Constructions of inalienable possession: the role of inflectional morphology

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0. Introduction

In this paper I will try to give an account for the cross-linguistic differences with respect to constructions of inalienable possession (CIP's) in Spanish, Dutch and English.¹ As my point of departure I will take the proposal of Zubizarreta & Vergnaud (Z&V) (1992) in which they relate the licensing of CIP’s to the availability of an expletive determiner. In section 1 I will present the three types of CIP’s that Z&V discussed in their paper. In section 2 I will sketch the central claims of Z&V’s proposal, and show that it is problematic in both some empirical and theoretical respects. In section 3 I will present my own proposal, for which I will modify certain aspects of Z&V’s proposal, in order to solve some of its theory-internal problems and empirical limitations. I will basically claim that the cross-linguistic differences with respect to CIP’s can be explained as the result of the possibility for a language to generate φ-features in the D-position, by exploiting the mechanisms of Spec-Head agreement and Head-Head agreement. In section 4 I will deal with the question of defining ‘rich inflection’ and will then proceed to summarize the main results of this investigation.

1. Three different types of CIP’s

In this paper I will be concerned with the following differences between Spanish (whose behavior as far as the properties discussed in this paper are concerned, can be generalized to Romance), (standard) Dutch and English:

(1) a El médico les examinó el estómago a los niños
    b *De arts onderzocht de kinderen de maag
    c *The doctor examined the children the stomach

¹ I would like to thank Denis Delfitto for his useful comments.
The examples (1), (2) and (3) exemplify the three types of constructions that Z&V discuss in their paper: the so-called DP-external construction (1), the DP-internal type construction (2), and the DP-internal token construction (3). The DP-external construction differs from both DP-internal constructions since in the former construction the ‘possessor’ of the direct object is realized as a dative argument of the verbal predicate, while in the latter the ‘possessor’-role is realized as a DP-internal possessive pronoun. However, both the DP-external construction and the DP-internal type construction share the property that when the ‘possessor’ is plural, the singular direct object admits a plural/distributive interpretation.

As appears from the Spanish, Dutch and English examples in (1) and (2), Spanish allows both the DP-external construction and the DP-internal type construction. English only allows the DP-internal token construction (3a,b): (2a,b) are only grammatical in English with the pragmatically unlikely interpretation according to which a single stomach is shared by more than one child. Standard Dutch appears to take up a kind of ‘intermediate position’, between Romance (Spanish) and English: the DP-external construction is not allowed, whilst the DP-internal type construction is. The intermediate position of Dutch is problematic for Z&V’s approach, as we will see. In the next section I will present Z&V’s proposal and show why it cannot account for the Dutch facts. At the same time, I will argue that it has some other serious shortcomings.

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2 The DP-external construction is considered archaic in modern standard Dutch. Some eastern Dutch dialects, however, still allow this construction. It also survives in standard Dutch in some fixed expressions, such as (i):

(i) Jan drukte hem de hand
   Jan pressed him the hand
   ‘Jan shaked hands with him’
2. Predication and the role of the definite determiner

Z&V propose a predication analysis for both the DP-external construction and the DP-internal type construction. They argue that the direct object-NP in these constructions contains an unsaturated argument variable. This argument variable corresponds with the so called 'possessor'-role, the thematic role assigned by 'inalienable nouns' (typically nouns denoting body parts and other meronyms; see also Tellier 1990). In order for the argument variable to be saturated, the NP-predicate has to be bound by a constituent under predication. The distributive reading of the NP in both the DP-external construction and the DP-internal type construction is the result of this binding relation (under a syntactic configuration of 'predication').

In the case of the DP-external construction the constituent that binds the NP-predicate is a dative argument. The structure of this construction is given in (4):

As a matter of definition, predication involves mutual m-command between the binder (Pedro in this case) and the bindee (pelo 'hair'). However, mutual m-command seems to be blocked by the PP and the DP nodes under standard assumptions. Z&V argue that functional elements like dative a do not block mutual m-command, so the PP node no longer represents a barrier. Furthermore, Z&V argue that the DP node in Romance languages is no barrier for mutual m-command either. This is due to a property of Romance definite determiners that the English (and Dutch) definite determiner lacks: Romance definite determiners, unlike English (and Dutch) definite determiners, can be expletives, which means that they can be semantically empty. This property of Romance definite determiners is illustrated in (5) and (6):
In (5a) *tigres* ‘tigers’ is interpreted generically. This interpretation is not available in (5b,c). These sentences are only grammatical if *tigers/tijgers* is interpreted as referring to a specific group of tigers, not to *tigers* as a kind.

The generic interpretation of (plural) common nouns is the result of the lack of referential or denotational content of the D-position.\(^3\) According to Z&V, when a DP or an NP denotes, the DP denotes a *token* (a specific object in the world) and the NP denotes a *type*. A type may be associated with an object in the world only indirectly, by instantiation as a token by a semantically non-vacuous determiner. This means that if the D does not have denotational content, the DP will not denote a token but a type (see Longobardi 1994 for a similar, though not equivalent proposal).

The fact that the Spanish definite determiner can be an expletive is also evident from (6a). Proper names fail to provide a range to quantify over, due to their property of being ‘rigid designators’ that do not denote a kind, but instead have a specific and unique referent. For this reason proper nouns cannot be in the scope of a quantifying determinant.

Z&V further argue that the head-complement relation between the expletive determiner and the NP must be licensed (by lack of semantic licensing) morphologically, namely by the overt (=strong) person, number and gender agreement relation that holds between D and N. This morphologically rich agreement relation is apparently present in Spanish, as is shown by the fact that the Spanish definite determiner has four different forms (*el* (m. sing.), *la* (f. sing.), *los* (m. pl.) and *las* (f. (pl.)), and is absent in English, which has only one form for the definite determiner (*the*). The Dutch determiner cannot be an expletive either, as (5b) and (6b) suggest, in spite of the fact that the Dutch definite determiner admits two different forms (*de* and *het*). Apparently the morphological paradigm underlying those two forms does not contain sufficient distinctions (in a sense that has to be made clear) in order for Dutch D-N agreement to qualify as ‘strong’.

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3 The definite determiner can however be used with singular generics in Dutch and English:

(i) a  De tijger heeft strepen  
    b  The tiger has stripes

Z&V argue that the determiner is not an expletive in this construction, but denotes a token that represents a prototype of a kind. For a different approach, see Zwarts (1992) and Longobardi (1994).
Let us turn now to the DP-internal type construction. Z&V extend the predication analysis to this type of constructions, as illustrated for Spanish in (7).

(7)  

\[
\begin{array}{c}
\text{Spec} \\
\text{DP} \\
\text{Spec} \\
\text{D'} \\
\text{D} \\
\text{NP(x)}_i \\
\text{nosotros} \\
\text{la} \\
\text{garganta(x)}_i \\
\text{we} \\
\text{the} \\
\text{throat} \\
\text{=nuestra garganta} \\
\text{‘our throats’}
\end{array}
\]

The binder of the predicate-NP in this construction is not the dative, but a ‘possessor’-pronoun, located in [Spec, DP] at s-structure. This pronoun merges (probably at PF) with the definite determiner (a process called suppletion by Z&V), to form the possessive pronoun. It is by this process that the possessive pronoun inherits the D-N-agreement features in a language like Spanish, as is most evident in the case of the first person plural possessive pronoun, which distinguishes four different forms (nuestro, nuestra, nuestros, nuestras, matching number and gender features of the noun).

According to Z&V, the fact that the definite determiner is also present in the DP-internal construction explains why English does not allow the DP-internal type construction, as appears from (2e,f); English is not able to license an expletive determiner. The English definite determiner is always provided with referential content and so prevents the NP-predicate from being bound by the pronoun in [Spec, DP]. English only allows the DP-internal token construction, as is shown in (3a,b). In this construction the ‘possessor’-variable is not saturated by predication, which explains the absence of a distributive reading of the NP. According to Z&V, the pronoun in [Spec, DP] is interpreted as the argument of the ‘inalienable noun by virtue of being linked to its trace in [Spec, NP].

As I have said in the introduction, Z&V’s approach to CIP’s, as presented above, is problematic for basically two reasons.

The first problem is that standard Dutch cannot be accounted for. Dutch is not able to license an expletive determiner, as follows from (5b) and (6b). This explains the absence in standard Dutch of the DP-external construction, as is shown in (1b). However, it does not explain why in Dutch the DP-internal type construction is allowed, as (2c,d) show. According to Z&V, the definite determiner present in this construction will rule out binding of the ‘possessor’-variable within NP, since the determiner is not an expletive. Z&V’s approach thus predicts that whenever a language allows the DP-external construction, it will also allow the DP-internal type construction and vice versa, contrary to fact, as witnessed by the Dutch facts.
A second problem for the Z&V proposal is theory-internal. According to Z&V, English does not allow the DP-external construction, because the determiner, which cannot count as an expletive in English, turns the DP into a barrier for mutual m-command between the 'external' dative argument and the NP-predicate. However, this account is not appropriate for the DP-internal type construction: mutual m-command between the binder (the pronoun in [Spec, DP]) and the bindee (the NP-predicate) is always possible in this construction. Since both are located inside the DP, the barrierhood of the DP is irrelevant.

The alternative approach that I will present in the next section is arguably able to provide a solution for these two problems.

3. Agreement and the interpretation of D

My alternative approach is based on three central factors: the semantic content of D, the role of the different agreement relations within the DP in determining this content, and the role that inflection plays in this process.

My first proposal concerns the content of D. Assuming a theory in which the lexical content of a head consists of a bundle of features, I propose that the content of D can be specified in two ways:

(8) a It can be specified for the feature [+R] (in which case the projection headed by D is an argument).
   b It can be specified only for φ-features.

Secondly, I propose to consider possessive pronouns not as elements that are the result of suppletion, as in Z&V, but as elements that after being generated in [Spec, NP] are successively moved to the Spec of what I will call a Possessive Phrase, and finally moved to [Spec, DP], in overt syntax in Spanish, Dutch and English and at LF in Italian (Longobardi 1995).

Thirdly, I will be concerned with the saturation of the 'R-variable' of common nouns (Grimshaw 1990). This is an open position that must be saturated in order for the noun to be interpreted referentially (i.e. as an argument), otherwise the noun remains a predicate. We will assume that the R-variable is saturated by the features realized on D (Higginbotham 1987), which can be specified as [+R] or filled with the usual set of φ-features.

In order to explain the cross-linguistic differences in (1) and (2) I will now make the following claim: the possibility of a language to license CIP's depends on its possibility of generating φ-features in D.

This is the result of a special property of 'alienable nouns': they are predicates that have two argument-variables that must be saturated, the R-variable (like all common nouns) and an extra 'possessor'-variable. This possessor-variable can
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be saturated by two constituents: either by the dative (in the DP-external construction) or by the possessive in [Spec, DP] (in the DP-internal type construction).

The possibility for the dative or the possessive in [Spec, DP] to bind the NP-predicate, saturating the ‘possessor’-variable, particular to ‘inalienable nouns’ depends on the lexical content of D, i.e., whether it is [+R] or just filled with φ-features. The ‘possessor’-variable cannot be saturated if D is specified as [+R]. This is due to the fact that the merge of a D specified as [+R] with its nominal complement must result in a closed constituent, but this will not be the case if the ‘possessor’-variable is left unsaturated at the NP-level. In other words, we can assume that an NP with an unsaturated variable (the ‘possessor’-variable) is an open constituent, and that this ‘predicative’ constituent cannot be the complement of a [+R] D, as a general condition on the LF interface. When D is filled with only φ-features, this problem does not exist. A D filled with φ-features does not close off a constituent. The ‘possessor’-variable can then be saturated by a possessive in [Spec, DP], or by a dative realized externally to the DP.

I propose that there are two ways to fill the D-position with φ-features:

(9) a A strong head-head agreement between D and N.
    b A strong Spec-head agreement between [Spec, DP] and D.

Strong D-N-agreement leads to the generation of φ-features with phonological content. These elements are arguably interpreted as expletive determiners in all contexts where the N is not ‘predicative’ (hence not endowed with an R-variable), as is the case with proper names. Therefore, languages with strong D-N agreement allow the DP-external construction. This is the case in Spanish, as is shown in (1a), in which the D filled with φ-features has the form la. Neither Dutch nor English is able to generate φ-features in D, because both in English and Dutch D-N agreement is weak. English the and Dutch de/het must thus always be considered [+R], and will therefore close off the NP-predicate, requiring that the ‘possessor’-variable be bound within the NP-complement of D. As a consequence both (1b,c) are ungrammatical.

A strong Spec-head agreement between [Spec, DP] and D also leads to the generation of φ-features in D, but without phonological content. Since [Spec, DP]-D agreement crucially involves the presence of the ‘possessor’-argument in [Spec, DP], it follows that languages admitting this sort of agreement will also admit the DP-internal type construction. The realization of the ‘possessor’-argument in [Spec, DP] is arguably incompatible with the DP-external construction, where the ‘possessor’-argument is realized as the dative argument of the verbal predicate. Languages with a strong [Spec, DP]-D agreement therefore allow the DP-internal type construction, but not necessarily the DP-external construction. Both Spanish and Dutch allow the DP-internal type construction, as (2a-d) show, unlike English, as is witnessed by (2e,f). This follows from the fact that in Spanish and Dutch the [Spec, DP]-D agreement is strong (for some empirical motivation in favour of this
hypothesis, see below). In English [Spec, DP]-D agreement must be interpreted as weak. This means that English is not able to generate $\phi$-features in D, and that the D-position will remain empty. An empty D-position, however, is not semantically empty. As Longobardi (1994) has shown, empty D's in the Germanic and Romance languages are assigned a default existential interpretation, which means that empty D is interpreted as specified for the [+R] feature.4

A referential D thus prevents the saturation of the ‘possessor’-variable by a dative or a possessive because it must be interpreted as fulfilling the saturation of the predicate-NP. This implies that the barrierhood of the DP with respect to mutual m-command has become irrelevant in this theory, both for the DP-external construction and for the DP-internal type construction. This is a considerable improvement, because, as we have seen in the previous section, the DP-internal type construction is problematic within an approach in which mutual m-command plays a role. The fact that English does not allow the DP-internal type construction can now be accounted for without any problem.

In connection with the concept of ‘strength of agreement’, we now have to explain why [Spec, DP]-D agreement must be considered strong in Dutch and Spanish and weak in English. This difference in strength, however, is not a stipulation. I believe that the cross-linguistic differences concerning the strength of the [Spec, DP]-D agreement relation are closely related to cross-linguistic differences in inflectional morphology, as is the case for the D-N agreement relation. With respect to the strength of D-N agreement I will argue that this depends on the extent to which agreement in number and gender is morphologically expressed on the determiner, in a way that will be made explicit in the next section. With respect to the strength of the [Spec, DP]-D agreement relation I want to claim that this depends on the presence or absence on the possessive pronoun of inflectional features related to number and gender features of the noun: [Spec, DP]-D agreement counts as strong if inflection related to number and/or gender of the noun is present on the possessive pronoun. Informally, this means that [Spec, DP]-D agreement counts as strong if the possessive pronoun does not only refer to the ‘possessor’, but has also features that refer to the ‘possession’.

On these grounds, we can conclude that in English D-N agreement is weak, since the determiner is morphologically invariant (always the). Spanish D-N agreement must be considered strong, because the determiner can be realized in four different forms (el, la, los, las), and is thus maximally inflected. The Dutch determiner distinguishes two different forms (de, het). However, for reasons that will become clear, this does not suffice to qualify Dutch D-N agreement as strong.

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4 Longobardi (1994) argues that an empty D triggers an existential reading of the noun. In the case of the DP-internal token construction the noun is not interpreted existentially. I assume that in this case the D inherits its definite interpretation from the possessive pronoun with which it agrees.
As for the [Spec, DP]-D agreement relation, the cross-linguistic pattern is different. If we consider the presence of noun-related inflection on the possessive pronoun among the three languages under consideration, then we see that it is totally absent in English. English nouns, of course, have no gender distinction, but they do have number inflection. The English possessive pronoun, however, is totally uninflected: *my house/my houses*. This indicates clearly that the English [Spec, DP]-D agreement is weak.

Spanish is an example of a language that has an inflected possessive pronoun, although not every form is inflected to the same extent. Some possessive pronouns however display the same variation of forms as the determiner, as is the case with the first person plural form (*nuestro, nuestra, nuestros, nuestras*). This may be assumed to indicate that Spanish [Spec, DP]-D agreement is strong.

Finally, consider Dutch. Most Dutch possessive pronouns are not inflected. There is, however, one exception, namely, the first person plural form, which is *ons* (for singular neuter nouns) or *onze* (for all other cases). In earlier stages of Dutch other possessive pronouns were also inflected. Some of these inflected forms have survived in fixed expressions like *mijne heren* ‘gentlemen’. Apparently the richness of inflectional morphology displayed by Dutch possessive pronouns is sufficient to interpret the [Spec, DP]-D relation as strong.

Summarizing we get to the following relation between inflectional morphology and strength of agreement:

(10) a  Strong D-N agreement = rich determiner inflection.

b  Strong [Spec, DP]-D agreement = inflected possessive pronoun.

Spanish has both a morphologically rich determiner system and an inflected determiner, which indicates a strong D-N agreement and a strong [Spec, DP]-D agreement. This has as a consequence that both the DP-external and the DP-internal type construction are allowed in Spanish (see (1a) and (2a,b)). English has neither a rich determiner inflection, nor an inflected possessive pronoun, so that both agreement relations must be considered weak. As expected, English does not allow either the DP-external construction, or the DP-internal type construction (see (1c) and (2e,f)). Dutch occupies an intermediate position between Spanish and English. This language has no rich determiner inflection, so the D-N agreement relation must be considered weak. As expected, (standard) Dutch does not allow the DP-external construction, as can be seen in (1b). Dutch, however, does have an inflected possessive pronoun, which qualifies [Spec, DP]-D agreement as strong. As a consequence the DP-internal type construction is allowed in Dutch, as is shown in (2c,d).

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5 Frisian, however, allows the DP-internal type construction, although the possessive pronoun is always uninflected. I suggest that ‘covert’ inflection might be relevant in order to account for the
The ‘weak’ status of Dutch D-N agreement, however, gives rise to some questions. In the first place one could ask why ‘strong’ D-N agreement does not obey the same criteria which are arguably relevant for the characterization of [Spec, DP]-D agreement as ‘strong’. In the latter case the presence on the possessive pronoun of number and/or number features of the noun is enough for the agreement relation to qualify as strong. In the former case the determiner inflection must be rich for the agreement to qualify as strong. The second question that must be answered is: how rich must rich inflection be to qualify as such?

To answer the first question I propose that the difference between D-N agreement and [Spec, DP]-D agreement hinges on general properties of the two mechanisms of Head-Head and Spec-Head agreement. Why these mechanisms should have different properties is a conceptual issue that we will leave open here. On these grounds it might not be unreasonable to assume that Spec-Head agreement is more ‘sensitive’ to inflection than Head-Head agreement, so that the presence of some arbitrary inflectional features suffices to qualify the Spec-Head agreement as strong.

As an answer to the second question one could think of an approach in which the concept of ‘rich inflection’ is defined in terms of a minimal number of different forms. Such an approach, however, is not very principled. On which principled grounds could we assume that the three distinct determiner forms in French are enough to make the D-N agreement ‘strong’, whereas the two distinct forms exhibited by Dutch fail to do the same? Therefore, in the next section, I will give a different account for ‘rich inflection’, in which inflectional paradigms play a crucial role.

4. The concept of ‘rich inflection’: a paradigm-based approach

The point of departure of my proposal is the Dutch determiner system:

(11) Dutch (two genders: neuter/common gender):
    de (+sing. -neut.; -sing -neut.; -sing +neut)
    het (+sing. +neut.)

What is striking about the Dutch determiner paradigm is that most combinations of gender and number are realized as de. Only in one combination is the het-form assigned (+sing. +neut./-common gender). In fact, het is the exception on the

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Frisian facts. Evidence for this claim is the fact that Frisian adjectives are inflected, and possessive pronouns can be considered to belong to the same class as adjectives. This is confirmed by the fact that Dutch children tend to treat possessive pronouns as ordinary adjectives, using adjective inflection, even on forms that are uninflected in standard Dutch. Obviously, these matters require further elaboration.
general rule that Dutch common nouns have *de* as their definite determiner. Only the combination of [+neuter] and [+singular] requires *het*.

This has consequences for the status of *het* (and *de*) as the expression of Φ-features. Due to its distributional properties, *het* cannot be seen as the expression of [-common noun], because it marks only singular nouns: plural nouns always have *de*, irrespective of the gender of the noun. *Het* cannot be seen as the expression of singularity either, because it only marks neuter singular nouns: common gender singular nouns always have *de*, irrespective of their number. Stated differently: *het* marks [-common noun], but not in a paradigm that consistently marks [-common noun] (since plural nouns are always marked with *de*). *Het* also marks singularity, but not in a paradigm that consistently marks singularity (for common gender nouns always are marked with *de*). As the reader can easily check, the same kind of reasoning can be applied to *de*. I propose that it is this property of the Dutch determiner paradigm that qualifies its D-N agreement as weak, in spite of the fact that the determiner displays some morphological variation.

In this respect Dutch strongly contrasts with Spanish, which has a determiner paradigm in which the four possible feature combinations are differently marked, which means that both dimensions of the determiner paradigm, number and gender, are reflected in every single form. This property of Spanish qualifies its D-N agreement as strong. Dutch also contrasts with French, which has a determiner paradigm that only distinguishes three different forms: *les* for masculine and feminine plural, *le* for masculine singular and *la* for feminine singular. In this paradigm, *le* and *la* cannot be seen as the expression of masculinity and femininity, respectively, because the French determiner paradigm only marks singular nouns for gender. However, they can be seen as the expression of singularity, because plurality is consistently realized in a different way, namely as *les*. I assume that this property of the French determiner paradigm is responsible for the possibility that French D-N agreement be considered as 'strong'.

The ideas about the definition of ‘rich inflection’ presented in this section seem to be appropriate for the languages dealt with in this paper, and can successfully be extended to other languages, such as German (which allows, due to its strong D-N-agreement, the DP-external construction, and allows the definite determiner to combine with proper names and plural generics). Future research should test the comparative value of my proposal.

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6 It is worth pointing out that these observations are somehow reminiscent of Roberts’ characterization of ‘rich’ Agr (triggering overt verb movement in languages such as French and German) as crucially based on ‘equivalent marking’ of the singular/plural distinction (cf. Roberts 1993: 267). Although the notion of morphological richness developed here does not provide discriminating evidence for the exclusive relevance of the number distinction, it is certainly compatible with such an hypothesis.

7 The ideas developed here lead to the following interesting typological prediction: the D-N agreement relation could qualify as strong even when the determiner paradigm exhibits only two different
5. Conclusions

In this paper I have tried to give an account for the differences between Spanish, English and Dutch with respect to CIP’s. In the proposal presented in this paper I have related the possibility for language to allow CIP’s to the possibility it has to generate φ-features in D. φ-features have the property of saturating the ‘referential’ variable of common nouns without necessarily closing off the predicative NP, allowing in this way the ‘possessor’-variable of an ‘inalienable noun’ to be saturated by a possessive pronoun in [Spec, DP] (in the case of the DP-internal type construction) or by a dative argument of the verbal predicate (in the DP-external construction). I have argued that the possibility of generating φ-features in D depends on the strength of the D-N agreement relation and the [Spec, DP]-D agreement relation, strength being defined in terms of the presence on the possessive pronoun of inflection related to number and/or gender of the noun in the case of strong [Spec, DP]-D agreement, and in terms of a morphologically rich determiner paradigm in the case of strong D-N agreement. In the last section I have argued that the determiner inflection must be considered ‘rich’ if number and/or gender of the noun are consistently reflected throughout the whole paradigm. This proposal solves an important empirical problem of Z&V’s approach, in which Dutch, as a language that allows the DP-internal type construction but not the DP-external construction, could not be accounted for. It also provides a better account for the DP-internal constructions in general, because the notion of mutual m-command, which appears to be problematic for this construction, has now become irrelevant.

References


forms. This is the case when one determiner form marks all plural nouns (regardless of gender) and the other form all singular nouns (regardless of gender), or when one form marks, for instance, all neuter nouns (regardless of number), and the other all common gender nouns (regardless of number).