

# Is Dutch a multiple fronting language?\*

Janneke ter Beek  
University of Groningen

## 1. Introduction

If movement is driven by the need to eliminate a strong feature on a functional head, then *wh*-movement of one *wh*-phrase suffices to check the strong feature on interrogative C (Chomsky 1995). Hence, in English, only one *wh*-phrase is fronted. This leaves the fate of *what* in (1) uncertain:

- (1) Who bought what?

If the [+*wh*] feature of *what* is interpretable, then apparently it has no reason to move, and in fact, movement is prohibited by Greed. However, to be interpreted as a *wh*-phrase, it needs to take scope over the sentence. Therefore, some authors have claimed that *in-situ wh*-phrases in multiple questions undergo LF-movement (e.g. Rizzi 1990). Others have proposed that *in-situ wh*-phrases may indeed be licensed *in-situ* (e.g. Reinhart 1993).

In this paper I discuss Pesetsky's (2000) approach to multiple questions, which connects several properties of multiple questions. I demonstrate how two parameters account for the patterns seen in Bulgarian, English and German. If tenable, a model like this may be preferred over models in which *wh*-phrases are licensed through movement in some cases and *in-situ* in others, in that the same two factors are responsible for the range of options observed across and within languages. However, I demonstrate that nothing else said, the pattern of Dutch does not show the predicted interaction of parameter settings. Furthermore, patterns seen in certain Slavic languages are not captured by the model. Some very brief suggestions are made to accommodate these observations.

## 2. Basic assumptions

Pesetsky (2000) assumes that in principle the [+wh] feature of every wh-phrase must move to interrogative CP. Two parameters may blur our perception of this. The first is phonological: PF may spell out the higher or the lower copy of a wh-phrase (cf. 2.1). The second is syntactic: C is parameterised with respect to the number of specifiers it can host (cf. 2.2). Depending on the setting of the parameter, C may require or prohibit that one or more wh-phrases are displaced.

To describe the full range of options, two additional assumptions are needed. First, C attracts the closest [+wh] feature first. This is the condition Attract Closest (AC). In combination with the second parameter, AC accounts for the so-called Superiority effect.

Second, we distinguish two kinds of movement. Phrasal movement is movement of the relevant feature, pied-piping the phrase to which it belongs. This kind of movement is always overt; however, if the lower copy is spelled out, phrasal movement is not reflected in the surface word order. Feature movement is movement of the relevant feature, stranding the phrase to which it belongs. In principle, both types of movement are available in every language, pace Chomsky (2001). Which movement actually takes place depends on the setting of the second parameter. Since phrasal movement creates a specifier, contexts in which C requires multiple specifiers will typically force phrasal movement.

### 2.1 The position of Spell Out

The first parameter is formalised as a pronunciation rule. In some languages, PF spells out the highest copy of every wh-phrase; in others, it spells out the highest copy of only the first wh-phrase that undergoes phrasal movement, and in still other languages, PF spells out the lower copy of every wh-phrase. Bulgarian exemplifies the first setting:<sup>1</sup>

- (2) a. *Koj<sub>1</sub> kakvo<sub>3</sub> na kogo<sub>2</sub> dade ~~na-kogo~~ kakvo?*<sup>2</sup> [Bulgarian]  
       who what to whom gave  
       b. \**Koj<sub>1</sub> ~~na-kogo-kakvo~~ dade na kogo<sub>2</sub> kakvo?*  
       who gave to whom what  
       ‘Who gave what to whom?’

In (2a), all three wh-phrases are fronted. The word order in (2b), with only one wh-phrase pronounced in CP, is not grammatical. The second setting is found in English:

- (3) Who<sub>1</sub> ~~what to whom~~ gave what<sub>2</sub> to whom<sub>3</sub>?

In (3), only one wh-phrase pronounced in sentence initial position. It could be that this is in fact the only wh-phrase that undergoes movement; if so, the representation (3) is incorrect. Evidence for it discussed in 3.2.1.

## 2.2 The specifier potential of interrogative C

The second parameter concerns the specifier potential of C. In multiple questions, interrogative C may prohibit specifiers ( $C_{0\text{-SPEC}}$ ). Alternatively, C may require exactly one specifier ( $C_{1\text{-SPEC}}$ ), or more than one specifier ( $C_{M\text{-SPEC}}$ ).

Since phrasal movement creates a specifier, languages in which C prohibits specifiers must show feature movement. Languages in which C can host only one specifier display wh-movement of one wh-phrase. Additional wh-phrases check their [+wh] feature through feature movement. It is argued in 3.2.2 that German represents this type:

- (4) *Wer* [+wh]<sub>i</sub> ~~*wer*~~ *sah* [<sub>t<sub>i</sub></sub> [*was*]]?<sup>3</sup> [German]  
       who                      saw      what  
       ‘Who saw what?’

C first attracts the higher wh-phrase *wer*, conform AC, but as German C tolerates only one specifier, secondary instances of wh-movement must be feature movement. Hence, *was* does not move, but only its [+wh] feature does.

Bulgarian and English complementisers are argued to require more than one specifier:

- (5) a. \**Kakvo*<sub>2</sub> *koj*<sub>1</sub> *na kago*<sub>3</sub> *koj* ~~*dade kakvo na kago*~~? [Bulgarian]  
       b. *Koj*<sub>1</sub> *kakvo*<sub>3</sub> *na kago*<sub>2</sub> *dade na kogo kakvo*? (= (2a))  
       ‘Who gave what to whom?’

C attracts the wh-phrases one by one, but it is crucial that the highest wh-phrase is attracted first; movement of any other wh-phrase violates Attract Closest (AC), as seen in (5a). A remark is in order here. As can be seen from the order in (5b), AC apparently needs to be satisfied only once; secondary instances of attraction need not target the closest the wh-phrase. Also, additional wh-phrases tuck in below the specifier created by movement of the first wh-phrase.

Pesetsky (2000) claims that the LF-representation of the English equivalent of (5) is as in (3) above. As in Bulgarian, all wh-movements are phrasal. Unlike in Bulgarian, the phonological component spells out the higher copy of only the highest specifier of C; additional wh-phrases are spelled out *in-situ*.

## 3. Predictions

The pronunciation parameter differentiates wh-*in-situ* languages from languages in which (some) wh-phrases are fronted. But it is well known that languages that have similar pronunciation patterns do not necessarily share other characteristics, for instance with regard to the Superiority effect. The parameter on the specifier potential of C is designed to capture such syntactic properties. The guiding hypothesis is that  $C_{M\text{-SPEC}}$  languages share properties, which are not

shared by  $C_{1\text{-SPEC}}$  languages or  $C_{0\text{-SPEC}}$  languages. In this sense, English is more like Bulgarian than like German.

We predict the following properties for multiple questions in  $C_{M\text{-SPEC}}$  languages:

1. At least two wh-phrases undergo phrasal movement;
2. Double questions display Superiority effects;
3. Triple questions do not display Superiority effects;
4. Intervention effects are only found for the highest wh-phrase.<sup>4</sup>

For multiple questions in  $C_{1\text{-SPEC}}$  languages we predict:

5. Only one wh-phrase is pronounced in CP;
6. There are no Superiority effects;
7. Every *in-situ* wh-phrase is sensitive to intervention effects.

In order to test these predictions, we need ways to distinguish feature movement from phrasal movement. These are discussed in the next subsections.

### 3.1 Phrasal movement licenses antecedent contained deletion

Antecedent contained deletion (ACD) sentences contain an empty VP, to be interpreted like an antecedent VP (6a). However, merely copying the antecedent into the elided VP results in infinite regress (6b). Therefore, the elided VP can only be interpreted felicitously if the object of the antecedent VP has moved out. In (6b) this is established by covert movement (6c):

- (6) a. Mary invited everyone that I did  
 b. Mary invited everyone that I invited everyone that I invited....  
 c. [everyone that I invited] Mary [invited t]

In (6c), movement is independently motivated as a case of QR. In contrast, relative clauses which lack an independent motivation for movement, do not license ACD:

- (7) \*Mary invited John, whom I did

Arguably, (7) is ungrammatical because infinite regress cannot be avoided.<sup>5</sup> Now, if phrasal movement licenses ACD, then on the assumption that *in-situ* wh-phrases undergo phrasal movement, *wh-in-situ* is expected to license ACD. The prediction is borne out:<sup>6</sup>

- (8) Which girl<sub>1</sub> invited [which student<sub>2</sub> that John did]<sub>2</sub>?

Therefore, the possibility of ACD can be taken as a diagnostic for phrasal movement. As an extra test, we can show that a wh-phrase *in-situ* that licenses ACD is not sensitive to the presence of a scopal element between it and interrogative C (see 3.2):

- (9) Which girl<sub>1</sub> didn't invite [which student<sub>2</sub> that John did]<sub>2</sub>?

### 3.2 [+wh] feature movement is sensitive to intervention by scopal elements

Let us look at a triple question:

- (10) What<sub>2</sub> ~~to whom~~-[+wh]<sub>1</sub><sub>i</sub> did [t<sub>i</sub> [who]<sub>1</sub>]] give ~~what~~ to whom<sub>3</sub>?

Seemingly, AC is violated: the highest wh-phrase is spelled out *in-situ*. Alternatively, it could be that wh-phrase<sub>1</sub> has undergone feature movement, conform AC, as represented in (10). This is possible, as there are two other wh-phrases to create specifiers of CP. We can show this by adding a scopal element, like negation, between C and wh-phrase<sub>1</sub>:

- (11) a. \*What<sub>2</sub> ~~to whom~~-[+wh]<sub>1</sub><sub>i</sub> didn't [t<sub>i</sub> [who]<sub>1</sub>]] give ~~what~~ to whom<sub>3</sub>?  
 b. What<sub>2</sub> ~~to whom~~-[+wh]<sub>1</sub><sub>i</sub> did [t<sub>i</sub> [who]<sub>1</sub>]] **not** give ~~what~~ to whom<sub>3</sub>?

If the scopal element intervenes between the [+wh] feature and its source, the sentence is ungrammatical (11a), but when it intervenes between C and the copy of wh<sub>3</sub>, which has moved as a phrase, there is no such effect (11b). As an extra test, we can demonstrate that the *in-situ* wh-phrase that satisfies AC (i.e. wh<sub>1</sub>) does not license ACD:

- (12) a. \*I need to know which girl<sub>2</sub> [+wh]<sub>1</sub><sub>i</sub> Sue ordered [t<sub>i</sub> [which boy]<sub>1</sub>]] that Mary (also) did] to congratulate ~~which girl~~  
 b. I need to know which girl<sub>1</sub> ~~which boy~~ ~~which girl~~ ordered [which boy<sub>2</sub> that Mary (also) did] to congratulate Sarah.

### 3.3 Testing the predictions

With these diagnostics, we can support the claim that English has C<sub>M-SPEC</sub>, but German has C<sub>1-SPEC</sub>.

#### 3.3.1 English

This subsection focuses on English, but the same results should hold for other C<sub>M-SPEC</sub> languages. Dutch is discussed in Section 4.

Recall the first prediction: at least two wh-phrases undergo phrasal movement. This was shown in 3.1. The wh-phrase that is spelled out *in-situ* in (8) licenses ACD and can therefore be assumed to undergo phrasal movement.

The second prediction is that double questions display Superiority effects. Superiority effects arise if the higher of two wh-phrases is spelled out *in-situ*, as in (13). I refer to this order as the reverse order. The reverse order is ungrammatical in C<sub>M-SPEC</sub> contexts:

- (13) \*What<sub>2</sub> [+wh]<sub>1</sub><sub>i</sub> did [t<sub>i</sub> [who]<sub>1</sub>]] buy ~~what~~?

As AC cannot be violated, the *in-situ* pronunciation of wh-phrase<sub>1</sub> in (13) must reflect feature movement.<sup>7</sup> It was shown in (12a) that wh<sub>1</sub> indeed fails to license

ACD. I therefore assume that the representation (13) is correct: *who* checks its [+wh] feature through feature movement, satisfying AC. The ungrammaticality results from the fact that C now has too few specifiers.

If so, we predict that the addition of a third *wh*-phrase in (14) improves the reverse order. The prediction is borne out: triple questions do not display the Superiority effect:

- (14) What<sub>2</sub> ~~where~~ [+wh<sub>1</sub>]<sub>i</sub> did [t<sub>i</sub> [who<sub>1</sub>]] buy ~~what~~ where?

The fourth prediction is that intervention effects are restricted to *wh*<sub>1</sub>, as this is the only *wh*-phrase that undergoes feature movement. This was shown in (11) in 3.2. The result follows if it is assumed that only *wh*<sub>1</sub> undergoes feature movement. Section 4 discusses intervention effects in English in more detail.

### 3.3.2 German

This subsection offers support for the claim that German has C<sub>1-SPEC</sub>. Recall the first prediction from Section 3: only one *wh*-phrase is pronounced in CP. This was shown in (4) above. Second, we predict that German does not have the Superiority effect. If German C tolerates only one specifier, then there should be no Superiority effect in the reverse order, since we assumed that the Superiority effect reflects a violation of C<sub>M-SPEC</sub>. The prediction is borne out:

- (15) a. Wer<sub>1</sub> [+wh<sub>2</sub>]<sub>i</sub> sah ~~wer~~ [t<sub>i</sub> [was<sub>2</sub>]]? (= (4))  
 b. Was<sub>2</sub> [+wh<sub>1</sub>]<sub>i</sub> sah [t<sub>i</sub> [wer<sub>1</sub>]] ~~was~~? [German]  
 what saw who  
 “Who saw what?”

It remains to be shown that *in-situ* *wh*-phrases in multiple questions have undergone feature movement. This seems to be the case:

- (16) ?? Welche Kinder<sub>1</sub> [+wh<sub>2</sub>]<sub>i</sub> haben ~~welche Kinder~~ niemandem  
 which children have nobody  
 [t<sub>i</sub> [welche Bilder<sub>2</sub>]] zeigen wollen? [German]  
 which pictures show.INF want.INF  
 ‘Which children wanted to show nobody which pictures?’

If German has C<sub>1-SPEC</sub>, we expect that the second instance of *wh*-movement in (16) will be feature movement. If so, then the presence of the scopal element *niemandem* ‘nobody’ should cause deviance.<sup>8</sup> The reason for this is that a scopal element blocks the relation between a [+wh] feature and the stranded *wh*-phrase, but not that between a *wh*-phrase and its copy. We see that (16) is indeed degraded. The nature of the deviance is discussed in more detail in Section 4.

#### 4. Dutch

Dutch is like English and German in that one *wh*-phrase in a multiple question is pronounced in CP (17a). Suppose the *in-situ* *wh*-phrase checks its feature through phrasal movement. Then we expect a Superiority effect in the reverse order, like in English. The data seem to confirm this:<sup>9</sup>

- (17) a. Wie<sub>1</sub> heeft wat<sub>2</sub> gekocht? [Dutch]  
           who has what bought  
       b. ??Wat<sub>2</sub> heeft wie<sub>1</sub> gekocht?  
           who has what bought  
           ‘Who bought what?’

The example in (17b) may not be fully ungrammatical; however, it is judged less acceptable than the order in (17a), and also less acceptable than a triple question in the reverse order (18) or an example with D-linked *wh*-phrases (19):

- (18) ?Wat<sub>2</sub> heeft wie<sub>1</sub> waar<sub>3</sub> verstopt? [Dutch]  
       what has who where hidden  
       ‘What did who hide where?’  
       (19) Welke boeken<sub>2</sub> heeft welk meisje<sub>1</sub> gelezen? [Dutch]  
           which books has which girl read  
           ‘Which books did which girl read?’

The contrast between (17b) and (19) is important in what follows. It can also be observed in English:

- (20) a. \*What<sub>2</sub> did who<sub>1</sub> buy?  
       b. Which book<sub>2</sub> did which student<sub>1</sub> buy?

So far, the Dutch data suggest that interrogative C requires multiple specifiers, as in English. If so, then the *in-situ* *wh*-phrase in (17b) checks its feature by phrasal movement to CP. We can demonstrate this only indirectly, by investigating the interaction between *wh*-phrases and scopal elements. As it is difficult to construct an example with three *wh*-phrases in which we can manipulate the position of a scopal element, as in (11), I use an example with D-linked *wh*-phrases. Pesetsky (2000) proposes that such sentences are exceptional in that they allow for a violation of C<sub>M-SPEC</sub>, that is, they allow [+*wh*] feature movement, but only in the reverse order:

- (21) a. Which kid<sub>1</sub> ~~which dog~~ which kid hit which dog<sub>2</sub>?  
       b. Which dog<sub>2</sub> [+*wh*]<sub>1</sub> did [<sub>t<sub>i</sub></sub> [which kid<sub>1</sub>]] hit ~~which dog~~?  
       c. Ann hit the poodle, Joe the sheepdog, and Pat the terrier.

Both (21a) and (21b) allow the pair-list answer in (21c).<sup>10</sup> If a scopal element intervenes between C and the *in-situ* *wh*-phrase, the pair-list reading is possible for the standard order (22a), but is lost in the reverse order (22b):

- (22) a. Which kid<sub>1</sub> ~~which dog~~ which kid did not hit which dog<sub>2</sub>?  
 b. ??Which dog<sub>2</sub> [+wh]<sub>1</sub><sub>i</sub> didn't [t<sub>i</sub> [which kid<sub>1</sub>]] hit ~~which dog~~?  
 c. Ann didn't hit the poodle.

Pesetsky (2000) argues that a pair-list answer is only possible if the [+wh] feature of every wh-phrase that is paired in the answer has moved to interrogative CP. If one of the [+wh] features fails to move to CP, then the question anticipates a single pair answer at best. Thus, the interpretation (22c) for (22b) is exactly what is expected if scopal elements block [+wh] feature movement, and feature movement is required in this word order.

The contrast between (21b) and (22b) follows if C requires multiple specifiers where possible. In (22a), nothing prevents phrasal movement, so phrasal movement is preferred over feature movement. This is true despite the fact that feature movement is in principle possible, as evidenced by (21b). In (22b), however, the only possible derivation involves feature movement of *wh*-phrase<sub>1</sub>, which is blocked by the scopal element. The result is degraded.

Now let us look at the Dutch examples (23) and (24). Both the standard order and the reverse order are in principle compatible with the pair-list answer (23c):

- (23) a. Welke jongen<sub>1</sub> denkt Jan dat welk cadeau<sub>2</sub> heeft gekocht?  
which guy thinks Jan that which present has bought  
'Which guy does Jan think bought which present?'<sup>11</sup> [Dutch]
- b. Welk cadeau<sub>2</sub> denkt Jan dat welke jongen<sub>1</sub> heeft gekocht?  
which present thinks Jan that which guy has bought  
'Which present does Jan think which guy bought?'
- c. Jan thinks Don bought the book, Joe the TV, and Bob the DVD.

In order to determine how the *in-situ* wh-phrases in (23) check their [+wh] feature, I add a scopal element between interrogative C and the *in-situ* wh phrase. Based on the Superiority effect in (17b), we expect phrasal movement in (24a) but not in (24b), as in the English (22). Thus, we expect that the scopal element induces an intervention effect in the reverse order, but not in the standard order. However, the data show an intervention effect both in the standard order and the reverse order: (24a) and (24b) are incompatible with a pair-list answer; the examples anticipate a single pair answer like (24c) at best:

- (24) a. <sup>?</sup>*Welke jongen<sub>1</sub> denkt bijna iedereen dat welk cadeau<sub>2</sub> heeft gekocht?* [Dutch]  
           which guy      thinks almost everyone that which present has bought  
       b. <sup>?</sup>*Welk cadeau<sub>2</sub> denkt bijna iedereen dat welke jongen<sub>1</sub> heeft*  
           ‘Which present does almost everyone think bought which present?’  
       c. <sup>?</sup>Almost everyone thinks that Don bought the book.



The data in (24) are reminiscent of the German example in (16): the normal order is degraded. This follows if C tolerates only one specifier, forcing feature movement if there is more than one wh-phrase.

If the observations in this section are accurate, then at the present state of our knowledge, multiple questions in Dutch form a counterexample to the model proposed in Pesetsky (2000).

## 5. Discussion

Testing the predictions from Section 3, Dutch comes out Janus-faced, showing properties of complementary parameter settings. It might be possible to capture these results by allowing greater language internal variation of complementiser choice, but this would undermine the explanatory power of the model, since we do not understand why we observe such freedom in Dutch but not in English or German. An unfortunate conclusion presents itself: Dutch is a counterexample to the typology proposed in Pesetsky (2000).

Note that the  $C_{M-SPEC}$  setting is primarily based on the Superiority test. Now, English is the prototypical example of a language that is sensitive to Superiority, while German is well known to lack such effects. Based on just these languages, it is legitimate to describe Superiority as a syntactic phenomenon. However, it is unexpected that there are languages like Dutch, in which Superiority effects can be observed which do not cause full ungrammaticality. Possibly, Superiority is not a purely syntactic phenomenon. Bošković (1998) observes that there are actually three kinds of Superiority. Syntactic Superiority is found in multiple questions in which the reverse order is ungrammatical with non-D-linked wh-phrases. Apparent Superiority holds when the reverse order is grammatical. If it is only grammatical in the single pair reading, however, Bošković speaks of interpretive Superiority. Perhaps a thorough investigation into the properties of interpretive Superiority, which is not in the scope of Pesetsky's model, could shed light on the unexpected results for Dutch.<sup>12</sup>

Much work has to be done to describe the precise properties of interpretive Superiority in the present framework, but it seems that this notion is independently needed to account for the patterns seen in certain Slavic languages. Pesetsky (2000) does not mention languages of the Serbo-Croatian and Polish type. As it stands, the model cannot account for the properties of these languages. In Serbo-Croatian, the reverse order does not show Superiority effects in monoclausal questions, suggesting  $C_{I-SPEC}$ . However, the reverse order, although fully grammatical even with non-D-linked wh-phrases, only allows a single pair answer, which is understood as an intervention effect in the present framework. But word order argues against an intervention effect, as all wh-phrases are fronted, strongly suggesting  $C_{M-SPEC}$ .

The fact that all wh-phrases are fronted, but may appear in the reverse order, has been taken as evidence that wh-phrases in Serbo-Croatian do not all target CP. Bošković (1998), among others, suggests that at most one wh-phrase moves to CP, while others undergo focus movement to the lower FocP. The contradictory results might be accounted for in Pesetsky's model if the specifier potential parameter is defined just for CP. Then Serbo-Croatian would be a  $C_{1-SPEC}$  language, with the predicted Superiority properties.

Future research should determine the extent to which this adaptation is feasible. Problems may arise if more complex sentence types are taken into account. These may require variation of complementiser type, since the selection of C in Serbo-Croatian seems to depend in part on sentence structure. Moreover, the function of the specifier potential parameter has to be distributed over (at least) two independent projections, as  $C_{M-SPEC}$  does not govern the licensing of features attracted by  $Foc^0$  (but see Grohmann 2003). This complicates the model to the extent that our two parameters are no longer sufficient to describe the cross-linguistic fronting patterns.

But an adaptation along these lines may not only be profitable in the domain of Slavic languages. If the framework can be adapted to differentiate multiple wh-fronting languages according to the positions wh-phrases target, we may expect that each subtype of multiple wh-fronting language has a counterpart among the languages in which a lower copy of wh-movement is spelled out. Grohmann (2003) proposes an analysis for German in which the wh-phrases in multiple questions target different positions in a fine-grained CP-layer. Future research may determine whether Dutch still forms a counterexample in such an analysis.

## 6. Concluding remarks

This paper discusses Pesetsky's (2000) model of multiple questions. Since the model is primarily based on data from a limited number of languages, the question arises whether the connection between Superiority effects and intervention effects is real. It is vital that the model is tested on more languages. The present paper is an attempt to do this for Dutch. It seems that the model as it is cannot account for the patterns observed. Perhaps the model can be modified to cover the larger CP-layer, which might also bring the movement patterns of a number of Slavic languages into its scope.

## Notes

\* I would like to thank my colleagues in Groningen, the audience of the TINdag, and an anonymous reviewer for helpful comments. All remaining errors are mine.

1. See Pesetsky (2000) for a discussion on D-linked wh-phrases.
2. Here and below, the numbers in subscript indicate the distance of the wh-phrase to interrogative C, prior to wh-movement. Wh<sub>1</sub> is the wh-phrase that is closest to C, wh<sub>2</sub> is second closest, and so on. Struck out wh-phrases represent copies.
3. Here and below, the copy left behind by verb movement is not represented.
4. Actually, this does not follow from the framework. As long as two wh-phrases create specifiers, nothing prevents a third wh-phrase from checking its [+wh] feature through feature movement. But for English, it turns out that only the highest wh-phrase does (cf. Section 4). If it does not conflict with the specifier potential of C, phrasal movement seems to be preferred.
5. Note that in the copy theory of movement, as Chomsky (2001) observes, QR does not empty the object position of the antecedent VP, because movement leaves a copy. The Dutch examples in (i) and (ii) also argue against an explanation in terms of infinite regress:

(i) *Mary heeft iedereen die ik wilde uitgenodigd* ‘Mary invited everyone that I wished’

(ii) \**Mary heeft John, die ik wilde uitgenodigd* ‘\*Mary invited John, whom I wished’

The contrast cannot be caused by infinite regress in (ii), since the object has moved out of VP in both examples. Furthermore, the interpretation of the elided part is not that of the antecedent VP. The meaning of the relative clauses is ‘that I wished that she would invite’ rather than ‘that I wished to invite’. The English translations allow both interpretations, and according to Baltin and Fodor (2000), both interpretations represent cases of ACD. If the Dutch (ii) and its English translation are ungrammatical for the same reason, the ‘antecedent’ VP cannot be responsible for the interpretation. Therefore, it is unclear whether ACD is resolved by copying the content of an antecedent VP into the elided part. If the examples in the main text are to receive the same account as (i) and (ii), the cause of the ungrammaticality of those is unclear too. Nevertheless, I follow Pesetsky (2000) in using ACD as a test for phrasal movement.

6. Note that Stroik (1992) presents examples of configurations that are predicted to license ACD in the present framework, but are nevertheless ungrammatical.
7. Alternatively, (13) could be derived by phrasal movement of both wh-phrases. In this case, either AC is violated, or the pronunciation rule is. Neither alternative can explain the contrast between (13) and (14).
8. We would like to demonstrate that the *in-situ* wh-phrase does not undergo phrasal movement. However, neither German nor Dutch has ACD structures. Constructions like those in footnote 5 seem to be impossible with wh-phrases. This cannot be taken as evidence that wh-phrases do not undergo phrasal movement, since English disallows such constructions as well: \**Which students will read which books that you wish to?*
9. There is little literature on multiple questions in Dutch, and some authors only report examples of the reverse order in embedded clauses, which are judged fully ungrammatical. Koster (1987) remarks that (17b) is definitely less acceptable than (17a).
10. These judgements are controversial. Although Hornstein (1995) agrees with Pesetsky, Grohmann (2003) claims that the reverse order does not allow a pair-list answer.
11. (23a) and (24a) may be slightly degraded due to the that-t effect. Most speakers I consulted do not judge it ungrammatical, though.
12. Note that this characterisation of interpretive Superiority does not apply to Dutch. The point is that Superiority is quite puzzling in itself. Investigation of all aspects may uncover more detailed typologies, in which Dutch may not be exceptional.

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