# On geographical adequacy, or: how many types of subject doubling in Dutch $^{1} \ensuremath{\text{\fontformallower}}$

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#### 1 INTRODUCTION

In many southern Dutch dialects, subject doubling is found, i.e. the phenomenon that one single clause contains several, non-inflectional subject markers (be they clitics, pronouns or lexical elements). The distribution of the phenomenon is influenced by a significant number of parameters, including clause type (main clause vs. subclause), word order, the type of subject in the clause (pronoun or not), the number of pronouns, etc. Taking these parameters into account, at least eight different syntactic patterns can be distinguished. In the recent literature, there is debate as to whether these different syntactic patterns are manifestations of one single type of doubling (e.g., Haegeman 1992, 2004; De Geest 1995) or of two different types (Van Craenenbroeck & Van Koppen 2002). After discussing the attested patterns of subject doubling and their analyses in the literature (section 2), we provide geographical evidence for distinguishing three different types of subject doubling (section 3). In section 4, the diachrony of subject doubling will be addressed.

# 2 SUBJECT DOUBLING: DIFFERENT PATTERNS

Many southern Dutch dialects allow clauses to contain multiple subjects. A typical example is found in (1):

(1) Ze werkt (zij) in Brussel. she.clitic work.3sg she.strong in Brussels 'She is working in Brussels.'

The example in (1) is a main clause with so-called 'regular' word order, i.e. with a sentence-initial subject. It contains the feminine 3sg.-clitic ze, which is doubled by an optional strong pronoun zij. The same combination of the clitic ze and the strong pronoun zij is found in other clause types as well, such as subclauses and main clauses with 'inverted' word order (i.e. with the inflected verb preceding the subject). Apart from combinations of a clitic and a strong pronoun, clauses with regular word order may allow combinations of two strong pronouns, as well as combinations of two clitics and a strong pronoun (tripling). In addition, in some dialects the strong pronoun zij also combines with non-pronominal subjects, such as the proper name Marie. This yields eight syntactic patterns, which are shown in (2).

# (2) Table 1: eight patterns of subject doubling

reg	regular word order:		
1	ze werkt zij in Brussel	lit. 'she <sub>clitic</sub> works she <sub>strong</sub> in Brussels'	
2.	ze werkt ze zij	lit. 'she <sub>clitic</sub> works she <sub>clitic</sub> she <sub>strong</sub> '	
3.	Marie werkt zij (also: hij)	lit. 'Mary works she <sub>strong</sub> ' (also: he_)	
4.	zij werkt zij	lit. 'she <sub>strong</sub> works she <sub>strong</sub> '	

<sup>1</sup> We would like to thank the audience at the Workshop on Syntactic Doubling at the Meertens Institute (March 2006) for their constructive criticism, as well as Aline Debever, Liesbet Triest and Evelien Van Renterghem for their help in collecting the data.

inv	inverted word order:		
5. werkt ze zij lit. 'works she <sub>clitic</sub> she <sub>strong</sub> '			
6.	werkt zij Marie (also: hij)	lit. 'works she <sub>strong</sub> Mary ' (also: he_)	
subclause:			
7.	dat ze zij in Brussel werkt	lit. 'that she <sub>clitic</sub> she <sub>strong</sub> works in Brussels'	
8.	dat zij Marie (also: hij)	lit. 'that she <sub>strong</sub> Mary' (also: he_)	

Interestingly, recent geographical data gathered for the *Syntactic Atlas of Dutch Dialects* (henceforth: SAND;<sup>2</sup> see also De Vogelaer & Neuckermans 2002, De Vogelaer 2005 for maps drawn with the same data) show that the different types have a different geographical distribution: dialects may, for instance, only allow type 1 and type 4, but not the other ones, or only type 1, 5, and 7. The most important parameters for the geographical distribution of subject doubling are the ones that are used to define the different subject doubling patterns in (2), i.e. clause type and word order (main clause with regular word order vs. inverted word order vs. subclause), the type of subjects in the clause (clitic, strong pronoun or non-pronominal element), and the number of pronouns (doubling vs. tripling).<sup>3</sup>

The differences in the geographical distribution of the different patterns raise the question to what extent these patterns are manifestations of one single type of subject doubling or not. And indeed, different answers to this question are found in the literature. Haegeman (1992, 2004) for instance, provides examples of patterns 1, 5, and 7 for the West-Flemish dialect of Lapscheure (i.e. ze werkt zij, werkt ze zij and dat ze zij). All patterns are considered instances of clitic doubling. De Geest (1995) provides a similar analysis for the East-Flemish dialect of Ghent. Van Craenenbroeck & Van Koppen (2002) however, discussing the Brabantic dialect of Wambeek, distinguish two types of doubling, i.e. clitic doubling, comprising patterns 5 and 7 (i.e. werkt ze zij and dat ze zij), and topic doubling, comprising patterns 1, 3, and 4 (i.e. ze werkt zij, Marie werkt zij and zij werkt zij). They also claim that their classification is valid for all the dialects they investigate, including the dialects of Ghent and Lapscheure (Van Craenenbroeck & Van Koppen 2002:300-301, but see Haegeman 2004 for arguments against this). In this article, we will evaluate these claims using data from a much larger number of dialects than previous accounts. In the SAND, data are available for 109 dialects in which at least one type of subject doubling is found. In addition, we will extend our classification to include less well-studied manifestations of subject doubling such as patterns 2, 6, and 8 (ze werkt ze zij, werkt zij Marie, and  $\partial at zij Marie$ ).

# 3 DIALECT GEOGRAPHY

# 3.1 GEOGRAPHICAL ADEQUACY

One way to evaluate the different classifications of the patterns in (2) is to investigate to what extent these patterns co-occur in the subject doubling dialects: patterns that co-occur almost without exception, may safely be assumed to be manifestations of one single type of subject doubling, whereas patterns that never show up in the same dialect may not. The larger issue at stake is that one should only assume a linguistic correlation between dialect

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<sup>&</sup>lt;sup>2</sup> See Cornips & Jongenburger (2001a,b) and the SAND-atlas itself for more information on the project, including the fieldwork methodology.

<sup>&</sup>lt;sup>3</sup> Apart from these, some minor parameters are relevant, such as the person, number and gender of the subject. Doubling in the second person singular, for instance, is more widespread than doubling in the third person singular masculine, which is, in turn, more widespread than doubling in the third person neuter. Also, dialects differ as to the relative order of the subject pronouns and object clitics.

phenomena (or language phenomena in general) when they have a similar or at least a comparable geographical distribution. In other words: a comparable geographical distribution is a necessary condition for a linguistic correlation. It is not a sufficient condition, however, as similar geographical distributions can be coincidental. Therefore, correlations must also be explained on linguistic grounds. But as the absence of empirical evidence for an alleged correlation can suffice to abandon it, one can use the presence or absence of co-occurrences of linguistic phenomena in a geographical area to test the empirical reliability of correlations, which are then found geographically adequate or not.

The general principle behind a test for geographical adequacy would be that the more comparable the distribution of the phenomena under investigation, the stronger the case for a linguistic correlation. The strongest possible geographical evidence for a correlation is a 1/1-correspondence between the occurrence of linguistic features. In this case, the relevant features will have an identical geographical distribution on dialect maps. Not only 1/1-correspondences are meaningful in establishing correlations however. A somewhat weaker empirical basis is found when a one-to-many-correspondence is observed. One-tomany-correspondences can be recognised on dialect maps when the dialects in which a certain phenomenon (A) occurs, constitute a proper subset of the dialects in which another phenomenon (B) occurs. This pattern may originate in different ways: B may be older than A, and may have been a necessary condition for A to arise. Or A and B may have developed together, with B having spread over a larger area than A.4 Given the fact that one-to-many-correspondences provide relatively weak evidence for a correlation, more often than not supplementary data and a coherent linguistic explanation will be needed to make a firm case for a correlation. Finally, when a many-to-many-correspondence is observed, the case for a linguistic correlation is weak or even non-existent. One geographical pattern exemplifying a many-to-many-correspondence is that of two rather distinct areas which are partly overlapping. Although the overlap causes the relevant phenomena to co-occur in a number of dialects, the fact that each of the phenomena can be found without the other one, shows that there is probably no correlation between them.

# 3.2 Main types of subject doubling

# 3.2.1 CLITIC DOUBLING

Turning to the attested patterns of subject doubling, at least three different types of doubling need to be distinguished. The first type comprises patterns 5 and 7, and can be termed 'clitic doubling', as both patterns combine a clitic and an optional strong pronoun. Both Haegeman (1992, 2004) and Van Craenenbroeck & Van Koppen (2002) also distinguish clitic doubling, and in both analyses patterns 5 and 7 are considered manifestations of the type.<sup>5</sup>

(3) Two types of clitic doubling:

a. following verbs:

Werkt ze (zij) in Brussel?

work.3sg she<sub>clitic</sub> (she<sub>strong</sub>) in Brussels

'Is she working in Brussels?'

(= pattern 5)

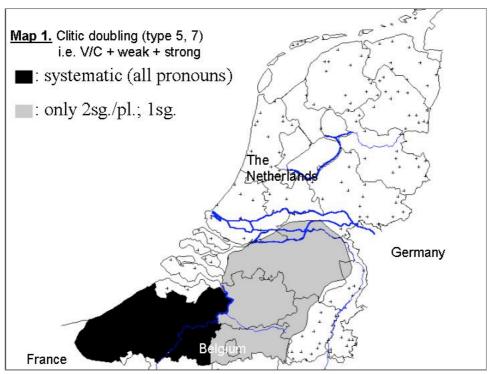
<sup>&</sup>lt;sup>4</sup> For a more elaborate discussion of the possible diachronic interpretations of one-to-many correspondences, see Weijnen (1977).

<sup>&</sup>lt;sup>5</sup> Both classifications differ with respect to pattern 1 however (e.g., *ze werkt zij*), which Haegeman considers clitic doubling, and Van Craenenbroeck & Van Koppen do not; see section 3.3 for discussion

b. following complementisers:

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... dat ze (zij) in Brussel werkt. (= pattern 7)
... that she<sub>clitic</sub> (she<sub>strong</sub>) in Brussels work.3sg
'... that she is working in Brussels.'
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Map 1 shows that the distribution of both patterns is (almost) identical: both pattern 5 and pattern 7 are found in a systematic way, i.e. for all grammatical persons except the third person singular neuter, by and large in French Flanders and the Belgian provinces of West and East Flanders. More to the east, i.e. by and large in the Belgian provinces of Flemish-Brabant, Antwerp and the west of Limburg, and in the Dutch province of North Brabant, only instances are found in the first person singular and/or the second person singular and plural. In this eastern area, there are more dialects allowing doubling of a second person subject pronoun following a verb (pattern 5) than following a complementiser (pattern 7), but the difference does not affect the geographical distribution (see also SAND-maps 54a and 55a).



The main argument to distinguish a separate type called clitic doubling is a geographical one: there are many dialects in which only this type occurs. In the easternmost and northernmost parts of the subject doubling area, all other types of subject doubling are unattested. Not surprisingly, this type has caught the widest attention in the linguistic literature. But clitic doubling also differs from the other types linguistically: unlike for the other types, most dialects do not allow alternatives to this construction, in that the clitics are obligatory. For instance, in most Flemish dialect (i.e. the dialects with systematic clitic doubling), both verbs and complementisers can never be followed by a strong pronoun without a clitic in between them. Also, clitic doubling is the only type in which the strong element consistently shows up later in the sentence as the weak element (cf. Nuyts 1995)

#### 3.2.2 TOPIC DOUBLING

The second type of subject doubling which needs to be distinguished to obtain a geographically adequate classification of the subject doubling patterns in (2), is topic doubling. The clearest examples of topic doubling are the combinations of two strong pronouns in the same clause (pattern 4). The term 'topic doubling' is appropriate since the

sentence-initial pronoun, as sentence-initial subjects in general, clearly functions as the clause topic in (4) (cf. Van Craenenbroeck & Van Koppen 2002:294-295; see also Vandekerckhove 1993:175-179 and Nuyts 1995:54-57 for discussion of the topic doubling patterns and topicality).

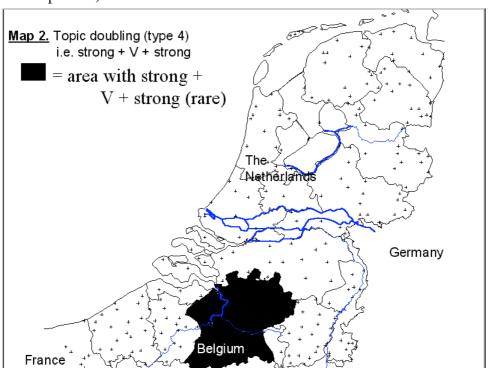
(4) One type of topic doubling:

Zij werkt zij in Brussel. (= pattern 4)

she<sub>strong</sub> work. 3sg she<sub>strong</sub> in Brussels

'Is she working in Brussels?'

Map 2 identifies the region where the pattern is used according to the data in the SAND: it is only found quite frequently in the Belgian provinces of Antwerp and Flemish-Brabant and in the west of East Flanders, i.e. more or less the area with defective clitic doubling paradigms (cf. map 1). Some more western, isolated attestations are not shown on the map (but see the SAND; note however, that the SAND-data do not contain any West-Flemish instances of the pattern).



Even in the relevant region the pattern is quite rare: despite the fact that all the SAND-informants were asked explicitly for all grammatical persons whether they could combine two strong pronouns in the same clause, there are no dialects in which the pattern is indeed found for all grammatical persons. Its rarity also distinguishes this pattern from clitic doubling.

# 3.2.3 TOPIC MARKIKNG

The third type of subject doubling is topic marking. Topic marking involves a combination of a lexical element and a strong pronoun, comprising three patterns from (2). Hence, the pattern differs from clitic doubling and topic doubling in that there is no reduplication involved of a pronoun; rather a strong pronoun is used to mark certain pragmatic characteristics of the subject.

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(5) Three types of topic marking:
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a. main clause, regular word order:

Marie werkt zij in Brussel. (= pattern 3)

Mary work. 3sg she strong in Brussels

'Mary is working in Brussels.'

b. main clause, inverted word order:

Werkt zij Marie in Brussel? (= pattern 6)

work. 3sg she strong Mary in Brussels
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c. subclause (following complementisers):
... datzij Marie in Brussel werkt. (= pattern 8)
... that-she<sub>clitic</sub> (she<sub>strong</sub>) in Brussels work.3sg

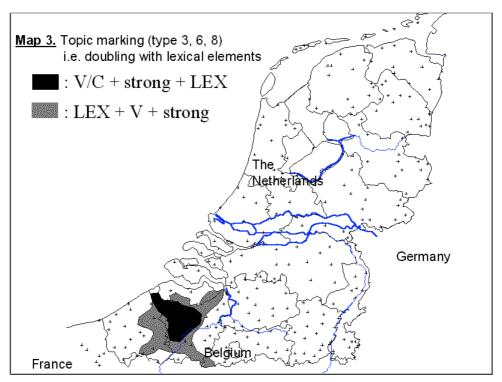
'... that she is working in Brussels.'

'Is Mary working in Brussels?'

Topic marking is also found for the third person singular masculine, and, in some dialects, even in the third person neuter singular and the third person plural. The phenomenon shows quite some variation with regard to the morphology of the strong pronoun: in the examples in (5), some dialects would use a masculine pronoun *bij* or a specialised pronoun *tet* in stead of *zij* to double the feminine non-pronominal subject (see De Vogelaer 2005:212-217 for an exhaustive overview of these morphological variants). The morphological variation does not correlate with any major differences in the syntax of topic marking, however. For instance, in all topic marking dialects, similar restrictions on the choice of the subject seem to apply (see section 4.4). Also, there are dialects in which some of the morphological variants show a free distribution. As morphological variation in the choice of the pronoun is absent in all the other types of subject doubling, it provides a further argument to consider the patterns in (5) indeed as a separate type.

Map 3 shows that there is no 1/1-correspondence between the distribution of pattern 3 on the one hand, and patterns 6 and 8 on the other; rather a one-to-many-correspondence is observed. The distributional differences are, given the obvious similarity between the patterns, insufficient to warrant a separate type of subject doubling.

<sup>&</sup>lt;sup>6</sup> This is not to say that there are no dialectal differences with respect to the productivity of topic marking; the topic marking dialects do indeed show some variation. But this variation does not seem to correlate with the morphology of the pronouns. For instance, similar differences are found in dialects using *zij*, as in the ones using *hij* or *tet* (see section 4.4.2 for more detailed discussion).



Neither Haegeman (1992, 2004) nor De Geest (1995), nor Van Craenenbroeck & Van Koppen (2002) distinguish a separate type of topic marking, for different reasons. De Geest (1995) does not provide any data resembling topic marking, although the variety under discussion, the Ghent dialect, is spoken in the centre of the topic marking area. Haegeman (1992:63) discusses the dialect of Lapscheure, which is situated in the northwest of the topic marking area on map 3, and mentions the so-called "focus element" tet, which, in our view, exemplifies topic marking. Hence both De Geest (1995) and Haegeman (1992) implicitly distinguish patterns 3, 6, and 8 from clitic doubling. The same holds for Van Craenenbroeck & Van Koppen (2002), discussing the Wambeek dialect in which only pattern 3 is found. From an empirical point of view, their data corroborate map 3: Wambeek sits near the southeastern border of the grey area on the map, where pattern 3 is found (e.g. Marie werkt zij) and patterns 6 and 8 are not. The pattern is not analysed as an instance of topic marking however, but as topic doubling, i.e. the same type of subject doubling as the patterns discussed in section 3.2.2 (e.g. pattern 4: zij werkt zij). Map 2 and map 3 show that this is not a geographically adequate analysis: the geographical distribution of pattern 4 (topic doubling) and pattern 3 (topic marking) exemplify a manyto-many correspondence. To provide some additional data: in the SAND-corpus, there are only four dialects in which pattern 3 (Marie werkt zij) combines with pattern 4 (zij werkt zij), whereas there are twenty-eight in which only one of these patterns is found (16 dialects with zij werkt zij, and 12 with Marie werkt zij).

# 3.3 PROBLEMATIC TYPES

# 3.3.1 PATTERN 1 (ZE WERKT ZIJ)

In section 3.2., three types of subject doubling are distinguished: clitic doubling, topic doubling and topic marking. Using dialect geographical data, it is possible to classify six of the eight subject doubling patterns that are distinguished in (2) as straightforward instances of one of these types. However, there are two remaining patterns, viz. pattern 1 (ze werkt zij) and pattern 2 ('tripling', e.g. ze werkt ze zij). Pattern 1 seems to be the most controversial one:

(6) Pattern 1: subject doubling with a sentence-inital weak pronoun/clitic Ze werkt zij in Brussel.

she<sub>clitic/weak</sub> work. 3sg she<sub>strong</sub> in Brussels

'She is working in Brussels.'

Haegeman (1992, 2004) considers pattern 1 an instance of clitic doubling, whereas Van Craenenbroeck & Van Koppen (2002) provide two arguments to analyse it as topic doubling rather than as clitic doubling: firstly, they claim the preverbal element ze to be a weak pronoun rather than a clitic. Secondly, there is the observation that, in the Wambeek dialect, this ze can be replaced with the strong form zij (and non-pronominal elements such as the proper name Marie or die vrouw 'that woman'). While the argumentation of Van Craenenbroeck & Van Koppen (2002) seems valid for the dialect of Wambeek, both arguments do not carry over automatically to other dialects: the Lapscheure dialect that is described by Haegeman (1992), for instance, does not have morphologically distinct weak pronoun and clitics, so the claim that the sentence-initial ze in ze werkt zij is a weak pronoun rather than a clitic cannot be tested. Neither can the preverbal ze be replaced with strong zij (nor with the proper name Marie or with die vrouw 'that woman'; see Haegeman 2004:134-144 for further discussion).

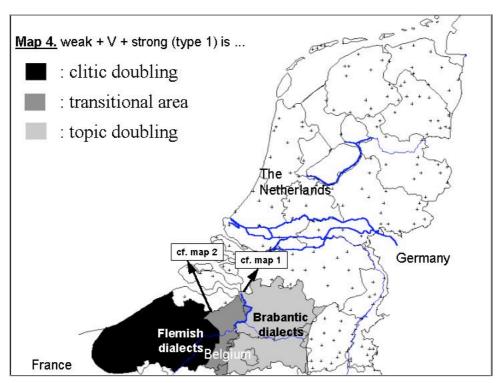
The geographical distribution of pattern 1 does not provide a decisive argument either: the pattern is not found in the Netherlands. The relevant area stretches from French Flanders in the west, to the west of Limburg in the east. In the Flemish dialects, on the one hand, pattern 1 co-occurs with the systematic use of clitic doubling (i.e. in French Flanders and West and East Flanders, cf. map 1). In the Brabantic dialects on the other hand, the pattern combines with topic doubling, in an area which has, in general, only a defective paradigm for clitic doubling (cf. maps 1 and 2). Hence, either analysis of pattern 1 raises problems: assuming that utterances such as ze werkt zij are instances of clitic doubling would imply that the Brabantic dialects show systematic clitic doubling, but only in clauses with initial weak pronouns as subjects (initial strong pronouns that are doubled are instances of topic doubling). Assuming that ze werkt zij is topic doubling would imply that the Flemish dialects have topic doubling, but only in clauses with an initial weak pronoun or clitic (initial strong pronouns cannot be doubled in the Flemish dialects, and subject doubling clauses with postverbal clitics are analysed as clitic doubling). One solution to these problems would be to analyse the instances of pattern 1 in a non-uniform way, i.e. as clitic doubling in Flemish dialects, and as topic doubling in Brabantic, as shown in (7).

# (7) 'Pattern 1' in Flemish and Brabantic dialects

	Flemish dialects	Brabantic dialects	
Clitic doubling:	werkt-ze zij	*werkt-ze zij	
'pattern 1':	ze werkt zij	ze werkt zij	
Topic doubling:	*zij werkt zij	zij werkt zij	
	'she works'	'she works'	

Map 4 shows the distribution of pattern 1, and also the analysis of the pattern for the different parts of the subject doubling area. In the west, a fully productive clitic doubling area where topic doubling does not occur, the pattern exemplifies clitic doubling; in the east, a productive topic doubling area with limited possibilities for clitic doubling, the pattern exemplifies topic doubling. There is a small intermediate area where both clitic doubling and topic doubling are found quite frequently (i.e. the area which overlaps when map 1 and map 2 are combined). For this area, the present data do not allow to decide

whether the instances of pattern 1 must be analysed as clitic doubling or as topic doubling. This might differ from dialect to dialect, or even from speaker to speaker.



While a geographically specific analysis of pattern 1 may look unappealing at first sight, it has the advantage that it incorporates some of the syntactic differences that are observed. Clearly, the syntax of pattern 1 in Brabantic dialects, such as the Wambeek dialect discussed by Van Craenenbroeck & Van Koppen (2002), differs from its syntax in Flemish dialects, such as the Lapscheure dialect discussed by Haegeman (1992, 2004). As the syntactic behaviour of the pattern shows dialectal variation, a non-uniform analysis may actually provide a better understanding of the data. In addition, the proposed analysis corresponds to the well-known fact that western dialects, such as the Flemish dialects, show much more cliticisation phenomena than dialects that are spoken in the east of the language area. For instance, western dialects often have morphologically distinct reduced pronouns at their disposal (i.e. 'special clitics' in Zwicky's 1977 sense), whereas eastern dialects tend to employ 'simple clitics', i.e. weak forms that are merely formal variants of their strong counterparts (see De Schutter 1989, De Vogelaer 2005 for illustrations). Also, the western, Flemish dialects make a consistent use of object clitics, whereas the Brabantic dialects do not (see De Schutter 1994).

# 3.3.2 PATTERN 2: TRIPLING (ZE WERKT ZE ZIJ)

The table in (2) contains one pattern that has not been classified yet, i.e. pattern 2:

(8) Pattern 2: subject tripling

<u>Ze</u> werkt <u>ze</u> <u>zij</u> in Brussel.

\*\*she\_clitic/weak work.3sg she\_clitic/weak she\_strong\* in Brussels\*

'She is working in Brussels.'

One striking fact about tripling is that, at least in the SAND-data, large differences are found when it comes to the geographical distribution of tripling for the different grammatical persons: whereas the phenomenon is quite widespread in the first person singular and, to a lesser extent, in the first person plural, it is close to unattested in the third person singular (both for the masculine and the feminine). There are even some

grammatical persons in which tripling is not found at all, such as the second person singular and plural, and the third person plural. Hence, there are no dialects in which subjects can be tripled systematically. In addition, many instances need to be explained as apparent cases of tripling. Some representative data for the first person singular and plural are shown in (9):

- (9) Apparent tripling in the first person singular and plural
  - a. first person singular

b. first person plural

We ga- $\underline{me}$  wij naar Brussel. --> also: wij ga- $\underline{me}$  we go-INFL we strong to Brussels we go-INFL 'We are going to Brussels.'

Both alleged triplings in (9) need to be explained as the result of morphological variation, either in the pronoun system (9a) or in the verbal inflection (9b). In (9a), the combination *ekik* could in principle be analysed as a combination of weak *ek* and strong *ik* (lit. I<sub>clitic/weak</sub> + I<sub>strong</sub>). The combination, however, is shown to occur not only in the apparent subject tripling pattern, but also in a syntactic position where combinations of two pronouns are not found, i.e. in a conjoined NP. Hence the form *ekik* must be analysed as a pronoun in its own right, rather than as a combination of two pronouns, and the alleged instance of subject tripling is turned into an 'ordinary' instance of clitic doubling or topic doubling. In (9b), the element *-me*, although historically a pronoun, not only surfaces in the apparent tripling construction *we ga-me wij* (with *we*, *-me* and *wij* as 1pl.-pronouns), but also in a position where it is clearly not inserted as a result of subject doubling, i.e. as an inflectional ending to the verb (in *wij ga-me*). Here too, then, the apparent tripling should be explained as an instance of clitic doubling or topic doubling.

Apart from the first person singular and plural, the SAND-corpus provides instances of subject tripling for the third person singular masculine and feminine as well (see SAND-map 56b and 57b). At least for the third person masculine, these instances can be explained in a similar way as the ones in the first person singular, i.e. as mere morphological variation in the pronoun system. All in all, subject tripling is not only a phenomenon that does not occur systematically in any of the 109 dialects under investigation, but it is also the case that most sporadic instances, possibly even all of them, must be explained as clitic doubling or topic doubling.

# 3.4 • IMPLICATIONS FOR PREVIOUS ANALYSES

In contrast to previous attempts, which only take into account data for one or a small number of dialects, we have used data from no less than 109 dialects to obtain a geographically adequate classification of the different subject doubling patterns in (2). The geographical data from the SAND indicate that three types of subject doubling must be distinguished: clitic doubling, topic doubling, and topic marking. Not all types are found in all subject doubling dialects. For instance, most Flemish dialects only allow clitic doubling, although some show topic marking as well. Topic doubling is mainly found in the Brabantic dialects, which, in general, only have a defective clitic doubling paradigm at their disposal, and which show no topic marking.

Our classification can be used to evaluate the proposals by Haegeman (1992, 2004) and Van Craenenbroek & Van Koppen (2002). These proposals differ from ours in that they do not apply a thorough geographical approach: Haegeman (1992) provides an indepth analysis of one dialect; Van Craenenbroeck & Van Koppen (2002) provide a similar

in-depth analysis for the dialect of Wambeek, but, by comparing data from a small number of dialects, they also adopt a contrastive approach. Some of the claims from the literature seem to hold: for instance, in the Lapscheure dialect discussed by Haegeman (1992, 2004), all subject doubling patterns involving combinations of a clitic and a strong pronoun indeed exemplify clitic doubling. However, a geographical approach casts some light over the use of the element *tet* in the Lapscheure dialect. While Haegeman (1992:63) labels *tet* as a "focus element", the element must, in our opinion, be seen as an instance of topic marking. Van Craenenbroeck & Van Koppen (2002), focussing on the Brabantic dialect of Wambeek, distinguish two types of subject doubling in the relevant dialect, viz. clitic doubling and topic doubling. Their analysis differs from Haegeman's in that pattern 1 (*ze werkt zij*) is labelled topic doubling instead of clitic doubling. It is argued that, at least for the Wambeek dialect, their argumenation is valid. However, to provide a geographically adequate analysis, one must label some of their instances of topic doubling, i.e. the ones exemplifying pattern 3 (*Marie werkt zij*), as topic marking.

# 4 THE DIACHRONY OF SUBJECT DOUBLING

#### 4.1 GEOGRAPHY AND DIACHRONY

Geographical data may be helpful not only in establishing (synchronic) correlations, but also in explaining them diachronically. Chambers & Trudgill (1998:167-168) discuss a number of tendencies involving the relationship between the distribution of dialect phenomena, and their diachrony, most of which were employed in mid-20<sup>th</sup> century dialectology (cf., among others, Bonfante 1947, Weijnen 1977). One of the principles is stated as follows: "If, of two forms, one is used over a larger area than the other, then that is the older." Of course, comparing the distribution of two forms, or syntactic patterns for that matter, only makes sense when they are somehow linguistically related to each other. In addition, counterexamples to this principle can be found, so, in order to obtain a reliable account, the proposed diachronic relationships need to be tested against additional data, and they need to be explained. This is what we will do in the rest of section 4.

Provided that a relatively wider distribution indeed reflects an older age, maps 1-4 yield the claims that are given in (10):

- (10) Diachronic implications of map 1-4:
  - a. clitic doubling is the oldest type of subject doubling
  - b. topic doubling has originated out of clitic doubling
  - c. topic marking has originated out of clitic doubling
  - d. topic doubling and topic marking have originated independently

The first claim, that clitic doubling is the oldest type, boils down from the fact that it occurs in a larger area than both topic doubling and topic marking. As for the latter types of doubling, these are expected to be younger than clitic doubling. Since they do not often cooccur in the dialects, it is not clear how they could be related diachronically. Rather, the fact that their geographical distributions show a many-to-many-correspondence indicates that they have originated independently.

# 4.2 THE RISE OF CLITIC DOUBLING

One of the logical consequences of considering clitic doubling the oldest type of subject doubling (cf. 10a), is that subject doubling in Dutch must have originated in the form of clitic doubling. Hence, to prove that our maps yield accurate predictions with respect to the diachrony, an account is needed for the rise of clitic doubling in Dutch. An account that has been proposed in the literature for the rise of clitic doubling, and which seems to apply

for the Dutch data, is the so-called 'Accessibility'-account (Ariel 2000). The underlying cause for the rise of clitic doubling is, in Ariel's account, the tendency to minimally encode highly 'accessible' elements, i.e. elements that are highly salient or active in discourse. Pronouns, typically encoding given, highly accessible referents, therefore tend to be formally reduced and cliticise to the verb. The possibility to double these formally reduced pronouns originates when they are reanalysed as a part of the morphology to the verb, allowing the insertion of another subject pronoun or a lexical element. The account is summarised in (11):

(11) An 'Accessibility'-account for the rise of clitic doubling (Ariel 2000:207)

a. Pronoun # Verb
b. Clitic + Verb
c. zero + V <sub>[+inflection]</sub>
d. NP/Pronoun/zero # V <sub>[+inflection]</sub>

Ariel's (2000) schedule describes a language in which the subject(s), both the clitic and the NPs/pronouns, occur to the left of the verb, but there is no reason why the account should not apply to languages in which subjects follow the inflected verb. It does seem to imply, however, that clitic doubling rises in languages in which both the clitics and the strong pronouns appear on the same side of the verb, which is the case in Dutch, at least in the very widespread clitic doubling patterns 5 and 7. An 'Accessibility'-account also provides insight in the fact that clitic doubling, and subject doubling in general, is restricted to pronominal subjects in the vast majority of the Dutch subject doubling dialects, as pronouns are the prime candidates to be formally reduced, and hence to be doubled (cf. stage a-c in the schedule). In addition, the fact that Dutch is a non-pro-drop language provides even more support: in a non-pro-drop language like Dutch, pronouns are used extensively to refer to highly accessible referents, which are zero-marked in pro-drop languages. This too makes cliticisation very likely (see De Vogelaer to appear for more argumentation).

Apart from some theoretical support for the claim that clitic doubling is the oldest type of subject doubling, there is empirical support as well. The oldest instances of clitic doubling in the literature trace back to the Middle Dutch period (Van Helten 1887:282). Although Van Helten does not mention exact dates for his attestations, it is clear that these instances are much older than any instances of topic doubling and topic marking that are found in the literature.

# 4.3 From Clitic Doubling to Topic Doubling

While clitic doubling is found in the majority of the southern Dutch dialects (excluding the larger part of Limburg), the patterns that have been labelled topic doubling are by and large restricted to the Belgian part of the Brabantic dialect area. The diachronic implication of this geographical distribution would be that topic doubling has originated in these dialects as an extension of clitic doubling (cf. 9b). The contemporary Brabantic dialects indeed still show some types of clitic doubling, although the construction is less productive than in the Flemish dialects (cf. map 1). It is not unreasonable to assume that in the past, more types of clitic doubling were used in Brabantic dialects. For instance, De Vriendt (2003:75) provides instances of clitic doubling in the dialect of Brussels which are not

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<sup>&</sup>lt;sup>7</sup> The different accounts for the rise of clitic doubling, and subject doubling in general, are discussed by Siewierska (2004:263-268). Apart from the 'Accessibility'-account, another scenario with universal applicability is dealt with, i.e. the 'reanalysis of topic shifting'-account (Givón 1976:155). See De Vogelaer (to appear) for arguments why an account along the lines of Givón (1976) is inappropriate for Dutch.

found in the (younger) SAND-corpus. So the introduction of topic doubling seems to be paralleled with a certain pressure on clitic doubling, and even with loss of a number of types. Hence, provided that our interpretation of the maps is correct, the diachronic developments in Brabantic can be summarised as follows:

(12) From clitic doubling to topic doubling in Brabantic

```
pattern 1:
clitic
                    strong (clitic doubling)> weak/strong V
                                                                          strong(topic ∂oubling)
                                              e.g. ze/zij werkt
she<sub>weak</sub>/she<sub>strong</sub> works
e.g. ze
             werkt
sheclitic
                       shestrong
             works
pattern 5, 7 (clitic doubling):
                             > V/C
V/C-
                                                  weak/strong (no subject doubling)
             clitic strong
e.g. werkt ze zij
                                     e.g. werkt ze/zij
             she clitic she strong
works
                                     works
                                                  she weak Ishe strong
```

There are two arguments which support the development in (12). First, Brabantic dialects show an observable tendency to ban clitics and replace them with weak pronouns. This is clearly visible in the loss of the so-called special clitics, i.e. clitics which are no formal variants of the strong pronouns. Instead of these special clitics, weak pronouns are introduced: in some syntactic environments, for instance, the 2sg./pl. clitic -de seems to be replaced with the weak pronoun ge, which is clearly a formal variant of strong gij (cf. Schuurmans 1975, see also SAND, esp. maps 39-40). Likewise, the 1pl. clitic me is gradually losing ground in favour of the weak pronoun we, a variant of strong wij (compare, for instance, the map by De Schutter (1989) with SAND-maps 44-45).8 Secondly, there is a region in the Dutch language area where an identical shift as in Brabantic is welldocumented, indicating that the pathway in (12) is indeed a plausible one. Will (2004:232-271), describing a number of syntactic developments in the Zeelandic Flemish dialects as spoken in the 20th century, shows that some of these dialects have had similar subject doubling possibilities as the contemporary Flemish dialects, including patterns 1, 5 and 7 (which were found for all grammatical persons). Most of these instances have disappeared however. But Will's (2004:263) data also show that the patterns which are found in the Brabantic dialects nowadays, are exactly the ones that have resisted loss in the Zeelandic Flemish dialects for a long time, viz. the use of pattern 1 for all grammatical persons, and the use of clitic doubling in the first and second person singular, and the second person plural.

# 4.4 From clitic doubling to topic marking

# 4.4.1 A DIACHRONIC PATHWAY

The geographical data yield the hypothesis that, diachronically, not only topic doubling derives from clitic doubling, but topic marking as well (cf. 10c). The most widespread pattern of topic marking is pattern 3, i.e. main clauses with regular word order. Hence the most plausible diachronic pathway involves main clauses with regular word order (i.e. 'pattern 1'-clauses like ze werkt zij and 'pattern 3'-clauses like Marie werkt zij):

(13) From clitic doubling to topic marking (preliminary version)
clitic V strong (clitic doubling)>lexical elementV strong(topic marking)
e.g. ze werkt zij e.g. Marie werkt zij
she\_clitic works she\_strong

Mary works she\_strong

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<sup>&</sup>lt;sup>8</sup> There are more instances testifying to the large-scale loss of clitics in Brabantic, including data for 1sg. 'k and 3sg.masc. en, but the loss of these clitics is less well-documented. See De Vogelaer (to appear) for discussion.

It is not immediately clear what mechanism could be responsible for the development in (13): in general, clitics cannot simply be replaced with lexical elements. In addition, an account for (13) must also explain why the lexical elements in topic marking are used in a construction in which strong pronouns are not used, as topic marking patterns such as *Marie werkt zij* seldom co-occurs with topic doubling patterns such as *zij werkt zij* (cf. 9d).

There are, however, more differences between clitic doubling and topic marking than the nature of the preverbal element. First, topic marking shows morphological variation in the choice of the postverbal strong element. Apart from the feminine pronoun zij, other pronouns can be used to double feminine subjects, such as hij, (t)jij and tet. When masculine and neuter subjects are topic marked, hij, (t)jij and tet are the only options.

(14) Topic marking: morphological variation in the strong element
a. Marie werkt zij / hij / (t)jij / tet. (feminine subject)

Mary works (strong element)

'Mary works.'
b. Jan/dat kind werkthij / (t)jij / tet. (masculine/neuter subject)

John/that child works (strong element)

'John/that child works.'

All in all then, the most important topic markers are hij, (t)jij and tet: they combine with masculine and neuter subjects in all dialects, and with feminine subjects in the majority of the topic marking dialects. Among these elements, hij and (t)jij are strong masculine pronouns; tet is more difficult to label. Historically, tet may derive from a strong masculine or neuter pronoun (see De Vogelaer 2005:209-210 for discussion), but in contemporary dialects, it is only used in topic marking constructions, and in clitic doubling, where tet doubles the 3sg.neuter clitic 't. (15) shows an example of 3sg.neuter clitic doubling. In dialects in which tet is not available, hij and (t)jij are used instead, as shown in (15).

(15) Clitic doubling in 3sg.neuter

Dat feest? 't is hij / (t)jij / tet afgelast.

that party? it is (strong element) cancelled

'The party? It is cancelled.'

Clitic doubling for 3sg. neuter is much less widespread than clitic doubling for all the other grammatical persons. Interestingly, the geographical distribution of clitic doubling for 3sg.neuter is comparable to the distribution of topic marking (compare map 3 and SAND-map 58b with SAND-map 58a). Although there are a few dialects in which the SAND only attests topic marking, clitic doubling for 3sg.neuter is the more widespread phenomenon. The fact that the most frequent topic markers, hij, (t)jij and tet, are used in clitic doubling patterns as well, and that the geographical distribution of topic doubling resembles the distribution of clitic doubling for 3sg.neuter, suggests that a diachronic account of topic marking should not focus on zij, as was done in (13), but rather on hij, (t)jij and tet (cf. below).

Apart from the morphological variation in the strong element, there is a second additional difference between clitic doubling and topic marking, viz. that the restrictions on the subject are much stricter for clitic doubling than for topic marking. Clitic doubling on the one hand, only affects pronouns, and, hence, specific referents. Topic marking on the other hand, is possible for a much wider range of subjects. Haegeman (1992:63-64) and Haegeman & Van de Velde (2006) provide some examples from the dialect of Lapscheure (with tet as a topic marker), but similar instances are found in other dialects (with hij or (t)jij). In (16), some relevant examples are given, involving different types of subjects. (16a) and (16b) contain an expletive 't 'it'. (16a) formally resembles clitic doubling, in that tet clearly doubles the clitic 't, which is used as a subject to the weather verb regenen 'to

rain'. In (16b), it is not clear which element is doubled: the sentence contains the clitic 't, but this clitic is used to introduce the non-specific subject *een man* 'a man'. (16c) is a typical instance of topic marking, in which *tet* doubles a 3<sup>rd</sup> person masculine subject. (16d-f) show that instances can be found of *tet* doubling a non-3sg.masculine subject, i.e. a 3pl. subject in (16d), a 1pl.-pronoun in (16e), and a clitic doubled 3sg.feminine pronoun in (16f).

- (16) Variation in the subjects that can be topic marked.
  - a. 't Is tet nu aan 't regenen. (Haegeman & Van de Velde 2006)  $it_{elitic}$  is TET now on the raining 'It is raining.'
  - b. 't Heeft tet hier een man gewoond.

    it clitic has TET here a man lived

    'A man has lived here.'
  - c. Die man heeft tet in Brussel gewoond. that man has TET in Brussels lived 'That man has lived in Brussels.'
  - d. Zijn tet de studenten weg? (Haegeman 1992:63)

    are TET the students gone
    'Are the students gone?'
  - e. Me kennen tet dat. (Haegeman & Van de Velde 2006)

    we<sub>clitic</sub> know TET that

    'We know that.'
  - f. Ze kent tet zij dat. (Haegeman & Van de Velde 2006) she<sub>clitic</sub> knows *TET* she<sub>strong</sub> that 'She knows that.'

(16b) is particularly interesting, as it provides a possible link between clitic doubling and topic marking: in this example, both the clitic 't' it' and the lexical subject een man 'a man' occur. The clitic 't is used as an expletive in (16b), and expletives can indeed occur in clitic doubling patterns in some Flemish dialects (cf. 16a). Combinations of expletives and lexical subjects would then be a syntactic environment in which clitic doubling patterns can extend to sentences with lexical subjects, giving rise to topic marking. Hence expletive doubling is a possible intermediate development between clitic doubling and topic marking. This leads to the hypothesis in (17).

(17) From clitic doubling to topic marking (final version)

3 sg.neuter clitic doubling > expletive doubling > topic marking
't werkt tet (or: hij/(t)jij) 't werkt tet een man die man werkt tet

it clitic works he topic marking die man werkt tet

it works he topic marking die man werkt tet

it works he topic marking die man werkt tet

it works he topic marking (final version)

't werkt tet een man die man werkt tet

it works he topic marking (final version)

't werkt tet een man die man werkt tet

it works he topic marking (final version)

't werkt tet een man die man werkt tet

it works he topic marking (final version)

(17) shows a scenario in which fewer unlikely changes occur than in (12). The basic hypothesis is that the topic markers hij, (t)jij and tet originally function as strong pronouns that can double 3sg.neuter clitics. As the 3sg.neuter clitic 't is used as an expletive in the dialects under investigation, hij, (t)jij and tet can also be used to double expletives, giving rise to clauses with an expletive, a non-pronominal subject and the pronoun hij, (t)jij or tet. In a further step, the co-occurrence of the non-pronominal subject and hij, (t)jij or tet is extended to clauses without expletives, turning the doubling elements hij, (t)jij and tet into topic markers.

The scenario in (17) does not deal with topic marking in clauses with non-3sg.masc.subjects, which are indeed attested (cf. 16d-f), and which provide a challenge to the hypothesis. For the scenario in (17) to hold, it needs to be shown that patterns such as

(16d-f) have not played a role in the rise of topic marking, i.e. they are younger extensions of instances like (16c) (see below).

# 4.4.2 EMPIRICAL SUPPORT

In the previous section, it was stated briefly that 3sg.neuter clitic doubling and topic marking show a comparable geographical distribution. SAND-map 58a shows that the geographical distribution of expletive doubling is more or less the same as the distribution of 3sg.neuter clitic doubling. Hence the geographical data corroborate the hypothesis in (17).

Further empirical evidence for the hypothesis in (17) is found by taking dialect-internal variation into account. Unlike clitic doubling and topic doubling, the use of topic marking is subject to substantial dialect-internal variation: while informants for a specific dialect are usually consonant in their judgements of the different kinds of clitic doubling and topic doubling, huge disagreements occur when they are asked to judge instances of topic marking. We have conducted a small-scale fieldwork investigation to take stock of this dialect-internal variation. In short interviews, 34 speakers of a topic marking dialect were asked whether a given number of patterns could occur in their dialect. All test sentences had regular word order. (18) provides a summary of the results (a more detailed overview can be found in the appendix).

(18) Dialect-internal variation in topic marking dialects (n = 34)

10) Biarcot internal variation is	· · · · · · · · · · · · · · · · · · ·	
doubling of: clitic doubled 't 'it' a.o. referential 't subject of a weather verb expletive 't	29-32 speakers	
3sg.masc. nouns a.o. die vent 'that man' een boer 'a farmer' (generic use)	22-25 speakers	
other types	1-16 speakers	
frequently found (n > 10):  conjoined pronouns (3 + 1; 2 + 1), 1pl. pronoun, 3pl. noun		
less frequently found (10 > n > 5): 3sg.fem. pronoun, 2sg. pronoun		
hardly attested (n < 5): 1sg. pronoun, 3sg.fem. pronoun (clitic dou	bled)	

(18) ranks a number of different subject doubling patterns according to the frequency with which they are found in all dialects under investigation. The ranking does not depend on the topic marker that is used; if one make separate rankings for the dialects in which tet is used as a topic marker (n = 17), and for those in which (t)jij (n = 10) or bij is used (n = 7), the same results would be obtained. In general, the older a particular subject doubling pattern is in our account in (17), the more informants judge it grammatical in (16): almost all informants allow doubling of the neuter pronoun 't, be it an instance of referential 't, of 't as a subject of a weather verb, or as expletive 't introducing an indefinite subject ('3sg.neuter clitic doubling' and 'expletive doubling' in (17)). Doubling of 3sg.masc. nouns with a topic marker is less popular, but still very widespread. All other types were, in our hypothesis, younger extensions of topic marking and, correspondingly, they are far less frequently found. Hence it looks as if the presence of doubling of 't 'it' is a necessary condition for all the other types to arise, and the presence of topic marking for 3sg.masc. nouns is a necessary condition for all topic marking patterns without 't 'it' to arise. This corroborates the hypothesis in (17).

Our results confirm the existence of most of the types discussed by Haegeman (1992) and Haegeman & Van de Velde (2006), although some of them are very rare. That they are rare suggests that they must be analysed as relatively young extensions of topic doubling for the third person masculine, and that they have indeed not played a role in the rise of topic marking. We cannot, at this point, provide any hypothesis for the rise of these patterns, but the results in (18) raise many questions. For instance, it is not clear why topic marking in clauses with conjoined pronoun subjects (i.e. zij en ik 'she and I' and gij en ik 'you and I') ranks relatively high, as does topic marking in clauses with a 1pl. pronoun. It is not even clear why topic marking would even exist in clauses with pronominal subjects, as these subjects can already be doubled with strong pronouns in the relevant dialects, giving rise to clitic doubling. We must, at this point, leave these questions open for further research.

#### 5 CONCLUSIONS

In this paper, we have discussed the distribution of the most important subject doubling patterns that are found in the Dutch dialects. Using data from the SAND, it is argued that three basic types need to be distinguished: clitic doubling, topic doubling, and topic marking. As for the diachrony of subject doubling, the maps suggest that clitic doubling is the oldest type, and that topic doubling and topic marking have originated more recently. We have provided linguistic arguments and some additional data, which, in both cases, corroborated our diachronic analysis of the geographical distribution of the different types.

Although geographical data alone certainly do not suffice for a complete analysis of all subject doubling patterns (cf. the questions that were raised at the end of section 4.4.2), some of the advantages of a geographical approach have been illustrated quite clearly: for instance, a thorough geographical approach will yield empirically more adequate generalisations than a contrastive one (see section 3). In addition, dialect geography may provide useful clues as to the diachrony of the phenomena under investigation (see section 4). We therefore hope that in an era in which dialect syntax is becoming increasingly relevant for theoretical linguistics (cf. Kortmann 2002), some of the rather traditional methods of dialect geography will receive the re-appraisal that they deserve.

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		n = 3
't with weather verbs	't regent <u>tet/(t)jij</u> /hij it rains TM , 'it is raining')	32
expletive 't	't woont <u>tet/(t)jij/hij</u> hier een oud ventje it lives TM here an old man , 'here lives an old man.'	32
referential 't	't is <u>tet/(t)jij/hij</u> al lang geleden it is TM already long ago 'It is been long ago'	29
3sg.masc specific	Die vent is <u>tet/(t)jij/hij</u> op reis geweest That man is TM on vacation been 'That man has been on vacation'	25
3sg.masc generic	Een boer gaat <u>tet/(t)jij/hij</u> nooit op reis A farmer goes TM never on vacation 'A farmer never goes on vacation.'	22
conjoined 3 + 1	Zij en (ek)ik zijn <u>tet/(t)jij/hij</u> samen op reis geweest She and I have TM together on vacation been 'She and I have been on vacation together'	16
conjoined 2 + 1	Gij en (ek)ik zijn <u>tet/(t)jij/hij</u> samen op reis geweest You and I have TM together on vacation been 'You and I have been on vacation together'	13
1pl. pronoun	Wij zijn <u>tet/(t)jij/hij</u> samen op reis geweest We have TM together on vacation been 'We have been on vacation together'	13
3pl lexical	Die mannen zijn <u>tet/(t)jij/hij</u> samen op reis geweest These men have TM together on vacation been 'These men have been on vacation together'	11
3sg.fem. pronoun	Ze is <u>tet/(t)jij/hij</u> op reis geweest She is TM on vacation been 'That man has been on vacation'	9
2sg. pronoun	Ge zijt <u>tet/(t)jij/hij</u> op reis geweest You are TM on vacation been 'You have been on vacation'	7
lsg. pronoun	Ik ben <u>tet/(t)jij/hij</u> op reis geweest I am TM on vacation been 'I have been on vacation'	2
3sg.fem. pronoun (clitic doubled)	Ze is <u>tet/(t)jij/hij</u> zij op reis geweest She is TM she on vacation been 'She has been on vacation'	1