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Pronouns and case[☆]

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Abstract

Subject–object distinctions in pronominal systems of languages like Dutch and English are not similar to nominative–accusative oppositions in languages with morphological case, since pronouns do not show the syntactic effects of morphological case. This does not mean that these pronominal distinctions are only relics of earlier stages with a richer inflection. In fact, they do show a fundamental distinction between what is sometimes called head marking (here: agreement) and dependency marking (here: case marking). Consequently, subjects are DPs and objects are extended with a Case Phrase. However, in languages like Dutch and English dependency marking is not morphologically specified, i.e. the head of the Case Phrase is empty. The special property of pronouns is that they are not just nouns, since they only contain functional information. They are organized in a paradigm and correspond to (or spell out) some higher, extended nominal projection. More specifically, Dutch and English object pronouns spell out the Case Phrase, whereas the subject pronouns in these languages correspond to a DP (licensed by agreement). As a result, object pronouns differ in form from subject pronouns. Ordinary nouns, containing lexical information, correspond to N. Since N can be present in subject as well as in object position, ordinary nouns can appear in both types of argument positions. Several peculiar characteristics of Dutch and English pronouns follow from this theory. © 2002 Elsevier Science B.V. All rights reserved.

Keywords: Case; Diachrony; Paradigm; Pronouns

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1. Introduction

Pronouns are a special type of DPs. One of their conspicuous characteristics is that they may show case distinctions even if all other DPs ceased to do so. English and Dutch, for instance, had a morphological case system in their earlier stages. In Modern English and Dutch the former nominative is the only form that can be used for ordinary DPs. As is shown in (1), however, the pronominal systems of these languages still distinguish between so-called subject and object forms.

(1) a. English			b. Dutch		
	<hr/>			<hr/>	
	Subject	Object		Subject	Object
	<hr/>			<hr/>	
1st sg	I	me	1st sg	ik	mij
2nd sg	you	you	2nd sg	jij	jou
3rd sg m	he	him	3rd sg m	hij	hem
3rd sg f	she	her	3rd sg f	zij	haar
3rd sg n	it	it	3rd sg n	het	het
1st pl	we	us	1st pl	wij	ons
2nd pl	you	you	2nd pl	jullie	jullie
3rd pl	they	them	3rd pl	zij	hun
	<hr/>			<hr/>	

Apparently, the case distinction in personal pronouns is a rather stable phenomenon, since it can be witnessed in languages that underwent all kinds of deflection processes. As a matter of fact, all the Germanic cognates of English and Dutch have case distinctions along the lines of (1) in their pronominal system. Even a highly deflected language like Afrikaans, sometimes described as semi-creole, has singular object pronouns that differ in form from pronouns appearing in subject position.

Just as language change can put us on the track of grammatical principles, so can the fact that some changes do not seem to take place. Indeed, some linguists have argued that the stable case distinctions in the pronominal system are somehow a reflex of a nominative-accusative distinction which is present universally. Under this view, which became rather widespread since the introduction of GB-theory (Chomsky, 1981), the modern pronominal distinctions in (2a) are not different from the case distinctions on the Latin DPs in (2b):

- (2) a. He loved her
 b. Homo amat feminam
man-NOM loved wife-ACC

Nominative-accusative oppositions like in (2) are present always, even though they are not spelled out in all languages in all circumstances. Obviously, the fact that case distinctions seem rather stable follows from the alleged universality of case (although it is not explained right away why this stability is visible in pronouns rather than in any other type of DPs).

This view on case distinctions of pronouns has not remained unchallenged. Emonds (1985) and Hudson (1995), for instance, argue that the opposition between subject and object pronouns in English should not be formulated in terms of morphological case. They point out that there is not always an overlap in the position of prototypical nominative or accusative DPs and pronouns like *I* and *me*. For instance, in (3) *me* appears in positions where a language with morphological case distinctions on ordinary DPs would request a nominative (see Schütze, 1997, for an overview of this type of construction).

- (3) a. Me, I will not accept this
 b. The chairmen, me, will not accept this
 c. Me buy a house? Come on!

Emonds and Hudson argue that some language specific rules are needed to account for the precise situations where *I* and *me* can appear (and all other subject and object pronouns for that matter). Consequently, the opposition between *I* and *me* is not much more than a relic of the original nominative-accusative distinction. The upshot is that Modern English does not have morphological case at all, not even in its pronominal system.

We feel that both views have their merits. It is clear that the second view is successful in explaining those situations where nominative and accusative DPs behave differently from subject and object pronouns. At the same time it is somewhat unexpected to see that there is quite some overlap between the two types of case marked DPs and the two types of pronouns, and that in fact this overlap seems rather stable across languages. Precisely this aspect is better understood in the GB-perspective on pronouns, where the form distinctions directly mirror a universal nominative-accusative opposition.

Obviously, both views cannot be true simultaneously. Therefore we will argue for a third approach to the form distinctions of pronouns which combines the advantages of the proposals just discussed, and which, we believe, can shed light on some other seemingly curious properties of the case system of pronouns as well. That is, we will not only formulate an answer to (4a), but also to (4b–i).

- (4) a. To what extent are the form distinctions in pronominal systems to be equated with distinctions in morphological case?
 b. Why do pronouns rather than ordinary DPs show form distinctions?
 c. Why do pronouns rather than determiners show form distinctions?
 d. Why is it usually impossible to combine (personal) pronouns with specifiers or complements?
 e. Why is there a default if there is a form distinction in the pronominal system?
 f. Why is the ‘accusative’ the default in some languages and the ‘nominative’ in others?
 g. Why do we observe more overgeneralizations if a system is acquired with ‘accusative’ as a default than if ‘nominative’ is the default?

- h. To what extent are the form distinctions in the pronominal system characteristics of a group of pronouns rather than features of separate pronouns?
- i. How robust is the form distinction in the pronominal system?

Put briefly, our proposal boils down to the claim that pronouns are organized in a paradigm and that they typically do not correspond to an X, like ordinary lexical elements, but rather to a projection of X. Determiners like Dutch *de* and English *the* spell out an X, presumably D, but pronouns, we will argue, spell out some higher level of the extended nominal projection. Pronominal distinctions are similar to nominative-accusative oppositions to the extent that the underlying functional features that are spelled out are the same. Accordingly, variation may result from two sources. First, languages may differ in the set of functional features that are present in DPs. We will show, for instance, that languages with and without a productive system of morphological case differ in that the functional features of the latter are a subset of the former. Consequently, the pronominal distinctions in languages like (Modern) English and Dutch are only partly similar to nominative-accusative distinctions. Second, pronouns may differ in the level of the nominal projection they correspond to (or spell out), even if the set of underlying functional features is constant. Precisely this characteristic is responsible for the fact that pronouns do not show subject-object distinctions of the type illustrated in (1) universally. If there is no form distinction, pronouns do not correspond to an entire subject or object DP, but rather to a part of the nominal projection.

This paper is structured as follows. In Section 2 we will first present arguments showing that the subject–object distinction in the pronominal system of languages like Dutch and English cannot be equated to the nominative-accusative opposition of a language with morphological case. Hence, the form distinctions between pronouns cannot be explained in terms of morphological case. In Section 3 we will then formulate our explanation of these form distinctions and argue that pronouns correspond to projections of X rather than to the head X itself. This will enable us to answer the questions in (4a–d). Next we will focus in Section 4 on some consequences of our proposal, in particular on those that are relevant for the paradigmatic organization of pronouns, formulating an answer to (4e–h). In Section 5 we will look at the form distinctions of pronouns from a diachronic perspective, focusing on question (4i). Finally, Section 6 contains a summary.

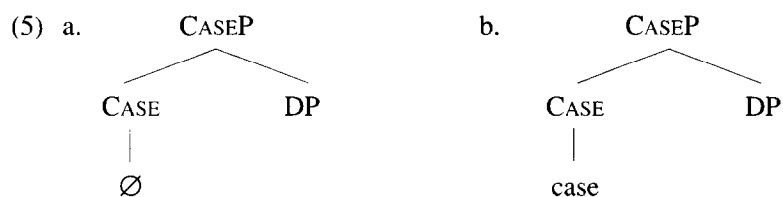
2. Absence or presence of case

Exactly what do the form distinctions in (1) stand for? As said, the GB-view on morphological case is very clear in this respect: the subject–object distinction is a consequence of a distinction in abstract case features, which are present universally. Languages differ in that the abstract case features are not always spelled out morphologically. For instance, in English and Dutch case features are only spelled out on pronouns, but in Latin they are spelled out on all DPs. Under this view there are, as far as abstract case is concerned, no differences between languages like Modern

English and Dutch on the one hand and their early ancestors on the other. The fact that these ancestors had overt case markings is only a morphological phenomenon.

Our main objection against this approach is that it predicts that morphological case does not have syntactic effects, while many linguists have observed that such effects do exist (see, for instance, Stowell, 1981; Manzini, 1983; Van Riemsdijk, 1983; Holmberg, 1985; Longobardi, 1996). An example is that there seems to be, at least to some extent, a correlation between free word order and rich case morphology. This correlation suggests that there is a syntactic difference between languages with and without overt case morphology. However, this difference is absent in the view where morphological case is just a spell-out of universally present abstract case features.

There are several ways to account for syntactic effects of morphological case. We will claim here (following Neeleman and Weerman, 1999) that the notion *case* is universal in that an object DP has a shell carrying functional information. This functional information is required in order to interpret the thematic relation between the argument and the predicate at LF. Languages differ, however, to the extent to which this functional information is morphologically specified. In a language without morphological case an argument literally contains an empty position, as in (5a), whereas in languages with a case paradigm the empty position can be filled with case information, as in (5b). In (5b) *case* stands for notions like <genitive> or <dative>, or whatever features these notions have to be decomposed in.



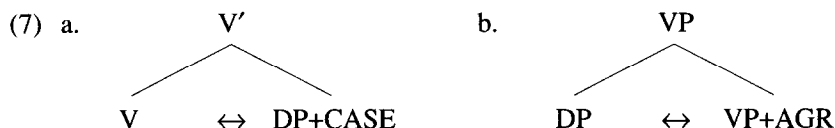
Two types of contrasts between languages with and without morphological case follow. First, only in languages with morphological case may syntactic processes refer to *case*, that is to notions like <genitive> and <dative>. Second, the absence of morphological case in languages has syntactic effects for objects, which contain an empty position. It is well-known that empty categories are subject to specific licensing conditions. For the sake of concreteness we assume here that the relevant condition is Rizzi's (1990) version of the ECP:

(6) *Empty Category Principle*

A nonpronominal empty category must be properly head-governed.

This condition radically restricts the distribution of objects of the form in (5a). These objects may only appear in a position where the ECP can be satisfied. Because objects of the form in (5b) do not have to satisfy the ECP, they may also appear in other positions. Generally, they therefore have a freer distribution.

Pursuing this line of argumentation leads to an important subject-object asymmetry. It is well known that empty categories in the subject position of a finite clause violate the ECP. One is therefore forced to say that subjects, at least in languages like Modern Dutch, are caseless: they cannot contain a gap and therefore they lack the outer functional shell of (5). How, then, can subjects be interpreted as arguments? Neeleman and Weerman (1999) maintain that a thematic relation between an argument and a predicate can only be interpreted with the intervention of a functional marker. But this marker need not be affixed to the argument, it can also be part of the predicate. A marker may identify VP as a predicate, which needs an argument. As a result, the thematic relation between the subject and VP can be established without a marker being attached to the subject (in nominative–accusative languages). The two types of licensing, dependent marking and head marking, are illustrated in (7).¹ Head marking, as in (7b), is typically, but not uniquely, instantiated by agreement affixes. In line with the tradition, we will therefore use agreement here as a cover term.²



One of the consequences of this theory is that the nominative typically is the form without case. We will come back to this point in more detail, but note that it is confirmed by the historical development that we can witness in ordinary DPs in Dutch and English. If morphological case disappears as a result of deflection, the form that typically survives is the nominative. For instance, in Middle Dutch four different forms were used for a phrase like ‘the man’, depending on the argument position. In Modern Dutch only one form can appear in all of these positions; this modern form is historically related to the Middle Dutch nominative (cf. 8).

¹ Head marking and dependent marking are unified in that they play a comparable role at the interface. However, in contrast to standard minimalism (cf. Chomsky, 1995), it is not the case that one is reduced to the other, the idea being that the cross-linguistic distribution of case and agreement is not coincidental. In order to understand why certain arguments are licensed by case and others by agreement, it is crucial to recognize that agreement markers are attached to the predicate while case markers are attached to arguments. This basic contrast cannot be made, however, if both case and agreement are reflexes of specifier-head agreement in agreement projections (see Neeleman and Weerman (1999) for further discussion).

² Chapter 6 of Neeleman and Weerman (1999) contains an extensive discussion of the type of head markers that may identify VP as a predicate. The affix involved may just carry tense, but if the morphological paradigm is rich enough, it may also refer to properties of the argument, such as person and number. Under special circumstances this again may lead to pro drop (see Koenenman (2000) for some relevant discussion).

(8) a. Middle Dutch ‘the man’

subject	die man
argument in DP	dies mans
indirect object	dien manne
direct object	dien man

b. Modern Dutch ‘the man’

subject	de man
argument in DP	de man
indirect object	de man
direct object	de man

Given this theory, the question of whether or not pronominal forms are manifestations of morphological case can be rephrased as ‘do pronouns have a specified case shell?’. If pronouns in languages like Modern Dutch and English have a specified case shell, we predict that these pronouns have a distribution that differs from the distribution of ordinary DPs in these languages and that their distribution resembles the one of ordinary DPs in languages with overt morphological case. Put differently, the question is whether pronominal form distinctions have syntactic effects just like morphological case distinctions. The answer to this question, we believe, is negative. We will briefly discuss four tests here. For more information on the diagnostic value of these tests we refer to Neeleman and Weerman (1999).

We will first turn to scrambling across arguments. Although Dutch allows scrambling, there is a remarkable restriction: scrambling across arguments is not allowed. As is shown in (9), the direct object (DO) may not precede the indirect object (IO) in Modern Dutch, although the verb governs these constituents in both orders (assuming that the domain of (head) government is the maximal projection of the head).

- (9) a. dat de vrouw [_{VP} [∅ de mannen]_{IO} [∅ de film]_{DO} toont]
that the woman the men the picture shows
 b. *dat de vrouw [_{VP} [∅ de film]_{DO} [∅ de mannen]_{IO} toont]
that the woman the picture the men shows

As already mentioned above, there was an overt morphological case system in Middle Dutch. Interestingly, scrambling across arguments was possible at this stage. Some examples from 13th-century Middle Dutch prose texts are given in (10) (cf. Van Gestel et al., 1992 for some discussion).³

- (10) a. so ghelove ic [...] den Grave_{IO} die lettren_{DO} [...] weder te ghevene (CG 1760)
thus promise I the count-DAT the letters-ACC back to give
 b. [...] ic mine lettren_{DO} [...] den vorseiden hospitale_{IO} hebbe ghegheven (CG 89)
I my letters-ACC the above-mentioned hospital-DAT have given

³ The abbreviations following the Middle Dutch examples refer to Van Gestel et al., 1992 (OZ), Gyseling, 1977 (CG), De Bruin, 1970 (LD), and Stoett, 1923 (ST). Page numbers are indicated.

- c. sal dan v vader ... nit gheuen goede ghichten_{DO} den ghenen die hem bidden_{IO}? (LD 50)
will then your father not give good gifts-ACC those-DAT that him ask
- d. om te geuene sinen volke_{IO} ene leeringe van harre salegheit_{DO} (LD 12)
to give his people-DAT a teaching-ACC of their salvation

Scrambling across arguments disappeared as a result of the process of deflection. According to Neeleman and Weerman (1999) this contrast is a consequence of the fact that the specified case shell in languages with morphological case allows direct interpretation of the thematic relations of the arguments with the predicate at LF. Since this information is not present in languages without morphological case, here interpretation is dependent on the thematic hierarchy and this hierarchy requires the goal to be in higher position than the theme.⁴

The evidence in (11) shows that the Modern Dutch pronouns pattern with the case-less ordinary DPs, that is, scrambling across arguments is not allowed.⁵

- (11) a. dat de vrouw hem_{IO} mij_{DO} toont
that the woman him me shows
- b. *dat de vrouw mij_{DO} hem_{IO} toont
that the woman me him shows
- c. dat de vrouw mij_{IO} hem_{DO} toont
that the woman me him shows
- d. *dat de vrouw hem_{DO} mij_{IO} toont
that the woman him me shows

Thus, pronouns behave like DPs with an unspecified case shell.

⁴ In an English sentence like (i) the goal is higher than the theme as well. Neeleman and Weerman (1999) argue that the verb moves to a higher position since gaps have to be adjacent to the verb in VO languages in order to be head-governed (the domain of head government is defined phonologically rather than syntactically (as in OV languages)).

(i) John gave_i [VP [_i Bill] [V' Vi [_i books]]]

⁵ At first sight scrambling across arguments is possible if we replace the object pronouns by clitics, as illustrated in (i), although some speakers do not allow the order in (ib).

(i) a. dat de vrouw 't 'm toont
 that the woman it (object) him (indirect object) shows
 b. dat de vrouw 'm 't toont

This is not in conflict with our proposal, since it has been argued that the position of object clitics is to be distinguished from the one of scrambled objects (see, for instance, Zwart, 1993). We assume that clitics are somehow moved to a position in the left periphery of the VP. Proposals vary as to why clitics move and what their landing site is (see Halpern and Zwicky (1996) for some discussion). There seems to be consensus though that clitics undergo some extra movement in comparison to ordinary DPs and pronouns. As a result they may end up in an order which is not in accordance with the base order, and hence, an order which contradicts the thematic hierarchy. The conclusion is that the word order in (ia) is not a result of a case distinction between direct objects and indirect objects (in fact, there is no such a distinction), but rather of these objects being clitics.

A second test concerns VO leakages in OV languages. Neeleman and Weerman (1999) argue that the order of a verb and its argument is in principle free, unless the argument does not have a specified case shell. In the latter case the verb has to license the gap, given the ECP in (6), and as a result only the order Object-Verb is allowed (in an OV language like Dutch). In fact, the evidence in (10) already shows that Middle Dutch had both OV and VO orders. Additional evidence for VO leakages in Middle Dutch is given in (12).

- (12) a. Ic sal senden minen ingel vor dijn anschin (LD 78)
I shall send my-ACC angel before your face
 b. so sagen si liggen kolen op dat oeuer (LD 282)
thus saw they lie coals-ACC on the bank
 c. hi soude dorbreken den muur (ST 216)
he would through-break the-ACC wall

As (13) shows, Modern Dutch only allows the OV order, since the case shell of the argument contains a gap.

- (13) a. Jan heeft [Ø de man] overtuigd
John has the man convinced
 b. *Jan heeft overtuigd [Ø de man]
John has convinced the man

Modern Dutch pronouns have to precede the verb as well, suggesting that they also contain a gap:

- (14) a. Jan heeft mij/jou/hem/haar/ons overtuigd
John has me/you/him/her/us convinced
 b. *Jan heeft overtuigd mij/jou/hem/haar/ons
John has convinced me/you/him/her/us

The third test makes use of the fact that not all heads can license a gap. Verbs can license gaps, as we may conclude from (9a) and (13a), and as we know from all kinds of extraction phenomena (see for instance Rizzi, 1990). However, nouns do not have this property. As a consequence, a construction as in (15a) is ungrammatical in Modern Dutch. The gap has to be filled by a preposition, as is shown in (15b) (see Weerman and De Wit, 1999, for further discussion).

- (15) a. *het huis [Ø de buurvrouw]
the house the neighbour
 b. het huis van de buurvrouw
the house of the neighbour

This contrasts sharply with the situation in languages with morphological case. Since the case shell contains morphological case (and is not empty) a preposition

is superfluous. In Middle Dutch, for example, complements of nouns are DPs that appear in the genitive (see Van Es, 1938, for extensive discussion):

- (16) a. Derste der werelt (OZ 63)
the-first the-GEN world
 b. 't drayen des Fortuyns (OZ 63)
the turning the-GEN Fortune-GEN
 c. die versakinghe des herten (OZ 80)
the renouncement the-GEN hart-GEN

As before, the evidence in (17) shows that Modern Dutch pronouns pattern with case-less DPs rather than with DPs bearing morphological case.

- (17) a. *het huis mij/jou/hem/haar/ons
the house me/you/him/her/us
 b. het huis van mij/jou/hem/haar/ons
the house of me/you/him/her/us

A final test to be discussed here concerns quirky subjects. As noted above, DPs with an empty case shell cannot appear in the subject position of a finite clause. This line of argumentation implies that arguments with a specified case shell can appear in subject position. In fact, this is what happens in case of quirky subjects, where the finite verb takes a default inflection (3rd person singular). Some Icelandic and Middle Dutch examples are given in (18).

- (18) a. Strakunum leiddist í skólann (Icelandic)
the boys-DAT got bored in the school
 b. Strákana vantað í skólann (Icelandic)
the boys-ACC lacked in the school
 c. Doe gedachte den Sassen der scaden (Middle Dutch)
then thought the Saxons-DAT the damage-GEN

The evidence in (19) shows that quirky subjects are, as expected, not possible in Modern Dutch.

- (19) a. De jongens verveelden zich op school
the boys bored-PL REFL at school
 a'. *De jongens verveelde zich op school
the boys bored-SG REFL at school
 b. De jongens ontbraken op school
the boys lacked-PL at school
 b'. *De jongens ontbrak op school
the boys lack-SG at school
 c. Toen dachten de Saksen over de schade na
then thought-PL the Saxons about the damage PRT

- c'. *Toen dacht de Saksen over de schade na
then thought-3RD-SG the Saxons about the damage PRT

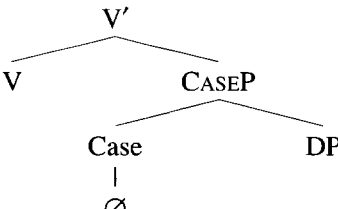
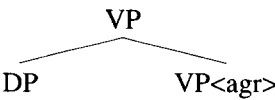
The sentences in (20) show that Modern Dutch pronouns do not behave like quirky subjects, but rather like ordinary DPs.

- (20) a. Ik verveel me op school
I bore-1ST SG REFL at school
 a'. *Mij verveelt me op school
me bore-3RD SG REFL at school
 b. Zij ontbraken op school
they lacked-PL at school
 b'. *Hun ontbrak op school
them lacked-3RD SG at school
 c. Toen dachten wij over de schade na
then thought-PL we about the damage PRT
 c'. *Toen dacht ons over de schade na
then thought-3RD SG us about the damage PRT

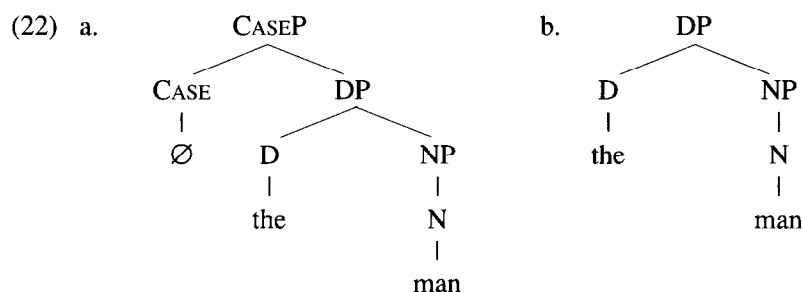
To conclude, in the four tests presented here Modern Dutch pronouns have a distribution similar to that of ordinary case-less DPs. There is no sign of syntactic effects of morphological case. In this respect the Modern Dutch pronouns are not similar to Middle Dutch case-marked DPs. The same argumentation holds for English pronouns, which we will not discuss here for reasons of space. The consequence of this conclusion is that the form distinctions between pronouns in languages like Dutch and English cannot be explained in terms of morphological case. In this respect we follow Emonds (1985) and Hudson (1995). However, we do believe that subject–object distinctions in the pronominal system are directly related to the case system, as we will argue in the next section.

3. Pronouns as XPs

Subject and object pronouns in Modern Dutch and English have a distribution similar to that of ordinary case-less DPs. In terms of our theory this means that object pronouns contain a gap (see (21a)), and that subject pronouns (without a case shell) are licensed via agreement (see (21b)).

- (21) a. 
- b. 

In other words, although there is no distinction in terms of morphological case, there is a structural difference between subject and object positions. For ordinary DPs this structural difference does not result in form distinctions, at least not in Modern Dutch and English. Following the GB-terminology one could say that lexical items are inserted in the trees in (21), or, in minimalist terms, that lexical items are the starting point for a process that builds a tree via merge and move. Either way, the resulting structure for a phrase like *the man* will be (22a) if it is in object position and (22b) if it is a subject.



A lexical item like *man* is combined with functional information: a determiner in (22b) and both a determiner and a(n unspecified) case shell in (22a). The lexical item *man* itself does not specify whether or not this functional information should be present.

Pronouns differ from ordinary DPs in that they only contain functional, and not lexical information. In terms of the trees in (22) this would mean that there is no lexical pronominal item equivalent to *man*. On the other hand N and its projection have to be present in the syntax, since otherwise the functional projections dependent on it cannot exist. Apparently N does not dominate a lexical item in this case. For pronouns there is no one-to-one correspondence between the functional features and observable affixes or words. Pronouns correspond not to an N but to some higher level of the extended nominal projection line. One way to deal with this is to analyze pronouns not as equivalent to a syntactic head, but rather as the spell-out of a part of a phrase: object pronouns would correspond to an entire CaseP like (22a), and subject pronouns to a DP like (22b). This leaves the structures in (22) intact for the syntax and for LF, and would imply that at PF a general convention like the one in (23) holds, allowing both heads and projections of heads to be spelled out (we will discuss alternative formulations below).

(23) *Spell-out convention*
 Spell out X^n as item Y

By way of illustration, consider the three-way distinction of the Dutch system of possessive pronouns, which is partly similar to the one in English, as the glosses will show. The set of words in (24) is the standard Dutch paradigm of possessive pronouns that one may find in a reference grammar. Based on distributional as well as

semantic evidence these words are sometimes considered to be of the category D. They cannot be combined with other members of this category, they typically precede other pronominal elements, and the interpretation of the relevant phrase is always definite, as the evidence in (25) shows.

(24) mijn, jouw, zijn, haar, ons, jullie, hun
my, your, his, her, our, your, their

- (25) a. *de mijn boeken
the my books
b. mijn/de twee mooie boeken
my/the two nice books
c. *er was eens jouw/het boek
there was once your/the book

These facts suggests that they are possessive elements of an unprojected category X, perhaps D, as indicated in (26).

(26) D → mijn, jouw, ...
[features x, y, z]

In substandard Dutch there is an additional paradigm of possessive pronouns, as given in (27). Not all members of this paradigm are equally productive, and many speakers will avoid using them altogether. They differ from the possessive pronouns in (24) in that members of the group in (27) typically cannot be combined with any DP-internal material on the right hand side (see 28).

(27) mijnes, jouwes, zijnes, ??haares, onzes, ??jullies, hunnes
mine, yours, his, hers, ours, yours, theirs

- (28) a. mijnes is/zijn niet zo goed
mine is/are not so good
b. *mijnes (twee) (mooie) boeken
mine two nice books

Minimally, the noun is implicit, but situations in which somehow numerals, adjectives and complements are implicit as well, are entirely natural. So, one person could say something like (29a), and somebody else could answer with (29b), referring to the two nice books he got from John.

- (29) a. Die twee mooie boeken die ik van Jan heb gehad zijn uit
that two nice books that I of John have had are out
b. Mijnes moet ik nog lezen
Mine must I yet read

Suppose we were to assume that the pronouns in (27) are Ds just like the ones in (24). We can only maintain this if we assume that the former in contrast to the latter

select an empty head in their complement. In fact, this single stipulation will not do, since *all* heads on the left of D have to be empty. Apparently, all these heads in succession require an empty head in their complement. Clearly, these stipulations are not very enlightening. Moreover, in general it is not so evident that an implicit head cannot be accompanied by lexical material. For instance, in a discourse a sentence like (29a) can very well be followed by a sentence like (30) in which the head is implicit. We could only account for this if we assumed that there are several types of empty nouns, and that the one in the complement of possessive pronouns like (27) is different from the one appearing in (30).

- (30) Die twee mooie [_{NE}] die ik van Mary heb gehad liggen er nog
that two nice that I of Mary have had are still there

Alternatively, we could argue that *mijnes* spells out D, just like *mijn*, but only after successive head movement of N to D via all intermediate functional head positions. This approach immediately explains that *mijnes* cannot be followed by a noun, since the N-position is obviously empty after movement of *mijnes* to D. But clearly this does not suffice, since *mijnes* cannot be followed by any lexical material whatsoever, and in this approach we would predict that phrases like *mijnes twee* ‘mine two’ or *mijnes mooie* ‘mine nice’, where the head crosses a quantifier and an adjective respectively, are grammatical – contrary to fact.

These problems disappear if we realize that the set in (27) can function as DPs on their own, that is, if we assume that the pronouns of this set spell out DP rather than D. If these pronouns are to be equated with the information available in DP rather than in D, the definite interpretation follows, and at the same time there is no position left for numerals, adjectives or a noun, since at PF the entire DP with the features *x, y, z* is replaced by a pronoun of the set in (27). Formulated from the point of view of the human parser we could say that the presence of words of the set in (27) will automatically introduce a complete DP, whereas the parser will introduce only a D and a projection that has to be filled in if it hits a possessive pronoun of the set in (24). Thus, alongside (26) we propose (31):

- (31) DP → mijnes ‘mine’, jouwes ‘yours’, ...
 [features *x, y, z*]

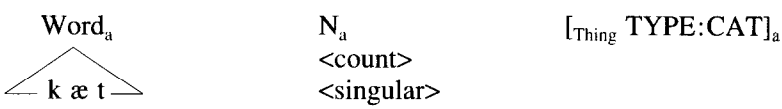

As already indicated above, (31) takes place at PF. Consequently it does not affect the internal structure of the DP in the syntax and at LF.

There is yet another option in the system of Dutch possessive pronouns. If a suffix *-e* is adjoined to the pronouns in (24), a third set of possessive pronouns is derived: *mijne, jouwe, zijne, haare, onze, hunne* (for reasons unknown to us the 2nd person plural does not exist: **jullie-e*). These pronouns are combined with an article. In all other respects, however, they behave in the same way as the set we just discussed. So, as before, all other DP-internal material is excluded. See (32) (the implicit noun has to be non-neutral or plural in (32a) and neutral in (32a')).

- (32) a. de mijne is/zijn niet zo goed
 the mine is/are not so good
 a'. het mijne is niet zo goed
 b. *de mijne (twee) (mooie) (boeken)
 the mine two nice books
 b'. *mijne is niet zo goed
 mine is not so good

Apparently, what is spelled out by the possessive pronoun here is neither a D nor a DP, but some incomplete part of the (extended) projection of the noun. We will refrain from speculating on the precise characterization of what is spelled out, since our point is here that this last example shows that alongside spell-out of a head and a maximal (extended) projection, spell-out of some intermediate form may be possible as well.

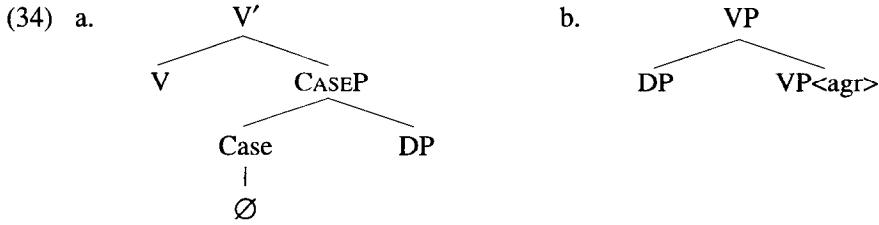
An alternative way to deal with exactly the same phenomenon, is to make use of correspondence rules of the type proposed in Jackendoff (1997). Instead of using notions like 'lexical insertion' and 'spell out' Jackendoff argues that correspondence rules have to make connections between the autonomous modules of phonology, syntax and semantics (i.e. conceptual structure). In the standard examples there is a one-to-one correspondence between the phonological word and the syntactic head, X^0 . For a word like *cat* there is a lexical phonological structure, a lexical syntactic structure and a lexical conceptual structure. The subscript in (33a) shows how these structures correspond (cf. Jackendoff, 1997: 89). However, as Jackendoff argues, lexical items may just as well be smaller than X^0 or larger than X^0 . In his view the former situation holds in case of productive derivational and inflectional morphemes and the latter situation in case of idioms. In this vein we could say that in case of possessive pronouns like Dutch *mijnes* 'mine' the phonological word corresponds to a DP, as indicated in (33b) (where we do not specify further details of the syntactic structure and leave out the lexical conceptual structure).

- (33) a. 
- b. 

For our purpose both Jackendoff's correspondence rules and the more traditional conception of spell-out will do, so we will not make a choice here and use both notions more or less as equivalents.

In the meantime it will come as no surprise how we would like to analyze personal pronouns. Let us return to the structures in (21), repeated here for convenience as (34). The approach just sketched allows spell-out of functional information at several levels. One option is that pronouns systematically spell out DP. In fact, this turns out to be true for *mijnes* 'mine' in (27)/(28). The relevant set of possessive

pronouns can appear both in subject and in object position without any form distinction, as (35) shows.



- (35) a. *Mijnes is niet zo goed*
mine is not so good
 b. *Hij wil mijnes*
he wants mine

DPs like *mijnes* ‘mine’ can, but need not be, combined with a Case Phrase. Put differently, the functional information of the Case Phrase is not relevant for spell-out. The phonological word corresponds to the DP (cf. 33b).

However, our approach implies that the Case Phrase can also be part of the information that is spelled out. If this happens, we will get a distinction between forms that are suited for the argument in (34a) versus the one in (34b). Obviously, this is precisely the subject-object distinction we can witness in the system of personal pronouns in languages like Dutch and English. As we have shown, object pronouns do not behave as if they bear morphological case in these languages. On the contrary, they are headed by an empty Case Phrase just like all other object DPs. Unlike ordinary nouns, however, they do not correspond to an N but to a maximal projection. That object pronouns have a form that is different from subject pronouns, is a consequence of the fact that their maximal projection differs from the maximal projection of pronouns appearing in subject position. An object position in Dutch and English contains an empty Case Phrase, whereas this phrase is absent if the argument is interpreted via agreement.⁶

Let us check the predictions our proposal makes. First, note that the present approach does not entail that subject-object distinctions are obligatory for personal pronouns. If the information of the Case Phrase is not included in the features that are spelled out, the same form will appear both in subject and in object position, just like illustrated for the possessive pronoun *mijnes* ‘mine’. This is a correct prediction. Although the subject-object distinction is persistent and widespread in the pronominal systems of the Romance and the Germanic languages, creole languages, for instance, very often do not have such a distinction, even if it is present in the European lexifier. The personal pronouns of Berbice Dutch and Negerhollands, for exam-

⁶ In our view the form distinctions between object and subject clitics receives a similar analysis as the one for full pronouns, except that for whatever reasons some additional movement takes place in the case of clitics (cf. footnote 5).

ple, do not show subject–object oppositions as Dutch does (see Kouwenberg, 1993 and Van Rossem and Van der Voort, 1996, respectively).

A second prediction concerns the relation between case distinctions for pronouns and ordinary DPs. If a language has morphological case, the Case Phrase in a structure like (34a) is specified. In the proper syntactic environment it will systematically contain a feature like <+ accusative>, for instance. As a result case distinctions may show up in all DPs, that is, nominal and pronominal DPs alike. Note that we predict that the reverse (i.e. systematic subject–object distinctions for nouns, but not for pronouns) will not appear, since the distinction in nominal DPs can only be a result of features that are present on all DPs. This prediction is, again, correct (as the reader can check in the Universals Archive (Plank and Filimonova, 2000)).

We also predict that functional elements that do not spell out an entire phrase will not show form distinctions along the lines of the personal pronouns – unless, of course, a language has morphological case. One might argue, for instance, that determiners in English and Dutch spell out D, but since D is not different in a structure like (34a) or (34b), spell out of D can be independent of a subject–object distinction, in contrast to what happens with personal pronouns. This distinction between personal pronouns and determiners is rather hard to understand if we analyze both as being from the category D, as is sometimes suggested (cf. Abney, 1986; Corver and Delfitto, 1993).

The fourth prediction the spell-out approach to personal pronouns makes is that the personal pronouns behave in a similar way with respect to lexical DP-internal material as the possessive pronouns in (27). If a phonological word corresponds to a syntactic head we typically predict that it can be combined with other heads in the same projection. However, if an item spells out a higher projection, it is predicted that it cannot co-occur with lexical items dominated by this projection. Dutch object pronouns, for instance, spell out the entire Case Phrase in (34a), and therefore they should not co-occur with adjectives, complements etc. In general, this turns out to be true, as the sentences in (36) illustrate.

- (36) a. *Jan zag ons aardige/aardige ons
 John saw us nice/nice us
 b. *Jan zag de jullie
 John saw the you
 c. *Jan zag hen drie
 John saw them three

To some extent pronouns do co-occur with other lexical elements of DPs, but we believe that none of these cases is actually in conflict with the spell-out approach. Take first an example like (37a), where an adjective seems to be combined with a pronoun. However, (37b–c) show that in this case *ik* ‘I’ is not used as a real pronoun, since the verb takes 3rd person singular (if the phrase can be used as a subject at all). Similarly, (37d–e) show that the usual subject–object distinction is overruled here, suggesting again that *ik* is not a pronoun here, but rather a noun (for reasons we will discuss later the English evidence is not conclusive in this respect).

- (37) a. Arme ik!
poor I
 b. *Arme ik loop over de straat
poor I walk-1st sg on the street
 c. ?Arme ik loopt over de straat
poor I walk-3rd sg on the street
 d. ?De man zag arme ik
The man saw poor I
 e. *De man zag arme mij
The man saw poor me

Consider next examples like (38), where the pronoun seems to be combined with a PP or CP. Note first of all that such a combination is not excluded if the modifier is adjoined to the highest projection, as depicted in (39), instead of being a complement or an adjunct of some lower projection. In (39) the lower CaseP could be spelled out as a pronoun.

- (38) a. [Hij die zonder zonde is] werpt de eerste steen
he who without sin is throws the first stone
 b. [Hij van hiernaast] heeft altijd gelijk
He from next door has always right



In addition, one may doubt whether the heads of these projections really behave like pronouns. We conclude this from the fact that binding is not possible with these modified pronouns (cf. 40), whereas binding is allowed in comparable situations with pronouns that are above suspicion (cf. (41)).

- (40) a. *Iedereen_i betreurt dat [hij_i die zonder zonde is] de eerste steen werpt
Everybody regrets that he who without sin is the first stone throws
 b. *Iedereen_i betreurt dat [hij_i van hiernaast] sterfelijk is
Everybody regrets that he from next door mortal is
 (41) a. Iedereen_i betreurt dat hij_i de eerste steen werpt
Everybody regrets that he the first stone throws
 b. Iedereen_i betreurt dat [zijn_i buurvrouw] sterfelijk is
Everybody regrets that his neighbour mortal is

In sum, our theory predicts that form distinctions are typical for pronouns, although these distinctions are not manifestations of morphological case as long as a language does not have a productive system of morphological case in ordinary DPs. Our theory allows us to explain why overt form distinctions are still present, even if it can be shown that these differences have nothing to do with morphological case.

In languages like Modern Dutch and English pronouns behave like ordinary caseless DPs. We claim that the distinctions between pronominal forms in these languages reflect a fundamental asymmetry between subjects and objects: subjects are DPs and objects CasePs. Personal pronouns may correspond to either the former or the latter. In addition to the form distinctions our proposal predicts pronouns to have some properties that turn out to be real.

4. Pronominal paradigms and the case dimension

There is one aspect of the form distinction of personal pronouns that we did not take fully into account yet, namely the group behaviour of pronouns. If pronouns spell out functional information, they can vary, at least in principle, in the set of functional features with which they correspond. What we see across languages and even within a single language, however, is that pronouns tend to act as a group. As already mentioned, many creole languages do not show subject–object distinctions in their personal pronouns unlike Dutch and English. Dutch and English, on the other hand, do not have these distinctions in any other subsystem than that of the personal pronouns (abstracting away from some rather unproductive or reinterpreted relics). Demonstrative pronouns, for instance, do not have form distinctions which are dependent on the argument position of the DP. English *this* and *that*, and the Dutch equivalent *dit/deze* and *dat/die* can appear both as a subject and as an object (*this is wrong*, *I like this*). The same is true for the possessive pronouns discussed in the previous section.

So, there are differences between pronouns, but what we can observe is that they tend to be rather uniform as a group, or as a subgroup. This suggests that something like a case distinction is not so much a distinction which is made at the level of all separate pronouns, but rather at the level of (sub)groups. This is, of course, what is typically expressed in a paradigm. Pronouns are not stored in the lexicon as individual items, but somehow they are stored in paradigms. It is not too far-fetched to assume that this is related to the fact that pronouns spell out functional information.

In the present context an important question then is how the notion of case plays a role in pronominal paradigms. At first sight, our proposal implies that we can replace the paradigms in (1) by those in (42). A personal pronoun in English or Dutch is either the spell-out of an empty Case Phrase, or of a DP without such functional information.

(42) a. English

	DP	empty CaseP
1st sg	I	me
2nd sg	you	you
3rd sg m	he	him
3rd sg f	she	her
3rd sg n	it	it
1st pl	we	us
2nd pl	you	you
3rd pl	they	them

b. Dutch

	DP	empty CaseP
1st sg	ik	mij
2nd sg	jij	jou
3rd sg m	hij	hem
3rd sg f	zij	haar
3rd sg n	het	het
1st pl	wij	ons
2nd pl	jullie	jullie
3rd pl	zij	hun

There are two aspects that need further discussion. The first one is that the paradigms in (42) suggest that the case dimension has a similar status in Dutch and English. In Section 4.1 we will see that this is wrong, and how it has to be refined. Next we will turn to another issue that the paradigm confronts us with, namely the fact that not all cells are filled by different forms: English *you* and *it*, and Dutch *het* and *jullie* do not have case distinctions. We will show how we think this problem should be handled by analyzing the Dutch situation in some more detail in Section 4.2.

4.1. *Default versus non-default*

There are a couple of characteristics of paradigms that we have to be more specific about. First, we assume that the features underlying a paradigm are binary and that as few features as possible are used. Thus, there are no features like 1st, 2nd, 3rd person; rather, two features are used to discriminate between these three options (cf. Kerstens, 1993; Koeneman, 2000):

- (43) a. 1st person b. 2nd person c. 3rd person
 <+ speaker> <- speaker> <- speaker>
 <- addressee> <+ addressee> <- addressee>

Similarly, the singular-plural distinction has to be characterized by one feature rather than two. Either <+ or - singular> is used, or <+ or - plural>. Consequently, the distinction between DPs and CasePs will be expressed by one feature, say <+ or - CaseP>.

If a particular form can correspond to both values of a feature, this could mean that a form is not specified for this feature. Underspecification is indicated as <*a* feature>. For instance, the English pronoun *you* can be used both as a singular and as a plural form. Given that number is well-motivated for other elements in the English paradigm, the option that this feature is absent is not attractive. Rather, we would say

that *you* carries the feature < α plural>. We further follow the convention that a form with a specified feature blocks the insertion of an underspecified form (cf. Aronoff, 1976; Kiparsky, 1982, among others).

Another characteristic of the paradigm we believe to be valid is that one of the two options offered is the one that counts more or less as a starting point – that is, the option which is ‘unmarked’ or ‘the default’. For instance, there are good arguments to assume that <- plural> (or <+ singular>) is the default as far as number is concerned. This corresponds to the observation that the plural is expressed by adding an affix, rather than that there is an affix to express singularity (at least in the languages under discussion). In this sense, the choice for a non-default setting means adding information. In terms of acquisition, the default value precedes the non-default one, which will only be added if a child encounters positive evidence.

If we combine the notion of default with the notions of underspecification and blocking, the default can be represented as < α feature>. This value may then correspond with any form except <+ feature>. For instance, <- plural> can be represented as < α plural>, as opposed to <+ plural>. This would imply that there are no negative specifications in a paradigm. The positive specifications are instances of non-default, where extra information is added. Thus, in our terms morphological forms that correspond to the examples in (43) will be represented as in (44) – we will make no further claims as to whether or not these specific features and default values are correct, although it does not seem a strange result to us that the 3rd person comes out as the default.⁷

- | | | | | | |
|---------|-----------------------|----|---------------------|----|-----------------------|
| (44) a. | 1st person | b. | 2nd person | c. | 3rd person |
| | <+ speaker> | | < α speaker> | | < α speaker> |
| | < α addressee> | | <+ addressee> | | < α addressee> |

It is, of course, an important matter to know what feature settings are the default. In some cases this is probably determined by general cognitive and/or linguistic principles. If this is so, the default will be the same in all languages. One might call this a substantive default. However, if such general principles do not play a role for a feature of the paradigm, the choice for a default value might be an entirely language specific matter determined by the input. In this case we would have a formal default. And, obviously, there is the in-between possibility that general principles will determine that a certain feature is the default unless the input requires another option. An example of this last possibility will be discussed below.

For personal pronouns we have seen that there are two structural situations that have to be kept apart. Either the pronouns correspond to a situation in which the argument is licensed via agreement, or they correspond to a situation where licensing takes place via an (empty) CaseP, as indicated in (7), repeated here as (45).

⁷ The opposition default-marked as used here has a long linguistic tradition going back at least to the work of Jakobson (1932/1971). For another recent account making use of this idea see Wunderlich and Fabri (1995).



From a purely syntactic point of view (45b) is the default, since the inflectional information on the predicate has to be present for independent reasons. Recall that AGR stands for the features that head-mark the VP as a predicate so that the thematic relation between the argument (the subject) and the predicate can be established. These head-marking features play a role in various subsystems of the grammar. Tense, for example, may trigger movement in addition to its obvious semantic effects. Consequently, even in languages in which the case system has disappeared completely, the verbal morphology that instantiates head-marking is often still present (cf. Neeleman and Weerman, 1999).

The CaseP, however, can be regarded as an extra layer needed only for the interpretation of the DP. This is in accordance with the claim that nominative is the morphological default with respect to accusative, dative etc. for ordinary nouns. There are many arguments for this claim (cf. Neeleman and Weerman, 1999), of which only two will be discussed here briefly. First, the paradigm in (8b) shows that the form that survives after the process of case deflection (after which the CaseP is empty) is indeed the nominative. Second, languages that have a morphological case system show a clear tendency to have the nominative as the form without an affix. This is visible, for instance, in the Middle Dutch paradigm given in (8a).

There are some examples where there seems to be a nominative suffix. An example can be found in the paradigm of the (singular, masculine) declension in Modern Icelandic:

(46) Modern Icelandic

Nominative	-ur
Genitive	-s
Dative	-i
Accusative	-Ø

However, since Icelandic is a fusional language, a suffix like *-ur* does not only refer to the nominative, but has to be associated with other features as well: the particular declension group and the singular. Consequently, the decisive evidence can only come from agglutinating languages, where there is a one-to-one relation between affixes and abstract features. Turkish is a case in point. In (47) the Turkish paradigm is given for *el* 'hand'.

(47) Modern Turkish

	Singular	Plural
Nominative	el	eller
Genitive	elin	ellerin
Dative	ele	ellere
Accusative	eli	elleri
Ablative	elden	ellerden
Locative	elde	ellerde

As the paradigm clearly shows, there is a distinct suffix for plurality, namely *-ler*. In addition, there are separate suffixes for all cases but one: there is no nominative suffix. Thus, we can conclude that the nominative form is the default with respect to genitive, dative etc., as singular is the default with respect to plural.

In Modern Dutch the morphological default for DP and CaseP pronouns is not different from the syntactic default. The object form shows up only in situations where we can assume that a Case Phrase is present. The subject form, however, is not only visible in contexts where it is interpreted via agreement, as shown in (48). As discussed above, it seems that in (48a) the pronoun is somehow converted into a noun and apparently this conversion is restricted to the DP pronoun, as the CaseP pronoun cannot appear here. (48b) is a root infinitival and in (48c) there is no verb at all.

- (48) a. Arme ik/*mij!
Poor I/me
 b. Hij/*hem een huis kopen? Nooit!
He/him a house buy? Never!
 c. Zij/*haar intelligent? Dat weet ik niet.
She/her intelligent? That know I not.

In terms of our proposal, the DP dimension in the pronominal paradigm (42b) is to be represented, then, as $\langle \alpha \text{ CaseP} \rangle$ and the dimension of the empty CaseP as $\langle + \text{ CaseP} \rangle$. Consequently, a CaseP in the syntax can be spelled out with a pronoun from the $\langle - \text{ CaseP} \rangle$ set. The specified form will block the insertion of the underspecified variant $\langle \alpha \text{ CaseP} \rangle$. In all remaining structures the elsewhere form will be spelled out. A DP subject in the syntax will therefore be spelled out by a pronoun of the set $\langle \alpha \text{ CaseP} \rangle$, since the more specific form $\langle + \text{ CaseP} \rangle$ does not fit.

In Modern Dutch the morphological default parallels the syntactic one. It is important to note, however, that such a parallel is not obligatory. The syntactic default is determined universally, since a Case Phrase can be considered as a DP with extra syntactic information. What has to be stored in the morphology is that there is a form that can be used in a situation like (45a) and a form corresponding to the structure in (45b). In order to store this information in a paradigm, one of the two

forms has to be marked, but there is no logical necessity in the morphology to see the form for (45a) (with the empty CaseP) as the marked one. In principle the form for (45b) (where licensing takes place via AGR) could also be the option that has to be marked in a paradigm.

In fact, English is an example where the latter relation holds. The English equivalents of (49) show that the pronoun that corresponds to a CaseP can also appear in other situations.

- (49) a. Poor me/*I!
 b. Him/*he buy a house? Never!
 c. Her/*she intelligent? I don't think so.

In other words, the form that corresponds to the structure where AGR licenses the argument (the structure in (45b)), is the marked option in English. We will represent this form as $\langle + \text{AGR} \rangle$, and consequently the default as $\langle - \text{AGR} \rangle$. $\langle + \text{AGR} \rangle$ pronouns will appear if agreement is present, whereas in all remaining situations $\langle - \text{AGR} \rangle$, that is, the so-called object pronouns, will appear.

Put differently, there are two options in both the Dutch and the English pronominal paradigm, say A and B in (50a). One of the two options is the default. If there are no more than two options, as depicted in (50a), then either A or B can be the default – at least, in principle. In English the object form, say B, is the default; in Dutch the agreement form, say A. Note that the option exploited by English is possible since there are no morphological features that will necessarily lead to the conclusion that one of the situations in (45) is marked morphologically. This is due to the fact that the Case Phrase in Dutch and English is empty. As soon as B is branching, as in (50b), only A can logically be the default. That is, if the case shell may be specified and thus may contain different features, i.e. as soon as a language has a productive system of morphological case visible on ordinary nouns, nominative forms will always be unmarked with respect to other case forms.



So, we predict that in constructions like (48) and (49) the nominative will show up as the default if a language has a productive system of morphological case. As far as we know, this prediction is correct. Languages like Classical Greek, German, Icelandic, Latin, Russian, for instance, have a productive case system and have nominative as a default, whereas the option exemplified in (49) is, for instance, chosen by English, Irish, Norwegian – languages that do not have morphological case.

Although the morphological default in English differs from the one in Dutch, the systems behind these languages are equal from a synchronic point of view. Nevertheless, it seems that they are not equal for a language acquirer who has to find out what the morphological default is. As said, it is given what the syntactic default is,

namely the structure in (45b). A child has to learn what the morphological default is. In Dutch the morphological default parallels the syntactic one, whereas the reverse holds in English. It does not seem unlikely that a language acquirer starts out from the idea that the morphological default runs parallel to the syntactic one. If so, we predict that there is an asymmetry in the acquisition of the Dutch and the English pronominal systems. We believe that this prediction is correct.

Children acquiring a language like Dutch are on the right track from the start. That does not imply that they will not make any mistakes whatsoever in the case dimension of their pronominal system. After all, they do have to learn that there are usually two variants for a personal pronoun (though not for all). The frequency with which they are confronted with each separate form may differ, and this may lead to mistakes from the point of view of the adult grammar. Indeed, the literature shows that it is possible to find several kinds of mistakes (Kaper, 1976, 1985; Bol and Kuiken, 1986; Schaerlakens and Gilles, 1987; Boezewinkel, 1995), but Powers (1995) concludes after analyzing five transcripts that there is no systematic deviation in mistakes as far as the case dimension is concerned.

This is rather different for English children. Powers (1995) gives an overview of the relevant literature and analyzes corpora from five children. She observes that these children start out with a system in which the personal pronoun *I* seems to be used correctly. However, in a next stage they use *me*, and even *my* in subject position before they finally reach the adult system. This overgeneralization of object forms to subject positions is a well-known phenomenon in English child language. The reverse hardly happens (cf. Brown, 1973; Huxley, 1970; Tanz, 1974; Rispoli, 1994; Vainikka, 1994; Schütze, 1997), but, as Powers (1995: 445) puts it: “NNSs [i.e. non-nominative subjects] emerge only after children have been using pronouns (both nominative and non-nominative pronouns) correctly”.

From the perspective of our theory it is to be expected that English children initially will not overgeneralize object forms, since they will start out from the hypothesis that the syntactic default is parallel to the morphological one, just like children learning Dutch. However, for Dutch children this first stage turns out to be the final stage as well, whereas English children have to discover that the morphological default in their language is different. The overgeneralizations of non-nominatives to subject position can therefore be explained as follows: the child found out that the morphological default is not the same as the syntactic default, but at the same time the child has not discovered yet that the feature determining the marked value has to be formulated in terms of agreement (or alternatively, the agreement system is not yet fully developed). The adult way of inserting pronouns will be reached as soon as the adult use of agreement is set. In this respect we follow Schütze (1997), who claims that children’s non-nominative subjects disappear if they apply agreement in the adult way.

In sum, the case dimension is present in both the Dutch and the English paradigm of the personal pronouns, although its status differs. In English the form that corresponds to the DP with an empty case shell counts as the default, whereas this is the non-default in Dutch. The option exploited by English is marked, but this is possible due to the fact that the case shell is not specified.

4.2. Syncretism or levelling?

In the paradigms in (42) there is a case dimension for all pronouns, although there is only overt evidence for such a distinction in a subset. In English *it* takes the same form whether or not *it* is licensed by agreement; and *you* does not make a distinction between object, subject and singular and plural. In Dutch there are no subject–object distinctions in the case of *het* and *jullie*. In fact, there is another 2nd person pronoun in Dutch that does not show this distinction either, namely the politeness form *u*. The Dutch examples in (51) illustrate this.

- (51) a. *Het* verbaast ons niet
It surprises us not
 a'. Wij zien *het* niet
We see it not
 b. *Jullie* verbazen ons niet
You (pl) surprise us not
 b'. Wij zien *jullie* niet
We see you (pl) not
 c. *U* verbaast ons niet
You (polite) surprise us not
 c'. Wij zien *u* niet
We see you (polite) not

The paradigms in (42) suggests that there are in fact two pronouns here, the implication being that the fact that the subject and object forms coincide has no meaning beyond the phonology. The idea behind these paradigms is that a case dimension is present for the complete group of pronouns. Based on oppositions for other pronouns, it is decided that the paradigm contains a case dimension and this dimension dictates that there be two forms for each pronoun. In examples like in (51) there is syncretism.

The alternative is that the question whether or not there has to be a case dimension has to be answered for each pronoun separately. Under this view a Dutch pronoun like *jullie* ‘you’ corresponds to a DP (as in (52)), and as such it can appear both in subject position (where it is licensed by agreement) and in object position (where it is dominated by a CasePhrase).⁸

- (52) DP → *jullie*
 <2nd person, plural>

If something along the lines of (52) is correct, we could speak of ‘levelling’ instead of syncretism. The argumentation is akin to how traditional accounts analyze the

⁸ In terms of the conventions introduced in Section 4.1 the features in (52) are as follows: < α speaker>, <+ addressee>, <+ plural>.

politeness dimension in the Dutch paradigm of personal pronouns. The fact that this dimension is visible in the 2nd person usually does not lead to the idea that this dimension is present for other pronouns as well. Apparently, there is only a politeness dimension if there is overt evidence, and this has to be checked for each pronoun separately.

What type of evidence could show which of these two approaches to the case dimension is correct? Although the conceptual difference is quite clear, it is not easy to find empirical evidence that makes a distinction between these two views. What we need is a rule that somehow makes use of the fact that personal pronouns have two forms. This has to be a phenomenon, then, where personal pronouns behave differently from ordinary DPs, since these do not show such a distinction (at least in Dutch and English). If, in such a situation, pronouns like the ones in (51) behave exactly like the other personal pronouns, this would be evidence for a covert case dimension for these pronouns. If, on the other hand, the pronouns in (51) behave like ordinary DPs in this situation, the analysis of the type in (52) is correct.

It appears to be possible to construct such an argument for Dutch, based on so-called nominative–dative inversion (cf. Den Besten, 1989). In this construction the subject can optionally remain in situ if it has an internal theta role. This is illustrated in the (embedded) sentences in (53). In (53a,b) the subject is in a VP-external position, on the left hand side of the indirect object, whereas it is in a VP-internal position in (53a',b').

- (53) a. dat de boeken Jan bevallen
 that the books (subject) John (indirect object) please
 a'. dat Jan de boeken bevallen
 that John (indirect object) the books (subject) please
 b. dat de foto's Jan getoond worden
 that the pictures (subject) John (indirect object) shown are
 b'. dat Jan de foto's getoond worden
 that John (indirect object) the pictures (subject) shown are

Neeleman and Weerman (1999: Ch. 5) argue extensively that subjects in constructions like these have to be associated with two thematic relations that are co-valued. One of these relations is internal, and is therefore licensed by the case shell. The other one is external and therefore it is dependent on agreement. Interpretation takes place at LF, where the subjects in (53) should both be visible in the external as well as in the internal position. Their PFs, however, differ. Neeleman and Weerman argue that surface order is a function of extra-syntactic modules. We have already seen that empty case shells are dependent on head government, a PF constraint. In OV languages these empty elements have to appear on the left-hand side of the governing head. Another extra-syntactic constraint, the Dependency Condition (cf. (54)), typically has consequences for agreement relations (Neeleman and Weerman, 1999: 210).

(54) *Dependency Condition*

If the parser is confronted with a dependent category, it looks for an antecedent in its left context.

Following Williams (1980) and subsequent work, Neeleman and Weerman analyze predication as a relation of local binding. The essence of their analysis is that a predicate is dependent on its subject in much the same way as an anaphor is dependent on its antecedent. This subject relation has to satisfy the condition in (54).

For the present argument in particular the overt structures which Neeleman and Weerman propose for (53a',b') are relevant (cf. Neeleman and Weerman, 1999: 210–216). Crucial point here is that in the overt structure the case shell and the agreement relation are visible on the same phrase. The structures are given in (55), omitting details that play no role here.

- (55) a. dat Jan [de boeken_i] bevallen_i
 that John the books please
 b. dat Jan [de foto's_i] getoond worden_i
 that John the pictures shown are

This is a legal overt structure since it will pass the ECP and the Dependency condition. The empty shell is on the left hand side of the verb in (55), so it can be governed. The same order makes it possible to satisfy the Dependency condition. As said, the parser will look for an antecedent in its left context whenever it encounters a dependent category. Crucially, the parser can only introduce a VP node, the dependent category in question, when it encounters a verb. At that point *de boeken* 'the books' and *de foto's* 'the pictures' are in the left context, so the sentence is well-formed.

Note that it follows from this analysis that nominative-dative inversion of the Dutch type is not possible in English. In (56) the DP *John* must follow the verb if its case shell is to satisfy the ECP, English being a VO language. At the same time, however, the parser must be able to find *John* in its left context when confronted with the verb. This implies that *John* must precede the verb. Thus, contradictory ordering requirements result, and as a consequence the sentence is ill-formed.⁹

- (56) * is_i shown [Ø John_i] the pictures

More generally, the prediction is that nominative-dative inversion of the type illustrated in (52) is typical for OV languages. In VO languages, on the other hand, the subject must be raised overtly, as in (57). Here the agreement relation is VP-external, while the case shell is VP-internal (that is, it dominates the trace of *John*).¹⁰ As

⁹ Note that (ia) is ungrammatical as well, but this could be due to an independent factor since the raised argument has to be the indirect object in English. Compare (ib) and (57).

(i) a. * are shown John the pictures
 b. * the pictures are shown John

¹⁰ To be more precise, Neeleman and Weerman (1999) argue that in case of subject raising the structure is as in (i).

(i) [John] [O_i is_i shown [Ø t_i] the pictures]

At LF, the verb's internal theta role is assigned to the trace in object position, and due to null operator movement, a co-valued theta role is assigned to the subject. The trace must therefore be accompanied by a case shell, while the subject has to agree with the verb.

far as we know, the typological prediction which is made is correct, at least for Germanic languages. Languages like Dutch, Frisian, German and Old English allow the structures in (55), whereas in languages like Danish, Norwegian, Swedish and Icelandic the subject raises obligatorily.

(57) John is shown the pictures

At this point we can return to the form distinctions of the personal pronouns, since the theory just summarized makes a clear prediction here. According to the proposal we have been developing in this paper, (Dutch and English) pronouns spell out either the situation in which the CaseP is present, or the situation in which licensing takes place via agreement. This implies that even in an OV language like Dutch structures as in (55) are impossible if we try to insert pronouns, since there are no pronouns that suit both the case shell and the agreement relation at the same time. Consequently, overt raising is the only alternative, just like in VO languages. This prediction is correct, as the evidence in (58) shows.

- (58) a. * dat Jan ik beval
 that John I please
 a'. dat ik Jan beval
 that I please John
 b. * dat Jan jij bevalt
 that John you (singular) please
 b'. dat jij Jan bevalt
 c. * dat Jan hij bevalt
 that John he pleases
 c'. dat hij Jan bevalt
 d. * dat Jan wij bevallen
 that John we please
 d'. dat wij Jan bevallen
 e. * dat Jan zij bevallen
 that John they please
 e'. dat zij Jan bevallen

The spell-out forms used in (58) cannot appear in the VP-internal positions since the case shell requires, in terms of Section 4.1, a form specified for <+ CaseP>. Suppose we insert such a form instead of the default. For (58a) the result would be (59):

- (59) * dat Jan mij beval
 that John (indirect object) me (subject) please

This sentence is as ill-formed as (58a) since *mij* 'me' cannot be recognized as a proper antecedent for the predicate, i.e. it is not recognized as the subject. This form can only be analyzed as an object (that is, as an element licensed by a Case Phrase). Consequently, the sentence cannot be interpreted.

In other words, here we have a construction where personal pronouns behave differently from ordinary DPs, and in the proposed analysis this is directly related to the form distinctions of the pronouns, namely the assumption that personal pronouns spell out (correspond to) either a Case Phrase or a DP. That indeed the case dimension is responsible and, for instance, not some kind of feature referring to animacy, is corroborated by the fact that the sentences are grammatical if we replace the personal pronoun by a proper name, as shown in (60).

- (60) a. dat Jan Piet bevalt
 that John (indirect object) Pete (subject) pleases
 a'. dat Piet Jan bevalt

The behaviour of Dutch pronouns in nominative-dative inversion enables us to diagnose the status of personal pronouns that do not have an overt distinction between subject and object forms. Do they behave as if there is a case dimension, or is the distribution of these pronouns similar to ordinary DPs? We will first consider the Dutch pronouns *jullie* 'you', <+ plural> and *u* 'you' <+ polite>, and then *het* 'it'.

The facts in (61) clearly show that *jullie* and *u* pattern just like the personal pronouns in (58–59): raising is obligatory.

- (61) a. * dat Jan jullie bevallen
 that John (indirect object) you (subject, plural) please
 a'. dat jullie Jan bevallen
 b. * dat Jan u bevalt
 that John (indirect object) you (subject, polite) please
 b'. dat u Jan bevalt

The facts in (61) suggest that the case dimension is present even for personal pronouns that do not overtly show such a distinction. In other words, these facts plead against an analysis along the lines of (52) and for a paradigmatic case distinction as in (42).

Interestingly, *het* 'it' behaves differently. The relevant facts are presented in (62).

- (62) a. dat Jan de boeken bevallen (=53a')
 that John (indirect object) the books (subject) please
 a'. dat de boeken Jan bevallen (=53a)
 that the books John please
 b. dat Jan het bevalt
 that John (indirect object) it (subject) pleases
 b'. dat het Jan bevalt

Apparently, with respect to *het* there is no hidden case dimension. This pronoun does not behave differently from an ordinary DP.¹¹ In this respect *het* is similar to demon-

¹¹ Note, by the way, that the wellformedness of (62b) shows that even subject clitics like *het* (that is: 't) may undergo nominative–dative inversion, which implies that the ungrammaticality of the sentences in (58) cannot be due to this factor.

strative and possessive pronouns. As discussed above, these pronouns do not show case distinctions either, and here nominative–dative inversion is possible as well:

- (63) a. dat Jan dat bevalt
 that John (indirect object) that (subject) pleases
 a'. dat dat Jan bevalt
 b. dat Jan jouwes bevalt
 that John (indirect object) yours (subject) pleases
 b'. dat jouwes Jan bevalt

We believe this to show two things. First, it supports our idea that indeed the impossibility of nominative–dative inversion in (58) is due to the case dimension in the paradigms of the personal pronouns. Otherwise it is a mystery why some pronouns do and others do not undergo raising obligatory. Second, we conclude that Dutch *het* does not belong to the paradigm of the personal pronouns. Note that this goes well with our qualification of 3rd person in (44) as not containing specified features that refer to person distinctions.

On closer inspection, the story is more subtle. We think that *het* in (62b) cannot refer to some animate object, but rather to something impersonal. In a context as in (64) (64a) is awkward, whereas this order is allowed in (65) (and recall that in general the inverted subject can be animate).

- (64) Over dat kind gesproken, ik denk
 Talking about that child, I think
 a. ? dat Jan het bevalt
 that John it pleases
 b. dat het Jan bevalt
 that it John pleases
- (65) Over dat nieuwe werk gesproken, ik denk
 Talking about that new work, I think
 a. dat Jan het bevalt
 that John it pleases
 b. dat het Jan bevalt
 that it John pleases

There is, in fact, independent evidence that impersonal *het* differs from the personal pronouns. Whereas personal pronouns follow a preposition in Dutch, impersonal *het* is transformed to *er* and precedes it:

- (66) a. op mij/jou/haar/hem/ons/jullie/hen
 on me/you/her/him/us/you/them
 b. erop
 there-on

Impersonal *het*, then, does not belong to the paradigm of the personal pronouns and there is no reason to assume that there is a case dimension for all Dutch pronouns.

However, the paradigm of the personal pronouns does contain such a dimension, as the distribution of *jullie* and *u* shows. This evidence suggests that there is a case dimension even for personal pronouns which do not show an overt case distinction. In other words, the evidence presented here supports the view that there is syncretism instead of levelling and that the decision to form a case dimension is not taken on the level of each separate pronoun, but rather at some higher level in the paradigm.

5. A diachronic perspective

In the previous section we showed that the case dimension must be a rather ‘high’ property of the paradigm of personal pronouns. As suggested in this section, the dimensions of a paradigm are hierarchically ordered. The lower a dimension, the less chance there is for syncretism. A ‘low’ dimension will be based entirely on overt evidence. This is not true for a relatively high dimension as case. We showed that a Dutch pronoun like *jullie* ‘you, plural’, which does not seem to make a distinction between an object and a subject form, behaves as if this distinction is nevertheless real.

Exactly how a feature like <case> is ordered with respect to other ‘high’ features of the pronominal paradigm is not very easy to answer. Clearly, <case> is not required universally, as other pronominal paradigms show. One would like to know how robust the overt case distinction has to be in order to uphold a case dimension in a paradigm. Is, for example, a distinction between *I* and *me* enough to postulate a case dimension for all personal pronouns? This does not strike us as very likely. Rather, we expect that <case> can be neutralized by other features. Pinker (1984), for instance, argues that <gender> is quite often neutralized by <number>. An (incomplete) paradigm like (67b) is, in his view, a better representation than the one in (67a), where there is a non-overt gender distinction in the plural.

(67) a.

		Gender	
		M	F
Number	Sg	<i>he</i>	<i>she</i>
	Pl	<i>they</i>	<i>they</i>

b.

Number	Sg	Gender	M	<i>he</i>
			F	<i>she</i>
	Pl		<i>they</i>	

In the same vein, one might expect that <case> can be neutralized, but further empirical investigation is needed to determine exactly how. Needless to say that this

research has to be very detailed, since it has to take into account much more than just form distinctions: it should focus on possible syntactic (and semantic) effects of these distinctions, like behaviour in nominative-dative inversion. We believe that diachronic observations may help here.

A diachronic perspective shows that there is another relevant factor at work. It does not seem to be a coincidence that the Dutch pronouns that do not have an overt case distinction, *jullie* ‘you, plural’ and *u* ‘you, formal’, are relatively new compared to the other pronouns. They came into being after the system of morphological case collapsed in Dutch. Although the present distinction between forms like *ik* ‘I’ and *me* ‘me’ is not to be explained in terms of morphological case, it is clear that it is diachronically based on this distinction (i.e. it is reinterpreted). Apparently, there was no need to develop two forms of *jullie*, one as the default and one corresponding to the (empty) Case Phrase.

In fact, a more recent diachronic development suggests that there is some benefit in having one overt form, even if the paradigm has a slot for two distinct members. The case in point is the object form *hun* ‘them’, which more and more appears in subject position as well. The object form is still in use (cf. 68a), and the subject is *zij* ‘they’ in the standard language (cf. 68b). Using *hun* as a subject (cf. 68c), although stigmatized, is nowadays widespread.

- (68) a. We hebben hun niet meer gezien
We have them not more seen
 b. Zij hebben het gedaan
They have it done
 c. Hun hebben het gedaan (substandard)
They have it done

Interestingly, this change does not lead to a neutralization of the case dimensions in the pronominal paradigm: just like in the case of *u* and *jullie* (and indeed all personal pronouns) the subject *hun* is excluded in the VP-internal position in (69), even in the substandard variant.

- (69) a. *dat Jan hun bevallen
that John (indirect object) they (subject) please
 b. dat hun Jan bevallen (substandard)
that they (subject) John (indirect object) please

Apparently, the change does not lead to a more simple paradigm. For those speakers who use *hun* as a subject, there are two slots in the paradigm just as for those speakers that use *zij*. One may wonder, then, why this change takes place. Even more so, since the direction of the change is not towards the default, which is the subject form in Dutch, as we saw in Section 4.2. It cannot be an effect of frequency either, since subject pronouns are much more frequent than object pronouns.

What might shed light on this matter is a comparison of the paradigm of personal pronouns with that of possessive pronouns:

(70) a. Personal pronouns (cf. (1b)/(42b))

	DP	CaseP
1st sg	ik	mij
2nd sg	jij	jou
3rd sg m	hij	hem
3rd sg f	zij	haar
1st pl	wij	ons
2nd pl	jullie	jullie
3rd pl	zij	hun

b. Possessive pronouns

	D
1st	mijn
2nd	jouw
3rd m	zijn
3rd f	haar
1st pl	ons
2nd pl	jullie
3rd pl	hun

The two paradigms differ in some crucial respects. The forms in (70a) spell out maximal projections and the forms in (70b) heads. Related to this is the fact that the paradigm in (70a) has a case dimension, in contrast to the one in (70b). These differences make it impossible to collapse the two paradigms. Nevertheless it strikes the eye that there are some phonological similarities between the pronouns in the two paradigms. It is not very likely that these correspondences are a complete coincidence. In fact, one can occasionally observe in acquisition that the relations between these paradigms are 'real'. For instance, Van Os (1997) observes that children say things like *hem pet* 'him cap' instead of *zijn pet* 'his cap'.

One way to express the form similarities while maintaining the crucial differences between (70a–b), is to make a distinction between the features of the paradigm and the actual phonological forms. For instance, with respect to *jullie*, the paradigms in (70a–b) dictate that the following three cells have to be distinguished (we are not concerned here with the proper formulation of the relevant features):

- (71) a. <+ DP>
 <+ 2nd pl>

- b. <+ CaseP>
 <+ 2nd pl>

- c. <+ D>
 <+ 2nd pl>

For the actual phonological formulation we could do with (72). This rule would express, then, that the similarity between the different forms is not a complete coincidence, notwithstanding the differences.

- (72) <+ 2nd pl> /jullie/

Once we make a distinction along these lines, the change from *zij* to *hun* is understandable. As said, it will not lead to a different paradigm; the relevant cells stay as they are, namely as in (73). However, whereas these cells are phonologically realized as (74a–c) respectively in the standard language, a generalization as in (75) will do in the substandard variant.

morphological case. This does not mean that these pronominal distinctions are only relics of earlier stages with a richer inflection. In fact, we argued that they do show a fundamental distinction between what is sometimes called head marking (here: agreement) and dependency marking (here: case marking). However, in languages like Dutch and English dependency marking is not morphologically specified, i.e. the head of the Case Phrase is empty. The special property of pronouns is that they are not just nouns, since they only contain functional information. They correspond to (or spell out) some higher, extended (functional) projection. Dutch and English object pronouns spell out the Case Phrase and consequently they differ from subject pronouns, which correspond to a DP that is licensed by agreement. Ordinary nouns, on the other hand, can just as easily appear in subject as well as in object position since they are of the category N, and this category is present in both types of argument positions.

A direct consequence of this proposal is not only that the reverse is impossible (i.e. no form distinctions for pronouns, morphological case on ordinary nouns), but also that pronouns cannot be easily combined with specifiers or complements. By definition all material that is dominated by the projection that is spelled out cannot be lexicalized independently. It also follows that pronouns behave differently than determiners with respect to case distinctions. Determiners spell out D and not an entire Case Phrase.

Related to the fact that pronouns are a result of spell-out is their group behaviour. We argued that pronouns are stored in paradigms which have a binary organization. One of the two options is the default. If there are no more than two options, then either the pronouns corresponding to the Case Phrase, or those corresponding to the DP licensed by agreement are the default. If the option of the Case Phrase is branching in a paradigm, i.e. if there is morphological case, only the nominative can be the default, which appears to be the correct prediction.

Although the two options (DP licensed by agreement and empty Case Phrase) are in principle similar with respect to default status, we argued that this will probably not be the view of the language learning child. We showed that a plausible strategy is to assume that the morphological default is similar to the syntactic default. Since the nominative (agreement) is the syntactic default, the consequence is that a child learning a language like Dutch will be on the right track very early, whereas a child learning English will typically make overgeneralizations.

Basing ourselves on evidence from nominative–dative inversion we showed that a form distinction between subject and object pronouns is a characteristic of a (part of a) paradigm rather than a characteristic of individual pronouns. The implication is that the case dimension is a rather robust property of the paradigm of personal pronouns.

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