc.) display a great amount of cross-linguistic variation with respect to this criterion.

The difficulty of defining the class of inalienables by extension is replicated in the broader class of terms that are susceptible of feeding a part–whole relationship. Inalienable possession not only relates to the weak/strong relational property of the noun, but is equally linked to different syntactic constructions, the inalienable dative construction of Romance languages being one of the most debated issues in this respect.

One general property of syntactic constructions that are sensitive to the alienable/inalienable construction is their strong preference to select for human possessors. The Romance dative inalienable construction (see a.o. Vergnaud & Zubizarreta 1992), e.g., is available only for human possessors. As the contrast between (18a) and (18b) shows, non-human possessors are disallowed in this construction even if they involve strongly relational possessee-nouns like top, bottom, middle, etc. (see (15d)).

(18) a. Je lui ai lavé le bras
   I him\textsubscript{DAT} have washed the arm
   'I washed his/her arm'

b. *Je lui ai nettoyé le dessus
   I him\textsubscript{DAT} have cleaned the top
   'I cleaned its top'

Within a fine-tuned typology of semantic possessor relationships, Kleiber (this volume) shows that the sensitivity to the thematic relationship between possessor and possessee is strongly present in yet another domain: the complementarity between possessive pronouns/adjectives and full nominal possessive constituents (introduced by a case-marking preposition). In possessive con-struals where a part–whole (members–collection) relationship is established, the pronominal/adjectival realization of the possessor expressing the whole or
collection is blocked with some part-nouns but not with others, as shown by
the following minimal pair (Kleiber’s examples (44) and (55)):

(19) a. le mari du couple
    ‘the husband of the couple’
b. *son mari
    ‘its husband’
(20) a. les arbres de la forêt
    ‘the trees of the forest’
b. ses arbres
    ‘its trees’

1.3 Conclusions

The variation with respect to the categorial and thematic status of possessors,
sheds doubt on the uniformity of the constituents that are commonly labeled
as ‘possessors’. Two contrasting approaches can be and have been pursued to
unravel this paradox: either one focuses on the diversity of possessors and on-
tologically distinguishes between different classes of possessors considering the
morphological correspondences a matter of homonymy or one narrows down
the syntax and semantics of possessors to a more abstract notion that covers all
possessor occurrences.

The uniformity approach is advocated amongst others by Williams (1982)
who argues that the semantic relation between possessor and possessee is un-
determined. A similar view has been defended by Lyons (1967) who derives the
notion of possession from the more primitive notion of location.

The uniformity approach may find support in the symmetry of possession
relationships like the one in (21). However, one is forced to admit that the
symmetry of possessor – possessee relations is rather the exception than the
rule (see a.o. Barker 1995 and Kleiber, this volume). In most circumstances the
relation is rigidly unidirectional as illustrated, e.g., in (22).

(21) a. the captain's ship
    b. the ship's captain
(22) a. the captain's leg
    b. *the leg's captain

However, both approaches need not necessarily exclude each other: while there
may be good interpretive reasons to distinguish between the possessor con-
stituent the captain's of (21a) (functional-possessive) and that of (22a) (inalien-
able possessive), their formal resemblance may constitute a fair basis to posit an identical structural representation.

2. The internal syntax of possessors

Within the Principles and Parameters framework, Williams (1982), following insights in Chomsky (1970), defines possessors as specifiers of NP, regardless of their thematic or semantic status (see also Giorgi & Longobardi 1991). On this syntactic view, which eventually has led to the DP-hypothesis, the interpretive variation of possessors mirrors the interpretive variation of subjects in the sentential domain.

2.1 The specifier of PossP

Within the articulated functional structure proposed in the realm of the DP-hypothesis, the structural identification of “possessors” is somewhat more complex, since possessors that are semantically selected by relational nouns (kinship terms, action nominals, body parts, etc.), are locally projected in the domain of that noun (specifier or complement position of NP). This implies that possessive pronouns or adjectives (and Saxon genitives) that surface in a high position have moved from an NP-internal to an NP-external position, as illustrated for Italian in (23).

\[
(23) \quad [\text{DP la [PossP sua, [XP ingiustificata [NP ti, paura]]]}]
\]

At first sight, the movement analysis suggested by (23) strengthens the parallelism between nominal and verbal constituents, the raising of possessors coming close in spirit with the subject internal hypothesis put forward by Koopman and Sportiche (1991). However, the parallelism breaks down once non-relational (alienable) nouns are considered: with this class of nouns, an NP-internal origin of the possessive pronoun or adjective can hardly be supported on thematic grounds. But if the specifier of PossP can directly host the possessor (as in Szabocsi’s (1994) account of Hungarian possessors), as suggested by the representation in (24), the status of this position is ambiguous between a vaguely thematic position as in (24) or a non-thematic argument position as in (23).
One way to resolve this ambiguity consists in treating the specifier position as 
themathematic in all instances and assuming that relational nouns have an implicit 
argument in NP bound by the possessor in Spec, PossP:

The net effect of this solution is that possession is construed as external to the 
(argument structure) of the nominal projection. In Section 2.2 we will review 
a different syntactic approach in the same vein.

The alternative is to simply acknowledge the fundamental split between 
alienable and/or relational nouns on the one hand and non-relational nouns 
on the other and to posit different syntactic configurations for possessor con-
strual. This option is taken by Alexiadou (this volume), who shows that in 
Greek alienable and inalienable possession display a different syntactic behav-
ior with respect to copular sentences, determiner spreading, adjectival modifi-
cation, case marking, quantification and double object construction. Although 
some of these arguments only apply to the specific settings of Greek grammar, 
some of them appear to have cross-linguistic validity. While the predicative use 
of possessive pronouns or adjectives in copular sentences is possible for both 
Romance and Germanic languages (see (26)), they are strongly rejected with 
all sorts of relational nouns as shown in (27) for inalienable nouns (the En-
gleish and Italian examples may be grammatical only in the alienable (anatomic) 
reading), in (28) for action nominals and in (29) for kinship terms.

(26) a. The book is his
    b. Il libro è (il) suo
(27) a. (*The hand is his
    b. (*Il braccio è (il) suo
(28) a. *The invasion is Italian
    b. *L’invasione è italiana
(29) a. *The father is mine
    b. *Il padre è (il) mio
2.2 Predication

Starting with Kayne (1984) and Guéron (1986), it has been proposed that possession is obtained through a predication relation between a possessor subject and a possessee-predicate. Phrased in X’-terms, this view needs not be dramatically different from the conclusion in the previous section, where the possessor functions as the subject of a possessea predicate. Nevertheless, Kayne and Guéron’s approach differs from the classical Spec, PossP-approach in the way the expression of possession in noun phrases is linked to the expression of possession with verbal predicates. The most radical implementation of this link is found in Kayne (1994) who derives nominal possessors like *(de) Jean* in (30) from a DP-embedded clausal structure with raising of the possessee-noun (the relativization strategy). In this way, *a car of John’s* is derived from an embedded clause containing *John has a car*.

\[(30) \text{a. } [\text{DP a} \text{ [CP car [C' of [IP John' [I' s [NP t_i]]]]]]]}
\text{b. } [\text{IP John [I' hasi [VP t_i [NP a car]]]}]}

The IP-subpart of (30a) by and large corresponds to Szabocsi’s (1983) insight that nominal syntax and verbal syntax pattern in the same way. Kayne’s approach differs from the classical Spec, PossP approach in the way it handles word order variation. While in traditional accounts, the difference between pre-nominal and post-nominal possessors is handled through movement around the possessee-noun, in Kayne’s approach the possessor remains in Spec, IP in either variant and it is the possessee-noun that either remains in situ (*his car, John’s car*) or is raised as a result of a strategy that closely resembles relative clause formation (*a car of his, a car of John’s*). Under this view, the problem of post-nominal possessors with non-relational nouns (see the discussion of (24)) simply does not arise.

The borderline between pre-nominal and post-nominal possessors roughly follows the distinction between definite and indefinite noun phrases in English. French, instead, has a complementary distribution between possessive pronouns (adjectives) and full nominal possessives over pre-nominal and post-nominal positions respectively. Zribi-Hertz (this volume) shows that Kayne’s approach may handle this variation as well, once the morphological properties and syntactic status of French possessive pronouns and determiners are considered.
2.3 From the DP hypothesis to semantic calculus

Within Kayne’s approach to possession, there is at least one domain where post-nominal possessives cannot be reduced to the relativization strategy: construct state configurations as the one exemplified in (31a) for Italian. Construct state configurations diverge from so-called absolute state configurations in at least four fundamental respects: (i) the possessee noun is not introduced by a determiner, (ii) it appears in first position, (iii) it is immediately followed by the possessor phrase and (iv) the possessor phrase is not introduced by a case marking preposition. On the basis of these criteria, Longobardi (1994) argues that construct state configurations be analyzed as exhibiting N-to-D movement as indicated in (31b).

(31) a. casa mia
   my house

   b. [DP casai [PossP/IP mia [NP ti]]]

Furthermore, he notices that – in Romance languages at least – construct state configurations give rise to rigid and transparent interpretations (casa mia uniquely refers to the house where the speaker is living, not just any house that he might possess). Precisely this interpretive property inhibits an analysis in terms of the relativization strategy, transparency of interpretation being incompatible with (restrictive) relative clauses.

Kayne’s approach, thus, is forced to single out configurations with pre-nominal possessors (possessive pronouns or adjectives and Saxon genitives) or construct state nouns combined with post-nominal possessors where the relativization strategy does not apply and configurations with post-nominal possessors that do follow this strategy.

Within a Bare Phrase Structure approach, Dobrovie-Sorin (this volume) divides possessor phrases almost along the same terms, focusing on the distinct semantic impact of the two types of possessors and their impact on the realization of determiners. In her analysis, ‘synthetic genitives’ (including Saxon genitives and construct state possessors) and determiners contribute to the semantic calculus of the overall nominal constituent in complementary ways. As a consequence, the complementary distribution between synthetic genitives and determiners and the effects of (in)definiteness spread with synthetic genitives can be given a straightforward semantic explanation rather than a syntactic one.
In a semantics driven account of possessor construal as the one proposed by Dobrovie-Sorin, the actual order between possessor and possessee is irrelevant and possibly determined by language-specific constraints.

A similar view is upheld by Schürcks and Wunderlich (this volume) who argue that the surface-position of determiners and (short) possessives in Bulgarian cannot be accounted for by movement operations but rather follow from specific constraints on lexical items. Furthermore, they argue that the semantic calculus can encompass both internal and external possessor construal.

2.4 Conclusions

Both Kayne’s (1994) and Dobrovie-Sorin’s (this volume) approaches to the internal syntax of possessors have revealed yet another distinction among possessor phrases which is not covered by any categorial or thematic typology. The relationship between possessor and possessee may be expressed in a more local and direct fashion or in secondary ways. The former corresponds to the relationship which is expressed syntactically in Spec, NP (Dobrovie-Sorin) or by (English) pre-nominal possessors in Spec, IP (Kayne), the latter represents a relationship expressed by NP-adjunction or modification (Dobrovie-Sorin) or through relativization of the possessee (Kayne).

Underneath this similarity, two aspects differentiate the approaches: (i) Kayne’s approach is clearly syntactic in nature, while Dobrovie-Sorin’s offers a syntactic implementation of a genuinely semantic insight; and (ii) the two syntactic encodings of possession are mutually exclusive in Dobrovie-Sorin’s approach while Kayne’s relativization account embeds the synthetic possessor-possessee relationship, thereby still allowing for a more uniform characterization of this relationship.

3. External possession

Although it is fair to posit that possessors appear prototypically as constituents within nominal constituents, there is a broad range of well-studied contexts where they appear in the sentential domain. Classical examples include possessive predicates like have and (dative) be (32), wh-extraction of possessors (33), possessor raising constructions (34) and inalienable constructions (35).

(32)  a.  I have a book
b. Mihi est liber
to-me is book
‘I have a book’

(33) Who, did you see a picture of t₁?

(34) Wa-hi-’sereht-anhvsko (Mohawk, from Baker 1988)
past-3.s.subj/1.s.obj-car-stole
‘He stole my car’

(35) a. Je lui ai lavé le bras
I him have washed the arm
‘I washed his/her arm’
b. J’ ai levé le bras
I have raised the arm
‘I raised my arm’

Comparing the first two, it seems as though external possessors may be divided into two broad classes: possessors that constitute arguments of the verbal predicate (have, be) or possessors that have just moved from an DP-internal position to some DP-external position (wh-extraction of possessors).

However, Baker’s (1988) work on possessor raising has shown that the distinction is not as straightforward as it seems: in (34) the possessee has incorporated into the verb and the possessor has the status of an internal argument, witness the agreement marking on the verb. A DP-internal origin of the possessor is suggested by the fact that the possessor-possessee relationship is maintained, but the syntactic status of the possessor and the fact that there exist lexical restrictions between verbal predicate and the object-construal of the possessor rather suggest a DP-external origin. Baker analyses cases like (34) as instances of complex-predicate formation, where verbal predicate and possessee constitute a semantic unit, thereby acknowledging the ambiguous status of possessors in this environment.

3.1 Extraction

Following the seminal work of Ross (1967), the possessor extraction phenomenon illustrated in (33) has given rise to an extended inquiry into the constraints that govern A’-movement of the possessor (see a.o. Cinque 1980; Fiengo & Higginbotham 1981; Corver 1990; Giorgi & Longobardi 1991; Diesing 1992 and many others). This inquiry pertains to the proper identification of domains that are opaque to movement, the specific conditions on
extraction (pied piping vs. preposition stranding) and the semantic correlates (constraints on specificity or presuppositionality).

In the light of this research program, Haegeman (this volume) discloses a set of West-Flemish data which, contrary to appearances, cannot be covered by a movement approach.

Like many other Germanic languages, West Flemish allows for the possessor to be doubled inside DP, as illustrated in (36) (from Haegeman). Furthermore, it partially resembles some other Germanic languages, like Norwegian (see Corver 1990), in allowing a *wh*-possessor to be realized DP-externally and doubled by a DP-internal possessive clitic, as shown in (37) (from Haegeman):

(36) Valère zenen boek
    Valère his book
    ‘Valère’s book’

(37) Wekken verpleegster zei-je gie dan-ze gisteren [eur us]
    which nurse said-you you that-they yesterday her house verkocht een?
    sold have
    ‘Who was the nurse whose house you said they sold yesterday?’

As Haegeman points out, the West Flemish data fundamentally differ from other Germanic data to the extent that the construction illustrated in (37) is not governed by any of the syntactic or semantic constraints that typically arise under *wh*-movement. Haegeman argues that the external possessor in (37) is linked to the possessee only indirectly, through a resumptive pronoun strategy. Under this view, West Flemish proves to be a case where *wh*-possessors as well may have the ambiguous status of DP-external arguments that are interpretively connected to the DP-internal possessor role.

3.2 Inalienable possession

The ambiguous status of external possessors is even more obvious in the case of the inalienable constructions illustrated in (35), especially in the subject-oriented inalienable construction of (35b), repeated in (38).

(38) J’ ai levé le bras
    I have raised the arm
    ‘I raised my arm’

In this environment, the thematic relationship between the agentive subject and the verb is unmistakable, just as is the interpretive coincidence
between this subject and the possessor role of the object. Vergnaud and Zubizarreta (1992) derive the ambiguous status of the subject as a consequence of complex predicate formation between the verbal predicate and its object. This account comes close in spirit to Baker’s account of possessor raising and shares with it the possibility to account for the selectional restrictions the subject-oriented inalienable construction is subject to.

With respect to the dative-oriented inalienable construction in (35a), repeated below, Vergnaud and Zubizarreta show that it is less subject to lexical restrictions and argue that the possessive interpretation is obtained through a (local) predication relation between the dative possessor as a subject and the possessee DP as the predicate.

(39) Je lui ai lavé le bras
    I him\textsubscript{dat} have washed the arm
    ‘I washed his/her arm’

The predication analysis for structures like (39) not only manages to account for the type-interpretation that effects the possessee and renders it incompatible with appositive modification, it also allows this kind of inalienable construction to be compared to the external possessor construal with possessive predicates as in (32).

An abstract equation of the dative inalienable construction and the constructions with possessive have and be, paves the way for a unitary analysis of both DP-internal and DP-external possessor constructions along the lines of Kayne’s (1994) analysis.

Such a unitary analysis is argued for by Guéron (this volume) who relates the special status of the Romance inalienable construction, not directly to the particular relationship that is established between possessor and inalienable noun, but to the peculiar classifier-like status of definite determiners in Romance (see also Vergnaud & Zubizarreta 1992). Her analysis is based on the morphological shape of these determiners and covers both the dative inalienable construction of (39) and the subject-oriented inalienable construction of (38).

As Guéron points out, English is not as different from Romance as commonly assumed. In fact, whenever the morphological properties of the determiner resembles that of Romance definite determiners, i.e. in the case of indefinite determiners, English just as easily allows the external possessor construction as illustrated in (40).

(40) John didn’t lift a finger
On the unitary view of possessor construal, the different behavior of inalienable and/or relational nouns and non-relational nouns in the various syntactic environments discussed by Alexiadou (this volume) still need to find an adequate answer. Whether such an answer can be provided for each and every syntactic environment is an open question, but at least one of these environments opens a fruitful perspective. As Alexiadou points out, Greek disallows determiner spreading only with inalienable nouns. Within Guéron’s unitary approach, this fact might be accounted for if the Greek definite determiner has similar morphological (and interpretive) properties as the Romance one.

3.3 Conclusion

As has been pointed out on many occasions, the amount of cross-linguistic variation with respect to the syntactic behavior of inalienable nouns is impressive (see Chappell & McGregor 1996 for an overview). As Lamiroy (this volume) shows for the domain of a broad range of Romance and Germanic languages, this variation not only relates to the construction patterns involved (subject-oriented, dative and accusative constructions) but also to the extension of their uses and the degree of grammaticalisation.

In the light of this variation, the quest for a unitary analysis of inalienable possession constructions and possessor construal in general, as advocated by Kayne (1994) and Guéron (this volume) cannot be other than a Herculean enterprise. Future research will ascertain the limits of this enterprise.

4. Presentation of the volume

The nine contributions that follow constitute a selection of the papers presented at the workshop on possession of the international conference From NP to DP held ad Antwerp in February 2000 and we gladly acknowledge the support received from the Fund for Scientific Research – Flanders.

The papers are organized along the lines of this introduction: the contributions by Ihsane and Kleiber of Section 1 cover aspects of the typological variation of possessors in syntax and semantics respectively. Section 2 includes the contributions by Dobrovie-Sorin, Schürcks and Wunderlich, and Zribi-Hertz to our understanding of the DP-internal representation of possessors. Section 3 contains the papers by Alexiadou, Guéron, Haegeman, and Lamiroy on different aspects of external possessor constructions.
References


Typology of possessors
Chapter 1

A typology of possessive modifiers

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1. Introduction

1.1 Theoretical background: The structure of the nominal phrase

In recent years, the correctness of the 'DP-hypothesis' proposed by Abney (1987) has achieved broad consensus. Therefore, in a nutshell, I will assume without discussion that DP is a lexical projection dominated by functional material, that D is a functional head which projects its own X-bar schema and that determiners are complementizer-like functional heads, following Szabolcsi among others (1981, 1983, 1994). Furthermore, if DP is to NP what CP is to VP as assumed here, it seems natural to postulate a structure which is further articulated with projections corresponding to the clausal TP, AgrSP, GenP, NumP... to mention only a few.\textsuperscript{1, 2} The structure used here is however simplified for convenience (1). AgrPossP corresponds to the clausal AgrSP.

\begin{equation}
\text{DP} \rightarrow \ldots \rightarrow \text{AgrPossP} \rightarrow \ldots \rightarrow \text{NP}
\end{equation}

A further assumption is that possessives are structurally parallel to clausal subjects, i.e. that they are arguments of the noun generated in the specifier of a lexical projection and that they move to a higher position to be licensed. In (2a), the subject of the clause, \textit{the enemy} corresponds to \textit{the enemy's} in (2b) and to \textit{their} in (2c). Further evidence for this analysis comes from the nominative displayed by possessives in Hungarian (Szabolcsi 1994).

\begin{enumerate}
\item The enemy destroyed the city. \hspace{1cm} \text{(Haegeman & Guéron 1999:412)}
\item The enemy’s destruction of the city.
\item Their destruction of the city.
\end{enumerate}
Of course, *the enemy’s* and *their* represent different types of possessive phrases. The former is a Saxon genitive whereas the latter is a possessive modifier. Only the latter is discussed in the rest of the paper.

1.2 Aim of the paper

The scope of this paper is restricted to possessives of the type *my, your, his, her, our* and *their*, and *mine, yours, his, hers, ours, theirs*, labelled possessive modifiers. Full DPs like *Mary’s, the teacher’s...* are not addressed. The aim of the paper is descriptive. I examine different types of possessive modifiers cross-linguistically and try to determine the category they belong to. I adopt a typology distinguishing three categories of possessive modifiers, determiners, adjectives and pronouns, depending on the contexts in which they appear. I also propose that each type of possessive may display a weak and a strong form, and that each language can attest more than one type of possessives.

The paper is organised as follows: Section 2 mentions two points which should be taken into account in a typology of possessive modifiers. The first aspect is the co-existence – for the same person – of two paradigms of possessive modifiers in languages such as West Flemish, a problem which does not seem to have been addressed in the literature. The second aspect concerns the forms of possessive modifiers required in ellipsis constructions. Section 3 consists of the analysis proposed here. The three types of possessive modifiers advocated are examined. Section 4 briefly describes data which seem to be problematic for the analysis presented in Section 3. Section 5 is the conclusion to this paper.

2. The problem

In the literature, different typologies of possessive modifiers have been proposed, including Cardinaletti’s (1998) and Schoorlemmer’s (1998), on which the analysis proposed in this paper is based. However, none of them seem to account for the West Flemish data illustrated in (3), where the third person singular displays two variants of possessive modifiers.

(3) West Flemish
   a. zenen boek  a’. zynen boek  M.SG
       his    book  his    book
   b. zen lesse  b’. zyn lesse  F.SG
       his    lesson  his    lesson
A typology of possessive modifiers should capture the differences and similarities displayed by the forms discussed above. It should also account for the contradictory results the study of French possessives leads to: on the one hand, *ta in a clitic doubling construction such as (7a) is considered as a clitic, and on the other hand it cannot be analysed as a clitic because it displays properties of strong forms: in (7b–c) it is focalised and modified respectively (Kayne 1977).

(7) French
   a. ta maison à toi
      your house to you
   b. C’est TA recette qui est bonne, pas sa recette.
      it is YOUR recipe that is good not his/her recipe
   c. Seulement ta maison a été vendue, pas la mienne.
      only your house has been sold not the mine

A typology of possessive modifiers should capture the differences and similarities displayed by the forms discussed above. It should also account for the contradictory results the study of French possessives leads to: on the one hand, *ta in a clitic doubling construction such as (7a) is considered as a clitic, and on the other hand it cannot be analysed as a clitic because it displays properties of strong forms: in (7b–c) it is focalised and modified respectively (Kayne 1977).
A typology of possessive modifiers should furthermore take into account the forms which occur in ellipsis contexts and which are, in West Flemish, French and English at least, different from those modifying overt nouns as (8) illustrates. The absence of article in English ellipsis constructions such as (8c) should also be explained.

(8) a. West Flemish
   wien zen werk is da? – T zyne /* zyn
   who his work is that the his-e
b. French
   mon ami m’ a présenté *son / le sien.
   my friend to-me has introduced his / the his
   c. English
   my friend has introduced *her/hers.

Let us turn to the analysis proposed here and try to answer the questions raised above. As already mentioned, I suggest that possessive modifiers be classified into three types, determiner, adjectival and pronominal possessives. In the next section, determiner possessives are studied.

3. Analysis

3.1 Determiner possessives

The impossibility for some possessive modifiers to co-occur with articles as in (9) is accounted for if these elements compete for the same position, i.e. D6 (Cardinaletti 1998; Schoorlemmer 1998). Such a proposal implies first that mon, is a head and secondly that it is definite. Both are supported, on the one hand by (10a), a clitic doubling construction in which mon doubles à moi, and on the other hand by the ungrammaticality of (10b), an existential construction requiring indefinite DPs.

(9) French
   a. ‘le mon livre a’. mon livre
      the my book

(10) French
   a. mon livre à moi
   b. il y a un / ‘mon livre sur la table
      it there has a my book on the table
      ‘there is …’
Analysing *mon* as a head is not incompatible with our assumption that posses-
sives are structurally parallel to subjects, i.e. that they are generated as maximal
projections in Spec, NP. As possessive elements move to Spec, AgrPossP to be li-
censed, the head of this projection can extract and move to D. Of course, what
triggers this movement has to be determined. One possibility is to link it to the
features displayed by determiner possessives. What could explain the presence
of *mon* in D, is a [+definite] feature. In that case, *mon* moves to D in (10a) to
check this feature. This would explain why DPs headed by such possessives are
ungrammatical in expletive constructions requiring indefinite elements such
as (10b). The label determiner possessive therefore refers to possessives with
the feature [+definite], say [+DEF].

From the above discussion, we infer that the ungrammaticality of West
Flemish *zyn(en)* and *zen(en)* in existential constructions such as (4) and the
impossibility for both paradigms to co-occur with articles as in (5) are due to
the definiteness of these possessive modifiers. This analysis implies that both
variants of possessives in West Flemish carry a feature [+DEF], i.e. that they are
determiner possessives. However, the two variants, *zyn(en)* and *zen(en)*, cannot
both be analysed as heads, as (6), repeated below, shows.

(11) West Flemish

a. ze ziet **ZYN/**ZEN eus geren en t’ eure niet.
   she sees HIS house ‘gladly’ and the her not

b. zyn/**zen en eur recept
   his and her recipe

c. alliene **myn/**men hus è verkocht (g)ewist, e nie tjoene
   only my house is sold become and not yours

As in (11) only the forms of the type *zyn(en)* can be contrasted, coordinated
and modified – three properties associated with strong forms (Kayne 1977), it
suggests that in West Flemish a strong and a weak paradigm of determiner pos-
sesses co-exist. Further evidence for this conclusion comes from the phonetic
transcription of these forms reported in (12): *zynen*, the strong form, displays
a full vowel contrary to *zenen*, the weak form. The above observations are
corroborated by (13), in which *myn* is coordinated with a full DP, suggesting
that the strong variant, contrary to the weak one, is a maximal projection.

(12) West Flemish

a. zynen [zynɛn] boek
   his book
As strong forms are maximal projections and their weak counterparts heads, and as both paradigms are determiner possessives, i.e. that they carry a feature [+def] and occupy DP, the only possibility is to assume that the weak variant sits in D, and the strong one in the specifier of DP. To license the [+def] feature on D, a definite element is necessary in DP, exactly in the same way as a wh-phrase is required to license the [+wh] feature on C in interrogative clauses. The feature on the head can be licensed either by overt spell-out of the head or by a specifier-head relation. Consider (14), where the features on the head percolate to the maximal projection and where the head agrees in features with its specifier. In other words, [+def] and [+wh] in (14a) and (14b) respectively are licensed when either the head or the specifier of the projections are filled with an element satisfying these features. If this analysis is on the right track, it could be extended to French examples such as (7), repeated below as (15).

(14) a. DP [+def] b. CP [+wh]
   Spec [+def] D' Spec [+wh] C'
   D [+def] XP C [+wh] XP

(15) French
   a. ta maison à toi
      your house to you
   b. C' est ta recette qui est bonne, pas sa recette.
      it is your recipe that is good not his/her recipe
   c. Seulement ta maison a été vendue, pas la mienne.
      only your house has been sold not the mine

As already mentioned, (15) leads to contradictory results: on the one hand the grammaticality of ta in a doubling construction such as (15a) shows that this form is a clitic and on the other hand the focus on ta in (15b) and the modification preceding ta in (15c) suggest that this element cannot be a clitic (Kayne 1977:89). To solve the dilemma, I tentatively propose that French be treated
on a par with West Flemish, attesting two variants of determiner possessives: a weak *ta* in D and a strong *ta* in Spec, DP. Weak determiner possessives move to D and strong ones move to Spec, DP. Such a proposal could also apply to English. As *your* in (16a) is emphasised on a par with the West Flemish *zyn* and the French *ta*, illustrated in (16b) and (15b) respectively, it might be an exemplification of a strong determiner possessive, i.e. a maximal projection. Another possibility would be to assume that *your*, *zyn* and *ta* move to the specifier of a FocP above the projection denoting (in)definiteness. Evidence for this hypothesis comes from the pause which separates *zyn* and *eigen* in (16b). If *zyn* in (16b) moves to Spec, FocP, the specifier of the projection denoting (in)definiteness is used as an escape hatch. Movement through this position is sufficient to licence the feature [+DEF].

(16)  

a. She likes *your* house, not hers.  
b. West Flemish  
   *zyn eigen us*  
   his own house

The existence of two variants of determiner possessives also accounts for (17) and (18). If clitics cannot be modified or coordinated (Kayne 1977: 87, 89), *my* in (17), and *my* and *your* in (18a) are not clitics. (18b), in which *her* is coordinated with a full DP, further supports the hypothesis that possessives of that type are maximal projections. Why only some determiner possessives can be coordinated and others not as (18c) shows remains mysterious. That French possessives *mon, ton* . . . cannot be coordinated is not accounted for either. Finally, as *her* in English, *son* in French and *zyn(en)/zyn(en)* in West Flemish are determiners, their ungrammaticality in ellipsis contexts such as (19) is expected.

(17) Only *my* house was sold not yours.

(18)  

a. My and your secretary15  
b. . . . *her* and Mark’s first-born baby16  
c. *Your* and her recipe(s) is/are very good.

(19)  

a. My friend has introduced *her/hers.  
b. French  
   mon ami m’a présenté *son / le sien.  
   my friend to-me has introduced his / the his  
c. West Flemish  
   wien *zyn* werke is da? – T *zyn/*zen N.SG  
   who his work is that the his-e
In sum, we have seen that determiner possessives carry a feature [+DEF] which forces their movement to DP. The strong variant moves from Spec, AgrPossP to Spec, DP. The weak variant is the head of the possessor which extracts and moves to D. To account for the co-existence of two paradigms, I suggest that strong forms occur when weak ones are impossible, i.e. in focalisation, coordination or modification contexts. This analysis is based on West Flemish but it might be extended to French and English. In the next section, the forms of the type *le sien illustrated in (19b) and *t zyne in (19c) are discussed. As they co-occur with articles, we can already infer that these possessive modifiers are not determiners.

3.2 Adjectival possessives

In ellipsis contexts, the possessive form attested in West Flemish is different from the ones discussed in Section 3.1. The ending -e on *t zyne in (20a) is an affix not normally found in neuter as (20b) shows. Dutch possessives of the type mijn also carry the inflection -e, which seems to be specific to adjectives. Consider mijn and grote in (21). In German, the same phenomenon is attested as (22) illustrates. Both seine and regnerische carry an adjectival -e.

(20) West Flemish
   a. wien zen werk is da? – T  zyne / *t zen(e)  N.SG
      who his work is that?  the his-e
   b. zyn nieuw werk       N.SG
       his new job

(21) Dutch
   a. Dat is niet jouw boek op tafel, maar het mijne.
      that is not your book on table, but   the mine
   b. het grote huis        (Kester 1996:91)
       the big house

(22) German
   a. Das seine [e] gefällt mir nicht.
      the his  pleases to-me not
   b. diese regnerische Woche
      this rainy week

If -e is an adjectival ending, it suggests that zyne in (20a), mijn in (21a) and seine in (22a) are adjectival possessives. The existence of adjectival possessives is widely adopted in the literature for Italian for example (Cardinaletti 1998;
Schoorlemmer 1998). Consider (23) which shows that *mio* and *caro*, *mia* and *cara* ... carry the same inflection.

(23) Italian
a. il mio caro amico
b. la mia cara amica

According to Schoorlemmer, a characteristic of adjectival possessives is their co-occurrence with articles, an assumption adopted here. The article can be definite as in (23) or indefinite as the grammaticality of (24) shows. This implies that, in some languages, DPs containing adjectival possessives can be indefinite.

(24) Italian
Un suo amico

In (23) and (24), it is the article in D which determines the definiteness value of DP, not the possessive element. This implies that contrary to determiner possessives, adjectival possessives are not marked [+DEF]. Therefore, it is because this type of possessives lacks the feature [+DEF] that their movement to DP is not triggered, and that an article has to be inserted to determine the definiteness value of DP.

As the difference between determiner and adjectival possessives has been established, let us come back to ellipsis structures. As Italian possessives attested in constructions such as (25) co-occur with an article and display the same agreement inflection as those modifying overt nouns, they are analysed as adjectival possessives. Cardinaletti also admits that ‘[e]llipsis requires possessives with adjectival agreement inflection, which means that they are necessarily pre-nominal’ (1998: 38).

(25) Italian
il suo, la sua ...

As already mentioned, West Flemish ellipsis structures also attest adjectival possessives. However, this language brings additional information on the forms required in ellipsis. Consider (20a) repeated below for convenience.
The ungrammaticality of \( t \text{ zyn(e)} \) in (26), the weak counterpart of \( t \text{ zyne} \), suggests that in ellipsis only strong adjectival possessives are grammatical. The ungrammaticality of weak forms such as \( de \text{ zyn(e)} \) in (26) is accounted for if strong forms are necessary in ellipsis to license a null pronoun \( pro \) (see Kester 1996; Lobeck 1995). Note that the presence of strong forms in ellipsis is expected if only featurally rich elements are able to identify \( pro \). This suggests that, like determiner possessives, adjectival possessives may display a weak and a strong paradigm.

Some languages, like West Flemish seem to have only strong adjectival possessives, whereas others, like Paduan, have two variants of adjectival possessives. Consider (27).

According to the analysis proposed here, the distribution of \( me \) in (27a) suggests that it is adjectival, i.e. it is not marked \([+\text{DEF}]\). The ungrammaticality of the form \( me \) in (27a’) suggests that it is weak, which supports our hypothesis: in ellipsis structures such as (27b’), the strong form \( mio \) is required for \( pro \) to be licensed. Paduan further suggests that post-nominal possessives are strong adjectival possessives whereas pre-nominal ones are weak adjectival possessives. Compare (27a) and (27b). Why post-nominal adjectival possessives are strong and pre-nominal adjectival possessives are weak is not clear. In some languages weak and strong forms are homophones as in Italian (28).

(26) West Flemish

\[ \text{wien zen werk is da?} \quad – \quad \text{T \ zyne / \ ^t \text{ zyn(e) N.SG}} \]

who his work is that? – The his-e

(27) Paduan

\[ \begin{align*}
\text{a. el me libro} & \quad \text{a’. el me} \\
\text{the my book} & \quad \text{the my} \\
\text{b. el libro mio} & \quad \text{b’. el mio} \\
\text{the book my} & \quad \text{the my}
\end{align*} \]

According to the analysis proposed here, the distribution of \( me \) in (27a) suggests that it is adjectival, i.e. it is not marked \([+\text{DEF}]\). The ungrammaticality of the form \( me \) in (27a’) suggests that it is weak, which supports our hypothesis: in ellipsis structures such as (27b’), the strong form \( mio \) is required for \( pro \) to be licensed. Paduan further suggests that post-nominal possessives are strong adjectival possessives whereas pre-nominal ones are weak adjectival possessives. Compare (27a) and (27b). Why post-nominal adjectival possessives are strong and pre-nominal adjectival possessives are weak is not clear. In some languages weak and strong forms are homophones as in Italian (28).

(28) Italian

\[ \begin{align*}
\text{a. il suo amico} & \\
\text{b. il amico suo} & \\
\text{c. Il mio amico mi ha presentato il suo.} \\
\text{The my friend to.me has introduced the his}
\end{align*} \]

(29) further demonstrates that adjectival possessives must be strong when the noun is non-overt: possessives of the type \( le \text{ mien, le tien} \ldots \), which carry adjectival agreement, can be contrasted as in (29a), coordinated as in (29b) and
modified as in (29c), three properties of strong forms. Their West Flemish counterparts display the same characteristics as (30) shows.

(29) French
   a. C’est la *mienne* qui est bonne, pas la tienne.
      it is the *mine* which is good not the yours
   b. La tienne et la *mienne* sont bonnes.
      the yours and the mine are good
   c. Seulement la *mienne* a été vendue pas la *sienne*.
      only the mine has been sold not the his/hers

(30) West Flemish
   a. t’is de *zynen* dank liever een.
      it is the *his* that-I rather have
   b. de zynen en de mynen zyn a gereed.
      the his and the mine are already ready
   c. allien het mine ó verkocht (g)ewist, nie tjoene.
      only the mine is sold become,Passive not yours

The analysis advocated here avoids the distinction between languages with and without ‘special forms’ of possessives in ellipsis as Schoorlemmer suggests. In her account, she has to assume that ‘the different morphology found in ellipsis and non-ellipsis can be related to whether the possessor is sister to Pos [which corresponds to our AgrPossP] or just the trace of Pos’ (Schoorlemmer 1998:81). In our analysis, the only distinction necessary in ellipsis is between weak and strong possessives. Finally, notice that the status of arguments of possessives is not in contradiction with their adjectival nature. In (31), for example, the adjective *Iraqi* refers to the subject of the deverbal noun *invasion*, it is an argument of *invasion*.

(31) the Iraqi invasion of Kuwait

To sum up, I propose that adjectival possessives display two variants, a weak one and a strong one. Strong adjectival possessives occur in ellipsis contexts, whereas weak adjectival possessives occur with overt nouns. In ellipsis, in addition to the definite article, strong forms *and* agreement are necessary to license *pro*. As adjectival possessives do not have a feature [+DEF], they stay in a position lower than DP and an article is required.
3.3 Pronominal possessives

Until now, English possessive modifiers of the type *mine* have not been addressed. As their co-occurrence with overt nouns and with articles leads to ungrammaticality as (32) shows, these forms cannot be determiners or adjectives. A third type of possessive modifiers is thus advocated here. Consider (33), which illustrates isolation, predicative and ellipsis constructions in English.

(32)  
a. *mine book  
b. *the mine / *the mine book  

(33)  
b. This is hers/Mary’s.  
c. My friend has introduced hers to me.

The contexts illustrated in (33) attest pronominal possessives. The absence of article and the definiteness of *hers* suggest that it sits in DP, i.e. that it moves from Spec, AgrPossP to Spec, DP to check a feature [+DEF]. If this analysis is on the right track, *hers* is parallel to *Mary’s* and *whose* in (34) and the morpheme *-s* on *hers, ours, theirs* may correspond to the ’s on *Mary’s*. Notice that in (33) *hers* can also be replaced by the full DP *Mary’s*.

(34)  
a. Mary’s book  
b. whose book

As isolation and predicative contexts require strong forms (Cardinaletti 1998; Kayne 1977), *hers* in (33a–b) must be strong. That *hers* in (33c) is also a strong form is supported by (35). Recall from Section 3.2 that, possessives occurring in ellipsis display properties of strong forms, they can be contrasted, coordinated and modified.

(35)  
a. She likes YOURS, not hers.  
b. Yours and mine are the best.  
c. Only mine was sold not yours.

If predicative and isolation structures require strong elements, *suoi* in (36) must be strong. As it is not preceded by an article and does not co-occur with an overt noun, it is pronominal. Recall from preceding sections, that if it were an adjective as its agreement might suggest it would be preceded by an article. (36) shows that in addition to determiner and adjectival possessives, Italian displays pronominal possessives.
A typology of possessive modifiers

(36) Italian
   a. Questo ritratto è suo.
      'This painting is his'
      'Whose book is this?' – 'His'

In conclusion, forms of the type *mine, yours, his, hers*... are analysed as strong pronominal possessives.

4. Further discussion

In this section, the Italian possessive modifier *loro* is briefly examined. At first sight, as it co-occurs with an article, it should be analysed as an adjective. The question which arises is Why does *loro* lack agreement (37)? (38) shows that it cannot be an invariable adjective, i.e. a weak adjectival possessive of the same type as the Paduan *me* discussed in Section 3.2: Cardinaletti, following Zamparelli (1993), notices that invariable adjectives are restricted to post-nominal positions.

(37) Italian
   a. il loro caro amico m.sg
   b. la loro cara amica (cf. *lora*) f.sg
   c. i loro cari amici (cf. *lori*) m.pl
   d. le loro care amiche (cf. *lore*) f.pl

   the their dear friend(s)

(38) Italian
   a. il vestito / i vestiti blu
      the dress / the dresses blue
   b. *la blu bandiera degli avversari
   c. la rossa bandiera degli avversari
      the *blue/red* flag of the enemies

The data above suggest that *loro* does not fit the typology we are trying to establish. In her paper, Cardinaletti analyses *loro* as a personal pronoun which can function as a possessive in the nominal domain.25 I will adopt the proposal that *loro* is a pronoun, without any clear evidence for that conclusion. If *loro* is considered as a pronoun, its lack of adjectival agreement is expected. On the other hand, its co-occurrence with an article is surprising and unaccounted for.
If a particular possessive may display a weak and a strong form as suggested here, strong pronominal possessives could have a weak counterpart. I tentatively suggest that *loro is such an element. If *loro is a weak possessive pronoun, its ungrammaticality in isolation and predicative contexts such as (39a–b) is expected. As mentioned in preceding sections, isolation and predicative structures can attest either adjectival strong forms as in (39c) or pronominal strong forms as in (39d).

(39) Italian
   a. Questo ritratto è suo / ?*loro
      ‘This painting is his / *theirs’
   b. Speaker A: Di chi è questo libro ? – B: Suo / *Loro
      ‘Whose book is this?’ – his / *theirs

   French
   c. A: Quelle voiture as-tu volée? – B: la sienne
      ‘Which car have you stolen’ – the his/hers

   English
   d. It is hers.

Finally, notice that *loro is grammatical in ellipsis structures such as (40). The question which arises is How can *loro satisfy the identification conditions of pro if it does not display any agreement? One possibility is to assume that it is the case it bears which is involved in the licensing of pro in such examples. Of course, ellipsis and the licensing of pro should be analysed in more details to solve the problem.

(40) Italian
   Ho invitato i miei amici, e Gianni e Maria i loro.
   have invited the my friends, and G. and M. the theirs

This section does not allow us to draw any firm conclusion about the status of *loro. Many questions remain and further research is necessary to address them.

5. Conclusion

In this paper I propose that three types of possessive modifiers, determiner, adjectival and pronominal possessives be distinguished. I further suggest that all of them are generated in Spec, NP, licensed in an AgrPossP, and that they may display a weak and a strong form. Determiner possessives move from Agr-
PossP to DP, either as heads or as maximal projections, to check a [+]DEF feature. Their presence in DP accounts for the impossibility for them to co-occur with articles and for the definiteness of the DP they occur in. The existence of a strong paradigm allows some determiner possessives to be coordinated, emphasised and modified, three characteristics of strong elements. Adjectival possessives do not move to DP because they lack a [+]DEF feature. As they occupy a lower position, an article is required in D to determine the definiteness value of DP. Like determiner possessives, adjectival possessives display two patterns. In ellipsis, only the strong variant is grammatical, because a strong form is required to licence pro. Finally, strong pronominal possessives sitting in Spec, DP, are advocated. In Italian for example, they are attested in predicative and isolation contexts. Of course, the main question which remains is Why do languages vary the way they do?

Notes

* A first version of this paper consists of a DES unpublished manuscript also entitled A Typology of Possessive Modifiers. Thanks to Eric Haerberli, Liliane Haegeman and Ur Shlonsky for their valuable comments, and to an anonymous reviewer for insightful comments and questions. Of course, all remaining errors are my own.

1. Projections parallel to clausal VoiceP and AspP have been postulated in DP. For example, Turkish and Modern Greek attest types of nominals which display morphological reflexes analogous to Voice in the clause (see Alexiadou 1997; Burton 1997; Cinque 1999; Lecarme 1998, among others).

2. I also assume that DP can be split into several functional projections as has been proposed for the clause (Rizzi 1997). The result could for example be DP > TopP > FocP > DefP (where DefP is parallel to the clausal IP and stands for Definite Phrase). This is of course not an exhaustive list of projections which might constitute the left periphery of nominals.

3. A tripartite classification is not new. See for example Cardinaletti (1998), or Giorgi and Longobardi (1991) whose proposals are close to the one presented here.

4. Notice that the terms weak/strong adopted in this paper describe the morpho-phonetic properties of possessives. They differ from the notions found in a tripartite account such as Cardinaletti’s (1998).

5. According to Cardinaletti (see Kayne 1977), whenever a constituent is doubled as in (7a) and (10a), the doubling element is a clitic (’Doubling is clitic doubling; 1998:23). The contrary, however, is not true, clitic does not imply doubling. If this analysis is correct, doubling constructions can be used to identify clitics.

6. The ungrammaticality of (9a) suggests that movement of the possessive determiner to D is an instantiation of substitution. This seems to imply that possessive determiners do not
display the same clitic-like behaviour as clitic subjects. In Dutch dialects for example, subject clitics can adjoin to C. Consider (i):

(i) da’k dat gezegd heb
  tha(t)-I that said have

7. A priori, nothing seems to prevent the possessive modifier to head-move from its base position to AgrPoss, and further to D.

8. Of course, this is not the only feature possessive modifiers display. For example, they must have a feature [+possessive] encoded in their meaning.

9. An anonymous reviewer points out that the label ‘possessive determiner’ is a label which refers to a derived position and that therefore it is not adequate to determine the category of elements which move to that position.

10. Thanks to Dieter Vermandere for mentioning this example, and (30c), and for discussing many additional aspects of West Flemish. For reasons of space (and time), I could not take his insightful remarks into account here but intend to do so in future work. Notice that examples such as (11c) and (30c) are not grammatical in all varieties of West Flemish.

11. In the glosses, ST stands for strong and WK for weak.

12. I assume here that a doubly filled DP-Filter, analogous to the doubly filled CP-filter, prevents the co-occurrence of strong determiner possessives and definite articles.

13. See Note 2.

14. Notice however that such an observation also applies to coordination of personal pronouns.

15. As my and your are analysed as elements of the same category, they can be coordinated (see Chomsky 1957:36).


17. In addition to adjectival possessives, German seems to attest determiner possessives as in (i): the absence of article in this example suggests that meine is a determiner. If (i) is unproblematic, it is not the case of (ii), where a demonstrative precedes the possessive.

(i) German
  Meine Bücher
  my books

(ii) Diese meine Bücher
  these my books

(ii) can be analysed in two ways. Either meine is considered as an adjective sitting in Spec, AgrPossP and the demonstrative as a type of determiner, or meine is a determiner and the demonstrative sits in the left periphery (recall Note 2). As demonstratives are deictic elements i.e. that their interpretation is context dependent, the second analysis seems to be more appropriate. Constructions in which demonstratives and possessives co-occur are also attested in English as (iii) shows. This example is a remnant of Old English in Modern English.
(iii) a. This his last book
    b. That mine murnede mod

Whether *his* and *mine* in (iii) can be considered as adjectives or not would require a thorough analysis of Old English, which I intend to do in further research.

18. Note that the absence of definite article in ellipsis leads to ungrammaticality (i). The feature \ [+def \] seems therefore to play a role in the licensing of *pro*, although this role has to be clarified.

(i) a. Dutch
    *een mijn-e
    a mine
b. French
    *un mien
    a mine

(i) suggests that the features of *il suo ‘the his’* (not only of *suo ‘his’*) licence *pro*.

19. *me* is analysed as an adjective, although it does not show any inflectional properties. The lack of overt inflectional morphology could be a characteristic of weak possessive adjectives. In this sense, weak possessive adjectives seem to be similar to English adjectives, for example, which do not overtly agree with the noun they modify.

20. This rejoins Cardinaletti’s analysis.

21. English possessives of the type *mine* are discussed in Section 3.3.

22. I assume without discussion that pronouns are DPs (see Koopman 1999, for example).

23. Different analyses of the possessive morpheme *-s* have been proposed in the generative framework. One of them considers this morpheme as a genitive Case ending (see for example Jackendoff 1977; Chomsky 1981, 1986) and another one analyses it as a functional head (Kayne 1993). The reader is referred to the literature for details.

24. On the other hand, *hers* and *Mary’s* do not display similar behaviour in prenominal positions, and the question arises: What underlies this contrast? Consider (i):

(i) a. Mary’s car
    b. *hers car

25. For the reasons of this assumption, the reader is referred to Cardinaletti’s own paper (1998).

References


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Chapter 2

The possessive *via* associative anaphor

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1. Introduction

Associative anaphor and possessive adjective? This is a question which the opposition exhibited in (1) and (2) below has rendered classic:

(1) La voiture s’écrasa contre un tilleul. Les freins avaient lâché.
   'The car crashed into a linden tree. The brake had given way.'
(2) La voiture s’écrasa contre un tilleul. Ses freins avaient lâché.
   'The car crashed into a linden tree. Its brake had given way.'

However, we will not address the two types of anaphor from this more or less familiar – but still unsolved – point of view. Instead of trying to identify the cause of the difference between (1) and (2) and the conditions which constrain the use of each of these two types of referential processes, a problem which has already been seriously addressed in Fradin (1984), Bartning (1989), Tasmowski-de Ryck (1990), Ohki (1993), Kleiber (1999a, b), Crévenat (to appear), etc., and which we are going to tackle in another study, the present paper aims at looking at these empirical data from a totally different perspective, which may seem surprising at first sight. It will examine the behaviour of the involved nouns relative to the possessive adjective, starting from a partial typology of associative anaphors, as proposed in Kleiber (1996, 1997a, b, 1999c, 2000, 2001a, b, to appear).

The paper consists of two parts: a descriptive one, where the results of the analysis of the relationship noun – possessive adjective will be presented, and an explanatory one, which will try to account for the relationship presented in the first part. The present analysis will prove to be beneficial not only for the study of the associative anaphor but also, as will be seen, for the possessive anaphor. As can be seen in the title, *The possessive via associative anaphor,*
the aim of the paper is to open a new track for the analysis of the possessive adjective.

2. Associative anaphors and possessive NPs

2.1 Types of associative anaphor

The starting point of the present analysis are the different types\(^1\) of associative anaphor which have been assumed to exist so far:\(^2\)

(a) *Meronymic* associative anaphors (Kleiber 1996), which rely on a whole-part relationship. The anaphoric noun is semantically marked as *a part of*, “which imposes a definition taking a whole into account” (Tamba 1994:69), a whole represented by the entity denoted by the antecedent noun. The example in (3), which has become representative, is a canonical illustration:

\begin{itemize}
  \item (3) Il s’abrita sous un vieux tilleul. Le tronc était tout craqué.
  \end{itemize}

’He took shelter under an old linden tree. The trunk was notched all over.’

(b) *Locative* associative anaphors (Kleiber 1997a), as in (4):

\begin{itemize}
  \item (4) Nous entrâmes dans un village. L’église était située sur une butte.
  \end{itemize}

’We entered a village. The church was situated on a hill.’

We have distinguished between such anaphors and the meronymic ones, as in (3), contra Winston et al. (1987),\(^3\) because the noun inside the anaphoric expression (in our case *église ‘church’) is not, semantically, a noun denoting a ‘part of’. The denoted entity does not depend on its antecedent from an ontological point of view, as is the case of meronymic entities, which leads to a series of different properties (Kleiber 1997a). Thus, the anaphor is not associatively created on a whole-part relationship, but on a relationship of functional stereotypical localisation: within the relationship between *church* and *village* the latter serves as a functional stereotypical localisation for the former.

(c) *Actantial* associative anaphors (Kleiber 1997b), as in (5) and (6):

\begin{itemize}
  \item (5) Paul se coupa du pain et posa le couteau.
  \end{itemize}

’Paul cut some bread for himself and put the knife down.’

\(^{1}\)\(^{2}\)\(^{3}\)
(6) Une vieille dame a été assassinée. Le meurtrier n’a pas été retrouvé.
‘An old lady was assassinated. The assassin has not been found yet.’

The main feature of such anaphors is that of relating a predicate (the antecedent) and one of its arguments or actants (hence their name): the knife in (5) is thus the instrument of cut the bread just like the assassin in (6) is the agent of the murder of the old lady.

(d) Functional associative anaphors (Kleiber, to appear), which illustrate entailments like the ones in (7) and (8):

(7) Nous entrâmes dans le village et demandâmes à voir le maire.
‘We entered the village and asked to see the mayor.’

(8) La voiture dérapa. Le conducteur s’était assoupi.
‘The car skidded. The driver had fallen asleep.’

Just like in the case of meronymic anaphors, the entity $x$ denoted by the anaphoric noun is a part of a whole $y$, and it plays, inside functional anaphors, a part with respect to $y$. Thus, if (4) relies on the relationship in (9), then (7) and (8) rely on the functional relationships in (10) and (11):

(9) $x$ (le tronc ‘the trunk’) is a part of le tilleul ‘the linden tree’
(10) $x$ (le maire ‘the mayor’) is the mayor of $y$ (le village ‘the village’)
(11) $x$ (le conducteur ‘the driver’) drives $y$ (la voiture ‘the car’)

(e) Associative anaphors of the type member-collection (Kleiber, to appear) where the entity denoted by the anaphoric expression is related to the antecedent via a relationship which puts together the elements or the members (the husband in (12), the mother and the children in (13), the soldiers in (14)) and a collective group which puts them together (the couple in (12), the family in (13) or the regiment in (14)):

(12) Un couple m’a rendu visite hier; le mari était insupportable.
(Milner 1982)
‘A couple paid me a visit yesterday; the husband was unbearable.’

(13) Dans les familles d’origine immigrée notamment, la mère est en porte à faux entre sa culture d’origine et sa volonté d’intégration, elle est complètement larguée au niveau scolaire et les enfants en profitent.
(Journal Dernières Nouvelles d’Alsace, 16/1/1998)
‘In the immigrant families especially, the mother vacillates between her
culture of origin and her wish to integrate, she is completely indifferent to school results and the children take advantage of it.’

(14) Le régiment a été défait. Les soldats n’ont pas eu le temps de combattre. ‘The regiment was defeated. The soldiers did not have the time to fight.’

2.2 The test of the possessive

How shall we proceed? Since one of the common denominators of the associative anaphor is that of relating two different entities, the link between which is not only contingent but also reveals some a priori knowledge (or stereotypical lexical information), it seems completely natural to see if this relationship can also be rendered by a possessive adjective. The work of Fradin (1984) is the first attempt along this line, and it represents the starting point of the analysis which we are going to put forth in the present paper.

But we are going to tackle the subject in a rather different way. We are going to try to find out two things about each of the five types of associative anaphor presented above:

i. If one can use a possessive anaphor instead of the associative one; i.e. if le Ni can be substituted by son Ni, when the possessive adjective has as an antecedent denoted by Nj,

ii. Or the opposite: if the antecedent Nj can accept a possessive determination in son Nj or whether the possessive adjective sends to the referent denoted by Ni. In this case, one does not take into account the associative anaphor, since it can only have the reading Nj → Ni (Kleiber, Patry, & Ménard 1993).

Theoretically, there are four possible situations, illustrated in (15):

(15) a. son Ni and son Nj
b. son Ni and *son Nj
c. *son Nj and son Nj
d. *son Nj and *son Nj

In the case of meronymic anaphors, (b) prevails. As has already been seen in (1)–(2) and is also illustrated by the pair (3)–(16):

(3) Il s’abrita sous un vieux tilleul. Le tronc était tout craquelé. ‘He took shelter under an old linden tree. The trunk was notched all over.’

(14) (Fradin 1984)
(16) Il s’abrita sous un vieux tilleul. Son tronc était tout craquelé.  
‘He took shelter under an old linden tree. Its trunk was notched all over.’

One can also have $\text{son } N_j$ referring to the part of the antecedent whole. Just like the trunk is the trunk of the linden tree, its trunk is also the trunk of the linden tree. But one cannot get the possessive determination $\text{son } N_j$: its trunk cannot mean ‘the whole of the part’:

(17) *Le tronc était tout tordu. Son tilleul était énorme.  
(where $\text{son } = \text{of the trunk}$)  
‘The trunk was all twisted. Its linden tree was huge.’

(18) Le volant était cassé. Sa voiture avait dérapé.  
(where $\text{sa } = \text{of the wheel}$)  
‘The steering wheel was broken. Its car had skidded.’

(19) *Le toit était en tuiles, sa maison en briques  
(where $\text{sa } = \text{of the roof}$)  
‘The roof was made of tiles, its house of bricks’.

The locatives are also compatible with (15b). The possessive anaphor $\text{son } N_j$ is excluded:

(20) *Nous entrâmes dans l’église. Son village était en fête.  
(where $\text{son } = \text{of the church}$)  
‘We entered the church. Its village was celebrating.’

(21) *Le frigo est en panne. Sa cuisine est inutilisable  
(where $\text{sa } = \text{of the fridge}$)  
‘The fridge broke. Its kitchen cannot be used anymore.’

However it is possible to have the possessive anaphore $\text{son } N_j$:

(22) Le village était situé sur un butte. Son église dominait toute la région.  
‘The village was situated on a hill. Its church dominated the whole region.’

(23) La cuisine est inutilisable. Son frigo est en panne.  
‘The kitchen cannot be used anymore. Its fridge broke.’

One should, however, notice a difference: the formation of the possessive anaphor $\text{son } N_j$ seems to be more constrained in the case of meronymics, as can be seen in (24):

(24) Nous entrâmes dans la cuisine. (?) Son frigo était grand ouvert.  
‘We entered the kitchen. Its fridge was wide open.’
In the case of actantials, the NP son $N_i$ is completely excluded, as can be seen in (25)–(27):

(25) Paul a coupé du pain et a posé son couteau.
    ($son$ = of Paul; *$son$ = of the ‘cutting’ event)
    ‘Paul has cut bread and he has put down his knife.’

(26) Paul s’est pendu. Sa corde s’est cassée
    ($sa$ = of Paul; *$sa$ = of the ‘hanging’)
    ‘Paul hanged himself. His rope got broken.’

(27) Il y a eu un assassinat hier soir à Gumbrechtshoffen. *Son assassin a pris
    la fuite.
    ($son$ = of the murder)
    ‘There was a murder in Gumbrechtshoffen yesterday evening. Its mur-
    derer ran away.’

Things are a bit different with respect to the formation of the NP son $N_j$. It is
difficult to imagine an anaphor of the type sa pendaison (‘his hanging’) or son
acte de couper (‘his act of cutting’) used to refer to the hanging of the rope or
to the act of cutting performed by the knife. But it is easier to get an NP of the
type son meurtre (‘his murder’) to refer to the murder accomplished by $N_j$:

(28) a. L’assassin a pris la fuite, une fois son meurtre accompli.
    ‘The murderer ran away, once he accomplished his murder.’

b. Le voleur a pris la fuite, une fois son vol accompli.
    ‘The thief ran away, once he has accomplished his act of stealing.’

The situation in (15a) corresponds to functional associative anaphors. We can
easily get both the possessive anaphor son $N_i$ (29)–(31) and son $N_j$ (32)–(34):

(29) Le village de Pfaffenheim s’étend de plus en plus. Son maire voudrait en
    faire la perle du Piémont vosgien.
    ‘The village of Pfaffenheim is getting larger and larger. Its mayor would
    like to turn it into the pearl of the Vosgian Piémont.’

(30) Une voiture s’est renversé hier dans le fossé. Son conducteur était assoupi.
    ‘A car fell over into the ditch. Its driver had fallen asleep.’

(31) Le village est de plus en plus fleuri. Ses habitants aiment les géraniums.
    ‘The village has more and more flowers. Its inhabitants love geraniums.’

(32) Généralement, un maire veut développer son village.
    ‘Generally, a mayor wants to develop his village.’
Nous secourûmes le conducteur. Sa voiture était en flammes. ‘We helped the driver. His car was aflame.’

Les habitants ont compris le langage des fleurs. Leur village croule sous les géraniums. ‘The inhabitants have understood the language of flowers. Their village teems with geraniums.’

The associative anaphors which rely on the member-collection relationship lead to three types of result. With some pairs \( N_i - N_j \), one can only obtain \( N_j \), with others only \( N_i \), and with a third group one can get both:

a. Les enfants doivent avoir du respect, mais il faut que leur famille le leur inculque.
   ‘Children must be respectful, but their family must teach them respect.’

b. Dans les familles d’origine immigrée notamment, *leur mère est en porte à faux entre sa culture d’origine et sa volonté d’intégration, elle est complètement larguée au niveau scolaire et *leurs enfants en profitent.
   (where *leur, leurs = of the families)
   ‘In immigrant families especially, *their mother vacillates between her culture of origin and her wish to integrate, she is completely indifferent to school results and *their parents take advantage of it.’

c. Un couple s’installa à la terrasse. *Son mari commanda une 1664.
   (where *son = of the couple)
   ‘A couple sat down on the terrace. *Its husband ordered a 1664.’

Nous entrâmes dans une forêt magnifique. Ses arbres resplendissaient de lumière verte.
   ‘We entered a wonderful forest. Its trees were resplendent with green light.’

b. Les arbres resplendissaient de lumière verte. *Leur forêt était magnifique.
   (where *leur = of the trees)
   ‘The trees were resplendent with green light. Their forest was magnificent.’

Le régiment a été défait. Ses soldats n’ont pas eu le temps de combattre.
   ‘The regiment was defeated. Its soldiers did not have time to fight.’
b. Les soldats ont refusé de combattre. Leur régiment a été ainsi défait sans peine.
   ‘The soldiers refused to fight. Their regiment was thus defeated quite easily.’

3. At the sources of the possessive

These data raise a series of questions:

a. First, why are actantial anaphors the only ones which do not have a competing possessive?

b. Why is it that meronyms and locatives are only conducive to a possessive anaphor of the type son N, whereas functional ones permit both an anaphor of the type son N, and of the type son N?

c. How can the division noted within associative anaphors of the type member-collection be accounted for?

To answer these questions, we will proceed in two stages, introducing first a classification constraint, then the similarity to binominal NPs with de and, finally, a lexical semantic relation and a factor of ontological hierarchy.

3.1 A classification constraint

Let us say, in the first place, that any possessive anaphor is ruled out from the very beginning if the antecedent is not perceived as classified or named. The possessive thus shares with the personal pronoun (Kleiber 1994b) the requirement of an already categorized referent. When a human referent is at issue, this classification, let us recall (Kleiber 1994b: 76), falls out from the very fact that it is a human being, so that no particular N has to be necessarily recovered. This is particularly clear with the possessive determiners for the 1st and 2nd persons (mon, ton, nos, vos). With non humans (or inanimates?), on the contrary, the absence of a similar categorization requires the recognition of the category and therefore the name of the category at issue. Therein resides an important difference between the associative definite article and the possessive adjective: the latter, but not the former, imposes a constraint of nominal classification to its antecedent entity. Whatever the other possible reasons, this requirement, generally forgotten when talking about possessive adjectives and pronouns, suffices to account for the ungrammaticality of the possessive in actantial anaphors with a verbal antecedent such as (25) and (26):
The possessive via associative anaphor

(25) Paul a coupé du pain et a posé son couteau
"son = Paul's; *son = of the “cutting”"
'Paul has cut some bread and put down his knife.'

(26) Paul s'est pendu. Sa corde s'est cassée
"sa = Paul's; *sa = of the hanging"
'Paul hanged himself. His rope got broken.'

On the other hand, this condition could not help the actantial anaphors with a
nominal antecedent, such as (27) or (38), since with the N assassinat 'murder'
the classification condition is satisfied:

(27) Il y a eu un assassinat hier soir à Gumbrechtshoffen. *Son assassi
la fuite
"son = of the murder"
'There was a murder yesterday evening in Gumbrechtshoffen. *Its mur-
derer ran away.'

What is still to be accounted for is why the possessive cannot function, just like
the associative definite article can, in sequences such as (39) and (40):

(39) Il y a eu un assassinat hier soir à Gumbrechtshoffen. L'assassin a pris la
fuite.
'There was a murder in Gumbrechtshoffen yesterday evening. The mur-
derer ran away.'

(40) Il y a eu un assassinat hier soir à Gumbrechtshoffen. La victime a été etran-
glée.
'There was a murder yesterday evening in Gumbrechtshoffen. The victim
was strangled.'

3.2 Possessive NP and binominal NP with de

In our second explanatory stage we will compare, as frequently done, Poss.
Adj. + N₁ NPs and the corresponding prepositional NPs of the form Le N₁
d'un / du N₂. Whatever its syntactic role may be, this similarity (and not neces-
sarily as "assimilation") finds its natural justification in the interpretive equa-
tion Poss. Adj. + N₁ = le N₁ de NP, so that an NP such as son livre 'his book'
will be interpreted as meaning more or less, for example, what le livre de Paul

The result of such a confrontation is twofold:
a. to every possessive NP son $N_i$ or son $N_j$ corresponds an NP with a noun modifier;
b. on the other hand, not every NP with a noun modifier, i.e. le $N_i$ du $N_j$ or le $N_j$ du $N_i$, necessarily yields the NP with the possessive determiner, son $N_i$ or son $N_j$.

The first result is interesting to the extent to which it confirms the close relation between NPs with a possessive determiner (son $N_i$) and the NPs of the type le $N_i$ de NP where the noun modifier represents the antecedent of the possessive. For the five types of associative anaphor tested, if the possibility of a possessive NP exists for the anaphoric $N_i$ or for the antecedent $N_j$, this NP always has a corresponding NP with de.

The verification reveals a difference which is illustrative of the semantics of the possessive. If it is indeed possible for each possessive NP to correspond to an NP with a noun modifier, the latter will not always be the same, its nature depending on whether the former is son $N_i$ or son $N_j$ NP.

With son $N_i$, the noun $N_j$ of the antecedent is always relevant in the noun modifier of the le $N_i$ de NP NP. This is the case of meronymics, in (41), of locatives in (42), of functional anaphors in (43), and of the anaphors of the type member-collection in (44):

(41) meronomic son $N_i$

son tronc → le tronc du tilleul / d’un tilleul
‘its trunk’ → ‘the trunk of the linden tree / of a linden tree’.

(42) locative son $N_i$

son église → l’église du village
‘its church’ → ‘the church of the village’

(43) functional son $N_i$

son maire → le maire du village / d’un village
‘its mayor’ → ‘the mayor of a the village / of a village’

(44) members-collection son $N_i$

ses arbres → les arbres de la forêt
‘its trees’ → ‘the trees of the forest’

A rather different situation obtains with son $N_j$ since the $N_i$ in the antecedent may yield an ill-formed prepositional phrase, as shown in (45), (46) and (47):

(45) actantial son $N_j$

’son meurtre → le meurtre du meurtrier
‘his murder’ → ‘the murder of the murderer’
The possessive via associative anaphor

(46) functional son $N_j$

\begin{align*}
\text{1'sa voiture} & \rightarrow \text{la voiture du conducteur / d'un conducteur} \\
'\text{his car}' & \rightarrow \text{the driver's car / the car of a driver} \\
\text{2'leur village} & \rightarrow \text{le village des habitants} \\
'\text{their village}' & \rightarrow \text{the inhabitants' village}'
\end{align*}

(47) members-collection son $N_j$

\begin{align*}
\text{1'leur régiment} & \rightarrow \text{le régiment des soldats} \\
'\text{their regiment}' & \rightarrow \text{the soldiers' regiment'}
\end{align*}

The reason for the relative inappropriateness of $N_i$ in these binominal NPs lies in the fact that their intrinsic lexical meaning makes them less serviceable for determining the entity denoted by $N_j$. The determiner in le meurtrier ‘the murderer’, le voleur ‘the thief’, le conducteur ‘the driver’ and les habitants ‘the inhabitants’ already implies that of a murder, of a theft, of a car and of a village, so that their use as noun modifiers to determine the entity which determines them appears as tautological. In the case of régiment des soldats ‘the soldiers’ regiment’, the tautology falls out from the very meaning of regiment ‘regiment’.

This tautology is no longer important if the determination performed by the noun modifier no longer depends on $N_i$, but relies on the individual property of the referent which satisfies the noun $N_j$. If a murder cannot be uniquely determined by the fact that whoever perpetrated it is a murderer, it is, on the contrary specified in a distinctive and relevant way by the identity, or an identifying description other than that of $N_i$, of the individual who is the murderer. Thus, instead of the binominal NPs in (45)–(47), it is NPs such as those in (48)–(50) that occur:

(48) actantial son $N_j$

\begin{align*}
\text{son meurtre} & \rightarrow \text{le meurtre de Paul} \\
'\text{his murder}' & \rightarrow \text{Paul's murder} \\
\text{son vol} & \rightarrow \text{le vol du petit garçon} \\
'\text{his theft}' & \rightarrow \text{the small/little boy's theft}'
\end{align*}

(49) functional son $N_j$

\begin{align*}
\text{sa voiture} & \rightarrow \text{la voiture de François} \\
'\text{his car}' & \rightarrow \text{Francois's car} \\
\text{leur village} & \rightarrow \text{le village de mes amis} \\
'\text{their village}' & \rightarrow \text{my friends' village}'
\end{align*}

(50) members-collection son $N_j$

\begin{align*}
\text{son régiment} & \rightarrow \text{le régiment de Bernard} \\
'\text{his regiment}' & \rightarrow \text{Bernard's regiment}'
\end{align*}
leur régiment → le régiment des appelés d’outre mer
‘their regiment’ → ‘the regiment of the overseas recruits’

One may wonder why the antecedent, with the possessive, can explicitly introduce the Ni, as we have seen in (28a) and (28b), (34) and (37b):

(28) a. L’assassin a pris la fuite, une fois son meurtre accompli.
‘The murderer ran away, once he had perpetrated his murder.’

b. Le voleur a pris la fuite, une fois son vol accompli.
‘The thief ran away, once he had committed his theft.’

(34) Les habitants ont compris le language des fleurs. Leur village croule sous les géraniums.
‘The inhabitants understand the language of flowers. Their village falls down under the geraniums.’

(37) b. Les soldats ont refusé de combattre. Leur régiment a été ainsi défait sans peine.
‘The soldiers have refused to fight. Their regiment was defeated easily as well.’

The answer resides in the pronominal anaphoric nature of the possessive: just like the pronoun il ‘he’, the possessive determiner son is not a substitute of the used antecedent, but it refers, under conditions which should be specified, to the entity perceived as named, which is salient or engaged in a situation which is salient at the moment when the possessive occurs. Thus, even though it participates in establishing the reference of an NP with son, the N of the antecedent no longer exerts the same influence as in the NP with a noun modifier, in which it explicitly occurs and whose reference it directly controls.

If this is true of the possessive NPs in (41)–(44) too, i.e. if the pronominal option also applies to these NPs, we should not conclude, however, that the difference between (41)–(44) and (45)–(47), which has brought to light the correspondence between the possessive NPs son Ni and son Nj and the binominal NPs with de with Ni and Nj, sees its relevance brought into question. It is, as we have already mentioned, indicative of the functioning of the possessive adjective, to the extent to which it is a rather strong argument in favour of dissociating the formation of the possessive NP in (41)–(44) from that in (45)–(47). Ultimately, it will represent an argument for distinguishing (at least) two semantic sources in establishing the possessive anaphor. Three observations confirm such a distinction and call for positing a different semantic son Ni and son Nj. The first one is that it is only in the case of son Nj anaphors that the
The possessive via associative anaphor

The possessive NP *le Nj* may prove inappropriate. The second one, which is nothing but the corollary of the first one, is that associative anaphors are not affected whenever such a correspondence is not possible since they compete with the possesive NP only in the case of possessive NPs of the type *son Ni*. Given that associative anaphors are based on *a priori* semantic relations, this suggests that the possessive is rooted in this case as well in *a priori* semantic relations between the Ns at issue. Note, thirdly, that with *son Ni*, the antecedent *Ni* always refers to a human being, whereas in possessive anaphors with *son Nj*, the antecedent *Nj* is generally non-human (cf. *tilleul* ‘linden tree’ for *son tronc* ‘its trunk’, *village* ‘village’ for *son église*, *maire* ‘mayor’ for *son maire* ‘its mayor’, etc.).

If every possessive NP, be it of the form *son Ni* or *son Nj*, can actually be related to a binominal NP with *de*, this will fail to fully account for the occurrence or non-occurrence of *son Ni* and *son Nj* possessive NPs with *Ni* and *Nj* involved in our associative anaphors. This is simply because the absence of a possessive NP is not tantamount to the absence of an NP with a noun modifier. As frequently noted, not every NP of the form *le Nj* yields a possessive NP *son NP1*. Here we have the second result of our confrontation. Whenever *son Ni* or *son Nj* are impossible, we are faced with two cases: either there is no available binominal NP with *de* or there is one. The following situations are illustrative of the first case:

1. Meronymic:
   * *sa voiture* ‘its car’
   * *la voiture d’un volant* ‘the car of a steering wheel’

2. Locative:
   * *son village* ‘its village’
   * *le village d’une église / de l’église* ‘the village of a church / the church’

3. Members-collection:
   * *leur forêt* ‘their forest’
   * *la forêt des arbres* ‘the forest of the trees’

The situations in (54) and (55) illustrate the second case:
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(54) meronymic:
*sa voiture
‘its car’
la voiture du volant
‘the car of the steering wheel’
in, for instance,
La voiture du volant qu’on a ramassé dans un fossé n’a jamais été retrouvé.
‘The car of the steering wheel which was retrieved in a precipice has never
been found’.

(55) members-collection:
*son père
‘its father’
le père de la famille
‘the father in the family’
*son mari
‘its husband’
le mari du couple
‘the husband in the couple’

How can we account for this dichotomy and how can we account for the other
results obtained by establishing a relation with the NPs with *?

3.3 Ontology and lexical relations

To answer these questions, we are going to resort, in the third stage, to a double
hypothesis regarding the use of the possessive determiner, by emphasizing both
the ontological factor and the role of lexical semantic relations. Our ontological
argument differs from the one frequently put forth in the literature. Generally,
it is the human (or animate) nature of the antecedent that is underscored as
a factor facilitating the formation of a possessive NP. The features ‘animate’
and ‘human’, as we are reminded by Bartning (1996), rank high in Hawkins’
(1981) “possessive” hierarchy, whereas inanimates rank low in this hierarchy
(see also Seiler 1983: 81). The latter feature cannot be turned into a constraint
since the possessive determiner, as emphasized by all commentators, can easily
have inanimate antecedents (or inanimates N1, if one considers the structure le
N1 du / d’un N2), as illustrated by the following example from Bartning (1996):

(56) La gravité de la situation / sa gravité
‘the seriousness of the situation’/ ‘its seriousness’
And as we have seen above in sequences such as those in (57), which are illustrative of our meronymic and locative associative anaphors:

(57) a. Le tronc du tilleul / son tronc
‘the trunk of the linden tree’ / ‘its trunk’
Le volant de la voiture / son volant
‘the steering wheel of the car’ / ‘its steering wheel’

b. Le magasin du village / son magasin
‘the shop in the village’ / ‘its shop’
L’église du village / son église
‘the church of the village’ / ‘its church’

We cannot therefore take the feature ‘human’ as being the only explanatory principle. The fact remains that it does play an important part in the formation of possessives, as shown by the difference which we have underscored between (41)–(44) and (45)–(47). But what part does it play?

3.3.1 The case of son tronc ‘its trunk’ / *son tilleul ‘its linden tree’ and of son église ‘its church’ / *son village ‘its village’

In order to identify it better, we are going to start from certain results and observations put forward hereinabove. First, we will take another look at the situation of meronymic and locative anaphors and reiterate the fact that the Ns (Ni and Nj) involved permit the establishing of possessive anaphors with son Ni (son tronc ‘its trunk’, son église ‘its church’), but not with son Nj (*son tilleul ‘its linden tree, *son village ‘its village’). The important point is that these possessive NPs with son Ni are based, just like associative anaphors (le tronc ‘the trunk’, l’église ‘the church’) on a lexical semantic relation between Ni and Nj, a relation of meronymy (Kleiber 1996), and a locative stereotypical relation (Kleiber 1997a). This relation is asymmetrical, i.e. it is only one of the Ns in the relation which is defined by the other. In the case of the meronymic relation, it is the N of the part12 which is defined as a part relative to the whole and the other way round. If the noun in the anaphoric expression is actually intrinsically marked as being a part, the antecedent noun, which stands for the whole, is not, as very well shown by Tamba (1994), a holonym: it does not contain the semantic feature of totality just as the meronym implies the feature ‘part of’. If tronc ‘trunk’ or volant ‘steering wheel’ are defined semantically as being part of a tree or of a car, arbre and voiture are not defined as being ‘wholes’ (Tamba 1994; Kleiber 1996). In the case of the locative relation, it is the place name Nj13 (village ‘village’) which is defined as being the place where the entity Ni (église ‘church’) is located and not the other way round: if village ‘village’
is a place where a church is generally found, église 'church' is not defined relative to village 'village'. Besides the already noted impossibility of matching le Ni d’un Ni:

(58) le volant d’une voiture
‘the steering wheel of a car’
l’église d’un village
‘the church of a village’

with an NP of the form le N, d’un N;:

(59) *la voiture d’un volant
‘the car of a steering wheel’
*le village d’une église
‘the village of a church’

We will also mention, to underscore the asymmetrical nature of the semantic relation, the oppositions (60)–(61), (62)–(63) and (64)–(65):¹⁴

(60) Une voiture a un volant.
‘A car has a steering wheel.’
Un volant est la partie d’une voiture.
‘A steering wheel is a part of a car.’
Un village a (généralement) une voiture.
‘A village (generally) has a church.’

(61) ?Un volant a (généralement) une voiture.
‘A steering wheel (generally) has a car.’
*Une voiture est le tout d’un volant.
‘A car is the whole of a steering wheel.’
?Une église a (généralement) un village.
‘A church (generally) has a village.’

(62) L’église appartient au village.
‘The church belongs to the village.’

(63) *Le village appartient à l’église.
‘The village belongs to the church.’

(64) Une voiture possède (généralement) un volant.
‘A car generally possesses a steering wheel.’

(65) Un village possède (généralement) une église.
‘A village (generally) possesses a church.’
It will be noticed that the entities at issue are, to cut a long story short, concrete entities, which is conducive to a first result, a decisive one, it seems to us. With concrete objects (or non humans or, at least, inanimates), the formation of a possessive NP is based on an a priori semantic relation between the Ns of the entities implied. In the absence of such a relation, the possessive is impossible, even when the discourse allows the formation of a binominal NP with de. Therefore, voiture ‘car’ and banane ‘banana’, for instance, united by the relation of incompatibility, could not yield an NP of the form *sa banane ‘its banana’ (or *sa voiture ‘its car’), whereas, as clearly shown by Bartning (1996, 1998), one may have, according to an interpretation which she calls discourse interpretation, a prepositional NP such as la banane de la voiture ‘the banana of the car’, provided that one has the necessary contextual information to understand the determination implied. The same result obtains if one attempts to build the possessive on the sense which is contrary to the one indicated by the a priori semantic relation. As already shown in (54):

(54) La voiture du volant qu’on a ramassé dans un fossé n’a jamais été retrouvée.

‘The car of the steering wheel which was retrieved in a precipice has never been found.’

It is possible to have an NP of the type le Nj du Ni in the case of meronymics, but only under absolutely special circumstances. However, it would not be possible to have a possessive anaphor (cf. *sa voiture ‘its car’) to account for such a determination since, as we have seen, the a priori semantic relation is conducive to a determinative sense only, the one which makes of the part an element of the whole and not of the whole an element of the part.

3.3.2 Intrinsic ontological dependence

In what follows we will address the question of why the establishment of a possessive link is possible with concrete objects only if the Ns of the objects at issue are united by a semantic relation, such as the part-whole relation or the locative relation, which provides beforehand a determinative schema indicating which of the entities depends on the other. It seems to us that the reason resides in
the fact that they are on the same ontological level. And this irrespective of the thesis regarding the possessive which one may adopt.

If one opts for a “possessive” content typical of the possessive determiner, the equivalent ontological situation of concrete objects such as the pair voiture ‘car’ – banane ‘banana’ which we have tested above does not a priori allow one either to see which of the two possesses the other or, especially, to understand what such a possessive relation might consist in.

If one prefers a weaker version of the possessive adjective, the one which sees in it first and foremost a marker of pronominal subordination of the type le N de + personal pronoun, and which therefore conceives of the possessive sense as only one possible product of this combination, the conclusion will be the same. There is no pre-existing intrinsic referential asymmetry between voiture ‘car’ and banane ‘banana’ which would indicate which of the two depends on the other, i.e. which would license the formation of an NP of the type la voiture d’une banane ‘the car of a banana’ or la banane d’une voiture ‘the banana of a car’ and which would allow the a priori interpretation (or prototypical, in Bartning’s (1996, 1998) analysis) of la banane de la voiture ‘the banana of the car’ or of la voiture de la banane ‘the car of the banana’.

That the absence of such an intrinsic subordination or of an a priori “possessive” relation whatsoever is responsible for blocking the possessive connection is proved by the different situation that obtains when two entities on different ontological levels are taken into account. We will consider only two cases. First, that of a concrete object and of a property, such as, for example, voiture ‘car’ and couleur ‘colour’. In the beginning, the two are related either by a univocal “possessive” relation or by an a priori relation of referential dependence: it is the car which “possesses” or has a colour and not the other way round and it is the occurrence of couleur ‘colour’ which depends on the occurrence of voiture ‘car’, and not the occurrence of voiture ‘car’ which is included in that of couleur ‘colour’, as can be seen in (66):

(66) la couleur d’une voiture
    ‘the colour of a car’
  *la voiture d’une couleur
    ‘the car of a colour’

Conclusion: in this case the possessive is possible because there is an a priori relation between the present entities which signals the determined entity and the determining one:
(67)  sa couleur
       (= the colour of the car)
* sa voiture
       (= ? the car of the colour)

One must stress the fact that this is not a semantic relation of the Ns of the entities in question (voiture 'car' and couleur 'colour' in this case), but a more general relation involving the classes, the concrete objects and their properties, to which these entities belong.

Let us analyse now a situation where a human being and a concrete object are related, as Pierre and livre 'book', for instance. The feature 'human' leads to an asymmetry between the two entities from the very beginning. From a “possessive” perspective, it seems clear that it is only the human which can be said to possess a book; from the perspective of dependence, it is also clear that a priori it will be rather the book which can be determined starting from Pierre and not Pierre starting from the book, simply because we consider it more natural to define concrete objects starting from people (or animate entities) than to define people starting from objects. This is obviously due to the fact that we consider them as inherently more independent or more autonomous than concrete objects or, to cut a long story short, as more salient or, using a syntagm used in Kleiber (1981), as having a greater referential force. The ‘control’ feature, used in other semantic and/or syntactic domains, can be used in this case. The asymmetry is obvious: it is rather the animate entity or the human being which controls the concrete object than the other way round. In Strawson’s terms, if one starts from the asymmetry subject/object, it is also obvious that one single order is allowed: it is the concrete object which can be predicated about the animate or human entity and not the animate or human entity about the inanimate one.20

The result is that one can easily create possessive NPs of the type son livre 'his book' for le livre de Jean 'the book of Jean', while the opposite *son Jean21 'his Jean' is impossible, even if one can conceive of contexts which make the opposite relation licit and which can consequently allow the formation of a binominal NP of type le Jean du livre 'Jean of the book'. Bartning (1996, 1998) also argues that such NPs can have two possible prototypical interpretations: possession (Jean possesses/has a book) and origin (Jean is the agent).

3.3.3  The two sources of the possessive
The role of the feature ‘+human’ can now be better understood but, at the same time, one can better understand the mechanisms of the possessive. It requires
an *a priori* dependence asymmetry. This can be provided by the two sources, as has already been shown and as has been hypothesised above:

- the ontological status of the entities involved
- a lexical-semantic relation between the N of the entities involved which signals an *a priori* dependence orientation.

The former states that if the general categories or the ontological types to which the entities belong are in a relation of dependence, a possessive link is possible with the stronger entity being the antecedent of the possessive, i.e. the one which has the part of a determiner. The ontological dependence scale on which one can place these ontological categories could tentatively be the one below:

Humans > animals > concrete objects > events > properties

The hypothesis which we would like to put forth is that one can obtain a possessive from this source if and only if the ontological type to which the antecedent-entity belongs occupies a position in the hierarchy higher than the entity which is determined by the possessive. This means, on the one hand, that if the two entities are of the same type, there is no such available possessive (cf. *sa banane* for *la banane de la voiture*) and, on the other hand, that if the type of the antecedent of the possessive is lower on the scale there will be no more possessive (*son Paul* ’its Paul’ for *le Paul du livre* ’the Paul of the book’).

We have here the explanation, procrastinated so far, of why a possessive link between the actantials in sequences such as (27) and (38) is impossible:

(27) Il y a eu un assassinat hier soir à Gumbrechtshoffen. *Son assassin a pris la fuite*  
*son = of the murder*  
‘There was a murder in Gumbrechtshoffen yesterday evening. Its murderer ran away.’

(38) Il y a eu un assassinat hier soir à Gumbrechtshoffen. *Sa victime a été étranglée.*  
*sa = de l’assassinat*  
‘There was a murder in Gumbrechtshoffen yesterday evening. *Its victim has been strangled (*is = of the murder).*

The possessive cannot be established because the antecedent (the murder) is of a lower type than the N determined by the possessive (murderer and victim) and because the semantic relation between the Ns involved (murder and murderer, murder and victim) serves no other purpose but to confirm this relationship. One cannot determine a murderer with *murder* simply because if
there is a murderer it means that he has already committed a murder or that there has been a murder. It follows that there is no source of type (b) which could lead to a possessive NP of type ‘son assassin (son = de l’assassinat) ‘its murderer (its = of the murder)’ or ‘sa victime (sa = de l’assassinat) ‘its victim (its= of the murder)’.

One can also find here the explanation of the difference between (45)–(47) and (48)–(50), related to the origin of son meurtre (‘his murder’), sa voiture (‘his car’), leur village (‘their village’) and leur regiment (‘their regiment’):

(45)  \[\text{son } N_j \]
\[
'son meurtre \rightarrow \text{le meurtre du meurtrier} \\
'his murder' \rightarrow \text{‘the murder of the murderer’}
\]

(46)  \[\text{son } N_j \]
\[
'sa voiture \rightarrow \text{la voiture du conducteur / d’un conducteur} \\
'his car’ \rightarrow \text{‘the driver’s car / the car of a driver’} \\
'le village \rightarrow \text{le village des habitants} \\
'their village’ \rightarrow \text{‘the inhabitants’ village’}
\]

(47)  \[\text{son } N_j \]
\[
'leur village \rightarrow \text{le village des soldats} \\
'their regiment’ \rightarrow \text{‘the soldiers’ regiment.}
\]

(48)  \[\text{son } N_j \]
\[
'son meurtre \rightarrow \text{le meurtre de Paul} \\
'his murder’ \rightarrow \text{‘Paul’s murder’} \\
'son vol \rightarrow \text{le vol du petit garçon} \\
'his theft’ \rightarrow \text{‘the small/little boy’s theft’}
\]

(49)  \[\text{son } N_j \]
\[
'sa voiture \rightarrow \text{la voiture de François} \\
'his car’ \rightarrow \text{‘François’s car’} \\
'their village’ \rightarrow \text{‘my friends’ village}’
\]

(50)  \[\text{son } N_j \]
\[
'son régiment \rightarrow \text{le régiment de Bernard} \\
'his regiment’ \rightarrow \text{‘Bernard’s regiment’} \\
'their regiment’ \rightarrow \text{‘the regiment of the overseas recruits’}
\]

The possessive reading does not derive directly from the lexical semantics of the Ns involved, but has (a) as its source, i.e. the ontological status of the entities involved.
The situation is however different with respect to source (b). The latter source of the possessive can actually account for those uses of the possessive which contradict the former: if two entities are of the same type or if one entity of a lower type is presented as the antecedent of an entity of a superior type, it will be the lexical relation between the N involved which takes over and which can provide the a priori necessary asymmetry. We have already seen (cf. supra) that the meronymic relation and the locative relation can act in this way in the case of concrete objects and create possessive NPs of the type *son volant* ‘its steering wheel’ for *le volant de la voiture* ‘the steering wheel of the car’ or *son église* ‘its church’ for *l’église du village* ‘the church of the village’.

In what follows we are going to see how this second source acts in the case of possessive NPs which correspond to those Ns implied by our functional associative anaphors. It is actually high time we came back to those “possessive” facts which have not been accounted for yet. If one can consider the situation of meronymics and locatives as settled – the possessive *son Ni* has as its origin the meronymic or locative lexical relation between *Ni* and *Nj* – one still has to find an explanation for collectives and functional constructions.

The functional constructions differ from the meronymic and locative ones in that the former allow a possessive NP both for *Nj* (*son village* = *le village du maire* ‘his village = the village of the mayor’) and for *Ni* (*son maire* = *le maire d’un village* ‘its mayor = the mayor of a village’). In the case of *son Nj*, the formation of the possessive NP observes the ontological hierarchy (a): the antecedent is ‘human’, the determined entity is of a lower type. If one has, for instance, *Pierre* and *village* ‘village’, we will get *son village* ‘his village’ and not *son Pierre* ‘its Pierre’. What leads to *son maire* ‘its mayor’ is (b): it is the existence of the functional semantic relation *x est le maire de y* ‘x is the mayor of y’ which allows us to reverse the relation. But this time it is not a relation between humans and *village* ‘village’, but uniquely between *village* ‘village’ and an instantiation of a human being that is a mayor, that which corresponds to the functional predicate *maire* ‘mayor’. This is proved by the impossibility of a relation between the *Nj* *voiture* ‘car’ and *son Nj* with an *Nj* such as *automobiliste* ‘motorist’, since there is no functional N, while with an N such as *conducteur* ‘driver’, there will be no problems (Kleiber 2001b):

(68)  
*son conducteur* = *le conducteur de la voiture*  
‘its driver’ = ‘the driver of the car’  
*son automobiliste* = ? *l’automobiliste de la voiture*  
‘its motorist’ = ? ‘the motorist of the car’
The situation of associative anaphors of type ‘members-collection’ seemed confusing, since we revealed almost all the possible cases: only \( \text{son } N_i \) (\( \text{ses arbres} \) ‘its trees’), but not \( \text{*leur forêt} \) ‘their forest’), only \( \text{son } N_j \) (\( \text{sa famille} \) ‘her family’, but not \( \text{*sa mère} \) ‘its mother’ for \( \text{la mère de la famille} \) ‘the mother of the family’), and \( \text{son } N_i \) and \( \text{son } N_j \) for \( \text{ses soldats} \) ‘its soldiers’ and \( \text{leur regiment} \) ‘their regiment’.

In the first case, the possessive has its origin in the semantic relation of type ‘members-collection’, which presents the forest as a collective noun, i.e. a collection of trees\(^{26} \) and which provides, according to the model of (b), the dependence orientation \textit{a priori} necessary\(^{27} \) for the formation of a possessive NP which links two entities of the same ontological level. The reverse, i.e. \( \text{*leur forêt} \) ‘their forest’ for \( \text{la forêt des arbres} \) ‘the forest of the trees’, is not possible, since there is no lexical relation which could define \( \text{arbre} \) ‘tree’ via \( \text{forêt} \) ‘forest’.

In the second case, which concerns family terms, the NP \( \text{son } N_j \) cannot be accounted for by the functional family relationship, but by the ontological channel: each human being has or possesses a family. If the NP \( \text{son } N_j \) (\( \text{*sa mère} \) or \( \text{*son mari} \) ‘its husband’ for \( \text{le mari du couple} \) ‘the husband of the couple’) is not possible, this is due to the fact that \( \text{mari} \) ‘husband’ and \( \text{mère} \) ‘mother’ are relational terms, but the functional relation which characterizes them links them to \( \text{enfants} \) ‘children’ in the case of \( \text{mère} \) ‘mother’ and to \( \text{femme} \) ‘wife’ in the case of \( \text{mari} \) ‘husband’, and not to \( \text{famille} \) ‘family’ or \( \text{couple} \) ‘couple’ (Kleiber 1999c). We will notice without going into further detail that the semantic relation of type ‘members-collection’ which makes \( \text{famille} \) ‘family’ a collective noun may have with a \( \text{son } N_i \) + human the NP \( \text{ses membres} \) ‘its members’ (in the case of \( \text{les membres de la famille} \) ‘the members of the family’).

In the third case, the two possessive NPs \( \text{son } N_i \) and \( \text{son } N_j \) are possible: \( \text{ses soldats} \) ‘its soldiers’ infringes the rule of ontological hierarchy, since its antecedent is \([–\text{human}]\) (regiment) while \( \text{soldats} \) is \([+\text{human}]\). But this structure, just like \( \text{ses arbres} \) ‘its trees’ above, is based on the semantic relation of type ‘members-collection’ which defines a regiment as being made up of soldiers (cf. \( \text{Un régiment a/comporte des soldats} \) ‘A regiment has/implies soldiers’). The reverse possessive NP \( \text{leur régiment} \) ‘their regiment’ or \( \text{son regiment} \) ‘his regiment’, having a human as its antecedent, can, as we emphasized above when discussing (50), builds on a previous dependence relation, in which the regiment is determined with respect to the individuals or the individual that belong to it and who, given the meaning of regiment, must be a soldier: \( \text{le régiment de Paul} \) ‘Paul’s regiment’ – \( \text{son regiment} \) ‘his regiment’. The different source of the possessive in these two possessive NPs is brought into bold relief by a number constraint on \( N_i \). As \( \text{son } N_i \) is based on the relation \( \text{un regiment est composé de soldats} \) ‘a regiment is made up of soldiers’, the singular is eliminated only in
favour of the plural: *son soldat / ses soldats ‘its soldier / its soldiers’, whereas with son N, both the singular and the plural are possible for N: son regiment / leur regiment ‘his regiment / their regiment’.

4. Conclusions

There can hardly be a conclusion. We have sufficiently emphasized what was still hypothetical in the present approach and we have taken good care to mark out the points which require further study or verification. Thus, unfinished though it is, the present paper, we hope, has fulfilled the promise made in the introduction: that of opening up an original and stimulating track for investigating the possessive. We started out from a typology of associative anaphors and we applied the test of the possessive to the Ns involved. That allowed us to shed new light on the mechanism of the possessive and to put forth new hypotheses about the possessive determiner. These hypotheses rely, on the one hand, on an ontological dependence hierarchy and, on the other hand, on the dependencies imposed by the lexical relations. This hypothesis of the double source of the possessive seems to be able to set it free (finally?) of the inalienable semantic heaviness of possession which it has been dragging along for quite a while.

Notes

1. In the literature, one does not generally accept the existence of two types of associative anaphor. Fradin (1984) distinguishes between associative anaphors, which are due to the presence of a suite non actancielle in the semantic representation of the anaphoric noun – the relationship part-whole is central in this case – and associative anaphors whose anaphoric noun implies a suite locative. Salles (1995a, 1995b) makes a distinction between those associative anaphors which rely on the part of relationship and those which are established on the basis of semantic roles.

2. It should be noticed that our list is not closed.

3. Winston et al. (1987) consider that the same relationship (part – whole object) links, for example, handle – cup and fridge – kitchen.

The possessive via associative anaphor

5. This is not in the least surprising if the possessive determiner is considered a pronominal element, as generally done in the literature which underscores the fact that, semantically, this amounts to the alliance of a definite article with a personal pronoun: “semantically speaking, unstressed possessives join an article of the LE series together with one of the three grammatical persons, in the singular (moi, toi, lui/elle) or in the plural (nous, vous, eux/elles): mon, ton, son, ma, ta, sa, mes, tes, ses, notre, votre, leur, nos, vos, leurs = ‘le/la/les x de moi/toi/lui/ (elle)’, as noted by Wilmet (1986:108). This analysis is taken over by Riegel et al. (1994:158) for whom the possessive adjective is tantamount to le + N + de + personal pronoun and is also found, albeit arrived at in a different way, in Godard (1986:103), who treats it as a pronominal NP, or in Zribi-Hertz (1999), who assigns to the head $^0$ the feature Person. The main argument in support of this “pronominal” approach is the impossibility of there being a NP of the form *le N de lui/toi/mon.

6. The possessive determiner "has a specific property: it alternates with a noun modifier of the form de NP" (Godard 1986:102). Here is one of the facts more or less agreed upon in the analysis of the possessive determiner which comes to light in the equation Poss.Det. = Le N de + Pro. As already mentioned in the preceding note, this is the path followed by Wilmet (1986:108) and by Riegel et al. (1994:158) who postulate that "the possessive determiner is the equivalent of le (...) de moi, le (...) de toi, etc." and that it "represents the synthesis of two generally discontinuous elements of the NP: the definite article and a noun modifier introduced by de (in this case, a personal pronoun).

7. See Godard (1986).

8. See Gross (1986) for a presentation of the two main theoretical views on the possessive adjective: (i) those which regard it as an irreducible expression and (ii) those which see in it the result of a transformation. We favour (i). Bartning (1989:196, 197) discusses the syntactic solutions of the 70s and 80s. One can find a generative solution in Godard (1986), in the spirit of Chomsky's (1981) "modular" grammar, which "puts forth hypotheses concerning the lexicon, the syntax and semantic interpretation" (Godard 1986:103). Zribi-Hertz (1999) proposes a generative analysis within the Chomskyan framework of Principles and parameters and rooted in the "autonomous" view of inflectional morphology known as Distributed Morphology.

9. For more details, see Kleiber (1994b).

10. If we say generally, it is because relational Ns such as fils ‘son’, père ‘father’, etc. are conducive to NPs of the type son fils ‘his son’, son père ‘his father’, whose antecedent is obviously a human being. Note, on the other hand, that there is no functional associative anaphor with such Ns, given the converse semantic relation they exhibit (Kleiber, to appear) and also because they do not correspond, as also noted (Kleiber, to appear), for tautology reasons, to le fils du père ‘the father’s son’ and le père du fils ‘the son’s father’.

11. This is one of the classic points made in the literature on the possessive determiner (Godard 1986; Gross 1986; Bartning 1989, 1996; Kupferman 1996; Zribi-Hertz 1999). The examples below are the ones given by Godard (1986:108):

(i) le retour de la campagne / *son retour
‘the return of the campaign’ / ‘its return’
(ii) les soldats français du Tchad / *ses soldats
'the French soldiers in Chad' / 'its soldiers'
(iii) le journal du 29 février / *son journal
'the newspaper from the 29th of February' / 'its newspaper'
(iv) l'amour du risque / *son amour
'the love of risk' / 'its love'
(v) la table d’un bois clair / *sa table
'the table of light-coloured wood' / 'its table'
(vi) un savant d’une grande gentillesse / *son savant
'a scientist of great kindness' / 'its scientist'.

12. Bartning (1998) lists these Ns of the part among the $N_1$ which map the meaning of the NP le $N_1$ du $N_2$ onto the level of the NP itself.
13. Bartning (1998) calls them locative nouns and lists them among the $N_2$ whose lexical meaning contributes to the interpretation of complex nominal phrases with de.
15. Bartning distinguishes two types of interpretation for the NPs with de: (i) the interpretations which she calls prototypical, where the sense of the determinative relation is provided by the micro-structure itself; (ii) the discourse interpretations, where the sense originates in the information circulated by the discourse context.
16. Let the reader imagine a relevant context!
17. For a linguistic redefinition of the relations of possession and of belonging, see Riegel (1984).
18. This is a position to which we are tempted to adopt, but which obviously requires a less chivalrously Spartan justification.
19. See Strawson (1973). Zribi-Hertz (1999:23) reaches the same result assuming that "the acceptability of the possessivised syntagm seems (...) to be linked to the predicative interpretation of the relation YP–XP within le XP de YP".
20. As already mentioned, this point of view is also defended in Zribi-Hertz (1999).
21. Obviously, this does not mean that one cannot have a possessive syntagm of the type son Jean. Such NPs are often used (cf. Ton Zidane..., ma chère Françoise, etc.), but the possessive does not refer to a concrete object.
22. Zribi-Hertz (1999) accounts for this fact in terms of predication: the predicative character of the relation YP–XP is a necessary (but not sufficient) condition for the use of the possessive. According to her (1999:15), "equating possession with predication sheds light on often confused or ad hoc remarks made by grammarians with respect to the relation which they call 'possessive'. Actually, possession is a legal relation whereas predication is a grammatical relation independent of the former.
23. Such a hierarchy should be better controlled. Let us notice that it can resemble, more or less, the one which has been established for referential saliency.
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24. This implies that we must find a different explanation for the NPs of type *Ma chère Françoise, ton Zidane, ma petite, mon salaud, mon colonel*. Let us simply remark that this type of NP causes difficulties to other analyses of the possessive as well (see, for example, Zribi-Hertz 1999).

25. But let us remember the odd cases mentioned in the footnote above (cf. *ma petite*, etc.).

26. And not of elements or of members: cf. *‘les membres / les éléments de la forêt ‘the members / the elements of the forest’.*

27. See the generic sentences *Une forêt a / possède / comporte des arbres* which should be analysed in more detail.

References


The possessive via associative anaphor


The internal syntax of possessor phrases
Chapter 3

From DPs to NPs
A Bare Phrase Structure account of genitives

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1. The problem: genitives and determiners

Certain languages have two distinct types of genitives. As a first, pre-theoretical description, the two classes can be referred to as synthetic and analytic genitives, respectively:

\begin{align*}
\text{Synthetic genitives} & \quad \text{Analytic genitives} \\
\text{English} & \quad \text{Saxon genitives} \quad \text{of-genitives} \\
\text{Modern Hebrew} & \quad \text{Construct State associates} \quad \text{Sel-genitives} \\
\text{Rumanian} & \quad \text{al-less genitives} \quad \text{al-genitives}
\end{align*}

In the three languages examined here, synthetic genitives impose strict constraints on the determiner of the head noun:

(2) Synthetic genitives force the determiner of the head noun to be either
   i. empty (English, Hebrew) or
   ii. filled with a suffixal definite article (Rumanian).

I will propose that the unifying crosslinguistic characteristic of synthetic genitives (in languages with alternating genitives) is that they occupy a Spec, N position and I will argue that the constraints on determiners are due to the rule of semantic composition that characterizes them:

(3) A synthetic genitive (which sits in (Spec, N)) is interpreted as the argument of a function from individuals to individuals (type \(<e,e>\)), which yields the individual denoted by the overall possessive DP.

I will further argue that the “(in)definiteness spread” phenomenon characteristic of synthetic genitives is a consequence of the semantic rule in (3), rather than an effect of a mechanism of Spec-Head agreement in ±def features be-
tween the genitive DP and the D$^0$ of the head N. I will finally show that Hebrew indefinite CSN’s are structurally different from their apparent counterparts in English and Rumanian: Hebrew indefinites are bare nouns, which do not sit in Spec, N and as such are not semantically composed via the rule in (3), but rather via modification. Correlatively, there is no “indefiniteness spread” in Hebrew indefinite CSN’s: their indefinite nature is not inherited from the associate, but is rather due to the fact that the head N itself lacks an overt Determiner. Engelhardt (1999, 2000) and Danon (2001) have recently brought up the existence of indefinite CSN’s built with definite associates. I will argue that in this type of CSN, the definite associate is neither a Spec, N nor a modifier, but rather a complement of N. Since under my proposal (in)definiteness spread is an interpretive consequence triggered by genitive specifiers, and since complements of N$^0$ impose no constraint on Det’s, the existence of indefinite CSN’s with definite complements of N is not surprising. In sum, the Hebrew CSN construction is structurally ambiguous between three possible configurations, out of which only the one in which the associate is in Spec, N is comparable to Rumanian genitives and English Saxon genitives.

2. From DPs to NPs

The vast majority of GB and minimalist analyses assume the “DP-hypothesis” stated below:

(4) Nominal projections in argument-positions are necessarily DPs.

The hypothesis in (4) is currently motivated by the idea that argument-positions and argument-types necessarily correlate. The role of the determiner is to turn the property-denoting NP into an expression that has the type of canonical arguments (individuals or generalized quantifiers). ¹

Recent independently obtained results point to the conclusion that existential bare nouns can occupy argument-positions even though they do not have the canonical argument-type:

(5) a. John drinks wine.
   b. Ion bea vin.  (Rumanian, same gloss as (a))

In examples of this type, bare nouns can be analyzed as property-denoting expressions that function as predicate-modifiers rather than as arguments (McNally 1995; Dobrovie-Sorin 1997; Dobrovie-Sorin & Laca 1999, 2001; van Geenhoven 1996). ² In sum, the presence of a determiner is not required by
the syntactic position of arguments. The constraint in (4) should therefore be revised as in (6):

(6) N-projections can have the semantic type of arguments (individuals or generalized quantifiers) only if they are headed by Det.

My analysis of synthetic genitives will show that even this version of the DP-hypothesis is too strong:

(7) Nominal projections containing Spec, N are e-type expressions, although they lack Det.

In sum, I will argue that the projection of a canonical Det (of type <<e,t>, <<e,t>t>>) is not required, and in fact banned, by the rule of semantic composition characteristic of nominal projections embedding synthetic genitives (which sit in Spec, N). This does not mean, however, that a purely formal constraint on constituent-structure does not exist, which could require nominal projections to be necessarily DP’s. But the existence of such a (universal or language-particular) constraint must be established on purely syntactic grounds.

2.1 English Saxon genitives

In pre-Abney GB analyses, Saxon genitives were assumed to occupy the same position as determiners:

(8) \[
\begin{array}{c}
\text{NP} \\
\text{Spec, NP} \\
\text{John’s the/a house} \\
\text{house}
\end{array}
\]

This structure was a way of encoding the complementary distribution between Saxon genitives and determiners: since both elements are designed to occupy the same position, only one of them can surface in a given syntactic configuration. This analysis cannot be correct: determiners and genitives are syntactic categories of different hierarchical level (X^0 et XP, respectively), which as such cannot occupy the same syntactic position. In recent generative models (starting with Chomsky 1986), functional categories occupy functional-head positions such as Infl (Inflection), Comp (Complementizer), and this analysis was extended to determiners by Szabolcsi (1984, 1994) and Abney (1986,
1987): determiners are the heads of a functional projection that is currently notated DP.

According to Abney (1986), the structure of DPs embedding Saxon genitives is that in (9′), where ’s occupies the D₀-head, and the genitive itself moves from Spec, NP to Spec, DP:

(9) a. John’s mother
   b. my sister’s house
   c. a neighbour’s daughter

(9′) (Abney 1986)

Abney (1987) proposes the variant given in (9″), where ’s is a genitive morpheme attached to the genitive DP, the D₀ position being occupied by a null Agr head:

(9″) (Abney 1987)

The necessary co-occurrence between ’s (or null Agr) and Saxon genitives is assumed to be due to Case assignment. It seems however clear that there is no independent evidence in favor of the Case-assigning abilities of either ’s or Agr, which explains Abney’s own hesitation. In his 1987 analysis, ’s is not a Case-
assigner but rather a Case-morpheme that attaches to an XP-constituent. The hypothesis of a null Agr is explicitly attributed to Szabolcsi’s (1984) analysis of Hungarian. But this analogy seems unmotivated, since, in clear contrast with Hungarian, no overt agreement morpheme is associated with Saxon genitives.

Both of the two structures proposed by Abney are problematic, since they postulate the existence of idiosyncratic determiners, ’s or null Agr. In addition, none of these structures explains the complementary distribution between Saxon genitives and determiners, they merely encode it by the stipulation that whenever Spec, N is projected the Det position is occupied by either null Agr or ’s, to the exclusion of any canonical determiner.

Breaking with the long post-Abney tradition, I will argue in favor of the simplified structure given in (10), made possible by the Bare Phrase Structure theory, which does not assume X'-theoretical constraints on constituent structure:

(10)  
\[
\begin{array}{c}
N^{\text{max}} \\
\text{Spec, N} \\
\text{DP}_{\text{GEN}} \\
\text{a student’s results}
\end{array}
\]

Since the head noun lacks a Determiner, the highest projection cannot be labelled DP. Since it can occupy any kind of argument position, this constituent is nevertheless a maximal projection of N, hence the label N^{\text{max}}. I take ’s to be a Case-morpheme, as in Abney (1987).

In Section 3 below, I will propose that the non-projection of the DP-layer is due to the rule of semantic composition corresponding to the configuration in (10).

Before turning to Hebrew, let me observe that the construction examined above should be kept distinct from “modificational genitives” (Quirk et al. 1985; Woisetschlaeger 1983; Munn 1995), in which the genitive is not a maximal projection, and the Deteminer governs the overall N-projection rather than the genitive:

(11)  A man’s hat is on the counter.
2.2 Hebrew construct state nominals

The label “construct state nominal” refers to the phonological reduction that characterizes the head N: bayit > beyt “house”. Correlatively, the sequence formed by the head N and its “associate” (corresponding to a genitive DP) has the properties of a phonological word (Borer 1988). Besides their phonological peculiarities, Hebrew CSN’s differ from Saxon-genitive constructions in the following respects:

(12) a. The linear order between the head N and the genitive is reversed.
    b. The associate DP carries no genitive-marking, whereas Saxon genitives are marked by 's.
    c. The associate DP is strictly adjacent to the head N.

Beyond these important differences, Hebrew construct states nominals resemble Saxon genitives insofar as they show a clear complementary distribution with overt Det’s:

(13) a. *ha-beyt ha-iS
    the-house the-man
    b. beyt ha-iS
    house the-man
    ‘the man’s house’

Whenever an overt Det is projected, a Sel-genitive must be used:

(14) ha-bayit Sel ha-iS
    the-house Sel the-man
    ‘the house of the man’

Hebrew CSN’s built with indefinite associates raise particular problems, which will be examined in Section 4 below.

Following Ritter (1988), it is currently assumed that CSN’s rely on N-to-D raising (see Fassi-Fehri 1989; Siloni 1994, 1997; Borer 1996, for Semitic lan-
guages, and Rouveret 1994, for Welsh). Relying on this quasi-unanimous hypothesis, Longobardi (1996) takes the rule of N-to-D to constitute the defining characteristic of CSN’s, a type of construction that covers, according to Longobardi, not only Semitic CSN’s, but also Saxon genitives and Rumanian synthetic genitives. Although I am myself convinced that the three constructions belong to the same abstract type, I will avoid the label “Construct State”, because I do not think that the Semitic construction is closer to the abstract type. I will instead use the label “genitive specifiers”, which is related to the analysis proposed here. Besides the terminology, I will diverge from Longobardi and most of the previous literature in arguing that the head N need not raise to D (my analysis does not require N-to-D, although it allows for it).

The initial motivation of N-to-D, going back to Ritter (1988), was the complementary distribution between CSN’s and determiners: assuming that one position cannot host more than one element, the N-to-D raising blocks the projection of Determiners. In the absence of independent evidence, this analysis is a mere restatement of the empirical observation itself.

The second motivation was linear order. Assuming that Spec positions are universally generated on the left of head positions, as in Saxon genitives, one can derive the reversed order shown in CSN’s by N-to-D raising. By the same move, the postnominal position of adjectives is also accounted for. Note however that both the N – DP_{gen} and the N – Adj word orders characterize not only CSN’s but also “free state nominals” followed by Sel-genitives. And since the latter allow determiners, the rule of N-to-D can no longer account for the block on Det’s in CSN’s. In order to solve this problem, theorists of Hebrew CSN’s assume that N raises in two steps, going through an intermediate functional head-position. The first step, common to free state nominals and CSN’s, would account for word-order, whereas the second step, which occurs only in CSN’s, would account for the block on determiners. The labels of the lower constituents differ from one author to the other: according to Hazout (1988, 1990, 1995) and Borer (1991), event nominals have a VP layer embedded inside NP, whereas Ritter (1991) assumes a NP layer embedded under NumP. The slashed labels indicate these various options. But note that if we ignore the labels of the nodes, the various authors assume the same structure, which crucially contains two layers under the DP-level. The arrow indicates the first step of N-raising:
CSN’s rely on the further raising of N to the highest functional projection, D⁰. Correlatively, the constituent under Spec, NP raises to Spec, NumP/NP. These two movements, which distinguish CSN’s from free states nominals, are represented by dashed arrows:
Borer’s (1996) analysis is even more complex: in an attempt to account for the word-like properties of CSN’s, Borer assumes a further movement, by which Spec, NP is pulled out of Spec, Num and right-joined to the head N. This movement is notated by the dash-dotted line:

(17)  

Further differences between the various authors6 concern the analysis of non-event nominals. According to Borer (1996), non-event nominals do not contain a VP embedded under NP. Hence, the DP-initial position of N cannot be due to N-to-V. One must then assume that non-event nominals are head-initial, the possessor being right-joined to N’. In order to support her differentiating analysis of non-event nominals, Borer observes, following Shlonsky (1988), that the order of post-head elements is free in non-event free nominals, in clear contrast with event-nominals. She further points out a different, but correlated, contrast: when both the Theme and the Agent are realized, the choice of the CS-associate diverges in event and non-event CSN’s.

My main claim is compatible with any of the constituent-structures proposed above, but I would like to suggest instead the Bare Phrase Structure configuration in (18):
The structure in (18) goes against Kayne (1994) and follows Giorgi and Longobardi (1991) in assuming that Spec constituents can appear on the right-hand side of the head. Note that the right-merge of Spec seems to be dependent on the absence of a complement of $N^0$ 8 (the purely structural notions of Spec and complement are to be kept distinct from the notions of external and internal arguments, which pertain to theta-theory). In line with Boskovic and Takahashi (1998), Hornstein (1999) and Manzini and Roussou (2000), I abandon the D-structure level of representation: properties pertaining to theta-role assignment are specified in argument-structure. This means that a given constituent does not merge first in a “theta position”, but rather directly in a Case position. Some criterion is needed in order to select, from among the arguments of the head $N$, the argument that is merged in Spec, $N_{\text{max}}$. In Hebrew event nominals, it is the external argument (Agent) that is merged in Spec, $N_{\text{max}}$, whereas in non-event nominals, the DP in Spec, $N_{\text{max}}$ must be selected by the head $N$: it can be either the internal argument (Theme) in picture-nouns 9 or the whole in a part-whole relation, or an inherent possessor. I take Adjectives and PPs (which may correspond to arguments of the head $N$) to adjoin to $N_{\text{max}}$, with Adjectives being adjoined closer to the head. Binding phenomena (which I leave aside) are sensitive to thematic rather than to structural hierarchy.

The similarity between the configuration in (18) and Saxon genitives is clear: the CS-associate occupies the Spec, $N_{\text{max}}$ position, and correlatively, the DP-level is not projected.
2.3 Rumanian genitives

Rumanian resembles English and Hebrew insofar as it displays a remarkable alternation between synthetic genitives (marked with morphological genitive Case, which is formally identical to the Dative) and analytic genitives, made up of a synthetic genitive preceded by an inflected element al/a/ai/ale (decomposable in an invariable part, a-, followed by the definite determiner) that agrees with the head N°.

The constraint on determiners can also be observed in Rumanian, although under a slightly different form: synthetic genitives can occur only if the head N° carries the definite article (19); the presence of any other determiner requires an analytic genitive (20):

(19) \[ N_{\text{def}} \cdot \text{GDet}_{\text{gen}} \]
   a. casa vecinului / vecinilor
      house-the neighbour-the_{\text{gen}} / neighbours-the_{\text{gen}}
      ‘the neighbour’s/the neighbours’ house’
   b. casa unei vecine / unor vecine
      house-the a_{\text{GGEN}} neighbour / some a_{\text{GGEN}} neighbours
      ‘a neighbour’s / some neighbours’ house’

(20) \[ \text{Det} N \cdot \text{al} \cdot \text{GDet}_{\text{gen}} \]
   a. o casă a vecinului / a unei vecine
      a house a neighbour-the_{\text{GGEN}} / a a_{\text{GGEN}} neighbour
      ‘a house of the neighbour / a neighbour’
   b. acest câine al vecinului / al unei vecine
      this dog al neighbour-the_{\text{GGEN}} / al a_{\text{GGEN}} neighbour
      ‘this dog of the neighbour / of a neighbour’

Note that Rumanian DPs resemble Hebrew DPs regarding linear order: N°'s precede Adjectives (not illustrated here), as well as (synthetic and analytic) genitives. Moreover, although they do not show any phonological peculiarity, Rumanian synthetic genitives show a strict adjacency constraint:

(21) casele de piatră *(ale) vecinului / *(ale) unei
      houses-the in stone *(ale) neighbour-the_{\text{GGEN}} / *(ale) a_{\text{GGEN}}
      vecinei
      neighbour
      ‘the houses in stone of the neighbour / of a neighbour’

It is generally assumed (Dobrovie-Sorin 1987; Grosu 1988, 1994; Cornilescu 1993) that Rumanian definite nouns raise to D:
Some authors adopt a more complex structure, enriched with functional categories such as AgrP, GenP, or NumberP, which I do not believe to be useful on either empirical or theoretical grounds.

According to Grosu’s hypothesis (1988, 1994), taken up by Cornilescu (1993), Genitive Case is assigned under government by the definite article, which would account for the adjacency constraint. This is an idiosyncratic rule, which directly encodes the Rumanian data (co-occurrence of the definite article and synthetic genitives, and the adjacency constraint), but does not allow a unitary characterization of Rumanian genitives, CSN’s and Saxon genitives, since in the latter two cases genitive Case is assigned in the absence of the definite article.

In what follows, I will show that the analysis proposed above for English and Hebrew extends to Rumanian. Note first that the rule of N-to-D postulated for Rumanian was related to the GB model, which required N’s and D’s to be generated in distinct positions, even if the Determiner was an affix. Within the minimalist framework, in which words enter the derivation fully inflected, Rumanian definite N’s are merged as such in the syntax. In most minimalist analyses, the rule of N-to-D is nevertheless maintained, for reasons of “feature-checking”. To illustrate, let us examine the following example:

(23) masa
table-the

We will first consider the analysis according to which the sequence N+Det is labelled N; the determiner itself would be a “feature” on N. If we assume, as is current, that nominal projections must be governed by D, we must assume the projection of a null functional head that attracts features of the same category:

(23’)

\[
\text{masa} \quad \text{t}_{\text{masa}}
\]
This checking-type analysis is ruled out by Bare Phrase Structure (the category Det is projected only if it dominates a lexical item). We may instead assume that the constituent N+Det is labelled DP. This analysis does not rely on N-to-D:

\[(23') \quad D \quad \overrightarrow{N+Det}\]

Let us now return to the structure of the examples built with synthetic genitives: in this case, the Spec position is projected, and is targeted by the synthetic genitive:

\[(24) \quad \begin{array}{c}
house-the \\
vecinului \\
m.gen
\end{array}\]

2.4 Conclusions

I have so far shown that in the three languages under examination here, synthetic genitives can be assumed to occupy the Spec, \(N_{\text{max}}\) position, i.e., a position that is a sister to a non-max N-position and is immediately dominated by \(N_{\text{max}}\).

This common structure shows, however, important crosslinguistic differences. In Rumanian and Hebrew, as opposed to English, Spec, \(N_{\text{max}}\) is on the right of the head N, and an adjacency constraint holds between these two elements. It seems clear that for Rumanian at least, the adjacency constraint cannot be due to the phonological properties of the construction. A unitary account for the adjacency constraint could therefore be based on structural properties alone: linear order, presence or absence of complements of N, as well as properties of adjectives might be relevant. I leave this open for further research.
3. The semantic composition of genitive specifiers and the constraint on determiners

Assuming the syntactic analysis proposed above to be correct, let us now try to understand the constraint imposed on the determiner of the head noun. What we have to explain can be broken in two parts. The positive generalization is that a nominal projection embedding Spec, N can have the semantic type of arguments although it is not governed by a determiner. The negative generalization is that Determiners (other than the definite article) are incompatible with the projection of Spec, N.

3.1 Genitive specifiers as arguments of a function from individuals to individuals (type <e,e>)

The first question is the semantic composition of nominal projections containing Spec, N\textsuperscript{max}:

(25) a. Mary’s mother
b. Mary’s sister
c. my neighbour’s house

(25\')

\[ \text{Spec, } N_{\text{<e>}} \quad \text{N'} \]

\[ \begin{array}{c}
\text{Spec, } N_{\text{<e>}} \\
\text{N'} \\
\text{a. Mary’s mother} \\
\text{b. Mary’s sister} \\
\text{c. my neighbour’s house}
\end{array} \]

How can we obtain argument-type denotation in the absence of D\textsuperscript{0}?

Assuming that semantic composition relies on function-application, examples such as (25) can be analyzed as relying on a function of type <e,e>:\textsuperscript{10}

(26) Spec, N\textsuperscript{max} is interpreted as the argument of a function of type <e,e> that yields the individual denoted by N\textsuperscript{max}.

This analysis is quite straightforward for examples built with functional nouns such as mother, center, capital, etc. (recall Frege’s (1891) analysis of the capital of the German empire): the denotation of the overall N\textsuperscript{max} in (25a) is calculated by applying the mother of function to the individual denoted by Mary. We
thus obtain, as the denotation of Nmax, the unique individual, notated y below, associated to the individual x (denoted by Mary) by the mother-of function:

$$(25') \ a. \ \text{[[Mary's mother]]} \Rightarrow y = f(x), \text{where } f = \text{the mother of } /x/ = \text{Mary}$$

Since I assume the functional analysis to be structurally triggered by the presence of a genitive specifier, it need not correlate with the presence of a head N0 that is lexically specified as being functional. The head N0 may also denote a relation or a property of individuals. Thus, in the general case, the function triggered by genitive specifiers is not named by the head noun, but remains underspecified; the only role of the head noun is to restrict the value of the function. In (25b), the value of the function stands in the sister relation with the argument of the function; in (25c), the value of the function is a house:

$$(25') \ b. \ \text{[[Mary's sister]]} \Rightarrow y = f(x), \text{where sister } (x, f(x)) = f(Mary), \text{where sister } (Mary, f(Mary))$$

$$(25') \ c. \ \text{[[my neighbour's house]]} \Rightarrow y = f(x), \text{where house } (f(x)) = f(/\text{my neighbour}/), \text{where house } (f(/\text{my neighbour}/))$$

Plural head nouns can also be covered by our analysis. In this case, the value of the function is a plural individual (group):

$$(27) \ \text{John's houses:} \Rightarrow y = f(x), \text{where } /x/ = \text{John and houses } (f(x))$$

The overall Nmax denotes the maximal group of houses that is associated to John by the underspecified function f.

Given that functional application is not subject to any directionality constraint, the rule of semantic composition proposed here for Saxon genitives extends to Hebrew CSN’s, since their associate was shown to sit in Spec, Nmax.

3.2 Nmax projections containing Spec, Nmax cannot be governed by canonical Determiners

The ban on quantifiers and indefinite determiners illustrated below can now be explained:
(28)  
  a. *every/each [NP Mary’s sister]
     b. *any [NP my friend’s students]

(29)  
  a. *a [NP Mary’s sister]
     b. *two [NP my friend’s students]

(30)  
  a. *fiecare [NP sora Mariei]
      each sister-the Mary
     b. *orice [NP studentul prietenului meu]
         any student-the friend my

(31)  
  a. *o [NP sora Mariei]
     a sister-the Mary
     b. *doi [NP studenții prietenului meu]
        two students-the friend my

Given the rule of semantic composition proposed above for synthetic genitives, the NP-constituents in (28)–(31) have an e-type denotation, but this type of denotation is not compatible with either quantifiers such as every and each or indefinite articles and numerals, all of which must combine with property-denoting expressions. The ungrammaticality of the examples above can thus be analyzed as being due to a type-mismatch.

Consider now the quantifier all:

(32)  
  a. all the students
     b. toți copii
        (same gloss as (a))
     c. tous les enfants

The examples in (32) show that all/toți/tous may govern definite DP complements. Whatever rule of semantic composition is responsible for (32a–c), it will also account for (33)–(34), since according to our analysis, the bracketed constituents have the same semantic type as definite DPs:

(33)  
  a. all [Mary’s students]
     b. all [my friend’s students]

(34)  
  a. toți [studenții Mariei]
     b. toți [studenții prietenului meu]
        (same gloss as (33a))
        (same gloss as (33b))

Let me now briefly compare the functional analysis proposed here with Barker’s (1991, 1995) account, according to which Saxon genitives introduce a relation, notated p below. The denotations of head N’s are contextually determined by the presence of a Saxon genitive:

(35)  
  a. [[bike]] = λxλy [p(x, y) and bike (y)]
b. \[ [[\text{child}]] = \lambda x \lambda y [\text{child}(x, y)] \]

(35a) says that \textit{bike} denotes the set of pairs of individuals \((x, y)\) such that \(y\) is a bike that entertains an underspecified relation, notated \(p\), with \(x\). For relational nouns such as \textit{child}, their lexically specified denotation is sufficient: in (35b), \textit{child} denotes the set of \((x, y)\) pairs such that \(x\) and \(y\) are in the child-relation.

 Constituents of the type \textit{John's child} or \textit{John's bike} are obtained by applying the denotation in (35a–b) to the individual denoted by \textit{John}, notated \(j\):

\[
\begin{align*}
(36) \ a. \quad [[\text{John's child}]] &= \lambda x \lambda y [\text{child}(x, y)](j) \\
&= \lambda y [\text{child}(j, y)]
\end{align*}
\]

\[
\begin{align*}
(36) \ b. \quad [[\text{John's bike}]] &= \lambda x \lambda y [p(x, y) \text{bike}(y)](j) \\
&= \lambda y [p(j, y) \text{bike}(y)]
\end{align*}
\]

(36a–b) denote sets of individuals (type \(<e,t>\)): the set of individuals that entertain the child-relation with John and the set of individuals that are bikes and entertain an underspecified relation with John. Insofar as they denote sets/properties of individuals, (36a–b) must combine with determiners in order to yield a generalized-quantifier type of denotation. Barker postulates a null “possessive” article, which would be semantically transparent when combined with a relational noun. With non-relational nouns, the function of the possessive article would be to shift the denotation of the head N from its lexical denotation to the type of denotation shown in (35a). This analysis seems redundant: the relational analysis is triggered both by the Saxon genitive itself, and by the null possessive article. In addition, Barker is forced to assume a uniqueness presupposition, which he states as a condition on the use of Saxon genitives. Within the account proposed here, the uniqueness presupposition is a consequence of the fact that Saxon genitives rely on a function from individuals to individuals; the projection of Det is not needed, and in effect blocked.

3.3 Determiners block the projection of Spec, DP

The fact that canonical determiners (i.e., determiners that apply to properties and yield generalized quantifiers or individuals) block the projection of Spec, DP follows from their semantic type: by applying \(\text{Det}^0\) (type \(<<e,t>, <<e,t>,t>>\)) to NP (type \(<e,t>\)) we obtain a constituent (notated XP) that has the semantic type of a generalized quantifier (type \(<<e,t>,t>\)) which cannot combine with a Saxon genitive.

\[
(37) \ *\text{John's the/this/a child}
\]
In sum, the ungrammaticality of (37) is due to a type-conflict between the type imposed by determiners and the type imposed by synthetic genitives.

3.4 Analytic genitives

Analytic genitives can be either N0-complements or DP-adjuncts. These positions are perfectly compatible with the projection of D0:

(38) a. a picture *John’s / of John
    b. this habit *the neighbour’s / of the neighbour’s

To sum up, the morphological distinction between synthetic and analytic genitives correlates with a difference regarding their syntactic positions:
From DPs to NPs

(39) In languages with alternating genitives, synthetic genitives sit in Spec, N, whereas analytic genitives are either complements of N or DP-adjuncts.

The descriptive generalization stated in (39) can be analyzed as a consequence of Case-requirements:

(40) a. Synthetic genitives must be assigned structural Case.
b. Analytic genitives are marked with inherent genitive Case by the preposition.

(41) Structural genitive Case is assigned in Spec, N.

The Case-assignment rule postulated in (40a) covers the data of the three languages examined here. Compare language-particular proposals such as those of Abney (1986, 1987), according to which Saxon genitives are assigned Case by either 's (sitting under D0) or a Ø-morpheme (sitting under Agr). None of these analyses can cover the Rumanian data, and conversely, Grosu's (1988, 1994) proposal that genitive Case is assigned by the definite article under adjacency does not extend to English nor to Modern Hebrew.

To be complete, it is important to recall that in certain languages, synthetic genitives may function not only as Specifiers, but also as noun-modifiers. But crucially, this type of synthetic genitive is not a DP-projection, but rather a N0 constituent:

(42) [DP a [N0 [N0 man's] [N0 hat]]]

In view of examples of this type, the generalization in (39) should be revised:

(39') In languages with alternating genitives, synthetic genitives of category DP/N\textsuperscript{max} sit in a Spec position.

3.5 The definite article

In Rumanian, the head noun that governs a genitive specifier necessarily carries the definite article.

(43) a. casa vecinului / vecinilor
    house-the neighbour-the\textsubscript{GEN} / neighbours-the\textsubscript{GEN}
    'the neighbour’s / the neighbours’ house'
b. casa unei vecine / unor vecine
    house-the a\textsubscript{GEN} neighbour / some\textsubscript{GEN} neighbours
    ‘a neighbour’s / some neighbours’ house’
In order to cover this case, Longobardi (1996) proposes that synthetic genitives are compatible either with null Det's or with suffixal Det's. The Arabic tanwin (an -n suffix, which is currently analyzed as an indefinite article) offers a counterexample: the head noun of Arabic CSN's cannot be marked with the tanwin, even in those cases in which the genitive itself is indefinite (this limitation is needed in order to exclude a violation of the “(in)definiteness spread” requirement, see Section 3.5 below). This prohibition can be easily understood given the proposal made here: whether it is an indefinite article or a “marker of nominal status” (Ayoub 1991), the tanwin has a semantic type comparable to that of Det's and as such it cannot appear on the head of construct state possessives. In sum, suffixal status may be a necessary, but not a sufficient condition for a Det to be able to co-occur with synthetic genitives.

The compatibility between a definite suffixal article and a genitive specifier can be understood if we assume that the definite article does not have the semantic type of Det's. We may assume it to be expletive, i.e., semantically invisible (see Milner 1982; Vergnaud & Zubizarreta 1992). Another possibility is to suppose that the role of the definite article is to indicate that the head noun denotes a function of type <e,e>. According to Löchner (1985), all the uses of the definite article can be subsumed under this analysis. Contrary to Löchner, I do not believe that this analysis covers the anaphoric definite article. I also do not think that the head noun itself denotes a genitive function. It seems more adequate to assume, as I did above with respect to genitive specifiers, that the definite article introduces an underspecified function, the value of which is constrained by the property denoted by the head N.

In sum, the functional analysis triggered by genitive specifiers is compatible with a definite article on the head N. The suffixal nature of the Rumanian definite article plays no role regarding semantic composition. It is therefore possible to extend the semantic analysis to all definite DPs that embed a genitive DP, regardless of whether it is a synthetic or an analytic genitive. Consider the French examples in (44):

(44) a. la mère de Paul
    the mother of Paul
la soeur de Paul
    the sister of Paul
la chemise de Paul
    the shirt of Paul

In Dobrovie-Sorin (2000b) I showed that examples of this type rely on the rule of semantic composition characteristic of Saxon genitives. Whenever the head
N carries the definite article, the *de*-phrase is interpreted as the argument of a genitive function. It is worthwhile observing that a common semantic analysis need not correlate with a common syntactic analysis: it may well be that all *de*-phrases occupy the same position, e.g., are complements of N, regardless of the type of determiner on the head N:

\[(45)\]  
\[
\text{a. un élève de Jean} \\
\text{a student of John} \\
\text{l’ élève de Jean} \\
\text{the student of John} \\
\]

\[(45')\]  
\[
\text{Spec, DPD'} \\
\text{DP} \\
\text{D} \\
\text{NP} \\
\text{N} \\
\text{DP\textsubscript{GEN}} \\
\text{a. un élève de Jean} \\
\text{b. le élève de Jean} \\
\]

Given this syntactic analysis, we could assume that it is the type of determiner (definite article vs any other type of Det), rather than the structural properties of *de*-phrases, that induces a particular type of semantic composition. But it is also possible to assume, following Milner (1982, 1995), that *de*-phrases associated with the definite article occupy a Spec position.\(^{13}\)

\[(45'' \text{b.})\]  
\[
\text{Spec, DP} \\
\text{DP} \\
\text{D'} \\
\text{D} \\
\text{NP} \\
\text{le élève de Jean} \\
\]

Coming back to Rumanian, the suffixal nature of the definite article on the one hand, and the existence of synthetic genitives on the other hand, force a configuration in which the synthetic genitive is in Spec, DP:
Our analysis explains why a suffixal definite article is *possible* with genitive specifiers, but not why it is *obligatory*. I must assume this is an idiosyncratic property of Rumanian, which may be stated as a Case-requirement (recall Grosu's (1988, 1994) assumption that in Rumanian, genitive Case must be assigned by the definite article) or as a well-formedness constraint on N\(^{\max}\) projections: Rumanian N\(^{\max}\) projections must be DP's.

3.6 Interpretive variability and th-role assignment

It has often been observed that genitive specifiers are used in examples which do not express a possession relation. A DP such as (46a) may take, depending on the context, the various interpretations given in (46b):

(46) a. John's book
    b. the book possessed by / about which talks / of which takes care / that edits / written by John

This interpretive flexibility was described by Chomsky (1970), Hawkins (1981), Bartning (1993, 1996) and Milner (1995) as relying on an “intrinsic connection” between the denotations of the genitive DP and of the overall DP. For other authors, this connection is to be conceived of as a predication relation, hence DP-representations analogous to IP-constituents (Szabolcsi 1984, 1994; Abney 1986, 1987; Kayne 1994; Zribi-Hertz 1997).

Within the analysis proposed here, the interpretive flexibility characteristic of genitive specifiers is due to the underspecified nature of the function that underlies the semantic composition of genitive specifiers. This function is contextually determined, hence the various interpretations given in (46b).

The proposed analysis can be extended to genitive DPs that are interpreted as Agents or Themes. These interpretations can be taken to specify the relation between the individuals denoted by the genitive DP and by the overall DP, the latter being obtained from the former by applying our underspecified function:
Finally, possession is a default relational interpretation that shows up in case no other interpretation can be attributed either by the context of discourse or by the lexical properties of the head N.

3.7 Genitive specifiers and determiners: Overview

According to the account proposed here, the constraint that genitive specifiers impose on determiners is due to the rule of semantic composition by which they are interpreted. The lack of determiners and the definite article are the only two possibilities.

The choice of one or the other option cannot be explained by the semantic analysis. It depends on the syntactic properties of a given language, in particular the type of determiner (free morpheme, clitic or affix) and the position (post- or pre-nominal) of the genitive specifier. Similarly, the semantic analysis cannot explain why only certain languages have genitive expressions that are designed to target the Spec, N\textsuperscript{max} position (as opposed to the N-complement or DP-adjunct positions, targeted by analytic genitives). In other words, our analysis cannot predict which languages have genitive specifiers and which don’t.

3.8 (In)definiteness spread

DPs dominating Saxon genitives are interpreted as definite or indefinite depending on whether the Saxon genitive itself is definite or indefinite:

(48) a. There is a dog / *the dog / ??John in the garden.
   b. There is a man’s dog / *the man’s dog / ??John’s dog in the garden.

The same generalization holds for CSN’s (but see Section 4 below) and for Rumanian DPs embedding synthetic genitives.

The explanation that is currently agreed upon in the generative literature is that the D\textsuperscript{0} of the head noun, although phonologically absent, is syntactically present, in the form of an empty category that inherits the +def or –def features from the genitive DP (Fassi-Fehri 1989, 1993; Borer 1988; Siloni 1994; Longobardi 1996). This transmission of (in)definite features was imple-
mented either as copying/percolation or as an agreement relation between Spec and a functional category, the identity of which varies from one author to the other. Borer (1988) accounts for this interpretation by postulating a percolation mechanism by which the +def feature percolates from the complement DP to the head noun. As a result, both the complement DP and the head noun, as well as all intermediate nouns (see examples such as madaf sifrey ha-yalda 'shelf books the-girl', meaning “the shelf of the books of the girl”) are marked as definite. Borer is aware that the sharing of +def features between complements and heads is not normally allowed, and she attributes the existence of this marked mechanism to the word-status of CSN’s: the percolation of +def features is allowed only inside phonological words. More recently, Borer (1996) tries to argue that the percolation of ±def features is mediated by the rule of N-to-D raising. The necessity of N-to-D would thus be derivable from the necessity of percolating the ±def features: in Borer’s system, ±def features are assumed to be carried by N0 heads rather than by D0 elements. The distinguishing characteristic of CSN’s would be the absence of ±def features on the head N0. These features, which are necessary for interpretation, are assumed to be retrieved via the incorporation of the genitive DP onto the head N, which would allow the percolation of the ±def features. This proposal relies on highly marked language-specific assumptions, which one might want to avoid even for the analysis of Hebrew, and which obviously cannot cover Saxon genitives or Romanian genitives. Other authors analyze the sharing of ±def features between the associate and the head of CSN’s as relying on agreement with either (Spec, DP) or (Spec, Agrgen) (Fassi-Fehri 1989, 1993; Siloni 1994, 1997; Longobardi 1996, respectively). This account is problematic: how can it be that the ±def features, although realized only once, are interpreted twice? Agreement phenomena are exactly of the opposite kind: a f-feature (gender, number, person, Case) is interpreted only once, although it shows up on several elements.

Given the analysis proposed here, the transmission of (in)definiteness is a consequence of the functional analysis that characterizes a particular syntactic position, Spec, N\textsuperscript{max}:

\begin{enumerate}
\item[49a.] Mary’s farm
\quad \Rightarrow y = f(x), \text{where farm}(f(x)) \text{ and } /x/ = Mary
\item[49b.] a neighbour’s farm
\quad \Rightarrow y = f(x), \text{where farm}(f(x)) \text{ and a neighbour}(x)
\end{enumerate}

In (49a) the function f applies to the constant individual denoted by Mary, and therefore the value of the function is itself a constant individual, hence the definite-like interpretation. In (49b), on the other hand, the denotation
of a neighbour’s farm is obtained by applying the function $f$ to the individual variable $x$ introduced by a neighbour. The overall $N^\text{max}$ has a variable interpretation, because the values of the function vary depending on the values of the variable to which it applies.

4. Indefinite CSN’s

I have so far proposed a unitary analysis of Saxon genitives, Rumanian synthetic genitives and definite CSN’s. Beyond their differences, these configurations are alike insofar as the genitive DP occupies the Spec, $N^\text{max}$ position and is relatively interpreted via a function of type $<e,e>$. In what follows I will show that this analysis does not cover Hebrew indefinite CSN’s.

4.1 Hebrew indefinite CS-associates do not sit in Spec, $N^\text{max}$

Several important contrasts can indeed be observed between Hebrew indefinite CSN’s on the one hand and English and Rumanian DPs embedding indefinite synthetic genitives, on the other hand:

\begin{align*}
(50) & \quad \text{a. } *\text{o casă unui om} \\
& \quad \quad \text{a house a}_{\text{gen}} \text{ man} \\
& \quad \text{b. } *\text{niste fii unor regi} \\
& \quad \quad \text{some sons some}_{\text{gen}} \text{ kings} \\
(51) & \quad \text{a. } *\text{a a man’s house} \\
& \quad \text{b. } *\text{some a king’s palaces}
\end{align*}

The ungrammaticality of these examples is predicted by our analysis: it is due to the incompatibility between the rules of semantic composition underlying genitive specifiers on the one hand and indefinite articles on the other hand. The presence of indefinite articles triggers an analytic genitive:

\begin{align*}
(52) & \quad \text{a. } o \text{ casă a unui om} \\
& \quad \quad \text{a house a}_{\text{gen}} \text{ man} \\
& \quad \text{b. } niste fii ai unor regi \\
& \quad \quad \text{some sons ai some}_{\text{gen}} \text{ kings} \\
(53) & \quad \text{a. } \text{a house of a man} \\
& \quad \text{b. } \text{some palaces of a king}
\end{align*}
The Hebrew counterparts of the Rumanian and English examples in (50) and (51) are unexpectedly grammatical:

(54) a. beit is
    house man
    ‘a house of a man’
b. bney melaxim
    sons kings
    ‘some sons of some kings’

The contrast between Rumanian and Hebrew might be due to the ambiguity of Hebrew bare nouns. Because the indefinite article is not overtly realized in Hebrew, bare nouns may be analyzed as either indefinite DPs headed by a null indefinite article or as bare N° heads. One might then argue that (54a–b) do not correspond to (50)–(51), but rather to the English examples in (55a–b), where the genitive is an indefinite DP and the head N° lacks a Det:

(55) a. a man’s house
    ‘the house of a man’
b. a king’s palaces
    ‘the palaces of a king’

The problem with this analysis is that the glosses of the Hebrew examples in (54a–b) crucially differ from the glosses of English DPs embedding indefinite Saxon genitives. Rumanian DPs embedding indefinite genitives have the interpretation of their English counterparts:

(56) a. casa unui om
    house-the a_{gen} man
    ‘a man’s house’, ‘the house of a man’
b. palaturile unui rege
    palaces-the a_{gen} king
    ‘a king’s palaces’, ‘the palaces of a king’

Although the head N carries the definite article (see §3.5 above), the DPs in (56) have an “indefinite” reading because they denote the value of a function that varies depending on the variation of its argument. This type of “indefiniteness” is compatible with the presupposition of uniqueness induced by the function itself. For concreteness, consider (56a): relative to a particular context, the underspecified function f(x), where x is a man, has only one value such that f(x) is a house. The fact that f is not the house-of function, but rather a completely unspecified, contextually determined function, explains why the DP in
(56a) does not imply uniqueness for the possession relation (only one house is picked up by the contextual function, although the man under discussion may have more than one house).

The Hebrew DPs in (54) differ from the English and Rumanian examples in that they have the interpretation of standard indefinites: in a given context, there may be more than one house related to a man. We must thus conclude that the Hebrew examples can be analyzed neither as counterparts of the examples in (50)–(51) nor as counterparts of the English examples in (55). Under the first analysis they should be ungrammatical and under the second they should have a different interpretation.

A further clear contrast between Hebrew and Rumanian (and English) concerns the distribution of numerals:

(57)  

<table>
<thead>
<tr>
<th>a.</th>
<th>'arba'a bney melex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>four sons king</td>
</tr>
<tr>
<td></td>
<td>'four sons of a king'</td>
</tr>
<tr>
<td>b.</td>
<td>*patru fii unui rege</td>
</tr>
<tr>
<td></td>
<td>four sons a_gen king</td>
</tr>
<tr>
<td>c.</td>
<td>patru fii ai unui rege</td>
</tr>
<tr>
<td></td>
<td>four sons ai a_gen king</td>
</tr>
</tbody>
</table>

The ungrammaticality of (57b), and the necessary use of an analytic genitive (as in (57c)), is predicted by the incompatibility between genitive specifiers and numerals, which can only combine with property-denoting expressions. This incompatibility is only apparently violated in English:

(58)  

<table>
<thead>
<tr>
<th>a.</th>
<th>king's four sons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>'the four sons of a king'</td>
</tr>
</tbody>
</table>

The gloss clearly indicates that the numeral does not function as a determiner, but rather as an adjective/cardinality predicate:

(58')

Diagram:

```
N^{max}_{\langle e \rangle} \rightarrow \frac{N \rightarrow Adj N}{\rightarrow DP_{\langle e \rangle} \rightarrow N}_{\langle e \rangle}
```

In other words, the example in (58) is comparable to *a king's handsome sons.*
The data examined here clearly indicate that Hebrew indefinite CSN’s cannot be subsumed under the analysis of synthetic genitives proposed above for (definite and indefinite) Saxon and Rumanian genitives and for definite Hebrew CSN’s. We must thus conclude that Hebrew indefinite CS-associates do not sit in Spec, N\text{max}.

4.2 Hebrew indefinites as bare N0’s

Crucial for the understanding of indefinite CSN’s is the observation that Hebrew indefinite nouns, singular and plural alike, lack articles. This fact is clearly not related to the construct state configuration. First, indefinite free state nominals also lack an indefinite article. Second, there is no prohibition against an overt indefinite article on the associate of a CS nominal, as evidenced by Standard Arabic: although the tanwin is disallowed on the head of a CS nominal, it is allowed on the associate, e.g., bayt-u rajul-i-n ‘house-Nom man-Gen-a’, “a man’s house”.

The absence of an overt article is compatible with two possible analyses. According to Longobardi (1996), a null indefinite article fills the D0 position (Hebrew would be an “article-drop” language in the sense of Crisma 1995). This hypothesis cannot account for the contrasts discussed above between Hebrew and English/Rumanian. I will instead propose that:

(59) Hebrew indefinites are bare NPs (BNPs)- rather than DP-projections.

Since BNPs are property-denoting rather than individual-denoting expressions, they cannot appear in (Spec, N\text{max}):

(60) Property-denoting (<e,t>-type) expressions cannot occupy a Spec, N position.

It is important to stress that I do not assume a general ban against <e,t>-type expressions in argument-positions. There is a growing literature arguing that existential bare plurals are bare NP-projections, even when they occupy argument-positions (McNally 1995; van Geenhoven 1996; Dobrovie-Sorin 1997; Dobrovie-Sorin & Laca 1999). These authors propose variants of the same basic idea: property-denoting expressions in argument-positions can be fed into the semantic composition of the sentence: the property denoted by the noun restricts the domain of the corresponding argument-variable, which is bound by an existential operator contributed by the clausal predicate. This analysis can probably be extended to bare nouns in general, in particular to bare singulars in languages such as Hebrew.
Coming back to the prohibition in (60), it is due to the particular rule of semantic composition proposed above: Spec, \( N^{\text{max}} \) is the argument of a function of type \(<e,e>\); hence, the constituent inserted in Spec, \( N^{\text{max}} \) must denote an individual. The ban on bare nouns in Spec, \( N^{\text{max}} \) can be easily observed in Saxon genitives:

\[
(61) \begin{align*}
\text{a.} & \quad \text{some friends’ children} \\
\text{b.} & \quad \ast \text{friends’ children}^{18}
\end{align*}
\]

### 4.3 Indefinite CS-associates are modifiers

Given the prohibition in (60), the examples in (54) can only be represented as in (54′), where the indefinite associates are merged as sisters of the head N:

\[
(54')
\]

This representation may be simplified by assuming that even the head N lacks the DP-level:

\[
(54'')
\]

The analysis proposed here is compatible with both (54′) and (54″). If (54′) proved to be the correct configuration, one might wonder why a null D⁰ cannot appear on the associate bare noun. The only possible answer is that argument positions in the clause may induce the projection of D⁰ on constituents which are bare nouns from the point of view of their internal structure. This default projection of D⁰ would not be available for the Spec, \( N^{\text{max}} \) position.

Note now that according to our analysis, CSN’s of the type in (54) constructed with indefinite possessors come out structurally identical with indefinite “CS compounds”: 
The following examples illustrate the modification pattern, which is structurally identical to that of compounds. Compounds differ from modified nouns only by the fact that they are registered in the Lexicon:

(63) a. beyt ets 
   house  wood 
   '(a) house in wood'

b. gan peyrot tropyim 
   garden  fruit  tropical 
   '(a) garden of tropical fruit'

In sum, I am led to assume that the two readings of ben melex ("prince" or "a son of a (particular) king"), rely on the same syntactic representation (see (54′)), in which the associate of the CSN functions as a modifier of N0 rather than as an argument. Although this outcome of our analysis may seem problematic, French data confirms the empirical generalization. The French examples in (64a–b) are like the Hebrew examples in (54) insofar as they rely on adnominal modifiers of category N019 rather than on genitive-marked DPs:

(64) a. Jean est en train de jouer avec des enfants d’amis (qui habitent à côté).
   John is playing with children of friends (who live next door).

b. Jean est en train de recevoir des parents d’élèves (de sa classe).
   John is talking to parents of students (of my class).

The French examples also show that despite the fact that in these configurations the de-complement is structurally a modifier, it can be interpreted as referring to a particular (plural) individual due to the larger linguistic context. Thus, the relative clause and the adnominal complement surrounded by brackets in (64a–b) trigger a referential reading for d’amis and d’élèves.

In sum, Hebrew indefinite CSN’s are like French plural “genitives” headed by de insofar as their associate is a bare NP that is structurally a modifier that may be forced to take a referential/argumental status due to properties of the
linguistic context. This analysis explains why indefinite CSN’s are completely productive if the associate is interpreted as a modifier, but marginal if the associate is interpreted as an argument. The following examples are due to Tali Siloni (p.c.), who confirmed Alex Grosu’s observation quoted in footnote 19):

(65) \((?)\)nimcet ba-xeder ‘eSet pakid
is+found (= is) in+the-room wife clerk
‘there is a clerk’s wife in the room’

Tal Siloni further observes that indefinite CSN’s become more acceptable if the associate is modified (this is parallel to the French examples in (64), in which the referential interpretation of the de-phrase is brought about by the relative clause in (64a) and by the modifier of the class in (64b)) or if it takes ‘exad ’one’, which, according to some scholars, is developing into an optional indefinite article:

(66) nimcet ba-xeder ‘eSet pakid ‘exad
is+found (= is) in+the-room wife clerk one
‘there is a clerk’s wife in the room’

The perfect acceptability of (66) is expected under our analysis: an ‘exad’-indefinite is not a bare NP, but a DP-constituent, which as such occupies the (Spec, DP) position, and correlative behaves as a true argument rather than as a modifier:

\[ (65') \]

\[ (66') \]

The difference between ‘exad’-indefinite associates and BNP-associates is left unexplained under current accounts, according to which indefinite associates lacking an overt determiner are DP-projections headed by a null indefinite article.
Finally, our analysis also explains why indefinite CSN’s are compatible with numerals on the head noun:

(67) ‘arba’a bney melex
    four sons king
    ‘four sons of a king’

(67′)

\[
\text{DP}_1
\]

\[
\text{D}^0 \quad \text{N}_1 \quad \text{N}_2
\]

\[
\text{‘arba’a bney melex}
\]

(67′) is a legitimate structure because melex ‘king’ does not occupy (Spec, DP).

Recall that Romanian genitives without al, which necessarily occupy (Spec, DP), disallow numerals:

(68) a. *patru fii unui rege
    four sons a_{m.sg.gen} king

b. patru fii ai unui rege
    four sons a_{m.pl} a_{m.sg.gen} king

Note that examples such as in (67) contradict the widely-assumed generalization according to which CSN’s are incompatible with their D-position being overtly realized. According to the account proposed here, the ban on overt Det is due to the projection of Spec, N_{max}. Since bare NP-associates do not occupy Spec, N_{max}, they impose no constraint on the projection of the Det of the head N^0.

4.4 CSN’s with definite modifying associates

Consider now CSN’s built with definite modifying associates. Again, compounds behave on a par with CSN’s embedding modifiers:

(69) a. ben ha-melex
    son the-king
    ‘the son of king’, ‘the prince’

b. beyt ha-xolim
    house the-sicks
    ‘the hospital’
It is clear that these examples do not rely on “definiteness” spread. Although *ha* ‘the’ is attached to the associate, it cannot be analyzed as belonging syntactically or semantically to the associate itself: in both compounds and modified N’s, the associate is a property-denoting bare N rather than a definite DP headed by *ha* ‘the’. Instead, *ha* ‘the’ must be analyzed as the head of the overall projection. The precise technical implementation may be left open: we may assume that *ha* is initially merged with the head noun, and subsequently lowered to the embedded N by some phonological rule. Or conversely, *ha* is merged with the embedded N, and its +def feature percolates/raises at LF. But in any case, *ha* ‘the’ is not interpreted twice, as determining two distinct Ns.

The LF raising of *ha* to $D^0$ is presumably incompatible with the S-structure rule of N-to-$D^0$. Examples of the type in (69) thus constitute a type of CSN for which the rule of N-to-D raising is clearly inadequate.

### 4.5 CSN’s without definiteness spread

Danon (2001) observes that contrary to the current view, the definiteness of a CS-associate does not always “spread”: 
(70) a. toSav ha-Staxim ne?ecar la-xakira
resident the-territories arrested to-interrogation
‘A resident of the territories was arrested for interrogation.’
b. necigat ha-bank xilka alonim.
representative the-bank hande-out brochures
‘A representative of the bank handed out brochures’

(71) masarti et ha-sefer le-oved ha-sifriya
handed.tsc et the-book to-worker the-library
‘I handed the book to a worker of the library.’

Similar examples, in which the head noun is an event nominal, were independently pointed out by Engelhardt (1999, 2000):

(72) ha-rofe mamlic al axilat kol sugej ha-perot
def-doctor recommends on eating all kinds def-fruit

In examples of this type, adjectives are ruled out, regardless of whether they carry ha or not:

(73) ha-rofe mamlic al axilat kol sugej ha-perot *ha-kvua
def-doctor recommends on eating all kinds def-fruit *def-regular

According to Engelhardt (1999, 2000), CSN’s of the type in (73) are bare NP.22 On general grounds, I am quite sympathetic with the idea that N-projections that lack overt Det’s are bare N-projections, and I have independently argued in favor of this type of analysis for indefinite CSN’s built with bare-noun associates (see Dobrovie-Sorin 2000, and Section 4 above). One problem with applying this abstract possibility to examples such as (73) is that expressions of this type cannot appear “bare” (i.e., without et or some other preposition) in object position (see (74)). Property-denoting bare nouns normally do so:

(74) *ha-katav ri?ayen toSav ha-Staxim
the-reporter interviewed resident the-territories
‘The reporter interviewed (a) resident of the territories’

Danon’s account is based on the hypothesis that “syntactic definiteness” is necessarily inherited in CSN’s, hence the obligatory presence of et, which Danon analyzes as a marker of syntactic definiteness. The presence of et, due to syntactic definiteness, would trigger a definite interpretation for the object position:
Since there is no overt definiteness marker in subject and indirect object positions, semantic definiteness is not triggered here (although presumably “syntactic definiteness” is nevertheless inherited in these positions also). As explicitly acknowledged by Danon himself, this is a mere speculation rather than a fully worked out analysis.

Although I do not have the necessary space here to develop my alternative proposal, I would like to suggest a different line of inquiry, which questions Danon’s claim regarding syntactic definiteness spread in CSN’s. I agree with Danon’s extensional definition of syntactically definite expressions:

(76) Syntactically definite expressions: proper names, pronouns, ha-marked DPs.

But I disagree with the claim stated in (77):

(77) A CS DP is syntactically definite iff its embedded genitive DP is syntactically definite.

I have already argued above that CSN’s cannot be assigned a unitary syntactic analysis. Correlatively, definiteness spread in CSN’s cannot be given a unitary account. In the preceding section I have argued that definite compounds/modifier-embedding CSN’s are in fact subsumed under the definition in (76): they are definite simply because they are headed by ha. Genuine (in)definiteness spread, i.e., the fact that ±def interpretation depends on the genitive/associate rather than on the Det of the head noun, occurs only in a particular type of CSN’s, the one in which the associate is in Spec, N^max. According to this analysis, (77) should be replaced by (78):

(78) A CSN is syntactically definite iff its associate is (i) syntactically definite and (ii) sits in Spec, N^max.

Examples such as (75), in which the CSN takes a definite interpretation, fall under (78): the associate definite DP is to be analyzed as occupying the Spec, N^max position:
Under this analysis, syntactic and semantic definiteness correlate perfectly, and are tested by the possibility to combine with *et* and *ha*-adjectives.

Let us now come back to the examples in (70)–(72). Because they take an indefinite reading, they cannot be assigned an analysis of the type in (75'), but must be assumed to rely on a different structure. It seems plausible to assume that in this case the associate is not a Specifier, but rather a complement of the head noun:

\[
\text{(70')}
\]

This analysis is confronted with the following problem: within Bare Phrase Structure, the two structures in (70') and (75') are in fact indistinguishable: they are branching configurations that dominate an N⁰ head that is the sister of a DP-projection. The dominating node must be a maximal nominal projection in both cases, since both types of CSN’s may occur in argument positions.

The only solution that I can think of is to assume (70''), in which DP is headed by a null indefinite determiner:

\[
\text{(70'')}\]

This configuration does not go against Bare Phrase Structure insofar as D⁰ is not projected by virtue of some kind of well-formedness constraint on constituent structure, but rather because a null, but nevertheless interpretable indefinite determiner must be fed into this nominal projection. In other words,
I would follow Crisma (1995) and Longobardi (1996) in assuming that Hebrew has a null indefinite article. But I would not generalize this analysis to all Hebrew bare NPs.

This solution still raises the following question: why is it that a null indefinite Det cannot be projected on CS-associates? The answer could be that a default null Det can only project for maximal N projections (i.e., for N-projections that occupy syntactic positions in the clause), not for DP-internal positions.

Given the analysis in (70′′), indefinite CSN’s built with definite associates are structurally different both from definite CSN’s built with definite associates and from indefinite CSN’s built with bare nominal associates. This three-way distinction allows us to explain the peculiar distributional restrictions on the examples at hand. Examples relying on the structural analysis in (70′′) are indefinite expressions, which as such are incompatible with the presence of et and ha-adjectives, which are only compatible with definite DPs. But quite surprisingly, these examples do not behave as indefinites either: they cannot be used in the object position without et (see (74)), and they cannot be modified by a ha-less adjective (see (73) and (79)):

(79) *toSav ha-Staxim ne?ecar la-xakira resident the-territories arrested to-interrogation

I would like to suggest that these impossibilities are not due to syntactic definiteness, but rather to the fact that indefinite CSN’s built with definite associates are not bare N0 projections, but rather DP’s headed by a null indefinite Det. I am thus led to propose that lack of et in object position and lack of ha on adjectives are not allowed by indefinites in general, but only by nominal expressions that are X0-projections (sequences of bare nouns as well as bare nouns preceded by numerals). It seems indeed reasonable to suggest that “bare” adjectives, which are presumably X0-categories, can merge with another X0 category, but not with a non-minimal category: ha-less adjectives may thus combine with (complex) bare N0’s [N0 N1 [N2 N3]], but not with DP’s headed by null Det’s. This difference between bare NPs and CSNs headed by a null indefinite Det correlates with a difference concerning Accusative Case marking: Hebrew bare NPs can be licensed by inherent Case, but CSNs headed by a null indefinite article cannot.

Under this analysis, syntactic and semantic definiteness correlate perfectly, and are tested by the possibility to combine with et and ha-adjectives. Indefiniteness, on the other hand, cannot be tested per se: only a sub-class of indefinites, namely bare nouns, allow lack of et and of ha on adjectives. Indefinite
CSNs of the type in (70)—(72) are not definite, but they are not bare nouns either. The distribution of such indefinite DPs is restricted: they cannot appear in the direct object position and cannot be modified by adjectives.

5. N-to-D, genitive specifiers and CSN’s

According to my analysis, genitive specifiers occur in configurations of the kind in (80’):

(80) ben ha-melex
son the-king

(80’)

\[
\begin{array}{c}
\text{Nmax} \\
\text{N Spec, Nmax} \\
\text{a. ben} \\
\text{[top ha melex]} \\
\end{array}
\]

I have argued (i) that this structure is allowed, viz. forced, by the Bare Phrase Structure framework, and (ii) that an argument-type denotation can be assigned to this type of N-projection, despite the lack of a D0-position. Since the two points are not correlated, the semantic analysis could be maintained even if Bare Phrase Structure proved to be inadequate and some purely formal syntactic constraint required the D0-position to be projected. We would then postulate an empty D0 position to which N0 would move, much like in the current analyses. I assume that Hebrew NP-projections (non-process and process alike) are N-initial, but the more complex configuration in (16) is also compatible with the basic hypothesis:23

(80’’)

\[
\begin{array}{c}
\text{DP} \\
\text{D0} \\
\text{N Spec, NP} \\
\text{O} \\
\text{ben ha melex} \\
\end{array}
\]

In sum, although my analysis of genitive specifiers does not rely on the rule of N-to-D raising, it is compatible with it.
CSN’s built with bare-N⁰ associates might also be analyzed in terms of N-to-D. As already discussed above, we have to ensure that a null D⁰ cannot be projected on associate bare nouns, but can be projected on the overall CSN:

\[ (81) \]

In (81), the two bare nouns are merged and then the resulting complex N⁰₃ is moved to D⁰.

Note, however, that we have found two distinct types of CSN’s which are not compatible with N-to-D: definite compounds and indefinite CSN’s headed by a null indefinite Det and governing definite associates. In both cases, the overall projection is headed by an interpretable Det, and this presumably blocks N-to-D raising.

In sum, a formal constraint that would force maximal N-projections to be DP’s is compatible with the core of my proposal, but it should be justified on purely syntactic grounds. The existing proposals in favor of DP and N-to-D are not convincing insofar as they invoke semantic motivations.

6. Conclusions

My main goal here was to account for the constraint that synthetic genitives of category DP impose on the Det of the head noun. My answer was that a synthetic DP-genitive occupies the Spec, N⁰₃ position and is interpreted as the argument of a function that yields the individual denoted by the maximal (extended) projection of the head N. This rule of semantic composition allows for no Det other than a definite article. The analysis of Rumanian is particularly clear, because in this language synthetic genitives are necessarily DPs, and hence specifiers. English Saxon genitives and Hebrew CSN’s are structurally ambiguous between noun specifiers and noun modifiers. Finally, Hebrew CSN’s are compatible with a third structural option: associates can be analyzed as complements of N⁰. Precisely because CSN’s are structurally am-
biguous, the ban on Determiners cannot be given a unitary syntactic explanation. The only unitary characterization is phonological: any determiner that is not itself a construct is banned from CSN’s. From the syntactic point of view, however, the absence of Det corresponds to distinct structures.

Notes

* The original idea of my views on genitives was published in Dobrovie-Sorin (2000a, b). The present version contains a more precise characterization of the relations between the syntax and semantics of genitive specifiers and a more detailed examination of the Hebrew data, which was made possible by a two-months stay in Israel and by my participation to the Third Conference on Semitic Languages (Los Angeles, 2001). The presentation of the Rumanian data is however less detailed compared to that in Dobrovie-Sorin (2000a). Particular thanks go to Gabi Danon, who provided me with some crucial Hebrew examples and to Patricia Cabredo-Hohert, whose comments lead me to clarify my main claims.

1. Variants of this line of reasoning can be found in Longobardi (1994), Szabolcsi (1994), among many others, including pre-generative linguists (Bally).

2. This type of analysis was suggested earlier, in particular by Higginbotham (1987), who proposed to treat certain indefinite determiners as adjectives, or de Hoop (1992), who talks about “detransitivisation” for those contexts in which transitive verbs take direct objects that are not marked with a “strong” prepositional Case but rather with a “weak” Objective Case.

3. Adjectives, as well as numerals, may appear as constructs, but we are interested here only in nominal GS’s.

4. Borer (1996) argues in favor of the stronger claim that construct state nominals (i.e., the sequence head N + associate) are syntactic words.

5. In those contexts in which the adjacency constraint is violated, analytic genitives are used instead of synthetic genitives:

   
   (i) *beyt ha-gadol ha-iš
       house the-big the-man
   
   (ii) ha-bayit ha-gadol Sel ha-iš
        the-house the-big of the-man

6. It is not possible to review all the existing analyses here, which most of the time constitute theory-internal variants of the same basic configuration. Thus, Siloni (1997) also adopts the hypothesis of a two-step N-to-D raising, but she postulates an Agr\text{gen} projection, related to the theory-internal assumption according to which Case must be assigned under Spec-head agreement. The block on determiners relies on the further stipulation that the projection of Agr\text{gen} blocks the projection of D\text{p}. Within this account, the more complex structure of CSN’s (compared to free state N’s followed by Sel-genitives) is not due to the higher part of the configuration (which is identical for the two constructions), but rather to the presence of an intermediate projection, Agr\text{gen}, which appears in CSN’s alone.
7. Unlike previous accounts of Hebrew, I do not assume that the Theme complements of event-nominals are first merged in a complement position. This raises a problem regarding the realization of the Agent: according to Grimshaw (1990), Agents can be projected in event-nominals only if the Theme itself is projected in the object position. This generalization is disconfirmed by Rumanian data (see Cornilescu 1999). A revision of Grimshaw’s theory, which will take into account both the Rumanian and the Hebrew data, is in progress.

8. The idea that in certain languages nouns do not project complements was put forward by Ghomeishi (1997) in her analysis of the ezafe Persian construction. The same generalization is strongly suggested for Rumanian, by the fact that two (synthetic or analytic) genitives cannot modify the same noun.

9. The contrast in (i)–(ii) was observed by Borer (1996):

(i) tmunat ha-xamaniyot Sel Van Gogh
   picture the-sunflowers of Van Gogh

(ii) *tmunat Van Gogh Sel ha-xamaniyot
    picture Van Gogh of the-sunflowers

The contrast between English and Hebrew is probably due to the fact that in English, both the Theme and the Agent can be merged inside the projection of N, as a complement of N and as a Spec, N, respectively. In Hebrew, on the other hand, there is only one structural position inside NP, and the obligatory internal argument must target it.

10. A function of type <e,e> is a function that applies to an individual (or “entity”, notated e) and returns another individual (entity).

11. In Dobrovie-Sorin (2000b) I showed that Barker’s relational analysis is adequate for relational nouns such as son, friend, etc. as well as for complement-taking N0’s (see in particular event nominals). With both types of nouns, the genitive (which takes an analytic form) arguably occupies the N-complement position and correlatively canonical determiners are allowed.

12. According to Ayoub (1991), the tanwin is rather a marker of nominal status.


14. Theorists agree neither on the number nor on the label of the different functional categories: see NumP, AgrP and PossP in Ritter (1991), Silioni (1994), Longobardi (1996), among many others. For my present purposes, only the DP projection is necessary (for some N-projections).

15. Note that Borer (1988) discusses only the percolation of +def features. The absence of an explicit analysis of –def readings could be interpreted as indicating that the author believed that no percolation of features was needed in this case (as I explicitly argue here). Borer (1996) adheres to the dominant trend of thinking, which treats CSN’s constructed with bare NP associates on a par with CSN’s constructed with definite DP associates.

16. I assume here the analysis proposed by Discourse Representation Theory (Kamp 1981; Heim 1982), according to which indefinites translate as individual variables.

17. German seems to be problematic insofar as synthetic genitives do not block indefinite determiners, e.g., eine Frage des Kindes ‘a question the<ges> child<ges>’. This is not a real prob-
lem, since the analysis proposed here is exclusively concerned with synthetic genitives that alternate with analytic genitives: it is only this type of synthetic genitive that necessarily sits in Spec, N and is interpreted as the argument of a function of type $<e,e>$. No such constraint holds for synthetic genitives in languages such as German, where they do not alternate with analytic genitives.

18. Examples such as those below, brought up by Alex Grosu (p.c.), may be taken to provide counter-evidence against (60):

(i) Close friends’ children ought to be treated like your own.

(ii) Paupers’ wives rarely wear diamonds, rich men’s mistresses often do so.

DPs of this type may be analyzed as relying on a modification pattern (see Woisetschlaeger 1983, among others), in which case the Saxon genitive is not in (Spec, DP). The corresponding French examples are built with the “mass particle” de and are to be analyzed as relying on modification:

(iii) Les enfants d’amis proches devraient être traités comme les tiens. (same gloss as (i))

(iv) Les femmes de pauvres portent rarement des diamants, les maitresses de riches le font souvent. (same gloss as (ii))

19. The normal form of indefinite plurals in French being des (see j’ai rencontré des amis ‘I met friends’) a genitive-marked indefinite plural should be of the form de des NP, a sequence that is never found in French. The uninflected preposition de (d’) that appears in (64a–b) is on the other hand currently used with modifying adnominal complements, some of which have become true compounds:

(i) tasse de café, livre de classe, fusil de chasse, permis de travail
cup of coffee, book of class, gun of hunting, permit of work

(ii) pomme de terre
apple of ground
‘potato’

20. In Arabic, tanwin-marked associates function as full DP-projections and as such are expected to contrast with Hebrew indefinite (bare NP) associates and to behave on a par with Romanian indefinite genitives. I leave this issue open for further research.

21. Note that the representation in (67’), in which numerals are hosted by $D^0$, might turn out to be incorrect. One may instead adopt the analysis of numerals proposed in Danon (1996). I leave a careful analysis of Hebrew numerals open for further research.

22. Engelhardt adopts Borer’s (1996) view that CSN’s rely on an incorporation mechanism by which a complex head is formed, which must encode the definiteness features of both participants (the associate and the overall expression). This requirement cannot be satisfied in examples such as (73), where the two participants have conflicting features, and this would result in the lack of Det.
23. One could further complicate the structure in (80′) by adding various functional projections (NumberP, GenP, etc.). Although such abstract layers are not needed for an account of the data at hand, they are compatible with my main claims.

References


Chapter 4

Determiner-possessor relation
in the Bulgarian DP

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1. Introduction

The aim of this article is to provide an account for the behavior of the short form of the possessive pronoun in the Bulgarian DP. This possessive form is always stuck to the definite element in the DP. Some illustrations of the phenomenon are given in (1):

(1) a. statija-ta mu
    article-the his
    'his article'

b. interesna-ta mu statija
    interesting-the his article
    'his interesting article'

c. mnogo-to mu interesni statij
    many-the his interesting articles
    'his many interesting articles'

d. tazi mu interesna statija
    this his interesting article
    'this interesting paper of his'

An analysis involving movement of the respective phrase in order to account for the combination of the article and the short possessive form does not explain the matter. The fact that some material has to move and other has to stay behind does not bring light into the puzzle. The phenomenon has not received enough attention in the literature. We propose a straightforward lexical account which deals with it, clarifying both the morphological peculiarities of the definite element and the possessive form and their syntactic behavior. The lexical analysis is within the two interrelated frameworks of Minimalist
Morphology and Lexical Decomposition Grammar (Wunderlich 1994, 1996, 1997a, 1997b; Wunderlich & Fabri 1996). More concretely, we follow the analysis of Ortmann and Popescu (2000) in claiming that the article in Bulgarian has a unique lexical property selecting the feature [+N], corresponding to the lexical categories of nouns, adjectives, demonstrative pronouns and quantifiers. The fact that the short form of the possessive pronoun always occurs with the definite element in the DP is tackled by arguing that this form can appear DP-internally only as an extended projection of the definite element.

2. Distribution of the possessive clitics in DPs

The Bulgarian possessive pronoun appears in two forms, i.e. long forms and short forms. The long forms have adjectival endings agreeing with the nominal head, while the short forms are clitics, identical with the dative clitics appearing with verbs. The full paradigm of the possessive pronoun is presented below in (2):

<table>
<thead>
<tr>
<th>Possessor</th>
<th>Long forms</th>
<th>Short forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.SG</td>
<td>moj</td>
<td>moja, moe, moi, mi</td>
</tr>
<tr>
<td>2.SG</td>
<td>tvoj</td>
<td>tvoja, tvoe, tvoj, ti</td>
</tr>
<tr>
<td>3.SG.M</td>
<td>negov</td>
<td>negava, negovo, negovi, mu</td>
</tr>
<tr>
<td>3.SG.F</td>
<td>nein</td>
<td>nejna, nejno, nejni, i</td>
</tr>
<tr>
<td>1.PL</td>
<td>naš</td>
<td>naša, naše, naši, ni</td>
</tr>
<tr>
<td>2.PL</td>
<td>vaš</td>
<td>vaša, vaše, vaši, vi</td>
</tr>
<tr>
<td>3.PL</td>
<td>texen</td>
<td>tjaxna, tjaxno, texni, im</td>
</tr>
</tbody>
</table>

(3) gives a detailed picture of the various environments where the definite element and the short possessive form occur together. Both items immediately follow the head noun in (3a), the adjective in (3b), and the quantifier in (3c, d). If a demonstrative shows up, which is definite by itself, the short possessive form is attached to it as shown in (3e, f). These examples may suggest that the definite element and the short possessive form are second position clitics. However, as (3g) illustrates, these elements are not restricted to second position: here they follow the whole adjectival phrase formed by a participle. If the adjectival head is not final in the AP, they only follow the adjective but precede post-head modifiers or PP-complements of the adjective, as shown in (3h) and (3i).
Determiner-possessor relation in the Bulgarian DP

(3) a. knigi-te my
books-the my books’
b. semej-ni-te their problems
family-ADJ-the their family problems’
c. malko-to our plants
few-the our plants’
d. mnogo-to your interesting books
many-the your many interesting books’
e. tezi his books
these his books
‘these books of him’». onezi in novi knigi
those their new books
‘those new books of them’
g. tvûrde bûrzo quickly emptied the his bottle
too quickly emptied-the his bottle’
h. izbrana-ta her yesterday dress
chosen-the her yesterday dress
‘her dress chosen yesterday’
i. predpisano-to my by doctor medicine
prescribed-the my by doctor medicine
‘my medicine prescribed by a doctor’
‘the medicine prescribed to me by a doctor’

The short possessive does not form a group with any of the following elements, it is incorporated to the right of the definite element. Consequently, the environments where the definite element and the possessive occur can be summarized as follows:

(4) a. [Q, A, or N] < article < short possessive
b. demonstrative pronoun < short possessive

In other words, a descriptive generalization can be derived that the short possessive form is always stuck to the definite element in the DP. The short possessive cannot follow indefinite (that is, bare) NPs. Compare the examples in (5):
The fact that the short possessive follows only DPs and is ruled out after indefinite NPs is generalized in (6):

(6) a. [DP + short possessive]
b. *[NP + short possessive]

Another context where the short possessive forms occur are VPs. A relevant question to be asked here is whether the two forms, those in DP and VP, are the same. They do exhibit a controversial behavior, as illustrated in (7) and (8):

(7) a. Vidja-x interesna-ta i statija.
    saw-1.sg interesting-the her article
    'I saw her interesting article.'
b. Vidja-x i interesna-ta statija.
    saw-1.sg her interesting-the article
    'I saw her interesting article.'

(8) a. *Vidja-x interesna i statija.
    saw-1.sg interesting her article
b. Vidja-x i interesna statija.
    saw-1.sg her interesting article
    'I saw one of her interesting articles' / 'I saw an interesting article of hers.'

The short possessive allows raising out of the DP into the verbal domain, as illustrated in (7). But possessor raising is possible also with an indefinite NP (see (8b)), whereas the combination of indefinite NP and a short possessive is impossible (see (5) and (6)). We will postpone the discussion about the behavior of the short possessive in VPs vs. DPs until Section 4.

It is evident from the empirical data presented in this section that it is not the syntactic ordering which determines the position of the short pos-
sessive, rather it is a matter of lexical function of a category containing the characteristics [+DEF].

3. The proposal

It is a real puzzle why the article and the short possessive in fact target the same head. Movement approaches to explain the problem are unworkable. Let us try to handle the issue with a movement analysis.

Using Abney’s framework, Fowler and Franks (1994) and Mišeska-Tomić (1996) assume that the article in Bulgarian is a clitic. In their view, the article is generated in D₀ and material is moved to the left either left-adjoined to D as a head or in SpecDP as a phrase. But this view has the unfortunate property of not predicting whether a head or a phrase is moved. For example, the NP statija in (9) could move to [SpecDP]. In the same way, the AP mnogo interesna in (10) would move to [SpecDP].

(9) a. statija-ta
article-the
‘the article’
b. \[ DP [NP statija] [D -ta] [NP tₙ] ]
(10) a. mnogo interesna-ta
very interesting-the article
‘the very interesting article’
b. \[ DP [AP mnogo interesna] [D' [D -ta] [NP fₜAP statija]] ]
c. *mnogo interesna statija-ta

But why is it the embedded AP that moves in (10), leaving behind statija, the head of the NP? If the whole NP moves, the article would follow the NP, which is wrong (see (10c)). Turning to (11) and (12), we see that only a part of the AP can move, while the other elements of the AP have to stay behind. Otherwise, the phrase would be ungrammatical.

(11) a. kupeni-te včera knigi
bought-the yesterday books
‘the books bought yesterday’
b. \[ DP [D' [A kupeni] [D -te] [NP [AP včera] knigi]] ]
c. *kupeni včera-te knigi
*kupeni včera knigi-te
Neither the whole AP, nor the whole NP can move in these instances. On the contrary, the article always appears on the first available head. Regard the following examples where it appears on the head of the NP (13), but again on the adjectival head in (14):

(13) a. kniga-ta za istorija na Sofia
   ‘the book about the history of Sofia’
   b. ideja-ta če vsičko tuk e skûpo
   ‘the idea that everything here is expensive’
(14) mnogo interesna-ta nova kniga za istorija na Sofia
   ‘the very interesting new book about the history of Sofia’

It is clear from (11)–(13) that the article goes always on the head of the respective phrase, it does not follow the phrase. However, the movement analysis would have to predict that every material to the left of the head must move together with the head. Thus, in (10) the whole AP and in (14) one of the APs are moved to the corresponding SpecDPs, while in (11)–(13a, b) only the head is moved, and, hence, left-adjoined to D. There cannot be an analysis to capture these two instances of movement uniquely.

In all cases (9)–(14), the short possessive form appears immediately after the article. Look at the examples in (15):

(15) a. mnogo interesna-ta mi statija
   ‘my very interesting article’
   b. ideja-ta mi če vsičko tuk e skûpo
   ‘my idea that everything here is expensive’

With the short possessive form (or dative clitic) following the article, we get even into more trouble with the movement analysis. Being impossible to separate the two forms, this would predict that the short possessive must be moved
to the head of the DP, regardless of how deeply it is embedded. Consider the second reading of (3i), repeated here as (16), in which mi is base-generated as the indirect object of predpisvam ‘prescribe’:

(16) a. predpisano-to mi ot lekar lekarstvo
    prescribed-the me by doctor medicine
    ‘the medicine prescribed to me by a doctor’
    b. [DP [D’ [A predpisano ] [D -to [CL mi]]] [NP [AP tA tCL ot lekar]
    lekarstvo]]

In Franks (1998) and Franks and King (2000) it is proposed that the dative clitics are instances of AgrIO and receive the same analysis in the nominal domain as they do in the clausal domain. The article is taken as an inflection of the D-head and the clitic is adjoined to this head. While in the clausal domain the verb raises to AgrIO, the clitic in the DP is stranded and has to move itself to be supported. Thus the AgrIO clitic (in the DP) is under D and the only possibility for D is to be spelled out to the first available head down since there is no higher head to raise to. The structure of the D head is shown in (17) below:

(17)

\[
\begin{array}{c}
D \\
\left[ \begin{array}{c}
\left[ + \text{DEF} \right] \\
\text{AgrIO} \\
\end{array} \right]
\end{array}
\]

To our mind, both the postulated structure in (17) and the assumed lowering are theoretically undesired devices, although this view may account for the idea that definiteness is inflectional and the possessive is a clitic.\(^5\) Moreover, the main idea of parallelism between the possessive clitics in the DP and the dative clausal clitics is somehow lost.

Given the apparent problems with the movement strategy, we propose a lexical analysis within the framework developed by Wunderlich (1994, 1996, 1997a, 1997b). The main points are given in (18):

(18) i. There is a lexical operation in which the article and the short possessive form select their host.

ii. The article in Bulgarian has the inherent lexical property that it selects [+N], corresponding to quantifiers, adjectives and nouns. The short possessive form (when it appears) is an extended projection of the article.
Our first step concerning (18), is to regard the status of the article in Bulgarian. Its form can be sensitive to the element it attaches to. Consider the examples in (19), which exhibit three different forms.

(19) a. sel-a-ta
    'the villages'
b. xubavi-te sela
    'the beautiful villages'
c. mnogo-to xubavi sela
    'the many beautiful villages'

We, therefore, claim that the article is a suffix and present our morpho-phonoological considerations. The forms of the article are shown in (20) below:

(20) The Article in Bulgarian:

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>N</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ta</td>
<td>-ta</td>
<td></td>
<td>-ta</td>
</tr>
<tr>
<td>-to</td>
<td>-to</td>
<td>-to</td>
<td>-te</td>
</tr>
<tr>
<td>-jat (-ja)</td>
<td>-ta</td>
<td>-to</td>
<td>-te</td>
</tr>
<tr>
<td>-út (-a)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following table shows that the distribution of these forms depends on several conditions:

(21)

<table>
<thead>
<tr>
<th></th>
<th>-ta</th>
<th>-to</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG. M</td>
<td>súdija-ta</td>
<td>svako-to</td>
<td>kön-jat</td>
</tr>
<tr>
<td>SG. F</td>
<td>sestra-ta</td>
<td></td>
<td>kon-jat</td>
</tr>
<tr>
<td>SG. N</td>
<td>selo-to</td>
<td>dete-to</td>
<td></td>
</tr>
<tr>
<td>PL. M</td>
<td></td>
<td>snegove-te</td>
<td></td>
</tr>
<tr>
<td>PL. F</td>
<td></td>
<td>ženi-te</td>
<td></td>
</tr>
<tr>
<td>PL. N</td>
<td>selo-ta</td>
<td>xubavi-te</td>
<td></td>
</tr>
<tr>
<td>PL. TANTUM</td>
<td>xora-ta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADJ. PL</td>
<td></td>
<td></td>
<td>xubavi-te ...</td>
</tr>
</tbody>
</table>
After examining the examples in (21), it is clear that the reference to both phonological and morphological factors is necessary. The following generalization emerges then:

(22) If the stem ends in \(-a\) or \(-o\), the article is always \(-ta\) or \(-to\), respectively. In all other cases, the form of the article depends on the gender and number of the head noun (and on further conditions regarding the two masculine allomorphs).

The interplay between phonological and morphological factors can be illustrated further in (23), where two competing synchronic plurals coexist:

(23) a. kolene-te / kolena-ta \[pl.n\] 
    ‘the knees’ 
  b. ramene-te / ramena-ta \[pl.n\] 
    ‘the shoulders’ 
  c. dve-te / dva-ta \[pl.f/n, pl.m\] 
    ‘the two’

Looking further at the possessive form following the article, there are a few words expressing ‘kinship’ in Bulgarian which lack an overt article form but are definite in interpretation. Examples of such words are given in (24):³

(24) a. žena mu 
    ‘his wife’ 
  b. majka mi 
    ‘my mother’

The addition of the possessive form in (25) results in ungrammaticality:

(25) a. žena-ta mu 
  b. majka-ta mi

It is interesting to note that when we modify the noun, the article must appear again, as shown in (26):

(26) a. krasiva-ta mu žena 
    beautiful-the his wife 
    ‘his beautiful wife’ 
  b. čarovna-ta mi majka 
    charming-the my mother 
    ‘my charming mother’
Consequently, the lack of a definite marker in (24) is a pure lexical property. After having seen the failure of the movement analysis above, we argue for the structure in (27), reflecting the state of the matters in examples like (28):

(27) \[[ X-ta \mid mi\]\]

(28) a. tetrada-ta mi
    notebook-the my
    ‘my notebook’

b. xubava-ta mi tetrada
    nice-the my notebook
    ‘my nice notebook’

In the lexical theory we assume, lexical items project to syntactic phrases in which their arguments are realized by complements. The feature system determines which syntactic complement is attached to which theta-role (see Wunderlich 1997b). For the sake of brevity, we present the complex feature relevant for the dative as [\texttt{dat}].

Thus the input and the output for the representation in (27) will be like that in (29):

(29) mi: [\texttt{dat.lsg}] / [+\texttt{def}] __

The input, presented to the right of the slash in (29), means that the possessive form has to combine locally with an element with that particular specification. In other words, the possessive is specified according to the information of the element it selects. The output, given to the left of the slash in (29), constitutes the information the possessive adds to the syntactic projection at the DP level: it is linked to a theta-role specified by [\texttt{dat}] and adds the information [\texttt{l.sg}]. A syntactic projection is formulated as follows:

(30) \textit{Syntactic Projection} \quad (\text{Wunderlich \& Fabri 1996:248})

i. A (possibly) complex word marks a syntactic position by means of the category which heads it, and it c-selects a category in virtue of its lowest feature value.

ii. Syntactic heads are potentially ‘complex’ in the sense that they project to their hierarchically highest element, and select the complement of their lowest element.

Hence, the combination [adjective + article] is a complex category D/A. It projects to the hierarchically highest element (D) and picks up the complements of the lowest element (A), if there are any available. Any element of the category D/A satisfies the morphological input condition of the possessive clitics ([+\texttt{def}]), so that one of these can be attached. Semantically, however, the article relates to a noun rather than to an adjective. Therefore, D/A can form a full DP only if it is complemented
with an NP. Since the possessive does not alter the requirement for an NP complement, the category that results by adding a possessive form is still D/A. This is illustrated with the tree (31) below, which represents the structure of (28b):

(31)

There are two facts to explain: the agreement between the adjective and the noun within the DP, and the way in which the definite suffix finds its NP target. We assume that there are two complementary ways of integrating adjectives and possessors into NPs, either by means of argument extension or by means of modifier extension (see Wunderlich 1997b), the latter being relevant here. We further assume that the definite suffix does not necessarily bind the argument of the element it attaches to, but it always binds the referential argument of a noun. (Note that combinations such as *mnogo-to* ‘the many…’ or *xubava-ta* ‘the beautiful…’ are disallowed without the presence of a noun.)

The semantic composition along the structure given in (31) can then be performed as follows. (32) shows that adjectives, possessive adjectives, and quantifiers can all be marked for taking an NP-complement, where N is a predicative variable ranging over NPs with the minimal structure $\lambda x \text{NOUN}(x)$.

(32) a. $\lambda N \lambda x \ (\text{adj}(x) & N(x))$
    b. $\lambda N \lambda x \ (\text{poss.adj}(x) & N(x))$
    c. $\lambda N \lambda x \ (\text{card}(x) & N(x))$

Examples for (32a, b) are given in (33): *xubava* is an adjective (*f.sg*), and *moja* is a possessive long form (*1.sg.poss.f.sg*). The agreement information is represented by an index on the respective argument variable, and every element that instantiates this variable must be compatible with this information (see Wunderlich 1994).9

(33) a. *xubava*
    $\lambda N \lambda u_{1,s,g} \ [\text{nice}(u) & N(u)]$

    b. *moja*
    $\lambda N \lambda x_{1,s,g} \ [\text{belongs.to-1.sg}(x) & N(x)]$
By argument extension, each such an element can be further ‘extended’ in order to integrate possessives, except, of course, the long possessive forms. This is shown in (34) for the adjective *xubava*. The possessor role (λy) is marked here for dative.

(34) \(xubava\lambda y\) \(\land N \lambda u_{f, sg} \land [\text{nice}(u) \land N(u) \land \text{poss}(y, u)]\)

This form then triggers the semantic composition according to the structure (31). It has to be combined with both a dative possessor and a noun. However, the former requires a \(+\text{DEF}\) input, i.e., it can only attach if the definite element is attached first. With the article in (35a), this time an item that does not check gender, we get the representation in (35b). As pointed out above, the article takes any element that belongs to the nominal class \(+N\): nouns, adjectives, or quantifiers. The possessor clitic can now find its host, thus satisfying the possessor role, resulting in (35c).

(35) a. \(-ta\) \(\lambda Q D x Q(x)\), with \(D\) being the definiteness operator
b. \(xubava-ta\) \(\land y \land N D x_{f, sg} \land [\text{nice}(u) \land N(u) \land \text{poss}(y, u)]\)
c. \(xubava-ta\ mil\) \(\land N D x_{f, sg} \land [\text{nice}(u) \land N(u) \land \text{poss}(1.sg, u)]\)

This complex, still being of the category D/A, has finally to be combined with an NP. The noun *tetradka* ‘notebook’ is sufficient for this purpose, and we get the DP representation in (36b). Note that the respective agreement information does unify. Furthermore, note that \(u\) must be identical with \(x\) by default.

(36) a. \(tetradka\) \(\lambda u_{f} \text{notebook}(u)\)
b. \(xubava-ta\ mi\ tetradka\) \(D x_{f, sg} \cup f, sg \land [\text{nice}(x) \land \text{notebook}(x) \land \text{poss}(1.sg, u)]\)

‘that \(f, sg\) \(x\) which is nice, a notebook, and possessed by me’

In the lexical account, pursued by Minimalist Morphology as well as by Lexical Decomposition Grammar, syntax is built up from the bottom. More precisely, it is the interaction of morphological features and the generative power within Semantic Form (SF) that generate complex DPs such as that in (36b). Each step of the composition projects to a new morphological or syntactic level, depending on the status of the elements that are combined, and on further constraints.
Nothing in the semantics requires that the article combines with the adjective rather than the noun or the whole NP. In addition to the input information for the possessive clitic, which requires surface adjacency, there are at least two other constraints that are relevant here: the default order of the potential elements of a DP (demonstrative < quantifier < adjective < noun), and the requirement that the definite element (and consequently, also the possessive clitic) appears at the utmost left edge of a DP. Since the definite article is a suffix selecting [+N], the optimal candidate then turns out to be a phrase in which the article is attached to the first possible [+N] element. Consequently, the generative power of SF is restricted by these additional constraints.

It is noteworthy, however, that not many languages behave like Bulgarian. There is a discrepancy between the requirement that the definite article binds the referential argument of a noun and the actual placement of this element. The conflict between constraints induced by morphological idiosyncrasies on the one hand, and general syntactic ordering principles on the other, is solved here in a way that molests the syntax-semantics harmony. We conclude that the syntax-semantics mismatching found in Bulgarian can be accounted for if one concedes generative power to SF, but not as easily (or not at all) if generative power is considered to be a sole property of the syntactic component.

Another, even more complex example for the Bulgarian way to form DPs is shown in (37), for which we propose the structure in (38).

(37) nabúrzo predpisano-to mi ot lekar lekarstvo
   hastily prescribed-the my by doctor medicine
   'my medicine hastily prescribed to by a doctor'
   'the medicine hastily prescribed to me by a doctor'

(38)

The adverb nabúrzo cannot attract the article because it is not [+N]. The first element that can attract the article is the passive participle, being of the category
A/V. It selects complements of V but projects to AP. Hence, if it combines with the article, the even more complex category D/A/V obtains.

(39) a. predpisano
   A/V  λN λzneut λy  ᾱx prescribe(x, y, z)
       DAT

   b. predpisano-to
   D/A/V  λN λy Dzneut  ᾱx [prescribe(x, y, z) & N(z)]
       DAT

In this case, the dative requirement is already given by the underlying verb and no possessor extension is necessary. The subsequent steps in the semantic composition are straightforward (see (40) below): the dative clitic, identical with the possessive clitic, can satisfy the requirement for a dative; an additional adverb is possible, as well as an adverbial agentive phrase; and finally, the noun (or NP) that is involved in the construction must be added.

(40) a. predpisano-to mi
      λN Dz  ᾱx [prescribe(x, l.sg, z) & N(z)]

   b. nabárzo predpisano-to mi
      λN Dz  ᾱx hasty [prescribe(x, l.sg, z) & N(z)]

   c. nabárzo predpisano-to mi ot lekar lekarstvo
      Dz ᾱx hasty [prescribe(a doctor, l.sg, z) & medicine(z)]

4. The possessive form in DPs and VPs

The possessive form is a true clitic when it is in the verbal domain: it can be raised, as illustrated in (41) and (42) and it participates in clitic clusters, shown in (43)–(44) (see Schürcks 1998, 1999).

(41) a. Pročetox statija-ta  i.
      read.1.sg article-the her
      'I read her article.'

   b. Pročetox  i  statija-ta.
      read  her article-the
      'I read her article.'

(42) a. Tja nameri užasni-te si greški.
      She found terrible-the refl.poss mistakes
      'She found her horrible mistakes.'
b. Tja si nameri užasni-te greški.
   She refl.poss found horrible-the mistakes
   ‘She found her horrible mistakes.’

(43) a. Pročete li statija-ta?
   read.2.sg Q article-the her
   ‘Did you read her article?’

b. Pročete li i statija-ta?
   read.2.sg Q her article-the
   ‘Did you read her article?’

(44) a. Tja nameri li užasni-te si greški?
   she found.3.sg Q horrible-the refl.poss mistakes
   ‘Did she find her horrible mistakes?’

b. Tja nameri li si užasni-te greški?
   She found.3.sg Q refl.poss horrible-the mistakes
   ‘Did she find her horrible mistakes?’

Consequently, we deal with one entry with two different realizations. In the DP, the dative clitic (i.e., the possessive form), must follow the definite element which happens to be the first [+N] element in the Bulgarian DP (an adjective, a quantifier, a numeral or a noun). Therefore, the dative clitic in the DP can be represented in the following way:

\[(45) \text{ně:} \text{[dat.1sg] / [+def]} \]

In the VP, the dative clitic (the possessive form) is in the clitic cluster. In this environment, the restriction to definite contexts does not hold any longer, as shown in (46) (see also (8)).

(46) a. *Pročetox statija i.

b. Pročetox i statija.
   read.1.sg her article
   ‘I read one of her articles.’

The possessive clitic in (46b) cannot emerge from syntactic movement because the clitic is impossible within a nondefinite NP. Hence, the clitic must be base-generated in the VP which, however, does not have a feature such as [+def]. The possessive clitic in the VP is identical with the dative clitic, as shown in (47).

(47) a. Ana ti go e dala pismo-to.
   Anna cl.dat cl.acc aux given letter-the
   ‘Ana has given you the letter.’
b. Ivan ste im go pročete.
   Ivan AUX CL.DAT CL.ACC read
   ‘Ivan will read it to them.’

Hence the clitic in the VP will be represented as in (48):

(48) mi: [DAT.1.SG]

That the possessive clitic must be base-generated in the VP is also predicted by the way the semantic composition works in our account. At the DP-level, the clitic has become an inseparable part of the DP, illustrated in (35c) above. Such an element can never be moved. How, then, do we account for the base-generation of an element that seems to belong to the DP rather than to the VP? We assume that verbs, like adjectives or nouns, can undergo argument extension in order to integrate possessives. This is shown for the examples given in (41). In (49), V1 represents the base verb, and V2 – the verb with a possessor argument. Possible DPs that can satisfy the object role of ‘read’ (\(\lambda y\)) are represented by D2 and D1, with or without a possessive clitic.

(49) V1 \(\lambda y \lambda x \text{read}(x, y)\)
    V2 \(\lambda y \lambda z \lambda x [\text{read}(x, y) \& \text{poss}(z, y)]\)
    D1 \text{statija-ta: Du article}(u)
    D2 \text{statija-ta i: Du [article}(u) \& \text{poss}(3.F.SG, u)]

There are four possible combinations. If V1 is applied to D1, a VP without any possessive element arises. V1 applied to D2 yields the representation in (41a), whereas V2 applied to D1 yields the representation in (41b). It is not possible that V2 applies to D2 because the second part in the representation would be semantically deviant: an individual z cannot ‘possess’ something which another 3.F.SG-individual already ‘possesses’.

(50) V1(D1) \(\lambda x \text{read}(x, \text{Du article}(u)y)\)
   V1(D2) \(\lambda x \text{read}(x, \text{Du [article}(u) \& \text{poss}(3.F.SG, u)])\)
   V2(D1) \(\lambda z \lambda x [\text{read}(x, \text{Du article}(u)) \& \text{poss}(z, \text{Du article}(u))]\)
   *V2(D2) \(\lambda z \lambda x [\text{read}(x, \text{Du [article}(u) \& \text{poss}(3.F.SG, u)]) \& \text{poss}(z, \text{Du [article}(u) \& \text{poss}(3.F.SG, u)]))\]

Thus, the generative power involved in semantic composition explains why (41a) and (41b) stand in free variation. It is further required that in VPs (or projections above VP), clitics appear as far to the left as possible, which is similar to the constraint we have found for the article in DPs. However, we will not deal with this aspect any further, leaving the matter for future research.
5. Conclusions

In this paper, we have argued that short possessive forms in DP-internal structures in Bulgarian select a host which has the categorial characteristics [+def]. If these forms appear DP-externally, such a restriction does not hold. We suggest that the placement of the definite article and the placement of VP-clitics follow from the same principle. A lexical analysis has been proposed, having the advantage of successfully dealing with this phenomenon.

Notes

* This work has developed in the framework of the Research Project SFB 282 “Theorie des Lexikons” at the Department of General Linguistics of Düsseldorf University. It has been presented at the International Conference on the Syntax and Pragma-Semantics of Noun Phrases in Antwerp in February 2000. Parts of this material have been delivered also at the SFB Colloquium “Bound and Free Elements in Phonology, Morphology, and Syntax” at Düsseldorf University on 28 January 2000 and at the Second Northwest Slavic Linguistics Conference at UC Berkeley in March 2000. The first author was supported by a travel grant awarded by DFG (The German Research Council). We thank the audiences of all these forums for helpful comments.

1. This is also claimed by Franks and King (2000).

2. An anonymous reviewer suggested to us that dative clitics and short possessives may represent different items. However, although they originate in different contexts, they behave in every respect alike.

3. In contrast, the long forms can occur both with or without the article. Consider the sentences in (i):

   (i) a. Vidja-x moja-ta xubava kniga
       saw-1.sg my-the nice book
       ’I saw my nice book.’
   b. Vidja-x moja xubava kniga
       saw-1.sg my nice book
       ’I saw one of my nice books’ / ’I saw a nice book of mine.’

4. Due to the lack of space, we will illustrate only two examples with the short possessive form.

5. See (24) and (25) in support of the claimed inflectional character of the article in Bulgarian.


7. In the masculine, -üt and -jat are used in the nominative, while in all other contexts -a or -ja appears. Consider the examples in (i):
(i) a. Vidja-x kon-ja
   see-1sg horse-the
   ‘I saw the horse’

b. Kon-jat e vidja-n
   horse-the aux see-part
   ‘The horse is seen’

8. That the possessive clitic needs a definite context is clear also from the following coocurring forms:

   (i) a. svako ti / svako-to ti
       ‘your uncle’

b. sin ti (colloquial) / sin-út ti
   ‘your son’

The interpretation of both types of forms is definite and is not dependent on the presence or the absence of the article.

9. Formally, agreement is considered as index unification, regulated by the general agreement principle in (i).

   (i) In the process of composition, agreement indexes must be unified at the common binder of the variables in question. (Wunderlich 1994:11)

References


Chapter 5

On the asymmetrical but regular properties of French possessive DPs

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1. Introduction

1.1 Possessive DPs as predicative DPs

This paper will be concerned with so-called possessive DPs, which involve two main constituents known as Possessor and Possessee – two terms I shall be using below for tradition’s sake:

(1) English
    John’s book
    Possessor Possessee

(2) French
    le livre de Jean
    Possessee Possessor

I will however assume, following Chomsky (1970), Szabolcsi (1984, 1994), Abney (1987), Kayne (1993, 1994), Borer (1996), Kihm (1998), Zribi-Hertz (1998, 1999), and others, that possessive DPs are predicative DPs, i.e., DPs which include a subject located outside the existential-closure domain (cf. Carlson, first volume). That the so-called Possessor should be analysed as a subject is immediately clear in the classical English examples (2):

(2) a. John criticised this book. (predicative clause)
    b. John’s criticism of this book. (predicative DP = ‘possessive DP’)

English, exemplified in (2), is not the only language where the symmetry is straightforward. As shown by Szabolcsi (1984, 1994) and Knittel (1997), Hungarian possessors are constructed as subjects; as shown by Zribi-Hertz and
Adopo (1992), Attie possessors are constructed as subjects; as shown for instance by Voskuil (1993) or Paul (1996), Malagasy possessors are constructed as demoted subjects:

(3) Hungarian

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| a. Finite clause: (án) szeret-ø-em...
  1.SG love-PRES-1.SG
  'I love...(+OBJ)'
| b. Finite clause: János szeret-ø-ø...
  John love-PRES-3.SG
  'John loves...(+OBJ indef)'
| c. Possessive DP: a(z) haz-a-ø-m
  def 1.SG house-poss-sg-1.sg
  'my house'
| d. Possessive DP: a János haz-a-ø-ø
  def John house-poss-sg-3.sg
  'John's house'

(4) Attie

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| a. Finite clause: Apo ó fee.
  Apo 3.anim.sg.fut fly.away
  'Apo will fly away.'
| b. Possessive DP: Apo ó kwe-ε
  Apo 3.anim.sg house-def.sg
  'Apo's house'

(5) Malagasy

<table>
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<th>Demoted Subject</th>
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  love gen art Koto art Bozy
  'Bozy is loved by Koto.'
| b. Possessive DP: ny trano -n i Koto
  def house gen art Koto
  'Koto's house'
1.2 The core structure of possessive DPs

One way to represent this regular pattern is to assume that all possessive DPs involve the same core set of projections. The structure sketched in (6) could be a common denominator for the representation of possessive DPs:

For the three languages considered in (6), the assumption that noun phrases are dominated by a DP projection seems straightforward; in some languages (e.g. English) the 'definite feature' in D, which might boil down to a universal quantifier (Milsark 1977), has a vacuous spell-out in possessive DPs. The FP projection provides a landing site for the subject; the F head contains a Person feature in some languages (Hungarian, Attie), but not in all: I depart here from Kayne (1993, 1994) in assuming the English 'possessive' affix to spell out a relational feature distinct from Person (evidence for this is given in Zrihibertz 1997). Following Collins (1997) and Chomsky (1999), I am also assuming in (6) that head-to-head movement occurs after syntax, in Morphology, and leaves no trace. In English and Attie, the noun raises up to Number; in Hungarian it further raises up to F0, where it inflects for Person. In a language such as Attie, we must further account for the fact that the definite marker oc-
curs at the right periphery of the DP – an interesting but independent matter, which I shall leave aside here.

2. Why does French look irregular?

Under these general assumptions, we should expect French possessive DPs to be internally structured as nominal predications. In this language, however, possessive DPs look at first glance quite different from tensed predications, and thus do not appear as straightforwardly simple as their English counterparts. The examples in (7′) through (9′) illustrate the Standard-French pattern:

(7) a. I prefer John’s box. (7′) a. Je préfère la boîte de Jean.
   b. I prefer his box. b1. *Je préfère la boîte de lui.
   b2. Je préfère sa boîte.

(8) a. I found a box of John’s. (8′) a. *J’ai trouvé une boîte à Jean.
   b. I found a box of hi’s. b. J’ai trouvé une boîte à lui.

(9) a. I prefer John’s ø. (9′) a. Je préfère celle de Jean.
   b1. *Je préfère celle de lui.
   b2. Je préfère la sienne ø.

A common view concerning the contrasts in (7)–(9) is that pronominal possessors, in French, crucially differ from lexical possessors in that they are special clitics, as are other personal argument markers, in this language (cf. Milner 1982b; Godard 1986; Giorgi & Longobardi 1991; Tremblay 1991). Correlatively, they never surface in the same linear positions as lexical arguments.

However, this view is shown to be inaccurate by the contrast in (8′): in this pair of examples, to which I shall return below, the pronoun is, crucially, non-clitic, but it occurs in a position where a lexical DP is disallowed. This suggests that the contrast between lexical and personal possessors, in French, does not boil down to clitichood.

3. Possessee raising

In the English examples (7) through (9), lexical possessors (e.g. John) and pronominal possessors occur in the same position, which we may identify as Spec, FP in the X-bar diagram (6).
In the French examples (7) through (9), lexical and pronominal Possessors exhibit complementary distributions. In (7a) and (9a), the lexical Possessor occurs to the right of the Possessee, which, French being an SVO language, seems to conflict with the generalization that Possessors are subjects in DPs. Kayne (1993, 1994), however, puts forward an assumption which enables us to conciliate the facts in (7a) and (9a) with pattern (6): his leading idea is that possessive DPs of the kind exemplified by (7a) are derived by a movement rule which 'relativizes' the Possessee, since it is similar to that which occurs in relativized DPs. Kayne’s proposal is freely adapted in (10) below:

(10) la maison de Pierre

Compare (10) with (11), la maison que Pierre construit, 'the house which Pierre is building':

![Diagram]
The possessive DP of (9a), *celle de Jean*, may be derived in the same way as (10), if we assume that *c(e)*, in *celle*, spells out a feature generated in $D^0$, while *elle* is the spell-out of a raised definite DP reduced to its functional features [definite, feminine, singular]. This is shown in (12):
4. Lexical subjects vs. Person inflection

In (7'), the pronominal Possessor occurs to the left of the Possessee, which suggests that the Possessee has not been relativized. Now, why would it be the case that the Possessee is relativized when the Possessor is lexical, but not when the Possessor is pronominal?

I assume, as did Authier (1992), that the person feature which characterizes such French possessive DPs as (7'b2) (*sa boîte*), is, crucially generated not in the subject position, but in the F head, from which it identifies the subject:
I assume as above that N raises to Num in Morphology. Furthermore, the person feature generated in the F head adjoins in Morphology to the [+DEFINITE] feature generated in the D-head, while the gender and number features originating in the N and Number heads regularly percolate up to the definite D-head.

The morphological adjunction of [PERSON] to [+DEFINITE] is, crucially, obligatory whenever possible. In other words, the person feature is spelt out as a clitic whenever possible; this generalization extends to all cases of cliticization in French – thus, since the clitic is available in (14a, 14’a), it must be chosen over the nonclitic, hence the ill-formedness of (14b, 14’b):

(14)  a. Je le regarde.  
     b. *Je regarde lui.  
(14’) a. J’ai trouvé sa boîte.  
     b. *J’ai trouvé la boîte de lui. 

‘I am watching [it/him].’  
‘I found [its/his] box.’
The adjunction of [PERSON] to [+DEFINITE] resulting in ‘possessive determiners’ seems to have settled in Middle French. The morphological adjunction of one functional feature to another is quite commonly observed throughout languages (e.g. Person commonly adjoins to Tense or Tense to Person, in finite clauses, Person may adjoin to Number, Number to Definiteness, Definiteness to Case, etc.). The analysis considered in (13) brings out a symmetry between nominal predications (possessive DPs) and tensed predications, since there too a person feature identifying the subject may be assumed to be generated in F0.

I am assuming with, e.g., Harris (1978), Lambrecht (1981), Hulk (1986, 1991), Zribi-Hertz (1994), Jakubowicz and Rigaut (1997), and Auger (1995), that the nominative personal pronouns of Modern French have become inflectional elements, i.e. are no longer generated in the subject position, but in a functional head, the one I have been calling F. The data are tricky to describe because Standard French is commonly equated with written French, which differs in various important respects from the spoken (which doesn’t mean ‘substandard’) language. Person inflection is one among several properties which are expressed differently in Spoken and Written French. In Written French, (15c) may only be licensed as a left-dislocation, whereas in Spoken French, (16a) is licensed with no dislocation:

(15) Written French
   a. Les enfants aiment le chocolat.
      ‘(The) children like chocolate.’
   b. Ils aiment le chocolat.
      ‘They like chocolate.’
   c. Les enfants *(,) ils aiment le chocolat.
      lit. ‘(The) children *(,) they like chocolate.’
   d. *Tout le monde *(,) il aime le chocolat.
      lit. ‘Everyone *(,) they like chocolate.’

(16) Spoken (Parisian) French
   a. Les enfants ils aiment le chocolat. (socially neutral)
      [lezaf iezmeʃokola]
   b. *Tout le monde il aime le chocolat.
      [tulmød ilemblʃokola] (substandard)

French nominative clitics have been developing from the subject status they inherited from Latin, towards the situation exemplified by (16). I assume, in the spirit of Givón’s (1976) general hypothesis, that this evolution must have proceeded in three steps, described in (17):

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Stage 1: Nominative pronouns are generated in subject position; hence, they cannot combine with a subject, only with a dislocated topic, as shown by (15c, d). Finite verbs bear overt person-number endings generated in F₀, which stand as agreement markers.

Stage 2: Nominative pronouns are reidentified as inflection morphemes, generated in F₀, making up for the phonetic impoverishment of consonantal personal endings on finite verbs (e.g. the person-number ending spelt *nt on aiment, in (15)).

The nominative pronouns of Stage 2 have become inflectional elements while remaining argument markers, in the sense of Auger (1995), hence, they cannot combine with a lexical subject.

Stage 3: Inflectional subject markers become agreement markers and hence acquire the ability to combine with a lexical subject: first, with a referential (topical) subject, as in (16a), then with any subject, whether or not referential, cf. (16b).

Under this analysis, I assume that Modern Parisian French is now moving from Stage 2 to Stage 3. The crucial point is that the distinction between argumental and inflectional person morphemes is independent from the distinction between argument and agreement inflectional markers, a point very clearly made by Auger (1995). A person feature may occur as an inflectional element and nevertheless stand as an argument marker, in which case it cannot cooccur in its local domain with the argument it serves to identify (see also Miller 1992).

If this line of analysis is correct, French possessive DPs involving a pronominal Possessor are symmetrical with French finite clauses involving a pronominal subject. In both cases, the person morpheme is an inflectional element, which standardly still behaves as an argument, rather than as an agreement, marker:

(18) a. Pierre il est parti.
      (* in Standard French; OK in spoken French)
   b. J’ai vu [Pierre son livre].
      (* in Standard French; OK in some varieties of French)

5. Possessive DPs with anaphoric NPs: French personal adjectives

The adjunction of [PERSON] to [+DEFINITE] explicit in (13) cannot occur in one case: when NP is phonetically null – and correlatively read as discourse-anaphoric. Null discourse-anaphoric NPs are quite common throughout lan-
On the asymmetrical but regular properties of French possessive DPs

In the French analogue of (19a), (9'a), I argued that the Possessee is relativized and nonnull (cf. (12)). In the French analogue of (19b), (9'b), repeated under (20b), the Possessee is null and no relativization occurs:

(20) a. Je préfère sa boîte.
   'I prefer his box.'

b. Je préfère la sienne ø.
   'I prefer his ø.'

The occurrence of a personal adjective in (20b) is motivated by morphophonology alone. *Sa* in (20a) and *la sienne* in (20b) both spell out the same set of features, which I assume to be rooted in the same syntactic positions: [+definite] (in D⁰), 3.SG (in F⁰), [feminine] (in N⁰ or n⁰, cf. Kihm 2000), [-plural] (in Num⁰). *Sa* and *la sienne* only differ in the way these features are distributed in Morphology and spelt out in Phonology.

Should *person* adjoin to [+definite] in (20b), we would derive (22c), which is ill-formed for the same reason as (22a) and (22b) – because the determiner in D⁰ is phonologically deficient (a leaner, in Zwicky’s 1982 sense) and therefore requires some phonetically overt element to its right:
(22) a. *Je préfère la ø.  (compare: Je préfère la boîte)  
   lit. 'I prefer the ø.'  
   'I prefer the box.'  
b. *Je préfère ce ø.  (compare: Je préfère ce livre)  
   lit. 'I prefer this ø.'  
   'I prefer this book.'  
c. *Je préfère sa ø.  (compare: Je préfère sa boîte)  
   lit. 'I prefer his/her ø.'  
   'I prefer his/her box.'

To avoid the violation in (22c), the person feature is not adjoined to the definite determiner in (20b), and is realized as a nonclitic word – an adjective, the category which regularly licenses elliptical NPs in French:

(23) a. Je préfère l-a s-i-en-ne ø.  
   I prefer DEF-F.SG 3.SG-ADJ-F.SG  
   'I prefer {hi/her}s ø.'  
b. Je préfère l-a grand-e ø.  
   I prefer DEF-F.SG tall-F.SG  
   lit. 'I prefer the tall ø.'  
   = 'I prefer the tall one.'

I propose to analyse ien, in sien, as a phonetic spell-out of the a₀ head (the functional adjectival head), as shown in (24):
Under this analysis, personal adjectives (*sien*), like personal definite determiners (*son*), are complex words made up of functional features generated in regular syntactic positions within the DP. One of these features is the person feature, generated in $F^0$, an inflectional functional head closed to lexical information. The result is a pervasive asymmetry between pronominal Possessors, which are identified inflectionally by a personal argument marker, and lexical Possessors, which stand as full-fledged arguments, in subject position.
6. Nonclitic inflectional pronouns

The central assumption I am putting forward here is that the asymmetry between lexical and personal Possessors which is observed in (7′) through (9′) does not stem out from the fact that personal subject markers are clitics (a phonological property), but from the fact that they are inflectional elements, a status from which both lexical words and phrases are banned. I am claiming that the distinction between subjects and subject markers is quite independent from the issue of clitichood: inflectional argument markers may a priori be spelt out phonologically as nonclitics.6

Crucial evidence in support of this assumption is provided by the contrast between (8) and (8′), repeated in the better-contextualized examples (25)–(26):

(25) a. I found a box of John’s in the kitchen.
    b. (John . . .) I found a box of his in the kitchen.
    c. I found a box of yours in the kitchen.

(26) a. *J’ai trouvé une boîte à Jean dans la cuisine. (= (25a))
    b. (Jean . . .) J’ai trouvé une boîte à lui dans la cuisine. (= (25b))
    c. J’ai trouvé une boîte à toi dans la cuisine. (= (25c))

These examples show that in English as in French, the Possessor may occur to the right of the Possessee in an indefinite DP. The two languages however differ in that a lexical and a pronominal Possessor are equally licensed in (25), whereas in my dialect of French, only a pronominal Possessor is licensed in (26). This contrast between a lexical and a pronominal Possessor clearly recalls the ones discussed above. One way to express this similarity is to assume that the lexical Possessor is disallowed in (26a) because the pronominal Possessor of (26b) is generated (as other pronominal Possessors) in the functional head F0, i.e. is an argument marker, rather than a full-fledged argument. In English, on the other hand, all Possessors, both lexical and pronominal, are generated in an argument position (Spec, FP), for Modern English does not make use of person inflection to identify arguments.

Adapting once more an idea of Kayne’s (1993, 1994), I assume that the derivation of postnominal possessive DPs involves Possessee Raising, i.e. Possessee Relativization:
On the asymmetrical but regular properties of French possessive DPs

(27) a box of John's s/a box of his

(28) une boîte à lui

Under this analysis, lui, in une boîte à lui, spells out the same syntactic element as s, in sa boîte and la sienne (diagrams (13) and (24)). The difference between lui in (28) and s in (13)/(24) is purely morphophonological: in (28), the person feature in F0 cannot cliticize, since there is no definite feature for it to attach to; hence it is spelt out as a nonclitic morpheme (personal pronoun).

The complete distribution of lexical and functional possessors in my own dialect of French is given in (29):
Lexical and functional Possessors in definite and indefinite possessive DPs in Modern French:
System 1 (my own)

<table>
<thead>
<tr>
<th>class-A nouns (e.g. ami 'friend')</th>
<th>class-B nouns (e.g. boîte 'box')</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>definite DP</strong></td>
<td><strong>indefinite DP</strong></td>
</tr>
<tr>
<td>John's friend</td>
<td>a friend of John's</td>
</tr>
<tr>
<td>l'ami de Jean</td>
<td>un ami de Jean</td>
</tr>
<tr>
<td>*l'ami à Jean</td>
<td>*un ami à Jean</td>
</tr>
<tr>
<td>his friend</td>
<td>a friend of his</td>
</tr>
<tr>
<td>*l'ami de lui</td>
<td>*un ami de lui</td>
</tr>
<tr>
<td>*l'ami à lui</td>
<td>*un son/sien ami</td>
</tr>
<tr>
<td>son ami</td>
<td>un ami à lui</td>
</tr>
<tr>
<td></td>
<td><strong>definite DP</strong></td>
</tr>
<tr>
<td>John's box</td>
<td>*une boîte de Jean</td>
</tr>
<tr>
<td>la boîte de Jean</td>
<td>*une boîte de lui</td>
</tr>
<tr>
<td>*la boîte à Jean</td>
<td>*une boîte à Jean</td>
</tr>
<tr>
<td></td>
<td>a box of his</td>
</tr>
<tr>
<td></td>
<td>*la boîte de lui</td>
</tr>
<tr>
<td></td>
<td>*une boîte à lui</td>
</tr>
<tr>
<td></td>
<td>sa boîte</td>
</tr>
<tr>
<td></td>
<td>*sa/sienne boîte</td>
</tr>
<tr>
<td></td>
<td>*une sa/sienne boîte</td>
</tr>
<tr>
<td></td>
<td><strong>indefinite DP</strong></td>
</tr>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

This chart operates an initial distinction between two subclasses of nouns, labeled 'A' and 'B'. Type-A nouns, which we might characterize as those which are lexically endowed with an argument structure, include so-called relational nouns (e.g. ami 'friend', voisin 'neighbour', parent 'relative', cousin, etc.) and creation nouns (e.g. livre 'book', tableau 'painting', film, etc.). With type-A nouns, a de XP (Relatee, or Agent) argument is selected by the head-noun, in other words, is lexically licensed. With type-B nouns, which fail to have an argument structure in the lexicon and are typically illustrated by boîte 'box' in our examples, a de XP (Possessor) phrase must crucially be licensed by a definite article (l-a boîte de Jean).

When it is spelt out by l- (i.e. when the Person feature does not adjoin to it), the definite feature in D must crucially pair up with the genitive feature in K, resulting in l'ami de Jean / la boîte de Jean, not *l'ami à Jean / *la boîte à Jean. When the F head contains a Person feature, it must adjoin to the [+definite] feature in D, resulting in son ami / sa boîte, not *l'ami de lui / *la boîte de lui / *l'ami à lui / *la boîte à lui. *Un son ami / *une sa boîte cannot be generated because personal articles (son/sa) crucially incorporate the marked value of the definite feature.

*Un sien ami / *une sienne boîte are no longer generated in Modern French because the clitic spell-out of the Person feature (s in the 3rd person) is crucially correlated with the [+definite] feature, in this system: sa and la sienne appear today as two allomorphs of the same feature combination: +definite, person, gender, number. In former stages of French, where le sien ami and un sien ami were generated, possessive-marking was still done derivationally (by adjectives formed from person or nominal stems), rather than inflectionally (cf. Zribi-Hertz 1999).
An interesting question raised by table (29) is: why do we have a contrast in indefinite DPs between *un ami à Jean and un ami à lui, *une boîte à Jean and une boîte à lui? There is no definite feature in D₀ here, i.e. nothing the Person feature could cliticize to. Both une boîte à Jean and une boîte à lui could be derived from diagram (28).

My assumption is that the grammar of possessive DPs which is displayed in (29) is crucially centered on the complementary morphological marking of subject arguments and subject inflection. In definite possessive DPs, subject inflection correlates with clitichood (hence the ungrammaticality of (14′b)). In indefinite possessive DPs, the same complementarity is expressed by a different Case feature in K. Since the genitive feature (spelt out as de) occurs in l’ami de Jean / la boîte de Jean, hence, is associated with subject arguments, the dative feature is – complementarily – restricted to subject inflection. The core constraint, in this system, is thus summarized by: de > Jean vs. à > lui.

An obvious shortcoming of this grammar is that it fails to provide a means of generating a lexical subject in an indefinite possessive DP with a B-type N-head: there is no straightforward translation for a box of John’s, in this system.

To my knowledge, this problem is dealt with by French speakers in three different ways, leading to three other competing grammars of possessive DPs, represented in (30), (31) and (32), and respectively labeled System 2, System 3, and System 4:

System 2 (Tasmowski, p.c.8)

(30) a. la boîte de Jean
b. *la boîte à Jean
c. *la boîte de lui
d. sa boîte
e. *la boîte à lui

(30’) a. une boîte de Jean
b. *une boîte à Jean
c. *une boîte de lui
d. une boîte à lui

e. *la boîte à lui

System 3 (Milner 1982)

(31) a. la boîte de Jean
b. *la boîte à Jean
c. *la boîte de lui
d. sa boîte
e. *la boîte à lui

(31’) a. *une boîte de Jean
b. une boîte à Jean
c. *une boîte de lui
d. une boîte à lui
e. *la boîte à lui
System 4 (several varieties of spoken French, cf. Tremblay 1991)

(32)  

<table>
<thead>
<tr>
<th></th>
<th>(32)</th>
<th>(32')</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>*la boîte de Jean</td>
<td>a.</td>
</tr>
<tr>
<td>b.</td>
<td>la boîte à Jean</td>
<td>b.</td>
</tr>
<tr>
<td>c.</td>
<td>*la boîte de lui</td>
<td>c.</td>
</tr>
<tr>
<td>d.</td>
<td>sa boîte</td>
<td>d.</td>
</tr>
<tr>
<td>e.</td>
<td>*la boîte à lui</td>
<td>e.</td>
</tr>
</tbody>
</table>

System 2 licenses lexical Possessors in indefinite DPs by relaxing the requirement on the l-/de correlation, hence canceling the formal distinction between A-type and B-type nouns. In this system, de loses its force as an Agent theta-marker (see fn. 7), and the genitive becomes a means of licensing an argument with an N-head regardless of the feature content of this N. This is not a very costly move, since the same nondistinctiveness of de obtains in definite DPs (e.g. le tableau de Jean = (i) 'Jean's painting' (ii) the painting by Jean'). Since System 2 furthermore preserves the morphological contrast between subject arguments and subject inflection, it departs from System 1 in the least radical way.

System 3 extends to lexical possessors in indefinite DPs the dative-Case strategy reserved for functional possessors in Systems 1 and 2. The contrast between (31b) (*la boîte à Jean) and (31'b) (une boîte à Jean), indicates that this system interprets the ill-formedness of (31b)9 as a Ban on the Definite/Dative correlation (*la . . . à . . .), rather than as a Ban on Dative Lexical arguments (*à Jean), contrasting in this respect with Systems 1 and 2. This change in the grammar breaks down the correlation between syntax and morphology achieved by Systems 1 and 2: in (31'), the syntactic distinction between subject arguments and subject inflection is not marked by morphology.

System 4 marks all postnominal possessors in the dative Case and thus does away with the genitive Case in possessive DPs; but to achieve this simplification, it fails to mark in morphology both the subject argument/subject inflection distinction (overt in Systems 1 and 2), and the distinction between A-type and B-type nouns (overt in System 1).

It thus appears that System 1, which is maximally costly from a morphological perspective, and minimally satisfactory in terms of expressive power, nevertheless has its own justifications in terms of global economy. This accounts for the fact that it remains in active competition with the other systems in today's spoken French.
7. Conclusion

The leading idea of this paper is that the regular asymmetry which characterizes Standard French possessive DPs arises not from the (phonological) fact that subject pronouns are realized as clitics, in this language, but from a general syntactic contrast between subject arguments and subject inflection. A key contrast between personal morphemes and lexical DPs is that the former may be used to spell out inflectional features, whereas the latter may not. Inflectional features are frequently but in no way necessarily spelt out at PF as clitics or affixes, and such examples as une boîte à lui, as produced by Systems 1 and 2, are evidence that inflectional person features may be spelt out as independent (‘strong’) pronouns.

Under the analysis proposed here, the contrasts between English and French exemplified by (7)–(8)–(9) essentially stem out from the fact that French, unlike English, makes use of person inflection to identify subjects. Attie and Hungarian similarly do so; but unlike those of French, the inflectional person features of Attie and Hungarian clearly stand as subject-agreement markers: in other words, these two languages are already firmly settled in Stage 3, in the change pattern (17), while Modern French still has a foot in Stage 2.

Notes

1. Specific abbreviations used in the glosses and trees: \textsc{art} = article (an expletive determiner occurring with human names, in Malagasy); \textsc{s} = English ‘possessive’ marker.

2. Attie is a Kwa language spoken in the Ivory Coast.

3. Throughout this article, I treat ‘definiteness’ as a binary feature ([±definite]), an assumption I am now convinced is not satisfactory. This matter is, however, not crucially relevant for the core issue raised here, which is the complementary distribution of lexical and functional possessors in Standard French.

4. Knittel (1998) argues that the suffix -a, which she labels ‘possessive’, indicates that the N has a theta-grid – more precisely, that it licenses an external argument. Correlatively, it systematically occurs in ‘possessive’ DPs.

5. The VP-shell idea (Larson 1988) is ignored here for lack of space, and the structure of the inflectional domain is, for similar reasons, simplified.

6. Although my phrasing and terminology (‘morphemes’) do not strictly comply with Anderson’s (1992) framework, I believe that the assumption put forward here is essentially compatible with his analysis of special clitics. According to this author (who follows in this respect Klavans 1985), (special) clitics are crucially characterized as elements which spell out phrasal inflectional features, phonetic deficiency standing as a frequent though not nec-
essary property of this class. Under this view, the postnominal possessive pronoun lui in 
(8′b)/(26b) should be identified as what Anderson calls a ‘clitic’, although it does not behave 
phonologically as what Zwicky (1982) calls a ‘leaner’. I prefer to define clitics as (a subclass 
of) leaners (true to etymology: Gr. klinein ‘to lean’), which leads me to describe lui in (26b) 
as the nonclitic spell-out of a phrasal inflectional feature.

7. Une boîte de Jean could only be licensed if boîte ‘box’ was identified in the lexicon as a 
creation, Agent-licensing noun, similar to, e.g., tableau ‘picture’ (un tableau de Rembrandt ‘a 
picture by Rembrandt’). Within an Agent de Phrase, lexical and functional Agents alternate 
freely: un tableau de Rembrandt ‘a painting by Rembrandt’, un tableau de lui ‘a painting by 
him’; hence, une boîte de Picasso ‘a box by Picasso’, une boîte de lui ‘a box by him’. In (29) and 
below, I treat boîte ‘box’ as a prototypical NON theta-assigner.

8. Liliane Tasmowski came up with the following example, which she regards as fine:

(i) Qu’est-ce que ce truc-là dans l’armoire? Ah mais j’y suis, c’est un vieux tablier de Jean,
qu’il portait pour dessiner quand il était enfant.’What could be this thing in the cup-
board? Oh yes, I remember now, it is an old pinafore of John’s, which he used to wear 
as a child for art classes.’

My own judgment is that although (i) is indeed tolerable, there remains a sharp acceptability 
contrast between (iia) and (iib):

(ii) Qu’est-ce que c’est?
‘What is this?’
    a. C’est le tablier de Jean.
        lit. ‘It is the pinafore of John.’ = ‘It is John’s pinafore.’
    b. C’est un tablier de Jean.
        lit. ‘It is a pinafore of John.’

What these data suggest is that System 1-speakers may relax their grammar along the lines of 
System 2 whenever the discourse context strongly calls for a lexical possessor in an indefinite 
DP. This could be naturally described in terms of Optimality: (i) involves the violation of a 
constraint, but this violation (leading to System 2) is the mildest possible one, since it does 
not challenge the Ban on Dative Lexical Possessors, which is the backbone of System 1 (cf. 
fn. 9).

9. The ban on *la boîte à Jean (> la boîte de Jean) undergoes a systematic and class-conscious 
external reinforcement in French educated circles. French speakers who grew up in such 
families have been trained to be sharply aware of the impropriety of *la boîte à Jean. What 
I am suggesting in this paper is that this external social judgment actually has linguistic 
motivations. However, the special social awareness linked to *la boîte à Jean must also play a 
part, albeit peripheral, in the striking resilience of System 1 in today’s spoken French.
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References


External syntax
Chapter 6

Some notes on the structure of alienable and inalienable possessors

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1. Introduction: The possessor-possessum relation

Inalienable possession is taken to differ from alienable possession in that the two elements entering the former relation are semantically dependent (see Vergnaud & Zubizarreta 1992: 596). An inalienable object is a dependent entity in the sense that it is inherently defined in terms of another object, of which it is a part. Typically body parts (or kinship terms) are treated as inalienable possessed nouns. This is so because parts of human bodies, as is nose in e.g. John's nose, are defined with respect to a typical individual, which consists of a nose, two eyes, a mouth and so on. Alienable possession, on the other hand, is not a dependency relation of this type. The noun book as in e.g. John's book is not interpreted as being part of John. It could refer to a book that John wrote, possesses, bought and so on. Hence alienable possession calls for a possessor that does the acquiring, while inalienable possession is inherent, intimate possession that does not need to be acquired (see Seiler 1983).¹

As Dahl and Koptjevskaja-Tamm (2001) point out, however, the traditional labels alienable and inalienable give the impression that one is dealing with two different kinds of possession characterized in the literature in terms of e.g. permanence, inherentness or essentiality of the possessive relation and/or the 'relationality' of the head noun. However, the choice between alienable and inalienable constructions is seldom predictable from such general definitions; rather, the authors claim that what the alienability distinction means in most languages is that a set of relational nouns is singled out for 'special' treatment, and that this set always includes members of the noun group body part or kinship terms and so forth.² As Vergnaud and Zubizarreta also note, other nouns can function as inalienables by extension, and there is much variation among
speakers concerning the membership in this class. Even members of the body part or kinship terms class can have an alienable as well as a inalienable interpretation. However, the two possessors have a different relationship to the possessed noun in each case.

Syntactically, the semantic dependency characterizing inalienable possession is captured by the claim that inalienable possessors are arguments of the possessed noun. However, recent work on the structure of possessors blurs the distinction between them. In the next sub-sections I briefly review recent syntactic analyses of the two possessor types.

1.1 Alienable possession

In the syntactic literature several views have been put forward concerning the exact nature of the (alienable) possessor-possessum relation (see for instance den Dikken’s 1997 overview). The positions held can be roughly identified as follows. According to one view, possession semantics is a property of a functional head, which is roughly comparable to VoiceP in Kratzer (1994). On this view, possessors behave like external arguments of the possessed noun and thus are similar to subjects of verbal clauses (cf. Keenan 1974; Cinque 1980; Giorgi & Longobardi 1991; a version of this view is also found in Kayne 1993). Call this analysis A. Evidence for this hypothesis comes from the fact that, as Szabolcsi (1994), Anderson (1983), and Zribi-Hertz (1998) among others have shown, the structure of the possessive noun phrase parallels that of sentences. To account for this similarity, these authors concluded that possessors are located in the specifier position of a functional category, call it Nominal Infl, as shown in (1).

(1)  
```
DP
   Spec
   IP
   DP
   John
   I
   NP
   s
   book
```

The suggested parallelism between possessors and subjects is supported by the following Hungarian data discussed in Szabolcsi’s work. As (2b) shows, the
possessed noun agrees with the possessor bearing nominative case in number and person, much like the subject agrees with the verb in (2a):

(2) a. Mi irunk
   1.PL.NOM write-1.PL
b. Mi titkunk
   1.PL.NOM secret.SG-1.PL

Moreover, as Giorgi and Longobardi point out (Giorgi & Longobardi 1991: 31), possessors, much like subjects, can bind anaphors contained in the DP complements of the possessed noun. This is illustrated in (3):

(3) la descrizione di Mario, della propria madre
    the description of Mario of self’s mother

According to a second view, the relationship of possession is a predication relation between the possessor and the possessum with the latter functioning as the predicate nominal and the former as the subject of the predication. This analysis is to a great extent inspired by the analysis of the double object construction (see Kayne 1984; Gueron 1986). Call this analysis B. The relevant structure is given in (4):

(4) [[Bill] a book]

Finally, according to a third view, the predicator role is assigned to a prepositional element, the dative marker to, or the genitive marker of (see den Dikken 1995; Hoekstra 1994 among others). This is supported by the fact that in several languages, e.g. Latin, possession is expressed by a construction in which the possession relation is established via a copula and the possessor surfaces as a dative/genitive (cf. 5). Call this analysis C.

(5) liber est Marco
    book is Marcus.DAT

The structures in (6) offer two structural representations of this pattern. (6a) is proposed in den Dikken (1995), while (6b) is the structure proposed in Larson and Cho (2000). On this view, John’s car is derived transformationally from the string car to John:
Both the second and the third view treat the possession relation in terms of small clauses, where the possessor and the possessum are contained under the same maximal projection. Mainly the third one considers the possession relation as locational in nature (see also Kayne 1993; Freeze 1992; Lyons 1967; Benveniste 1966). At first sight, this is a welcome result, as across languages the cases used to mark the possessor are generally the genitive and the dative (see Clark 1978 for a survey on the basis of a sample of 30 languages). These are also the cases which are used in many languages to express locative relations. Furthermore, in a number of languages the possessor is treated explicitly as a locative nominal.

### 1.2 Inalienable possession

The syntactic treatment of inalienable possessors differs from that of alienable ones. The more or less standard view is that inalienable possessed nouns take a possessor argument (see Gueron 1984; Authier 1988; Tellier 1990; Vergnaud & Zubizarreta 1992; Español-Echevarria 1997 and references therein). The possessor argument has been argued to have the form of a null pronominal (see Gueron 1984; Tellier 1990). Others propose that the possessor argumental DP is located in a specifier position inside the projection of the noun, the difference between alienable and inalienable possessors being that the former are located higher in the structure (see (7) from Español-Echevarria 1997).

![Diagram of possessor arguments](image)

On the other hand, Vergnaud and Zubizarreta (1992) have argued that the structural representation of inalienable possession is suggestive of a complex predicate formation. (8) illustrates the structure they propose for the French external possessor construction.
Interestingly, (6) and (8) are very similar. And so are (7) and (1). At first sight, this seems to be a positive outcome, as in most languages the form for alienable and inalienable possession is the same (genitive, PP etc.). However, if this is so, then it is not clear how the semantic difference between the two possessor types is expressed in terms of structure (see also Español-Echevarria 1997 for some discussion on why the small clause approach is inadequate to deal with this distinction).

In this paper I discuss the behavior of alienable and inalienable possessors in Greek. I provide further evidence for the view that the two possessor types are distinct and thus should receive distinct structural representations, as has been argued for e.g. Japanese, although the language does not distinguish morphologically between the two types of possessor constructions. This view is supported by the morphological differences between the two types of possessors in languages that formally distinguish between the two.

The paper is structured as follows. In Section 2 I discuss certain syntactic differences between alienable and inalienable possessors. Specifically, I present evidence that inalienable possessors in Greek do not behave as independent DPs syntactically. I conclude that the two types of possessors cannot be analyzed on a par. In Section 3 I present data from other languages showing that inalienable possessors bear a marking similar to that of internal objects. These data support the conclusion drawn in Section 2. In Section 4 I present my proposal for the structural representation of possessors and my analysis of the word order patterns in the Greek DP. In particular I propose that inalienable possessors form a complex predicate together with the possessed noun. Alienable possessors, which refer independently, are external to the maximal projection which contains the possessed noun.

2. Inalienable possession in Greek

Consider the Greek examples in (9). (9a) is an inalienable possessor construction, while (9b) is an alienable one.
In these examples the possessed noun is preceded by its determiner and is followed by a possessor. The possessor is a DP or a possessive clitic, which is actually the weak form for the genitive of the personal pronoun. The DP possessors in both examples bear genitive case.

The two constructions differ in a number of syntactic environments. Consider predicative placement first. As the data in (10) show, alienable possessors can occur in post-copular position, while this is not possible for inalienable ones. This is in fact a characteristic of inalienable possessors in other languages as well, e.g. English or Dutch (see Grimshaw 1990; de Witt 1997: 146):7

(10) a. *the miti ine tu Jani
    the nose is the John.GEN
    ‘The nose is John’s’
b. to vivlio ine tu Jani
    the book is the John.GEN

With respect to this criterion, the behavior of inalienable possessors is similar to that of argumental genitives, while the behavior of alienable possessors is similar to that of other DP modifiers or adjuncts. As the contrast in (11) and (12) shows, PP modifiers of DPs (11a), like alienable possessors (10b), can modify the DP across a copula (11b). On the other hand, argumental genitives contained in process nominals cannot occur in predicative position (12):

(11) a. to vivlio ja ton Chomsky
    the book about the Chomsky
b. to vivlio itan ja to Chomsky
    the book was about the Chomsky

(12) *the katastrofi itan tu ktiriu
    the destruction was the building’s

Note here that Alexiadou and Stavrou (1999) took the grammaticality of (10b) as evidence for the predicative nature of the possessor in Greek (and in favor of analysis C). The relevant point here is that alienable possessors behave exactly like other elements not thematically marked by the head noun.

Second, inalienable possessed nouns in Greek cannot appear in the so called determinant spreading (DS) environment (label due to Androut-
Some notes on the structure of alienable and inalienable possessors

This restriction does not hold for alienable possessed nouns (13a vs. 13b):

(13) a. to oreo to vivlio tu Jani
     the nice the book the John

b. *i orea i miti tu Jani
     the nice the nose the John

DS is a characteristic of Greek definite DPs in which multiple occurrences of the same definite determiner in the same DP are possible. This is illustrated in (14), where each adjective is accompanied by its own determiner. The pre-adjective determiner is optional for pre-nominal A’s, but obligatory for post-nominal A’s.

(14) to vivlio to kokkino
     the book the red

Alexiadou and Wilder (1998), building on Kayne’s (1994) analysis of adjectives as reduced relative clauses, argue that the relation between the head noun and the adjective in (13a) and in (14) is one of predication, the adjective being the predicate of the noun ‘the book’ which functions as the subject of the small clause. The authors also point out that DS contexts lead to a referential interpretation of the DP associated with strong familiarity. Crucial for our discussion is that in (13a) the possessed noun is modified independently of the presence of the possessor making reference to a specific nice book that John possesses or has written. Using the inalienable construction in DS as in (13b) results in making reference to a specific nice nose of John’s, suggesting that he has another nose, which is not pretty. Hence (13b) is ruled out, basically because the relation in (13b) expresses uniqueness; the possessed noun cannot refer independently from the possessor.

In fact there appear to exist certain restrictions as to what types of adjectives may modify inalienable possessed nouns (see Gueron 1984; cf. Kayne 1975). In French, descriptive adjectives such as ‘silky’ can modify the possessed noun in the so-called internal possession construction (15), but not in the external one (16).

(15) Le coiffeur a peigné ses cheveux soyeux
     ‘the hairdresser combed her silky hair’

(16) *Le coiffeur lui a peigné les cheveux soyeux

Modification by descriptive modifiers is also possible in the Greek counterpart of the French internal construction (17). However, speaker or subject oriented modifiers seem odd:
(17) I kommotria htenise ta metaksenia / ?'gera malia tu
the hairdresser combed the silky strong hair the
Jani
John.GEN

Vergnaud and Zubizarreta argue that in French the possessor in (15) is located in Spec, DP. Obviously this cannot be the right structure for the Greek examples. The possessor co-occurs with the determiner, and it is always post-nominal. Under the assumption that in the Greek DP, Spec, DP does not follow D', this means that the possessor is contained in a lower projection.

Note further that there is transparency in adjectival modification. Adjectival modification can be construed with the possessor and not with the possessed element in the inalienable construction, but not in the alienable one; (18b) is bad under the reading on which the adjective refers to John. (18a), on the other hand, has the interpretation that John was brave, and not his bones:

(18) a. t’ andriomena kokala tu Jani
    the brave bones the John.GEN
    lit. ‘The bones of brave John’
    b. *ta endiposiaka vivlia tu Jani
       the impressive books the John.GEN

If the inalienable possessor does not appear in the genitive, then it bears the same case as the possessed noun. This is never the case with alienable possessors:

(19) a. piga s-tin akri to potami
    went.1.SG to the edge.ACC the river.ACC
    ‘I went to the river’s edge’
    b. anevika tin korifi to vuno
       climbed.1.SG the top.ACC the mountain.ACC
       ‘I climbed to the top of the mountain’

This means that the whole complex is selected by the V or P and behaves like one unit. Furthermore, the inalienable possessor cannot be accompanied by quantificational elements, as is shown by the ungrammaticality of (20a).

(20) a. *i miti olon ton pedion
     the nose all the children.GEN
     b. to vivlio olon ton pedion
        the book all the children.GEN
If the two DPs could refer independently, there should be no reason for the ungrammaticality of (20a). (20a) is interpreted as referring to a nose in the possession of all children, which is non-sensical.

A final difference between the two possessor types relates to the ability of possessors to appear within double object constructions (see the discussion in Cheng & Ritter 1987). There is a long standing intuition in the literature (see Pinker 1989; Hoekstra 1994; Harley 1995; den Dikken 1995 among others and references therein) that the two arguments in the double object construction entertain a possession relation, which shows sensitivity to the [±human/animate] nature of the goal. As a result, (21b) is ungrammatical, but (21c) is fine. On the other hand, in the PP construction the relationship between the theme and the goal is locational. Thus (21a) is grammatical.

(21) a. I sent the letter to France
b. *I sent France the letter
c. I sent John the letter

The contrast in (22) shows that inalienable possessed nouns and their possessors cannot appear in the double object construction, while alienable ones can:

(22) a. I gave John the book
b. *I gave John the arm

Greek patterns similarly. (23b) is ill-formed. (23c) is equally ungrammatical, since the relation between the possessed noun and the inalienable possessor is not a locational one either (see note 6). Note that both (23b) and (23c) may be grammatical but only under the following reading: ’I gave my hand to John’. On the other hand, (23a) does not have this reading. In this example the book enters in the possession of John. The book could belong to me or to somebody else.

(23) a. edosa tu Jani to vivlio
gave.1sg the John.gen the book.acc
b. *edosa tu Jani to heri
gave.1sg the John.gen the hand.acc
c. *edosa to heri sto Jani
gave.1sg the hand to John

This correlates with the semantic difference between the two types of possessors, according to which alienable possession calls for a possessor that does the acquiring, while inalienable possessed objects need not be acquired.
To sum up, in this section I presented syntactic evidence pointing to the conclusion that inalienable possessors have a tighter relation to the possessed noun that alienable ones. In the next section I turn to certain morphological differences between the two types of possessors across languages.

3. Possessor marking

In the previous section I presented syntactic evidence in favor of the view that alienable and inalienable possession are distinct in Greek. However, as already mentioned, both types of possessors bear the same case in Greek, namely genitive. But there are languages which mark inalienable possession differently from alienable possession. As Nichols (1992) observes, inalienable possessors tend to always occur with possessive affixation, while alienable ones can be used alone. In certain languages, the following pattern can be observed: inalienable possessives and object pronominal objects tend to be marked alike (cf. Seiler 1983; Koenig & Haspelmath 1998 for a recent discussion). For instance, in North American Indian languages, where possession is expressed by two different series (alienable vs. inalienable), the form of the inalienable possessor is in fact identical to the form of the pronominal object (cf. 26 after Seiler 1983: 94):

(24) SUBJ OBJ POSS Zuni
    SG.1 ho’o hom hom
    SG.2 t’o’o t’om t’om

Another similar case is Assiniboine (a Siouan language, data from Seiler 1983).

(25) SUBJ OBJ POSS (I) POSS(A)
    SG.1 wa ma ma mitá
    SG.2 ya ni ni nitá

In certain cases inalienable possessors pattern like complements of the nominal head. In Maori, a Polynesian language, possession is marked by one of the two particles, a for alienable possession and o for inalienable possession. In nominalizations the theme argument is marked with the inalienable particle o (cf. (26) taken from Koptjevskaja-Tamm 1993: 141f.):

(26) a. te epa-nga o te kupenga e te tangata
    ART throw-AN IN.Poss ART net AGT PRT man
    ‘the throwing of the net by the man’
Some notes on the structure of alienable and inalienable possessors

b. te poaka o te rangarita
   ART pig  IN.Poss ART chief
   ‘the chief’s pig’

In other languages, inalienability is formally marked in the same way as nominal classification (Chappell & McGregor 1989). On the other hand, alienability is always formally distinct from classification, and is normally realized by overt morphological marking typically on the dependent constituent. This is illustrated below with an example from Tolai (from Chappell & McGregor 1989: 25):

(27) a. kau-gu vavina alienable
    poss-my woman
b. tura gu inalienable
    brother my

In Tolai the common denominator of the alienable possessive construction is coded by the possessive classifier -ka. The construction marked by -ka is ‘an active voluntary or controlling relationship such as temporal ownership, or as personal relations other than kinship which presuppose selection’. This marking is absent in the case of inalienable possession.

To sum up, inalienable possessors do not behave semantically, syntactically or morphologically like alienable ones. The former show a great degree of dependency on their possessed noun. This leads me to propose that their structural representation should be sufficiently different from that of alienable possessors in order to capture these differences.

In the next section, I outline my proposal to capture the differences just presented. Building on analyses A and B (see Section 1.1), I propose that alienable possessors are introduced by a functional head external to the possessed noun. On the other hand, inalienable possessors form some sort of complex predicate together with the possessed noun. My analysis differs from analysis A in that, like analysis B, it capitalizes on the affinity between alienable possession and the double object construction, as this has been recently analyzed by certain authors. A brief summary of a recent such an analysis is presented in Section 4.1.
4. The two structures for the two types of possessors

4.1 Alienable possessor introduced in PossP

Marantz (1993) proposes that the structure of the double object construction involves a light head introducing the goal argument, while the analysis of the prepositional construction involves a small clause (see also McGinnis 1998; Anagnostopoulou 1999). The proposal runs as follows. In double object constructions, the direct object is introduced by the lexical verb, the indirect object by an applicative head, called R by McGinnis, and the external argument by a causative v (28). An analysis involving a second abstract head in the double object constructions accounts for the fact that there are two objective Cases for the two DP objects (Marantz 1993; Pesetsky 1995). The main idea here is that this head is a light verb similar to the causative verb introducing the external argument in transitive constructions. On the other hand, in the PP construction the goal is contained within the same VP containing the theme (29):

(28)
```
  vP
    \__________v'______
       \____________v
           \______RP_____\v
gave  Archy  R'  R  VP
       \_________\________\
           V  a book
```

(29)
```
  VP
    \__________v'______
       \____________v
           \______PP_____\V
```

Recall that according to analysis B, the relation between the two elements in the double object construction is one of alienable possession, and according to analysis A, alienable possessors are subjects in the DP. Bringing these two together, I take the possessor in the alienable construction to be introduced by a light functional head, call it Poss, the equivalent of R/v in (28).
On the other hand, since inalienable possessors are semantically and syntactically dependent on the possessed noun, I propose that they form a phrase together with it. This complex formation can be thought in the following terms. The possessor is the complement of the possessed noun. (Alternatively one could suggest that the possessor is a complement of a light head which encodes the semantics of ‘part–whole’ relation.) (30) and (31) illustrate the proposed structures for alienable and inalienable possessors respectively.

(30) Alienable Possession

\[
\begin{array}{c}
\text{DP} \\
\text{D} \\
\text{FP/PossP} \\
\text{PossessorF'/Poss'} \\
\text{F/Poss} \\
\text{NP}
\end{array}
\]

(31) Inalienable Possession

\[
\begin{array}{c}
\text{DP} \\
\text{D} \\
\text{XP} \\
\text{possessed} \\
\text{possessor}
\end{array}
\]

The difference between the two structures has to do with the fact that in (31), the possessor and the possessed noun are included under the same XP, while this is not the case in (30). The XP in (31) is a type of projection that can be considered both as a minimal and as a maximal one at the same time (see Chomsky 1995). This captures the fact that the possessed noun and the possessor behave as one unit in the case of inalienable possession, but not in the case of alienable possession.

The above proposal captures the differences between the two constructions discussed in Sections 1–3. Under the proposed analysis, inalienable possession patterns with complex predicate formation, while alienable possession reflects a subject/agent relation between the possessor and the possessed noun. The object-marking associated with inalienable possessors is accounted for, since under the view expressed here these appear in a position similar to that of internal arguments of nouns.
4.2 Deriving the Greek word order patterns

Assuming that (30) constitutes the structural representation for alienable possessors causes a problem with respect to the relative order of the possessed noun and the possessor in Greek. In all the examples cited above the possessor follows the head noun, much like the situation found with inalienable possessors. This is one of the reasons why Alexiadou and Stavrou (1999) proposed that the genitive is in fact a predicative PP along the lines of analysis C. Such an analysis correctly derives the word order patterns observed. Under (30) in order to account for the N(oun) > genitive order I must assume that head movement takes place within the DP. In the case of inalienable possession, in principle no movement is necessary, as the structure in (31) correctly derives the surface word order.

Note that assuming analysis C for alienable possessors does not immediately equate the two possessor types. Analysis C differs from (31) in that it assigns a more independent status to the alienable possessor. One could maintain this analysis and further claim that alienable possessors are ‘deep’ subjects in the sense of Alexiadou (2001a), i.e. they are like instrumental phrases. However, the behavior of possessors and ‘deep’ subjects is not identical. Alienable possessors are not interpreted as ‘passive’ agents, they are rather interpreted as active agents. There is another reason for not adopting the analysis in Alexiadou and Stavrou (1999). Harley (1995) observed that languages that lack the double object construction have the following properties: they use auxiliary be for possession and in the perfect, i.e. express possession via the locational pattern, i.e. pattern C. Greek lacks these properties and does have the double object construction. If this is so, then it is surprising why, when it comes to possession, Greek uses the locational pattern, while it is not well-behaved with respect to the other properties that go with it.

Before I come to my proposal on the word order pattern, the following remarks on the structure of the Greek DP are in order (see Alexiadou 2001a, b; Alexiadou & Stavrou 1999, for further discussion). Apart from D, Poss and N, the structure of the Greek DP contains a further functional projection labeled FP. The argument for the presence of such a projection was based on a comparison between Greek nouns and their Romance counterparts for which it has been argued that their extended projection contains the functional categories of gender and number (Picallo 1991; Bernstein 1993). I briefly summarize this argumentation here.

Observe the contrast between (32) and (33). In (32) Spanish nouns clearly inflect for gender: nouns ending in -o are normally masculine, while the ones ending in -a are normally feminine. The only morpheme that can follow the gender ending is the plural suffix, -s (see Bernstein 1993). This means that gender (or Word Marker) and number are clearly marked with two discrete morphemes that can be isolated in the form of the noun. Greek noun morphology differs. Although nouns
in Greek show gender distinctions, such distinctions are not marked morphologically. In other words, inherent gender is not spelled-out on nouns. In no case can gender marking be clearly dissociated from a number marking. As (33) shows, case morphology cannot be separated either:

\[(32) \quad \text{muchach-o-s} \quad \text{muchach-a-s}
\quad \text{‘boy’} \quad \text{‘girl’}
\text{abuel-o-s} \quad \text{abuel-a-s}
\quad \text{‘grandfather’} \quad \text{‘grandmother’}\]

\[(33) \quad \text{a. o \ anthrop-os} \quad \text{b. i \ anthrop-i}
\quad \text{the man-M.sg.nom} \quad \text{the man-M.pl.nom}\]

Whether this is the correct analysis of the Spanish/Romance pattern or not is outside the scope of this paper (see Alexiadou 2001b). But for the purposes of our discussion, it suffices to note that on the basis of the above evidence, Piccallo concluded that Number and Gender (or Word Marker for Bernstein) constitute functional projections contained within the extended projection of all Romance nouns, as shown in (34). On the other hand, only one functional projection is included in the extended projection of the Greek noun, labeled F, which subsumes number and case endings.

\[(34) \quad \text{[DP \ [NumP \ [GenderP \ [NP \ ]]\]]]\}

Now in order to capture the order N > genitive, one would have to assume that N raises to F^0, as illustrated in (35):

\[(35) \quad \text{[DP to \ [FP vivlio, \ [PossP tu \ Jani \ [NP t, \ ]]]\]
\quad \text{the book \ the John.gen}\]

However, (35) is not unproblematic. In fact it has been argued that Greek lacks N-raising altogether (Alexiadou & Stavrou 1998). One of the main arguments against an analysis of the N > genitive pattern as involving N-raising has to do with the fact that when the noun is modified by an adjective, then the order remains AN. This is not the case in Romance, where the order is NA (see the aforementioned references):

\[(36) \quad \text{to \ kokino \ vivlio}
\quad \text{the red \ book}\]

Assuming an analysis of adjectives according to which these attach to functional projections inside the DP (Cinque 1994) and that the order NA is derived via head raising to a functional projection within the DP, (36) suggests that Greek lacks N-raising.
There are two possibilities. The first one is to maintain that N-raising does take place within the DP but only when a possessor is present, if one makes the following diachronic observations. These relate to some changes in the determiner system of Greek. In Classical Greek the determiner could host clitic like elements, i.e. particles, within the DP. This is no longer the case in Modern Greek. Rather the determiner has become a clitic element, which is in itself in need of a host. In other words the Modern Greek determiner is merely an agreement marker (see Karanassios 1992; Stavrou 1996). Being an agreement marker it needs to be in the environment of elements it agrees with. On this view, it can attach to an element bearing agreement features, such as an adjective or the head noun, but not to the possessor with which it does not enter an agreement relation. Head-movement in this case provides the necessary environment. This does not seem a satisfactory explanation, as, in case the noun is modified by an adjective the word order is Adj-N-Gen. Since all adjectives precede the head nominal, one would have to assume that they all adjoin to FP. This is not a welcome result, as recent typologies of adjectival present a finer-grained classification. Alternatively, one would have to assume that the Adj and the N form a complex head which raises as one unit in the syntax (see Stavrou 1998 for discussion on adjectives in Greek). Note though that Adj-N compounding is limited to certain adjectives only, namely classificatory ones (see Stavrou op.cit.) and it cannot be assumed for speaker/subject oriented adjectives such as 'nice', which are presumably located in Spec, FP.13

On the other hand, one could adopt Kayne's (1994) analysis, according to which alienable possessive constructions have a structure similar to relative clauses, which are CPs embedded under D0, as shown in (37) with a French example. This analysis does not deny the subject-like character of alienable possessors. These are in fact subjects in the relative clause:

(37) la [CP [NP voiture] [de [IP Jean [e]]]]
the car of John

On this view, the Greek examples would involve fronting of an XP to Spec, CP instead of head raising to F0, as shown in (38) (cf. den Dikken 1998). Note that under this hypothesis the structure of the noun phrase containing a possessor is not identical to the structure of the DP containing classificatory adjectives. In other words, possessed DPs are clausal-like, while examples like (36) are not:

(38) to [CP [DP aftokinito] [PossP tu Jani [e]]]
the car the John

What motivates this type of movement? As in the head raising analysis for relative clauses, the movement of the NP to Spec, CP is triggered by the need of the external determiner to be associated with a noun phrase in its range. The latter analysis
does not create the problem of having to assume that head raising is optional in the Greek DP, as is the case with the former analysis, where head raising applies only when a genitive possessor is contained within the structure. On this proposal, adjectives, depending on their type, are situated either internal to NP, in which case they are fronted together with N, or in functional projections between D and C (see Alexiadou & Wilder 1998; Alexiadou 2001b for details).

5. Conclusion

In this paper I discussed some semantic, syntactic and morphological differences between alienable and inalienable possessor constructions across languages with particular reference to Greek. I argued that these differences are the reflex of different underlying representations for the two types of possessor relations.

Notes

* A preliminary version of this paper was presented at the Conference on the Syntax, Pragmatics and Semantics of the Noun Phrase in Antwerp in February 2000. Many thanks to the audience and especially to Melita Stavrou for discussions. I am indebted to one anonymous reviewer for his/her suggestions and comments. The research reported here was partially supported by the DFG grant AL 554/1-1.


2. Note that these two noun groups are alike in that they can both participate in the inalienable construction, but they differ in that body part are inanimate nouns, while kin terms are animate nouns.

3. The two authors compare the relationship between the alienable and the inalienable versions of certain nouns to the causative-inchoative alternation.

4. Keenan (1974) observes several similarities between possessors and subjects, mainly with respect to pronominalization and quantification, which for Keenan follow from their logical similarity.

5. Hoekstra (1995:135) points out that inalienable possession cannot be rendered by a locational construction. In general, whether a particular relation can be represented as a possessive one is determined by parameters related to humanness, control, part-whole or the naturalness of the relation. Some examples are given in (i):

(i) a. John has a big nose / *there is a big nose on John
    b. the tree has branches / ??there are branches on the tree
6. The order in (i) is also possible, and it has been analysed as involving focalization, i.e. movement of the possessor to Spec,DP (Horrocks & Stavrou 1987):

(i) tu Jani to vivlio
    the John.gen the book

7. Zribi-Hertz (1997) and references therein observes that possessive marking as in e.g. *This book is John's* may be instantiated either by the genitive or the dative case in languages that have this distinction. The two cases have different relations to the possessed noun. A case in point is Latin (and Classical Greek). In (i) the reading is one of *possession*, i.e. the book belongs to Mark; in (ii) the reading is one of *relation*, i.e. the book is Mark’s book/one:

(i) liber est Marco vs. (ii) liber est Marci
    book is Mark.dat book is Mark.gen

Relation is described as an intrinsic connection between possessor and possessee, which boils down to the predication relation. The structures underlying the two examples are different, the latter one involving an ellipsis construction. Greek lost the distinction between the genitive and the dative, the modern language using the genitive in contexts were the dative was used. In principle the Greek example in (9b) could also be ambiguous. This does not affect my argumentation here.

8. The same applies for the French example in (i) pointed out to me by an anonymous reviewer.

(i) Je lui donne la main
    I him give the hand

9. The issue arises whether the two are transformationally related or not. Den Dikken (1995, 1998) argues that the two patterns of di-transitive verbs as well as the two possession patterns, e.g. *car to John and John’s car*, are related via a transformation.

10. The proposal expresses structurally certain observations about how the Flow of Affectedness should be structurally represented within possessor constructions (cf. Marantz 1993). A partial illustration is included in (i).

(i) Flow of Affectedness

<table>
<thead>
<tr>
<th>alienable possessor</th>
<th>inalienable possessor</th>
</tr>
</thead>
<tbody>
<tr>
<td>goal</td>
<td>theme/patient</td>
</tr>
<tr>
<td>Event 2</td>
<td>Event 1</td>
</tr>
</tbody>
</table>

Intuitively, one must affect the possessor of an arm, or other inalienable possession when one affects this possession, much like one affects the them argument of a verbal head. However, this does not apply for alienable possessors, as well as for agents. In other words, the possessor in the alienable construction must be thought of as being external to the possessed noun, introduced by a light functional head, while the inalienable possessor must be thought of as forming a phrase together with the possessed noun. Thus, goal arguments in the double object construction and alienable possessors are of one and the same type.
11. Note that the fact that in certain languages inalienable possessors bear classifier marking is also explained, if one assumes that the structure of classifiers is of the type in (31), see Uriagereka (1998).

12. Note that in Classical Greek, possessors could appear before the head noun (cf. (i)), as well as following it, as in Modern Greek. Only after the Koine does the order N > genitive become the prevailing one.

(i) ho 

\[
\text{Ku ro} \quad \text{stolos}
\]

\[
\text{ART} \quad \text{POSSessor} \quad \text{Noun}
\]

'\text{the expedition of Cyrus}' X.A. 1.2.5

(i) could be analysed in terms of the structure in (30). One could further assume that the possessor moves from its base position, Spec,PossP to the specifier position of FP. Evidence that possessors in Classical Greek move to this projection comes from the fact that they never co-occur with adjectives (Manolessou 2000).

13. Note that if one follows Karanassios (1992) and Stavrou (1996) in their analysis of the determiner as occupying F0 and moving to D0, then the head movement analysis suggested above could not be maintained. In any case, on both accounts the movement takes place in order for the article to be associated with an agreeing element in its range.

References


Inalienable possession and the interpretation of determiners

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1. Introduction

Inalienable possession (IA) is a construal associated with certain structures containing two nominal constituents, one of which denotes a body part (the Body Part (BP) DP) while the other denotes a human being construed as the possessor of the body part (the POSS DP).

Ideally, the grammar associates every construal with a single syntactic structure. In wh-constructions, for example, an overt or covert operator is invariably located in a sentence-initial position where it takes scope over the entire sentence. In passive and middle constructions, the internal argument of the verb raises to matrix subject position, passing over a non-realized or syntactically “demoted” external argument. Because the IA construal is triggered by a variety of sentential structures, it seems at first that one cannot associate it with a single syntactic configuration.

In the eventive sentence (1a), for example, the subject realizes the POSS argument and the direct object the BP DP. In (1b) the BP DP is the direct object while the possessor is a Dative DP. In (1c) the direct object realizes the possessor argument while the BP DP is embedded in a PP modifier of V.

(1) a. Jean lève le bras.
   'John raises the hand'
b. Je lui ai pris le bras.
   'I took him the arm'
c. Je le frappe sur le bras.
   'I hit him on the hand'
The situation is similar for the stative sentences of (2). In transitive (2a), the object is the BP DP and the subject is the POSS DP, while in unaccusative (2b), the POSS argument is realized by a dative DP. In (2c) the POSS is subject of the matrix sentence and the BP DP is subject of an adjunct small clause.

(2) a. Jean a les yeux bleus.
   'John has blue eyes'

b. Les cheveux lui descendent jusqu'à la taille.
   The hair to.her goes down.to the waist

c. Marie est entrée, la tête haute.
   'Mary entered, head high'

Moreover, the syntactic structures which can be associated with the IA construal vary over languages, as we shall see in comparing French and English. Finally, any syntactic structure associated with the IA construal is associated with other construals as well. In (3), for example, à DP is construed as inalienable possessor in (3a), goal in (3b), source in (3c), benefactive in (3d), and "alienable possessor" in (3e).

(3) a. J'ai tordu le poignet à Pierre.
   'I twisted the wrist to Pierre'

b. J'ai donné un livre à Pierre.
   'I gave a book to Pierre'

c. J'ai pris un livre à Pierre.
   'I took a book "to" (from) Pierre'

d. J'ai cassé sa tirelire à Pierre.
   'I broke his piggy-bank to Pierre'

e. Je ne connais pas de maîtresse à cet homme.
   'I do not know (of) any mistress to that man'

These data are compatible with a grammar which requires a one-to-one relation between a construal and a corresponding syntactic structure if, as we will propose, the structure which corresponds to the IA construal, contrary to that associated with say, a wh-quantificational or a passive construal, is simply smaller than a sentence.

We will propose that the same syntactic configuration underlies both "inalienable" and "alienable" possession. The difference between the two reduces to the value of a single formal feature (FF) of the determiner of the "possessed" nominal.

If the syntax of IA is a problem, so is its semantics. The notion of possessor is not really adequate. You cannot, for example, replace avoir in (2a) by posséder
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(*Jean possède les yeux bleus*). I assume that the grammar does not contain the term Possession as a categorial, theta-role or any other Formal Feature. Rather, the IA construal is derived, like all construals, compositionally, by calculating the interpretation of the syntactic structure and that of its atomic elements, the formal features of the constituents of the structure.

In studying the structure underlying IA in French and English, we hope to contribute to the understanding of related structures and other grammatical properties of these languages. Our main goal, however, is to show how the analysis of detailed and subtle empirical data is compatible with the theoretical project of reducing the grammar to the simplest possible mechanisms, as outlined in Chomsky (1995, 1999).

1.2 The paper is organized as follows. In Section 2, we illustrate the major IA structures in French and English.

In Section 3, we review our earlier theory (Guéron 1983, 1985) according to which the IA construal is subsumed by Binding Theory.

In Section 4, we present a new theory of IA which has the following features:

i. We maintain the claim that IA is Binding, but define Binding as a relation between formal features rather than between syntactic constituents.

ii. We maintain our earlier claim that the difference between French and English with respect to the IA construal is a function of the grammatical status of the determiner of the body part DP. We will propose here, however, that while *the* is a determiner in English, *le/là/l'es* is not a determiner in Romance.

iii. We will claim that in both French and English, IA reduces to anaphoric feature binding in certain cases and to pronominal feature binding in others.

2. IA structures in French and English

2.1 French has three basic structures associated with the IA Construal.

In Structure I, (4), the BP DP is realized as the direct object and the subject denotes the possessor (POSS).

(4) Structure I

a. Jean lève la main.

'Jean raises the hand'
b. Jean donne la main à Marie.
   ’Jean gives the hand to Marie’

In a variant of I, which a reviewer pointed out, the BP DP is apparently embedded in a prepositional phrase.

(4) c. Jean claque des dents.
   ’Jean chatters of the teeth’

d. Jean fait signe de la main
   ’Jean makes (a) sign with the hand’

In Structure II, (5), the direct object realizes the body part while a clitic or full Dative DP denotes the possessor.

(5) Structure II
   a. Je lui prends la main.
      I him take the hand
      ’I take his hand’
   b. Je prends la main à la petite fille.
      I take the hand to the little girl
      ’I take the little girl’s hand’

In Structure III (6), the direct object denotes the POSS DP, and the BP DP is within a PP embedded in VP.

(6) Structure III
   Marie a frappé Jean sur la main.
   Mary hit John on the hand

2.2 Structures I and II exist in English but they do not allow the IA construal.

(7) Structure I
   a. *John raised the hand.           (cf. (4a))
   b. *John gave the hand to Mary.     (cf. (4b))

(8) Structure II
   a. *I took him the hand.            (cf. (5a))
   b. *I took the hand to/for the girl. (cf. (5b))

(7) becomes grammatical if we replace the hand by his hand.

(9) a. John raised his hand.
    b. John gave his hand to Mary.
As French (4a–b) and English (7a–b) differ only in the morphosyntactic form of
the determiner of the body part DP, we will assume that the IA construal is sensitive
to this factor.

The sentences of (8), do not, however, become grammatical in English if we
replace the hand in (8) by his hand in (10).

(10) a. *I took him his hand.
b. *I took his hand to/for the boy.

Independently of the difference in the shape of the determiner, the contrast be-
tween French (8) and English (10) stems from a difference between the two lan-
guages in the construal of double object structures. Roughly, in a French eventive
sentence, a dative DP can instantiate either the Source argument, as in (5), or the
Goal argument, as in (4b), whereas in English, an indirect object cannot realize the
Source. So while French, je lui ai donné la main corresponds, modulo the deter-
miner difference, to I gave him my hand, there is no English analogue to je lui ai pris
la main. An explanation of this difference goes beyond the subject of this article.

3. Inalienable possession as binding

3.1 Introduction

In Guéron (1983, 1985), we pointed out that syntactic constraints on the IA con-
strual are essentially the same as those on anaphoric binding.

3.1.1 Constraints on the IA construal

i. The possessor is obligatory.

(11) a. Jean a les yeux bleus.
    Jean has the eyes blue
    'Jean has blue eyes'
b. (Marie, en admirant Jean)
    'Les yeux bleus sont charmants.
    '(Marie, admiring Jean –) The blue eyes are charming'

ii. Locality. The POSS DP must be in the same minimal argument domain as the
    BP DP.

(12) a. Jean, semble [t, lui, prendre la main,]
    Jean, seems [t, to her/him, to take the hand,]
    'Jeans seems to take her/his hand'
b. *Jean, lui, semble [t_{i} prendre la main_{i}].
Jean, seems to him/her [t_{i} to take the hand_{i}]
‘Jean seems to him/her to take the hand’

iii. Asymmetric c-command. The Possessor must c-command the body part nominal or its trace. In (13a–b) and (14a) below, the direct object is in a base-derived position lower than that of the subject or indirect object. In (13c) the object has been raised by passive movement leaving a trace in the DO position. In (14b), the direct object of an unaccusative verb has raised to subject position.

(13) a. Jean, lève la main_{i}.
‘Jean raised the hand’
b. L’ennemi lui, a arraché la main_{i}.
the enemy to.him pulled.out the hand
‘the enemy pulled out his hand’
c. La main_{i} lui, a été arrachée par l’ennemi.
the hand to.him was.pulled.out by the enemy

d. Les yeux lui, sortent de la tête_{i}.
the eyes to.him jump.out of the head

(14) a. Jean, tourne la tête_{i}.
‘John turns the/his head’
b. La tête_{i} lui, tourne t_{i}.
The head to.him turns
‘His head is spinning’

Note that the unaccusative status of the verb tourner in (14b) depends on its denoting a physical sensation rather than a change of position. The antecedent is construed as agentive in (14a) but as benefactive in (14b).

(15) a. *Les cheveux, entourent Marie;
The hair surrounds Marie)
The eyes to her/him protrude)

3.1.2 Constraints on anaphoric binding

i. Obligatory antecedent

(16) a. John hates himself.
b. *I hate himself.
ii. Locality

(17) a. John persuaded Mary \(_1\) [PRO\(_1\) to wash herself\(_1\)]
   b. \(^{*}\) John\(_1\) persuaded Mary\(_1\) [PRO\(_1\) to wash himself\(_1\)]

iii. Assymetric C-command

(18) a. John perjured himself.
   b. \(^{*}\) John’s mother perjured himself.

On the basis of the identity of the structural constraints on the anaphoric and the IA construals of disjoint nominals, I proposed that the IA construal corresponds to one form of anaphoric binding, that of obligatory control (cf. Manzini 1983). The a. and b. sentences of (19) and (20) are thus parallel.

(19) a. Jean \(_1\) veut [PRO\(_1\) venir]
   b. Jean, lève [LA\(_1\) main]

(20) a. Je lui \(_1\) dit de [PRO\(_1\) venir]
   b. Je lui, prend [LA\(_1\) main]

3.2 French vs. English

I attributed the difference between French and English in Structures I and II to the morpho-syntactic shape of the determiner of the body part DP.

The French determiner le, la, or les, marked for number and gender, is homophonous with the third person pronominal clitic. I proposed that anaphoric binding is a form of agreement between the Θ-Features of disjoint constituents. I claimed that only a determiner with agreement or Θ-Fs can be identified in syntax as an anaphor, licensing the IA construal.

This hypothesis made the strong testable prediction that the IA construal of Structures I and II exists in all languages in which the definite determiner is morphologically non-distinct from a pronominal, where both have either overt Θ Fs, as in Romance or German, or phonologically null Θ Fs, as in Russian or Korean. It must be lacking in languages like English, Hebrew or Arabic, in which the invariable definite determiner is distinct from pronominal morphemes. Support for the hypothesis comes from English itself. While IA is excluded in English when the BP DP has a definite determiner, it is possible with an indefinite determiner.

(21) a. John wouldn’t lift a/*the finger to help.
   b. Raise one/*the hand for “aye”, two hands for “nay”.
   c. We held (*the) hands / linked (*the) arms / rubbed (*the) noses.
Unlike the definite determiner the, the indefinite determiner has a \( F \) for number: \( a \) is singular and \( 0 \) is plural. Moreover, the singular indefinite functions in its tonic form as either a determiner or a pronoun.

(22)  
\[ \begin{align*}
\text{a. } & \text{One drink is plenty.} \\
\text{b. } & \text{One should not drink too much.}
\end{align*} \]

The number feature of the indefinite determiner identifies it as a pronominal, subject to the binding relation which underlies the IA construal in Structures I and II.

I proposed that Structure III in (6) exemplifies not \( A \)- but \( A' \)-binding. In (23) below, the BP DP contains an empty category (\( ec \)) argument of the relational head \( N \). The \( ec \) is construed as a variable \( A' \)-bound by the possessor DP outside the nominal domain.

(23)  
I hit John on the head.  
I hit John, [PP on [DP the head \( ec \)]]

As \( \Theta \)-feature agreement, \( A \)-binding depends on the existence of \( \Theta \)-Features in the bound determiner. These exist in the definite determiner in Romance but not in English. \( A' \)-binding, on the other hand, depends not on \( \Theta \)-Fs but rather on universal semantic Fs such as \[ \text{[WH]}, \text{[NEG]}, \text{or [FOCUS]} \], so there is no reason for French and English to differ in Structure III.

3.3 Problems with our analysis

Our analysis of IA as \( A \) or \( A' \)-binding simplified the grammar by reducing the IA construal to phenomena already accounted for by established grammatical principles.

However, the analysis ran into problems, some noted in the earlier work, others not.

3.3.1 Morphological constraints on determiners and syntactic constraints on configurations do not sufficiently restrict the set of structures allowing IA. The IA construal is subject to lexico-semantic constraints which do not apply to anaphoric relations in general. In Structure I, some verbs which allow reflexive anaphora also allow IA anaphora, but others don’t.

(24)  
\[ \begin{align*}
\text{a. } & \text{Jean se lève. Jean self raises}
\text{b. } & \text{Jean lève la main. Jean raises the hand}
\end{align*} \]
   Jean self washes/scratches/tickles
   Jean washes/scratches/tickles the hand
(26) a. Jean s'aime.
   John loves himself
b. *Jean aime la main.
   John loves the hand
Structure II allows the action verbs of (25), but rejects stative verbs.
(27) a. Je lui lave/gratte/chatouille la main. (cf. (25b))
b. *Je lui admire la main.
   I to.him admire the hand
Structure III excludes not only stative verbs (29) but certain action verbs as well (30).
(28) a. I hit John's hand.
   b. I hit John on the hand.
(29) a. I admire John's hand.
   b. *I admire John on the hand.
(30) a. I crushed John's hand.
   b. *I crushed John on the hand.
These lexico-semantic constraints are independent of the morpho-syntactic form of the determiner. They apply to English Structure I with indefinite determiner as well as to French Structure I with definite determiner.
(31) a. Jean a levé / *admiré le doigt.
   John raised / admired a finger.
The attempt to account for the lexical constraints on IA led me to introduce supplementary machinery into the grammar. I proposed that V and DP reanalyze in Structure I. However, I did not further motivate this proposal nor show exactly how it functions.
To account for constraints on Structure II, I introduced the notion of lexical chain and a distinction between primary vs secondary theta roles which, as Koenig (1999) notes, were unmotivated. I will eliminate these notions.
Although I will maintain the hypothesis that Structure III involves A' binding, I need to explain why selectional constraints on IA are more restrictive than those which apply to A'-binding within DP.
3.3.2 The most severe problem with my earlier analysis of IA was not pointed out in print by anyone to my knowledge. It is this: if the relation between the disjoint DPs in I and II is anaphoric binding, like reflexivization or control, then why do the number and gender Fs of the BP DP not match those of the POSS DP in sentences like (33)? Mismatched features create ungrammaticality in reflexive or control structures, as shown in (34).

(33) Le jeune homme a levé les mains.
[ M.SG. ]  [ F.PL. ]
The young man raised his hands.

(34) a. *Le garçon s’est levé elles-mêmes.
[ M.SG. ]  [ F.PL. ]
The boy self raised themselves
[ M.SG ]  [ F.PL. ]
John wants PRO to leave alone

4. A new analysis of inalienable possession

4.1 IA as feature binding

Syntactic constraints on the IA construal, that is, locality and c-command, lead us to maintain the proposal that IA is a form of binding. However, we suggest that Binding Theory holds directly of formal features and only indirectly of the constituents which contain these features.

If binding is feature binding, then we can identify binding, agreement, and the checking relation described in Chomsky (1995, 1999). These all involve formal features, a semantic asymmetry between a [+interpretable] binder and a [–interpretable] bindee, and an identical or near-identical syntactic asymmetry based on c-command.

Here, I will informally use the term “binding” for agreement between two constituents in person, “agreement” for the binding of number or gender, and “checking” for either of these relations.

The main argument for reducing Binding to Feature binding is that binding of a person F and that of a number F can occur independently within an argu-
ment chain. It is not infrequent in natural language for one F to be bound by an antecedent F, while the other assumes a default value.

In (35), for example, pro, si, and its traces are all coindexed, yet verbal inflection shows the subject, pro or si, to be singular, while past participle agreement shows its traces to be plural.

(35) Si è stati invitati.

(proi) si è [ti stati, [ti invitati, t]]

“One is...have been invited’

In Classical Arabic, VSO sentence order is characterized by “poor” agreement between the verb and the subject. In (36a–b), verb and subject agree in person and gender but not in number: the verb is invariably singular.

(36) a. dahaba l’awlaad-u

left, m.sg the.children, f.pl-nom

‘the children left’

b. 7aa’-at ciddat-u fatayaati-n

arrived, f.sg several girls, f.pl-nom

‘several girls arrived’

Binding of the third phi-feature, gender, seems to be parasitic on either number agreement, as in (35), or person binding, as in (36) (cf. Renault 1987). This fact, if confirmed by further research, suggests that a binding relation requires an antecedent with a [+R] ([+REFERENTIAL]) feature.1 Unlike person and number, the gender F is not [+REFERENTIAL] in Romance. Agreement in [-R] Fs, such as gender (or case) would thus be parasitic on a Feature chain associated with a [+R] F like person or number.

The hypothesis that binding of person and number can occur independently suggests a solution for the problematic IA example (33), repeated in (37), in which the BP DP is feminine plural while the antecedent DP is masculine singular.

(37) Le jeune homme a levé les mains.

‘The young man raised the hands’

One might account for (37) by identifying IA with the binding of the sole person F of the BP DP. Yet this wouldn’t be right, for in the IA example (38), the POSS DP does not agree in person with the BP DP.
We claim that the IA construal depends on a feature chain linking the POSS argument and the BP DP, but the relevant FF is not person.

Before introducing and motivating the Feature in question let us first examine the difference between French and English determiners from the point of view of IA.

4.2 IA and the French determiner

As noted in Guéron (1983, 1985), on the basis of discussion in Kayne (1975), under the IA construal, the BP DP may not be interpreted as referential. (39a), and (39b) with restrictive adjective, are ambiguous: the BP DP may denote either an inalienable body part or else some object independent of the body of the subject DP. But in (39c), the presence of an evaluative adjective creates a presupposition of the independent existence of la main and excludes the IA construal.

Let us assume with Longobardi (1994) that D is the locus of nominal reference. More precisely, we propose that a nominal cannot refer unless (i) it has a determiner and (ii) the determiner contains a [+r] FF which establishes reference. The feature may be a specified person F, as in (40a) (where we assume mon to be in D); a demonstrative F, as in (40b) and, we claim, (40c); or a logical operator F which, when accompanied by a restriction, derives the iota operator, as in (40d).

(39)  a. Marie a levé la main.
    b. Marie a levé la main droite.
    c. *Marie a levé la jolie main.

(40)  a. mon livre (my book)
    b. that book
    c. the book
    d. the book that you bought

(39) showed that the BP DP must be construed as non-referential under the IA construal. Therefore, either there exist “expletive” determiners, lacking referential value, as claimed by Vergnaud and Zubizarreta (1992), contrary to what we have proposed, or else la must not be a determiner. (41) excludes the first alternative.

(41) The F-node which heads a phase (where CP, DP, . . ., define a phase) must contain a [+r] ([+referential] or [+interpretive]) FF.
Let us further assume that a phase must have lexical content. If so, then (41) distinguishes between *il in il faut partir, which may be expletive since it does not head a phase, and le of le livre, which, as head of a phase, may not be expletive. If a determiner must have a FF which establishes reference and if, as shown in (39), the BP DP of the IA structure has no reference, then le, la and les cannot be determiners.

4.2.2 I propose that le, la and les in French – and by extension in Romance – are not determiners but classifiers, such as exist in Chinese or Korean.

A classifier is an F-morpheme which contains a lexically based (ultimately semantically based) classifying F, such as “flat surface” or “handle” in Chinese or, we claim, gender in Romance. A classifier has typological, non-specific, lexical content. Reference, on the other hand, is specific: referential FFs link a nominal to the time and place of enunciation. A classifier thus cannot in itself establish reference any more than can a noun, which denotes a type and to which classifiers in many languages are diachronically related.

On the other hand, a morpheme with a [+r] F, such as the person F of French lui or English he, cannot be construed as a classifier but only as a pronominal. This accounts for the contrast between le livre and *lui livre or *he book.

A classifier projects a ClassP in syntax. Its head Class dominates an NP whose head N will raise to Class to check a FF. ClassP must itself be dominated by D or by some F head with can raise to D to establish reference.

ClassP is directly dominated by Number in Chinese but merges with number in French. In both languages, NumberP is in turn dominated by D (cf. Paris 1981; Peyraube 1998; Cheng & Sybesma 1999; Kihm 2000).

(42) is an example of a Chinese DP containing an NP, a ClassP, and a D with a demonstrative determiner. The reference of the DP comes from the demonstrative determiner, not the classifier.
In earlier Chinese, a quantified nominal consisted of Number + Class + N with no overt D, as in (43): we assume that at that point, Number raised to D where number was construed as a [+r] feature.

(43)  a. yi jian jiasha
     one cl cassock

b. yi duo hei yun
     one cl black cloud

The French Classifier *le/la/les* has lexically merged number and gender FFs. The [+r] number feature of N agrees with or checks the [–r] number feature of the Class morpheme. The [–r] gender feature of N parasitically agrees with the [–r] gender feature of Class.

If D is empty and the Classifier happens to bear the demonstrative [+DEM] feature retained from its Latin origin as *ille*, then *le* – and its Romance counterparts – raises to D and establishes reference, as shown in (44).
If D is empty and the Class morpheme lacks a [+r] F which must be checked in D, the empty determiner cannot establish reference at the interface.

Longobardi (1994) proposed that an empty determiner must be governed by a lexical head, generally the verb, as in (45).

(45) a. Viene acqua.
    comes water
    \[ VP \text{ viene } [DP e[NP acqua]] \]

b. *Acqua viene
    \[ IP [DP e[NP acqua]] I \[ VP \text{ viene } t] \]

Cheng and Sybesma (1999) similarly point out that in Mandarin, an indefinite, determinerless nominal must be post-verbal.

(46) Keoi seung maai gaa ce
    he  want  buy  cl  car
    'He wants to buy a car'
We propose that an empty D is construed as containing a feature variable. To satisfy Full Interpretation at the interface, the feature variable must be saturated by a formal F with referential value in its context.

In Italian (45) or Mandarin (46), the verb contains “presentational” lexical content. *Venire* (‘come’) is a presentational verb and Chinese *want* + *buy* is a modal expression introducing a new referent.

We would like to propose that certain lexical contents may optionally be construed as (equivalent to) a Formal Feature of UG. In (45) and (46), the presentational content of the verb is construed as a FF, call it *exist*, which existentially quantifies the ec in D. We find this FF in its pure form, in the absence of all other lexical content, in the verb *be* used existentially, as in Latin (47) and French (48) below.

(47) Sunt *exist* oppida pulchra in Britannia.

exist beautiful towns in Britain

(48) Il *exist* était une fois une petite fille.

it was (there was) once a little girl

We claim that French (49) is parallel to Italian (45) and Chinese (46): an empty D is construed as containing a feature variable which must be locally saturated.

(49)  

We propose, however, that the FF which saturates the F variable in (49) is not the FF *exist* associated with existential *be* and presentational verbs such as *come*, but a subcase of *exist* which we call [+Loc(ative)]. The FF *exist* situates the ec in D which it binds, and the nominal headed by D, in time and space. But the [+Loc] F active in IA sentences situates the ec it binds in D, and the nominal containing it, in space only, not in time.

4.2.3 I associate a single configuration, the “locative small clause” (LSC) (50), with all instances of the “possession” construal. A LSC is a PP generated below VP.
Inalienable possession and the interpretation of determiners

whose abstract P head contains a [+LOC] FF but no lexical material. Like all Ps, that in (50) is transitive: it checks its [+LOC] F with that of its complement *main* and that of its subject *Jean*.

(50) [Jean ... la main]

The P head of the LSC has a [+LOC] FF but lacks the [+T] FF found in verbs and checked when V raises to T. Consequently, P does not raise to V and the construal of the PP, contrary to that of a VP, is purely spatial. *La main* in (50) denotes an object extended in space. P + complement have an "extended" spatial aktionzart. This contrasts with the extended temporal aktionzart of a V such as *read a book*. The spatial aktionzart of P selects a subject with a spatial contour, or body, construed as enclosing or containing its spatial extension.

We claim that the "possessive" construal reduces, essentially, to that of spatial inclusion. The body of Jean encloses the extension of the hand in (50). In a sentence such as *John reads a book*, on the contrary, the subject controls both the spatial and the temporal extension of the event.

The LSC configuration is associated with all types of possessive construal. The difference between alienable and inalienable possession reduces to the presence of a [+R] FF in the determiner of the spatially situated nominal in the first case and its absence in the second.
4.2.4 In (51), the basic LSC is inserted in Structure I.

(51) Jean lève la main. (Structure I)

Here, P [+loc] raises to and merges with V [+loc]. We propose that P obtains from V a locative lexical content which allows its [+loc] F to be construed as [+R] and to bind the empty F variable in D.

Jean in Spec PP checks its [+Loc] F with the [+Loc] head P. Within the PP domain, Jean is construed as a spatial entity, a body. However, Jean also has a person F and raises to Spec TP to check this F against the Tense F of T. Jean is construed in the TP domain as an agent, provided with will in addition to a body.

We propose that in general a bound element is frozen within the binding configuration. A DP with a F variable in D saturated by a FF of P cannot raise to T to be temporally situated. Such a DP has only a spatial existence, defined by its inclusion in the c-commanding nominal denoting a body.

4.2.5 The IA sentence is possessive by virtue of the LSC configuration. But its defective DP also identifies it as a presentational sentence. In There is a man in the room or Il vient quelqu’un (‘it comes someone’), an indefinite nominal is bound by the existential operator abstracted from the lexical content of the verb. We propose
that the bound nominal is construed as a variable (cf. Heim 1982) because its D node is empty.

We reduced the difference between ordinary possession and inalienable possession to a value of a FF in the determiner of the possessed nominal: D contains a [+R] FF in the first case, but it is empty in the second. The difference between existential and IA sentences may be reduced in turn to a single F of the verb. In an existential sentence, the ec in the determiner of the object is saturated by a verb with [+LOC] and [+T] FFs which combine to create an existential operator. In IA, however, the F variable of the determiner is bound by a P with only the [+LOC] F, functioning as an operator of spatial existence.

We thus situate the IA sentence at the intersection of the possessive sentence and the existential sentence within the grammar.

4.2.6 We claimed that all sentences which denote possession contain the LSC configuration. (52) is not a possessive sentence because, although it contains the same lexical items as (51), it lacks the [+LOC] FF which motivates an LSC.

In (52), the classifier la contains a [+R] [+DEM] FF. La raises to the determiner node, the locus of [+R] Fs in DP.

(52) Jean lève la main
I propose that a D with a [+r] F raises further, either in syntax or in LF, to T, where its [+r] F is checked by the Tense F of T, linked to C within a T-chain. Raising of D to the T-C domain situates the DP it heads in the discourse world, assigning it a reference independent of the truth value of the sentence. (In (52), the [+D] operator in C is a Discourse operator).

Unlike existential and IA sentences, (52) is not presentational. This is because the object DP is not defective. Both arguments of (52), Jean and la main, contain a [+r] FF in D which situates the DP in the presupposed rather than the asserted part of the sentence.

The hypothesis that la raises to T when it contains a [+r] FF is supported by the fact that when the [+r] F is a person F rather than a demonstrative F, raising to T is overt. In (53) below, the classifier la bearing the F [+pers] raises to T in syntax and checks its person F against the tense F of T. Here as in (52), F checking between D and T assigns to the DP which la heads a presupposed reference in the discourse world.

(53) Jean la voit

4.2.7 In (51) above, Jean and main bear a [+loc] FF which motivates the creation of a LSC whose P head checks these Fs. In (52), however, the same nominals lack the [+loc] F. Since no P head is necessary to check these Fs, by minimalist reasoning,
no LSC may be constructed. However, one must ask what allows the [+loc] F to appear only optionally.

I propose that the very same notional content which defines the FFs of UG also occurs as part of the lexical content of constituents. The grammatical or lexical status of a content is often fixed in the lexicon. For example, [masculine] is a FF in French *le*, but part of the lexical content of the pronoun *him* in English. [Possibility] is a FF of the modal verb CAN in English (if it were a lexical F, the verb would not raise to Infl), but it is part of the lexical content of the French verb *pouvoir* or the English adjective *ability*.

It seems that the grammar exhibits a certain amount of flexibility, allowing a lexical content to be construed as a FF when necessary. I suggested above that the presentational content of the lexical verb for *come* in Italian (45) or for *want + buy* in Chinese can be construed as (equivalent to) the *exist* FF which binds an *ec* in its complement. Similarly, I propose that in (51), the inherent spatial content of *Jean* and *main* is construed as the FF [+loc]. It is this F which motivates a P head to check it, deriving the LSC configuration associated with the possessive construal.

In (52), D contains a [+r] [dem] F which assures the referential status of the DP. As no [+loc] F is necessary, none is abstracted from the lexical content of the nominals, and no LSC is derived.

The grammar would thus allows lexical content to function as a FF, when necessary, in order to satisfy Full Interpretation, provided, of course, that the FF exists independently in the universal repertory of FFs of UG. The proposal is stated in (54).

(54) The lexical content of an item may be construed as a Formal Feature if necessary to assure Full Interpretation.
4.2.8 In (55), the LSC of (50) is embedded in Structure II.

(55) Je lui prends la main. (Structure II)

Here, as in (51), P raises to V to acquire the \textit{loc} content which enables it to bind the \textit{ec} in the determiner of the BP DP. Dative \textit{lui} checks its \textit{[+loc]} \textit{F} with that of P and its \textit{[+pers]} feature by raising to T. The subject checks its \textit{[+pers]} \textit{F} in Spec T or by adjunction to T.

As D is frozen in place by its binding relation with P, D cannot raise to T. Consequently \textit{la main} has only spatial reference, while both \textit{lui} and \textit{je} obtain temporal reference in the higher TP domain.

The containing DP of the possessive relation is here \textit{lui}, the subject of the LSC, not the subject of the sentence. \textit{Je} and \textit{lui} are indirectly related. Both check their \textit{[+pers]} \textit{F} in T and are thus associated with the same spatio-temporal coordinates of the sentence.
4.2.9 We have identified IA as a subset of possessive construals which satisfies (56).

(56) The IA construal is associated with an LSC in which the F variable of D is bound by a [+loc] F in the governing P.

But we have not yet accounted for constraints on IA. On one hand, an alienable or inalienable possessor is generally obligatorily [+human]. On the other hand, the IA version of possession is subject to lexical-semantic constraints, as mentioned earlier, which vary with the sentential structure in which the LSC is embedded.

The requirement that a possessor be [+human] would arise from temporal constraints on interpretation. We assume (57).

(57) i. Every sentence has a temporal representation in LF in which the state or event it defines is predicated of a point or interval on the time axis defined by the Comp-Tense chain.

ii. Every constituent in the sentence must be mapped onto this temporal representation.

A LSC defines a configuration which exists in space but not in time. As it does not satisfy (57), a LSC cannot define a sentence nor even be construed as a part of the sentence unless it is somehow mapped onto its temporal representation.

In Guéron (1998, 2000), I propose that a [+human] subject suffices to place an otherwise spatial event in time. I will leave this issue aside here.

Let us turn to constraints peculiar to the various sentential forms of IA.

(i) IA Structure I must denote a simple physical gesture, as in lever la main (‘raise the hand’) or bouger le pied (‘move the foot’), but this is not the case in Structure II.

(58) a. Jean lève la main. (IA-I)
   John raises the hand

b. *Jean lave la main.
   John washes the hand

(59) Je lui lave la main. (IA-II)
   I to him wash the hand

The LSC which underlies the possessive construal exists only in space. Yet (57ii) requires all constituents of the sentence to be mapped onto its temporal representation.

The antecedent DP in an LSC such as (51) or (55) is situated in the periphery of the small clause. It may thus escape the LSC, where it is construed as a body, and raise to Spec TP, where it is construed as the temporal trigger of an event. In alienable possession, the possessed DP has a D with a [+r] FF which raises to T and
situates the DP it heads in the time of the discourse. But under the IA construal, the empty D in the BP DP must remain in situ to maintain the spatial configuration in which it is bound by the [+LOC] F of P.

I propose that the BP DP acquires a temporal existence parasitically, from its “container”, provided that the spatial configuration of enlosure of the BP DP within the body of the container remain stable during the temporal interval defined by the event.

In (58a), which denotes a gesture, the hand is contained in the spatial sphere of Jean during the entire lever la main event. But in (58b), the washed hand is not contained in the space defined by John’s body during the entire event. While John’s other hand engages in the washing activity, the target hand merely intersects with John’s body; it is not included in it. If the temporal existence of the hand depends on the stability of the inclusion relation throughout the event, then (58b) violates (57ii). The same holds for all non-gestures in Structure I.

In Structure II, however, shown in (55), the subject of the LSC is a dative DP which does not raise to the already-filled subject position of the sentence. The configuration formed by the enclosure of the hand within the space of the container’s body remains stable during the event, whatever the subject may do, wash, tickle, caress the hand, etc. The relation between je and la main doesn’t count for IA. The only pertinent constraints are that the relation between lui and the hand remain stable during the event, and that je and lui check their [+pers] and [+loc] Fs against the same Tense node.

(ii) IA structures require verbs of physical contact and reject stative verbs, epistemic verbs, verbs of wanting, etc. The P which heads the LSC has a [+loc] F which acquires lexical content by raising to and merging with a V with a [+loc] F. Verbs which lack spatial content cannot licence the [+loc] FF necessary to check that of P under merger of the two heads.

It follows that non-locative verbs, such as admirer in Je lui admire la main are ungrammatical under the IA construal, and that sentences like Je lui vois les jambes must be construed as denoting a strong psychological contact between the seer and the seen object.

4.3 IA and the English determiner

4.3.1 The English morpheme the is not a classifier, but a determiner with an inherent [+r] FF. While the bound F variable in the empty D in Romance functions as an anaphor which must be locally bound, the [+r] F of the English determiner functions as a pronominal which can only be non-locally bound, as prescribed by Principle B of the binding theory.
The definite determiner *the* belongs to the same paradigm in English as the demonstrative determiners *this*, *that*, and *those*. All these elements function either as determiners or as pronouns, to which they are diachronically related.

Unlike anaphors, personal pronouns and demonstrative determiners establish coreference over a sentence boundary.

(60) a. The apples look good.
    – They are good. (pronoun)
    b. Which apples appeal to you?
    – Those (apples) (demonstrative)

Both personal pronouns and demonstratives can refer backwards as in (61) or anticipate forwards as in (62).

(61) a. He is a friend of mine.
    b. That was an error.

(62) a. Let he who loves me follows me.
    b. Let those who love me follow me.

Like pronominals and unlike anaphors, demonstratives can have ostensive reference.

(63) a. Thank God he left (said of an obstreporous guest).
    b. This is beautiful.

English *the* has the same interpretive properties as personal pronouns and (other) demonstrative determiners.

*The N* participates in discourse anaphora with or without an overt antecedent.

(64) a. A boy entered. He sat down.
    b. A boy entered. The boy sat down.

(65) a. John and Mary sold the car.
    b. I forgot to turn off the gas.

Like other pronouns lacking phi Fs, *the* may have generic reference.

(66) a. One must not mock one’s neighbor.
    b. It is wrong [PRO to mock one’s neighbor]

(67) a. Dr. Jones has studied the kidney for years.
    b. Mrs. Smith often goes to the opera.

Pronominal *the* is like PRO, in that both may take an implicit non-local antecedent.
Landau (1999) proposes that PROarb is a pronominal coreferent with a discourse topic. In (68) the predicate disagreeable licenses an implicit benefactive argument bound by a topic. PRO corefers with the topic.

(68) To live alone is disagreeable
    \[ \text{CP OP}_i \text{[PRO}_i \text{to live alone] is disagreeable (for } e_i) \]\n
Authier (1991) and Authier and Reed (1992) suggested that the ARP interpretation of a Romance determiner under the IA construal in sentences like (69a–b) identify it as an PROarb situated within DP.

(69) a. Avec ces gants les doigts ne gélent jamais.
    ‘With these gloves the fingers never freeze’

b. Un peu de natation muscle souvent le dos.
    ‘A little swimming often strengthens the back’

But the ARP interpretation in (69) is not particular to Romance. The English counterparts in (70) are just as acceptable.

(70) a. These gloves keep the fingers warm as toast.

b. Swimming is good for the back.

In (71a–b), the topic is overt in both languages.

(71) a. La main est une partie importante du corps.

b. The hand is an important part of the body.

(71b), with explicit topic, is illustrated in (72); and (70a), with implicit topic, is illustrated in (73). We propose that the (like le = ille in French) raises to T where it is bound by the sentence topic.

(72) \[ \text{TopP [DP the body} \{\text{IP T+the}_i \text{[DP t}_i \text{hand] is an important part of } t_i} \}]\n
(73) \[ \text{TopP [DP the body} \{\text{IP these gloves T+the}_i \text{keep [DP t}_i \text{fingers] warm]} \} \]

Nor is the PROarb interpretation of French le and English the limited to inalienable possession.

(74) a. Chez les Dupont, le père fait le travail ménager.
    ‘In the Jones’ family, the father does the housework’

b. Dans la ville d’Otzu, l’Opéra est sur le lac.
    ‘In Otzu, the opera house is on the lake’

In (69), (70), (71) and (74), the definite determiner THE in English and le (= ille) in French functions as a resumptive pronoun coreferent with a discourse
topic. However, while the topic refers to a spatio-temporal discourse referent in (74), it refers to a body in the earlier examples.

The French definite article may be construed either as a classifier, on the basis of its number and gender Fs, in which case it is locally bound as in Structures I and II, or else as a pronoun, on the basis of its demonstrative F [l], in which case it is non-locally bound, as in Structure III.

4.3.2 IA Structure III is illustrated in (75). Here, P [+LOC] and V [+LOC] are separated by the lexical Preposition on [+LOC], which heads its own small clause, PP1. The abstract P head of the LSC PP2 raises to the closest lexical predicate, on [+LOC], to obtain lexical content.

John, the subject of PP2, functions as container of the arm, as in (50). However, when John raises to Spec PP1 to check the loc F of the P head on, it has a new syntactic and semantic function: it is construed as a spatial topic binding the resumptive pronoun the in PP1. As John is peripheral in its domain, it raises further to Spec of the matrix v (not shown) where it functions as the direct object of the verb hit.

(75) I hit John on the arm.
    J’ai frappé Jean au bras.
Structure III observes the familiar lexical constraints. As PP1 defines a purely spatial domain, I cannot *admire John on the arm* or *know him on the arm*.

But why is it that although I can *caress/kiss/tickle/lick John on the arm*, I may not *crush/smash/devour him on the arm*, as Nicol (1987) notes? All these verbs are acceptable in Structure II.

In Structure II, there is direct contact between the referent of the subject of the sentence and the body part. In Structure III, however, the relation is indirect; it depends on a simultaneous spatial relation between the subject and the DO. The latter relation must not change or disturb the former one. This condition is satisfied only if the subject comes in contact with one point of the spatial container’s body rather than the whole body. If, as with the forbidden verbs crush and smash, the subject affects the totality of the container’s body, it destroys the integrity of the body, and the latter can no longer count as container of the body part DP. In such a case, the spatial information conveyed by the LSC contradicts that asserted in the VP-TP domain, and the sentence is semantically ill-formed.

5. The French determiner: Classifier or expletive?

We claim that Romance *le/là/lés* is a classifier whose class F is checked by the N it dominates in syntax. Vergnaud and Zubizarreta (1992) consider this element to be an “expletive” determiner in the nominal domain, like *il in il faut partir* in the sentence domain. Romance but not English would have the expletive determiner. The fact that *le/là/lés* is found not only in IA structures but in generic sentences as well, while both sentence types are lacking with English *the* would support their hypothesis.

(76)  a. *Je lève la main.
     b. *J’admire la générosité.*

(77)  a. *I raise the hand.
     b. *I admire the generosity.*

Although we excluded the “expletive” hypothesis above, we have not yet said why.

It is true that *le/là/lés* in French, like *il in il faut partir*, lacks a referential feature. But there the resemblance ends.

By definition, classifiers divide the set of nouns of a language into grammatical classes, which are originally semantically motivated. *le/là/lés* divide the
set of French nouns into the classes masculine and feminine based on, although not strictly adhering to, a semantic distinction. But expletive *il* has no F which divides the set of verbs into lexical classes.

Like all classifiers, *le/la/les* merge with a number F which varies according to the referential number of the N they agree with. But *il* has only default number. Far from obtaining a value for number from the verb, *il* imposes its default singular value on the verb. We have assumed that finite tense checks the person F of the subject of the sentence. If so, then expletive *il* must have a person F; albeit a default F, for *il* only appears as subject of a finite sentence. But *le/la/les* lack a person F when situated in DP.

Note, moreover, that it is not the case that English lacks a morpheme which appears both in IA structures and in generic statements. The zero morpheme in English appears in both.

(78) We clapped hands / rubbed shoulders / touched noses.

(79) a. I admire generosity.
    b. Kindness moves me no end.

Like *le/la/les* in French, the zero morpheme alternates in both contexts with another morpheme in English, the morpheme *a*.

(80) John raised a hand.

(81) A bear is a furry quadraped.

The proposal that *le/la/les* in French and 0/*a* in English are classifiers immediately accounts for their variation in value, as well as for their use in non-referential DPs. In French and English, as in Sino-Tibetan or Niger-Congo languages, classifiers divide the nominal domain into types or subclasses but do not establish reference.

A classifier is a grammaticalized bit of lexical content. The choice of class depends on what kind of lexical content is grammaticalized in a given language. This is shape in Chinese, gender in French, and discrete vs mass in English.

While *le/la/les* divides French nouns into gender classes which merge with number in a transparent manner, 0 and *a* divide English nouns into two classes, mass vs discrete, which merge with number in a more opaque manner. *A* is [+discrete, –plural] while 0 is either [+discrete, +plural], or [–discrete], in which case it has default singular number. *A*, the unstressed form of one, cannot be [–discrete].

*Le/la/les* functions as a classifier only when it lacks a [+r] feature such as [+dem], [+pers] or an operator F. *A* and 0 function as classifiers when their
number feature is construed as a class F rather than as a lexical number or a quantifier. In the absence of a [+r] F in the classifier, the classifier does not raise to D. If D is empty, it has a F variable which must be saturated by a local operator.

As IA sentences are subject to lexical constraints motivated by their restricted spatial construal, it is easy to distinguish the IA use of a classifier from any [+r] function the same morpheme may have: if D of the target nominal contains a [+r] F, the structure is free of these lexical constraints.

6. Conclusion

6.1 We have identified inalienable possession with anaphora in the largest sense. IA is a strictly anaphoric relation in Structure I and II, where a F variable in D is bound by a [+loc] F in its local context. IA is pronominal coreference when a [+r] F in D is bound by another [+r] F outside its local domain.

6.2 We have argued that le/lalles functions as a classifier when it contains only the FFs of gender and number. The same morpheme functions as a pronominal when it contains a [+pers] F or a [+dem] F and raises to D and T in syntax or in Logical Form. It functions as an operator when provided with an operator F which, accompanied by a restriction, is construed as the iota operator.

6.3 We have classified the IA construal as a subcase of the presentational construal in which a defective nominal is existentially quantified by a [+loc] FF in its local context. However, unlike sentences such as il est venu trois hommes (‘it came three men’) or viene acqua (‘comes water’), in which the [+loc] F abstracted from the lexical content of the verb combines with the [+T] F of the verb to establish the spatio-temporal reference of the object, only the [+loc] F of P is involved in IA. Binding by this FF motivates the spatial but not the temporal existence of the body part DP whose determiner it saturates.

6.4 The lexical-semantic constraints on IA stem from the necessity of integrating the spatial relation between a body part and a body into the temporal representation of the sentence. The temporal existence of the body part being parasitic on that of its binder, it requires a stable relation between body part and body during the event the sentence denotes.

The necessity for a temporally stable configuration accounts for variation in lexical constraints on IA as a function of the structure embedding the LSC. It also accounts for the fact that IA involves a body and a body part. Nothing
but a body part can be confined to the space of a body during the time of an event. However the fact that there are languages and dialects which marginally allow the bound nominal to denote a child, an item of clothing or even an umbrella suggests that the restriction on body parts is not stated in the grammar but results from both cognitive and pragmatic constraints on temporally stable spatial relations.

Notes

1. I do not claim [+r] to be a formal feature of UG. It is rather a cover term for FFs which entail a referential construal of the constituent which contains them, say [pers] or [dem]. [–r] is a cover term for FFs which do not establish reference, such as gender in nouns and number in verbs.
   I am grateful to Y. D’Hulst for discussion of the representation of FFs in grammar.

References


Chapter 8

The external possessor construction in West Flemish

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1. Aim and scope of the paper

West Flemish (WF) has two constructions with prenominal possessors, illustrated in (1) and (2).

(1) a. Valère se boek  
    Valère se book  
    'Valère’s book'

b. Marie se boek  
    Marie se book  
    'Marie’s book'

c. Valère sen oto  
    Valère sen car  
    'Valère’s car'

d. Marie sen oto  
    Marie sen car  
    'Marie’s car'

(2) a. Valère zenen boek  
    Valère his book  
    'Valère’s book'

b. Marie euren boek  
    Marie her book  
    'Marie’s book'

c. Marie en Valère under boeken  
    Marie and Valère their books  
    'Marie and Valère’s books'

(1) illustrates the WF equivalent of the English or Dutch genitive construction. The bound morpheme se(n) has to be adjacent to the possessor DP. The alternation between se and sen is phonetically conditioned: se precedes a consonant, sen precedes a vowel. Se(n) is restricted to singular possessors. Though similar, and possibly diachronically related, to the masculine singular possessive pronoun zyn/zen, sen is used both for feminine and masculine possessors as shown by (1).
In (2) the possessor DP is doubled by a possessive pronoun. The pronoun co-varies according to gender and number with the head noun.\(^1\) I refer to this construction as the doubling construction. Observe crucially that while the element linking prenominal possessor and *possessum* in (2) is pronominal and has *phi* features matching those of the possessor, *sen* in (1) is not endowed with gender features. I hence do not take *sen* to be a pronominal element.

The possessive pronoun in the doubling construction is a free morpheme and can be separated from the possessor (3a, a\(^\prime\));\(^2\) in the *se(n)* construction the possessor and the bound morpheme must be adjacent (3b, b\(^\prime\)).

(3) a. al Valère zen boeken
    all Valère his books
    a\(^\prime\). Valère al zen boeken
b. al Valère-se boeken
    all Valère-se books
b\(^\prime\). *Valère al se boeken

Another contrast concerns the internal structure of prenominal possessor. In my idiolect, the prenominal possessor in doubling construction may be fairly complex including even post-nominal non-restrictive relatives and appositives, while the *sen* construction does not allow for such post-nominal constituents:

(4) a. men zuster, die in Gent weunt, euren / *se book
    my sister, who in Ghent lives, her / *se book
b. Marleen, men vriendinne, euren / *se boek
    Marleen, my friend, her / *se boek

If non-restrictive relatives and appositives are less structurally integrated (cf. the comma intonation) and if *se(n)* is a bound morpheme the contrast in (4) is expected.

In this paper I will focus on another property that sets the doubling construction apart from the genitive *se(n)* construction: the doubling construction allows for the pattern in (5a, b) in which an external relative or interrogative possessor is construed as having a possessor relation with a DP containing a matching doubling possessive pronoun. I will refer to this pattern as the external possessor construction. This pattern is not available for the *sen*-construction.
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(5) a. Dat is die verpleegster dan-ze gisteren [IP eur / *sen us] verkocht een.
That is that nurse that-they yesterday have
‘That’s the nurse whose house they sold yesterday.’
b. Wekken verpleegster zei-je gie dan-ze gisteren [IP eur / which nurse said-you you that-they yesterday her / *sen us] verkocht een?
‘Who was the nurse whose house you said they sold yesterday?’

Given the doubling construction in (2), it may at first sight seem tempting to propose to account for the data in (5) in terms of (left-branch) extraction of the relative or interrogative possessor. The contrast displayed by (5) again would follow if se(n) is a bound morpheme. Extraction of the possessor would lead to a violation of the Stray Affix filter. The same explanation has already been invoked to account for the ungrammaticality of (3b′) and for the ungrammatical variants in (4). An analysis of the grammatical strings in (5) in terms of leftward possessor A’-movement would mean that WF is similar to Greek and Hungarian, in which possessor movement has been shown to be available:

(6) a. [CP [Tinosi] [IP mu ipes [IP tì pos dhiavases [IP tì to whose meGEN said that read₂sg the
vivlio]]]]
‘You told me you read whose book?’
(Greek, Horrocks, & Stavrou 1987)
b. [CP [TopP Marinaki] [FocP Peter latta [IP tì a kalapja]]]
Mary₃SG Peter saw the hat
‘PETER saw Mary’s hat.’
c. [CP [FocP Kinek] latta [IP Kati [IP tì a kalapja]]]
whoseDAT saw Kati the hat
‘Whose hat did Kati see?’ (Hungarian & Szabolcsi 1983, 1994)

However, though attractive, such an analysis of the WF external possessor construction in (5) would lead to a range of unexpected asymmetries between WF and the related Germanic languages on the one hand and also internally to WF itself.

The paper is organised as follows. Sections 2 and 3 offer arguments against a movement analysis for the WF external possessor construction. In Section 4 I propose that the relation between the possessor and the possessum is estab-
lished by the resumptive pronoun strategy and not by movement and I explore some interpretive effects due to the resumptive pronoun strategy. Section 5 summarises the paper and contains some issues for future study.

2. Germanic asymmetries

Like WF, colloquial Dutch has a doubling pattern as discussed in some detail by Corver (1990).

(7) Dutch
   a. Ze hebben die verpleegster haar / d’r huis verkocht.
      they have that nurse her / her house sold
      ‘They have sold that nurse’s house.’
   b. Ik heb Jan z’n auto gewassen.
      I have Jan his car washed
      ‘I have washed John’s car.’

The external possessor construction is not available in Dutch, however:

(7) Dutch
   c. *Dat is die verpleegster dat ze gisteren haar/d’r huis verkocht hebben.
      that is that nurse that they yesterday her house sold have
   d. *Welke verpleegster zei jij dat ze gisteren haar/d’r huis verkocht hebben?
      which nurse said you that they yesterday her house sold have

Norwegian also displays the possessor doubling construction (Fiva 1984; Corver 1990; Delsing 1993, 1998).

(8) a. Per sin bil
     Per his car
     ‘Per’s car’

Norwegian is of particular interest for our purposes since an external possessor construction is available in this language. However, the relevant construction turns out to be heavily constrained. It is only grammatical if the possessor DP is a predicate. Compare the grammatical (8b, c, d) with the ungrammatical
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Moreover, the external possessor and the possessum must be clause-mates. (cf Corver 1990 for details).

(8) b. Hvem, er det [ti sin tante]? who is it his aunt ‘Whose aunt is it?’
c. Hvem, er det [ti sin bil]? who is it his car ‘Whose car is this?’
d. Hvem, er han [ti sin bror]? who is he his brother ‘Whose brother is he?’
e. *Hvem, skal vi forfore [ti sin soster] na? who shall we seduce his sister now
f. *?Hvem, kjenner du [ti sin bror]? who know you his brother

Corver (1990:185) furthermore signals the contrast in (8g, h). Extraction of the possessor *hvem sin tante* from the specifier of the predicate is grammatical in (8g); extraction of *hvem* from inside a DP which itself functions as a pre-nominal possessor inside a predicate is not possible (8h).

(8) g. [Hvem sin tante], er det [ti sin katt]? who his aunt is that his cat ‘Whose aunt’s cat is that?’
h. *[Hvem], er det [[ti sin tante] sin katt]? who is that his aunt his cat

The WF external possessor pattern differs in a number of respects from its Norwegian counterpart. First of all, (5d) above shows that the WF external possessor need not be a clause-mate to the possessum. Indeed, an external possessor construed with a clause mate predicate leads to ungrammaticality in WF.

(9) a. *Wien, is da [ti z’n tante]? who is that his aunt
b. *Wien, is da [ti zenen oto]? who is that his car
c. *Wien, ist-je [ti z’n broere]? who is-he his brother
Increasing the distance between the possessor and the related DP improves the sentences (10a, b), and when the *possessum* predicate is construed with a non-local possessor the result is grammatical (10c):

(10) a. *?Wien was da doa gisteren [t₁ zenen oto]?
   who was that there yesterday his car
   ‘Whose car was that yesterday?’

b. *?Wien is da gunter [t₁ zenen oto]?
   who is that there his car
   ‘Whose car is that over there?’

c. Wien zei-je gie dat da doa [t₁ zenen oto] is?
   who said-you you that there his car is
   ‘Whose car did you say that it was?’

Because the external interrogative possessor and the *possessum* must preferably not be clause mates, the WF equivalents of the ungrammatical Norwegian (8e, f) are also ungrammatical.

(9) d. *Wien goan-me [t₁ zen zuster] neu ipvrijen?
   who shall-we his sister now ‘make love to’

e. *?Wien ken-je gie [t₁ zen broere]?
   who know-you you his brother

Again, however, an external possessor can be construed with a non-local *possessum*:

(10) d. Wien zei-je gie dan-ze [t₁ zen zuster] zoun willen
   who said-you you that-they his sister would like
   ipvrijen?
   ‘make love to’
   ‘Whose sister did you say that they would like to chat up?’

e. Wien zei-je gie da-j [t₁ zen broere] kent?
   who said-you you that-you his brother know
   ‘Whose brother did you say that he knows?’

Construal of the external possessor with a DP which is itself a prenominal possessor does not lead to degradation:

(11) a. Wien zei-je gie dan-ze [₁₀ₙ₁ [₁₀ₙ₂ [₁₀ₙ₃ –] zen dochter] eur
   who said-you you that-they his daughter her
   us] a verkocht een?
   house already sold have
   ‘Whose daughter’s house did you say that they have already sold?’
b. Dat is dienen vent dan-ze [dp1 [dp2 [dp3 –] zen dochter] eur that is that man that-they his daughter her house already sold have 'That's the man whose daughter's house they have already sold.'

(11a) and (11b) would be parallel to the pattern in (11c) in which the DP Valère is the pre-nominal possessor of zen dochter ('his daughter'), which is in turn the pre-nominal possessor of eur us ('her house'):

(11) c. [dp1 [dp2 [dp3 Valère] zen dochter] eur us] Valère his daughter her house 'Valère's daughter’s house'

The data above show that the WF external possessor cannot be aligned with its Norwegian counterpart and requires a different analysis.6

3. WF-internal asymmetries

This section shows that even if we restrict ourselves to a consideration of the WF data, a left-branch extraction analysis of the external possessor construction in (5) leads to a number of undesirable consequences. Among other things, such a movement analysis would lead us to conclude that WF wh-movement in the DP differs radically from wh-movement in the clause in that unlike wh-extraction from the clausal domain, wh-extraction from the DP is not restricted by any of the standard locality constraints on A'-movement identified in the literature (subjacency, left branch constraints, etc).

3.1 Extraction from a subject DP?

If the WF external possessor construction in (5) is derived by left-branch extraction, then such left-branch wh-extraction would also have to be allowed from DPs in the canonical subject position, i.e. the position to the immediate right of the (inflected) complementiser. (12) illustrates an active sentence, (13) a passive sentence.

(12) a. Dat is dienen vent da [– zen broere] gisteren zen us that is that man that his brother yesterday his house verkocht eet.7 sold has
WF definite subject DPs must be immediately adjacent to the complementiser, and nothing can intervene between the complementiser and the subject.8

In (12) and (13), with possessive subjects, nothing can intervene between the complementiser *da*(*that*) and the possessive subject DP, as shown by (15)–(16). It thus it seems reasonable to assume that the bracketed possessive subject DP in (12)–(13) occupies the canonical subject position.

If the separation of the relative/interrogative possessor from the possessum is the result of *wh*-extraction, we would have to conclude that WF freely allows
left-branch extraction from the subject position. This result is surprising in the light of additional WF data, which I will discuss presently.

First, cross-linguistically $wh$-extraction from the canonical subject position tends to be a marked phenomenon and often triggers language-particular mechanisms to ensure that the subject trace is licensed. In a pattern similar to the well-known $que/qui$ alternation in French, WF extraction of a subject relative leads, obligatorily for some speakers and optionally for others, to an alternative form of the complementiser: $da$ is replaced by $die$.

(17) a. Dat is dienent die/da dienen buot gekocht eet.  

that is that man who/that that boat bought has  

‘That is that man who bought the boat.’

b. Dat is dienent dan-ze zeggen die/da dienen buot  

that is that man that-they say who/that that boat  

bought has  

‘That is the man who they say bought the boat.’

However, what would be analysed as an extraction of a left-branch possessor from inside a subject DP does not lead to such a $da/die$ alternation:

(18) a. Dat is dienent vent $[_{cp} da/*die \[_{ip} \] t; zen broere] gisteren  

that is that man that his brother yesterday  

zen us verkocht eet$\]$.  

his house sold has

b. Dat is dienent vent $[_{cp} dan/*dien \[_{ip} \] t; zen uzen] gisteren  

that is that man that his houses yesterday  

verkocht zyn$\]$.  

sold are

I cannot pursue in detail all the possible mechanisms that might be invoked for the licensing of the DP-internal trace, since much depends on the view one adopts of such mechanisms. Let me concentrate on the main issues. I assume, following Rizzi (1986, 1990), that a trace is subject to a dual requirement consisting of formal licensing and identification.

The WF complementiser agrees in person and number with the subject (see Bennis & Haegeman 1984; Haegeman 1992):
If the possessive subject DP did contain a trace of the external possessor, the agreeing complementiser might be argued to be implicated in the licensing of the trace. However, it seems unlikely that as such the complementiser can be held responsible for identification of an empty category in the (adjacent) specifier of the subject. We have already seen that there is no da/die alternation. Moreover, the complementiser agrees with the containing subject-DP and cannot agree with the possessor. In (20), for instance, the external possessor is singular (dienen vent, ‘that man’) but the complementiser agrees with the possessed plural DP (zen broers, ‘his brothers’).

(20) a. Kpeinzen da / *da dienen student nen buot gekocht I-think that\textsubscript{3,sg} / *that\textsubscript{3,pl} that student a boat bought eet.
    has
b. Kpeinzen dan / *da die studenten nen buot gekocht I-think that\textsubscript{3,pl} / *that\textsubscript{3,sg} those students a boat bought een.
    have

d. *Dat is dienen vent dan [op zen broers] nen buot gekocht that is that man that\textsubscript{3,pl} his brothers a boat bought een.
    have

We might thus assume that the subject-internal trace of the possessive is fully licensed and identified within the possessive subject DP, perhaps by virtue of the presence of the doubling possessive pronoun. Recall that the doubling pronoun systematically agrees with the external possessor in terms of phi-features. The pronoun could thus plausibly be argued to identify the trace. If indeed the WF possessor trace is licensed by virtue of the doubling pronoun, however, it is
not at all clear what could ban extraction from the doubling construction in the related Germanic languages (Dutch, German, also Norwegian in most cases).

In the previous examples I have concentrated on relativisation from a possessive subject DP in WF. Things become more intricate when we take into consideration interrogative extraction. The data also go against a movement analysis for the external possessor construction.

Before providing the relevant argument we need to consider some of the properties of interrogative extraction in WF. Consider (21). *Er*-insertion is strictly obligatory with all indefinite (non-generic) subjects, regardless of whether the predicate is transitive or not.

(21) a. 
Kpeinzen dan *(der) vee studenten dienen boek goan
I-think that *(there) many students that book go
kuopen.10
buy
'I think that many students will buy that book.'

b. 
Kpeinzen dan *(der) drie uzen verkocht zyn.
I-think that *(there) three houses sold are
'I think that three houses have been sold.'

c. 
Kpeinzen dan *(der) studenten no de feeste goan kommen.
I-think that *(there) students to the party go come
'I think that students will come to the party.'

An indefinite subject,11 unlike a definite subject DP, can be argued to occupy a position which is lower than the canonical subject position. As shown by (22), one or more constituents may intervene between the complementiser + *er* and the indefinite subject:

(22) a. 
Kpeinzen dan *(der) morgen dienen boek vee studenten
I-think that *(there) tomorrow that book many students
goan kuopen.
buy
'I think that many students will buy that book tomorrow.'

b. 
Kpeinzen dan *(der) doa gisteren drie uzen verkocht
I-think that there there yesterday three houses sold
zyn.
are
'I think that three houses were sold there yesterday.'
I-think dan *(der) morgen studenten no de feeste goan
I-think that *(there) tomorrow students to the party go kommen.
come
'I think that students will come to the party tomorrow.'

In WF, extraction of the interrogative subject wien ('who') always triggers er-insertion.

(23) a. Wien peinz-je gie dat *(der) dat us goa kopen?
who think-you you that *(there) that house goes buy
'Who do you think will buy that house?'

This suggests that interrogative constituents and their traces have the status of indefinite DPs. Like indefinites, they are banned from the canonical C-adjacent subject position and occupy a lower position. Interrogative extraction is not launched from the canonical subject position but from a lower position. Hence, the da/die alternation is not needed.

(23) b. *Wien peinz-je gie die ter dat us goa kuopen?

What we might call the indefiniteness effect for interrogative subjects is also present with D-linked interrogative subjects such as wekken N ('which N') or wekeenen van die N ('which one of those N').

(23) c. Weknen zeune peinzdeg-je gie dat *(der) dat us ging
which son thought-you you that *(there) that house went kopen?
buy
'Which son did you think was going to buy that house?'

d. Wekeenen van die zeuns peinzdeg-je gie dat *(der) dat
which-one of those sons thought-you you that *(there) that
us ging kopen?
house went buy
'Which one of these sons did you think was going to buy that house?'

DPs may be indefinite due to a number of factors. One is the presence of an indefinite article, a quantifier or a numeral. Also indefinite are DPs with a prenominal indefinite possessor. This is shown by the availability of the there construction in English (24a) in which the DP in construction with there contains an indefinite possessor, a new student's. (24a) contrasts with (24b) with the definite possessor:
The external possessor construction in West Flemish

(24)  a. There is a new student's mother waiting in your office.
b. *There is the new student's mother waiting in your office.

In WF too, the presence of a prenominal indefinite possessor DP in the doubling construction renders a DP indefinite. Like all indefinite DPs, the containing DP requires er-insertion when a subject (25a). A prenominal definite possessor DP does not have this effect (25b).

(25)  a. Kpeinzen dat *((ter) [nen student zen moeder] da
I-think that *(there) a student his mother that
geschreven eet.12
written has
'I think that a student’s mother has written this'
b. Kpeinzen dat (*ter) [dienen student zen moeder] da
I-think that *(there) that student his mother that
geschreven eet.
written has
'I think that that student's mother has written that.'

For completeness’ sake note that the presence of a prenominal indefinite possessor with se(n) (see (1) above) also renders the containing DP indefinite:

(26)  Kpeinzen dat *((ter) [nen student se moeder] da geschreven
I-think that *(there) [a student se mother] that written
eet.
has
'I think that a student’s mother has written this'

A possessive subject DP with an indefinite prenominal possessor can be separated from the complementiser by a maximal projection (27a), but a possessive subject DP with a definite prenominal possessor must be adjacent to the complementiser (27b).

(27)  a. Kpeinzen datter tun [nen student zen moeder] da
I-think that-there then a student his mother that
geschreven eet.
written has
'I think that a student's mother then wrote this.'
b. *Kpeinzen dat tun [dienen student zen moeder] da
I-think that then that student his mother that
geschreven eet.
written has
Negative quantifiers such as *niemand* ('no one') behave syntactically as indefinites, requiring er-insertion when subjects and allowing for the occurrence of a constituent separating them from the complementiser (28).\(^{13}\)

\[(28)\] Kpeinzen dat *(ter) dienen boek niemand kent.
I-think that *(there) that book no-one knows
'I think that no one knows that book.'

As expected, the presence of a prenominal possessive, *niemand*, turns a possessive DP into an indefinite. When such a DP is a subject there is obligatory er-insertion and a constituent may intervene between the DP and the complementiser + er.

\[(29)\] Kpeinzen dan *(der) da neu nog [niemand zen oukders]
I-think that *(there) that now yet no-one his parents know
'I think that no one’s parents know it yet.'

Let us now return to the external possessor construction in (5). A left-branch extraction analysis for the examples in WF (5) raises a problem in the light of the discussion above in which the following points have been established.

i. Interrogative DPs such as *wien* act syntactically as indefinites. They require er-insertion when they are subjects and the extraction site is not the canonical subject position.

ii. The presence of a prenominal indefinite possessor DP turns the containing DP into an indefinite.

If the external possessor construction (5) is derived by extraction then the possessum must contain a trace of the external possessor. A subject DP containing the trace of the external interrogative possessor will be expected to be indefinite. In other words, we expect such a possessive subject DP

i. not to be able to occupy the canonical subject position, which is strictly reserved for definites;

ii. to require er-insertion;

iii. to be able to be separated from the complementiser position by intervening material.

These predictions are even more plausible if it is assumed that traces are actually copies of the moved constituent. However, the predictions are not borne out. As shown by (30a), the possessive subject DP which, under an extrac-
The external possessor construction in West Flemish

...tion account, should contain the trace/copy of wien is incompatible with er-insertion. As shown by (30b), the possessive subject DP must be adjacent to the complementiser.

(30) a. [Wien] zei-je gie [cp da (*der) [cp ti zen broere] zen who said-you you that (*there) his brother his us verkocht eet]?
   house sold has ‘Whose brother did you say had sold his house?’

b. *[Wien] zei-je gie [cp da verleden joare [cp ti zen broere] who said-you you that last year his brother zen us verkocht eet]?
   his house sold has

Replacing wien by a D-linked interrogative will not alter the judgements:

(31) a. [Weknen zeune] zei-je gie [cp da (*der) [cp ti zen wuf] which son said-you you that (*there) his wife nen oto gekocht eet]?
   a car bought has ‘Which son’s wife did you say has bought a new car?’

b. *[Weknen zeune] zei-je gie [cp da tun [cp ti zen wuf] nen which son said-you you that then his wife a oto gekocht eet]?
   car bought has

We are led to the conclusion that the possessum which is construed with an external wh-interrogative possessor does not behave as if it contained a trace/copy of an indefinite interrogative. Rather, the DP behaves as if it were syntactically definite. It is difficult to see how to account for the difference between wh-extraction of argument wien, whose trace is syntactically indefinite, and wh-extraction of the prenominal possessor wien, whose trace would have to be definite. This asymmetry casts further doubts on a left-branch extraction/movement analysis in which an external possessor is construed with a trace. The next section offers further objections to the movement analysis.

3.2 Islands

3.2.1 Wh-islands

Under a movement analysis the WF external possessor construction in (5) would be derived by long extraction of possessors. Another undesirable conse-
quence of such an analysis is that unbounded movement would be required. As shown by (32), the external possessor can be construed with a possessive DP contained in a wh-island.

(32) a. Dat is dienen vent dan-k nie weten [of da zen moeder
that is that man that-I not know whether that his mother
tun hertrouwd is].
then remarried is
b. Dat is dienen vent dan-k nie weten [me wien da
that is that man that-I not know with whom that
zen moeder hertrouwd is].
his mother remarried is
c. Dat is dienen vent dan-k nie weten [of dan-ze
that is that man that-I not know whether that-they
zen moeder gevraagd is].
his mother already asked have
d. Dat is dienen vent dan-k nie weten [wien dat-er
that is that man that-I not know who that-there
zen moeder gevraagd is].
his mother asked has

Normally, wh-extraction of a clausal constituent in WF is subject to wh-island constraints as shown by the degradations in (33).

(33) a. *Dat is dienen schryver dan-k nie weten [of dan de
that is that writer that-I not know whether that the
studenten t kennen].
students know
b. *Dat is dienen vent dan-k nie verstoan [woarom dan
that is that man whom-I not understand why that
men oukders t nie vroagen].
my parents not invite

Furthermore, WF displays an asymmetry between object extraction from an island, which is marginal (33), and subject extraction, which is ungrammatical (34).

(34) a. *Dat is dienen schryver dan-k nie weten [of da t men
that is that author that-I not know whether that my
studenten kent].
students knows
b. *Dat is dienen vent dan-k nie verstoan [woarom da t men that is that man that-I not understand why that my oukders nie vroagt].
parents not invites
The external possessor, on the other hand, can be construed with a possessum DP across a wh-island, regardless whether the relevant DP is subject (32a, b) or object (32c, d).

To overcome wh-island violations as those in (33) and (34), WF uses re-sumptive pronouns.

(35) a. Dat is dienen schryver dan-k nie weten [of dan de that is that writer that-I not know whether that the studenten em kennen].
students him know

b. Dat is dienen vent dan-k nie verstoan [woarom dan that is that man whom-I not understand why that men oukders em nie vroagen].
my parents him not invite

(36) a. Dat is dienen schryver dan-k nie weten [of datje men that is that author that-I not know whether that-he my studenten kent].
students knows

b. Dat is dienen vent dan-k nie verstoan [woarom datje that is that man that-I not understand why that-he men oukders nie vroagt].
my parents not invites

3.2.2 Complex NP constraint (CNCP)
The WF external possessor may also be related to a possessum inside a complex NP as shown by the examples in (37): in (37a) the possessum is an object, in (37b) it is a subject.

(37) a. Da’s dienen jungen dan-k men nog [orf den tyd erinneren that-is that boy that-I me still the time remember [dan-k zen moeder in men klasse oan]]
that-I his mother in my class had
‘That’s the boy that I still remember the days when I had his mother in my class.’
b. Da's dienen jungen dan-k men nog [$_{op}$ den tyd erinneren that-is that boy that-I me still the time remember [da zen moeder in men klasse zat]]
that his mother in my class sat
'That’s the boy that I still remember the days when his mother was in my class.’

Again, normally extraction from a complex NP is not possible in WF, subject extraction leading to a sharper violation than object extraction:

(38) a. *Da's dienen jungen dan-k men nog [$_{op}$ den tyd erinneren that-is that boy that-I me still the time remember [dan-k t in men klasse oan]]
that-I in my class had

b. **Da's dienen jungen dan-k men nog [$_{op}$ den tyd erinneren that-is that boy that-I me still the time remember [da t in men klasse zat]]
that in my class sat

A possessor movement analysis would be problematic for the external possessor construction as it would imply that the relevant movement generally can violate the CNPC, which is otherwise observed in WF. As was the case for wh-islands discussed above, CNPC violations are rescued by means of resumptive pronouns:

(39) a. Da's dienen jungen dan-k men nog [$_{op}$ den tyd erinneren that-is that boy that-I me still the time remember [dan-k em in men klasse oan]]
that-I him in my class had

b. Da's dienen jungen dan-k men nog [$_{op}$ den tyd erinneren that-is that boy that-I me still the time remember [dat-je in men klasse zat]]
that-he in my class sat

The resumptive pronoun data in (35, 36, 39) hold the key to an analysis of the external possessor, as we shall see presently. First, I will provide additional arguments against the movement analysis.
3.3 Recursive possessives and left-branch extraction

As mentioned, the very fact that the WF construction would display a left-branch extraction is remarkable since such extractions are severely limited cross-linguistically (Corver 1990). The data in (11) above and in (40b, c) below show that in the external possessor construction we would have to postulate that a left-branch can be extracted from a specifier position which itself is more deeply embedded inside another possessive specifier. Consider (40a): *dien en vent* (*that man*) is the prenominal possessor inside DP2 *dien en vent zen dochter* (*that man his daughter*), which, in turn, is the prenominal possessor for DP1 *dien en vent zen dochter eur us*.

(40) a. Z’een [dp1 [dp2 [dp3 они-have dienen that vent man sun] zen dochter] eur us] a they-have that man his daughter her house already verkocht.
sold

As shown by (40b, c), interrogative extraction or relativisation on the basis of the most deeply embedded left-branch *dien en vent* is possible:

(40) b. Wien zei-je gie dan-ze [dp1 [dp2 [dp3 –] zen dochter] eur who said-you you that-they his daughter her us] a verkocht een?
house] a already sold have

c. Dat is dienen vent dan-ze [dp1 [dp2 [dp3 –] zen dochter] eur that is that man that-they his daughter her us] a verkocht een.
house already sold have

A movement analysis would entail that the external possessor in WF can cross two DP boundaries without any problem. For completeness’ sake, note that the recursive pattern of left-branches can also be instantiated with the *sen* construction (41a). As shown by (41b, c) the two construction types may co-occur in the same DP.

(41) a. Z’een [dp1 [dp2 [dp3 Marie] se dochter] sen us] a they-have Marie se daughter sen house already verkocht.
sold
b. Z’een [dp1 [dp2 [dp3 Marie] se dochter] eur us] a they-have Marie se daughter her house already verkocht.
sold
sold

The doubling construction can be construed with a possessor external to the DP, the sen construction cannot:

(42) a. *Wien zei-je gie dan-ze [dp1 [dp2 [dp3 –] se dochter] eur who said-you you that-they se daughter her us] a verkocht een? house already sold have
b. *Dat is dienen vent dan-ze [dp1 [dp2 [dp3 –] se dochter] eur that is that man that-they se daughter her us] a verkocht een. house already sold have

An external interrogative or relative possessor can be related to a possessive DP with doubling possessive pronoun, which itself is the possessor in a sen construction:

(43) a. Wien zei-je gie dan-ze [dp1 [dp2 [dp3 –] eur dochter] sen who said-you you that-they her daughter sen us] a verkocht een? house already sold have
b. Dat is die moeder dan-ze [dp1 [dp2 [dp3 –] eur dochter] sen that is that mother that-they her daughter sen us] a verkocht een. house already sold have

An analysis of the external possessor in terms of an unconstrained left-branch extraction in the WF possessive constructions would mean that this kind of extraction contrasts systematically with wh-extraction in the clausal domain. This DP/clause asymmetry goes against the trend that attempts to bring the properties of DP in line with these of the clause.
3.4 Extraction from extraposed PPs

In WF, as in standard Dutch and German, wh-extraction from a PP (i.e. with stranding) is only possible from the middle field. In (44a) an R-pronoun is extracted from the PP in the middle field, stranding the preposition an (’on’). The PP *an die zoake* (’on that matter’) can also appear in extraposed position (44b), but in that case P-stranding is not possible (44c).

(44) a. Woar i ee-j gie gisteren [yp t1 an] gewerkt?
   where have-you you yesterday on worked
   ‘What did you work on yesterday?’

b. K’een gisteren gewerkt an die zoake.
   I-have yesterday worked on that matter.

c. *Woar, ee-j gie gisteren gewerkt [yp t1 an]?*

The syntax of extraposed constituents awaits a definitive analysis. In traditional GB-terms, the ungrammaticality of the extraction of *woar* in (44c) tends to be interpreted in terms of an ECP violation. Pursuing a formal licensing and identification analysis of ECP, we might assume that the PP itself does not contain the structure to both license and identify the trace and that the middle field position of the PP, though not the extraposed position, allows the trace to meet its licensing requirements.

Observe, now, that in the external possessor construction it is perfectly possible to construe an external possessor with a *possessum* DP in an extraposed PP:

(45) a. Wien, zei-je gie da-j vroeger nog gewerkt eet [yp
   who said-you you that-you before still worked have
   vu [yp t1 zenen zeune]]?
   for his son
   ‘For whose son did you say that you used to work?’

b. Dat is dienen venti dan-k vroeger nog gewerkt een [yp
   that is that man that-I before still worked have
   vu [yp t1 zenen zeune]]
   for his son
   ‘That is the guy whose son I used to work for.’

If we assume a movement analysis, we are once again led to the conclusion that the WF possessor DP would have to contain the structure and properties required to license the left-branch trace. It is not clear, again, how the language could then be differentiated from Standard Dutch and German, which do not allow for such constructions.
4. An alternative proposal: Resumptive pronouns

4.1 Summary of the preceding section

In the preceding sections we have examined some aspects of the syntax of the external possessor construction illustrated in (5), repeated here as (46).

(46) a. Dat is die verpleegster dan-ze gisteren [eur us] that is that nurse that-they yesterday her house verkocht een.
   sold have
   ‘That’s the nurse whose house they sold yesterday.’

   b. Wekken verpleegster zei-je gie dan-ze gisteren [eur which nurse said-you you that-they yesterday her us] verkocht een?
   house sold have
   ‘Who was the nurse whose house you said they sold yesterday?’

An analysis in which the external wh-possessor – relative in (46a) and interrogative in (46b) – is moved from the left periphery of the DP to the left periphery of the clause might at first sight have seemed the most attractive path to pursue. Such an approach would make WF interestingly similar to other languages with possessor extraction and would reveal an unexpected contrast with the Germanic languages. However, the overview of related constructions in WF and in Germanic languages shows that apart from the obvious problems independently associated with left-branch extractions (Corver 1990), a movement analysis, for the external possessor construction raises a range of problems. In essence, what would have to be left-branch extraction in the WF doubling construction would have to be associated with a set of properties radically distinct from the extraction patterns in the language in general – i.e. outside the possessive domain – and from the similar doubling constructions in Dutch and German and in Scandinavian. I summarise these major asymmetries here.

i. WF would be the only West Germanic language to freely allow possessor extraction (i.e. a left-branch extraction) in the doubling construction.

ii. The external possessor in the WF doubling construction fails to display any of the constraints on possessor extraction found with Norwegian doubling.

iii. While WF displays constraints on extractions from the canonical subject position, left-branch possessor extraction from inside that position would have to be completely unconstrained.
iv. In WF, the trace of a subject interrogative wh-constituent has the features of an indefinite DP in that it always triggers cr-insertion. The alleged trace of an external interrogative possessor, on the other hand, would unexpectedly have to be definite. Under a copy theory of traces, this would imply a mismatch between the moved constituent and its alleged copy.

v. The WF external possessor construction displays no degradation – i.e. neither a strong ECP effect nor a weaker subjacency effect – when an additional DP boundary is crossed.

vi. While WF exhibits wh-island effects in relative and interrogative A'-movement, possessor movement would have to be unconstrained.

vii. The subject/object asymmetries normally found with WF wh-extraction from wh-islands would have to be absent in the case of possessor extraction.

viii. While WF exhibits CNCP effects in relative and interrogative A'-movement, possessor movement would not be constrained by the CNCP.

ix. Left-branch extraction of the possessor would also have to apply to DPs contained in extraposed PPs, which normally do not allow extraction

4.2 An alternative analysis

An A'-movement analysis of the external possessor construction leads to representation (47a).

\[
(47) \quad a. \quad \text{\text{cp \, wh}_i \ldots \text{\text{dp \, t}_i \, \text{POSS}\ldots\ldots}}
\]

wien zenen

If we maintain that the external possessor construction is derived by movement, we will have to complicate the grammar of WF significantly in order to accommodate all the asymmetries listed above. To avoid such complications I will reject the movement analysis and I propose that the external possessor is related to the possessum by virtue of construal with a resumptive pronoun. There are a number of distinct ways of implementing this idea. One option is to assume that the doubling possessive pronoun itself is the resumptive pronoun. Alternatively, given the clitic nature of the possessor zenen, which contrasts with a stronger form zynen, it could be proposed that the possessive pronoun is a clitic, i.e. occupies a head position and that it identifies a non-overt pronominal, pro, in a specifier-position. As far as I can tell, the data discussed will not provide us with any particular information as to the precise position of the non-overt pronoun. Following various discussion in the literature (Authier 1992; Zribi Hertz 1998; Picallo 1994) we could assume that the possessive pro-
noun, whose presence is incompatible with the determiner, cliticises to D. Let us assume provisionally that [Spec, DP] would then be occupied by pro. On the basis of these assumptions, (47a) is replaced by (47b), in which an operator in a left-peripheral position, here the interrogative pronoun wien, binds the null pronoun licensed by the clitic possessor zenen.15

\[(47)\hspace{2em} \text{b. } [\text{cp wh}_i \ldots [\text{ex pro}_i [\text{DP} \text{ POSS}] \ldots]]
\]

zenen

On the basis of (47b), the external possessor construction is no longer singled out as having a range of special properties. External possessor constructions are instantiations of construal of a wh-operator with a resumptive pronoun (48a). Resumptive pronouns are independently available in WF as shown by (35–36) and (38) above and by (48b, c).

\[(48)\hspace{2em} \text{a. Wien}_i \text{ ee-j gie men neu a were gevraagd of who have-you you me now already again asked whether da [pro}_i \text{zen moeder} \text{ nog leeft? that his mother still lives}
\]

b. Wauven studenti ee-j gie men neu a were which student have-you you me now already again gevraagd of da tje; getrowd was? asked whether that he married was

c. Dat is dienen venti dan-k nie mie weten of dat-je; that is that man that-I not more know whether that-he getrouwd is.

Like all pronouns, the DP-internal resumptive pronoun construed with the external possessor will be interpreted as definite (49a).16 Note that in WF a subject pronoun bound by a quantificational element continues to occupy the canonical subject position (49b, c):

\[(49)\hspace{2em} \text{a. Kweten nie of da (*der) zie getrowd is. I-know not if that (*there) she married is.
\]

b. Iedere studente peinst da (*er) zie de besten tekst eet. every student thinks that (*there) she the best text has.

c. Wekken studente peinster niet da (*er) zie nog tyd which student thinks-there not that (*there) she still time eet? has
A possessive DP containing a (definite) resumptive possessive pronoun as its specifier will have the properties of a definite DP. Hence, when such a DP is a subject, it will, like all definite subject DPs, occupy the canonical subject position. This means that er-insertion will not be possible and the subject DP has to be adjacent to the complementiser.

(50) a. Kweten nie of da (*er) zen moeder nog leeft.  
   I-know not whether that (*there) his mother still lives

   b. Kweten nie of da (*gisteren) zen moeder nog leefde.  
      I-know not whether that (*yesterday) his mother still lived

   c. Wien ee-j gie men neu a were gevraagd of who have-you you me now already again asked whether da (*er) zen moeder nog leeft?  
      that (*there) his mother still lives

   d. Wien ee-j gie men a were gevraagd of da who have-you you me already again asked whether that (*gisteren) zen moeder nog leefde?  
      (*yesterday) his mother still lived

4.3 Interpretive consequences

The external possessor construction, while available for both interrogatives and relatives is to my ear more natural with the latter than with the former. This is not unexpected, it has been documented in the literature that the resumptive pronoun strategy is favoured in the context of D-linking (cf. Doron 1982; Demirdache 1997; Sharvit 1999:591; Willis 2000) and the references cited there). Thus, among interrogatives, (51a) is less natural than (51b):

(51) a. Wien zei-j gie da-j morgen zen exoamen goa  
      who said-you you that-you tomorrow his exams go verbeteren?  
      correct  
      ’Whose exam did you say you are correcting tomorrow?’

   b. Wekken studenten zei-j gie da-j morgen under which students said-you you that-you tomorrow their examens goan verbeteren?  
      exams go correct  
      ’Which students’exams did you say that you are correcting tomorrow?’
For the formation of interrogatives, the external possessor construction, in which the possessor occurs initially, alternates with a construction in which the entire possessive DP is fronted. When we compare the two patterns there emerge interesting interpretive differences, illustrated in (52) (see also, among others, Doron 1982; Demirdache 1997; Sharvit 1999; Willis 2000, and the references cited there). The external possessor construction, with its resumptive pronoun, gives rise to D-linked readings of the interrogative possessor. In (52a) the possessive DP *weknen student zen werk* is fronted. The possessive DP may be interpreted as being inside the scope of the quantified subject *iedere leroare*, in which case *weknen student* means something like ‘what kind of student’. The fronted DP may also be taken to be specific, i.e. ask for a specific student whose work every teacher wants to correct. (52b) has an external possessor, *weknen student*, and the pronoun *zen*, inside the possessor, is sentence-internal. In this example, *zen* has a referential reading, and *weknen student* asks about a specific student.

(52) a. *Weknen student zen werk wilt iedere leroare verbeteren?*  
   *Which student’s work does every teacher want to correct?*

b. *Weknen student wilt iedere leroare zen werk verbeteren?*  
   *Which student wants every professor his work correct*

A similar effect is seen in (53). In (53a) the DP *hoevee studenten under werk* is fronted as a whole. Again it may receive a reading within the scope of the quantified subject *iedere leroare*, where the question is about the number of student papers that each teacher is willing to correct, or it may have a specific reading, asking about the number of the papers that all the teachers would want to correct. In the first reading there may be as many different sets of papers as there are teachers, in the second reading there is one specific set of papers. In (53b) with the external possessor construction, only the latter reading is available.

(53) a. *Hoevee studenten under werk wilt iedere leroare verbeteren?*  
   *How many students’ papers does each teacher want to correct?*
b. Hoevee studenten wilt iedere leroare under werk how-many students wants every teacher their work verbeteren? correct 'How many students' papers does each teacher want to correct?'

4.4 When resumptive pronouns are not available

One might object that some of the data discussed here would be compatible with a view that in fact possessor extraction remains available in WF, namely for deriving those examples in which no constraints on extraction would be violated. Observe, though, that if movement were available for the external possessor analysis the ungrammaticality of the data mentioned in (9) and repeated here as (54), would be unexpected:

(54) a. *Wien, is da [z’n tante]?
    who is that his aunt
b. *Wien, ist-je [z’n broere]?
    who is-he his brother
c. *Wien, goan-me [ti z’zuster] neu ipvrijen?
    who shall-we his sister now 'make love to'
d. *Wien, ken-je gie [ti z’en broere]?
    who know-you you his brother

Recall that (54a) and (54b) are the WF ungrammatical analogues of what have been argued to be grammatical cases of Norwegian extraction. If a possessor could be extracted by movement in WF then nothing should stop short extraction of the possessor from a predicate or from a complement. In WF short extraction of predicates and of complements is grammatical:

(55) a. Wien, is da [ti]?
    who is that
    'Who’s that?’
b. Wad, ist-je [ti]?
    what is-he
    'What does he do?’
c. Wien, goan-me [ti] neu ipvrijen?
    who shall-we now 'make love to'
    'Who shall we chat up now?’
d. Wien, ken-je gie [t1]?  
   who know-you you
   ‘Whom do you know?’

On the other hand, the resumptive pronoun strategy in WF is in fact not available with predicate fronting (56a) and neither is it possible in very local relations (56b, c).

(56) a. *Wien, is da [em1]?  
   who is that him

b. *Weknen schryver ken-je gie [em1]?  
   which writer know you him

c. *Dat is nen schryver [dan al de studenten em kennen].  
   that is a writer that all the students him knew

But (56b) and (56c) can be much improved if the distance between the operator and the resumptive pronoun is increased:

(57) a. ?Weknen schryver zei-je gie dan de studenten [em1]  
   which writer said-you you that the students him all know

b. ?Dat is nen schryver dan-k toch zoun peinzen [dan al  
   that is a writer that-I actually would think that all  
   de studenten em kennen].  
   the students him knew

Obviously, if the data discussed here provide some support for a resumptive pronoun analysis, it is clear that many questions remain as to its application. I hope to return to those issues in future work.

4.5 A note on the differences with Romance clitic left dislocation

At first sight, the WF possessor doubling pattern and the possessor extraction pattern seem to have an analogue in the clausal domain in the form of the Romance clitic left dislocation construction (CLLD) illustrated by French (58a).17

(58) a. Jean, je ne l’ ai pas vu.  
   Jean I ne him have not seen

The DP in the left periphery of the clause – Jean – has topic interpretation (Cinque 1990; Rizzi 1997) and is doubled by a resumptive object clitic, le
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Giusti (1996) indeed assimilates the Germanic possessor doubling pattern to the Romance left dislocation structure. She proposes that the DP-possessor parallels the topicalised constituent in the CLLD pattern and occupies the specifier of a TopP in the DP domain. The doubling possessive pronoun corresponds to the doubling clitic. Though Giusti's analysis is intuitively appealing, it raises problems because the WF prenominal possessor DP in the doubling construction is not always compatible with a topic reading. In the Romance CLLD constructions, typically, the dislocated topic DP cannot be a bare quantifier (cf. Cinque 1990; Rizzi 1997):

(58) b. *Personne je ne l’ai vu.
    no-one I ne him have seen

The WF prenominal possessor in the doubling construction may be realised by a bare quantifier.

(59) a. Dat zyn niemand zen zoaken.
    that are no-one his businesses
    'This is no one's business.'

b. Niemand zen voader zou-ter da keunen verdroagen.
    no-one his father would-there that be-able-to support
    'No one's father would tolerate that.'

A related argument against assimilating the possessor DP to the Romance left-peripheral topic is that the prenominal possessor DP may be realised as a bare interrogative wh-phrase, which is compatible with focus interpretation (i.e. 'new information'), but not with topic interpretation (i.e. 'given information'):

(59) c. [Wien zenen boek] ligt *(ter) doa?
    [who his book] lies *(there) there

5. Conclusion and questions for future study

This paper discusses the WF external possessor construction illustrated in (5) and repeated here as (60).

(60) a. Dat is die verpleegster dan-ze gisteren eur us verkocht
    that is that nurse that-they yesterday her house sold
een.
    have
    'That’s the nurse whose house they sold yesterday'
One might be tempted to derive (60) by means of a movement analysis in which a left-branch possessor is extracted from a doubling possessor construction. This paper shows that such an analysis is not plausible because the movement invoked to derive (60) would violate the standard constraints on A’-movement in WF.

I propose that the external possessor be related to the possessum by construal with a resumptive pronoun. I also discuss some interpretive consequences of the resumptive pronoun analysis.

In future work I intend to explore further the relevance of the external possessor construction for the internal structure of DP and its analogues with the structure of the clause.18

Obviously we also need to address the question what distinguishes standard Dutch, which lacks the external possessor construction in (5), from WF, which has it productively. An answer to this question may partly rest on the observation that the resumptive pronoun strategy in general is not available in standard Dutch. The absence of the resumptive pronoun strategy could also account for the observation that standard Dutch lacks the equivalent of (3a’), repeated as (61b) in which the prenominal possessor DP is not adjacent to the possessive pronoun.

(61) a. al Valère zen boeken
   all Valère his books
 b. Valère al zen boeken

(62) Dutch
 a. al Jan z’n boeken
   all Jan his books
 b. *Jan al z’n boeken

To clarify the relevance of the contrast in (61)–(62) for the external possessor pattern, further study of cross-dialectal variation will be required. At first sight, a potential problem for the analysis is that the WF Roeselaere dialect lacks (61b) and does have what appears to be the external possessor construction.19 However, in relatives the external possessor is most naturally realised as a PP:
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(63) a. Dat is die verpleegster van wie dan-ze gisteren eur that is that nurse of-whom that-they yesterday her us verkocht een house sold have

b. Dat is die vent van wie da zin broere gisteren zin us that is that man of-who that his brother yesterday his house ee verkocht has sold

On the other hand, observe that the possessum contains a resumptive possessive pronoun (zin) and the possessive relation can be established across an island (62c), or from a extraposed PP (63d):

(63) c. Dat is dienen vent van wie dan-k nie weten of da that is that man of-whom that-I not know whether that zin moedre tun ertrouwd is his mother then remarried is
d. Dat is dienen vent van wie dan-k vroeger nog gewerkt that is that man of-whom that-I formerly still worked een vu zen zeune have for his son

In order to determine exactly the conditions licensing bare DP external possessors and those governing PP external possessors, further cross-dialectal comparisons will be needed.

Notes

* This paper was first presented at the From NP to DP conference in Antwerp (February 2000). Related work was presented at the Peripheral Positions conference at the University of York in September 2000 and at the Motivating Movement conference at the University of Ulster at Jordanstown in January 2001. The data were also presented at the doctoral seminar of the University of Louvain in May 2001. I thank the various audiences for their comments. Thanks are also due to William van Belle, Norbert Corver, Siobhan Cottell, Elena Gavruseva, Eric Haeberli, Karen Lahousse, Beatrice Lamiro, David Pesetsky and Phoivos Panagiotidis. Special thanks to the anonymous reviewer for this volume, who brought to my attention numerous relevant data from the Roeselaere dialect and who made some very insightful points concerning the interpretation of the construction. Obviously, I am fully responsible for remaining errors in this paper. A first version of this paper appeared as Haegeman (2000).

1. Possessor doubling constructions have been signalled in the literature. To mention just a few references: Ramat (1986) offers a survey of such constructions in a range of languages,

2. An anonymous reviewer points out that not all variants of WF allow for the pattern in (3a). For instance, the dialect spoken in Roeselaere does not allow it. I return to this observation in Section 5.

3. As pointed out by the reviewer for this volume, Dutch allows for (i):

(i) dat is de man van wie men gisteren het huis afgebroken heeft
    that is the man of whom they yesterday the house taken-down have
    'that's the man whose house they took down yesterday'

The pattern in (i) displays extraction of a prepositional possessor van wie. Though obviously ultimately relevant for the syntax of possessors and of DP in general, the focus of my paper is much narrower and I will not discuss these patterns here. For relatively recent discussion of these patterns in Romance and in Germanic see Gavruseva (2000:766–770).

4. The Dutch equivalents of these examples are also ungrammatical (Corver 1990:183).

5. In the representation I include a trace in order to represent the movement analysis. As we will see I reject this analysis later on.

6. Corver (1990) argues that the extraction of the possessor from the predicate in Norwegian is made possible by the particular mechanisms by which the predicate is assigned case. For a critical discussion of Corver’s (1990) analysis of external possessors I refer to Haegeman (2000).

7. Observe that the the examples in (12) allow for two interpretations of the second possessive, zen associated with us. This pronoun may be taken to refer to either the antecedent of the relative, and hence be coreferential with the possessive zen associated with broere, or it may be taken to be coreferential with the DP zen broere.

(i) a. Dat is dienen ventx da [ – zenx broere,] gisteren zen, us verkocht eet.
   b. Dat is dienen ventx da [ – zenx broere,] gisteren zen, us verkocht eet.

The reviewer for this paper points out intriguing interpretive effects in the Roeselaere dialect concerning a sentence such as

(ii) Dat is dienen vent van wie dat zin broere gistern zin us eec
    that is that man of whom that his brother yesterday his house has
    verkocht.
    sold

He signals that he gets interpretation (ia) as the first one for (ii), i.e. the brother sold the man’s house. He also signals a possible difference between my WF idiolect, his Roeselaere idiolect and standard Dutch. He writes: “The problem I have with the WF [Roeselaere] sentence [ii] is that in [the] Standard Dutch [analogue], I tend to interpret zijn as referring to “the house of the brother”, [i.e. reading (ib)], whereas in WF [ii], I tend to interpret zin . . . as referring to dienen vent (although reference to the brother’s house is possible as
well).” Since the construction in (ii) contains an external PP possessor rather than a bare DP possessor I will not dwell on these very interesting observations here but note them for future study.

8. Except for object clitics, which need not concern us here.

9. Interestingly, the reviewer for this paper points out that in his Roeselaere dialect (20a) is ‘not bad at all’. This cross-dialectal variation obviously is of interest, but unfortunately I have nothing to say about it here.

10. With respect to er-insertion, there is cross dialectal variation. The reviewer to this paper finds (21a) ‘fine without der though there is perhaps some kind of focus reading on the quantifier van’. Other WF speakers seem to make a distinction between weak and strong readings, with er-insertion is only obligatory for the former (pc. doctoral students, University of Louvain). Obviously, these differences among the dialects in terms of er-insertion merit further study.

11. For the discussion, I treat quantified DPs as indefinites. There are obviously differences but these do not bear on the present argument.

12. The reviewer for this volume points out that in the Roeselaere dialect er-insertion is not obligatory here. Possibly this may be because nen student is given a generic reading; alternatively it is related to the remark in Note 10. He has the same contrastive judgements for text examples (26) and (28a) below. Obviously, to account for these contrastive judgments one would have to examine er-insertion in the Roeselaere dialect in detail. This is beyond the scope of this paper.

13. For differences between N-words and indefinites see Haegeman (1997).

14. See Haegeman (1998, 1999) for some discussion on extraposition in WF.

15. Two remarks must be made here, which for reasons of scope I cannot explore further. See Haegeman (2001a) for discussion. It is not obvious that pro occupies [Spec,DP]. Consider the pair (ia, b). In (ia) the possessor Jan precedes the possessive pronoun, in (ib) the head N of the possessum has been ellipted and the possessive pronoun is realised in its full form, the strong pronoun zyne. Presumably the strong form of the pronoun is required to license the ellipsis (cf. Picallo 1995; Zribi Hertz 1998). The strong pronoun follows the determiner de.

(i) a. Jan zen boeken
   Jan his books

b. Jan de zyne
   Jan the his

We might speculate that in (ia) the cliticisation of zen to D licenses pro in the lower position occupied by zyne in (ib).

(i) c. Jan zen [pro boeken]

For further details on the internal structure of the possessive DP see Haegeman (2001a, 2001b). Observe in passing that data such as (ib) refute Gavruseva’s (2000) contention that the Germanic prenominal possessor does not move to [Spec,DP] in the syntax. For further discussion of these data with a refutation and an adaptation of Gavruseva’s analysis see Haegeman (2001a). The reviewer for this paper points out that not much evidence is pro-
vided in support of the 'resumptive pro analysis' in favour of one in which it is the possessive pronoun itself which is resumptive. This is quite true and it may be that the latter option turns out to be preferable. At any rate, if the resumptive pro analysis is maintained, the resumptive pro is crucially licensed by and dependent on the overt possessive along the lines of Authier (1992) and Zribi Hertz (1998). As pointed out by the reviewer for this volume, the resumptive pro postulated here is not simply the A'-bound non overt pronoun postulated by Cinque (1990).

16. In WF the occurrence of the full pronoun zie in post-complementiser position without a doubling clitic is marked. The more natural forms would be:

(i) a. Kweten nie of da-se zie getrowd is.
    I-know not if that-she she married is

b. Kweten nie of da-se getrowd is.
    I-know not if that-she married is

Again, in such cases, er-insertion is not possible. Observe that as such the presence of the clitic se need not rule out the presence of er, as long as this is not an instantiation of the existential er. Partitive (d)er is for instance possible.

(ii) a. Kweten nie of da-se zie der vele kent
    I-know not if that-she of-them many knows
    'I don’t know if she knows many.'

b. Kweten nie of da-se der zie vele kent
    I-know not if that-she of-them she many knows

17. As pointed out by the reviewer of this paper.
18. See also Haegeman (2001a, 2001b).
19. Thanks to the reviewer for this volume for pointing out these important data to me. Obviously, the reviewer is in no way responsible for my interpretation of the data.

References

The external possessor construction in West Flemish


1. Introduction

The research presented here takes as its starting point a typological overview of the use of the external possessor construction (Vergnaud & Zubizarreta 1992; König & Haspelmath 1998) with a possessive dative, in four Romance (French, Spanish, Italian, and Rumanian) and three Germanic (German, Dutch, and English) languages (Lamiroy & Delbeque 1998). The data examined there show that this construction is not evenly distributed across the various languages taken into account: languages like French and Dutch, for instance, use it in a much more restricted way than do Rumanian, Spanish or German. English is a well known exception with respect to the external possessor structure since possessive datives do not exist at all. I will propose here that the way to account most satisfactorily for the typological variation observed is grammaticalization theory.

The type of external possessor structures that will be under analysis here are possessive dative structures, i.e. clauses in which the possessor of an entity conceived of as inalienable, is expressed by means of a dative, like in (1):\(^1\)

\[
\begin{align*}
\text{(1) a. Max a & tordu le bras à Luc} \\
& \text{Max has twisted the arm to Luc} \\
& \text{‘Max has twisted Luc’s arm’} \\
\text{b. Max lui & a tordu le bras} \\
& \text{Max 3.SG.DAT has twisted the arm} \\
& \text{‘Max has twisted his arm’}
\end{align*}
\]
In the above example (1a), the dative can be formally defined on the basis of its being connected with the clitic lui. As is well known, the dative that will be treated here mostly appears in pronominal form, rather than as a lexical NP. It is a possessive dative because its referent is the possessor of the inalienable entity, very often a body part, for instance le bras in example (1).

The dative we will deal with is a non-lexical dative (Barnes 1985; Leclère 1976, 1978; Rooryck 1988) in that it is not selected or justified by the valency of the verb, in this case tordre in example (1). To account for the fact that the dative argument does not correspond to a thematic role programmed in the lexicon, Shibatani (1994) proposes the term of extra-thematic licensing.

Two other types of non-lexical datives can be distinguished, i.e. the dative of interest (dativus (in)commodi) and the ethical dative, illustrated in (2a, b):

(2) a. Je vous trouverai un appartement
     I you will.find a flat
     'I will find you a flat'

b. Il te lui a donné une de ces gifles!
     He 2.SG.DAT 3.SG.DAT has given one of these slaps
     'Did he slap him in the face?'

Although I will mainly deal with the possessive dative, I will shortly come back to the other types of non-lexical datives at the end of this paper.

The article is organized in three parts. I will start with a brief discussion of the three grammatical functions that lend themselves to expressing inalienable possession: first, the internal possessor construction (König & Haspelmath 1998), in which possessor and possessee belong to the same NP (the NP is preceded by a possessive determiner), second, the structure in which the possessor is expressed by means of an accusative or direct object, and third, the possessive dative. I will in a second part run through the relevant typological data concerning the dative. Finally, in a third section, I will go more deeply into the arguments that support my hypothesis with regard to grammaticalization.

2. Grammatical functions

2.1 The internal possessor construction

Ever since Hatcher (1944), it is well known that many languages, among which French, alternately use the possessive dative (3a) and a structure in which the NP is preceded by a possessive determiner (3b):
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(3) a. Il me prend le bras
   He me grabs the arm
   ‘He grabs my arm’

   b. Il prend mon bras
   He grabs my arm
   ‘He grabs my arm’

Because the literature that has been devoted to this topic is so extensive (among many others, Chappell & McGregor 1996; Dumitrescu 1990; Fox 1981; Herschensohn 1996; Herslund 1983; Jacob 1993; Kliffer 1983; Kliffer 1984; Manoliu-Manea 1996; Payne & Barshi 1999; Spanoghe 1995; Vandeweghe 1987; Wegener 1985), I will restrict myself to summarizing the most essential features that distinguish both types of construction.

The most important difference, already stated by Hatcher (1944), from which all other differences probably sprout, is that (3b) implies that the possessed entity is detached from the possessor to a much higher degree than is the case with the dative in (3a). This is in line with the basic meaning of the dative in general, which requires that the possessor be affected by the process (Herslund 1988; Lazard 1994). As a consequence, the possessive determiner is generally preferred whenever the process does not affect the possessor, as pointed out by Kayne (1975: 170) and many others (compare (4a, b)). For the same reason, it is favoured over the dative when the possessor, or the whole in the part–whole relation is a [–human] NP, i.e. an entity that is less liable to be affected by the process than a human being (compare (5a, b)):

(4) a. J’ai vu son visage / sa maison
    I have seen his face / his house

   b. *Je lui ai vu le visage / la maison
      I 3.SG.DAT have seen the face / the house

(5) a. *La table, quelqu’un lui a scié toutes les pattes
    The table, someone 3.SG.DAT has sawn.off all the legs
    ‘The table, someone has sawn off all its legs’ (Leclère 1976)

   b. La table, quelqu’un a scié toutes ses pattes
      The table, someone has sawn.off all its legs

Furthermore, as has often been noted, the possessive determiner is used when the NP referring to the possessed entity includes a modifier, as soyeux in (6):
(6) a. Le coiffeur a peigné ses cheveux soyeux.
    The hairdresser has combed his hairs silky
    ‘The hairdresser has combed his silky hair’
    (Vergnaud & Zubizarretta 1992)

   b. Il lui a peigné les cheveux soyeux
      He 3.SG.DAT has combed the hair silky
      ‘He has combed her silky hair’

In this case, the dative is only possible if the modifier is used in a restrictive reading: in (6c), for instance, only the frozen fingers have been bandaged. A similar reading is unlikely in (6b) which will not be interpreted as if only a few hairs (the silky ones) have been combed:

(6) c. Il lui a bandé les doigts gelés
      He 3.SG.DAT has bandaged the fingers frozen
      ‘He has bandaged his frozen fingers’

Yet another feature that distinguishes the two structures is that the possessive determiner gives rise to a ‘token’ reading, while the dative entails a ‘type’ reading (Vergnaud & Zubizarretta 1992): the singular form in (7a) is only possible because of a distributive, i.e. a type-like interpretation. In (7c) such an interpretation is excluded, and therefore the possessive determiner is used, yielding a token-like interpretation:

(7) a. Le médecin leur a examiné la gorge
      The doctor 3.PL.DAT has examined the throat
      ‘The doctor has examined their throat’

   b. Le médecin a examiné leurs gorges
      The doctor has examined their throats

   c. Le policier a minutieusement examiné leurs passeports
      The policeman has minutely examined their passports

   d. Le policier leur a minutieusement examiné le passeport
      The policeman 3.PL.DAT has minutely examined the passport

Finally, a case in which the dative is particularly frequent is that of fixed expressions. This is true for all the languages under analysis, as is made clear in the examples taken from French (8), Dutch (9), Spanish (10) and Italian (11):

(8) a. Luc casse les pieds à Léa
      Luc breaks the feet to Lea
      ‘Luc bothers Lea’
b. Luc lui casse les pieds
   Luc 3.SG.DAT breaks the feet

c. *Luc casse ses pieds
   Luc breaks her feet

(9) a. Ze tikte hem op de vingers
   She tapped 3.SG.DAT on the fingers
   'She rapped him on the knuckles'

   b. *Zij tikte op zijn vingers7
   She tapped on his fingers

(10) a. Me toca la pera
   1.SG.DAT touches3.SG the pear
   'He annoys me'

   b. *Toca mi pera
   touches3.SG my pear

(11) a. Mi rompe le scatole
   1.SG.DAT breaks3.SG the boxes
   'He annoys me'

   b. *Rompe le mie scatole
   breaks3.SG the my boxes

To account for the frequent use of the dative in fixed expressions, two elements appear to be relevant. First, fixed expressions satisfy all the conditions for the use of the dative in general (Herslund 1988; Lazard 1994): the referent of the dative is a human possessor, the inalienable entity belongs to the inalienabilia par excellence, i.e. body parts, and the verbs express a dynamic process which affects the possessor. Second, it is known (Popescu-Ramirez & Tasmowski-De Ryck 1988; Jacob 1993) that the use of the possessive dative goes hand in hand with the thematization of the possessor. Not surprisingly, within the hierarchy of topicalization (Givon 1976), the dative is situated in second position, after the subject. The fact that the NP referring to the possessor mostly appears in pronominal form rather than as a full NP can be linked to the same feature: the clitic or personal pronoun is placed either immediately before or immediately after the verb, i.e. in a position that is more thematic than that of a lexical NP.

2.2 The accusative or direct object

When comparing the dative to the accusative, which can also be used to express relations of inalienable possession, one notices again formal constraints
that make that the two are not always interchangeable, as well as semantic
differences that distinguish them.

Languages with overt morphological case like German or Rumanian are
especially interesting in this respect, because they clearly illustrate which alter-
nations are possible, as is shown in (12), borrowed from Draye (1995):

(12) a. Der Mann hat mir / mich ins Gesicht geschlagen
     The man has 1.SG.DAT / 1.SG.ACC in.the face slapped
     'The man has slapped me in the face'
 b. Der Regen hat mir / *mich ins Gesicht geschlagen
     The rain has 1.SG.DAT / 1.SG.ACC in.the face hit
     'The rain has hit me in the face'

According to Draye, the possible alternation in (12a) is motivated by the
fact that the possessor is presented as being less affected when the dative is
used (mir), than when the accusative is used (mich). In (12b), the [–human] NP Der Regen is less agentive than der Mann and therefore the patient is
less directly linked to the process: this is why accusative and dative do not
alternate anymore.

The examples from Rumanian in (13) show an alternation that is similar
to that observed in German and the analysis by Manoliu-Manea (1996) is to-
tally comparable to Draye’s account: the accusative implies a higher degree of
involvement of the possessor than does the dative. In (13a), the structure is
‘whole-centered’, while in (13b), it is ‘part-centered’. Or to put it differently, in
both cases the possessor is affected by the process, but in (13a) the possessor
is foregrounded whereas in (13b), he is backgrounded. According to Manoliu-
Manea, (13a) is thus only acceptable if the possessor is actually wearing the
shirt, which is not necessarily the case in (13b):

(13) a. Ma închei la câmașă
     1.SG.ACC close,sg at shirt
     'I button my shirt'
 b. Îmi închei câmașă
     1.SG.DAT close,sg shirt the

In languages that do not have overt case, the direct object seems to function
in the same way. Leclère (1995) gives the examples in (14)–(15) and simi-
larly emphasizes the different orientation in each case: in (14a), the focus is
on the whole (Marie), while in (14b) it is on the part (le bras). This par-
ticular orientation also accounts for the unacceptability of (15b). The verb
examiner instantiates the lexical property to only admit the ‘part-centered’ orientation (15a):

(14) a. Paul a mordu Marie au bras
    Paul has bitten Mary in the arm
    ‘Paul has bitten in Mary’s arm’
    b. Paul a mordu le bras à Marie
    Paul has bitten the arm of Mary

(15) a. Paul lui a examiné le bras
    Paul 3.SG.DAT has examined the arm
    ‘Paul has examined his arm’
    b. *Paul l’ a examinée au bras
    Paul 3.SG.ACC has examined on the arm

As was also observed for the possessive determiner, the accusative can express the simple relation between a part and its whole, while the dative seems to require a more strict relation of inalienability with a human possessor (16a, b). As we will see, however, not all languages share this restriction, as is shown here for Spanish (17):

(16) a. La table, je l’ai astiquée sur toute la surface.
    The table, I 3.SG.ACC have polished on entire the surface
    ‘The table, I have polished its entire surface’ (Leclère 1995)
    b. *La table, je lui ai astiqué toute la surface
    The table, I 3.SG.DAT have polished entire the surface

(17) Le fregué las manchas al tablero.
    3.SG.DAT rubbed,3.SG the spots on the table
    ‘I rubbed the spots off the table’ (Demonte 1995)

Finally, the accusative does not seem to function in fixed expressions, which prefer the dative:

(18) a. J’aime lui rentrer dans le chou
    I love 3.SG.DAT enter in the cabbage
    ‘I like to have a go at him’
    b. *J’aime le rentrer dans le chou
    I love 3.SG.ACC enter in the cabbage

(19) a. Gli rompe le scatole
    3.SG.DAT breaks,3.SG the boxes
    ‘He annoys him’
    b. *Lo rompe le scatole
    3.SG.ACC breaks,3.SG the boxes
To summarize, the possessive dative structure is only one out of several other constructions available to indicate the possessor of inalienable entities. Two other structures have been under scrutiny here: the internal possessive structure (possessive determiner + NP) and that containing an accusative or direct object. These three structures alternate or not, depending on several formal and/or semantic conditions.

If we assume the internal possessor construction to be related to genitive case (*son bras = le bras de Luc), then the following hierarchy can be established, based on the possessor’s involvement in the process. The accusative signals the highest degree of involvement, the genitive the lowest. The dative occupies an intermediate position between the former and the latter. When a possessive determiner is used, the possessor can be so little affected by the process that he can even remain absent while the process takes place (cf. Example 4: *J’ai vu sa maison). With the accusative, the opposite is true: the possessor is a central entity and is directly involved in the process, with the possessed entity shifted to the background, as was shown in the German and Rumanian examples in (12)–(13). As noted by Manoliu-Manea for example (13a), the possessor’s presence while the process takes place is actually indispensable. When the dative is used, possessor and possessee together play an equally important role: the part as well as the whole are affected by the process. Formally speaking, neither of them can be left out on its own:

(20) a. Max lui a tordu le bras
   Max 3.SG.DAT has twisted the arm
   ‘Max has twisted his arm’

b. *Max a tordu le bras
   Max has twisted the arm

c. *Max lui a tordu
   Max 3.SG.DAT has twisted

2.3 The possessive dative

The languages covered by Lamiroy and Delbecque (1998) have been examined from three different perspectives: the syntactic function of the possessed element, the type of entity conceived of as inalienable, and the type of verb that appears in the clause.

As far as the syntactic construction is concerned, the possessive dative can occur in clauses with one, two, or three arguments. When the verb is intransitive, the possessed element is either in subject or in oblique position (21a, b).
In the transitive structure, the possessee is either a direct object or an oblique complement (21c, d):

(21) a. Les mains lui tremblent
   The hands 3.SG.DAT tremble
   ‘His hands are trembling’

b. Cela lui pend au nez
   This 3.SG.DAT hangs to the nose
   ‘This is threatening him’

c. Léa se lave les mains
   Lea 3.SG.REFL.DAT washes the hands
   ‘Lea washes her hands’

d. Léa m’a chuchoté quelque chose dans l’oreille
   Lea 1.SG.DAT has whispered something in the ear
   ‘Lea has whispered something in my ear’

As to what is considered by the various languages as typically inalienable, body part terms of course denote inalienable possession par excellence, but they are not the only ones to do so. It has been known for a long time (Lévy-Bruhl 1914; Bally 1926) that the notion of inalienable possession is a flexible concept, and that what languages conceive of as inalienable varies across cultures (Chappell & McGregor 1996). Nichols (1988), however, established the following hierarchy on typological grounds (22):

(22) a. body part and kinship terms
    b. part-whole and spatial relations
    c. culturally based possessed items

As will be shown in Section 3, some of the languages dealt with here are more restrictive in this respect than others. Kinship terms, for instance, which are on the highest position in Nichols’ (1988) ranking, are less easily expressed by possessive dative structures in French than in other Romance languages, as shown by the contrast between French (23a) and Spanish (23b) or Rumanian (23c):

(23) a. *‘L’enfant me dort tranquillement’
   The child 1.SG.DAT sleeps quietly
   ‘My child is sleeping quietly’

b. El niño me duerme tranquilo
   The child 1.SG.DAT sleeps quietly

c. Copilul îmi doarme liniștit
   child-the 1.SG.DAT sleeps quietly

(Dumitrescu 1990)
And finally, the verbs that occur with a possessive dative will be more often than not dynamic verbs, since the possessor must be in one way or another affected by the situation. Still, certain languages seem to relax this condition more than others. Compare, for instance, the French example with the Spanish in (24a, b):

(24) a. Je lui ai maquillé / cassé / vu la figure
   I 3.SG.DAT have made.up / broken / seen the face
   'I have made up / broken / seen her face'

   b. Le he pintado / roto / visto la cara
   3.SG.DAT have3sg made.up / broken / seen the face
   'I have made up / broken / seen her face'

Before turning to the typological data, a striking fact should be pointed out here. Although the external possessor construction is considered by König and Haspelmath (1998) as a typical European phenomenon, in English the possessive dative is absent. Because of this, English does not figure in the data presented below.

3. Typology of possessive dative structures

3.1 The following examples shortly illustrate that the possessive dative appears both in intransitive (25)–(26) and in transitive structures (27)–(28) across the different Romance and Germanic languages:

(25) a. Me duele el corazón de quererte tanto
   1.SG.DAT hurts the heart to love-you so.much
   'My heart aches from loving you'

   b. Mir schmerzt der Bauch
   1.SG.DAT aches the stomach
   'My stomach aches'

(26) a. Văd că acum nu ți mai intră nimeni în casă
   see3sg that now not 2.SG.DAT anymore enters nobody in house
   'I see that nobody now enters your house anymore'
   (Dumitrescu 1990)

   b. Zij tikte hem op de vingers
   She tapped 3.SG.DAT on the fingers
   'She rapped him on the knuckles'
Grammaticalization and external possessor structures

(27) a. Gianni   mette   la giacca
Gianni 3.SG.REFL.DAT puts.on the jacket
‘Gianni puts on his jacket’
b. Sie   haben   ihn   den Arm gebrochen
They have 3.SG.DAT the arm broken
‘They have broken his arm’

(28) a. Se   me   ha   clavado algo en el pie
3.SG.REFL 1.SG.DAT has stuck something in the foot
‘Something got stuck in my foot’
b. Hij   spelde   mij   iets   op de mouw
He pinned 1.SG.DAT something on the sleeve
‘He told me a lie’

For Spanish, Romanian and Italian, it must be noted that in these languages, the first two even more so than Italian, the combination of the possessive dative with the medio-passive construction with reflexive se illustrated in (28a) is particularly productive:

(29) a. Se   me   rompió el pantalón
3.SG.REFL 1.SG.DAT broke the pants
‘My pants are torn’
b. Mi   s-   a   înroșit fața
1.SG.DAT 3.SG.REFL has reddened face-the
‘My face got red’ (Manoliu-Manea 1996)
c. Mi   si   sono rotti i pantaloni
1.SG.DAT 3.SG.REFL are broken the pants
‘My pants are torn’

I will argue below that this co-occurrence is not fortuitous and that it provides evidence for the grammaticalization hypothesis.

A second point to be made here concerns word order: notice that with the intransitive structures, the unmarked order is usually VS, as shown in the German and Spanish examples (25a, b). Only in Dutch and French does the subject necessarily occur in preverbal position. Once more, I will argue that there is a significant correlation between the two phenomena, viz. the possessive dative and constituent order. This connection will be explained in Section 4.

3.2 The prototypical instances of inalienability are, for obvious reasons, terms denoting body parts. Clothing, being close to the body, can be subsumed under the same category.

Apart from this, however, Romance and Germanic languages vary with respect to what they include in the inalienable domain. When it comes to using
the possessive dative with kinship terms, French favors the internal possessor construction, as shown by the contrast in (30d, e). French is thus far more restrictive than Spanish (30a), Rumanian (30b) and Italian (30c):

(30) a. Se les casa la última hija mañana
   3SG.REFL 3PL.DAT marries the last daughter tomorrow
   'Their last daughter is getting married tomorrow'

   b. Ion șī- a sărutat nevasta
   John 3SG.REFL.DAT has kissed wife-the
   'John has kissed his wife' (Dumitrescu 1990)

   c. Gli è mancata la mamma poco fa
   3SG.DAT is missed the mother little ago
   'His mother died not long ago'

   d. *La dernière fille se leur marie demain
   The last daughter 3SG.REFL 3PL.DAT marries tomorrow

   e. Leur dernière fille se marie demain
   Their last daughter 3SG.REFL marries tomorrow

The same goes for Dutch, when compared to German:

(31) a. Ihm sind die Kinder abhanden gekommen
   3SG.DAT are the children independent become
   'His children have become independent'

   b. *De kinderen zijn hem onafhankelijk geworden
   The children are 3SG.DAT independent become
   'His children have become independent'

   c. Zijn kinderen zijn onafhankelijk geworden
   His children are independent become

As already noted above for Spanish (cf. (17)), Rumanian and German also allow elements in a part–whole relation or culturally based possessed items:

(32) a. Îmi țī ud grădina
   1SG.DAT water 1SG garden the
   'I water my garden' (Manoliu-Manea 1996)

   b. Es regnet uns ins Haus
   It rains 1PL.DAT in the house
   'It rains into our house' (Draye 1995)

3.3 Action verbs prototypically appear with possessive datives: the verb expresses some action that in one way or another affects the possessor. Still, it must be noted again that French and Dutch verify this condition whereas the remaining languages relax this restriction, since static verbs do not seem
to be excluded, as illustrated by the contrast between German and Dutch in (33a, b), and between Rumanian and French in (34a, b). With stative verbs, Dutch and French use the internal possessor construction. Interestingly, as pointed out by Dumitrescu (1990), Spanish does not allow stative verbs like saber/conocer (34c) in the construction either. Therefore Rumanian appears of all Romance languages as the one in which the possessive dative construction is most productive:

(33) a. Ihm schmerzt der Bauch
    3.SG.DAT aches the stomach
    'His stomach aches'

b. *De buik doet hem pijn
    the stomach does 3.SG.DAT pain

c. Zijn buik doet pijn
    his stomach does pain

(34) a. Nu-ţii ştiu adresa
    Not 2.SG.DAT know1sg address-the
    'I don’t know your address' (Dumitrescu 1990)

b. *Je ne te connais pas l’adresse
    I NEG 2.SG.DAT know not the address

c. Je ne connais pas ton adresse
    I NEG know not your address

d. *No te sé / conozco la dirección
    Not 2.SG.DAT know1sg the address

Finally, it should be noted that the unequal distribution of the possessive dative structure across the Romance and Germanic languages is paralleled by the distribution of the two other non-lexical datives, the dative of interest and the ethical dative. The latter obviously exist in French and Dutch, but their use seems to be far more limited than in the other languages, as suggested by the following examples taken from Rumanian (35a) vs. French (35b) and German (35c) vs. Dutch (35d):

(35) a. Știu că Ion ții e bun prieten
    I-know that John 2.SG.DAT is good friend
    'I know that John is a good friend of yours' (Dumitrescu 1990)

b. *Je sais que Jean t’est bon ami
    I know that John 2.SG.DAT is good friend

c. Da hat er mir ihm was zugeflüstert
    There has he 1.SG.DAT 3.SG.DAT something whispered
    'He then whispered something into my ear' (Draye 1995)
d. "Daar heeft hij mij hem iets toegefluisterd
    There has he 1.SG.DAT 3.SG.DAT something whispered

4. Inalienable possession and grammaticalization

The idea I would like to put forward here is the following. The data observed for French and Dutch (and a fortiori English), which are restrictive in terms of non-lexical datives in general and possessive datives in particular, could be part of a broader process of grammaticalization which affects these languages. The remaining languages, viz. Rumanian, Spanish, Italian, and German, where non-lexical datives are far more productive, are also less grammaticalized.

It is known for independent reasons, based on phonological and morphological evidence, that German is the most conservative among the Germanic languages considered here, whereas English is the most grammaticalized, with Dutch occupying a position in between. For Romance languages, it is also well known that French has developed most when compared with Latin, and that Spanish and Rumanian tend to be more conservative than Italian: this is not only true for the phonological and morphological component but has also been pointed out for certain areas of syntax, e.g. auxiliaries (Lamiroy 1993a, 1999). The facts presented here belong to a different syntactic domain, viz. that of participant roles and grammatical functions, thus corroborating the general hypothesis that the grammaticalization process affects the different Romance and Germanic languages unequally.

The notion of grammaticalization should be understood in a broader sense than that originally proposed by Meillet (1912) and Kurylowicz (1975), who launched the term to deal with the transition of full lexical elements to grammatical function words (e.g. Latin casa > French chez). The concept should rather be taken here according to the larger definition proposed by Hopper (1987, see also Hopper & Traugott 1993) in terms of emergent grammar or movement toward a pattern.

The hypothesis that I would like to propose is that the emergent pattern in languages like Dutch and French is one that favours a participant schema which highlights the subject/nominative, to the disadvantage of the dative. As has been pointed out on many occasions (Herslund 1988; Lazard 1994 and others), the dative of course shares several properties with the nominative/subject: they are both typically [+human] NP’s, they both rank high on the thematic hierarchy, and as far as agentivity is concerned, the dative functions as the second
participant, after the subject. Hence, competition between the two of them is easy to conceive of. From a diachronic point of view, this competition develops, according to the hypothesis that I set forth here, in favour of the nominative and to the disadvantage of the dative. This development, which is on-going in Dutch and French, may already be completed in English.

In what follows, I will outline several arguments in favour of the above hypothesis. First of all, let us turn to diachronic arguments concerning the dative.

With respect to syntactic structures, it appears that the intransitive type with the possessed element in subject position (cf. (21a), repeated here: *Les mains lui tremblent*) is in decline in French: data from a large corpus analysed by Spanoghe (1995) show that structures with a possessive determiner (*Ses mains tremblent*) are largely favoured over the dative structure.

For Dutch, the possessive dative very often occurs in fixed expressions, i.e. fossilized structures which often attest to an older stage of the language. The latter suggests according to Vandeweghe (1987) that the possessive dative construction is in decline in general.

On the other hand, historical data show, both for French and for Dutch, that the use of the dative has indeed progressively decreased, not only for the possessive dative but for all non-lexical datives. Compare for example the following data from Middle Dutch (36a, b) (see Burridge 1996 for many more examples) with Modern Dutch (36c):

(36) a. Mi 1.sg.dat is den buuc 1.sg.sg is the stomach so loaded so gheladen ‘My stomach is so full’

b. Daer hem 3.sg.dat dat evel wast 3.sg.sg that evil grows wast ‘As his evil grows’

c. *De buik 1.sg.sg doet mij 1.sg.sg pijn does the stomach pain pijn

d. Mijn buik 1.sg.sg doet pijn My stomach does pain pijn

e. Ik heb buikpijn I have stomach-pain buikpijn ‘My stomach aches’

Whereas present-day French is restrictive with respect to the external possessor construction, at least compared to the other Romance languages, diachronic data once more show that French used the dative more freely in earlier stages, as the example from 17th century French (37) shows:
(37) Hélas! notre pauvre Péronne, il faudra bien la renvoyer si le mal lui continue
Alas! our poor Péronne, it will be necessary well her send away if the evil 3.SG.DAT continues
‘Alas! we will have to dismiss our poor Péronne if she keeps being ill’
(quoted Combettes 1992)

The following examples are quoted by Grevisse-Goosse (1994: 987) as being typical for the South of France, and are said to be out of use in Paris. Interestingly, Southern French is known to be more conservative linguistically speaking than central French. At the same time, the influence of neighbouring Romance languages could also play a role:

(38) a. Il s’est perdu le parapluie
   He 3.SG.REFL.DAT is lost the umbrella
   ‘He lost his umbrella’

   b. Le chien lui est mort hier
   The dog 3.SG.DAT is dead yesterday
   ‘His dog died yesterday’

Another piece of evidence is provided by an independant area of Romance syntax. Middle voice construed with the reflexive *se* is more productive in most Romance languages than in French (see Lamiroy 1993b for many examples):

(39) a. Al otro lado de la ciudad colonial se escucharon las campanas de la catedral.
   At the other end of the city colonial 3.SG.REFL heard the bells of the cathedral
   ‘At the other end of the colonial city the bells of the cathedral could be heard’
   (García Márquez)

   b. *A l’autre bout de la ville coloniale s’entendirent les cloches de la cathédrale*

As I have pointed out before (cf. (29)), the middle construction typically occurs with a possessive dative within one and the same structure in Rumanian, Spanish and (probably slightly less) in Italian. However, in French, the latter combination does simply not exist:

(40) a. *Le portefeuille se m’est perdu quelque part
   The wallet 3.SG.REFL 1.SG.DAT is lost some where
   ‘I lost my wallet somewhere’

   b. Le portefeuille s’est perdu quelque part
   The wallet 3.SG.REFL is lost some where
Let us look once more at diachronic facts. Middle structures, like possessive datives, used to be far more common in French than they are nowadays (Stefanini 1962). A sentence like (41a), taken from Stefanini (1962: 586) would be rendered by an active clause in present-day French, with on as a subject (41b):

(41) a. Elle colpe non avret; por o no s coist
    She fault not had; for that not 3.sg.refl baked
    ‘She was not guilty; therefore she could not be burned’
    (Cantilène de Sainte Eulalie)

b. Elle n’ était pas coupable; on n’ arrivait donc pas à
    She NEG was not guilty; they NEG arrived therefore not to
    la brûler
    her burn

My suggestion is that the reason why the same languages that favour possessive dative structures equally favour middle passives, and why possessive datives and middle structures historically decreased in a parallel way in French and Dutch is to be found in the semantics of syntax. Both possessive dative structures and middle structures express a process which crucially affects a participant that is not the agent of this process i.e. both are intermediate structures (Lamiroy 2000). Datives are intermediate with respect to grammatical functions, viz. between the nominative/subject and the accusative/direct object, whereas middle structures are intermediate with respect to voice, viz. between active and real (periphrastic) passive sentences.

This parallelism can account for the fact that middle reflexive structures so easily co-occur with possessive datives in Rumanian, Spanish and (to a lower extent) Italian: from the point of view of participant roles, the two phenomena go naturally together, because they jointly favour the expression of the intermediate participant, be it at the verbal level (voice) or that of the nominal level (syntactic function).

A final argument in favour of my claim is provided by examples such as (25a, b) of which I have emphasized in Section 3 that they have VS order. They typically contain unaccusative (Perlmutter 1978) or ergative verbs (Burzio 1981), like German schmerzen or Spanish doler (to ache), etc. As is well known, their so-called ‘subjects’ appear in postverbal position because in fact they are objects. Once more, the process expressed by the (ergative) verb typi-
cally affects a participant that is not the agent of the process. This could be the reason why unaccusative verbs pattern well with non-lexical datives, as shown by examples like (25a, b). In the German example (42a) below, an ergative verb is used in the impersonal construction, again with a dative. In view of what I have been claiming in this paper, it should come to no surprise that the equivalent of the German construction is attested in Middle Dutch (42b), but no longer exists in present-day Dutch (42c), where the nom/subject position has 'taken over', so to say, what used to be expressed by a dative in former days:

(42) a. Mir ekelt vor fetten Speisen  
1. sg. dat loathes before greasy food
'I loathe greasy food'

b. Hem walgt  
3. sg. dat loathes

|  
| c. Hij walgt  
| He3.sg.nom loathes

In other words, sentences like (42b, c) suggest that the above mentioned emergent pattern which favours the subject/nominative to the disadvantage of the dative can be found in actual Dutch, as does the contrast between (37) and (43) for actual French:

(43) a. *La maladie lui continue
b. Sa maladie continue.

Notes

1. Another type of external possessor structure is represented by sentences such as French Luc bouge la tête (Luc moves his head) or Spanish Carmen levanta la mano (Carmen lifts up her hand) in which the identification of the possessor occurs via the subject (König & Haspelmath 1998:526). For a detailed analysis of possessive structures in which the possessed element is expressed by a definite NP, see Gueron (1983), Jacob (1993), Julien (1983), Vergnaud and Zubizarreta (1992).

2. While the Romance languages use clitics (e.g. Fr. lui, Sp. le, etc.), the Germanic languages take real pronouns (e.g. Germ. ihm, Dutch hem, etc.). Given the complexity of the formal marking of datives in the various languages, I will not attempt to give an adequate formal definition of the dative for all the languages under analysis, the latter being beyond the scope of this paper.

3. I will not go into what is probably the most unmarked structure to express possession, viz. that with the verb have whose subject refers to the possessor of an entity, be it inalienable
or not, e.g. Max a beaucoup de cheveux/une belle maison (Max has a lot of hair/a nice house).

For a typological analysis of this structure, see Heine (1997).

4. In general, the two structures are incompatible within one sentence because they are redundant:

(i) Il me prend mon bras
    he me grabs my arm
    'He grabs my arm'

In some cases, however, when the relation between the possessor and the possessed is not strictly inalienable, they can co-occur, witness the example in (ii), borrowed from Leclère (1995):

(ii) Paul lui a déchiré son sac
    Paul 3.SG.DAT has torn.up his bag
    'Paul has torn up his bag'

5. The dative is not totally excluded in this case in French, as is shown in (i). However, strict inalienability seems indispensable in this case:

(i) Le barman se promit de lui demander un jour d’où provenaient ces cicatrices mauves qu’on lui voyait dans le dos (Michel Déon, La carotte et le bâton)

I thank Xavier Lepetit for having drawn my attention to this example at the Copenhague Conference on Valency (19–20 March 1999).

6. An anonymous reader of this paper refuses sentence (5b) because a table is supposed to have ‘des pieds’ rather than ‘des pattes’. Example (5b) is however quoted from a paper by a linguist (Christian Leclère) who is a native speaker of French. At any rate, what is at stake here is the impossibility of having the possessive dative construction, and not the lexical choice between ‘leg’ or ‘foot’.

7. This sentence is only acceptable if interpreted literally, i.e. as a physical action. Although fixed expressions with a possessive determiner do occur in Dutch, as (i-a, b) show (my thanks to one of the reviewers of the paper for pointing this out to me), there is no construction where the use of the possessive dative involves a literal reading and the use of the possessive determiner a figurative meaning:

(i) a. Hij kon zijn oren niet geloven
    ‘He could not believe his ears’
   b. Hij deed het achter mijn rug
    ‘He did it behind my back’

8. In Spanish, la pera and in Italian, le scatole are euphemisms for the male sexual organ.

9. However, a sentence like On l’a examiné de la tête au pied suggests that a ‘whole-centered’ meaning is not totally excluded; but de la tête au pied is a fixed adverbial phrase and the alternation between dative and accusative is no longer at stake here.

10. In a language such as Dutch, evidence for this is hard to find because accusative and dative pronouns are formally identical (hem/haar). The same is true in Spanish, for a differ-
ent reason: accusative and dative pronouns, though formally different (dat. *le* vs. acc. *lo* or *la*) tend to be confused in many cases by most speakers. The latter phenomenon is known as leismo (*laismo, loismo*).

11. Of course not all adnominal complements can be substituted by a possessive determiner: *pour l’amour des femmes* / *pour leur amour* (*for the love of women* / *for their love*). For a detailed analysis, see Godard (1986).

12. A sentence like *Un enfant leur est né* would be a counterexample to what is argued here. Still, what matters here is the relative difference between the languages: whereas this property is fully unproblematic for Rumanian, Spanish or Italian, it is marked in French.

13. As Dumitrescu (1990) points out, the equivalent sentence in Spanish (*Juan se ha besado a la mujer*) would be unacceptable, which suggests that Rumanian is the least restrictive among the Romance languages, an observation which is also made by König and Haspelmath (1998).

14. The more the condition of strict inalienability is relaxed, the more the borderline between the possessive dative and the dative of interest becomes of course fuzzy.

15. The productivity of the dative is obviously not the same in all three languages: if one had to propose a ranking, Italian is closest to French, while Rumanian is at the other end of the cline. Italian clearly differs, however, from French in that it allows the external possessor construction with kinship terms (cf. (30c, d)) much more freely than French does. Rumanian crucially differs from Spanish in that it also allows the external possessor construction with stative verbs (cf. (34a, b, c)).

16. I thank Peter Koch for drawing my attention to this point at the Copenhagen Conference on Valency (19–20 March 1999). However, grammaticalization phenomena in the strict sense seem to entail the progressive suppression of multiple forms to express one and the same meaning (e.g. French negation used to be expressed by means of *ne mie, ne goutte, ne pas*, etc. but eventually only *ne pas* survived, Melis & Desmet 1998). If the external possessor structure tends to be outruled by the alternative internal possessor construction (*Les mains lui tremblent* vs. *Ses mains tremblent*), as Spanoghe (1995) suggests for French, this could be considered as evidence for grammaticalization in the strict sense.

17. Obviously my hypothesis needs further investigation to be fully verified. Patterns to be looked for are structures in which the nominative slot is filled with NPs which are a-typical subjects, as in the English example ‘This tent sleeps four people’ where the syntactic subject is presented as the agent of sleep although it is semantically speaking a locative (‘Four people can sleep in this tent’).
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Grammaticalization and external possessor structures


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