

A SEMANTIC TRIGGER FOR SCRAMBLING*

Carlo CECCHETTO

1. Introduction

This paper primarily focuses on object scrambling in Dutch; in earlier GB tradition direct object scrambling in Dutch was rather commonly assumed to be an A' movement; this assumption was motivated primarily by the observation that scrambled objects license parasitic gaps (cfr. Bennis and Hoekstra 1984). Furthermore, it has often been noted that definite DPs are more likely to scramble than indefinite ones, suggesting the possibility of a semantic trigger for scrambling.

However, more recently this set of assumptions has been challenged on both theoretical and empirical grounds.

On the theoretical side, it is now believed that the accusative case is checked in a projection AgroP, to which the direct object rises by LF. The availability of such an option led Zwart 1993 to conclude that scrambling is the object raising to Spec,AgroP and that it's motivated by case checking reasons.

On the empirical side Haegeman 1993a shows that in West Flemish (from now on WF), a variety of Dutch, PGs are *not* licensed by object scrambling, a fact that induces people to suspect that PG licensing in standard Dutch might be a spurious effect.

My main goal in this paper is to revive the hypothesis that scrambling in Dutch is semantically motivated and, consequently, it is a movement which retains (though non exclusively) A' properties.

This paper is organized as follows; in section 2 some Turkish data is presented which suggests that only specific DPs scramble. In section 3 it is shown that this

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semantic characterization is tenable for Dutch scrambling to a very large extent. A potential counterexample is identified in Dutch negative sentences. To deal with this, background assumptions are introduced in sections 4 and 5: in section 4 negative island effects are discussed while in section 5 Sportiche's *Clitic Criterion* proposal, which plays a central role in my account, is summarized and adopted. Section 6 is devoted to the identification of the position of scrambled objects. In section 7, on the basis of the background discussion, the apparent counterexample is reconsidered to show that it is compatible with the working hypothesis that scrambling is semantically driven. In section 8 it is argued that this hypothesis is indirectly corroborated by the pattern of Dutch indefinite descriptions. Section 9 deals with the PGs in WF and finally in section 10 the conclusions are drawn and some general remarks are introduced.

2. Turkish scrambling

2.1 Looking for the semantic trigger

A serious investigation of the semantic feature shared by scrambled DPs hasn't very often been adequately addressed¹. It has been occasionally assumed that definite DPs have to (or tend to) scramble, whereas indefinite DPs don't. But, it has also been proposed that the relevant feature is specificity rather than definiteness. In addition, it's well known that generic DPs, both definite and indefinite, scramble or tend to scramble in Dutch.

I'll briefly discuss in section 10 the relationship between scrambling and genericity; for the moment let's try to figure out if the other relevant feature is specificity or definiteness. To begin with, we need a formal definition of these two concepts.

2.2 Specificity in Turkish

Enç 1991 proposes a definition of specificity for DPs within the framework of the so called Discourse Representation Theory, initially developed by Heim 1982 and Kamp 1981. According to Kamp-Heim indefinite DPs cannot have antecedents in the discourse, whereas definite DPs must have them. Enç elaborates this theory in the following way to account for specificity; "all NPs (=DPs) carry a pair of indices, the first of which represents the referent of the NP. The indices themselves bear a definiteness feature. The feature on the first index determines the definiteness of the

1 However, de Hoop 1993 contains a detailed discussion of the semantic nature of scrambling. See also Reuland 1988 and Rullmann 19.

NP, as usual. The definiteness feature on the second index determines the specificity of the NP...". Omitting for simplicity the case of plural NPs, we obtain the definition we were looking for;

- (1) Every $[NP \alpha]_{\langle i, j \rangle}$ is interpreted as $\alpha(x_i)$ and $\{x_i\} \leq \{x_j\}$
 A NP is specific if and only if its second index is definite²

(1) expresses the intuition that an expression is specific if its discourse referent is an element of a set of discourse referents that have all been previously introduced in the discourse file. For example, when we say "the tall man" the man whom we are referring to, must be already known. Hence a definite description is unambiguously specific. On the other hand, when we say "a tall man", the man whom we are referring to, can either be already known or can be mentioned for the first time in the discourse. In the first case the indefinite description is specific, in the second case it is non-specific. According to this definition a +specific DP is a concealed partitive; partitives turn out to be the prototypes of specific expressions or, putting it differently, specific DP's are weak partitives.

This definition of specificity has been argued by Enç to be relevant to the explanation of an interesting phenomenon in Turkish. Direct objects in Turkish can optionally bear the accusative morpheme. This optionality is related by Enç, to the \pm -specific feature of the object; specific objects must bear the accusative morpheme whereas non-specific ones surface with no morphological affixation.

Let's consider the situation in detail (the data in this paragraph are taken from Enç's cited paper, from Kennelly 1993 and from Nilsson 1985); proper names, pronouns, definite descriptions, demonstrative phrases (see 2-3), DPs with a strong determiner as "every" (see 4-5) and partitives (see 6-7) are unambiguously specific (they always bear accusative morphology)³;

- (2) Zeynep Ali-yi / on-u / adam-i / o masa-yi gordu
 Zeynep Ali+acc he+acc the-man+acc that table+acc saw
- (3) Zeynep *Ali / *on / *adam / *o masa / gordu
- (4) Ali her kitab-i okudu
 Ali every book+acc read

2 For a very similar proposal see Pesetsky 1987.

3 The accusative case morpheme in Turkish is $-(y)i$. It "contains a high vowel that varies in frontness and roundness in accordance with the rules of vowel harmony" (Enç 1991, page 4).

- (5) *Ali her kitab okudu
- (6) Ali kadin-lar-in iki-sin-i taniyordu
Ali woman+Pl+Gen two+Agr+Acc knew
Ali knew two of the women
- (7) *Ali kadin-lar-in iki-si taniyordu

On the other hand, indefinite DPs with the determiners *one, two..., many, few, several* are ambiguous between specific and non-specific reading (they optionally bear accusative morphology); I exemplify with the determiner “bir”;

- (8) Ali bir kitab-i aldi
Ali one book+acc bought
A book is such that Ali bought it
- (9) Ali bir kitab aldi
Ali bought some book or other

2.3 Scrambling in Turkish

A very interesting point for our discussion, is that specific DPs scramble in Turkish, whereas non-specific ones cannot⁴.

I refer to Nilsson 1985 for a more detailed discussion of the relationship between case marking and specificity in Turkish.

Let me simply illustrate the phenomenon with an example⁵:

- (10) Ayse simdi balik tutuyor
Ayse now fish takes
Ayse is fishing

4 Turkish is an SOV “scrambling” language; for the word order in Turkish see Kennelly 1993. Descriptively, a morphologically case marked DP can surface above an adverb but can also remain in the immediate preverbal position. In line with what I’ll say about Dutch scrambling, I propose that the configuration in which the adverb dominates the morphologically case marked direct object, is the result of scrambling both the adverb and the DP.

5 Turkish doesn’t have a definite article; the accusative morpheme forms a definite description however.

- (11) *Ayse balik simdi tutuyor
Ayse fish now takes
- (12) Ayse baligi simdi tutuyor⁶
Ayse the fish+acc now takes
Ayse is catching the fish

The minimal pair 10-11 shows that a bare object must appear in the immediate preverbal position; as 11 clearly indicates, it is not allowed to scramble above the adverb *simdi*.

On the other hand in 12, where the object is morphologically case marked, scrambling is grammatical.

To summarize; we were looking for a formal definition of specificity and definiteness. What we found is a definition that has the very interesting property of allowing us to correlate specificity and scrambling.

3. Dutch scrambling

3.1 Some provisos

It's now time to discuss in some detail the semantic properties of Dutch scrambling.

Since the null hypothesis is that Dutch patterns alike Turkish, the starting point of my investigation will be trying to figure out if this strong hypothesis is tenable or not.

A second point regards the test to measure scrambling. Basically two possibilities are available (and are systematically used). The first one is to consider the position of the direct object with respect to adverbs. The second option is to consider it with respect to the negation particle. Both these tests are useful, but not without problems. The problem with adverbs is that, on a closer look, they appear not to have a fixed position. I'll argue, for example, that an adverbial as *waarschijnlijk* or *gisteren* can appear in (at least) two possible positions in the sentence. So using tests involving

6 Interestingly the question particle *mi* can intervene between the bare noun and the verb:

- i) Ayse balik mi tutuyor?
Is it fishing that Ayse does?

The adverbial particles *bile* ("even") and *da* ("also", "too") show the same pattern:

- ii) Ayse balik da/bile tutuyor
Ayse also/even goes fishing

As noted by Kennelly 1993 this pattern renders as quite unlikely an analysis according to which the unmarked object DP incorporates into the verb.

adverbs, we can see if the scrambling has been triggered, but we cannot see where the scrambling has moved the direct object to.

Negation particle *niet*, on the other hand, has a fixed position (Spec,NegP) but unfortunately this test has another problem. We cannot be absolutely sure that we are dealing with sentential negation rather than with constituent negation; in the second case the position of the negated constituent cannot be identified as NegP.

However, I think that keeping in mind what we learnt from Turkish as a starting point, and using both the negation test and the adverbs test, a coherent picture of Dutch scrambling can be figured out. At least this is what I'll try to do now.

3.2 Dutch scrambling; the adverb⁷

Unfortunately Dutch doesn't have any morphological marking for specificity. However bare plurals in direct object position are admitted only if they are assigned generic or non-specific reading (which is often called existential). In 13-14 the generic reading is excluded because of the adverbial "yesterday". As a result, we have a context in which the DP is unambiguously non-specific.

(13) ..dat die politie gisteren taalkundigen opgepakt heeft that the police yesterday linguists arrested has

(14) *..dat die politie taalkundigen gisteren opgepakt heeft

As 14 clearly shows, a non-specific DP cannot scramble⁸. We found an initial confirmation or the rough hypothesis that in Dutch, like in Turkish, specific DPs scramble, whereas non-specific ones cannot. Additional corroboration comes from 15-16;

(15) ..dat die politie gisteren veel taalkundigen opgepakt heeft
that the police yesterday many linguists arrested has

(16) ..dat die politie veel taalkundigen gisteren opgepakt heeft

An indefinite DP, as we know from definition 1, is ambiguous between a specific and a non-specific reading. As a result, it can occupy a position below the adverb but

7 I'll consider sentential adverbs and temporal adverbs. I'm aware that the order between these two kinds of adverbs is not free. My goal however, is not the elaboration of a full analysis of adverbs in Dutch, which is clearly out of the scope of this paper. My goal is more limited; I'm trying to show that temporal and sentential adverbs in this language are allowed to scramble.

8 This data concerning bare plurals was first discussed by Reuland 1988.

can also surface above it. So far, so good; but unfortunately, things are not so easy. In fact a definite description is unambiguously specific according to 1, but it can appear below adverbs (sentence 17).

(17) ..dat die politie gisteren die taalkundigen opgepakt heeft
that the police yesterday the linguists arrested has

(18) ..dat die politie die taalkundigen gisteren opgepakt heeft

(Examples 13-18 from De Hoop 1993)

However I think that this data become intelligible insofar as a further assumption is taken; we should say that temporal and sentential adverbs in addition to the VP peripheral position, can surface close to the standard subject position.

A closer look at the data in 15-16 corroborates this picture; observe that 15 is ambiguous between a specific reading (it's an affirmation about some known linguists) and a non-specific one (the police arrested some people who happened to be linguists). This ambiguity is predicted only if the possibility of the higher site for the adverb is introduced. In that case, two possible derivations can be ascribed to 15; in the first configuration *veel taalkundigen* (being specific) did scramble; in the second configuration *veel taalkundigen* (being non-specific) did not. On the other hand, 16 has only the specific reading; this is in line with the proposed analysis. Only one underlying configuration is possible, namely the one in which *veel taalkundigen* scrambled and the adverb is VP peripheral.

Reconsider now 17 and 18; in both cases the specific DP scrambled; what is different in the two sentences is the position of the adverb.

Concluding these remarks, we can say that, as far as adverbs are concerned, the hypothesis of the parallelism between Dutch and Turkish scrambling seems to be corroborated.

3.3 Dutch scrambling; the negation

The picture sketched in the previous paragraph is plausible enough, but it's clear that further investigation is necessary. As I said, adverbs are not fixed enough to be a completely reliable touchstone to measure the scrambling by. We need an element whose position is known to be fixed in the sentence.

This element, not surprisingly, is the negative particle *niet*.

In line with the analysis of Haegeman forthcoming of negation in WF, I'll assume that *niet* occupies Spec,NegP (the negative head in standard Dutch being always non-overt). I'll take NegP to occupy a position between VP and the the highest verbal projection (say, AgtSP); I'll stick to the traditional idea that verbal projections in Dutch are head final. The position of the scrambled object will be discussed shortly; for the moment let's assume that it occupies an intermediate position between NegP and CP.

First of all, note the pattern shown by definite DPs exemplified in 19-22 by demonstrative DPs and proper names; according to our working hypothesis they have to scramble obligatorily. This is what happens⁹.

(19) Hij heeft dat boekje niet gezien
He has that book not seen

(20) *Hij heeft niet dat boekje gezien

(21) Hij heeft Jan niet gezien
He has Jan not seen

(22) *Hij heeft niet Jan gezien

Consider now the pattern shown by quantified NPs (henceforth QPs);

(23) Hij heeft veel boeken niet gezien **reading veel\niet**
He has many books not seen

(24) Hij heeft niet veel boeken gezien **reading niet\veel**

(25) Hij heeft twee boeken niet gezien **reading twee\niet**
He has two books not seen

(26) Hij heeft niet twee boeken gezien **reading niet\veel**

(27) Hij heeft alle boeken niet gezien **reading alle\niet**
He has all books not seen

(28) Hij heeft niet alle boeken gezien **reading niet\alle**

Some comment is in order; the data in 23-26 fit well with our hypothesis shaped on Turkish scrambling and later corroborated by scrambling with respect to adverbs. The QPs in 23-26 are ambiguous according to 1 and, as a consequence, they are expected to appear either below or above negation.

But 27-28 raises a problem; QPs as *alle boeken* are unambiguously specific (cfr. the Turkish counterpart which is always overtly case marked when in object position); they should scramble obligatorily contra the data in 28.

9 These are judgements on the sentences with normal intonation. Contrastive stress on the object can considerably change the acceptability of the sentences.

The answer to this problem is postponed until the paragraph 7.1, after a long digression in which the syntax of scrambling is investigated in some detail. For the moment let's keep in mind 28 and let's try to carry on our analysis.

4. Negative islands

4.1 The isomorphism effect: the problem

In the analysis of the problematic example 28 there is a common feature of all the sentences 23-28, which must play a role: I refer to the strict isomorphism between S-Structure and LF. The logical order between the QPs and the negation reflects the superficial order. This fact requires an explanation. Of course, one could stipulate an *Isomorphic Principle* like the following

ISOMORPHIC PRINCIPLE

Suppose A and B are QPs or the negation operator. Then if A c-commands B at S-structure, A c-commands B at LF

(modified from Huang 1982 and Aoun-Li 1989)

However such a stipulation would have no explanatory power. Furthermore it would be incorrect on empirical grounds. In fact the isomorphism between S-Structure and LF is not always respected. Consider:

- (29) Veel boeken heeft Wim niet gezien
many books has Wim not seen

29 is ambiguous; a possible reading is the *not many* one, a result not compatible with the Isomorphic Principle¹⁰

The isomorphism between S-Structure and LF in Dutch is a general problem that requires a lot of attention. I shall try to give an account of the preservation of the order between a QP and the negation; the preservation of the order between two QPs requires to be explained in a non stipulative way, as well. However, since such a problem is clearly out of the scope of this paper, I'm putting it aside.

For the explanation that I'm going to offer, some background is necessary.

10 In a matrix sentence where the verb in second position is a lexical one, the "isomorphic reading" becomes very hard to get; for example in

- i) Veel boeken koopt Wim niet
Many books buys Wim not

the only reading seems to be the *not many* one. While the system that I'm going to propose is able to deal with the ambiguity in 29, I have nothing interesting to say about sentences like i).

4.2 *The raising of the quantifier*

To begin with, I'll assume that QPs undergo movement at LF. It has recently been proposed that the classical QR theory is inadequate and that the quantifier movement is, in general, targeted to a QP-specific landing site (cfr. Stowell and Beghelli 1994). The research is very much ongoing on this topic but I'll stick to a commonly accepted assumption, namely that the different landing sites of non-negative QPs are all located above NegP. Stated differently, the target scope position of negative QPs is the lowest one among all the different landing sites for QPs¹¹.

The pattern in 23-28 with this assumption about LF raising of QPs, calls for an explanation in terms of negative island effects. Let's see if this kind of solution is tenable or not. A first rough idea is the following: when the QPs, at S Structure (or Spell Out), occupy a lower position than NegP (24-26-28), the LF raising to the target scope position would give rise to a negative island effect. The only possible solution is a short QR application that moves the quantifier to a lower position than NegP; hence the reading in which the negation has scope over the QP.

On the other hand, when the QPs, at S Structure (or Spell Out), occupy a higher position than NegP (23-25-27), they are allowed to rise to their target scope position (in fact, no variable is found in a position lower than the negative island).

However, the sketched picture has some shortcomings, the first problem is why an intervening negation causes a blocking effect for the extraction of arguments, a fact unexpected under the current assumption of the theory. A second problem is that introducing the possibility of a short QR application seems incompatible with the idea of the QP-specific landing site.

And a third problem is how to explain the impossibility of reconstruction in (23-25-27). I will begin with the first problem.

4.3 *The negation and the arguments*

The idea that negation blocks extraction is not a new one. Facts of this kind have been integrated in the Relativized Minimality theory as developed in Rizzi 1990,1992. However, there is a crucial point that needs to be discussed; in Rizzi's system an antecedent government relation in a A' chain is blocked by a negative operator in Spec, NegP. Crucially, in A' chain adjunct variables must be connected with the operator via antecedent government; argument variables, on the other hand, bearing a referential index, can be connected by binding.

11 I'll not discuss how to deal with cases traditionally analysed as involving QR adjunction to VP. For the purpose of this paper it's not crucial which one is adopted between the old style QR and the new landing site selective quantifier raising.

This is why an intervening negation is expected to create a (relativized) minimality effect only with adjuncts. On the other hand, it seems that in 23-28, the intervening negation “counts” for arguments, as well.

Rizzi argues that the option of being connected via binding is precluded to adjunct chains because adjuncts are not assigned referential indices. A referential index is assigned to an expression only if an argumental theta role is assigned to the same expression (an argumental theta role corresponds to a participant in the event described by the sentence “agent”, “patient”, “theme” etc.). The direct objects in 23-28 are assigned an argumental theta role; as a result they should carry a referential index, binding should be an available option and no negative island effect should be found.

However, if a further qualification of the notion of referential index is introduced, the pattern in 23-28 becomes compatible with the Relativized Minimality framework (and, indeed, receives an explanation). The qualification I’m talking about has been proposed by Cinque 1990: according to Cinque the assignment of referential indexes must be limited to those phrases that, in addition to being assigned an argumental theta role, refer to specific members of a preestablished set. This means that an expression, to carry a referential index, must receive a specific interpretation (in the sense of specificity introduced in 1).

Our working hypothesis, to be corroborated in the remaining part of this paper, is that the QPs that occupy a lower position than NegP in 23-28 are not specific. Hence, a negative island effect at LF is expected under Relativized Minimality with Cinque’s refinement.

I refer to Cinque 1990 for an important set of arguments that show the necessity of restricting the availability of referential indexes. However, I’d like to offer an independent motivation to support this proposal.

The discussion is based on Italian data (however, note the Turkish data discussed in paragraph 7.2 can be interpreted as additional evidence in this direction).

To begin with, Haegeman forthcoming observes a case where an intervening NegP gives rise to inner island effects even with an argument:

(30) Non credo di poter far niente
NEG (I) think of can-*finite* do-*finite* nothing
I think that there is nothing that I can *do*

(31) Non credo di non poter far niente
NEG (I) think of NEG can-*finite* do-*finite* nothing
I don’t think that there is nothing that I can *do*

Both sentences are grammatical; but while in 30 Negative Concord is possible (and indeed necessary), in 31 it is not possible (as indicated by the glosses). Assuming that in Italian a negative operator in situ moves at LF to Spec,NegP, the

impossibility of Negative Concord in 31 can be explained by saying that *niente* can't move to the matrix Spec,NegP crossing the embedded NegP; an inner island effect is found even if *niente* is an argument and not an adjunct.

Note that a negative operator is trivially non-specific; the proposal of restricting the use of referential indices to argumental expressions that are specific immediately accounts for the inner island effect in 31.

In addition, I think that the pattern of post verbal quantified subjects is evidence in the same direction. Let's see why. Consider the quantified subject in 32 above; sticking to the standard assumption that elements like *più* ("no more") and *mai* ("never") occupy Spec,NegP, at S Structure it surfaces in a lower position than NegP;

- (32) non vengono più \ mai molti turisti
NEG come no more\never many tourists
o.k. non\molti ?? molti\non

Interestingly, the reading in which the quantified subject has scope over the negation is very hard to grasp. This correlates with the fact that a postverbal subject of the form "molti...", strongly favours non-specific reading,

- (33) vengono molti turisti (non-specific reading)
come many tourists
- (34) molti turisti vengono (specific reading)
many tourists come

Again, if we say that *molti turisti* in 32 is not assigned a referential index because it is non-specific, the impossibility of *molti\non* reading is predicted¹².

This concludes the first point. I said that to give an account of the isomorphic effect, it is necessary to explain why an inner island effect is found with arguments (in some circumstances). The explanation proposed capitalizes on the fact that only specific expressions are assigned a referential index. However, there are another two

12 A QP introduced by a numeral like *tre* ("three") has a different pattern: the specific reading is possible in

i) vengono tre turisti.
come three tourists

Interestingly, the *tre\non* reading is possible in

ii) non vengono tre turisti.

problems for the sketched hypothesis for an explanation of the isomorphism effect. To deal with them, we have to extend our background assumptions¹³.

5. Clitic criterion

5.1 Sportiche 1992

Remember that our initial problem has been raised by sentence 28. The discussion about the Negation Requirement has been the first necessary piece of background information in order to give an answer to that problem. It's now time to introduce an important new set of assumptions.

Sportiche 1992 proposes that clitics are base generated as heads of maximal projections whose specifier position is filled (by LF) by a constituent "associated" with the clitic itself. As a result, even though clitics are base generated in their superficial position (or close to it), movement from a position inside VP is present.

But let's concentrate on the case of object clitics. Sportiche proposes the following

CLITIC CRITERION

By LF

- i. An object clitic must be in a spec/head relationship with a [+F] DP
- ii. A [+F] DP must be in a spec/head relationship with an object clitic¹⁴.

The DP referred to in the above formulation of the criterion is visible in languages admitting the clitic doubling strategy.

More precisely, clitic doubling far from being a marginal case, becomes the overt realization of a general situation.

13 There is another strategy to deal with the presence of inner island effects with argumental QPs, namely considering QR as an adjunct movement. This possibility (that has been signaled to me by Luigi Rizzi) is suggested by the following French examples:

- i) Combien as-tu consulté de livres
- ii) *Combien n'as pas-tu consulté de livres

In ii) only the quantifier has been raised, whereas the referential index is given to the entire QP. As a consequence, binding is impossible and a relativized minimality effect is found. This kind of explanation (which is not incompatible with the one that capitalizes on the impossibility of assigning referential indexes to non specific QPs) is particularly adequate for cases of QPs whose quantifier can be floated; in other cases to reduce the quantifier movement to adjunct movement is less obvious.

14 For a similar proposal see Agouraki 1993.

If clitic doubling is not allowed, there are two possibilities: the DP, that must rise to the specifier position of the clitic projection (from now on I'll label this projection FP), is realized as *pro*, or alternatively, the clitic head must be null. Scrambling in Germanic languages (and in Dutch, in particular) is interpreted by Sportiche as the raising of the overt object to Spec,FP (the clitic head being null).

The connection between clitic doubling and scrambling stated by the Clitic Criterion is suggested by the fact that both these constructions seem to be constrained by a semantic feature; a direct object can scramble or can be doubled by the clitic as long as it's "specific"¹⁵. This leads Sportiche to speculate that the [+F] feature alluded to in the definition of the Clitic Criterion is specificity. Clitic Criterion would be an instance of a general Licensing Criterion, whose more famous examples are *Wh Criterion*, *Neg Criterion* and *Focus Criterion*.

In this paper I shall assume that the fundamental insight of Sportiche's proposal is correct, even though some modifications to his system must be introduced. A problematic point is directly relevant for our discussion; according to the Clitic Criterion the position of the scrambled DP (Spec,FP) and the position of the clitic (the head F⁰) should not be distinguishable in the word order in a sentence.

This statement seems to be falsified by data like the following that clearly shows that a scrambled DP can surface to the right of a sentential adverbial, a position which is banned to a clitic.

- (35) *Hij heeft waarschijnlijk't niet gezien
he has probably it not seen
- (36) Hij heeft waarschijnlijk dat boek niet gezien
he has probably the book not seen
- (37) Hij heeft't waarschijnlijk niet gezien
- (38) Hij heeft dat boek waarschijnlijk niet gezien

The descriptive generalization seems to be; a clitic can appear in the position occupied by the scrambled DP but can appear in a higher position as well. I shall now try to give an answer to this problematic aspect of Sportiche's account.

15 For a discussion of the semantic feature associated with clitic doubling, see Suner 1988 and Dobrovie Sorin 1990 and references cited therein.

5.2 *Clitics as polarity items*¹⁶

In answering the problem, I shall capitalize on a property that seems to distinguish crosslinguistically clitics from strong pronouns. This property is the well known fact that clitics are underspecified for the feature [+hum]¹⁷; clitics can be used to refer both to animate and inanimate objects while strong pronominal forms only refer to animate ones. Delfitto and Corver 1993 (to which I refer for the relevant crosslinguistical data) have proposed an account of the clitics pattern in which this property is given a major role. I will follow their suggestion that this fact is too general not to be integrated into a theory of clitics; however my implementation is different from the one they proposed. Delfitto and Corver argue that the missing substantive specification, that is the value [+/- human], is given to (the foot of) the clitic chain by the verb. It's not clear to me why a verb should be able to supply a DP with the missing feature; hence, I shall try to find an alternative strategy that allows the clitic to be given the value. I'd claim that an indication comes from the analogy between the pattern of the clitics and the pattern of another class of linguistic expressions, namely polarity items.

Polarity items can't stand by themselves. On the contrary they always need to be licensed by an operator (for example negative polarity items must be in the local scope of a downward entailing operator). One could argue that this is due to the fact that polarity items lack an important specification in their lexical entry; this "empty slot" must be saturated by the operator. We can think of the feature [+/-human] along the same lines; a DP whose lexical entry is not specified for that feature, must be licensed by a [+/- human] operator.

In conclusion, my proposal is that the easiest way to account for the relevant property of the clitics is condering them polarity items that are licensed by a [+/- human] operator.

5.3 *Clitics and adverbs*

I think that our assumption that clitics are polarity items shed light on the problem of Sportiche's account which we are interested in. The problem was that clitics seem to occupy a higher position than specific DPs, an unexpected result

16 The possibility of appealing to a "polarity item behaviour" to deal with this problem, was originally suggested to me by Gennaro Chierchia. Of course, he is not responsible for the way in which I have developed this idea.

17 I'll not discuss if the missing feature is to be identified as +/- human or as +/- animate. For our purpose an exact qualification is not very important.

given the assumption that specific DPs occupy the specifier position of the clitic phrase.

Of course, one could postulate that the clitic head F° , after *pro* raising to Spec,FP, incorporates into some higher head. However such a stipulation would have the flavour of an ad hoc device.

The solution that I propose is different. The problem comes from the fact that a scrambled DP, *but not a clitic*, can surface to the right of a sentential adverbial.

Instead of thinking that clitics occupy a higher position, we can say that there are different positions for adverbs (cf. paragraph 3.2) and that the configuration in which the clitic is in the immediate scope of an adverb is excluded for independent reasons. Let's consider again 35-38. My solution amounts to saying that the position of the clitic and that of the scrambled DP are fixed in 35-38 (they are respectively F° and Spec,FP); *waarschijnlijk* on the other hand is adjoined in a different position.

Of course I have to say why 35 is ruled out. It is at this point that the hypothesis that clitics are polarity items comes into play. In the literature on this topic, it has been observed that polarity items, in order to be licensed, must be in the *immediate* scope of the licenser. The crucial word to keep in mind is *immediate*. For example Linebarger 1987 proposes a condition (*The Immediate Scope Constraint*) according to which no logical element can intervene between the polarity item and the negative operator. If we take the hypothesis that such a locality condition holds in general for polarity item licensing, we have an explanation for the ungrammaticality of 35. In that sentence the clitic is in the immediate scope of the adverb; this intervention creates a minimality effect for the licensing of the clitic by the [+/- human] operator, with the result that the sentence is ruled out¹⁸

18 In a previous stage of my work, I argued that the ungrammaticality of sentences like 35 is due to the fact that a clitic, being a familiar variable (in the sense of Heim 1982), cannot be bound by an A' operator. Haegeman 1994b shows that this kind of explanation is problematic. In fact, there are cases in which a clitic is c-commanded by an adverb. See the following West Flemish example taken from the cited paper:

- i) Misschien ee Marie ze gezien
Perhaps has Marie them seen

The new explanation that I'm offering, is compatible with data like i); note that the operator licensing the clitic could occupy a lower position than the adverb.

A fully satisfactory analysis of i) would require a precise determination of the position of the licenser. I will not go into this problem; I simply observe that the data seem to suggest that the licenser is located in the CP system.

Another observation is in order; in Romance (at least in Italian) a clitic can surface in the immediate scope of an adverb. The problem could be raised of why this is possible. My answer is that the level of application of a condition like *The Immediate Scope Constraint* is parametrized; the assumption that I take is that the level of application is S Structure in Dutch and LF in Italian. This assumption is very plausible on the basis of the observation

To summarize; initially, I argued that Sportiche's account is fundamentally correct. We found a problem but I hope to have accounted for it. As a consequence, from now on I will be assuming the Clitic Criterion as a guide to the exploration of Dutch scrambling.

6. The position of scrambled DPs

Assuming the Clitic Criterion, the position of the scrambled DP is identified as Spec,FP position. The first thing to discuss is the position that FP occupies in the Dutch tree. Secondly we will be confronted with the problem of determining the A or A' status of Spec,FP.

6.1 Where is FP?

In this paragraph I try to identify the position of the scrambled objects in Dutch. Preliminarily, let me point out that research on the clause structure of Western Germanic Languages is very much ongoing. As a consequence, the proposal that I'm going to make is to be considered as a working hypothesis, that further research should evaluate.

As a starting point, let me illustrate the characterization proposed by Haegeman 1994a,b for WF. This Dutch dialect is different in many aspects from Standard Dutch (some of these differences will be discussed later); nevertheless the general picture of the WF clause structure seems *descriptively* tenable for standard Dutch. Three zones must be identified in the Middle Field (i.e. "between the complementizer and the sentence final verb in subordinate clauses").

	<i>zone 1</i>		<i>zone 2</i>		<i>zone 3</i>	
Comp		Adverb		niet		Verb

Zone 1 can host both clitics and specific DPs, zone 2 hosts specific DPs (but not clitics) and finally zone 3 hosts non-specific DPs¹⁹.

that (for unclear reasons) many interface conditions between syntax and semantics hold at S Structure in Western Germanic and at LF in Romance.

19 Interestingly West Flemish and standard Dutch show a difference on this point. The relevant feature in West Flemish is definiteness rather than specificity (see Haegeman cited 1994a,b).

I claim that this is not problematic within the framework that I have been assuming; the Enç's definition reported in 1 strictly relates specificity to definiteness (specificity being a weak form of definiteness). As a consequence, crosslinguistical variation on this point isn't unexpected.

This is descriptively adequate; however, on the basis of what has been argued in paragraph 5.3, I identify zone 1 and zone 2 as being one and the same. In fact, the only distinctive point between them is the capacity of hosting clitics but I argued that, in spite of the appearances, clitics and scrambled DPs are hosted in the same projection FP. As a result, a distinction between zone 1 and zone 2 is no longer necessary.

It seems to me that this reduction of the scrambling zones to a single one is a desirable result on general grounds.

In the current syntactic framework transformations are only triggered by feature checking necessity; assuming the existence of zone 1 means assuming that a clitic must check some feature that a full DP doesn't retain. The identification of such a feature is a hard task; what is more, I don't see any clear candidate. On the other hand, sticking to a Sportiche like framework has the consequence that only one movement must be postulated (the movement of *pro* if the clitic is overt and the overt object scrambling if the clitic is null). For this movement we can identify a trigger; I assumed as a working hypothesis that this trigger is specificity. Even if some more refinements must be introduced by the end of this paper, it should be clear even now that this is a promising perspective.

To state my point in different terms: a well known puzzle raised by clitics is why they are not independent. I think that Germanic clitics and Romance clitics must be analysed differently in this respect. In Romance it's not so difficult to find a trigger for the clitic placement; in fact Romance clitics incorporate into the verb in some step of the derivation, suggesting that the trigger for the clitic movement involves a "property" that the clitic shares with the verb. For example, Belletti 1993 suggests that the clitic incorporation into the verb is a case checking strategy.

Germanic clitics, on the other hand, are not verb related. I take this fact as an indication that the clitic movement simply doesn't occur. Germanic clitics would surface, generally speaking, in their base generation position. Of course, this doesn't mean that they cannot move to a higher head when a proper trigger occurs; simply, this is not something that they have to do (in this regard being different from their Romance counterparts).

After this digression about the advantage that I see in reducing the scrambling zones to a single one, let's try to be more precise about the Dutch Middle Field.

I propose that Dutch verbal projections (that, as I said, are assumed to be verb final) are dominated by the head initial clitic projections whose specifier positions are filled by scrambled DPs. In doing so I assume without motivation that also subjects and indirect object clitics are base generated as heads of their own maximal projections (this is again an aspect of Sportiche's original account). Finally the CP system dominates the clitic projections. Since the scope of this paper is restricted to direct object clitics I will not discuss the properties of subject clitics and indirect object clitics. For completeness, let me simply introduce a last point.

In the Dutch syntax there is a strict ordering constraint the order subject-indirect object-direct object is always preserved in the middle field, regardless of scrambling (the only exceptions are the constructions in which the indirect object is realized as a PP). The same pattern in WF led Haegeman 1993a,b to conclude that a Relation preservation on A-chain must be introduced (note that the strict ordering constraint doesn't apply when a DP undergoes an A' movement such as the rising to Spec,CP in matrix clauses). I don't have anything interesting to say about this property of Dutch syntax, which is, to a large extent, unexplained. In the framework that I have been assuming, this property is represented by saying that the order of the clitic voices is rigidly fixed.

This concludes the notes about the position of the projection FP in the Dutch tree²⁰.

20 A proviso is necessary at this point; my claim is that a distinction between two zones cannot be drawn on the assumption that scrambled DPs can occupy a zone which is banned for clitics. On the other hand, there seems to be a limited set of cases in which a higher zone than the one occupied by clitics and scrambled DPs is activated. To illustrate these cases, a brief introduction is needed. In the Dutch syntax there are two facts that play a central role; the first one is the tendency of specific DPs to scramble. The second fact is the presence of the strict order constraint of subject-indirect object-direct object. One might wonder about those situations in which these two properties of Dutch syntax comes into conflict. The relevant case is the one in which a sentence has a non specific subject and a specific object; the non specific subject usually occupies a lower position than the scrambling area (see section 8 below; the lowest position of the subject is overtly signalled by the presence of the expletive *er* and it is to the right of a sentence adverbial). On the other hand, the specific object usually occupies a position in the scrambling area. As a result, if the subject and the object occupied the positions required by their semantic status a violation of the strict order constraint would obtain. I illustrate this pattern with examples taken from Rullmann 1989 (some of them have been slightly modified): in

i) ...dat er iemand bloemen gekocht heeft
that er someone flowers bought has

both the subject and the object are non specific and occupy a slot in a area lower than the one reserved to scrambled DPs. In

ii) ...dat Peter het huis bekeken heeft
that Peter the house inspected has

both the subject and the object are specific and occupy a slot in the scrambling area. Let's consider the problematic combination of non specific subject \ specific object; in

iii) ?*...dat er iemand Peter geholpen heeft
that er someone Peter helped has

the non specific subject is in the lower area, as required by its semantic status: the sentence is deviant because the specific object DP is trapped in the zone of non specific DPs (however note that sentence iii) slightly improves if the proper name is replaced by a definite description). In

iv) *...dat Peter iemand geholpen heeft

6.2 The status of Spec,FP

Let's now move on to the problem of determining the A or A' status of Spec,FP. I'm going to propose that Spec,FP is a mixed position. I shall briefly discuss this notion of mixed position, referring to Haegeman forthcoming and Rizzi 1991 for a more complete presentation and motivation.

Traditionally A positions are thematic positions while A' positions are defined negatively; they are positions which are not A positions. However, it's not easy to integrate this traditional definition with the VP subject internal hypothesis; Spec,AgroP is not the thematic position of the subject, nevertheless it seems to behave as an A position (in the binding theory, for example). A possible answer to this problem is given by Rizzi 1991 who proposes a revised definition; A positions are thematic positions and specifiers of AGR. The A status of non-thematic positions is determined by the sharing of *phi* features with an agreement head.

A' positions are specifier positions in which an operator feature is checked (cfr. Haegeman 1993b and forthcoming and Rizzi 1991).

It should be noted that, assuming this new definition, one could ideally expect to find positions that have A and A' properties at the same time. We would obtain a relevant case when a specifier position is found with both *phi* and operator features. Indeed, both Haegeman 1993b and Rizzi 1991 have proposed candidates for position with this mixed status.

that Peter someone helped has
(subject=*iemand*, object=*Peter*)

the non specific subject and the specific object occupy the position requested by their semantic feature; the sentence is ungrammatical because of the violation of the strict ordering constraint. Rullmann observes that a non specific bare plural subject can occupy an higher position than the one it usually occupies when the direct object is definite. His example is the following:

v) dat studenten gisteren de universiteit hebben bezet
that students yesterday the university have occupied

Two elements signal that the position of the subject is the highest one: the absence of *er* and the fact that the subject precedes the adverb (a subject in the lower zone cannot precede a sentential adverb). This observation suggests to me that Dutch could have a special device to handle the problematic case where the subject is non specific and the object is specific; this device consists in the activation of a topic area where non specific subjects can be hosted just to avoid a violation of the strict ordering constraint. I tentatively propose that a higher zone than the one occupied by clitics and scrambled DPs can be activated in cases like this. In the same way I tend to analyse sentences like vi) (whose West Flemish counterpart has been signaled to me by Liliane Haegeman):

vi) ..dat (er) gisteren iemand Jan dat boek niet wilde geven
that (er) yesterday someone Jan that book not wanted give

I argue that Spec,FP is another plausible candidate. Let's see why. Intuitively speaking, Spec,FP is an A position because the (possibly covert) clitic head shares agreement features with the (possibly covert) direct object DP; it is an A' position because the DP in the specifier position shares an operator feature (that we are assuming as a working hypothesis to be specificity) with the clitic.

Let's now see if this intuition is confirmed by some standard tests about A\A' movement.

Let's begin with a very common test; a standard argument to show that a movement has A' status, is based on PGs. It's a well known fact that PGs are licensed only in a context where A' movement occurs. Hence, if the movement to Spec,FP is a mixed movement we expect scrambling in Dutch to license parasitic gap. This is what happens, as is well known (see for example Bennis and Hoekstra 1984);

(39) * ...dat Jan zonder ei te bekijken die boeken_i weglegt
that Jan without to inspect those books away-puts

(40) ...dat Jan die boeken_i zonder e_j te bekijken t_i weglegt.

In 40, but *not* in 39, the object is scrambled; if scrambling is A' movement, the pattern shown by 39-40 is expected.

Another standard test to distinguish A' movement is the presence of WCO effects; one could think that movement to Spec,FP, being (also) A', should give rise to WCO effects. This prediction isn't borne out as shown in 41-42;

(41) ...dat Jan de portefeuille niet aan zijn eigenaar teruggegeven heeft
that Jan thewallet not to its owner given has

(42) ...dat Jan het boek niet op zijn plaats gezet heeft
..that Jan the book not to its place put has

In 41 and 42 the object is scrambled to Spec,FP. It seems that an A' movement has moved a constituent across a co-indexed pronoun. Though 41 and 42 are typical WCO environments, the sentences are acceptable.

However this data is not surprising when some observations are advanced. Saying that a movement give rise to WCO effects amounts to saying that it doesn't interact with the binding theory (otherwise the crossing of the coindexed pronoun, far from giving ungrammatical results, could turn out to be a device to establish a correct binding configuration). Now remember that movement to Spec,FP is conceived as A movement (in addition to its A' status); and, of course, an intrinsic property of A movements is the interaction with the binding theory.

We are confronted with an apparent puzzle; movement to Spec,FP seems to have to obey two contradictory requirements, namely interacting and non-interacting with the binding theory.

However, once a natural (and indeed, obvious) observation on WCO tests is introduced, the puzzle dissolves; a lack of WCO effects must be considered as an indication of the presence of A properties in a movement instead of proving the absence of A' properties. Such a modification, in any case, is necessary, on conceptual grounds, once the new definition of A-A' position is introduced. As a result, the data in 41-42 is compatible with the assumption that the movement to Spec,FP is a mixed one.

Summarizing, PGs licensing is an argument for the A' nature of Spec,FP. The absence of WCO effect is an argument for the A nature of Spec,FP.

As for the possibility of reconstruction (another usual test to distinguish between A and A' positions), the movement to Spec,FP, by virtue of the A properties it retains, is expected not to allow it. This prediction is borne out, a well known fact that will play a role in paragraph 7.1 below.

With these considerations we have concluded our investigation into the position of scrambled DPs²¹. We now have all the relevant background information to give an answer to the problem that motivated an apparent digression from the main subject of this paper.

7. Again on negation and scrambling

Remember that our initial working hypothesis was that the semantic trigger for Dutch scrambling is the same trigger for Turkish scrambling, namely specificity as defined in 1.

This speculation was corroborated to a very large extent. We found only one big problem for the hypothesis, namely the acceptability of sentence 28 in paragraph 3.3 above.

It's now time to offer a solution to the problem raised by 28.

7.1 The solution

Plausibly, an explanation for 28 must be an explanation for the pattern shown by all the sentences 23-28, that I repeat for convenience (in fact, we observed that all

21 An additional observation must be devoted to the trace of the direct object scrambling. It is a "mixed" trace as results from the previous discussion. Note in particular that, though it retains variable-like properties (it behaves as a real gap in PG constructions), from the point of view of the binding theory it qualifies as a NP-trace; it's A bound in its governing category (the binding position being, of course, the mixed position Spec,FP).

these sentences pattern alike in the important respect of preserving at LF the superficial order between the negation and the QP):

- (23) Hij heeft veel boeken niet gezien **reading veel\niet**
He has many books not seen
- (24) Hij heeft niet veel boeken gezien **reading niet\veel**
- (25) Hij heeft twee boeken niet gezien **reading twee\niet**
He has two books not seen
- (26) Hij heeft niet twee boeken gezien **reading niet\veel**
- (27) Hij heeft alle boeken niet gezien **reading alle\niet**
He has all books not seen
- (28) Hij heeft niet alle boeken gezien **reading niet\alle**

I proposed a first rough explanation for the isomorphism effect that capitalizes on the fact that non-specific DPs are not assigned a referential index; as a consequence, connection via binding is not a possible option. Let's refine this kind of explanation beginning with the cases of object scrambling (23,25 and 27).

Scrambled DPs are specific by (working) hypothesis. The trace left in the position located below NegP ("the mixed trace") is connected via binding to the head of the chain in Spec,FP, hence no minimality effect is found.

But what happens at LF? Obviously QR can apply moving the QPs to their target scope position. A problem that I put aside in paragraph 4.2 is why reconstruction is not possible in these sentences. After the digression on scrambling status, we have an answer; reconstruction is forbidden by the A properties that the object scrambling retains. Thus, the obligatory isomorphism between S-Structure and LF is explained.

Let's now consider the case in which the object DP doesn't scramble (24,26 and 28). I assume that at LF QR applies to QPs. Note that QR cannot move the QPs to IP (or wherever their target scope position is). In fact, in that case there would be an A' movement (QR itself) that leaves a variable within the scope of the negation; the quantifier and the variable not being connected via binding (non-scrambled objects are not specific), there would be a minimality effect.

The question is, then, what happens in (24,26 and 28). I suggested the possibility of a short QR movement that doesn't change the relative order between the QP and the negation (say, adjunction to VP).

However I said that this option, though not implausible, has the drawback that it cannot be easily integrated into a framework in which QR is landing site selective. In addition, I think that there are arguments suggesting a second kind of analysis.

Liliane Haegeman in her work on negation in WF proposes that *niet* can form a complex operator with a QP; this constituent, like every negative operator, must be licensed in Spec,NegP at S-Structure²².

I propose that in 28 *niet alle boeken* is a complex negative operator of this kind; *alle boeken* is part of a complex negative QP that occupies Spec,NegP and is *not* an unscrambled QP (of course, the same kind of analysis can be proposed for *niet veel boeken* in 24 and for *niet twee boeken* in 26).

In a moment I will offer two pieces of empirical evidence supporting this analysis; observe for now that, if I am on the right track, we have found a solution to the problem raised by 28. In fact, the problem was that *alle boeken* seems to be allowed not to scramble, whereas, being a specific DP, it is expected to scramble obligatorily. But a moment ago I proposed that *alle boeken* in 28 is not a specific DP (moreover, it doesn't form an autonomous constituent either): if I'm right, this means that no violation is found in the proposed characterization of scrambling as triggered by specificity.

Finally, I offer a couple of arguments supporting my proposal. Firstly, consider that a prediction derives from it; between *niet* and the QP that I claim to form a unique negative element, no lexical material is expected (or at least no material that cannot be considered part of the negative operator). In the following I show that this prediction is borne out, at least as far as PPs are concerned:

- (43) ?? dat Jan niet aan Marie alle boeken gegeven heeft
that Jan not to Marie all books given has
- (44) dat Jan alle boeken niet aan Marie gegeven heeft
- (45) dat Jan niet alle boeken aan Marie gegeven heeft
- (46) ?? dat Jan niet aan Marie veel boeken gegeven heeft
that Jan not to Marie many books given has
- (47) dat Jan veel boeken niet aan Marie gegeven heeft
- (48) dat Jan niet veel boeken aan Marie gegeven heeft

43 and 46, where a PP surfaces between *niet* and the QP, are clearly worse than the other sentences.

An additional evidence comes from WF; the counterpart of 28 in this variety of Dutch is acceptable. However, what is more interesting is the additional fact that in

22 I assume that Neg Crit holds at S-Structure in Standard Dutch as it does in West Flemish.

WF there is a test to discriminate negative operators from the other QPs. In fact, object scrambling in general doesn't license PG gaps; on the other hand, PGs are (marginally) licensed by the negative QPs. If *niet alle boeken* is a complex negative operator, a QP of this form should license PGs with the same degree of acceptability that other negative QPs do. Again, the prediction is borne out as shown by the following sentence:

- (49) dan ze nie vee brieven zonder t'overlezen ipgestierd een
..that they not many letters without to over-read sent have

7.2 A comparative look, Turkish again

I claim that my analysis receives independent support when comparative data is taken into consideration (the data in this paragraph are taken from Nilsson 1985).

Since the analysis was initially suggested by Turkish data, it's interesting to look at scrambling in Turkish negative sentences;

- (50) Mehmet bazı kitaplar(*i*) gönderdi (*di*=definite past, *i*=acc)
Mehmet some books sent
+/- specific reading

- (51) Mehmet bazı kitaplar-i göndermedi (*me*=negation)
There were some books that Mehmet didn't send
only some/not reading

- (52) *Mehmet bazı kitaplar göndermedi (*me*=negation)

50 is a typical affirmative sentence where the presence of the accusative morpheme signals the specificity and the scrambling of the DP (remember 10-12). However, in a negative context only the specific object is admitted (see the minimal pair 51-52).

I think that the proposed explanation for Dutch negative sentences can account for the ungrammaticality of 52.

The position of NegP in Turkish isn't precisely predictable from the data given by Nilsson because the negation is expressed by a head that incorporates into the rising verb; however let's assume that (like in Dutch) NegP is located between VP and the position of the scrambled objects.

Let's further assume that in Turkish the strategy that we saw in Dutch negative sentences is not available; a QP in the scope of the negation cannot contribute to form a negative operator (this seems confirmed by the lacking of the **not/some**

reading in 51²³). Let's consider 52: at LF a QR application leaves a trace in a lower position than NegP; since the DP is non-specific, it is not assigned a referential index and no connection via binding is available; as a result, the sentence is ruled out by the intervening negation that blocks the antecedent government relation.

Now, let's take into consideration the grammatical 51: the direct object is specific (as shown by the accusative morphology); a binding connection is available and no minimality effect is found.

I want to stress that if this proposal should happen to be correct, the data discussed by Nilsson could be given exactly the same analysis adopted for Dutch data; which would be a nice result considering the analogies we found between these two languages.

8. *The strange behaviour of Dutch indefinite descriptions*

Maybe, someone is wondering why I didn't give Dutch examples with indefinite descriptions (I use the term *indefinite descriptions* as an informal label to indicate the DPs introduced by the indefinite article). These expressions show a *prima facie* unexpected pattern. Consider the following:

(53) ? Hij heeft een boek waarschijnlijk niet gezien

He has a book probably not seen

(54) ? Hij heeft waarschijnlijk een boek niet gezien

(55) ? Hij heeft waarschijnlijk niet een boek gezien

These sentences are acceptable if *een* is stressed, but in that case it is the numeral "one" rather than a real indefinite article; otherwise they are quite marginal.

Note that Dutch has a negative operator *geen*;

(56) Hij heeft waarschijnlijk geen boek gezien

he has probably no book seen

The ungrammaticality of 55 is not very surprising given the presence of the alternative in 56; as suggested by Luigi Rizzi (p.c.), an indefinite description in Dutch might be a positive polarity item.

23 We considered a second possibility, namely a short QR application that doesn't change the relative order between the QP and the negation. This Turkish data seems to indicate that the second possibility either is not admitted.

On the other hand, the pattern in 53-54 is quite mysterious; an indefinite description cannot scramble. In the framework that I have been assuming, this amounts to saying that indefinite descriptions cannot be specific. Is this plausible?

Reuland 1988 notes a related problem with the indefinite article in Dutch. The point is that Dutch has another “specificity test”. Consider an intransitive sentence²⁴; the relevant generalization seems to be that an indefinite subject can appear in the standard subject position only if it is assigned specific reading. If the subject is non-specific it occupies a lower position and the expletive *er* surfaces in the standard subject position. I illustrate the pattern with the following examples taken from Reuland:

(57) *Fred denkt dat er de koe in de tuin is
Fred thinks that there the cow in the garden is

(58) Fred denkt dat de koe in de tuin is

(59) Fred denkt dat er koeien in de tuin zijn
Fred thinks that there cows in the garden are

(60) *Fred denkt dat koeien in de tuin zijn

(61) Fred denkt dat er twee koeien in de tuin zijn
Fred thinks that there two cows in the garden are
non-specific reading

(62) Fred denkt dat twee koeien in de tuin zijn
specific reading

A definite description is unambiguously specific; it can only appear in standard subject position (cfr.57-58). In the context given in 60, bare plurals can only have a non-specific reading; this is why the bare plural cannot surface in standard subject position. As for 61-62, an indefinite expression as “two cows” is ambiguous and it’s allowed to appear in both positions.

Note now the following sentences with an indefinite description:

(63) Fred denkt dat er een koe in de tuin is
Fred thinks that there a cow in the garden is
non-specific reading

24 When the sentence has a definite object the restriction we are talking about is considerably weakened. See Reuland 1988 and Rullmann 1989 for discussion.

(64) *Fred denkt dat een koe in de tuin is

Reuland comments on the data in 63-64 by saying that indefinite descriptions in Dutch are not assigned a specific reading. One point should be clear: an independent “specificity test” identifies indefinite descriptions in Dutch as expressions that admit only the non-specific reading.

As a consequence, the pattern in 53-54, far from being a problem for our hypothesis that links scrambling and specificity, turns out to be a strong confirmation.

9. Dutch scrambling; a recapitulation

It’s time to summarize what we discovered about Dutch scrambling. We made a preliminary proposal based on the analogy with Turkish scrambling. We tested this hypothesis using adverbs as a touchstone; this test gave some confirmation but I said that adverbs are not completely reliable since they don’t occupy a fixed position.

The next step was to analyse scrambling in negative sentences. We found our preliminary proposal confirmed to a very large extent. As far as I can see, only two kind of DPs are *prima facie* problematic, namely QPs introduced by strong determiners like *alle* and indefinite descriptions. For both of them I claim that in spite of appearances they conform to the proposed analysis, when independent factors are taken into consideration.

Hence, I’m now in the position to argue that object scrambling in Dutch is semantically driven; more precisely that it is triggered by specificity.

There is a point that I want to underline: it has been sometimes argued that subtleties of interpretation like the distinction specific/non-specific can be brought about in ways that lie outside the proper grammar (cf. Zwart 1993). My remark is that this kind of position is tenable insofar as the “subtleties of interpretation”, don’t have a role in determining the truth conditions of a sentence (otherwise, the “proper grammar” is not given the tools to deal with important aspects of the logical form of the sentence, like the scope properties). But, we have seen a case (the isomorphism effect in negative sentences) that, to be explained, requires a machinery in which the notion of specificity plays a central role. This is why I think that a satisfactory account of scrambling must be able to deal with its semantic properties.

10. Parasitic gaps in West Flemish

Generally speaking, direct object scrambling in WF doesn’t license PGs. See the following minimal pair:

STANDARD DUTCH

- (65) dat ik deze boeken zonder in te kijken aan Jan doorverkoop
that I these books without in to look to Jan sold

WEST FLEMISH

- (66) *dan-k ik dienen brief zonder te overlezen ipgestierd een
that I that letter without to reread sent have

There are two partial exceptions to this paradigm, namely negative QPs and clitics. This pattern, in addition to the strict ordering constraint subject-indirect object-direct object (which is found only with A movement and *not* with uncontroversial A' movement, like movement to Spec,CP), suggests that scrambling in WF is A movement. Still, this solution is not completely satisfactory. the semantic characterization for scrambling that we saw in Dutch holds for WF if we replace definiteness for specificity (a non problematic move since the definition in 1 strictly relates the two concepts). This property of scrambling is unaccounted for in an explanation that states that scrambling is A movement. What is more, it's not very plausible to say that scrambling in Standard Dutch is a mixed movement whereas WF scrambling retains exclusively A properties. To avoid these shortcomings, I'll propose that scrambling in WF is also a mixed movement. I hope to show that failure in PG licensing is due to independent reasons rather than to the absence of A' properties in scrambling. In my explanation the scrambling pattern of WF turns out to be related to Romance clitics. Therefore, let's start with them.

10.1 Romance clitics and PGs

Clitics in Romance languages don't license PGs whereas clitics in Germanic languages do; see for example

- (67) *L'ho cercato per mesi senza trovare **Italian**
him (I) have searched for months without finding
- (68) dat het zonder in te kijken doorverkoop **Dutch**
that it without in to look sold

In my analysis this difference will be related to the most evident distinction between Romance and Germanic clitics; namely the "verb-relatedness". Loosely speaking, Romance clitics must incorporate into the verb at some point of the derivation; but the same doesn't hold in the case of Germanic clitics.

Firstly, I should like to point out that, in a Sportiche like framework like the one I've been assuming, a clitic is associated with an A' movement (the mixed movement

of *pro* to Spec,FP); this means that the unexpected behaviour for us is in 67, and *not* in 68.

Secondly, I want to introduce an assumption that plays a crucial role in my explanation: I will follow a suggestion of Belletti 1993 who argues that the incorporation of the clitic into the verb is motivated by case checking necessity. As a result, the accusative case is checked by the clitic head and no case is checked in the chain of *pro*. Since the real gap is the trace of *pro*, we can conclude that it is in a position in which no case is checked. The parasitic gap on the other hand is case marked by the infinitival verb *trovare*. The consequence is that in 67 there is a mismatch between real gap and parasitic gap; I attribute the failure in PGs licensing to this mismatch rather than to the absence of an A' movement.

On the other hand in 68 no case checking via incorporation is possible since there is no incorporation. The case will be checked by the foot of the chain of *pro*; I assume that *pro* transfers the case to the overt clitic via spec/head agreement in FP. However, what is central for the argument is that the trace of *pro*, (the real gap), is case marked in 68. No mismatch between real gap and parasitic gap results; the parasitic gap is licensed²⁵.

10.2 DP scrambling and PGs

Is it possible to adopt an explanation along the same line for the failure in PGs licensing in WF? First reaction might be negative. As I said, clitics in Germanic languages are not “verb related”; the case checking strategy of Italian clitics (incorporation into the verb) is not available.

Nevertheless, there is a peculiar property of WF, that encourages us towards this direction of research. I'm referring to the well known fact that in WF (but not in Dutch) the complementizer in C° is inflected for person and number (cfr. Haggegan 1992). Let's take the assumption that the verb rises to C° at LF to check the agreement features of the complementizer.

I further assume that in its rising from the highest verbal projection (say AgrS°) to C° the verb proceeds step by step to obey HMC. Reconsider 66; at LF the first step

25 Zwart 1992 is confronted with the very same problem: “the question arises why Dutch clitics...license parasitic gaps, while French clitics do not”. According to me, however, his solution has a serious drawback. He suggests that “in Dutch, but not in French, the empty NP associated with the Clitic Phrase moves to Spec,AgrO in overt syntax, licensing the parasitic gaps from there”. The problem is that we have evidence that the movement of *pro* is syntactical in French (and Italian); I'm referring to the object agreement on the past participle in sentences like

i) Li ho visti
 Them (PLUR,MASC) (I) have seen (PLUR, MASC)

of the (inflectional head containing the) verb is from Agrs° to F° (see paragraph 6.1 for discussion about the position of FP). This passage of the verb through F° is a process of accusative case checking; the (null) clitic gets the case from the verb and transfers it to the overt object DP via spechead agreement.

The verb further moves to reach C°; the relevant point for us, however, is that the accusative case in 66 is checked at LF in FP. The trace of the scrambled object *dienen brief* (the real gap) is not assigned a case²⁶; there is a mismatch between the parasitic gap (which is case marked) and the real gap. In spite of the presence of a movement with A' properties, PGs are not licensed.

On the other hand, in Standard Dutch PGs are licensed (cfr. 65); this is explained by saying that the verb doesn't rise to C° (as signaled by the fact that the complementizer doesn't show any agreement feature). The accusative case must be checked by the trace of *pro* (the real gap); no mismatch is found.

This is my proposal of explanation. In the next paragraph I argue that it receives confirmation by the pattern of WF clitics.

10.3 West Flemish clitics and Pgs

Clitics in WF are free to appear in many possible positions²⁷. When they appear in some of these positions PGs are (marginally) licensed. For example the following sentence, though non perfect, is much better than sentences where there is an occurrence of scrambling of a full DP:

- (69) ? da Valere ze zunder te lezen ipgestierd eet
that Valere them without to read sent has

I will test the explanatory power of the analysis proposed in the previous paragraph comparing it with the highly complex pattern introduced by the contemporary presence of direct object and indirect object clitics. In 70-75 all the clitics occupy a legitimate position:

- (70) da Valere t ze ipgestierd eet
that Valere it her sent has

- (71) da Valere ze t ipgestierd eet

26 I've been tacitly making two assumptions; firstly, that S-Structure is an informal label to indicate the moment of spell-out. Case filter is not defined as an S-Structure condition. Secondly in the case of different options of case checking a procrastinate principle is operating. If the accusative case can be checked within VP, or AgroP, and in FP as well, it will be checked in FP (which is, as late as possible).

27 For a detailed presentation of the clitics pattern in WF, see Haegeman 1994a.

(72) da t Valere ze ipgestierd eet

(73) da ze Valere t ipgestierd eet

(74) da t ze Valere ipgestierd eet

(75) da ze t Valere ipgestierd eet

Let's see which of these positions allow the clitic to license the PG;

(76) ? da Valere t ze zunder te lezen ipgestierd eet
that Valere it her without to read sent has

(77) ? da Valere ze t zunder te lezen ipgestierd eet

(78) ? da t Valere ze zunder te lezen ipgestierd eet

(79) *da ze Valere t zunder te lezen ipgestierd eet

(80) ? da t ze Valere zunder te lezen ipgestierd eet

(81) ? da ze t Valere zunder te lezen ipgestierd eet

The result is that PGs are licensed in all the sentences apart from 79. What distinguishes 79 from the other sentences? Just for a moment, let's put 78 aside: the distinctive feature of sentence 79 is that the clitics do not form a cluster. This suggests a descriptive generalization according to which a PG is licensed by a clitic when it does form a cluster with some other clitic.

I claim that this generalization is accommodated within the explanation that I offered. Remember that I said that PGs are not licensed when the case is checked by the clitic rather than by the trace of *pro* (the real gap); now, we can say that the verb rising to C° is not allowed to check the case of a clitic if it is part of a cluster. This seems intuitively correct: if a verb checked the case of a direct object clitic in a cluster, it would take the risk to assign (check) the accusative case to the other clitics in the cluster. If what I say is true, the accusative case in 76-77 and 80-81 must be checked by the foot of the chain of *pro*. The real gap is case marked, no mismatch arises and the parasitic gap is licensed. On the other hand, in 79 where the clitic is not in a cluster, the rising verb passing through F° checks the accusative case and the real gap is not case marked.

So far, so good; the problem of 78 remains open where, though the clitic seems not to be in a cluster, the PG is licensed.

10.4 Head movement constraint and clitics

To give an answer to the problem raised by 78, we have to consider the complex pattern discussed by Haegeman 1994a. She shows that WF clitics obey the Head Movement Constraint. I will briefly summarize the main point in her discussion, referring to the paper for a rich and detailed presentation. The relevant examples are those involving a causative verb which selects a non finite ditransitive complement:

- (82) da Valere Jan Marie t_{geld} doen geven eet
that Valere Jan Marie the money make give has

(*Valere*= subject of the matrix clause, *Jan*= subject of the subordinate clause, *Marie*= indirect object, *t_{geld}*= direct object)

Since the ordering constraint is rigidly fixed (namely, matrix SU - subordinate SU - IO - DO) four functional projections with this order are introduced whose specifiers host the DP arguments (the head of these projections are the clitic, when overtly expressed). Let's consider the cliticization of both the direct and the indirect object. Let's restrict our attention to split clitics (*ze* is the IO clitic whereas *t* is the DO clitic)

- (83) ? da Valere ze Jan t doen geven eet
that Valere her Jan it make give has
that Valere made Jan give it to her

- (84) ? da ze Valere Jan t doen geven eet

- (85) *da t Valere ze Jan doen geven eet

- (86) *da ze Valere t Jan doen geven eet

Haegeman claims that clustering is more natural than splitting. This explains the question marks in the above examples. However 85-86 are more markedly ungrammatical. The explanation of this pattern capitalizes on HMC; assuming that the excorporation of the clitic is ungrammatical, it is argued that in 83-84 the object clitic remain in its base generation position (in the lowest of the four maximal projections). In no step of the derivation do the clitics form a cluster. On the other hand, in 85-86 the direct object clitic has moved from the lowest projection (as shown by the fact that it precedes the subordinate subject). Consider 85, for example; the only derivation is the one in which the DO clitic skips the IO clitic. Of course, this lead to a violation of HMC (whence the ungrammaticality).

Haegeman succeed in reducing the pattern of WF clitics to HMC.

However there is a further assumption that she has to take in order to gain this result (and this is the crucial point for our discussion). See the following sentence:

(87) ? da Valere t Jan ze doen geven eet

(88) ? da t Valere Jan ze doen geven eet

Though the direct object clitic has apparently skipped the IO clitic, 87-88 are markedly better than 85-86. Since no HMC is found, there is only one way out; *ze* has a full DP status rather than a clitic status. It occupies the specifier position rather than the head position of the IO maximal projection (note that this way out was not possible in 85-86: in fact, the position of *ze* in those sentences is higher than the position of the subordinate subject *Jan*, a fact that indicates a movement of *ze* as a head).

Finally, we can reconsider example 78, our potential counterexample to the generalization according to which a clitic licenses a PG only if it does form a cluster with some other clitic. Now, we can get for free the assumption that 78 admits a derivation in which *ze is* a full DP rather than a clitic; in fact, the postulation of such an ambiguity of *ze is* independently requested by 87-88.

This has a further consequence in a Sportiche-like framework; the basic idea of Sportiche is that a specific DP is always doubled by a clitic (which can be null when the DP is overt). This means that the full DP *ze* can be doubled by a null clitic. Sticking to HMC, we can conclude that the overt clitic *t* must form a cluster with the null IO clitic.

Hence even 78, in spite of appearances, admits a derivation in which the DO and the IO clitics form a cluster. The proposed generalization is not violated.

This is the conclusion of our investigation of WF. To summarize, I claim that the hypothesis of considering WF scrambling a mixed movement, on a par with the proposed analysis of Dutch scrambling is, at least, promising. In particular, I have argued that the highly complex pattern of PGs licensing depends on the property of the real gap being (or not being) case marked rather than on the absence of A' properties in scrambling.

11. Conclusion

In this paper, I hope to have shown that Dutch scrambling is semantically driven, specificity being a relevant trigger.

However, this is only a part of the story: an additional piece of evidence is the well known fact that generic objects also scramble in Dutch.

Take bare plurals: they can never be specific but, nevertheless, they can scramble when an adverb of quantification occurs in the sentence. The following example is from De Hoop;

- (89) dat de politie taalkundigen altijd opgepakt heeft
that the police linguists always arrested has
that the police always arrested linguists

Within the framework that I've been assuming, this means that the the property [+F] which is checked in FP, is more correctly identified as a cluster of properties that includes at least genericity and specificity²⁸. Of course the problem remains open of determining what specific and generic DPs share which lead them to occupy the same target position. An answer to this question requires an investigation into the semantics of specificity and genericity. Though such an investigation is clearly out of the scope of this paper, a couple of preliminary observations can be advanced. A possible approach to the problem is the one argued out in Diesing 1992; her idea is that generic and specific DPs scramble to escape from the scope of the existential quantifier that binds the material which is VP internal.

An alternative option is the following; specific and generic DPs share the property of picking up previously established discourse referents (as determined in definition 1). What is different, is the fact that generics occur in a modal context (it's a pretty standard assumption that the adverb of quantification can be either overt or null, but it must always be present); this has the consequence that in the different possible worlds the entities picked up by generics split.

A last point regards the semantics of scrambling as being related to the semantics of clitic doubling: one of the facts that leads Sportiche to propose a unitary account is that both the phenomena display a specificity requirement. In Cecchetto 1994a,b I proposed an analysis of CLLD in Italian based on the Clitic Criterion hypothesis; I also argued that specificity plays an important role in CLLD. A point that I leave for future research is to what extent the semantics of scrambling, clitic doubling and CLLD can be assimilated.

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²⁸ Obviously, another possibility is conceivable: the position of generics is not the same as the position of specific DPs. One should invent a functional projection in the area of FP, whose specifier position hosts generics. However, I don't see any evidence to indicate that this solution is correct.

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