AGREEING POSSESSORS AND THE THEORY OF CASE

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Abstract: I argue that the so-called “possessive adjectives” are not really adjectives, but pronouns (D-projections). Agreement features on possessors do not compete with genitive-marking, as it seems at first sight: they never attach directly to DP, but rather to KP (i.e. to a projection of Case), as shown by the obligatory presence of a possessive suffix (which I analyze as K) separating the root from the agreement morpheme. I argue that this explains why the unvalued $\phi$-features of the possessor do not agree with the inherent $\phi$-features (I show that some agreeing possessors do have inherent $\phi$-features): concord applies inside a DP-phase, and given that DP is a phase, the features attached to K above DP belong to the phase of the possessee rather than to the phase of the possessor. Further evidence for this proposal comes from agreeing genitive markers attached at the phrasal level and from agreeing markers attached to a genitive morpheme. I then discuss the implications of this analysis for the theory of structural case: given that agreeing possessors can represent structural case, but their K must be specified as possessive from the beginning of the derivation, structural case cannot be considered to be unvalued case. Moreover, the fact that case concord is often found among agreeing possessors also shows that one and the same K head can have structural case in need of licensing and an unvalued Case feature valued by concord. Finally, I propose an account for agreeing possessors which seem to be doubly marked, both by a case ending or possessive suffix + agreement (at the word level) and by a preposed agreement marker attached at the phrasal level.

Keywords: agreeing possessors, case theory, structural case, concord, genitive case

1. Introduction: The issues raised by agreeing possessors

This paper addresses the implications of the phenomenon of agreeing possessors for the theory of case in general, and for the analysis of genitive case in particular.

I use the term “agreeing possessors” for those pronominal and nominal forms which are functionally equivalent to genitives, but are morphologically distinguished from genitives by being marked with agreement features copied from the head noun (the “possessee”). These forms are traditionally labelled “possessive adjectives”, or, when they occupy the D or SpecDP position of the embedding DP, “possessive determiners”; when they are based on pronominal roots, they are also known as “possessive pronouns”. The label possessive pronoun is more familiar, because many Indo-European languages only have agreeing possessors based on pronouns. But agreeing possessors can also be built on nouns, as is the case in Slavonic languages.

The existence of a functional competition between agreeing possessors and genitives is well-known. The following examples show that agreeing possessors have the interpretation of genitives (complements of deverbal nouns, arguments of non-derived relational nouns, modifiers expressing possession or another contextually established
relation) and sometimes block the realization of the genitive of the corresponding pronoun:

(1) Complement of deverbal noun:
   a. arestarea {Mariei / noastră/ *nouă} de către jandarmi (Rom.)
      arresting-the.F SG Maria-GEN/DAT / our.F SG / us.DAT by gendarmes
   b. {l’arrestation {de Marie / *de nous} / par les gendarmes} (Fr.)
      the arresting of Marie of us by the gendarmes
   b’. notre arrestation par les gendarmes
      our.SG arresting by the gendarmes

(2) Argument of relational noun:
   a. fratele {Mariei / meu / *mie} (Rom.)
      brother-the.M SG Maria.GEN/DAT / my.M SG / me.DAT
   b. le frère {de Marie / * de moi} (Fr.)
      the brother of Marie of me
   b’. mon frère
      my.M SG brother

(3) Modifier (possession or other contextual relation):
   a. casa {Mariei / mea / *mie} (Rom.)
      house-the.F SG Maria.GEN/DAT / my.F SG / me.SG DAT
   b. la maison {de Pierre / *de lui} (Fr.)
      the house of Pierre of him
   b’. sa maison
      his/her.F SG house

Regarding positions, there is an array of possibilities across languages, going from total disjointness between agreeing possessors and (inflectional or prepositional) genitives to total overlapping; where the positions are different, it is always agreeing possessors that occupy positions more to the left, presumably in the functional domain of the noun phrase:

(i) agreeing possessors always occupy positions where genitives are excluded;

(4) a. {mon / *de Marie} livre (Fr.)
   my.M SG / of Marie book
   b. le {mien / *de Marie}
      the my.MSG / of Marie

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1 This only holds for pronominal possessors; for nominal agreeing possessors, see Partee and Borschev (2003) on the interpretations available for the agreeing possessor and the corresponding genitive.

2 The availability of various contextual relations for the genitive modifier was pointed out by Williams (1981), who enumerates the following possible readings for the phrase John’s car (of course, the list remains open):

(i) a. the car that John owns
   b. the car that John is renting
   c. the car that John has to paint
   d. the car that John has to find
   e. the car that John prefers
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c. le livre {de Marie /*mon}
the book of Marie my

Petja-POSS M SG chair-M SG
b. stul Petj
chair-M SG Petja-GEN SG
‘Petja’s chair / a chair of Petja’s’

(ii) some agreeing possessors (namely weak forms) occupy positions where genitives are excluded, others occupy the same positions as genitives:

(6) a. {mi / *de Luis} libro
my.SG / of Luis book
‘my book’
b. el libro este {mío / de Luis}
the book this my.M SG / of Luis
‘this book of mine / of Luis(’s)’

(iii) agreeing possessors are allowed in a sub-set of the environments in which (some type of) genitives are allowed3.

(7) a. {meine / Johannes} Schwester
my-F SG / Johann’s sister
b. eine Schwester {*mein(e)} / {Johannes}
a sister my-F SG / Johann’s

The fact that the agreeing possessor occupies in (7)a) the same Spec position as the genitive, rather than a head position, is shown by the possibility of coordination with a genitive:

(8) Sie treffen sich in [deiner und Karls] Lieblingskneipe (Olsen 1989)
they meet REFL in your.F SG DAT and Karl.GEN favourite-bar.F SG

(iv) agreeing possessors are allowed in all the environments in which some type of genitives are allowed; this is the case of Romanian, where both inflectional genitives and agreeing possessors immediately follow either the suffixal definite article, or the so-called “genitival article” al, which is a genitival marker agreeing with the head-noun (the “possessee”)5; the genitive inflection is identical with the dative, therefore we will use the label “oblique” for the genitive-dative inflection from now on:

3 In German, exemplified here, they have a part of the distribution of inflectional genitives. Prepositional genitives (von-PPs) are always postnominal.
4 Albanian behaves in the same way, except for the fact that the genitival agreement marker sometimes undergoes fusion with the pronoun, e.g. yf M SG NOM-you.M SG, jo-te f SG NOM-you.F SG vs. e/të tua PL.NOM/ACC you.M.PL, e/të tu PL NOM/ACC you.F.PL (the choice between e and të is dictated by the preceding morpheme, depending on whether it is the definite article or not). For the fact that al does not appear immediately after the definite article, as in (9)b), see section 5 below.
(9) a. aceste rude {ale profesorului / ale mele} (Rom.)
   these relatives-F al-F PL professor-the.SG OBL / al-F PL my-F PL
   ‘these relatives of the teacher/ of mine’

   b. ruda {profesorului / mea}
   relative-the.F SG professor-the.SG OBL / my-F SG
   ‘the teacher’s/ my relative’

There are two distributional differences between pronominal possessors and other inflectional genitives, but, crucially, agreeing possessors pattern here with oblique-marked pronouns (Romanian has non-agreeing possessors for the 3rd person: lui ‘his’, ei ‘her’, lor ‘their’; it also has an agreeing form restricted to 3rd singular possessors – său): pronominal possessors can appear in prenominal position, following an adjective bearing the suffixed definite article, see (10), and they cannot be coordinated, see (11).

(10) a. prima {noastră / lor} întâlnire
   first-the.SG our.F / they.OBL meeting-F SG
   ‘our/their first meeting’

   b. *prima profesorilor întâlnire
   first-the.SG professors-the.OBL meeting-F SG

(11) a. * întâlnirea [noastră şi {voastră / lor}]
   meeting-the.F SG our.F and your.F / they.OBL
   ‘the meeting of the professors and the students’

   b. întâlnirea [profesorilor şi studenţilor]
   meeting-the.F SG professors.the.OBL and students.the.PL OBL
   ‘the meeting of the professors and the students’

   c. * prima întâlnire a [noastră şi {voastră / lor}]
   first.the meeting(F) al.FSG our.FSG and your.FSG/they.OBL

   d. prima întâlnire a [profesorilor şi studenţilor]
   first.the meeting(F) al.FSG professors.the.OBL and students.the.OBL
   ‘the first meeting of the professors and the students’

The facts in (11) show that pronominal possessors are weak pronouns (see, for Italian, Cardinaletti 1998). It is known that sometimes weak pronouns occupy special syntactic positions (see Cardinaletti and Starke 1999), which can explain the special placement in (10). However, in Romanian they are not restricted to this position, but, when they form a constituent with the genitival article al, show all the placement possibilities of other al-genitives. Therefore we conclude that they only have a weak status inside the al-constituent, as in (11)c-d), and the whole [al + Pronoun] constituent behaves as a strong form. What is important for our purposes here is that agreeing possessors pattern exactly like (some) genitive-marked forms.

Based on the functional competition, on the interpretation and on the cases of distributional competition, it is natural to consider that agreeing possessors are categorically DPs rather than adjectives, in spite of their adjectival agreement (Cardinaletti 1998, Dobrovie-Sorin and Giurgea 2008 and 2011, Cornilescu and Nicolae
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In some languages, straightforward distributional facts show that agreeing possessors are not adjectives or determiners: thus, in Romanian, adjectives are disallowed in al- phrases; only genitival DPs and agreeing possessors are allowed in this configuration:

\[(12) \text{ acest prieten \{al meu / mamei\} / \{*al bun / drag / tânăr\}}\]

But even for languages in which agreeing possessors do not pattern like genitives, there are other properties which show that they have a DP-status. First, pronominal agreeing possessors bear an inherent/interpretable Person feature. More importantly, they are interpreted as referential expressions (definite DPs), as can be seen from the fact that they can bind anaphors; although thematic adjectives too can be paraphrased by a referential expression (e.g. the Russian proposal – the proposal of Russia / of the Russians), they can never bind anaphors:

\[(13) \begin{align*}
a & \text{ notre \ attaque contre nous-mêmes, (Fr.)} \\
b & \text{ * l' attaque américain contre eux-mêmes (Fr.)}
\end{align*}\]

\[(14) \begin{align*}
a & \text{ il nostro giudizio su noi stessi (It.)} \\
b & \text{ *il Americano giudizio su sè stessi (It.)}
\end{align*}\]

In Romanian, probably due to the fact that they are not restricted to a prenominal position, agreeing possessors have other DP-properties: they allow non-restrictive relatives and secondary predications:

\[(15) \begin{align*}
a & \text{ o poză a mea blond (Rom.)} \\
b & \text{ a picture of me when I was blond}
\end{align*}\]

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5 For Romanian, an analysis as pronouns has also been adopted by Berceanu (1971), GALR (2005), Vasilescu (2007).
6 The element al can also build ordinal numerals – al doilea ‘al. M SG second, M SG’, a doua ‘al. f SG second, f SG’ – but this is a different syntactic item: it can follow the definite article, a position from which genitival al is excluded, and it does not have plural forms:

\begin{align*}
i & \text{ (i) cartea a doua book-the al. f SG second-f SG} \\
& \text{ (ii) cartea (*a) profesorului book-the F SG al. f SG professor-the M SG OBL}
\end{align*}\]

7 For the referential properties of Slavic nominal agreeing possessors, see Zlatić (2000).
8 In these examples, the co-referential PRO and the relative pronoun, respectively, have the ò-features which characterize the referent of the possessor: in (15a), because the speaker is a male, the secondary predicate is masculine, although the agreeing possessor co-indexed with its subject has a feminine form (due to agreement with the head noun).
b. Ce să mai spunem de disputa noastră, care ne înțelegeam what SÀ still say-1PL.SUBJ about dispute-the.F our.F SG which got-along.1PL. înainte atât de bine before so of well ‘Not to mention the dispute between us, who used to get along so well’

But, if agreeing possessors are DPs, we have to explain how they can agree with the head noun, in spite of the fact that DPs typically have inherent $\phi$-features.

When the agreeing possessors appear to occupy the D position of the matrix DP, as in (4) and (6) (the so-called “possessive determiners”), there is a simple explanation available: the agreeing possessive form can be decomposed into a pronominal clitic raised to D plus a possessive D (a determiner with the property of attracting pronominal possessors); in this case there is no agreement, the $\phi$-feature morpheme of the possessor representing in fact the possessive D (which, of course, agrees with the head noun). The same analysis can be extended to other forms which behave as functional heads – for instance, in (4b), mien can be analyzed as composed of the pronominal D and a possessive head (Poss, a functional head which attracts pronominal possessors and possibly case-licensing possessors in general), spelled-out as the $\phi$-morpheme of the possessor. The complex Pron+Poss normally raises to D, as in (4a) (which means that the “possessive determiner” spells-out in fact Possessor + Poss + D), but when a strong form is required, due to noun ellipsis, it can remain below D as a last resort, being spelled-out as the “strong possessive” (mien, tien, sien).

But such an analysis is obviously not available when the possessor occupies a phrasal position. Under (iii) and (iv) above we have seen evidence for agreeing possessors occupying the same position as genitive DPs. The strong postnominal possessors of Spanish, see (6)b), and Italian also do not seem to spell-out functional heads of the nominal projection, because functional heads always precede the lexical head in Romance. Italian also has a prenominal position reserved for pronominal genitives, but, crucially, the forms allowed here are not exclusively agreeing: while agreeing forms are used for the first two persons and for the 3rd singular, a non-agreeing form loro is used for the 3rd plural, which can be analyzed as a case-marked form (weak loro is either possessive or dative):

(16) il {mio / loro} paese
the my.M SG / their country

Moreover, in a high register a prepositional genitive containing a personal pronoun can appear in this position (Giusti 2008):

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9 For the analysis of possessive determiners as the result of cliticization, see Cardinaletti (1998) and Alexiadou et al. (2007: 568 ff.), Zribi-Hertz (2003) proposes that the features of the possessor are directly generated in the functional head $F$ which introduces possessors in its specifier, and this head further raises to a definite D, yielding the complex head $[F+D]$.

10 See Kayne’s (1993) analysis of English genitival ’s as a functional head in the extended projection of the possessee.
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(17) le [di lei] tre figlie
the of her three daughters

In conclusion, we must admit that there can be DPs bearing \( \phi \)-features inherited by agreement. This situation raises the following questions, which we will try to answer in the rest of the paper:

(i) How can a DP bear \( \phi \)-features inherited by agreement, although DPs typically bear inherent (interpretable, valued) \( \phi \)-features, acting as controllers of agreement?

(ii) How can DPs marked with concord features fulfill the function of genitives, and what does that tell us about the genitive case?

2. The analysis of agreeing possessors

2.1 Pronominal agreeing possessor do not necessarily lack inherent \( \phi \)-features

One possible answer to the first question, which I will discard in what follows, is that some possessors can undergo gender and number agreement because they do not bear any inherent gender or number. This solution seems to work at least for some languages. Thus, in many Indo-European languages (Latin, Sanskrit, Slavonic languages, Albanian, Gothic, Scandinavian), representing probably the old Indo-European pattern, agreeing forms only appear for the 1-2 persons and 3\textsuperscript{rd} person reflexives. For Slavonic, this holds for the pronominal paradigm; it also allows nominal possessors, on which see 2.2 below, ex. (31). Since the plural forms of the +Participant persons always have roots distinct from those of the singular forms, in these languages, and the plural feature here has a special interpretation (it introduces a group to which the Speaker / Addressee belongs, rather than a mere plurality of Speakers / Addressees), some researchers have proposed that plural +Participant pronouns should be analyzed as special persons, 4 and 5, or, in any case, are not simply decomposable into Person + Number (see Benveniste 1972\textsuperscript{11}; Wechsler 2004; Benincà and Poletto 2005; Cardinaletti 2008). Adopting this analysis, we can say that the pronominal roots used for +Participant pronouns only have a Person feature (possibly complex), lacking inherent gender and number. 3\textsuperscript{rd} person reflexives do not show any inherent gender or number opposition. Then it can be claimed that only pronouns which lack inherent gender and number can be endowed with unvalued gender/number features, yielding the agreeing possessors. Under this view, the fact that agreeing forms can function as genitives can be explained by assuming that DPs can be licensed not only by case (see the Case Filter), but also by \( \phi \)-feature valuation, this second alternative being possible only when the DP lacks inherent (valued) \( \phi \)-features. This is the proposal in Dobrovie-Sorin and Giurgea (2008), endorsed by Cornilescu and Nicolae (2011). The Slavonic nominal agreeing possessors, derived from proper names and animate nouns, do not contain any morphological marking of inherent \( \phi \)-features and are always interpreted as referring to singular possessors. Therefore it can be assumed that they also lack inherent gender and number, and the singular interpretation is a sort of default.

\textsuperscript{11} Benveniste calls the “plural” of +Participant pronouns an “amplified person”.
This analysis is however problematic. First of all, some languages do have 3rd person pronominal agreeing possessors which are restricted to a certain number of the possessor (and sometimes to a certain gender too). Note that the semantic and morphological arguments for considering that +Participant pronouns lack number do not apply to 3rd person pronouns: their plural forms do not have a special interpretation, distinct from nominal plurals, and they are generally based on the same roots as the singular forms, being decomposable into a person root and a number + gender (+ case)-morpheme. Therefore the 3rd person agreeing forms restricted to a certain number of the possessor appear to have inherent number, in addition to the number inherited by agreement. We find such forms in languages where agreeing possessors cannot be analyzed as clitics on a functional head of the possessee: thus, Romanian, which normally uses the non-agreeing (genitive) forms lui, ei, lor for the 3rd person, also has an agreeing form – său, sa, săi, sale –, mainly used in a high register, which is restricted to singular 3rd person possessors. This form continues a reflexive form, but is no longer restricted to a reflexive use in the present-day language. In exchange, it has become restricted to singular possessors, which is unexpected under the view according to which agreeing possessors lack inherent gender and number. Italian also normally uses the agreeing forms suo, sua, suoi, sue for singular 3rd person possessors, while it kept a non-agreeing form for the plural loro, as in (16) above. Moreover, some languages distinguish two agreeing possessor paradigms for the 3rd person depending on the inherent features of the possessor: French has son, sa, ses for singular possessors and leur, leurs for plural possessors, while German uses sein for singular masculine and neuter possessors and ihr for plural or feminine possessors. Note however that French and German have DP-initial possessors, so that the agreeing features might also be analyzed as the spell-out of a D(+Poss)-head to which the possessor has cliticized, but this analysis is disputable, for German, in view of coordination cases such as (8) above. Here are the various forms discussed:

(18)

<table>
<thead>
<tr>
<th>Language</th>
<th>Forms</th>
<th>Inherent Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rom.</td>
<td>său, sa, săi, sale</td>
<td>[sg.]</td>
</tr>
<tr>
<td>It.</td>
<td>suo, sua, suoi, sue</td>
<td>[sg.]</td>
</tr>
<tr>
<td>Fr.</td>
<td>son, sa, ses</td>
<td>[sg.]</td>
</tr>
<tr>
<td></td>
<td>leur, leurs</td>
<td>[pl.]</td>
</tr>
<tr>
<td>Germ.</td>
<td>sein(er), seine, sein(es)</td>
<td>[m./n. sg.] (-f. –pl.)</td>
</tr>
<tr>
<td></td>
<td>ihr(er), ihr(e), ihr(es)</td>
<td>[f.sg. / pl.] (+f. or +pl.)</td>
</tr>
</tbody>
</table>

A possible answer to this problem is to say that the inherent features of these forms are not formal $\phi$-features, but purely semantic features of the pronominal root (Dobrovie-Sorin and Giurgea 2008), or to use the Index vs. Concord opposition proposed in the HPSG framework (see Wechsler and Zlatić 2003) and analyze them as Index features. But, of course, all other things being equal, one would prefer an analysis of the pronominal system using only one type of gender and number features.

There are also problems with the main assumption of this analysis, namely the idea that +Participant pronouns do not have Number. The first objection which comes to mind is that 1st and 2nd plural forms trigger plural agreement on agreement targets lacking
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Person. But this can be answered by treating this agreement as semantic agreement, an idea which is supported by the fact that we also find gender agreement in languages where +Participant pronouns are not marked for gender:

(19) Nous sommes heureuses (Fr.)
we are.IPL happy-F PL

This type of agreement can be analyzed either using a different type of features (see the σ-features proposed by d’Alessandro 2008) or a null Φ-head above the controller-DP where these features are generated (Sauerland 2004).

But, crucially, evidence for the existence of number in +Participant persons can also be found in the forms which mark Person. Thus, there are morphological innovations in which the 1\textsuperscript{st} and 2\textsuperscript{nd} plural ending have been influenced by the 3\textsuperscript{rd} plural ending, indicating that their traditional decomposition into person and number is indeed correct: in Romanian, a morpheme -ră originally found in the 3\textsuperscript{rd} plural of perfective tenses has been extended to the 1\textsuperscript{st} and 2\textsuperscript{nd} plural, being inserted between the aspectual stem and the original personal ending (-m was preserved; -t has been reshaped into -ti after the imperfective endings):

(20)

<table>
<thead>
<tr>
<th>Simple Past</th>
<th>Pluperfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 sg.</td>
<td>luai « je pris »</td>
</tr>
<tr>
<td>2 sg.</td>
<td>luasi</td>
</tr>
<tr>
<td>3 sg.</td>
<td>luă</td>
</tr>
<tr>
<td>1 pl.</td>
<td>luarăém</td>
</tr>
<tr>
<td>2 pl.</td>
<td>luarăti</td>
</tr>
<tr>
<td>3 pl.</td>
<td>luară</td>
</tr>
</tbody>
</table>

In some Germanic languages, the ending of the 3\textsuperscript{rd} person plural has been extended to all the plural persons, see Old English -aþ, Old Swedish -a.

Such morphological reshaping can also affect the pronominal forms themselves. Thus, because of the fact that some sound changes led to confusion between the 1\textsuperscript{st} plural and 2\textsuperscript{nd} plural forms, Modern Greek has reshaped its 2\textsuperscript{nd} plural root after the 2\textsuperscript{nd} singular, yielding a system in which +Participant pronouns are fully decomposable into a person root and a number+case morpheme:

(21)

<table>
<thead>
<tr>
<th>modern</th>
<th>1 sg.</th>
<th>1 pl.</th>
<th>2 sg.</th>
<th>2 pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>ego</td>
<td>emis</td>
<td>esi</td>
<td>esis</td>
</tr>
<tr>
<td>Acc.</td>
<td>eména/me</td>
<td>emás/mas</td>
<td>eséna/se</td>
<td>esás/sas</td>
</tr>
<tr>
<td>Gen.-Dat.</td>
<td>eména/mu</td>
<td>emás/mas</td>
<td>eséna/su</td>
<td>esás/sas</td>
</tr>
<tr>
<td>ancient (N. / Acc.)</td>
<td>ego/emé</td>
<td>hémeis/-ás</td>
<td>sy / sè</td>
<td>hymeis/-ás</td>
</tr>
</tbody>
</table>
Finally, the existence of a plural feature in +Participant forms can also explain some cases of (redundant) plural morphology in +participant plural pronouns:

(22) Rom., It. no-i 'we'(Nom./ Acc, strong form), vo-i 'you'(Nom./ Acc, strong form)
    Sp. nosotro-s, vosotro-s (strong forms), no-s, o-s (clitics forms)

In view of all these facts, it seems preferable to maintain the traditional analysis of +Participant pronouns as having Person and Number. As for the special interpretation of plural + Participant forms, some authors have proposed a special interpretation of [plural] as [group] in the context of a [+Participant] Person (see Cysouw 2003; Harley and Ritter 2002). A detailed (semantic) analysis of all the plural + Participant pronouns can be found in Kratzer (2009), who uses the features [1\textsuperscript{st}], [2\textsuperscript{nd}], [sum] and [group]\textsuperscript{12, 13}. Adopting feature hierarchy (Harley and Ritter 2002), we can say that [sum] and [group] are specifications of a broad feature [plural].

Given these facts, the generalization concerning the distribution of agreeing possessors in Indo-European languages has been reformulated by Dobrovie-Sorin and Giurgea (2011) as follows:

(23) Agreeing possessors can contain inherent ϕ-features only if they are expressed by the root. There can be no more than one set of inflectional ϕ-features in a word.

This constraint was considered to be a morphological macro-parameter, called Feature Uniqueness.

2.2 The agreement features attach to a Case projection

If agreeing possessors can contain inherent ϕ-features, then we are in urgent need for an account of the possibility of co-occurrence of inherent ϕ-features, marked on the root, and ϕ-features inherited by agreement, marked in the inflectional morpheme. Thus, starting from a representation as in (24), we would expect the ϕ-features inside the Agr morpheme attached to the pronominal root to agree with the features inside the root, by natural considerations of locality of agreement:

(24) \[ [D +Person, +Number(+Gender)] [[Agr ϕ]] \]

\textsuperscript{12} Note that the possibility of having “split antecedents”, related by sum, is also attested for 3\textsuperscript{rd} person plural pronouns and plural definite DPs in general:

(i) John met Fred at the pool. They / The two boys went to have a drink.

\textsuperscript{13} Semantic considerations may lead in fact to a finer decomposition of +Participant forms. Thus, Kratzer (2009) decomposes plural +participant pronouns into combinations of the features 1\textsuperscript{st}, 2\textsuperscript{nd}, group and sum, in order to represent the inclusive and the exclusive reading of 1pl:

(i) 1 pl. minimal inclusive (you and I) = {1\textsuperscript{st}, 2\textsuperscript{nd}, sum}
    1 pl. augmented inclusive (you, I and others) = {1\textsuperscript{st}, 2\textsuperscript{nd}, group}
    1 pl. exclusive (I and others) = {1\textsuperscript{st}, group}
    2 pl. = {2\textsuperscript{nd}, group}
The solution proposed in Dobrovie-Sorin and Giurgea (2011) is based on the observation that the agreement morpheme does not attach directly to the root, but the root is first extended by an element – see -e-, -ă-, -u-, and most clearly -str- in (25)a-b), -ein-, -ar- in (25)c), -oj, -aš- in (25)d) – that can be analyzed as a possessive suffix:

(25) a. m -e-u / t -ă-u / no -str -u / vo -str -u (Rom.)
   1SG-e-M SG / 2SG-ă-M SG / 1PL-str-M SG / 2PL-str-M SG
b. m-e-a / t-u-a / no-str-a / ue-str-a (Lat.)
   1SG-e-F SG NOM / 2SG-ă-F SG NOM / 1PL-str-F SG NOM / 1PL-str-F SG NOM
c. m-ein-a / b-ein-a / uns-ar-a / izw-ar-a (Goth.)
d. m-øj-a / tv-øj-a / n-ăš-a / v-ăš-a (Rus.)

The decomposition in (25)a is supported by the full paradigm of +Participant pronouns in Romanian shown in (26):

(26) Romanian +Participant pronominal paradigms:

<table>
<thead>
<tr>
<th>Nominative</th>
<th>Accusative</th>
<th>Dative</th>
<th>Agreeing possessor</th>
</tr>
</thead>
<tbody>
<tr>
<td>strong clitic</td>
<td>strong clitic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 sg. eu</td>
<td>m-ine mă m-ie m-j</td>
<td>m-e-u, m-e-a, m-e-i, m-e-le</td>
<td></td>
</tr>
<tr>
<td>2 sg. tu</td>
<td>t-ine te t-ie t-j</td>
<td>t-ă-u, t-a, t-ă-i, t-a-le</td>
<td></td>
</tr>
<tr>
<td>1 pl. no-i</td>
<td>no-i ne no-ŭă ne no-str-u, noa-str-ă, no-str-i, noa-str-e</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 pl. vo-i</td>
<td>vo-i vă vo-ŭă vă vo-str-u, voa-str-ă, vo-str-i, voa-str-e</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sometimes the root of agreeing possessors is totally different:

(27) il, elle / s- on, s- a, s- es (Fr.)
   he she / 3SG-M SG 3SG-F SG 3SG-PL

Based on this evidence, the possessive stem (formed by the pronominal root and the possessive suffix) can be decomposed into D(P) and K, where K, the Case head, is spelled-out as the possessive suffix. Where the root is totally distinct, as in French, the two heads undergo PF-fusion, being spelled-out by a portmanteau morpheme (see Halle and Marantz 1993). Given this decomposition, the agreement morpheme of agreeing possessors does not attach to DP but rather to a Case projection (KP, see Abney 1987; Lamontagne and Travis 1987; Loebel 1994; Bittner and Hale 1996).

It is possible now to address the locality of agreement problem. The first step of the explanation is to define the agreement relation found in agreeing possessors. Let’s first notice that the unvalued features of agreeing possessors resemble those of adjectives in that they are not valued inside the maximal projection of their head, but rather at the point when this projection merges with another constituent, the Possessee NP (or some other functional projection of this NP). This type of agreement relation cannot be analyzed in terms of Chomsky’s Agree relation. Therefore, I consider that the agreement relation found in adjectives and agreeing possessors, for which I shall use the label concord (as Giusti 2008, Wechsler and Zlatić 2003 a.o.), illustrates a further option for unvalued...
**φ**-features: percolation to the XP-level + agreement with the features of the sister of XP (valuation under sisterhood)\(^{14}\). Notice that valuation of T’s features by Chomsky’s Agree is not more straightforward, as it requires a Search operation into T’s sister. Giusti (2008) also proposes to divorce adjectival and possessive agreement from subject-verb agreement, using the terms Concord and Agree respectively. Her analysis differs from mine in that it defines the structural relation underlying Concord-agreement as the Spec-Head relation. Because I do not consider that adjectives are always specifiers of functional projections (see Giurgea 2010 for arguments against this view), I replace the Spec-Head condition by the more fundamental relation of sisterhood, combined with the assumption that features can percolate to the X’ or XP-levels. The **φ**-features of A or K project thus to AP and KP, respectively, which are in a sisterhood configuration with NP or n’/Poss′, which bear the **φ**-features of the possessees. At this moment, Concord-agreement takes place.

Note moreover that at the point when the AP/KP merges with some projection X, some of the **φ**-features of X are still unvalued: while gender comes from the lexical noun, number presumably comes from a head Num which is probably higher than adnominal adjectives and postnominal possessors. If Num is higher than X′, then neither X′ nor any projection of it has been in a sisterhood configuration with Num, so X’s number feature is still unvalued when it merges with AP/KP. Moreover, some Indo-European languages have case concord inside NP, on both adjectives and agreeing possessors:

\begin{align*}
\text{(28) a. } & \quad \text{bonus} / \text{meus} / \text{amicus} \\
& \quad \text{good-M SG NOM} / \text{my-M SG NOM} / \text{friend-M SG NOM} \\
\text{b. } & \quad \text{bonum} / \text{meum} / \text{amicum} \\
& \quad \text{good-M SG ACC} / \text{my-M SG ACC} / \text{friend-M SG ACC}
\end{align*}

But case, under the KP-hypothesis, is only inserted on K above DP, so, again, the case feature of X cannot be valued when X merges with AP/KP. In order to account for these facts, I adopt the feature sharing (or unification) view of agreement (Brody 1997, Frampton and Gutman 2000 and 2006, Pesetsky and Torrego 2007, Schoorlemmer 2009; see also, in the HPSG framework, Pollard and Sag 1994, Sag et al. 2003). According to this formalization, when two features establish an agreement relation, they become conflated into a single feature, shared between two locations\(^{15}\): “Agree induces feature sharing, with matching features coalescing into a single shared feature, which is valued if either of the coalescing features is valued.” (Frampton and Gutman 2006: 128) This definition of agreement allows two unvalued features to undergo Agree. The shared feature thus formed may subsequently “receive” a value by undergoing sharing/unification with a valued feature (e.g., in our case, Number on Num or Case on K).

The second ingredient of my explanation is the limitation of concord to DP-internal constituents. This idea can be formalized using phase theory, by considering that concord

---

\(^{14}\) Percolation of features accompanying label projections is a consequence of the way label projection is defined in Bare Phrase Structure (see Schoorlemmer 2009).

\(^{15}\) Pesetsky and Torrego (2007) use the term instance for the feature-location pair. They describe features which have undergone Agree as features with more than one instance.
is confined to a phase. If we adopt the standard assumption that DPs are phases, it follows
that features attached to K, which is above DP, are outside the phase of the possessor.
They belong, instead, to the phase of the possessee, therefore they agree with the \( \phi \)
features of the possessee – by percolating to the KP level and undergoing feature sharing
with the N’ or n’Poss’ sister of KP, as explained above. Note that the restriction I propose
for Concord is stronger than the normal locality condition associated to phases: according
to Chomsky (2000), it is only the complement of the phase head that becomes opaque for
syntactic computation (once a phase is completed, according to the first formulation of
the Phase Impenetrability Condition, or once a higher phase head is merged, according to
the second formulation of this principle, see Chomsky 2001). I conclude thus that
Concord is a particular type of agreement relation which bears strong locality conditions:
sisterhood and belonging to the same phase.

A further problem for my account comes from the existence of concord agreement
in case, exemplified in (28). Possessive K should be identified as such in virtue of bearing
a case feature, be it genitive or a special feature “possessive”; this accounts for the
constant morphological element found between the root and the agreement morpheme
which I labeled “possessive suffix”. How can this K contain an additional case feature,
the one involved in concord?

The answer to this problem depends on the analysis of agreement morphemes. I
will show that although this co-occurrence seems easier to formalize by using Agr heads,
it can be made compatible with an analysis which dispenses with Agr-projections.

Since the rejection by Chomsky (2000) of Agr heads, there has been no standard
analysis of agreement morphemes in minimalism. While some authors have retained Agr
nodes, sometimes giving them different names (such as Person, Number, see Bianchi
2006, a.o.), others have followed Chomsky in analyzing agreement morphemes as
spelling-out features borne by other heads such as T, D or v (see Pesetsky and Torrego
2001 and 2007, Frampton and Gutman 2006, Roberts 2010, a.o.), and yet others have
treated both agreement itself and the insertion of agreement morphemes as PF-
phenomena (Halle and Marantz 1993, Bobaljik 2008). Due to the fact that the input
conditions for agreement involve a lot of references to syntactic structure, I would like to
keep the traditional view that agreement is syntactic.

On the second analysis mentioned above, in which agreement is syntactic but there
are no Agr nodes in syntax, the decomposition, which is in many cases transparent, into
Root+Agr-morpheme or Tense/Aspect-suffix+Agr-morpheme, does not reflect syntactic
structure, but – although this point is not usually addressed – it probably obtains at PF,
where a new terminal is created on which the agreement features are copied (see Pomino
2008) – as exemplified here for the tense + subject-agreement decomposition found in
Latin:

\[
(29) \quad [\text{Tense}^{+\text{imperfect}}, +1^{st} \text{pl}] \rightarrow [\text{Tense}^{+\text{imperfect}}] + \[\epsilon 1^{st} \text{pl}] \rightarrow -\text{bā-mus} \quad \text{(Lat.)}^{16}
\]

\[^{16}\] This representation differs from Pomino’s proposal in that she assumes that the agreement features are kept
on Tense after the creation of an agreement morpheme, but are never visible unless the distinct agreement
morpheme is created. Adopting feature sharing, she assumes that the features of Tense are linked with the
features of the subject, rather than valued, and actual copying only applies at PF, onto the postsyntactic
morpheme, resulting in a morphological realization of the shared feature.
An analysis using Agr-heads (in syntax) can account for the co-occurrence of two case features on agreeing possessors by placing them on different heads: genitive/possessive on K and the concord case on an Agr$_K$ head merged with KP.

But the projection of an AgrP above KP faces several problems: besides the general argument against Agr-projections given by Chomsky (2000) – namely, that Agr-heads lack interpretable features –, there is also a headed-ness problem: agreeing possessors have the syntactic behavior of KPs, not of AgrPs (except for agreement, of course), and agreeing features on K only appear with a certain K head, indicating that K should select Agr rather than the other way around.

I would like therefore to propose a solution that does not require distinct Agr heads in syntax. I start from the observation that case concord appears in languages where the agreement features – gender, number and case – are bundled on a single morpheme. I propose that this bundling reflects a structuring of the abstract features spelled-out by the agreement morphemes: the unvalued features form a featural complex (a feature matrix), which can be called Agr and is borne by K together with its Possessive/Genitive case feature. Note that the features inside the agreement morpheme are always valued together, which suggests that agreement involves the whole Agr-complex. I represent thus the featural make-up of possessive K as follows:

(30) 
\[ \{ \text{Case=Genitive/Possessive; Agr[uGender, uNumber, uCase]} \} \]

Note that if one adopts pre-syntactic morphology, one can say that the K head merged in syntax is already a complex [K-Agr]. All that is important for our purposes is that the features of Agr percolate to KP where they can agree under sisterhood, obeying the rules of Concord-agreement proposed above, and that the Case feature represented by K is kept distinct from the unvalued (sub-)features in Agr.

In conclusion, the attachment of unvalued $\phi$-features to a K-projection rather than inside DP offers a way to explain the possibility of co-occurrence of inherent and inherited $\phi$-features inside the same word, the possessive pronoun.

Remember that the empirical evidence for this proposal is the existence in agreeing possessors of a special possessive stem, normally decomposable into a pronominal root and a possessive suffix. This decomposition is also manifest in Slavonic nominal possessors, so that our analysis covers this construction too. Here are some examples:

(31) 
\begin{itemize}
  \item a. siastr-yn -y malunk-i (Zlatić 2000: 1) (Byelorus.)
    \begin{itemize}
      \item sister-POSS-M PL NOM picture-M PL NOM
      \item ‘the sister’s pictures’
    \end{itemize}
  \item b. Boris-ov -a knig-a (Rus.)
    \begin{itemize}
      \item Boris-POSS-F SG NOM book-F SG.NOM
      \item ‘Boris’ book’
    \end{itemize}
  \item c. mam-in -og brata -a (S.-Cr.)
    \begin{itemize}
      \item mom-POSS-M SG GEN brother-M SG GEN
      \item ‘of the mother’s brother’
    \end{itemize}
  \item d. matč -in dom (Cz.)
    \begin{itemize}
      \item mother-POSS-M SG NOM house-M SG NOM
      \item ‘the mother’s house’
    \end{itemize}
\end{itemize}
Some agglutinative languages present a more transparent decomposition of genitive marking into genitive case morpheme + concord morpheme. Moreover, since the Feature Uniqueness constraint in (23) is not operative in these languages, agreeing possessors can be found with all nominal constituents, across the board. An example is the Daghestanian language Bagwalal, where possessors are marked by concord added to an oblique ending:

(32) a.  ehun-šu-w  waš  (Corbett 2006: 2.44-45)
    blacksmith(M)-OBL-M SG  brother(M)
    ‘blacksmith’s brother’

b.  ehun-šu-j  jaš
    blacksmith(M)-OBL-F SG  sister(F)
    ‘blacksmith’s sister’

In some languages, this phenomenon shows up as a copying of the entire inflectional suffix(es) of the possessee on the possessor, on top of a possessive suffix (usually glossed as “genitive”) – the so-called Suffixaufnahme phenomenon (see Plank 1995 for a detailed presentation):

(33)  (Pro)nominal stem – Possessor suffix – Possessee inflection

The copied inflection often contains the case of the possessee (see above on case concord on possessors in Indo-European languages), which sometimes is the only concord feature (if the language does not have gender or number concord):

(34)  ngijuwa  yalawu-jarra-ntha  yakuri-naa- ntha  waytpala-karra- nguni-
      I=NOM=PURP  catch-PURP  fish-M  ABL=PURP  white=man-  GEN-INS-M
      naa-ntha  mijil-nguni-naa-ntha  (Plank 1995, 1.25)
      ABL=PURP  net-INS-M  ABL  PURP
      ‘Yes, I did catch some fish with the white man's net’

(35)  kalpin-kuwa-thu  yaun-kuwa-thu  thuku-yu  (ityayi-ngi)  (Plank 1995, 1.31)  (Dyirbal)
      man  -GEN-ERG  big  -GEN-ERG  dog  -ERG  (bite-me)
      ‘the big man's dog (bit me)’

3. Phrasal agreeing possessors

3.1 Agreeing genitive markers selecting a DP

Independent evidence for the proposed analysis of agreeing possessors comes from languages where the agreeing element is a preposition or case marker which introduces the possessor. Thus, in Bantu languages and Moroccan Arabic, the preposition introducing genitives agrees with the head noun:

(36)  picha  mpya  ya  Amira  ya  Hasan (Carstens 1991: 100, (39a))  (Swahili)
      ‘Amira’s new picture of Hasan’ / ‘Hasan’s new picture of Amira’
In the analysis proposed here, these agreeing markers are K heads endowed with \( \phi \)-features, taking a DP complement. The difference with respect to the languages discussed in the previous sections is that K is not a suffix, but an independent functional word.

The agreeing marker can also be a postposition. This situation is found in some modern Indo-Aryan languages, illustrated here by Hindi (Koptjevskaja-Tamm 2003: 66)

\[
(38) a. \text{us} \ l\text{Rk-e} \ ke \ bhāī \quad \text{that.M SG OBL boy-SG OBL of.M SG OBL brother(M) SG OBL}
\]

\quad \text{‘of that boy’s brother’ / ‘that boy’s brother’s’}

\[
b. \text{us} \ l\text{Rk-e} \ kī \ bahan \quad \text{that.M SG OBL boy-SG.OBL of.F SG OBL sister(F) SG OBL}
\]

\quad \text{‘of that boy’s sister’ / ‘that boy’s sister’s’}

Note that the inflection morpheme of the noun also contains case, but this cannot be analyzed as representing a K head: there are only three cases – direct, oblique and vocative – and the oblique is the form used with all postpositions (including direct object markers, ergative and dative markers); moreover, the oblique form is often identical with the direct form (for all nouns, in the singular, except for masculines ending in -\( \text{a} \)).

In other languages (Albanian and Romanian), preposed genitival agreement markers attach to a constituent marked for a specific case (genitive-dative) – which is not a default adpositional case as in Hindi – or to a pronominal agreeing possessor. Since the analysis of these constructions is not straightforward, they will be discussed in a separate section later (section 5).

### 3.2 Agreeing Case as a phrasal affix

In some Slavonic varieties, the possessive suffix, although morphologically realized at the word-level, behaves syntactically as if attached at the phrasal level. Thus, in Sorbian, the agreeing possessor can be modified by adjectives or other possessors (see Corbett 2006). These modifiers agree with the inherent features of the possessor (not with the ones overtly shown by the possessor, which are copied from the possessee), and show genitive case, as in the following example in Sorbian (Corbett 2006: 2.7):

\[
(39) \text{moj-eo} \ \text{muž} \ -ow \ -a \ \text{sostr-a} \quad \text{my- M SG GEN husband(M)-POSSESS-F SG NOM sister(F)-SG NOM}
\]

\quad \text{‘my husband’s sister’}

This behavior can be explained by assuming that the possessive K is a phrasal affix here, attached above the possessor’s phrase, similar to the English genitival ‘s. The modifiers agree with the possessor inside this phrase and receive genitive case from K. The
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unvalued feature matrix (Agr) of the possessive K percolates to the KP-level and receives a value from outside the KP:

(40) \[ [\text{NP moj-eho} \quad \text{muž}][\text{K: GENITIVE -ow}][\text{A: U:GENDER, U:NUMBER, U:CASE -a}]] \]

The genitive marking on the possessor’s modifiers such as mojeho in (40) supports the analysis of the possessive suffix in general as a K head. Note that the modifier does not agree with K’s unvalued case feature. In my analysis, this is explained as follows: mojeho enters concord with the nominal base muž-, resulting in a shared case feature. When the NP merges with K, this feature is valued by the valued case feature of K (the genitive). Note also that the possessor’s modifier also agrees in gender and number with the base muž-, showing again that agreeing possessors can contain inherent gender and number features.

### 3.3 Conclusions on agreeing possessors

The facts presented so far allow us to conclude that the phenomenon of agreeing possessors is syntactically unitary, involving the attachment of a \( \phi \)-morpheme to a K head. Agreeing possessors are divided into three types according to the morpho-syntactic status of the K+Agr element:

(i) possessors where K + Agr is attached at the phrase level as an independent word (bundled with K, as in Bantu and Moroccan Arabic);
(ii) possessors where K + Agr is attached at the phrase level as an affix (Sorbian denominal agreeing possessors);
(iii) possessors where K + Agr is attached at the word level as an affix (agreeing pronominal possessors in an important number of Indo-European languages and agreeing nominal possessors in the other Slavic languages).

The phenomenon of agreeing possessors thus supports the existence of a Case projection (KP), which, like other functional projections, can be realized as an affix (inflectional Case or possessive suffix) or as an independent word (prepositional Case).

### 4. Agreeing possessors and structural case: problems for the valuation theory

As was already noticed in various studies (see Picallo 1991, Cornilescu 1993 and 1994, Siloni 1997, van Hout and Roep 1998, Radford 2000, Alexiadou 2001, Borer 2003, Cornilescu 2003, Alexiadou et al. 2007), the genitive behaves like a structural case in the nominal domain. As is evident from the previous sections (see especially section 1), the same holds for agreeing possessors, analyzed here as KP projections:

(i) genitive / case+agreement marks arguments of deverbal nouns which correspond to the subject and object of the respective verb;

(41) a. o propunere a americanilor / a noastră (Rom.)

a proposal\( (f) \) al Americans-the.OBL / al our.F SG
b. invitarea {protestatarilor / noastră} la discuţii de către primar
inviting(F)-the protesters-the-PL OBL / our.F SG to discussions by mayor

(ii) with complement-taking nouns not related to verbs, genitive / case+agreement is the overwhelmingly frequent marking of the noun’s complement;

(42) a. acest prieten al fetei / al meu (Rom.)
this friend al girl-the.F SG OBL / al M SG my-M SG
b. o parte a oraşului / a noastră
a part al.F SG city-the.F SG OBL / al.F SG our.F SG
c. piciorul mesei / tău
leg-the.M SG table-the.F SG OBL / your-M SG

(iii) Unlike PPs or other inherently case-marked constituents, genitives and agreeing possessors may occupy special (higher) positions inside the DP, which are not peripheral (are not related to information-structure or operator properties) – see the DP-initial genitive in English and other Germanic languages, the special positions for pronominal and/or agreeing possessors discussed in section 1. Under current assumptions on phrase structure, such special positions indicate formal licensing (i.e. case assignment or checking) by elements in the functional domain of the noun phrase. In the formalization using Chomsky’s Agree, genitives and agreeing possessors are distinguished from other elements by having an unvalued case feature which makes them active goals for Agree. Under the checking analysis, they have a case feature which needs checking and allows them to undergo A-movement.

There is nevertheless an important difference between genitive / case + agreement and the structural cases found in the verbal domain: genitive / case + agreement can also mark modifiers of non-relational nouns, expressing various relations, depending on the lexical meanings of the two nouns and on the context (see f.n. 2) (very often, the relation expressed is possession, hence the traditional terms “possessive”, “possessor” and “possessee”):

(43) a. bluza Rodicăi / mea
blouse-the.F SG Rodica-the.OBL / my-F SG
b. carteia Mariei / tu
book-the.F SG Maria.OBL / your-F SG
‘Maria’s book’: ‘the book possessed by Maria / about which Maria talks / of which Maria takes care that Maria edits / written by Maria’
c. yesterday’s book / arrival / meeting train

If structural cases are not interpretable, what introduces this meaning component? Note that the analysis of these constituents as modifiers is based on the idea that they are not required by the meaning of the noun, as happens with complements. But (DP-)modifiers are typically introduced by prepositions or inherent cases.

However, this property is not in fact incompatible with the structural case analysis. There are two possibilities of describing these facts under this analysis: (i) the meaning
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component (the introduction of a relation) can be seen as a property of the configuration in which genitive is assigned – more precisely, on the assumption that structural cases are assigned by functional heads, as a property of the functional head which assigns genitive (be it Poss or n); this line of thought is followed by Alexiadou et al. (2007); (ii) the genitive/possessive case head can be analyzed as a head having optionally or obligatorily a meaning of its own, added to its structural-case feature; this second possibility is however not compatible with the analysis of structural case as unvalued case; if however we maintain the early minimalist analysis of structural case as case already valued but needing checking, we can consider that genitive/possessive K, although it has a meaning contribution, also has an uninterpretable feature which must be checked.

In some languages (e.g. Latin, Ancient Greek, German), genitive morphology can also represent inherent case, being lexically selected by certain verbs or adjectives. What is important for the aims of this section is that genitive is structural at least in some of its uses (on adnominal complements and modifiers), and that in these uses the agreeing K can be found.

The fact that the agreeing K found in agreeing possessors represents structural case constitutes a problem for the current minimalist representation of structural case. Structural case assignment is described in recent minimalism as valuation of a feature (Chomsky 2000 and 2001). If we combine this view with the KP-theory which we adopted, we should say that DPs marked with structural case all come with a K carrying unvalued case. But the K of agreeing possessors must be positively specified as such already in the numeration, for the following reasons: (i) in many languages, including the Indo-European languages discussed here, it is only found with some DPs (mostly pronouns); this restriction should be noted as a selectional feature of this K; (ii) it differs from the other Ks by bearing agreement features (inherited from the possessee); under the current theory of agreement, adopted here, eligibility for agreement is marked on the lexical entries of the agreement targets; this means that the agreement features on possessive K must be present on it from the beginning of the derivation. It follows that possessive K must be positively specified as genitive (+Agr)/possessive from the beginning of the derivation, it cannot be left undistinguished from nominative or accusative.

A second problem for the valuation theory of structural case is the phenomenon of case concord, familiar from the Indo-European languages which retain case morphology and also found in various other languages of the world (see the case stacking languages

---

17 It should be noticed that there can be more than one adnominal structural case, an issue which cannot be addressed here in detail for reasons of space. The clearest case is when two different types of genitive co-occur and both mark arguments of a deverbal noun (obeying the thematic hierarchy), as illustrated here by English:

(i) The barbarians’ destruction of the city

Another possible source of the co-occurrence of genitives in the same DP is the existence of inherent genitives. On the issue of inherent genitives, see section 6 below.

18 Pesetsky and Torrego (2001 and 2007) have fully assimilated this kind of valuation with agreement, proposing that Case has a valued counterpart on case-assigning heads.
discussed in Plank 1995, mentioned in section 2.2 above): the unvalued feature matrix borne by the possessive K includes Case.

\[(44)\]

\[
\begin{align*}
\text{a. no } & -\text{str } -\text{as manus} & (\text{Lat.}) \\
& 1\text{PL-POS}\text{S-F PL ACC hand(f)} & -\text{PL ACC} \\
\text{b. uns-ar- } & \text{os hand } -\text{uns} & (\text{Goth.}) \\
& 1\text{PL-POS}\text{S-F PL ACC hand(f)} & -\text{PL ACC} \\
\text{c. casei } & \text{voa } -\text{str } -\text{e} & (\text{Rom.}) \\
& \text{house-the } F \text{ SG OBL you } -\text{POSS-F SG OBL}
\end{align*}
\]

In the minimalist representation of agreement, features inherited by agreement enter the derivation as unvalued features. But then it is concord case, the case present in the feature matrix of agreeing possessors, which is unvalued case. It follows that the structural case which defines the possessive K cannot also be unvalued case.

This problem extends in fact beyond agreeing possessors. In any language with DP-internal case concord, if structural adnominal case were simply uCase, we would expect to find case concord instead on genitive morphology. But all the various Indo-European languages which have case concord have genitive on most adnominal structurally case-marked constituents.

All these problems do not appear if structural case is inserted at the beginning of the derivation (in K) and then it is licensed by the syntactic environment \((v^*, T, n/Poss)\), as in the checking theory of the 90’s (see Chomsky 1995). This idea can be implemented in a framework that allows both unvalued/valued and uninterpretable/interpretable features, such as Pesetsky and Torrego’s (2001, 2007). A feature inserted from the numeration but in need of checking can be described as a valued uninterpretable feature.

Admittedly, the characterization of structural case as an unvalued feature was an elegant account of the fact that it does not depend on the lexical root c-selecting the nominal or on semantics, but only on purely formal features of the syntactic context (nominative: clausal domain or CP-phase, accusative: transitive verbal domain / vP-phase, genitive: nominal domain or nP/DP-phase\(^{19}\)). However, structural case differs from agreement features by not having a clear valued counterpart on the element supposed to be responsible for case licensing\(^{20}\). In other words, it is difficult to consider it a copied feature. The result of this paper goes in the same direction: structural case is not simply a copied feature. Structural case and copied case can appear side by side on one and the same nominal. It follows that if copied features are represented as unvalued features, structural case should not be represented as an unvalued feature too\(^{21}\).

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\(^{19}\) For proposals to separate structural case assignment from full \(\phi\)-set and to link it to phasehood, see Alboiu (2006), Frampton and Gutman (2006). Alboiu (2006) argues that structural case specification is determined by the properties of the phase in which the nominal is licensed.

\(^{20}\) Pesetsky and Torrego (2001, 2007) proposed that this counterpart is tense. But the values of case does not covary with the values of the tense feature: accusative and genitive are licensed in domains which do not contain any tense specification (vP and DP/nP respectively). Therefore, I consider this proposal unacceptable.

\(^{21}\) The idea that agreeing possessors participate both to concord and structural case licensing has also been put forth by Giusti (2008) (in her terminology, structural case licensing is done by Agree; she insists on separating Concord from Agree).
It is possible of course to keep structural case as an unvalued feature but to change the conception of copied features, for instance, by treating agreement as a post-syntactic phenomenon, as proposed by Bobaljik (2008). In fact, in Bobaljik’s system, both morphological case and agreement are post-syntactic, so that it is possible to treat the insertion of the possessive K heads together with their Agr morpheme as taking place at PF. At this stage, the fact that the nominal has been licensed in an adnominal environment is already known - if this is to be represented using abstract case, as distinct from morphological case, it can be said that the possessor bears abstract genitive. Moreover, the rules for inserting agreeing K must make reference to the properties of the possessor (whether it is a certain type of pronoun or not) – something which resembles syntactic selection, but should also be allowed for the PF-rules inserting case morphology anyway, in order to account for differential case marking.

I did not pursue this line of thought in my analysis because I followed the traditional conception of agreement as a syntactic phenomenon. But, of course, the system of PF-rules used by Halle and Marantz (1993) and Bobaljik (2008) changes the traditional view of what is syntactic and what is not. Rules highly sensitive to the syntactic structure, to hierarchical notions, can be seen as forming a second syntactic cycle, applying after the structure-building derivation. An empirical test which can decide between the two systems is to check whether morphological case and agreement features really lack any impact on the structure-building operations which constitute the main syntactic cycle (narrow syntax). Such an enterprise goes of course beyond the scope of this article. I only note that the well-known correlation between word order freedom and rich morphological marking suggests that agreement and morphological case features can have an impact on narrow syntax.

5. Doubly marked agreeing possessors

I would like to discuss in this last section a further type of agreement marker on possessors, which is not immediately covered by the analysis of agreeing possessors developed in the sections 2-3: a phrasal agreement marker introducing a DP marked itself with morphological case or with a word-level agreeing possessive K. This type is found in Albanian and Romanian.

In Albanian, genitive constituents are marked with dative morphology and are introduced by an agreement marker (which agrees in gender, number and case with the possessee), attached at the phrasal level, except bare nouns in indefinite contexts:

(45) një mik i nënës
    a friend(M) M SG NOM mother-the.DAT

Bare nouns agree in definiteness: when they are embedded in DPs headed by the definite article, they take the agreement marker and the definite inflection:

(46) a. (një) shkollë vere
    a school summer-DAT
    ‘(a) summer school’
Genitival bare nouns not preceded by the agreement marker have the same case endings as those preceded by the marker in the singular, but in the plural show a special inflection, the so-called ablative (while genitives introduced by the agreement marker have a case inflection identically with the dative):

(47) a. grumbullim materialesh
gathering.the materials.ABL
b. grumbullimi i materiave
gathering-the M SG NOM materials-DEF DAT

Agreeing possessors also contain the agreement marker, but this time attached at the word level, often fused with the pronominal stem:

(48) a. motra im-e
sister.the.NOM SG.NOM+my-FSG
b. motrën tim-e
sister.the.ACC SG.ACC+my-FSG
c. motrat e m-ia
sisters.the.NOM PL.NOM my-FPL
d. motrave të m-ia
sisters.the.DAT PL.DAT my-FPL

The agreement marker has the same form as the one preceding adjectives (most adjectives are always preceded by a prefixal agreement marker in Albanian), but it differs from it by being attached at the phrasal level (as noticed by Faensen 1975), except for pronominal possessors, as we have just seen in (48):

(49) a. ministria e [arsimit dhe
minister.the F SG NOM F SG NOM education.the M SG DAT and
kulturës]
culture.the F SG DAT
b. *një vajzë e [re dhe bukurë]
a girl FSG.NOM young and beautiful

In section 1 we have already introduced the Romanian genitive marker al, obligatorily used before DPs marked with oblique (i.e., genitive-dative) case and agreeing possessors when the definite article does not immediately precede, and which agrees with the Possessee, see (9). As already shown in (9), al does not appear – and in fact cannot appear – when the suffixal definite article immediately precedes the genitive/possessive. A number of arguments, which cannot be revised here in detail, indicate that this is the result of a PF-deletion rule operating on the string [–Def.art al] (see Ortmann and
Not all genitives are preceded by *al*, but only agreeing possessors and DPs which can carry the oblique case marking, see (50)a-b). Inflectional case appears on Romanian on the determiner. If the nominal is headed by a functional element which does not have an oblique inflection – cardinals and other quantitative expressions and adjectives functioning as determiners such as *diferit* ‘various’ belong to this type – the preposition *a* is used to introduce the nominal in genitival contexts, see (50)c). If the nominal is a bare NP, it is introduced by the preposition *de*, see (50)d). The fact that *al* + DP-constituents, *a*-PPs and *de*-PPs can all realize adnominal structural case can be clearly seen with event nominals, where all of them may realize the noun’s complement, as pointed out by Cornilcescu (1994). This includes complex event nominals in the sense of Grimshaw (1990), for which the complement status of the genitive is undisputed:

(50) a. această numire a voastră în funcții importante de către **this nomination(F) al.FSG youpl.FSG in functions important by president**

b. această numire a prietenilor în funcții importante **this nomination(F) al.FSG friends-the.OBL in functions important de către președinte by president**

c. această numire a trei prieteni în funcții importante de către **this nomination a three friends in functions important by președinte president**

d. această numire de prieteni în funcții importante de către **this nomination de friends in functions important by president**

As shown in section 1, see (10), pronominal possessors, without *al*, can also appear between a definite D suffixed on an adjective and N, a position from which non-pronominal possessors are excluded. As discussed under (11), pronominal possessors are weak forms, and this is what allows the special pronominal position. Further evidence that

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22 I will just present two pieces of evidence for this analysis. First, in coordination of possessors, *al* can appear on the second conjunct, even if the first one comes immediately after the definite article and therefore lacks *al* (in the following example, there is just one possessee involved, as seen by agreement on the verb, so we do not have to do with ellipsis of the possessee in the second conjunct):

(i) apartamentul [mamei mele] și [al Mariei] a fost vândut

Secondly, *al* must appear even if the definite article is separated from the possessor by a parenthetical or a focal particle attached to the possessor:

(ii) a. nceputul, așadar / de altfel, *(al) romanului era plictisitor

b. Este casa, chiar *(a) lui

‘That’s right his house’
they are weak in this context is that they don’t allow coordination, with or without *al—
while in postnominal position they can be coordinated with an *al-possessor (but not with an *al-less one):

(51) a. ultima noastră (*şi voastră / *şi a voastră) întâlnire
    last-the our.F SG and yourpl.F SG / and al.F SG your.F SG meeting(F)

b. țara noastră {şi *(a) voastră / şi *(a) părinților }
    land(F)-the our.F SG and al.F SG yourpl,F SG and al.F SG parents-the.OBL

These facts show that (i) only weak forms are allowed in prenominal position, and (ii) [al + Pronoun] constituents are strong. In (51b), two al-constituents have been coordinated, and al in the first constituent has been deleted under adjacency with the definite article. The fact that al only introduces strong forms is expected anyway given that al can take phrasal complements. We conclude that prenominal possessors following the definite article do not rely on al- deletion.

But except for these weak forms, genitives and agreeing possessors are always introduced by al (at least in the underlying syntactic structure).

This fact, as well as the fact that al is specialized for introducing possessors (on the fact that ordinal al is a distinct item, see f.n. 6), suggest an analysis of al as a K head, as proposed by Giusti (2008) and Giurgea (2008 and 2010). The parallel distribution of al-constituents and a- and de- PPs illustrated in (50) appears to support this view: the functional prepositions a and de would be K heads bearing, like al, genitive structural case, but differing from it and from each other by their c-selection feature (each introducing a distinct type of nominal).

The problem with this analysis is that the nominal introduced by al (and its Albanian counterpart) is already case-marked, suggesting that it contains another K. But why should a genitive K select another K, instead of just selecting DP? A possible answer is that dative morphology does not represent another K, but just reflects the genitive feature of D or N, which receives its value from the case head al. But al can also introduce pronominal agreeing possessors, see (50)a), (9), (12) and (15)a): in that case, I argued that the possessive suffix represents K, whose insertion is necessary in order to allow a pronominal base to receive inherited features. So at least here we would have KP-recursion, if al also represented K.

In the literature on the Romanian genitive other analyses have been proposed for al. Grosu’s (1994) decomposition of al into a preposition a + an uninterpretable instance of the definite article -l is not helpful for our purposes: a preposition used to introduce a functional case amount to the same thing as a case marker. But there are also analyses in which al does not belong to the extended projection of the possessor. One of these

\[\text{Evidence for a special placement of pronominal possessors can also be found for the postnominal position, with N raised to D: pronominal possessors, but not al- phrases, are perfectly acceptable between N + D and a classifying adjective; if N does not bear the definite article, the construction is marginal:}\]

(i) criza noastră / lor economică
    crisis-the F SG NOM our,F SG / their.OBL economic

(ii) prima criză (?) a noastră / lor economică (a noastră / lor)
    first-the F SG NOM crisis(F) al.F SG our,F SG / they.OBL economic al.F SG our,F SG / they.OBL
analyses is based on the existence of a context where *al*-phrases behave differently from *a*- and *de*- PPs: *al*-phrases allow ellipsis of the possessee; they can appear on their own in argument positions, being then interpreted as possessors embedded in definite DPs (similar to English Saxon genitives):

(52) Maşina Mariei s-a stricat. Ia -o pe [a Monicăi] / car-the.F Maria-OBL. has damaged take-CL F SG ACC on [al.F SG Monica-OBL] / [a mea] [al.F SG my.FSG]

‘Maria’s car has broken down. Take Monica’s / mine’.

Based on such data, *al* has been analyzed as containing a pro-N *a-* (standing for the possessee) followed by the suffixal definite determiner -l, -a, -i, -le (fem. sg. a < a+a) (d’Hulst et al. 1997; Coene 1999; Dobrovie-Sorin 2000, 2002). But this analysis is problematic because it does not explain why possessors must always be immediately preceded by *al*, including with indefinite possessees, where *-l* cannot be possibly interpreted as a definite article, and why *al* is restricted to possessive environments instead of appearing in other contexts of pro-N/N-ellipsis (Romanian uses *cel* as a form of the definite article in N-ellipsis contexts, not *al*). Dobrovie-Sorin (2002) proposed that in adnominal contexts, *al* functions as a relativizer. But this idea is contradicted by its ability to introduce complements, illustrated in (50) above. The data in (50) is also problematic for this hypothesis because it shows that some nominals can be case-licensed in a postnominal position receiving the functional prepositions *a* and *de*. Why should then other DPs need a D-element (presumed to be present inside *al*) in order for case-licensing?

Cornilescu (2003) proposed another analysis in which *al* does not belong to the possessor phrase. Adopting the Kaynean analyses of genitival markers (see Kayne 1993 on English *of*, Zribi-Hertz 2003 on French *de*), she considers that *al* (as well as *a* and *de*) spell-out a complex of two functional heads in the projection of the possessee: the lower one, K, attracts the genitive into its specifier and case-licenses it; in order to derive the observed word order, a higher head is needed, called Agr, to which K moves and which attracts the NP (K’s complement) into its specifier24:

(53) [o[AgrP [NP soră Anei] [K0-Agr0 a] [KP [DPGen Anei] [K [al soră Anei]]]]]]

24 Cornilescu and Nicolae (2011) keep the same analysis, but give different names to the two heads: the lower one is labelled Tense – adopting Pesetsky and Torrego’s (2001 and 2007) idea that structural case is unvalued tense – and the higher one is labelled φ. The φ head is taken to be responsible for the agreeing element -l inside *al*. But notice that a higher head is also necessary for *a*- and *de*- genitives, and in that case there is no agreement. The authors did not address this issue in their talk. As for the decomposition of *al* into *a* and *-l*, it should be stressed that the similarity between *al* and the prepositional genitive marker *a* is a mere historical coincidence: *al* comes from the Latin demonstrative *ille* (see f.n. 26), while *a* comes from the Latin preposition *ad* ‘to’.
This analysis is problematic for the following reasons: first, once the genitive has been case-licensed in SpecAgr, it is not clear why another head is needed in the derivation; since Agr cannot select this head, which is higher, it is not clear how its necessary presence can be formalized. Secondly, this analysis, using NP-movement, predicts the order N – other complements – al + Genitive, but the unmarked order is the one shown in (50), in which al + Genitive phrase precedes the other complements. Thirdly, although by standard constituency tests such as movement – see (54) for prenominal al – and coordination al and the possessor DP form a constituent, this analysis can only achieve this result by stipulating movement of all the remaining material inside KP and impossibility of adjoining elements above KP or between KP and AgrP; it also requires that in al-phrase fronting such as (54), an entire KP should be pied-piped instead of just moving the possessor.

(54) [a cui] soră
    al.º SG whose sister
    ‘whose sister’

Note moreover that the word order Case-marker – Possessor is found with non-agreeing genitive markers a and de, although in that case the higher head cannot be considered to host agreement.

I conclude that the alternative analyses of al available are not less problematic than an analysis using KP-recursion. I’d like however to suggest a possibility to keep al inside the projection of the possessor without using KP-recursion.

Remember from section 2 that although the existence of Agr-heads in syntax is now disputed, the existence of Agr-morphemes is undisputable, and it has been proposed that they are inserted at PF, by copying on a distinct, newly created terminal of the features valued on the substantive heads with which they are associated (see Pomino’s 2008 adaptation of Halle and Marantz’s 1993 proposal). Suppose then that the K present in oblique genitives, like the K of agreeing possessors, always carries an unvalued feature matrix Agr, but these features are projected at PF into a phrasal affix, attached at the beginning of KP. Due to the Feature Uniqueness constraint in (23), these features cannot be projected as an inflectional morpheme of the possessor except for certain pronominal forms. In al+agreeing possessor constituents, these features would then be doubly copied, both at the word- and phrase-level. A further constraint concerns weak positions, see (51), in which no phrasal agreement affix is created. In other words, I would simply label al Agr, instead of K, and choose whatever analysis of Agr-heads is in accordance with the general theoretical framework one adopts. Notice that by the definition of concord we use (see 2.2), as operating on a sisterhood configuration, K’s unvalued features must percolate to the KP level. The phrasal agreement marker can thus be explained as the realization of the features at the KP-level (i.e of the entire KP syntactic object).25

The same analysis can be applied to the Albanian possessor agreement marker.

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25 For the possibility of morphological rules affecting constituents bigger than words, see Neeleman and Szendrői (2007).
As for the N-ellipsis use in (52) (which is also possible in Albanian), which distinguishes \(al\)- possessors from \(a\)- and \(de\)- genitives, it can be assumed that the agreement features of KP may license a null definite D followed by N ellipsis. Note that \(al\)- constituents are also possible in DP-initial position, presumably SpecDP, introducing DPs with no overt definite marking but interpreted as definite. In the present-day Romanian, this construction is normal only for the \(wh\)- genitive, illustrated in (54). Besides that, it is marginally possible with pronominal possessors, and obsolete and restricted to poetry with other possessors:

(55) a. (?) ai mei părinți
\(al.M\ PL\ my-M PL\ parents\)

b. #ale țării plaiuri
\(al.F\ PL\ country-the.OBL\ fields\)

For these cases, it can be assumed that K’s agreeing features optionally include definiteness, which allows raising to SpecDP triggered by a null definite D. Adjectives marked with definiteness can appear in SpecDP, as shown in (56) below, so this means of definiteness marking is independently attested\(^{26}\).

(56) [lungul și aneviosului] drum
\(long-the.M\ and difficult-the.M\ road\)

The fact that agreeing KPs behave syntactically different from non-agreeing KPs (those introduced by \(a\) and \(de\)) appears to support the view that agreement features are present in syntax (see discussion in section 4).

To conclude, double marking on some agreeing possessors may be explained without using two genitive-marking heads in syntax. The phrasal agreeing marker co-occurring with a word-level agreement morpheme can be analyzed as an Agr head inserted at PF as a phrasal affix, in order to realize the agreement feature matrix of the genitival K.

6. Agreeing possessors as inherent case

I have insisted in section 4 on agreeing possessors representing structural case because this raises serious challenges to the current minimalist theory of structural case. But I do not want to say that agreeing possessors cannot also represent inherent case.

As the unvalued features of agreeing K must be valued by concord, we do expect however that agreeing K should be specialized for an adnominal environment, representing thus structural case. But there is a further possibility: adjectives, even in languages where they always display concord, are not restricted to adnominal

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\(^{26}\) The optional definiteness feature of \(al\) is a historical relic: \(al\) has been a preposed definite article, originating from Lat. \(ille\), just as the suffixal definite article (see Tiktin 1895, Pușcaru in D4 1913, Găzdaru 1929, a.o.).
environments, but are allowed in predicative positions. It can be concluded that concord can be done in the predicative configuration. This can be explained by my analysis of concord in several ways, adopting the current assumption that predicative configurations always involve small clauses: in a traditional, exoskeletal analysis of small clauses, AP is a sister of its subject, so that the sisterhood configuration of concord obtains between DP and AP; if the subject is generated in the lexical projection of the adjective, as SpecAP or SpecaP, the sisterhood condition also applies (DP-A’ or DP-a’). If the subject is first merged as a specifier of a predicative head Pred, it must be assumed that the unvalued features of AP percolate to the Pred’ level. This would indicate that Pred counts in a sense as belonging to the extended projection of the predicative category (A in this case, but the same conclusion would have to be drawn for the other types of predicates).

The possibility of appearing in predicative positions is a criterion for inherent cases. We can thus conclude that the agreeing features of the possessive K do not force it to represent structural case, because they would also be valued if the KP occupied a predicate position. Agreeing possessors do indeed appear in predicate positions, but in many cases it is difficult to say whether they rely on ellipsis on the possessee or not. However, Partee and Borschev (2003) show that in Russian, Polish and German there are instances of predicative agreeing possessors which do not rely on ellipsis. Zribi-Hertz (1997), using the test of paraphrases with overt nouns, shows that predicative Saxon genitives do not always contain an elided possessee. The same test can be applied to Romanian agreeing possessors, and the result is similar; especially when the possessee-subject is inherently unique, or a pronoun which does not contain nominal anaphora (noun ellipsis), a paraphrase with an overt noun (no matter whether embedded in a definite DP or not) is impossible:

(57) a. Ale tale sunt cerurile și al tău e Pământul
   al.F SG your.F PL are skies-the and al.M SG your.M SG is Earth-the
   (Psalms 88.12)

b. #Cerurile sunt ceruri ale tale / cerurile tale ...
   skies-the are skies al.F PL your-F PL / skies-the your-F PL

c. Egiptul e al meu
   Egypt-the M is al.M SG my-M SG

d. *Egiptul e Egiptul meu / Egipt al meu
   Egypt.the M is Egypt.the M my-M SG / Egypt al.M SG my-M SG

e. Orice e al său
   anything is al.MSG 3SG.MSG

While the Romanian al- genitives allow the predicative use, as can be seen from the examples, Romanian a-genitives don’t:

(i) ?? Casa en a trei persoane
   house-the.F SG NOM was a three persons

This shows that a is specialized for structural case (it always carries a feature which needs an adnominal environment in order to be checked).
In Italian, agreeing possessors may appear in predicative positions without a determiner. In this case, they cannot rely on ellipsis, because an overt noun is excluded, see (58)b). In case of possessee ellipsis, a determiner is always required, see (58)c):

(58)  

a. Questo (libro) è mio  
this (book) is my.M SG

b. *Questo (libro) è mio libro  
this (book) is my.M SG book

c. *(Il) mio libro è laggiù  
(the) my book is over-there

To conclude, possessive K, a genitival K endowed with an unvalued feature matrix, can also represent an interpretable K, normally expressing possession (Partee and Borschev argue that in Slavic languages the predicative possessors which do not rely on ellipsis always express possession). In this case, the KP can appear in predicative positions and its unvalued features are valued in a concord configuration with the subject DP, inside the small clause.

References


Agreeing possessors and the theory of case


