

Long-distance relativization in varieties of Dutch

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Dutch dialects show a wealth of variation in the distribution and the status of the elements *die* and *dat* in the left periphery of (long-distance) restrictive relative clauses. This paper presents a clear description of the (limits of) variation within long-distance relatives, and it will furthermore focus in detail on two systems of relativization that make use of a subject relative that is different from the object relative (subject/object asymmetries). The proposed analysis of these data is primarily based on the observation that there is a significant positive correlation between subject/object asymmetries in relative clauses and complementizer agreement.

1. Introduction

This paper investigates the syntactic microvariation in long-distance relativization structures in varieties of Dutch. The empirical basis for this study is formed by the SAND data on relativization, which show a considerable amount of variation regarding long-distance restrictive relative clauses in the Dutch speaking language area.¹ More specifically, they show variation along the following four dimensions: (i) the form of the element that introduces the relative clause (*die/dat*), (ii) the form of the element that introduces the most deeply embedded clause (*die/dat*), (iii) the presence/absence of a complementizer in addition to the relative pronoun (i.e. doubly filled COMP), and (iv) the presence/absence of an overt subject/object (*resumptive pronoun*) at the extraction site. The aim of this paper is twofold. First, I give a detailed overview of the data in order to get some insights into (the limits) of variation, and second, I focus on six systems of relativization that differ with respect to the distribution and status of the elements *die* and *dat* (i.e. dimensions (i) and (ii) above). Of these six systems of relativization, I am primarily concerned with two systems that show a *subject/object asymmetry*, that is, systems in which the pattern that is used for subject extraction is different from the pattern that is used with object extraction.

The paper is organized as follows. Section 2 gives some background information on the properties of restrictive (long-distance) relative clauses in Standard Dutch, and section 3 presents the SAND data on relativization that form the empirical basis for this paper, namely

¹ SAND = *Syntactic Atlas of the Dutch Dialects* (cf. Barbiers et al. 2005, 2006). For more information on the SAND project, see www.meertens.knaw.nl/projecten/sand.

six systems that differ with respect to the distribution and status of elements *die* and *dat*. Section 4 provides an analysis of two patterns of relativization that show a subject/object asymmetry. I show that these two systems can be derived by two micro-parameters: the spell-out/non-spell-out of an agreement relation between the most deeply embedded C^0 and (the copy of) the subject relative item in its specifier position (micro-parameter 1), and the presence/absence of relative pronouns (micro-parameter 2). These two parameters predict the existence of two other systems of relativization (out of the six systems we started out with). Section 5 deals with patterns of relativization in which no subject/object asymmetries are displayed, and briefly touches upon the issue of the correct analysis of restrictive relative clauses. Section 6 summarizes the main points and concludes the paper.

2. Background: relative clauses in Standard Dutch

A restrictive relative clause is a finite subordinate clause that modifies a noun – the *head* of the relative clause. Relative clauses in Standard Dutch are head-initial, they always need to be introduced by a relative pronoun, and the relativized item leaves a gap at the extraction site (not a resumptive pronoun).² Thus, Dutch restrictive relative clauses obey the format in (1).³

- (1) [MATRIX CLAUSE ... head [RELATIVE CLAUSE *(relative pronoun)_i ... t_i ...]]

With respect to long-distance relative clauses I will assume that the relative pronoun successive-cyclically moves to the relative CP, as indicated in (2).^{4,5} As (2) shows, in Standard Dutch long-distance relative clauses, the relative clause itself is introduced by the relative pronoun and the lower finite embedded clause is introduced by the declarative complementizer *dat*.

² This paper restricts its attention to Dutch headed restrictive relative clauses that require *die* in Standard Dutch: in all (test) sentences the antecedent is 3rd person non-neuter (neuter singular antecedents require *dat*, which is identical in form to the Dutch finite complementizer).

³ The most prominent analyses of relative clauses in the current literature – the *head raising analysis* (cf. Vergnaud 1974, Kayne 1994, Bianchi 1999, 2000, and De Vries 2002 amongst others) and the *matching analysis* (cf. Citko 2001, Bhatt 2002, Sauerland 2003, Salzmann 2006a amongst others) – assume that relative clauses are derived by A'-movement of the head noun together with the relative pronoun, i.e. there is a relative clause-internal representation of the external head. For now, as nothing hinges on this, I will simply assume that only the relative pronoun undergoes A'-movement in the relative clause (cf. the traditional *head external analysis* of relative clauses; cf. Chomsky 1977, Borsley 1997). In paragraph 5 I will come back to the issue of what constitutes the most adequate analysis of relative clauses.

⁴ I will simply assume there is successive-cyclic A'-movement (cf. Felser 2004 for an overview of the arguments in favor of successive-cyclicity), but I will leave the issue of what triggers the intermediate movement step of the relativized item to a non-relative C-domain for future research.

⁵ An alternative to the successive cyclic *wh*-movement analysis of long-distance relativization has recently been proposed by Koopman & Sportiche (2008). Although this theory seems to adequately account for the French *que/qui* alternation, as it stands, it cannot straightforwardly be extended to Dutch. That is, it is unclear whether Koopman & Sportiche's theory can account for all the Dutch data, because it is primarily based on French relative clauses and pseudo relative small clauses (PRSC), but Dutch doesn't have PRSCs (of the same type) as in French. Moreover, Koopman & Sportiche's account of special *qui/die* contexts seems to make some wrong predictions with respect to the possible patterns of long-distance relativization in Dutch, e.g. it predicts one of the patterns in footnote 25 to be impossible, contrary to fact (although this pattern is only marginally attested and should be further investigated). For reasons of space I cannot go into the details of their analysis or the exact predictions it makes for Dutch, but see Boef (2008) for a more elaborated evaluation of their proposal.

- (2) ... head [_{RELATIVE CLAUSE} *(relative pronoun)_i] ... [t_i *(complementizer) ... t_i ...]]

Variation with respect to long-distance relative clauses in Dutch predominantly concerns the form of the element that introduces the relative clause (*die* or *dat*) and the element that introduces the lower clause (*die* or *dat*). The current standard assumption is that in the left periphery of relative clauses there is one position for the relative pronoun (Spec,CP), and one position for the complementizer (C⁰). Languages differ with respect to which of the two positions is filled. In contrast to languages like English in which *zero-relativization* is allowed, in Standard Dutch (and all its dialects (cf. *infra* section 3)) at least one element needs to be overtly present in the C-domain (cf. Dekkers 1999).

- (3) a. Dat is de man [*die dat* het verhaal heeft verteld].
 that is the man who that the story has told
 ‘That is the man who told the story.’
 [Lier Dutch]
- b. Dat is de man [*dat* het verhaal heeft verteld].
 [Brussel Dutch]
- c. Dat is de man [*die* het verhaal heeft verteld].
 [Standard Dutch]
- d. *Dat is de man [___ het verhaal heeft verteld].
zero-relativization

3. Long-distance relative clauses in Dutch - the SAND data

The variation that is found in the following two Standard Dutch sentences forms the empirical basis for this paper. Example (4a) shows a long subject relative, and example (4b) shows a long object relative. In the SAND interviews both sentences were presented to the informants as a translation task.

- (4) a. Dat is de man [**die** ik denk [**dat** het verhaal heeft verteld].
 that is the man *die* I think that the story had told
 ‘That is the man who I think told the story.’
- b. Dat is de man [**die** ik denk [**dat** ze geroepen hebben].
 that is the man *die* I think that they called have
 ‘That is the man who I think they have called.’

The attested variation with respect to the sentences in (4) is given in (5) for long subject extraction and in (6) for long object extraction. It should be noted that I have abstracted away from any phonological variation, e.g. forms like *dee*, *dei* or *der* are taken to be form variants of *die*. The total amount of dialects for which there are reliable data is 218 for long subject relatives and 216 for long object relatives; note that in a given location more than one variant can be attested.

- (5) a. ... de man **die** ik denk **dat** Ø het verhaal heeft verteld. (63)
 b. ... de man **die** ik denk **dat hij/die** het verhaal heeft verteld. (24)
 c. ... de man **dat** ik denk **die** Ø het verhaal heeft verteld. (36)
 d. ... de man **die** ik denk **die** Ø het verhaal heeft verteld. (32)

left with the four subject relatives in (9) and the four object relatives in (10). With these relative clauses we predict 4^2 (=16) logically possible patterns of long-distance relativization. However, only the six patterns (henceforth *systems*) in table 1 are attested. This table shows for each of the six systems of long relativization the corresponding system of short relativization.⁷

- (9) a. Dat is de man **die** ik denk **dat** het verhaal verteld heeft.
 b. Dat is de man **die** ik denk **die** het verhaal verteld heeft.
 c. Dat is de man **dat** ik denk **die** het verhaal verteld heeft.
 d. Dat is de man **dat** ik denk **dat** het verhaal verteld heeft.
- (10) a. Dat is de man **die** ik denk **dat** ze geroepen hebben.
 b. Dat is de man **die** ik denk **die** ze geroepen hebben.
 c. Dat is de man **dat** ik denk **die** ze geroepen hebben.
 d. Dat is de man **dat** ik denk **dat** ze geroepen hebben.

| | <i>short subject</i> | <i>short object</i> | <i>long subject</i> | <i>long object</i> |
|-------------------|----------------------|---------------------|---------------------|--------------------|
| system I (46/47) | die | die | die-dat | die-dat |
| system II (20) | die | dat | dat-die | dat-dat |
| system III (19) | die | die | die-die | die-dat |
| system IV (10/16) | dat | dat | dat-dat | dat-dat |
| system V (9) | die | die | die-die | die-die |
| system VI (7) | die | die | dat-die | dat-die |

Table 1: six systems of (long-distance) relativization

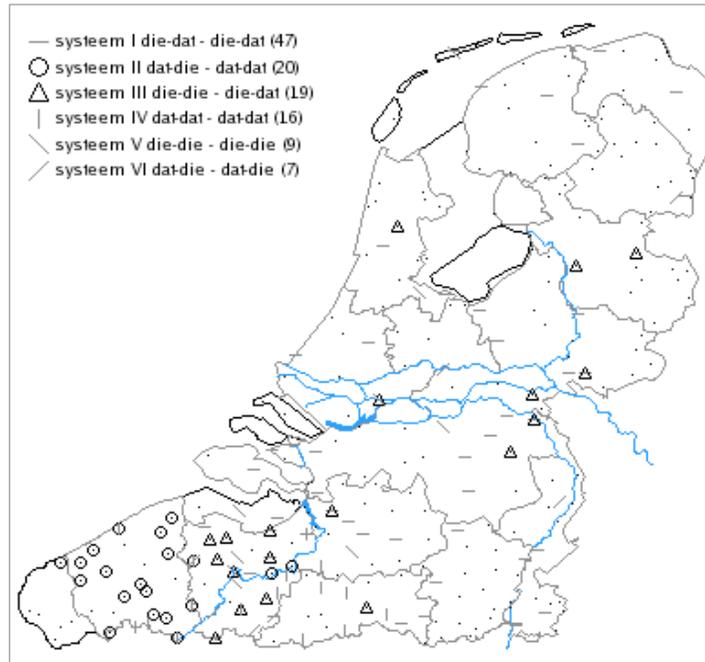
On the basis of the observation that of all logically possible combinations of subject and object relatives only the six patterns in table 1 are attested, the following descriptive generalizations are formulated.

(11) *Generalizations*

- A** long-distance relativization without a subject/object asymmetry shows all logically possible variants: *die-dat* - *die-dat* (I), *dat-die* - *dat-die* (VI), *die-die* - *die-die* (V), *dat-dat* - *dat-dat* (IV)
- B** a subject/object asymmetry can only appear in the CP containing the extraction site (i.e. a subject/object asymmetry in the higher clause is (almost) never attested)
- C** in case of a subject/object asymmetry (in the most deeply embedded clause), *die* occurs with subject extraction, whereas *dat* occurs with object extraction

The main goal of this paper is to provide an analysis of the six attested systems of (long-distance) relativization, and to give an explanation for the three generalizations in (11).

⁷ The numbers in the leftmost column of table 1 indicate the amount of locations in which a given system is found. When there are two numbers, the last number indicates the amount of locations in which the system of long relativization is attested, and the first number indicates for how many systems of these long relativization systems the given short relativization pattern is attested. Thus, sometimes (system IV) not all dialects that show the given pattern for long relativization also show the given pattern for short relativization.



Map 1: geographic distribution of six systems of long relativization

4. Subject/object asymmetries

4.1. The data and a fourth generalization

Of the six systems of (long-distance) relativization are two systems that show a subject/object asymmetry (systems II and III), i.e. in these systems the pattern for subject relativization is different from the pattern for object relativization. In long-distance relativization in system II, as illustrated in (12), the relative clause is introduced by the element *dat*⁸, and the embedded finite clause is introduced by *die* in case of subject extraction and by *dat* in case of object extraction.⁹ Moreover, the asymmetry is also attested with short relativization. System II is attested in 20 locations and it is found almost exclusively in West-Flanders, as can be seen on map 1. In system III, as illustrated in (13), the higher clause in long-distance relativization is introduced by *die* and the lower clause is introduced by *die* in case of subject extraction and by *dat* in case of object extraction. This asymmetry is, however, not attested with short relativization, in which case *die* introduces both subject and object relative clauses.¹⁰ System

⁸ In the dialects that make use of system II and III, the complementizer can have the form *dat* or *da*. In the main text I will simply use *dat* for both form variants.

⁹ Notice that the West-Flemish data (12) are reminiscent of the well-known *que/qui* alternation in French (in long-distance relativization), i.e. *die* seems to have the same distribution as *qui*: it appears only in the left periphery of clauses from which the subject is extracted; cf. Bennis & Haegeman (1984:36):

- (i) a. ... l'homme que tu crois *que/qui t viendra *subject extraction*
 the man that you think that/who t will come
 b. ... l'homme que tu crois que/*qui j'aime t *object extraction*
 the man that you think that/who I love t

¹⁰ Actually, the data for system III are less clear than illustrated here. Of the 19 dialects that make use of system III, all 19 dialects make use of *die* in short subject and object relatives. But of these 19 dialects there are also 10 dialects that, in addition to *die*, can also use *dat* in short object relatives (and sometimes there are even more alternatives possible for both object and subject relatives). However, in what follows, I will assume that the

III is attested 19 times and its geographic distribution is somewhat less clear than that of system II; it is attested in the main part of East-Flanders and several times in the Netherlands.

- (12) a. Da s de vent **da** k peizen **die** da graptje verteld eet. *subject*
 that is the man that I think *die* that joke told has
 ‘That is the man who I think told that joke.’
 b. Da s de vent **da** k peizen **da-n** ze geroepen en. *object*
 that is the man that I think that._{3P.PL} they called have
 ‘That is the man who I think they have called.’

[Brugge Dutch]

- (13) a. Da s de man **die** k peize **die** t verhaal verteld ee. *subject*
 that is the man *die* I think *die* the story told has
 ‘That is the man who I think told the story.’
 b. Da s de man **die** k peize **da-n** ze geroepen en. *object*
 that is the man *die* I think that._{3P.PL} they called have
 ‘That is the man who I think they have called.’

[Gent Dutch]

In the remainder of this paper I will refer to the element *die* that is found in the most deeply embedded clause of (long) subject relatives in dialects that show the subject/object asymmetry with ‘special *die*’ (cf. Koopman & Sportiche 2008).¹¹

The variable under study, i.e. the presence of a subject/object asymmetry in the CP that contains the extraction site, covaries with another variable in Dutch, namely the presence of *complementizer agreement* (cf. also Bennis & Haegeman 1984). That is to say, the geographic distribution of systems that show a subject/object asymmetry (systems II and III) shows a significant positive correlation with the geographic distribution of *complementizer agreement*.¹² Complementizer agreement is a well-known phenomenon in West-Germanic languages by which the complementizer overtly agrees with the subject of the clause it introduces; examples of this can be found in (12b) and (13b). Map 2 shows the geographic distribution of complementizer agreement; more specifically, the map shows for each dialect which members of the paradigm show complementizer agreement.

Comparing this map with map 1, we see that the geographic distribution of dialects that show a subject/object asymmetry in long-distance relative clauses correlates with the geographic distribution of complementizer agreement. Therefore, the following generalization is put forward.¹³

pattern for system III as given in table 1 is in fact the core pattern, that is, a system that shows a subject/object asymmetry with long-distance relativization, but no asymmetry with short relativization. The correctness of this assumption is corroborated by the observation that of the few dialects that only make use of system III, the majority shows the pattern in table 1 (based on the data from the oral interviews).

¹¹ Note however that whereas I claim that special *die* is only found with subject extraction, Koopman & Sportiche (2008) assume that in some varieties of Dutch special *die* can also be found with object extraction.

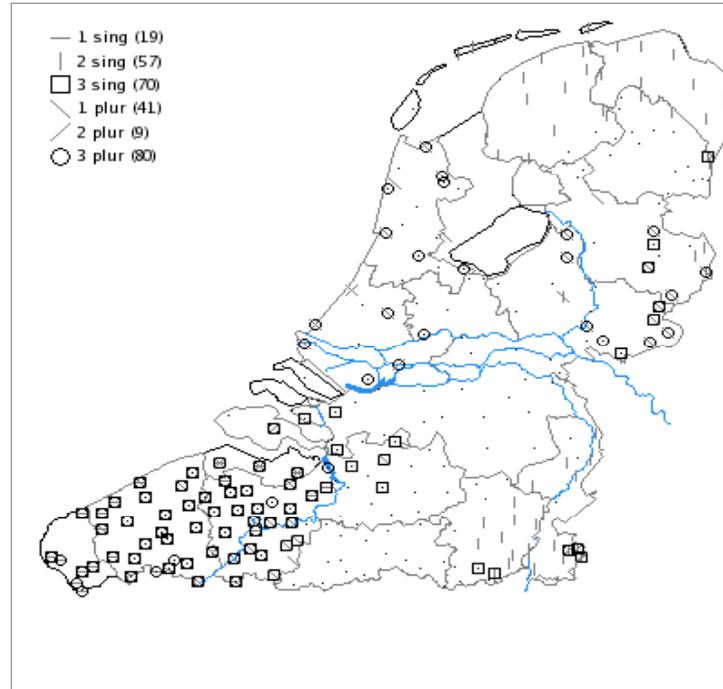
¹² The two variables, (i) +/- subject/object asymmetry, and (ii) +/- complementizer agreement (as scale variable), show a positive correlation ($r=0.363$ with $n=203$). This correlation is significant at the $p<0.01$ level (one-sided; $p=0.00$).

¹³ Notice that this generalization is in fact a one-way generalization, i.e. dialects that exhibit subject/object asymmetries in relative clauses often also show complementizer agreement, but it is not true that dialects that exhibit complementizer agreement also always exhibit subject/object-asymmetries in relative clauses.

(14) *Generalization correlation complementizer agreement*

D the presence of a subject/object asymmetry in long-distance relativization correlates with complementizer agreement

Recently, a similar claim has been made by Mayr (to appear) for Bavarian (cf. also Kayne 1976, Rizzi 1990). Mayr's proposal forms the starting point for the analysis of subject/object asymmetries in (long-distance) relative clauses in varieties of Dutch, and is discussed in the next subsection.



Map 2: geographic distribution of complementizer agreement (Barbiers et al. 2005)

4.2. Towards an analysis of subject/object asymmetries – Mayr (to appear)

On the basis of the Bavarian data in (15)-(17), Mayr shows that complementizer agreement correlates with extraction of subjects in Bavarian. The sentences in (15) show that the subject can be extracted from the embedded clause only when there is complementizer agreement, whereas (16) shows that complementizer agreement is not fully obligatory when there is no subject extraction. The sentences in (17) show that in contrast to subjects, objects can freely extract, independent from complementizer agreement (17a), and that objects in fact cannot agree with the local complementizer (17b).

- (15) a. [Es Kinda]_i hot da Hans gfrogt [___i ob-s ___i hamkummts].
 you children has the Hans asked if-2P.PL home come
 ‘Hans asked if you children will come home.’
 b. * [Es Kinda]_i hot da Hans gfrogt [___i ob-Ø ___i hamkummts].
 you children has the Hans asked if-Ø home come

(16) ? Da Hans hot gfrogd [ob-Ø es Kinda hamkummts].
 the Hans has asked if you children home come
 ‘Hans asked if you children will come home.’

(17) a. [Die Bauan]_i hot da Hans gfrogd
 the farmers has the Hans asked
 [___i ob-s/ob-Ø es Kölna endlich ___i bedients].
 if_{2P.PL}/if-Ø you waiters finally serve
 ‘Hans asked if you waiters will finally serve the farmers.’

b. * [Eich Bauan]_i hot da Hans gfrogd
 you farmers has the Hans asked
 [___i ob-s die Kölna endlich ___i bedienen].
 if_{2P.PL} the waiters finally serve
 ‘Hans asked if the waiters will finally serve you farmers.’

Traditionally, subject/non-subject asymmetries were explained by appealing to the *Empty Category Principle* (ECP; e.g. Chomsky 1981, Bennis & Haegeman 1984, Rizzi 1990). Simply put, this principle states that traces need to be properly licensed. Whereas traces of moved objects are automatically licensed by the selecting verb, the licensing of subject traces requires an additional mechanism. In Mayr’s account, the mechanism that is required to license subject extraction is complementizer agreement.¹⁴

Assuming that complementizer agreement licenses subject extraction – giving rise to subject/object-asymmetries – the question that needs to be answered is: what is the difference between extraction from Spec,TP and extraction from the complement position of V? Mayr argues that subject/object-asymmetries are a consequence of the manner in which Merge proceeds. More precisely, the fact that subjects are merged later in the derivation than objects gives rise to the contrast. He introduces the following definition of Internal Merge, i.e. attraction of a goal by a probe.

(18) *Internal Merge*

IM at derivational stage Σ_i applies to nodes on the same projection line as the head H probing under c-command, thus a node formed at stage $\Sigma_{i-1}, \Sigma_{i-2}, \dots \Sigma_1$, where $i > 1$.

(19) *Projection Line*

X and Y are on the same projection line, iff the head X selects for YP. If the head Y selects for ZP, then by transitivity X and Z are on the same projection line.

Given these definitions, it should be clear that objects can always undergo movement because they are on the same projection line as a higher probing head. However, when an object has moved to the specifier position of a designated head, the question is how it can move any further, since a specifier is not on the projection line of a higher probing head (i.e. it is not selected for by that particular head). Mayr assumes that objects can always undergo movement, because they are on the projection line in their *external* merge position. That is to say, since objects are merged onto the projection line when they are merged into the derivation, they can always undergo movement. Subjects, on the other hand, are never on the

¹⁴ For a comprehensive overview of the Bavarian data that support the claim that subject extraction is licensed by complementizer agreement, I refer the reader to Mayr (to appear); see Boef (2008) for a review of these arguments.

same projection line as a given head because they are not selected for by any head (they are specifiers). Therefore, given the definitions in (18)-(19), subjects cannot act as goals, i.e. they can never be probed. In order for subjects to be probed, Mayr proposes (20), according to which subjects in Spec,TP can be extracted by virtue of agreeing in φ -features with T^0 . However, we need to derive that it is agreement with C^0 that licenses long-distance subject extraction. Therefore, Mayr proposes (21).

(20) *The role of φ -features:*

Agreement in φ -features connects an element to the projection line, of which the agreeing head H is a part.

(21) *Checking conditions at Spell-Out for long-distance extractions:*

- a. At Spell-Out, which is induced by a phase head, e.g. C, it is checked, whether the dislocated element is on the relevant projection line due to its external merge position or not. If not,
- b. then a φ -relation with the phase head reconnects the dislocated element to the relevant projection line.
- c. Any previous φ -relation is deleted after Spell-Out.

The conditions in (21) ensure that only φ -agreement with C^0 influences subject extraction. More specifically, when a subject has moved to the C-domain, its φ -agreement relation with T^0 is no longer visible and as a consequence, another φ -agreement relation with C^0 is established.

Assuming that selectional requirements need to be visible at all stages of the derivation, the following principle ensures that once the subject has entered into a φ -agreement relation with the local C^0 , it is on the relevant projection line once and forever (similar to objects) and need not enter into further φ -agreement relations.

(22) *Secondary selection*

If V selects for a CP with DP in Spec,CP which agrees with the head of this CP in φ -features, then the DP behaves as if it were directly selected by V.

Notice that the principle in (22) predicts that subject/object asymmetries are always found in the clause that contains the extraction site of the moved item. This is in line with generalization B, which states that a subject/object asymmetry in long-distance relative clauses is (almost) only attested in the most deeply embedded clause.

4.3. *The analysis of subject/object asymmetries*

In order to account for the patterns of long-distance relativization in dialects that show a subject/object asymmetry, I will follow Mayr in claiming that agreement in φ -features with the local C^0 licenses subject extraction. More specifically, I will argue that special *die* in the dialects under discussion is in fact a manifestation of this agreement relation. That is, special *die* is not a (weak) relative pronoun, as is argued for in Bennis & Haegeman (1984), and recently in Sportiche (2008), but rather, special *die* is an agreeing form of the complementizer *dat* (in line with traditional analyses of the French *que/qui* alternation like Kayne 1976 and Rizzi 1990). In short, special *die* is the spell out of complementizer *dat* together with

agreement of ϕ -features.¹⁵

As presented in section 3, not all dialects show a subject/object asymmetry. Following the null hypothesis that states that whenever there is subject extraction, the subject needs to agree with the local complementizer, it seems straightforward to assume that dialects differ with respect to whether they spell out this agreement relation or not. Therefore, the following micro-parameter is formulated.

(23) micro-parameter 1: +/- spell out of agreement relation with C^0

An important consequence of this proposal is that it implies that in case of subject extraction there always needs to be complementizer agreement in Dutch, independent of whether this is spelled out or not.¹⁶ To account for the fact that the majority of the Dutch dialects do not spell out this agreement relation, the most straightforward assumption is that not all dialects have complementizer *die* in their lexicon, in which case complementizer *dat* will be used as the default.¹⁷ Variation between dialects that show the subject/object asymmetry and dialects without the asymmetry then seems to be reduced to the lexicon (or the level of Morphology), in line with Chomsky (1995) who argues that the lexicon is the locus of microvariation.

At this point we can give an explanation for generalizations B, C and D, which are here repeated for convenience as (24)-(26).

- (24) **B** a subject/object asymmetry can only appear in the CP containing the extraction site (i.e. a subject/object asymmetry in the higher clause is (almost) never attested)
- (25) **C** in case of a subject/object asymmetry (in the most deeply embedded clause), *die* occurs with subject extraction, whereas *dat* occurs with object extraction
- (26) **D** the presence of a subject/object asymmetry in long-distance relativization correlates with complementizer agreement

As already mentioned above, generalization B can be accounted for by Mayr's mechanism of *Secondary Selection* (cf. *supra* (22)): once the subject has entered into an agreement relation with the most deeply embedded C^0 , it acts as though it is directly selected for by the verb, i.e. it is on the projection line once and forever and therefore it can be extracted and need not enter into further agreement relations with higher heads. Generalization C can be accounted

¹⁵ In some West-Flemish dialects special *die* appears with an obligatory additional agreement affix when the antecedent is not third person singular, as illustrated in the following sentence for a 3rd person plural antecedent.

(i) ... de mensen dan ze zeggen die-n/*die da gekocht een
 the people that._{3P.PL} they say *die*._{??3P.PL} that bought has

The question immediately arises why there is such additional complementizer agreement if we assume that special *die* is an agreeing form of the complementizer. If *-n* in (i) indeed shows 'additional' complementizer agreement similar to what we find on complementizer *da*, we expect to find *diet* instead of *die* in case the relative subject is third person singular; *-t* being the agreement affix that shows up with third person singular subjects (in all Dutch dialects that have complementizer agreement marking third person singular, cf. Barbiers et al. (2005:19)). However, this is not the case. Most likely, the affix *-n* is the phonological realization of a feature that is different from the features that are phonologically realized by *die*; perhaps *-n* is a number marker marking plural. Further research into the whole paradigm of 'additional' complementizer agreement affixes on special *die* is necessary to see if data as in (i) are representative for the whole dialect area that makes use of special *die*.

¹⁶ Interestingly, Postma (2006) makes a similar claim on different grounds (a study on number neutralization of the subject pronoun *ze* 'she'/'they' in Dutch). He argues that although the (ϕ -)agreement features in C^0 are always (abstractly) present (in asymmetrical V2 languages), they are not spelled out in all dialects.

¹⁷ This proposal could easily be formally implemented in the framework of *Distributed Morphology* (cf. Halle & Marantz 1993, Halle 1997, Harley & Noyer 1999).

for by the assumption that special *die* is an agreeing form of complementizer *dat*, and the assumption that only the subject, not the object, needs to agree with the local complementizer in order to be on the projection line and get extracted, i.e. special *die* only occurs with subject extraction. Finally, when we assume that special *die* is an agreeing variant of the complementizer, generalization D is explained: specifically dialects that show agreement morphology on the complementizer in other contexts (see map 2), spell out the agreement relation with the local complementizer in relative clauses.

Although the proposed analysis can account for generalizations B, C and D, we still cannot account for the difference between systems II and III. That is to say, micro-parameter 1 only distinguishes dialects that show a subject/object asymmetry (systems II and III) from dialects that do not show the asymmetry (systems I, IV, V and VI). As the proposed analysis only has something to say about what is going on in the most deeply embedded clause of long-distance relative clauses: *die*_{COMP} with subjects and *dat*_{COMP} with objects, we are still in need of an explanation of the patterns in the higher clause of long-distance relative clauses: *die* in system III and *dat* in system II for both subjects and objects. In order to answer the question of what is going on in the higher clause, the patterns for short relativization in table 2 and the format that Standard Dutch relative clauses obey, repeated here as (27), become important.

| | <i>short subject</i> | <i>short object</i> | <i>long subject</i> | <i>long object</i> |
|------------|----------------------|---------------------|---------------------|--------------------|
| system II | die | dat | dat-die | dat-dat |
| system III | die | die | die-die | die-dat |

Table 2 : systems that show a subject/object asymmetry - systems II and III

- (27) a. ... head [RELATIVE CLAUSE *(relative pronoun)_i ... t_i ...]
 b. ... head [RELATIVE CLAUSE *(relative pronoun)_i ... [t_i *(complementizer) ... t_i ...]]

Assuming for the moment that not only Standard Dutch, but all varieties of Dutch obey the format of restrictive relative clauses as given in (27), we predict the patterns as given in table 3 and 4 for long-distance relativization in systems II and III on the basis of the pattern in table 2, i.e. we predict the patterns of short relativization to be identical to the patterns in the higher clause of long relativization.

| | <i>higher clause</i> | <i>lower clause</i> |
|---------|----------------------|---------------------|
| subject | die _{REL} | die _{COMP} |
| object | dat _{REL} | dat _{COMP} |

Table 3: predictions for system II

| | <i>higher clause</i> | <i>lower clause</i> |
|---------|----------------------|---------------------|
| subject | die _{REL} | die _{COMP} |
| object | die _{REL} | dat _{COMP} |

Table 4: predictions for system III

In contrast to the predictions for system III in table 4, the predicted pattern for system II in table 3 is incorrect: long relativization in system II does not show an asymmetry in the higher clause (see table 2).¹⁸ This observation seems to force the conclusion that the assumption that all dialects of Dutch require a relative pronoun to introduce the relative clause is incorrect. The pattern of system II can then be explained by assuming that system II, in contrast to system III, does not make use of relative pronouns. Together with the observation from section 2 that in Dutch dialects there always needs to be at least one overt element in the complementizer domain, we have an explanation of why we find *dat* in the higher clause of

¹⁸ The predicted pattern in table 3 is in fact attested in the SAND corpus. In footnote 25 I will briefly touch upon this issue.

system II: because system II does not make use of relative pronouns and because there needs to be an element present, the complementizer *dat* appears, as shown in table 5.¹⁹

| | <i>short relativization</i> | <i>long relativization</i> | |
|---------|-----------------------------|----------------------------|---------------------|
| | | <i>higher clause</i> | <i>lower clause</i> |
| subject | die _{COMP} | dat _{COMP} | die _{COMP} |
| object | dat _{COMP} | dat _{COMP} | dat _{COMP} |

Table 5: pattern of system II; no relative pronouns

For dialects that show the pattern of system III, I will simply assume that they make use of relative pronouns, namely *die* for both subjects and objects. The pattern for this system then follows naturally: because the relative clause is always introduced by the relative pronoun *die*, there is no asymmetry in short relativization (only the pronoun is visible, not the complementizer) and the higher clause in long relativization is introduced by the relative pronoun *die*.²⁰ This is summarized in table 6.

| | <i>short relativization</i> | <i>long relativization</i> | |
|---------|-----------------------------|----------------------------|---------------------|
| | | <i>higher clause</i> | <i>lower clause</i> |
| subject | die _{REL} | die _{REL} | die _{COMP} |
| object | die _{REL} | die _{REL} | dat _{COMP} |

Table 6: pattern of system III; + relative pronouns

The difference between systems II and III can thus be attributed to the use of relative pronouns, as described by the following micro-parameter.

(28) micro-parameter 2: +/- presence of relative pronouns

On the basis of the two proposed micro-parameters, the properties of systems II and III can be summarized as follows. Both systems spell out the agreement relation with the local complementizer in case of subject extraction, but the systems differ with respect to whether they use relative pronouns or not.

¹⁹ Notice that I assume – given the observation that we also find a subject/object asymmetry in short relativization – that the relative pronoun always enters into a ϕ -agreement relation with the local C^0 , i.e. the ϕ -agreement relation with C^0 is established in both short and long relativization. This is in line with what is claimed by Mayr (to appear). Recall that according to Mayr, at the point the subject is in Spec,CP, the agreement relation with T^0 has become inaccessible due to Spell Out, and another ϕ -agreement relation with C^0 needs to be established. It is thus predicted that (overt) complementizer agreement in relative clauses also occurs in short relatives.

²⁰ One could imagine that there are dialects that make use of system III and at the same time allow doubly filled COMP. Although such dialects are predicted to have the string *die_{REL} die_{COMP}* in the C-domain of short subject relative clauses, such strings are not attested. A plausible explanation for this is that natural languages have the tendency to avoid the (accidental) repetition of identical morphemes within a particular syntactic environment (cf. Neeleman & Van de Koot 2006). As a result of this, only one *die* in the string *die_{REL} die_{COMP}* in short subject relatives is maintained, but it is unclear which *die* this is. As for table 6, I simply assumed that it is relative pronoun *die* that is maintained in short subject relatives. Further research is necessary to investigate the exact conditions under which identical morphemes may or may not occur adjacently.

| | |
|--|--|
| | + spell out agreement with C ⁰ |
| + relative pronouns (<i>die</i> _{SUBJ} , <i>die</i> _{OBJ}) | <i>die</i> _{REL} - <i>die</i> _{COMP} , <i>die</i> _{REL} - <i>dat</i> _{COMP} (III) |
| - relative pronouns | <i>dat</i> _{COMP} - <i>die</i> _{COMP} , <i>dat</i> _{COMP} - <i>dat</i> _{COMP} (II) |

Table 7: properties of systems II and III

4.4 Predictions of the analysis

The proposed analysis makes several predictions. First, under the assumption that there is only one position for the finite declarative complementizer per clause (cf. Zwart 2000), we predict that dialects that make use of special *die*, never allow the string *die dat* in contexts with special *die*. This prediction is largely borne out by the SAND data: 38 out of the 39 dialects that make use of special *die* in (long-distance) relative clauses do not show the string *die dat* in special *die* contexts.^{21,22} This conclusion is corroborated by the observation that in West-Flemish subordinate clauses the complementizer is always overt, independent of the presence of an element in Spec,CP (Haegeman 1992:57). This is illustrated in (29)-(30).

- (29) a. Kpeizen **da** Valère a weg is.
 I think that Valère already away is
 ‘I think that Valère is already gone.’
 b. *Kpeizen Ø Valère a weg is.
- (30) a. Kweten niet **wannièr da** Valère goa werekommen.
 I know not when that Valère goes return
 ‘I don’t know when Valère is going to return.’
 b. *Kweten niet **wannièr** Valère goa werekommen.

[Haegeman 1992:57]

However, in West-Flemish relative clauses the complementizer is never overt, cf. Haegeman (1983). Whereas this observation would be puzzling under the assumption that special *die* is a relative pronoun, it follows straightforwardly from the analysis of special *die* as a complementizer: under that assumption, the generalization that in West-Flemish subordinate clauses the complementizer always needs to be overt can be maintained.

Second, under the assumption that A'-movement of interrogative pronouns and A'-movement of relative pronouns target the same position, we predict the proposed analysis to be extended to other constructions involving long-distance A'-movement, and we predict these constructions to have the same geographic distribution. More specifically, languages that make use of special *die* in (long-distance) subject relative clauses are predicted to make use of the construction in (31a) when forming long-distance subject *wh*-questions. In (31a) the

²¹ It is important to note that not all SAND informants were explicitly asked about the potential presence of a complementizer in addition to the element *die*. Therefore, the prediction that a complementizer cannot be present in special *die* contexts cannot be adequately tested on the basis of the SAND corpus. Moreover, the data in the online database are not always clear about the absence of string *die dat*. It thus seems more adequate to state that *at most* 38 out of 39 dialects do not allow the string *die dat* in special *die* contexts. Needless to say, further research into the issue of doubly filled COMP (in special *die* contexts) in relative clauses is necessary (cf. also footnote 22).

²² Interestingly, according to Mayr (to appear), besides complementizer agreement, there is another way to license subject extraction, namely via doubly filled COMP. However, the data Mayr uses to make this point are not entirely uncontroversial (cf. Boef 2008), so it remains to be seen if doubly filled COMP can in fact license subject extraction.

question is introduced by the *wh*-word *wie* ‘who’, and the embedded clause is introduced by *die*, which, according to the analysis above, is taken to be a complementizer spelled-out as *die* by virtue of ϕ -agreement with the copy of the *wh*-subject *wie*.

- (31) a. **Wie** denk je **die** het verhaal verteld heeft?
 who think you *die* the story told has
 ‘Who do you think told the story?’
 b. **Wie** denk je **dat** het verhaal verteld heeft?
 who think you that the story told has

At least at first sight, the prediction that the construction in (31a) should be used by dialects that exhibit special *die* in (long-distance) relativization, seems correct given the data on long-distance A’-dependencies in Dutch as reported by Schippers (2006). The construction in (31a) is indeed attested in West-Flanders, and several times in East-Flanders.²³ Moreover, as noted by Sportiche (2008:12), sentences like (31a) are acceptable in Nijmegen Dutch, which is exactly the area in which several attestations of subject/object asymmetries in long-distance relative clauses (system III) were found (cf. map 1). Unfortunately, the prediction cannot be tested on the basis of the SAND corpus, as in the SAND project sentences like (31a) were only questioned with a *wh*-object, and not with *wh*-subjects.²⁴ Further research needs to settle the issue of the (mis)matches between long-distance relatives and long-distance *wh*-questions.

Third, the proposed analysis predicts the existence of the four systems of relativization as given in table 8. This prediction is borne out: all four systems of relativization are attested within the SAND corpus.²⁵ In fact, the two proposed micro-parameters generate four out of the six systems of (long-distance) relativization that were presented in section 3. In other words, in addition to the patterns of the systems that show a subject/object asymmetry (systems II and III) the patterns of system I and system IV follow naturally from the proposed

²³ Importantly, however, this construction is certainly not the only possible one found in this area; the construction in (31b) – the Standard Dutch variant with a complementizer introducing the subordinate clause – is also attested several times in Flanders. This result might lead one to suggest that long-distance *wh*-questions and long-distance relativization structures cannot be analyzed on a par. A similar conclusion is also suggested by other SAND data on long-distance *wh*-dependencies, and the data gathered by Schippers (2006). Moreover, structures involving A’-movement of interrogative pronouns and A’-movement of relative pronouns have different semantic properties (e.g. reconstruction effects), suggesting that they should receive a different analysis (cf. Salzmann 2006a, Koopman & Sportiche 2008). Note that under the assumption that A’-movement of interrogative pronouns targets a different position than A’-movement of relative pronouns (cf. *infra*), possible mismatches between long A’-dependencies in questions and in relative clauses can be explained.

²⁴ Note that according to the proposed analysis, nothing excludes the existence of systems that show the *wie-die* pattern with *wh*-objects; cf. Strik (2008:325) who found that the *wie-die* pattern occurs quite a lot with long-distance *wh*-object questions in spoken Dutch. However, such systems are predicted to show the same pattern with subjects, and the proposed analysis predicts that *die* in these cases is not an agreeing complementizer (but these predictions remain to be tested). A possible analysis for such systems is the *partial copying* analysis of Barbiers, Koenenman & Lekakou (2009).

²⁵ Due to the fact that micro-parameter 2 (+/- relative pronouns) does not say anything about the form of the relative pronouns, we in fact predict the existence of two more systems of relativization, namely systems that make use of relative pronoun *die* for subject relatives, and relative pronoun *dat* for object relatives. The patterns of these two systems are given in the table below.

+ spell out agreement- spell out agreement+ relative pronouns (die_{SUBJ} , dat_{OBJ})*die-die*, *dat-datdie-dat*, *dat-dat* Although these systems do not occur very frequently (the observant reader might have seen that in fact they violate generalization B), the patterns in this table are attested in the SAND corpus. A plausible reason for the low amount of attestations of these systems is the observation that there are not many dialects that exclusively make use of the relative pronoun *die* for subject relatives and the relative pronoun *dat* for object relatives.

analysis.

| | + spell out agreement | - spell out agreement |
|--|------------------------|-----------------------|
| - relative pronouns | dat-die, dat-dat (II) | dat-dat, dat-dat (IV) |
| + relative pronouns (<i>die</i> _{SUBJ} , <i>die</i> _{OBJ}) | die-die, die-dat (III) | die-dat, die-dat (I) |

Table 8: two micro-parameters

In addition to this prediction regarding the *existence* of different systems of relativization, the analysis also makes a prediction with respect to the *non-existence* of certain systems: because the analysis only predicts the existence of the systems in table 8, at the same time the analysis predicts the non-existence of all other logically possible patterns of (long-distance) relativization that show a subject/object asymmetry. Table 9 shows that this prediction is borne out: all other systems that are ruled out by the proposed analysis are not or only very marginally attested in the SAND corpus. In sum, it can thus be stated that the proposed analysis correctly predicts the existence of *all* and *only* those patterns of long-distance relativization with a subject/object asymmetry that are attested in the SAND corpus.

| <i>long subject</i> | <i>long object</i> | gen. B | gen. C | # attestations in SAND corpus |
|---------------------|--------------------|--------|--------|-------------------------------|
| die-dat | die-die | + | - | 2 |
| dat-dat | dat-die | + | - | 0 |
| die-die | dat-die | - | + | 0 |
| dat-die | die-die | - | - | 1 |
| dat-dat | die-die | - | - | 0 |
| dat-die | die-dat | - | - | 0 |
| dat-dat | die-dat | - | - | 1 |
| die-dat | dat-die | - | - | 0 |

Table 9: patterns of long-distance relativization that are excluded by the proposed analysis

4.5 Unresolved issues

An important issue that presents itself is the morphological plausibility of *die* as an agreeing complementizer. That is to say, dialects that show the subject/object asymmetry in (long-distance) relative clauses often also show complementizer agreement (generalization D). However, outside of relative clauses this complementizer agreement does not manifest itself as *die* but as an agreement morpheme on complementizer *da* (e.g. (12b), (13b)). From a cross-linguistic perspective, however, the proposed analysis of *die* as an agreeing instance of *dat* is not implausible as there are more languages that have a special form of the complementizer that is only used in relative clauses (see De Vries 2002 for a comprehensive overview), like Czech, Polish, Indonesian, and Tyrolean (cf. Alber 2008). Moreover, following Hoekstra (1993), Hoekstra & Zwart (1994, 1997), Bennis (1997), and Zwart (2000) amongst others, in assuming that the CP (at least in Dutch) consists of two or more layers of complementizer phrases, and taking these layers to each represent a different landing site for different types of constituents – like *wh*-pronouns and relative pronouns – the complementizer that heads the CP-layer that is the target for A'-movement of relative pronouns might be different from the complementizer that heads the CP-layer that is the target for A'-movement of other elements. Thus, the complementizer we find in relative clauses might be specific to relative clauses, which can explain the observation that complementizer agreement with this complementizer is morphologically different from complementizer agreement with non-relative constituents.

Regarding the form of special *die*, it should be noted that it is not unique that a complementizer has the same form as a pronoun, cf. Dutch *dat* and English *that*. Moreover, it seems to be the case that pronouns can be ‘reanalyzed’ as heads in certain circumstances. For example, Bayer & Brandner (2006) show that in certain dialects of German the simplex interrogative pronoun in questions seems to appear in the position of the complementizer, making doubly filled COMP impossible (cf. Westergaard & Vangsnes 2005, and Vangsnes 2006 for a similar observation in certain Norwegian dialects, e.g. the dialect of Tromsø). A similar ‘reanalysis’ could be responsible for the form, the properties and the distribution of special *die*.

5. No subject/object asymmetries – a tentative proposal

Recall that we started out with the following six systems of relativization. In the previous section, I proposed an analysis that could account for four of these six systems, namely systems I, II, III and IV (cf. *supra* table 8). We are thus left with the two systems in the bottom row of table 1: system V and system VI. This section will present a tentative proposal of these two systems of (long-distance) relativization.

| | <i>short subject</i> | <i>short object</i> | <i>long subject</i> | <i>long object</i> |
|-------------------|----------------------|---------------------|---------------------|--------------------|
| system I (46/47) | die | die | die-dat | die-dat |
| system II (20) | die | dat | dat-die | dat-dat |
| system III (19) | die | die | die-die | die-dat |
| system IV (10/16) | dat | dat | dat-dat | dat-dat |
| system V (9) | die | die | die-die | die-die |
| system VI (7) | die | die | dat-die | dat-die |

Table 1: six systems of (long-distance) relativization

It is important to note that the element *die* that appears in the patterns of both short and long relativization in systems V and VI cannot be an agreeing form of the complementizer, because we find *die* both with subject and with object extraction; *die* is thus a relative pronoun in these systems. Assuming that a moved element leaves an identical copy of itself (instead of a trace) in its extraction site (*copy theory of movement*, Chomsky 1995), a long-distance relative clause in Dutch is predicted to look as follows. The relative pronoun first moves to the intermediate Spec,CP (cf. *supra* footnote 4), and then moves further to the higher Spec,CP.

(32) ... de man [_{CP} **die**_i (dat) ik denk [_{CP} **die**_i (dat) ze **die**_i geroepen hebben]]

Let us assume that – as in most movement chains – only the highest copy of the pronoun gets spelled out (cf. Nunes 2004). Then, given that zero-relativization is not allowed in Dutch, the complementizer in the lower clause is spelled out. This gives us the Standard Dutch system (I), as illustrated in (33).

(33) ... de man [_{CP} **die**_i (dat) ik denk [_{CP} ~~die~~_i **dat** ze ~~die~~_i geroepen hebben]]

When we follow the null hypothesis and assume that the core syntax of (long-distance)

relative clauses is the same for all variants in table 1,²⁶ i.e. the underlying structure of all variants of long-distance relativization looks like (32) before PF-deletion has taken place, it seems rather straightforward to assume that the patterns of systems V and VI are the result of different parameter settings with respect to which copies of the relative pronoun are targeted by PF-deletion (in contrast to the patterns of systems I and III in which only the highest copy of the relative pronoun gets spelled out). If we assume the conditions of PF-deletion as given in (34), we derive *all* and *only* the attested systems of long-distance relativization that make use of relative pronouns, as illustrated in tables 10 and 11.

- (34) a. condition α : the tail of a movement chain cannot be spelled out²⁷
 b. condition β : at least one link in a movement chain needs to be spelled out²⁸

| chain (subject & object) | condition α | condition β | system |
|--------------------------|--------------------|-------------------|---------------------------|
| [die die] | + | + | √ system I, III, V and VI |
| [die die] | - | + | * |
| [die die] | + | - | * |
| [die die] | - | + | * |

Table 10: PF-deletion in the relative chain in short relativization

| chain (subject & object) | condition α | condition β | system |
|--|--------------------|-------------------|-----------------|
| [die [die die]] | + | + | √ system I, III |
| [die [die die]] | + | + | √ system V |
| [die [die die]] | - | + | * |
| [die [die die]] | - | + | * |
| [die [die die]] | - | + | * |
| [die [die die]] | - | + | * |
| [die [die die]] | + | + | √ system VI |
| [die [die die]] | + | - | * |

Table 11: PF-deletion in the relative chain in long relativization

We make the right predictions with the two relatively uncontroversial conditions in (34), and we could implement this proposal by formulating a third micro-parameter that states that some dialects allow the spell out of multiple copies (system V), whereas others do not. In the latter case PF has a choice as to which of the two highest copies to spell out: either the higher one, resulting in systems I and III, or the lower one, giving us system VI.

An analysis like the one proposed above needs to assume that in relative clauses only the relative pronoun moves, whereas the relative head noun is base generated in a position outside the relative clause (the *head external analysis* of relative clauses), giving rise to movement

²⁶ However, dialects may differ with respect to whether or not they merge a relative pronoun (micro-parameter 2).

²⁷ It seems a general tendency in natural languages to not spell out the lowest copy in a chain (cf. Barbiers, Koenenman & Lekakou 2009, and Nunes 2004:39 for *wh*-chains). Note however, that I am abstracting away from *resumption* as the question remains to be answered whether resumption should be analyzed as the spell out of the lowest copy in a chain; but even so, the dialects under discussion (almost) never make use of resumptive pronouns, so it seems reasonable to expect that PF does not have the option of spelling out the lowest chain link in these varieties.

²⁸ Note that this condition is very reminiscent of (yet not identical to) the principle of *recoverability of deletion* (cf. Chomsky & Lasnik 1977 among others).

chains like the one in (32). However, as mentioned before (*supra* footnote 3), the most prominent analyses of relative clauses in the current literature all assume that there is a clause-internal representation of the relative head (cf. Kayne 1994, Zwart 2000, Bianchi 1999, 2000, De Vries 2002, Citko 2001, Bhatt 2002, Sauerland 2003, Salzmann 2006a amongst others). If that is indeed the case, we need to answer the question of how to account for the fact that the copy of the relative DP in the embedded Spec,CP is never fully spelled out (this was already pointed out in Schippers 2006), i.e. the NP *man* is never spelled out in lower copies (cf. (5) and (6)), as illustrated in (35) for a head raising analysis of relative clauses.

- (35) a. de man_i [CP [~~die man~~] ik denk [CP [~~die man~~] ze [~~die man~~] geroepen hebben]
 b. *de man_i [CP [~~die man~~] ik denk [CP [~~die man~~] ze [~~die man~~] geroepen hebben]

In the literature, several proposals have been put forward that can account for this and related issues (see e.g. Nunes 2004, Van Koppen 2005, 2007, Neeleman & Van de Koot 2007). However, another option that immediately comes to mind is to rethink the arguments in (dis)favor of the traditional head external analysis of relative clauses. In the remainder of this section some of these arguments will be briefly evaluated.

The most serious arguments in favor of a head *internal* analysis of relative clauses have to do with reconstruction effects that show the need for an internal representation of the external head inside the relative clause.²⁹ Examples of reconstruction for Principle A, variable binding, and idiom interpretation respectively are given in (36).

- (36) a. ... het [gerucht over zichzelf_i] dat Jan_i niet __ verdragen kan
 the rumour about SE-SELF that Jan not bear can
 ‘... the rumour about himself_i that Jan_i cannot bear’
 b. ... de [foto van zijn_i geliefde] die iedere man_i __ in zijn
 the picture of his beloved which every man in his
 portefeuille heeft³⁰
 wallet has
 ‘... the picture of his beloved that every man keeps in his wallet’
 c. De [*streek*] die hij me leverde, riep om wraak.
 the nasty joke which he me delivered, cried for revenge
 [De Vries 2002:78]

Interestingly, we seem to need ‘reconstruction without copies’ anyway (cf. Hoekstra & Zwart 1997, Hoekstra 1999, Sharvit & Guerzoni 2003, Van Craenenbroeck 2004, Van de Koot 2004, Van Koppen 2007), as exemplified in the following two examples. In (37) the left dislocated PP *naar zijn promotie* ‘to his defense’ needs to be reconstructed into the trace position in order for the pronoun *zijn* ‘his’ to be bound by *iedere taalkundige* ‘every linguist’. However, the trace position is a DP-position (it is the complement of the preposition *naar* ‘to’), not a PP-position. A similar thing holds for the example in (38). The infinitival constituent *elkaar helpen* ‘help each other’ may not occur as the complement of *doen* ‘do’ as shown in (38b), because this verb doesn’t select for an IP (38c). However, when the infinitival constituent occurs in a left dislocated position (38a), the reciprocal *elkaar* ‘each other’ within this constituent can be bound by the lower subject pronoun *ze* ‘they’.

²⁹ Note that this argument only holds under the assumption that reconstruction is best analyzed as the interpretation of a lower copy in a syntactic chain.

³⁰ (36a) and (36b) are translated from German examples in Salzmann (2006b:66).

- (37) Naar zijn_i promotie, daar kijkt [iedere taalkundige]_i naar t_{daar} uit.
 to his defense there looks every linguist to out
 ‘Every linguist looks forward to his defense.’

[Hoekstra & Zwart 1997]

- (38) a. [Elkaar_i helpen] (dat) doen ze_i hier niet t_{dat}.
 each other help *topic pronoun* do they here not
 ‘Help each other, they don’t do that here.’
 b. * Ze doen hier niet elkaar helpen.
 they do here not each other help
 ‘They don’t help each other here.’
 c. Ze doen dat niet.
 they do *topic pronoun* not
 ‘They don’t do that.’

[Hoekstra 1999:65]

Moreover, the reconstruction effects in relative clauses are less clear than presented here. Relative clauses show ‘lack of Principle C effects’ (cf. Citko 2001, Bhatt 2002, Sauerland 2003, Salzmann 2006a), as exemplified for Dutch in (39): because of reconstruction of the head of the relative clause *verhaal over Jan* ‘story about Jan’, we predict the sentence to be ungrammatical on a coindexed reading, because the pronoun *hij* ‘he’ c-commands the name. However, this sentence is perfectly fine. Although the lack of Principle C effects in relative clauses is compatible with the matching analysis, an additional mechanism is required under the head raising analysis (e.g. *vehicle change*).

- (39) ... het [verhaal over Jan_i] dat hij_i mij ___ liever niet verteld had.
 the story about Jan that he me rather not told had

More importantly, the argument in favor of the presence of an internal head in relative clauses that comes from idiom reconstruction is in fact rather weak. As observed by Lasnik & Fiengo (1974:541), a lot of object NPs of VP idioms cannot relativize (in contrast to the famous VP idiom *making headway*). This observation is unexpected under a raising/matching analysis of relative clauses according to which the object NP is merged as the complement of the verb, and there is obligatory reconstruction, i.e. we would expect the sentences in (41) to be grammatical. The observation becomes even stronger when we take into account the grammaticality of the sentences in (42). Note that the contrast in acceptability between (41) and (42) follows under a head external analysis of relative clauses.

- (40) The headway that we made was sufficient.

- (41) a. *The tabs that we kept paid off.
 b. *The advantage that we took of Mary was frowned upon.
 c. *The heed that we paid to that warning was slight.
 d. *The attention that we paid to the lecture was careful.

- (42) a. Tabs were kept on Mary.
 b. Advantage was taken of Mary.

- c. Heed was paid to our warning.
- d. Attention was paid to our problems.

An argument in favor of the head *external* analysis of relative clauses has to do with Case mismatches between (i) the relative head noun and the relative clause internal gap, and/or between (ii) the relative pronoun and the nominal head (43). Such mismatches are hard to account for under any analysis that assumes the relative pronoun and the nominal head are merged as one constituent (but see amongst others Kayne 1994, Bianchi 1999, 2000, Citko 2001, De Vries 2002, and Salzmann 2006a for potential solutions), but follow straightforwardly under a head external analysis of relative pronouns.

- (43) Widzialem tego pana który zbil ci szybe.
 saw-1SG this-ACC man-ACC which-NOM broke you glass
 ‘I saw the man who broke your glass.’

[Polish; Borsley 1997:638]

Another argument in favor of a head external analysis is the observation that in contrast to what we predict on the basis of an analysis that takes relative pronouns to be determiners, relative pronouns do not have the same selectional properties as their determiner counterparts, as illustrated for the Dutch element *die* in (44).

- (44) a. dat/*die meisje heb ik gezien *determiner*
 that/*die* girl have I seen
 ‘I have seen that girl.’
 b. het meisje dat/?die ik gezien heb *relative pronoun*
 the girl that/*die* I seen have
 ‘the girl that I have seen’

A final argument in favor of a head external analysis has to do with the observation that restrictive relative clauses can have multiple heads, as first observed by Ross & Perlmutter (1970). As exemplified in (45) and (46), the antecedent of such plural relative clauses in sentence-final position is a discontinuous noun phrase: in (45) the antecedent is *a man ... (and) a woman*, in (46) the antecedent is *a man ... a woman ... (and) a boy*.

- (45) A man entered the room and a woman went out who were quite similar.
 [Ross & Perlmutter 1970:350]

- (46) First a man arrived, then a woman arrived, and finally a boy arrived who all looked like zombies.

[Hoeksema 1986:69]

Although the existence of this construction poses a problem for all existing theories of the syntax of relative clauses, it should be clear that it is particularly problematic for theories that assume that the antecedent of the relative clause originates in a relative clause-internal position.

6. Summary and conclusions

This paper provided a description and an analysis of the syntactic variation in long-distance relative clauses in varieties of Dutch. I primarily focused on six systems of relativization that differ with respect to the distribution of the elements *die* and *dat*. I argued that dialects differ with respect to the spell out of the agreement relation between the extracted subject and the local complementizer (micro-parameter 1). This could account for subject/object asymmetries. Dialects were moreover assumed to differ in their use of relative pronouns (micro-parameter 2). With these two relatively simple micro-parameters I was able to account for four of the six systems of relativization we started out with. The two remaining systems can probably best be analyzed in terms of the spell out of different copies of the relative pronoun. Future research should settle the issue of which analysis of relative clauses is best compatible with this idea.

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