

# Transitive Expletive Constructions and the Evidence Supporting the Multiple Specifier Hypothesis.

Jan-Wouter Zwart

Contribution to "Problemsyntax Deutsch"

## Abstract

*This paper presents a critical discussion of the hypothesis, entertained in Chomsky (1995), that heads (in phrase structure theory) may have multiple specifiers. It is argued that the conceptual considerations leading to rejection of the multiple specifier hypothesis in earlier stages of generative grammar apply with equal force to the minimalist program of Chomsky (1995). It is also argued that the empirical evidence supporting the multiple specifier hypothesis is crucially based on the "Minimal Link Condition", which may not be operative in the relevant empirical domain. The issue is relevant for the theory of phrase structure, in particular with respect to the structure of the functional domain, and to the question of the proper analysis of transitive expletive constructions in German and related languages.*

## 0. Introduction

Transitive expletive constructions are constructions featuring an expletive subject (German *es*, Dutch *er*, Icelandic *það*) and a transitive verb. Consider the following examples from German (Werner Abraham, pc):

- (1) a.    Es    haben        gestern    viele Menschen    pudding  
         there have-PL   yesterday   many people       pudding  
  
         gegessen  
         eaten

"Many people ate pudding yesterday."

- b.    Es    bauen        viele Isländer    Häuser        in Torshavn  
         there build-PL   many Icelanders   houses        in Torshavn

"Many Icelanders build houses in Torshavn."

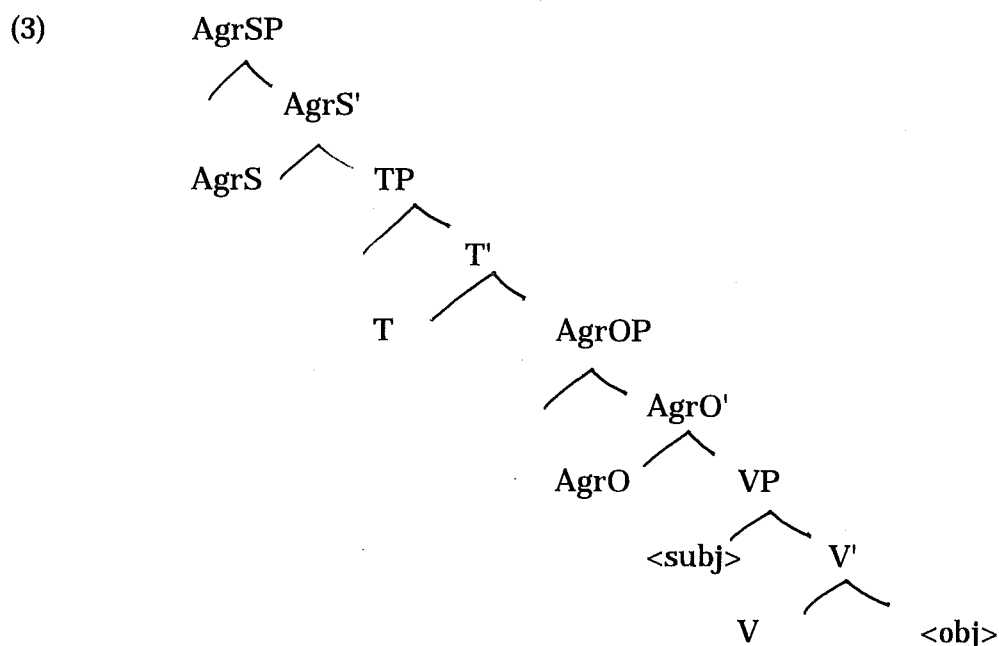
Transitive expletive constructions are not found in English:

- (2) a. \*There ate many people pudding yesterday.  
 b. \*There build many Icelanders houses in Torshavn.

Chomsky (1995:342) proposes to describe transitive expletive constructions as a subclass of *multiple subject constructions*.

Two questions then arise. First, how are multiple subject constructions to be described (in terms of a restrictive framework like the minimalist program of Chomsky 1993, 1995), and second, how should we describe the difference between German, which allows transitive expletive constructions, and English, which does not.

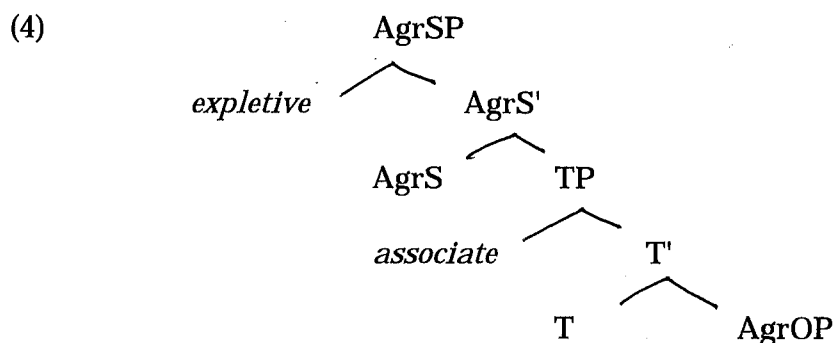
Chomsky (1991:434) proposes the structure of the clause in (3) (slightly adapted here):



In (3), the subject and the object (the external and internal argument of the verb) are generated inside VP, and licensed in the functional domain of VP, consisting of (at least) AgrOP, TP, and AgrSP.

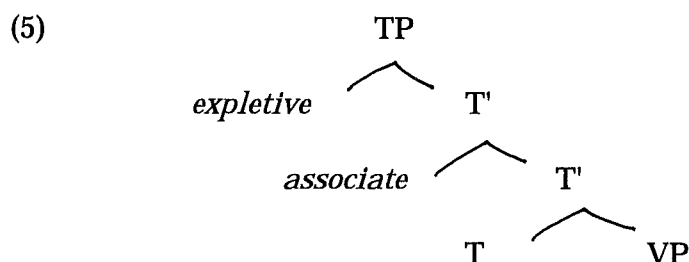
The specifier position of AgrOP is a formal licensing position of the object. Its existence is motivated by phenomena of leftward movement of the object in many languages (cf. Mahajan 1990, Vanden Wyngaerd 1989). The subject has two licensing positions, the specifier positions of TP and AgrSP. The subject enters into a Case checking (or assignment) relation with T, the head hosting the tense features of the clause. The specifier position of AgrSP is again a purely formal licensing position, comparable to the specifier position of AgrOP for the object. AgrS and the subject carry agreement features ( $\phi$ -features) relevant to subject-verb agreement, which are checked off when the subject moves to the specifier position of AgrSP.

Employing the structure in (3), Jonas (1992, 1995) and Zwart (1992) propose that the "multiple subjects" in transitive expletive constructions (i.e., the expletive and the logical subject, called the *associate*) each occupy one of the two licensing positions reserved for subjects, Spec,AgrSP and Spec,TP:



This analysis is more or less immediately suggested by the framework adopted, incorporating the structure in (3) with its two subject licensing positions.

Chomsky (1995:354) proposes a different analysis, based on different assumptions with respect to the structure of the functional domain. Arguing that AgrSP and AgrOP can (and must) be dispensed with, Chomsky proposes that the expletive and associate occupy *multiple specifier positions* inside TP:



This proposal departs from an assumption that has been implicit in much recent work on phrase structure theory, namely that the number of specifier positions associated with each head should be limited to zero or one (cf. Chomsky 1986:3). Addressing this implicit assumption, Chomsky (1995:245) asserts that "[i]n principle, there might be a series of specifiers, a possibility with many consequences." (See also Chomsky 1995:285.)

The "many consequences" involve precisely the elimination of the Agreement Phrases (Chomsky 1995:349-355).

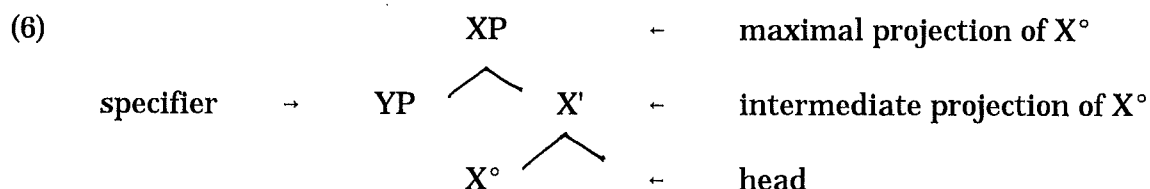
In this paper—preliminary to a discussion of the proper analysis of transitive expletive constructions—I will discuss the empirical and conceptual motivation for the multiple specifier hypothesis of Chomsky (1995). For the conceptual motivation, my starting point is the discussion in Chomsky (1995, esp. pp. 349-355). Chomsky (1995:386) refers to Ura (1994) and Koizumi (1994), among others, for empirical motivation of the multiple specifier hypothesis. I will restrict the discussion to Ura (1994) here.

The discussion leads to the conclusion that the multiple specifier hypothesis is not well motivated, neither conceptually, nor empirically. Inasmuch as conceptual arguments appear to favor a single complement hypothesis, this suggests that the proper analysis of transitive expletive constructions involves multiple heads, as in (4), rather than multiple specifiers, as in (5).

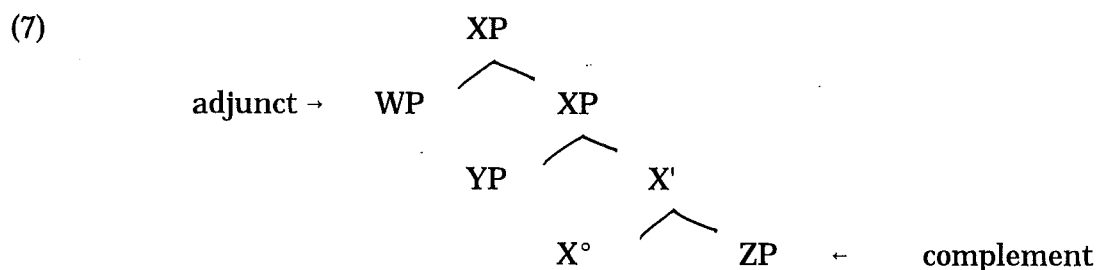
## 1. Specifiers.

### 1.1 Definition.

In the X-bar theory of generative grammar, a *specifier* is a phrase immediately dominated by a maximal projection of a head (Chomsky 1972:52, Jackendoff 1977:17):



A specifier can also be defined as the sister of the intermediate projection of a head ( $X'$  in (6)). Other phrase types that occur in the X-bar theory are complements (defined as the sister of a head) and adjuncts (defined as the sister of a maximal projection of a head):



### 1.2 The Single Specifier Hypothesis.

In the Government and Binding framework of generative grammar (Chomsky 1981, 1986) the phrase structures in (6) and (7) are generated by context free rewrite rules. The definition of *specifier* as immediate daughter of XP and sister of  $X'$  is given by the rewrite rule in (8) (cf. Chomsky 1986:3):

$$(8) \quad XP \rightarrow (YP) X'$$

A similar rewrite rule introduces the head and its complement (Chomsky in his formulation of the rewrite rules does not limit the number of specifiers and complements introduced by them, but suggests that probably the number should be limited to zero or one, following Kayne 1984):

$$(9) \quad X' \rightarrow X^{\circ} (ZP)$$

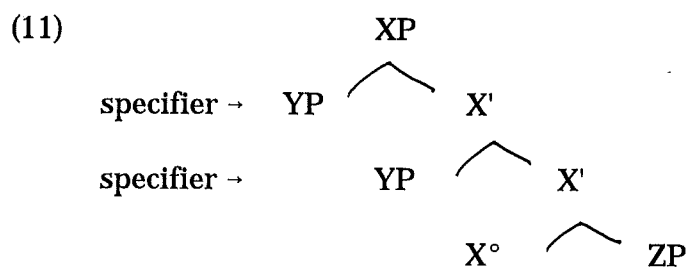
The particular formulation of the rewrite rules in (8)-(9) entails that each phrase can have at most one specifier. The rewrite rules generate binary branching structures, so that  $X'$  can have at most one sister. Furthermore,  $X'$  itself is immediately rewritten as  $[X^{\circ} (ZP)]$ , not as  $[(YP) X']$  (introducing a second intermediate projection, and a second specifier).

### 1.3 The Multiple Specifier Hypothesis

In the more recent minimalist framework of generative grammar (Chomsky 1993, 1995), phrase structures are not generated by context free rewrite rules, but by the operation *Merge*, which combines two elements as sisters, one of which projects:

$$(10) \quad \begin{array}{llll} \text{a.} & X^{\circ} & + & ZP = X' \text{ or } XP \\ \text{b.} & X' & + & YP = X' \text{ or } XP \end{array}$$

The labels  $X'$  and  $XP$  in (10) are determined *contextually*.  $X'$  is the label for a projection of  $X^{\circ}$  which projects, i.e. which has a projection of  $X^{\circ}$  on top of it,  $XP$  is the label for a projection of  $X^{\circ}$  which does not project, i.e. which has no projection of  $X^{\circ}$  on top of it. As noted by Chomsky (1995:245) and others (e.g. Koizumi 1994:256), this does not exclude a structure like (11), in which two (or more) intermediate projections exist, and, hence, two (or more) specifiers:



### 1.4 Single vs. Multiple Specifiers.

Chomsky (1995) argues that if structures like (11), involving *multiple specifiers*, can be assumed, a number of functional projections (mainly the *Agreement Phrases* of Chomsky 1991) can be dispensed with.

(12) Er heeft iemand een huis gekocht  
there has someone a house bought  
"Someone bought a house."

(13)

VP  
/  
*iemand* V'  
/  
*kocht een huis*

The logical subject and object must be formally licensed ('assigned Case') in positions distinct from the positions in which they are generated. For this reason, they move to the left, yielding, after introduction of the expletive, the sequence *er-ienand-een huis* in (12). The question is, which positions exactly do the expletive, the subject, and the object occupy?

Chomsky assumes that the subject is formally licensed by *Tense* (T), a functional head merged with the structure at some point, whereas the object is formally licensed by the verb. To receive formal licensing by a head X, a phrase Y must be in the checking domain of X. For present purposes, we may state that Y is in the checking domain of X if it is a specifier of X (i.e., X and Y are in a *specifier-head configuration*).

(14) [ expletive [ subject T [ object [ <subject> V [ <object> ]]]]]

6

of the object and the base position of the subject, which mediates between the object and V:

- (15)  $[_{AgrOP} \text{ object AgrO } [_{VP} \langle \text{subject} \rangle V \dots ]]$

The required specifier-head configuration between the object and V is then established by moving V to AgrO. Likewise, there must be an additional functional head (*AgrS*) between the expletive and the derived position of the subject, which mediates between the expletive and T:

- (16)  $[_{AgrSP} \text{ expletive AgrS } [_{TP} \text{ subject T } [ \dots ]]]$

Thus, the single specifier hypothesis forces us to assume additional functional heads.

In contrast, the multiple specifier hypothesis can accommodate the expletive and the subject in (14) as multiple specifiers of T, and the object and the base position of the subject as multiple specifiers of V (Chomsky 1995:349-355):

- (17)  $[_{TP} \text{ expletive } [_{T'} \text{ subject T } [_{VP} \text{ object } [_{V'} \langle \text{subject} \rangle V \langle \text{object} \rangle ]]]]$

## 2. Conceptual Motivation of the Multiple Specifier Hypothesis.

### 2.1 "In principle"

As noted above, nothing in the phrase structure theory of the minimalist framework as discussed in Chomsky (1995) excludes multiple specifiers in principle (cf. Chomsky 1995:245, 285, 340; Koizumi 1994:256; cf. also Ura 1994: 44 and Zwart 1997:180; for early discussion of the same issue, see Hoekstra 1991: 32f).

It should be noted here that in the earlier Government and Binding framework multiple specifiers are not excluded by any principled property of X-bar theory either (cf. Chomsky 1986:3). They are excluded by the (essentially stipulative) design of the rewrite rules. Nothing "in principle" precludes a reformulation of the rewrite rules to the effect that multiple specifiers become a possibility.

The reason that this was generally not done in the Government and Binding framework must have been that more general conceptual considerations do not allow for the rewrite rules to be relaxed to that effect. What are these considerations? And, if we can identify them, do they not "in principle" also exclude multiple specifiers in the minimalist framework?

### 2.2 Conceptual desiderata

The considerations steering researchers in the Government and Binding framework away from a multiple specifier phrase structure are generally not explicitly discussed. But I believe we can safely assume the following two conceptual desiderata to have been relevant:

- (18) a. Structure is unambiguous.
- b. Licensing relations are one-to-one.

Explicit discussion of (18a) is found in Hale and Keyser (1993:66f), building on Kayne (1984) and Larson (1988). This line of thought culminates in Kayne's (1994) *Linear Correspondence Axiom*.

(18b) is the central thesis of Hoekstra (1991), and is crucially assumed in the minimalist interaction of feature checking and feature elimination, yielding the principle of Greed, in Chomsky (1993).

### 2.3 Unambiguous Structure

Hale and Keyser (1993:65) discuss the conceptual basis of certain fundamental aspects of the theory of argument structure. This discussion leads to the question of why the number of thematic roles is limited, and why there is a fixed correspondence between thematic roles and syntactic positions (the Uniformity of Theta Assignment Hypothesis or UTAH of Baker 1988:46).

Hale and Keyser (1993:66) suggest that these questions "find their answer in the fundamental nature of syntactic projections" requiring that "each lexical head X determines an unambiguous projection of its category—to a phrasal level, XP—and an unambiguous arrangement of its arguments, as specifier and complement." They then proceed (p. 67):

We will speculate further that the unambiguous structure requirement will yield an additional limitation on the projection of categories to types: to wit, the requirement that "intermediate" types (X') be restricted to just one for any given projection. (..) The limitation on types follows, we wager, from the assumption that multiple "intermediate" types would be linguistically (though perhaps not notationally) indistinct.

Thus, Hale and Keyser interpret the unambiguous structure requirement explicitly as one that prohibits multiple intermediate projections (hence, multiple specifiers—note that the unambiguous structure requirement also derives binary branching, Hale and Keyser 1993:67).

There is an obvious connection between this single specifier hypothesis and Larson's (1988) single complement hypothesis. The single complement hypothesis (binary branching) is incorporated in the minimalist framework. Binary branching is an immediate consequence of the way the operation Merge is defined, which



combines two elements (no more and no less; cf. Epstein 1995). However, we must ask if there is a principled reason for Merge to be defined in such a way that it yields binary branching structure (cf. Chomsky 1993:23). A principle like Hale and Keyser's (18a) provides this principled reason.

If so, the unambiguous structure requirement remains one of the fundamental principles of the minimalist framework. As we have seen in the quote above, the most straightforward interpretation of the unambiguous structure requirement seems to rule multiple specifiers out. It is not so clear, then, that in the minimalist framework, multiple specifiers are allowed "in principle".

We could say that Chomsky, Koizumi, and Ura (loc.cit.) address the question of whether multiple specifiers are allowed at the technical level, whereas they should be addressing it at the conceptual level.

## 2.4 Uniqueness of Licensing.

### 2.4.1 TULIP

Hoekstra (1991:2) proposes a bi-uniqueness requirement on licensing relations:

- (19) *The Uniqueness of Licensing Principle (TULIP)*  
Licensing relations are one-to-one relations.

TULIP can be viewed as the unambiguous structure requirement, transferred to the domain of licensing relations. It is the outcome of a decade of research in which it has become increasingly clear that licensing relations are bi-unique.

I will not discuss the obvious examples (such as antecedent-trace relations) in any detail. The analysis of parasitic gaps of Chomsky (1986:54), however, can be mentioned here as an instructive example. In parasitic gap constructions illustrated in (20), two variables ([e]) appear to be linked to a single operator (*which books*), violating uniqueness of licensing:

- (20) [Which books]<sub>i</sub> did you file [e]<sub>i</sub> without reading [e]<sub>i</sub>

But Chomsky (1986) shows that the variable contained in the adjunct clause is actually bound by a separate empty operator:

- (21) [Which books]<sub>i</sub> did you file [e]<sub>i</sub> [ OP<sub>j</sub> without reading [e]<sub>j</sub> ]

The empty operator in (21) restores uniqueness of licensing in parasitic gap constructions, underlining the significance of the "unambiguous licensing" requirement (18b).

### 2.4.2 Checking Theory

In the minimalist framework, *TULIP* (19) is to a large extent derived from the assumptions made with respect to feature checking. Formal licensing of a phrase Y by a head X is achieved by an operation that matches the features of X and Y in a local domain (the *checking domain*). As mentioned above, it suffices for our purposes to define the checking domain of X as the specifier position of X. The important part is that features, once checked, disappear (Chomsky 1993:30). This makes it impossible for X or Y to be in the same licensing relation with any third element Z (the importance of this is that it blocks further movement of a licensed element, except for meeting additional licensing requirements). Thus, principle (19) appears to be "automatic, and within the minimalist program" (cf. Chomsky 1993:30).

In Chomsky (1995:279f), the mechanism of feature checking is modified, without, however, significantly affecting uniqueness of licensing. Checking now does not imply that the relevant features necessarily disappear. Some features of phrases, those that are interpretable at LF, are never eliminated. Chomsky (1995:278) mentions categorial features and  $\phi$ -features of nouns as examples. Other features are still eliminated immediately after checking. Crucially, features of heads are in the latter category. A head, therefore, can instantiate a given licensing relation R only once. Thus, uniqueness of licensing is restricted to heads.

(I will note at this point that Chomsky (1995:286, 354) proposes that languages may have "a parametrized property" to the effect that the feature of a head can be retained after feature checking, so that a head can enter into the same licensing relation twice. We will discuss this possibility below, noting here that it is not clear that this is what the minimalist framework "in principle" allows, or rather an ad hoc departure from the ideal case.)

I will not here discuss the relaxation of uniqueness of licensing that Chomsky's (1995) modification of checking theory brings with it. This particular part is irrelevant for the question of whether multiple specifiers are "in principle" allowed. Here is the upshot: If a head can instantiate a given licensing relation only once, then multiple specifiers are only allowed insofar as a head enters into multiple licensing relations (cf. Hoekstra 1991:32, Ura 1994:44).

The question then arises whether it ever occurs that a head enters into two licensing relations with two *different* elements, so that two specifiers are required to be present.

### 2.4.3 Multiple licensing by a head?

If we want to ascertain whether a head enters into two licensing relations with different elements, it appears that there are two cases to consider.

First, a head Y, that needs to license a phrase L, moves and adjoins to a head X, which needs to license a phrase M, where  $L \neq M$  (cf. Ura 1994:43). Then we may conjecture that Y needs to license L in a derived position, the specifier position of

X (cf. Chomsky 1993:13). Assuming that X inherits the licensing requirements of Y, X needs to enter into two distinct licensing relations, and, consequently, needs to have two specifiers.

Second, a head may itself have two sets of features which must be checked off against different phrases.

The first case assumes that head movement of Y to X creates a derived licensing position for Y's licensee in Spec,X. I have argued elsewhere that this does not appear to be the case (Zwart 1993:231f, 1996a). Thus, V-to-C movement in Germanic does not create a licensing position for the subject in the specifier position of C (examples from German):

- (22) a.  $[_{AgrSP}$  Johann hat  $[_{TP}$  das Buch gelesen ]]  
           John has the book read  
           "John read the book."  
       b.  $[_{CP}$  [Welches Buch]<sub>j</sub> hat<sub>i</sub>  $[_{AgrSP}$  Johann t<sub>i</sub> ]]  
           which book has John  
            $[_{TP}$  t<sub>j</sub> gelesen ]]  
           read  
           "Which book did John read?"  
       c. \*  $[_{CP}$  Johann [<sub>C</sub> welches Buch [<sub>C</sub> hat  $[_{AgrSP}$  gelesen ]]] ?  
       d. \*  $[_{CP}$  Welches Buch [<sub>C</sub> Johann [<sub>C</sub> hat  $[_{AgrSP}$  gelesen ]]] ?

In (22b), the object moves to the specifier position of C, and V moves from AgrS to C. The important thing is that the subject keeps its licensing position in Spec,AgrSP. As (22c,d) show, a derived licensing position in an additional specifier position of CP is not available.

We conclude, then, that a head can only enter into multiple licensing relations (with multiple specifiers) if it has itself two sets of features that must be checked off against two different elements.

Does this ever occur? And if it occurs, how do we know that we are not really dealing with two different functional heads? The question seems extremely hard to answer without bias.

For example, Chomsky (1995:352) assumes that a transitive verb (symbol  $\underline{v}$ ) enters into two feature checking relations: assignment of the external theta-role to the subject, and assignment of Objective Case to the object. Both relations are not uncontroversial. Perhaps the subject gets a theta-role by predication from  $\underline{v}$ ; perhaps not  $\underline{v}$  but a separate functional head (AgrO) assigns Objective Case. And if  $\underline{v}$  indeed has these two licensing relations to perform, why then does it not blindly assign Objective Case to the subject in its specifier position (cf. section 4.2)?

Similar questions arise with respect to the licensing relations that T enters into (Nominative Case assignment, "EPP-feature" checking, agreement checking). In short, this question cannot be discussed without clear and solid assumptions

regarding the number of features, the types of licensing relations, and, above all, the architecture of the functional domain (see section 2.5).

Consequently, it is very unclear whether it should be allowed "in principle" that heads have multiple specifiers. What evidence we have (cf. (22)) suggests that a head can not inherit a second licensing relation from a lower head, forcing the presence of a second specifier position. Second, there appear to be no unequivocal cases where a head by itself enters into two distinct licensing relations with two different elements.

#### 2.4.4 Conclusion

We have seen that heads can have multiple specifiers only if they enter into separate licensing relations with (at least) two different elements. However, it is very unclear whether such cases really exist. In contrast, the minimalist theory of Chomsky (1995) is very clear about the fate of a head's features, entering into checking relations. Barring special "parametrized properties", the features of a head disappear the moment they are checked. This demonstrates the significance of the uniqueness of licensing principle (18b) in the minimalist framework.

If "uniqueness of licensing" is one of the conceptual desiderata leading to the single specifier hypothesis, as I believe it is, we have to conclude that multiple specifier positions are "in principle" *not* allowed in the minimalist framework.

#### 2.5 Agreement Projections

This takes us to a final conceptual argument supporting the multiple specifier hypothesis. In a multiple specifier structure, there is no need to postulate separate agreement heads, projecting Agreement Projections (see sections 0 and 1.4).

Note that it is not a priori "simpler" to have structures without Agreement Projections, as the "simplification" would be balanced by the corresponding proliferation of specifiers. If the amount of "unambiguous structure" is a criterium, it seems that a structure with additional, perhaps even vacuous, functional heads is "simpler" than a structure with multiple specifiers (see also Kayne 1994:22).

Chomsky's main reason for abandoning Agreement Phrases in his most recent work appears to be that "Agr is present only for theory-internal reasons" (1995:349). In particular, Agr, unlike T, is not interpretable at the LF interface. Therefore, its presence does not seem to be required by "bare output conditions".

One may immediately object that Agr does seem to be relevant for the other interface level, PF, in forcing selection of a particular inflected form of the verb (which moves to Agr and gets spelled out as a combination of V+Agr; I am assuming here, with Chomsky 1995:229, Halle and Marantz 1993, Zwart 1997, a postsyntactic component Morphology; cf. Chomsky 1995:385 fn 50). Therefore, Agr cannot be exclusively theory-internal. Maybe the contribution of Agr to interpretation at LF has not yet been properly identified.

It is true that Agr does not seem to partake in any sound-meaning correspondence. There is no LF-interpretation of the agreement morphology on the verb. I would like to submit that this problem results from reducing the syntactic category Agr to a mere morphological feature.

I propose that agreement is a morphological reflex of the presence of a more abstract syntactic feature, which expresses the proper realization of the relations *subject-of* or *object-of*. It is well-known that these relations do not necessarily correspond to the logical relation external/internal argument. What Agr really does is that it licenses a clause as having a (syntactic) *subject/object*. I assume that LF-interpretation is sensitive to the proper expression of the syntactic relations *subject-of* and *object-of*.

Let us consider this interpretation of Agr in the light of the "bare output conditions" of Chomsky (1995:221).

In order for a sentence S to be interpretable at LF, the syntax needs to keep track of the proper expression of the relations *subject-of* and *object-of*. For this reason, subjects and objects move (overtly or covertly) to the functional domain, more exactly, to the minimal domain of the functional heads that check the proper presence of subjects and objects. Let us call these functional heads AgrS and AgrO. AgrS and AgrO are thus characterized as mediators in the relation *subject-of* and *object-of*. As mediators, they also attract the finite verb of which the subject and the object are the grammatical subject and object.

In many languages, verb movement to Agr has the effect that the verb (a V+Agr complex) gets spelled out with a particular inflection. Thus, the presence of Agr is in accordance with bare output conditions determined by the PF interface. Crucially, however, this is only a side effect of the presence of Agr in the phrase structure, to be felt in some form in many, but far from all, languages.

In addition, movement of the subject, the object, and the verb to the minimal domain of Agr has the effect that AgrP contains the information that the relations *subject-of* and *object-of* are properly expressed. This information, I presume, is vital to interpretation at LF. Thus, the presence of Agr is also motivated by bare output conditions holding at the LF-interface (see also Zwart 1997:187).

This discussion of the "function" of Agr in the phrase structure, though intended as a serious proposal to make sense of the notion that some formal licensing takes place that is crucially distinct from thematic licensing (also entertained by Chomsky 1993, 1995), serves a modest purpose in this paper. The only point it intends to make is that it is not a priori clear which elements are interpreted in what capacity at which interfaces. Thus, Chomsky's assessment that Agr appears to be present for theory-internal reasons only, presupposes that Agr is not interpreted at LF. But this presupposition, which is not discussed in any detail in Chomsky (1995), may well be false. Hence, it remains unclear whether the intended abolition of Agreement Phrases counts as a conceptual argument supporting the multiple specifier hypothesis.

## 2.6 Conclusion.

I have argued, very briefly, that a phrase structure with agreement heads does not necessarily run counter to minimalist assumptions. The conceptual argument that multiple specifiers allow us to dispense with Agreement Projections therefore lacks force. Moreover, it seems that the single specifier hypothesis is more in keeping with robust conceptual desiderata, such as the unambiguous structure requirement (18a) and the unambiguous licensing requirement (18b).

In the next section, I will address the empirical arguments that have been advanced in support of the multiple specifier hypothesis.

### 3. Empirical Motivation of the Multiple Specifier Hypothesis.

#### 3.1 The Minimal Link Condition

The empirical motivation adduced in recent literature in support of the multiple specifier hypothesis is based on a single grammatical principle, the Minimal Link Condition (or "Shortest Movement" Condition, cf. Chomsky 1993:15, 1995:264, 295). Chomsky is not explicit about the status of this condition (cf. 1993:14, "it is intuitively clear how certain basic aspects will enter", 1995:264, "whatever turns out to be the right story for this much-studied but still murky area."), which says that chain links should be kept "minimal".

The form of minimality intended here is clearly of the "Relativized Minimality" type of Rizzi (1990) (cf. Chomsky 1993:14, Ura 1994:7, Koizumi 1994:256):

(23) When  $\alpha$  moves to  $\beta$ ,  $\alpha$  may not skip a potential landing site.

(24) *Potential landing sites*

For  $\alpha \in \{A, A', X^0\}$ , an  $\alpha$ -position is a potential landing site for  $\alpha$ -movement

In the Minimal Link Condition, Chomsky thus takes over Rizzi's (1990) proposal that A-positions cannot be skipped in A-movement, A'-positions cannot be skipped in A'-movement, and head positions cannot be skipped in head movement (and *mutatis mutandis* when the A/A'-distinction is replaced by the L-related/nonL-related distinction, cf. Chomsky 1993:28-29).

In addition, Chomsky (1993) defines the intuitively clear notion of "skipping" in terms of minimal domains (my formulation):

(25)  $\alpha$ , moving to  $\beta$ , skips  $\gamma$  only if  $\beta$  and  $\gamma$  are not in the same minimal domain.

Two elements  $\beta$  and  $\gamma$  are said to be *equidistant* from  $\alpha$  if they ( $\beta$  and  $\gamma$ ) are in the same minimal domain (Chomsky 1993:17, 1995:356; there is a slight modification of the notion *closeness* in the latter reference, which is irrelevant here).

Specifiers of different heads are not in the same minimal domain, but multiple specifiers of a single head are (cf. Chomsky 1993:11, 1995:299). As a result,



fie                      bolnavi  
 be-3pl.SUBJ              sick

``All boys happened to be sick."

(28) a.    keneng        Zhangsan    reng le        nei kuai rou        gei la  
           possible                      throw ASP    that piece meat    to he  
           ``It is possible that Zhangsan tossed that piece of meat to him."

b.        ta        keneng        Zhangsan    reng le        nei kuai rou  
           he        possible                      throw ASP    that piece meat  
           ``Lit. He is possible that Zhangsan tossed that piece of meat."

In the minimalist framework, the ungrammaticality of hyperraising in English follows from the principle of Greed (Chomsky 1995:261, cf. p. 267 for a slight modification): the subject *John* has checked all its features in the embedded clause, and is not available for further feature checking. Ura (1994:84) proposes that languages that allow hyperraising have *optional* Case feature checking in the embedded clause (a property he links to the *pro*-drop character of these languages).

We will not discuss hyperraising any further here, as it has little relevance to the multiple specifier controversy.

Superraising is excluded in the minimalist framework by the Minimal Link Condition. Ura (1994:32-40) argues that all languages that allow superraising also have ``multiple subject constructions". An example from Mandarin Chinese is given in (29) (Ura 1994:33, referring to Teng 1974 and Li and Thompson 1981):

(29)        xiang            bizi    chang  
           elephant    nose    long  
           ``Lit. Elephants, noses are long."

Analyzing multiple subject constructions as involving multiple specifiers (all of which are A-positions (L-related positions)), Ura proposes that the ``outer" specifier position of a multiple specifier construction serves as an intermediate landing site for nonlocal A-movement (Ura 1994:49):

(30) [         $t_{a_i}$         ...        [<sub>AgrSP</sub>  $t'_i$         [        *Zhangsan*    AgrS [        ...  $t_i$  ... ]]]

Crucially, the outer specifier of AgrSP, occupied by  $t'_p$ , and the inner specifier position, occupied by *Zhangsan*, are equidistant from  $t_p$ , so that A-movement across *Zhangsan* does not skip a ``closer" potential landing site.

Without multiple specifiers, any landing site to the left of *Zhangsan* would be outside the minimal domain of AgrS, so that  $t'_i$  and *Zhangsan* would not be equidistant from  $t_p$ , and A-movement across *Zhangsan* would not be allowed.

This is the argument supporting the multiple specifier hypothesis that I will discuss in the remainder of this paper.



### 3.3 Discussion

#### 3.3.1 Feature checking

Consider the schematic representation of Ura's (1994) analysis of superraising in (31):

- (31) [<sub>AgrSP</sub> subject<sub>1</sub> AgrS<sub>1</sub> [ ... [<sub>AgrSP</sub> t'<sub>1</sub> [ subject<sub>2</sub> AgrS<sub>2</sub> [ t<sub>1</sub> ] ] ] ] ] ] ]

In (31), subscript 1 indicates affiliation with the matrix clause, and subscript 2 with the embedded clause.

In order for SUBJECT<sub>1</sub> to move to the outer specifier position of AgrS<sub>2</sub>, it would have to be *attracted* by AgrS<sub>2</sub> (cf. Chomsky 1995:297). Thus, SUBJECT<sub>1</sub> and AgrS<sub>2</sub> should enter into some kind of feature checking relation.

(Incidentally, this feature checking relation between SUBJECT<sub>1</sub> and AgrS<sub>2</sub> is also needed for another reason. A-movement chains must be uniform, in the sense that all positions in the chain must be A-positions (Ura 1994:8). If A-positions are defined as positions entering into a checking relation with features associated with the verb (Chomsky 1993:28, cf. Hoekstra 1991:24), the outer specifier position of AgrS<sub>2</sub> in (31) must enter into a feature checking relation with AgrS<sub>2</sub>. In other words, being a sister of AgrS' is a necessary, but not a sufficient condition for counting as an intermediate landing site in A-movement.)

It is not easy to identify a feature checking relation that could exist between SUBJECT<sub>1</sub> and AgrS<sub>2</sub>. After all, SUBJECT<sub>1</sub> must check its features with AgrS<sub>1</sub>, and the features of AgrS<sub>2</sub> have already been checked by SUBJECT<sub>2</sub>. Here, it is of importance that features of heads are [-interpretable]. This means that they are eliminated as soon as they have been checked (Chomsky 1995:278).

Therefore, the analysis of superraising in (31) can only work if we are dealing with an *exceptional situation* here. It is precisely for this exceptional situation that multiple specifier constructions present that Chomsky (1995:286) brings in a "parametrized property", to the effect that the feature of a head may be retained after feature checking (Chomsky 1995:352).

If multiple subject languages have this "parametrized property", AgrS<sub>2</sub> may in fact have some feature left to check with SUBJECT<sub>1</sub>. What kind of feature might this be? Following Chomsky (1995:277) we may assume that noun phrases have three types of features to be checked:

- (32) *Features of noun phrases to be checked*  
    φ-features (agreement features)  
    Case features  
    categorical features (EPP features)

The standard features of noun phrases that need to be checked are Case features and φ-features. Of these, the Case features are [-interpretable]. Therefore, SUBJECT<sub>1</sub>

must save them for checking with AgrS<sub>1</sub>. The  $\phi$ -features are [+interpretable], and may be checked twice. However, there is no requirement that SUBJECT<sub>1</sub> and SUBJECT<sub>2</sub> have the same  $\phi$ -features (as the majority of the examples in Ura 1994:10-11) bears out). Apparently, the  $\phi$ -features are saved for checking with AgrS<sub>1</sub> as well.

Consequently, the only feature of SUBJECT<sub>1</sub> that AgrS<sub>2</sub> could check is its categorial feature (i.e., [+N] or [+D], cf. Chomsky 1995:232, 277). Checking of categorial features is introduced in Chomsky (1993:31, 1995:282) as a way to capture the Extended Projection Principle (EPP), which says that clauses must have an overt subject (cf. Chomsky 1981:25). Let us refer to the corresponding feature on AgrS as its "EPP feature".

So, the only feature checking relation that can exist between AgrS<sub>2</sub> and SUBJECT<sub>1</sub> is the EPP-feature checking relation, a formalization of the requirement that AgrSP must have a subject. Here, the problem is that AgrS already *has* a subject, namely SUBJECT<sub>2</sub>. Even if it is technically possible, by virtue of a "parametrized property", for AgrS to check its EPP-feature twice, it remains totally unclear how the requirement that clauses have a subject takes the effect that the embedded clause in (31) has two.

Of course, formalizing the EPP in terms of feature checking does not clarify its mysterious status. I would like to suggest that the EPP reduces to the requirement, discussed in section 2.5, that the relations *subject-of* and *object-of* be properly expressed in the syntax. If so, the EPP-feature is the same as the agreement feature checked by Agreement heads (generally associated with  $\phi$ -features in view of their effect on morphology). That would imply that there is no feature left for AgrS<sub>2</sub> to check with SUBJECT<sub>1</sub>, and that we can maintain that features of heads are eliminated as soon as they are checked.

This also implies that there can be no multiple specifier analysis of superraising, as proposed by Ura (1994).

### 3.3.2 Double EPP in other languages.

Chomsky (1995:354) proposes that languages allowing transitive expletive constructions, such as German (and Icelandic and Dutch) (cf. (1)), have exactly the property discussed in section 3.3.1: the EPP-feature of a functional head may be checked twice instead of being eliminated immediately after checking.

Chomsky (1995:342) regards transitive expletive constructions as a kind of multiple subject constructions. As discussed above, he proposes an analysis in which the expletive and the subject occupy multiple specifier positions associated with T.

This analysis of German transitive expletive constructions is not compatible with the analysis of superraising of Ura (1994). If both analyses were correct, we would predict German to have superraising, contrary to fact.

There is reason to believe that the analysis of transitive expletive constructions in Chomsky (1995) is not correct (see section 4), but, of course, it does not follow that Ura's (1994) analysis of superraising is correct. Here, the point to be

made is that two of the best developed analyses involving multiple specifiers are not compatible.

### 3.3.3 The typological generalization.

Ura (1994:5) observes that all languages that allow superraising also allow multiple subjects, which he formulates as in (32):

- (33) If a language allows the so-called "Multiple Subject Construction", then it also allows superraising to take place.

In several of the multiple subject languages Ura discusses, the multiple subject construction appears to actually involve some kind of topicalization. Taking Mandarin Chinese as an example (cf. (29)), here is what Henne, Rongen, and Hansen (1977:8) write about the status of the "subject" in multiple subject constructions:

The subject has a rather loose formal and semantic connection with the predicate (.). The function of the subject is to indicate, in a very general way, the topic or the subject matter of the sentence/clause in the widest sense (.).

This statement suggests that subjects in multiple subject constructions are not as clearly L-related to AgrS as Ura's generalization requires ("a rather loose formal and semantic connection").

Chinese happens to have no agreement morphology. This makes it impossible to tell whether *ta* in (28b) is "the topic or subject matter" that stands in a loose formal connection with the verb, or a true subject. If it is a topic, then (28b) allows for a different analysis, with an empty expletive as in (28a), and a null object in the embedded clause. As is well known, null objects are quite common in Chinese (cf. Huang 1991).

For languages without agreement morphology, this alternative analysis seems quite plausible, and it provides an immediate explanation for the typological connection with "multiple subject constructions". In the sample discussed by Ura, Persian, Indonesian, and Lisu are without overt agreement, which, together with Chinese, makes up 50% of the sample.

We can conclude from the examples given that Lisu and Persian allow empty expletives. It is not clear whether Lisu, Persian, and Indonesian allow a null object (bound by the "topic").

Of the remaining languages in the sample, Moroccan Arabic, which also allows null objects (Ura 1994:14), suggests another possible nonraising analysis.

In Moroccan Arabic, the raising verb agrees with the subject, so that a "hanging topic" analysis is not available. Ura (1994:10) gives as raising predicate *ttshab-li*, translated as 'it seemed to me'. In the superraising construction, a gender

marker is added, corresponding to the raised argument *mmi* 'my mother', yielding *ttshab-et-li* 'lit. she seemed to me':

- (34) a. Ttshab-li                      belli    šaf-ø-ha                      muhend  
               seemed-3sg-to-1sg    that    saw-3sg.m-3sg.f

mmi                      fsefru  
 mother-1sg    in-Sefrou

``It seemed to me that Mohand saw my mother in Sefrou."

- b. Ttshab-et-li                      mmi                      belli    šaf-ø-ha  
               seemed-3sg.f-to-1sg                      mother-1sg    that    saw-3sg.m-3sg.f

muhend                      fsefru  
    in-Sefrou

``Lit. My mother seemed to me that Mohand saw [her] in Sefrou."

The question is whether ``she seemed to me" means ``it seemed" with some purely formal gender subject agreement, or, rather, ``she looked as if", ``she gave the impression". In the latter case, *mmi* in (34b) may actually be an argument of the matrix predicate, and we may not be dealing with a raising construction at all.

There is reason to believe that such a nonraising analysis of what seems to be a raising construction is quite often available. The schema is as in (35):

- (35) *Nonraising*

- a. expletive<sub>i</sub>    verb<sub>i</sub> [            ... NP ...            ]  
 b. subject<sub>i</sub>    verb<sub>i</sub> [            ... *pro* ...            ]

In (35), a pure expletive construction alternates with a construction in which the subject agrees morphologically with the verb, and the matrix clause contains a (subject or object) null argument (*pro*). This alternation gives the appearance of a raising alternation, precisely because of the empty argument in the embedded clause, which gets interpreted by the grammarian as a trace.

The analysis in (35) can only be correct if the raising verb is not necessarily impersonal. However, raising verbs are often very close to a personal, more or less agentive verb, as in the alternation in (36), quoted by Grosu and Horvath (1984:352 fn 5) to make the same point:

- (36) a. It looks like Little John's belly is going to burst  
       b. Little John looks like his belly is going to burst

Grosu and Horvath (1984) argue that constructions like Rumanian (27b) should be analyzed like (36b) when they feature the subjunctive complementizer *ca* (they note that there is disagreement about the grammaticality of these constructions with *ca*):

- (37) Băieții s-au nimerit ca să plece  
 boys REFL-have.3pl hit that-SUBJ SUBJ leave  
 "The boys happened to leave."

I believe it is significant that the raising verb *nimeri* actually means 'hit', so that a literal translation of *s-au nimerit* would be 'they have hit themselves' or 'they have themselves be hit'. In that case, some agentivity (unergativity) is apparent, especially with respect to the auxiliary *au* 'they have'.

Philippaki-Warbuton (1992) discusses a similar ambiguity for the Modern Greek raising verb form *fenete* (Theodor Marinis, personal communication):

- (38) O Giannis fenete oti den ine kurasmenos  
 John seems that not is tired  
 "John, it seems that he is not tired."  
 "John does not look tired."

The two readings of (38) are given in the translations. In the second, "personal" reading, the verb is actually not a raising verb but a personal verb (*fenome*), meaning 'give the impression'.

This personal use of a raising verb provides an alternative analysis for several cases of superraising and hyperraising listed by Ura (1994). The required conditions are: the raising verb agrees with the subject (the "raised" category), and there is a null argument in the embedded clause.

The remaining three cases of superraising discussed by Ura (1994) are Boumaa Fijian, Chicheŵa, and Cuzco Quechua. These languages appear to involve superraising to object rather than to subject. The following example is from Boumaa Fijian (Ura 1994:11, ultimately from Gordon 1980):

- (39) a. Au kila [ ni vinakata-i iko ko Timaima ]  
 I think COMP want-obj.agr you  
 "I think Timaima likes you."  
 b. Au kila-i iko [ ni vinakata ko Timaima ]  
 I think-obj.agr you COMP want  
 "Lit. I think you that Timaima likes."

The *i*-suffix appears when the object is a personal name, a place name, or an explicit pronoun (not with a null object) (Dixon 1988:49).

Ura (1994:15) discusses (and rejects) the possibility that (39) is a case of *prolepsis* rather than superraising (see also Massam 1985:169f). In that case, the embedded clause would have to feature a null object associated with the proleptic noun phrase in the main clause. (Ura suggests that in that case, the embedded verb

would still have to carry the object agreement suffix, but this is incorrect, as the suffix does not appear before nonovert pronouns; cf. Dixon 1988:49.)

A raising-to-object analysis of (39b) faces several problems.

First, we know that raising to a complement position is excluded, since A-movement always involves adjunction to the root of the structure (the extension requirement of Chomsky 1993:22). Second, raising to a licensing position (a specifier position) in the matrix clause is not excluded (this is the well-known phenomenon of "exceptional Casemarking"). However, I know of no cases where the object of an embedded clause is licensed in the matrix clause, whereas the subject of the embedded clause is not. See the German exceptional Casemarking construction in (40), where both the embedded subject and the embedded object are licensed in the matrix clause:

- (40) a.    Ich    habe   den Mann            den Schlager        nicht  
              I        have   the man-ACC        the pop song-ACC   not  
  
              singen        gehört  
              sing-INF     heard-PART

"I did not hear the man sing the pop song."

- b.        \*Ich habe den Schlager nicht den Mann singen gehört

In (40a), the matrix negation element *nicht* 'not' marks the VP boundary of the matrix clause. Since both the embedded subject *den Mann* 'the man' and the embedded object *den Schlager* 'the pop song' appear to the left of *nicht*, we know that they are formally licensed in the matrix clause. Crucially, it is impossible for the object to appear to the left of *nicht* without the subject (40b) (except under special intonation).

It seems strange, then, that (39b) would involve exceptional Casemarking of the object, but not of the subject.

Prolepsis is admittedly a mysterious phenomenon. Yet, as Ura (1994:21) notes, it is quite common among the languages of the world. In a non-*pro*-drop language like German, it would take the form of (41a):

- (41) a.    Ich    weiß   von Hans    daß   er    krank        ist  
              I        know of Hans    that   he    sick        is  
              "I know of Hans that he is ill."  
       b.        \*Ich weiß von Hans daß Peter krank ist

In (41), *er* is a bound pronoun that cannot refer to anyone else but *Hans*. Nor can it be replaced by an independently referring noun phrase, as (41b) shows.

In *pro*-drop languages the same construction would almost inevitably involve a null argument in the embedded clause. We know from Montalbetti (1984) that bound pronouns in *pro*-drop languages prefer to be null rather than overt. We also

expect replacement by a full noun phrase of a (null) bound pronoun in prolepsis constructions in *pro*-drop languages to be ungrammatical, on a par with German (41b). The conclusion is that *if* prolepsis occurs in a language that allows null arguments, the corresponding position in the embedded clause has to be null. This makes it impossible to tell prolepsis and superraising apart.

The prolepsis analysis of (39b), therefore, cannot be disparaged. (Obviously there is room for further study here, as the phenomenon of prolepsis itself appears to be rather mysterious. Also, we would have to ascertain to what extent the relevant languages allow null objects.)

The alternative analyses of Moroccan, Fijian, Quechua, and Chicheŵa do not employ a "hanging topic", leaving the explanation for the generalization in (28) in doubt. However, Quechua, Fijian, and Chicheŵa turn out to have entirely different types of multiple subject constructions from Chinese, Japanese, and Korean (Ura 1994:35-39).

The Quechua multiple subject construction is restricted to passives, whereas the superraising construction discussed involves nominalizations. The Fijian multiple subject construction appears to be some kind of clitic doubling in formal style (as Ura says, "a type of MSC rather different from the ones observed so far", p. 36). Finally, the Chicheŵa example discussed by Ura involves locative inversion, with properties similar to locative inversion in languages like Dutch and English, which lack superraising (cf. Hoekstra and Mulder 1990).

The fact that some of the superraising languages have entirely different types of multiple subject constructions from languages like Chinese, etc., raises the question of what *type* of multiple subject construction gives rise to the multiple specifier constructions that make superraising possible. Clearly not all languages featuring clitic doubling (many Romance languages and dialects) or transitive expletive constructions (German) are expected to be in this class, yet they, too, could be said to feature multiple subject constructions.

Thus, it is quite possible that the generalization (33) *de facto* covers only a subclass of the "superraising" languages discussed by Ura (1994), namely the ones that have the South East Asian type of multiple subject construction involving a topic. For these constructions, an alternative analysis featuring empty expletives and empty pronouns seems to be quite plausible.

### 3.3.4 Superraising Relates to Feature Checking, not to "Minimal Link"

I have argued elsewhere that superraising in English is not to be explained by the Minimal Link Condition, but by the feature checking requirements that are independently needed in the minimalist framework (Zwart 1996b; I in fact question the validity of the entire Minimal Link Condition).

An important assumption here is that the expletive *it* is not a true expletive, but an argument generated in the complement domain of the raising verb (cf. Bennis 1986, Moro 1993). As such, *it* can and must check all features associated

with T and AgrS in the matrix clause (cf. also Chomsky 1995:288, where *it* is characterized as having Case features and  $\phi$ -features).

A further assumption is that raising verbs like *seem* select as their complement a category that represents a state (i.e., a Small Clause or some other subject-predicate combination). This implies that the complement of *seem* can be either (42a), where *it* is a Small Clause subject and the finite clause is the Small Clause predicate, or (42b), an infinitival subject-predicate combination:

- (42) a. [e] seems [ it CP ]  
 b. [e] seems [<sub>IP</sub> NP [<sub>I'</sub> ]]

These structures correspond to the sentences in (43):

- (43) a. It<sub>i</sub> seems [ t<sub>i</sub> [that John will win the race] ]  
 b. John<sub>i</sub> seems [ t<sub>i</sub> [to have won the race] ]

In (43a), *it* is the only element capable of checking the Case/agreement features in the matrix clause. *John* is not available for checking the Case/agreement features in the matrix clause, because it must check the Case/agreement features in the embedded clause. The net result is that *John* may not cross *it*, but this now follows from feature checking requirements, not from the Minimal Link Condition.

Other cases can be explained along similar lines. Take (44), a superraising construction in the strict sense of Ura (1994):

- (44) \*John<sub>i</sub> seems that it was told t<sub>i</sub> [that he will win the race]

The sentence in (44) cannot be derived from any of the base structures in (42), and therefore will never occur. The problem is that the *that*-clause is a complement of the raising verb, which is excluded (see Zwart 1996b:315 for argumentation). A minor adjustment of (44) yields (45):

- (45) \*John<sub>i</sub> seems it that it was told t<sub>i</sub> [that he will win the race]

This construction is excluded because the features of the leftmost *it* cannot be checked.

If this alternative analysis is correct, the impossibility of nonlocal A-movement in English is not the result of a "heavy" nonviolable constraint like the Minimal Link Condition. Rather, it is an accidental property of English that *seem* requires a complement expressing a state, and that the feature checking possibilities are laid out the way they are.

In other words, there is nothing in this analysis of superraising in English that predicts that superraising will not occur in any other language of the world. Moreover, if Ura (1994) is correct that superraising does occur in a large number of languages, that does not lead to the conclusion that multiple specifiers are involved.



### 3.4 Conclusion.

In this section, I have discussed the empirical evidence supporting the multiple specifier hypothesis.

First, the empirical evidence is based entirely on the Minimal Link Condition (see also Koizumi 1994:260). I have questioned the validity of the Minimal Link condition in general, and also in the domain of nonlocal A-movement discussed by Ura (1994).

Second, it is unclear whether an additional specifier position would provide a suitable intermediate landing site for nonlocal A-movement, as Ura (1994) proposes. In order to count as a suitable intermediate landing site for nonlocal A-movement, the outer specifier would itself have to enter into a feature checking relation with the relevant head. We have seen that this can only be achieved if an "EPP-feature", distinct from the Case/agreement feature, is assumed, and, if the exceptional situation holds that a head can check its EPP-feature twice. Neither of these two necessary assumptions appears to be independently motivated.

Third, I have argued that it is unclear that the presence of superraising in a language is typologically related to the possibility of having multiple subjects. Almost all cases of superraising presented by Ura (1994) allow for alternative analyses, and the property of allowing multiple subjects is instantiated in different forms in the various languages.

Summarizing, it appears that the empirical evidence in support of the multiple specifier hypothesis is not compelling.

## 4. Against Multiple Specifiers.

In the previous two sections, I have argued that the conceptual and empirical evidence supporting the multiple specifier hypothesis is not strong. One could probably argue the same about the single specifier hypothesis. As always, conceptual arguments will have to decide, for which I refer back to section 2.

Nevertheless, I would like to briefly present two more considerations, each arguing explicitly against the multiple specifier hypothesis.

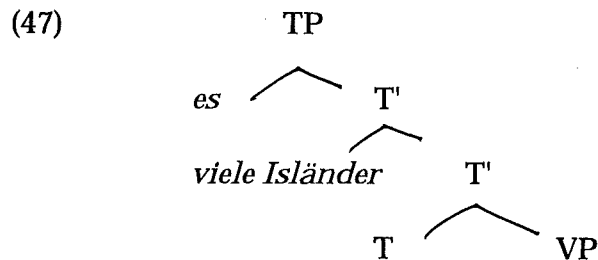
### 4.1 Verb Second

Transitive expletive constructions like (1b), repeated here as (46), pose an immediate problem to the multiple specifier hypothesis:

- (46)           Es    bauen           viele Isländer       Häuser       in Torshavn  
          there build-PL   many Icelanders   houses       in Torshavn

"Many Icelanders build houses in Torshavn."

In the multiple specifier hypothesis, *es* 'there' and *viele Isländer* 'many Icelanders' each occupy a specifier position associated with a single head, T:



Yet it is clear from the word order in (46) that there must be a head position between the expletive and the associate, occupied by the finite verb *bauen* 'build'.

Chomsky (1995:368), noting this problem, proposes that "the observed order is formed by phonological operations" and not by syntactic operations applying in the derivation from the starting point (the numeration) to LF. Thus, the finite verb in (46) moves to the second position in order to satisfy "the Verb Second constraint".

Inasmuch as "the Verb Second constraint" refers to overt linearization, there is something to be said in defense of its being a PF-constraint. (Chomsky 1996 notes that verb movement has no effect on the LF-interface.) However, I have argued elsewhere that no "Verb Second constraint" is operative in (46) or in any other verb second construction in Germanic. Verb second is an epiphenomenon, to be described and explained in terms of a minimalist syntactic theory (cf. Zwart 1993, 1997).

One reason to believe that "phonological" features might be at work in transitive expletive constructions is that the expletive appears obligatorily only in main clauses without inversion (cf. Chomsky 1995:368):

- (48)
- |    |                                     |       |         |          |             |         |
|----|-------------------------------------|-------|---------|----------|-------------|---------|
| a. | Es                                  | hat   | jemand  | ein Haus | gekauft     |         |
|    | there                               | has   | someone | a house  | bought      |         |
|    | "Someone bought a house."           |       |         |          |             |         |
| b. | ..daß                               | (*es) | jemand  | ein Haus | gekauft hat |         |
|    | that                                | there | someone | a house  | bought has  |         |
|    | "..that someone bought a house."    |       |         |          |             |         |
| c. | Gestern                             | hat   | (*es)   | jemand   | ein Haus    | gekauft |
|    | yesterday                           | has   | there   | someone  | a house     | bought  |
|    | "Yesterday someone bought a house." |       |         |          |             |         |

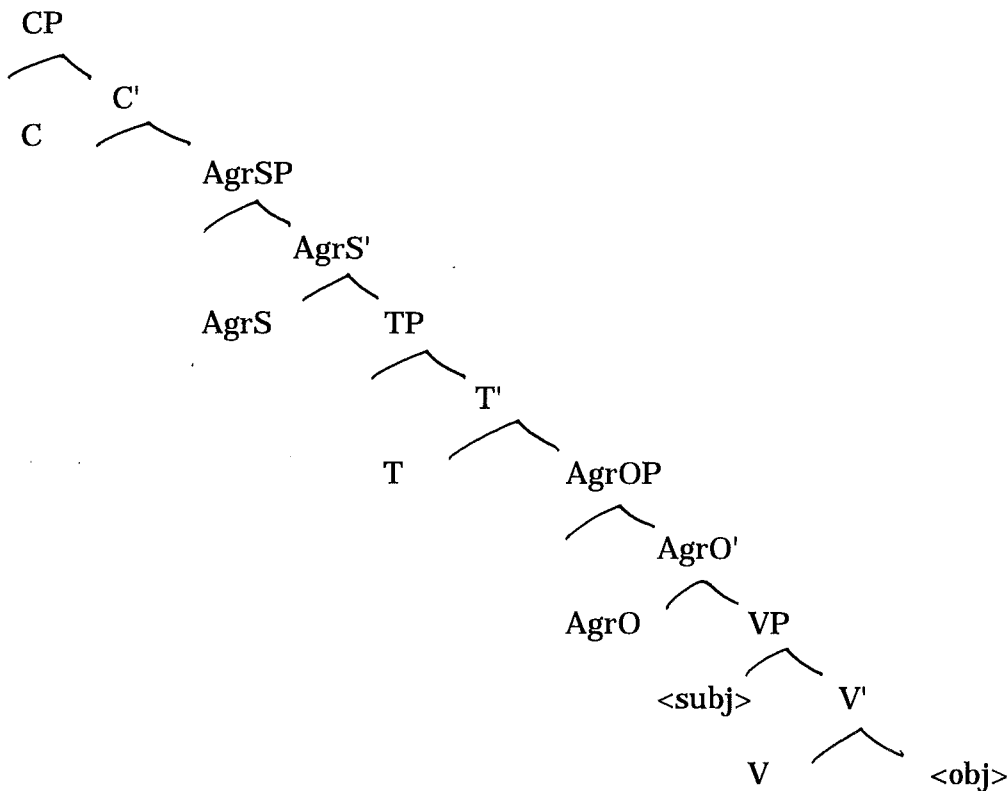
There appears to be considerable variation among the Germanic languages with respect to the appearance of the expletive, however (see Brandner 1993, Vikner 1995). Compare the German facts in (48) with the following facts from Dutch:

- (49) a. Er heeft iemand een huis gekocht  
           there has someone a house bought  
           "Someone bought a house."
- b. ..dat er iemand een huis gekocht heeft  
           that there someone a house bought has  
           "..that someone bought a house."
- c. Gisteren heeft er iemand een huis gekocht  
           yesterday has there someone a house bought  
           "Yesterday someone bought a house."

If a "Verb Second" constraint is active in this domain, it works the same in expletive-initial main clauses in both German and Dutch ((48a), (49a)). However, we cannot say that the appearance of the expletive is explained by the "Verb Second" constraint (as Chomsky 1995:386 suggests): in (49b,c), the expletive appears without serving a "Verb Second" purpose. Moreover, even if the appearance of the expletive is a function of "Verb Second", that does not say that the position of the *verb* in (48)-(49) is explained by the "Verb Second" constraint. Yet this is what has to be claimed if the "real" order is as in (47).

The patterns in (48)-(49) can be described in a more attractive way, and without making use of mystifications like "Verb Second", by assuming the phrase structure in (3), repeated here as (50), with an added CP-level:

(50)



I have argued in Zwart (1993, 1997) that the CP-level is absent in subject-initial main clauses (thus, in (48a) and (49a)). In subject-initial main clauses, AgrS is the mediator between the subject (in this case, the expletive) and the verb. AgrS therefore attracts the verb, yielding the verb-second order in (48a) and (49a).

In the embedded clauses (48b) and (49b), the CP-level is added. The head of CP, C, is occupied by the complementizer (*daß* in (48b), *dat* in (49b)), which blocks movement of the finite verb to AgrS. I have argued in Zwart (1997) that verb movement is blocked because the formal features of the verb move from V, via AgrO, T, and AgrS, to C, where they are spelled out on a different lexical host, the complementizer. This explains the phenomenon of complementizer agreement in several Continental Westgermanic dialects. The verb itself remains in V (see Zwart 1997, chapter VI, for more discussion).

In the inversion clauses (48c) and (49c), the initial constituent occupies the specifier position of CP, and the verb is in C (Den Besten 1977). In Zwart (1997), this is described as follows. The formal features of the verb again move to C, now pied piping the verb, as no lexical host is available in C.

All these movements are explained by ordinary feature checking requirements and mechanisms. There is no suggestion that phonological features or considerations of linear order are in any way the "cause" of the word order alternations.

This analysis, however, is not available in the structure of the functional domain proposed in Chomsky (1995), involving multiple specifiers.

## 4.2 Lexical vs. Formal Licensing.

There is a further conceptual argument supporting the presence of Agreement heads. Consider the representation in (15), repeated here as (51), in which occur an object in its derived position and a subject in its base position.

(51)  $[_{\text{AgrOP}} \text{ object AgrO } [_{\text{VP}} \langle \text{subject} \rangle \text{ V } \dots ]]$

In a multiple specifier analysis, the object and the subject would both be in a specifier of V (referred to as  $\underline{v}$ , the transitive verb, above):

(52)  $[_{\text{VP}} \text{ object } [_{\text{V}} \langle \text{subject} \rangle \text{ V } \dots ]]$

The question is, why does not the verb assign Objective Case to the subject in its base position, forcing the object to move to the domain of T in order to be licensed (yielding Objective Case on the subject and object-agreement on the verb)?

Chomsky apparently wants to exclude this by stating that the subject in (52) is not in the checking domain of the verb, because it has not moved ("it does not head a nontrivial chain", Chomsky 1995:311, 352).

It is totally unclear why the status of the subject with respect to the chain it heads should be relevant. Moreover, Chomsky seems to miss the relevant generalization, which is the following:

(53) Thematic licensing and formal licensing do not take place simultaneously.

Something like (53) is implicit in the minimalist separation of checking domain and internal domain (Chomsky 1993:12), making it necessary for objects to raise in order to receive formal licensing (see also Chomsky 1995:311, "the conception of Attract/Move as the formal expression of the feature-checking property of [...] language"). It is also implicit in the assumption, made above, that the LF-interface is sensitive to the proper syntactic expression of the grammatical relations *subject-of* and *object-of*.

The virtue of a phrase structure in which formal licensing is performed by Agreement heads is that it *explains* why thematic and formal licensing are always strictly separated.

The question of why the subject is not formally licensed as an object in Spec,VP (Spec, $\underline{v}$ P) then does not arise, and the reason it does not arise is principled, instead of stipulated.

## 5. Conclusion: Transitive Expletive Constructions

Transitive expletive constructions are cited in Chomsky (1995:341, 349-350) as "interesting" cases showing that

“three pre-VP positions are required within IP for nominal expressions: expletive, subject, and object. One position is provided by T. We therefore have evidence for two noninterpretable functional categories, the ones we have been calling Agr (AgrS and AgrO).” (p. 341)

The assumption that these functional categories are “noninterpretable” leads Chomsky (1995:352-353) to propose an alternative description, not making use of Agr:

There is a simple way to force overt DP-raising without the functional category Agr: namely, by adding to *y* itself a strong D-feature (..) that requires substitution in the “outer Spec” of a multiple-Spec configuration. (p. 352)

I have argued in this article that adopting multiple specifier structures may not be such “a simple way”.

Conceptual desiderata of generative grammar, such as the requirement that structural configurations and licensing relations are unambiguous, are most easily met in a single specifier structure, as argued by Hale and Keyser (1993) and Kayne (1994). These desiderata are still valid in the minimalist framework, witness the importance of binary branching (unambiguous structure) and the concept of feature checking as feature elimination (unambiguous licensing). In view of these considerations, we would have to say that multiple specifiers are *not* allowed “in principle”.

I have argued that the empirical evidence cited in support of the multiple specifier hypothesis is not conclusive either. The evidence is entirely based on the Minimal Link Condition, which has a questionable status within the minimalist program.

I have argued that the agreement heads do contribute to interpretability at the interfaces. For the PF-interface, this is uncontroversial. As for the LF-interface, I have suggested that formal licensing of subjects and objects is a prerequisite for interpretation at LF. Consequently, the elements performing the formal licensing operations, the agreement heads, are interpretable at LF, in the sense that they “inform” the structure interpreted at LF.

To conclude, it appears that the transitive expletive constructions of German and other Germanic languages still provide strong *prima facie* evidence in support of (at least) three functional projections dominating VP.

## References.

- Baker, Mark C. 1988. *Incorporation. A Theory of Grammatical Function Changing*. The University of Chicago Press, Chicago.
- Bennis, Hans. 1986. *Gaps and Dummies*. Foris, Dordrecht.

- Brandner, Ellen. 1993. "The Projection of Categories and the Nature of Agreement." In *The Parametrization of Universal Grammar*. G. Fanselow, ed., John Benjamins, Amsterdam/Philadelphia, pp. 73-121.
- Chomsky, Noam. 1972. "Remarks on Nominalizations." In *Studies on Semantics in Generative Grammar*, Mouton, The Hague, pp. 11-61.
- Chomsky, Noam. 1973. "Conditions on Transformations." In *A Festschrift for Morris Halle*, S.R. Anderson and P. Kiparsky, eds., Academic Press, New York, pp. 232-286.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Foris, Dordrecht.
- Chomsky, Noam. 1986. *Barriers*. MIT Press, Cambridge.
- Chomsky, Noam. 1991. "Some Notes on Economy of Derivation and Representation." In *Principles and Parameters in Comparative Grammar*, R. Freidin, ed., MIT Press, Cambridge, pp. 417-454.
- Chomsky, Noam. 1993. "A Minimalist Program for Linguistic Theory." In *The View from Building 20. Essays in Linguistics in Honor of Sylvain Bromberger*, K. Hale and S.J. Keyser, eds., MIT Press, Cambridge, pp. 1-52.
- Chomsky, Noam. 1995. "Categories and Transformations." In *The Minimalist Program*, MIT Press, Cambridge, pp. 219-394.
- Chomsky, Noam. 1996. The Minimalist Program. Keynote Address at NELS 26, Cambridge, October 28.
- Den Besten, Hans. 1977. On the Interaction of Root Transformations and Lexical Deletive Rules. Ms., MIT/University of Amsterdam. Published in *On the Formal Syntax of the Westgermania*, W. Abraham, ed., John Benjamins, Amsterdam/Philadelphia, pp. 74-131.
- Dixon, Robert M.W. 1988. *A Grammar of Boumaa Fijian*. The University of Chicago Press, Chicago.
- Epstein, Samuel D. 1995. Un-principled Syntax and the Derivation of Syntactic Relations. Ms., Harvard University.
- Gordon, Lynn. 1980. Raising in Bauan Fijian. Ms., UCLA.
- Grosu, Alexander, and Julia Horvath. 1984. "The GB Theory and Raising in Romanian." *Linguistic Inquiry* 15, 348-353.
- Hale, Kenneth and Samuel J. Keyser. 1993. "On Argument Structure and the Lexical Expression of Syntactic Relations." In *The View from Building 20. Essays in Linguistics in Honor of Sylvain Bromberger*. K. Hale and S.J. Keyser, eds., MIT Press, Cambridge, pp. 53-109.
- Henne, Henry, Ole Bjørn Rongen, and Lars Jul Hansen. 1977. *A Handbook on Chinese Language Structure*. Universitetsforlaget, Oslo.
- Hoekstra, Teun, and René Mulder. 1990. "Unergatives as Copular Verbs; Locational and Existential Predication."
- Hoekstra, Eric. 1991. *Licensing Conditions on Phrase Structure*. Dissertation, University of Groningen.
- Hoekstra, Teun, and René Mulder. 1990. "Unergatives as Copular Verbs; Locational and Existential Predication." *The Linguistic Review* 7, 1-79.

- Huang, C.-T. James. 1991. "Remarks on the Status of the Null Object." In *Principles and Parameters in Comparative Grammar*. R. Freidin, ed., MIT Press, Cambridge, pp. 56-76.
- Jackendoff, Ray. 1977. *X'-Syntax: A Study of Phrase Structure*. MIT Press, Cambridge.
- Jonas, Diane. 1992. Transitive Expletive Constructions in Icelandic and Middle English. Ms., Harvard University.
- Jonas, Diane. 1995. Clause Structure and Verbal Syntax of Scandinavian and English. Dissertation, Harvard University.
- Kayne, Richard S. 1984. Connectedness and Binary Branching. Foris, Dordrecht.
- Kayne, Richard S. 1994. *The Antisymmetry of Syntax*. MIT Press, Cambridge.
- Koizumi, Masatoshi. 1994. "Layered Specifiers." *Proceedings of NELS24*, 255-269.
- Larson, Richard K. 1988. "On the Double Object Construction." *Linguistic Inquiry* 19, 335-391.
- Li, Y-H Audrey. 1990. Order and Constituency in Mandarin Chinese. Kluwer Academic Publishers, Dordrecht.
- Mahajan, Anoop. 1990. The A/A' Distinction and Movement Theory. Dissertation, MIT.
- Massam, Diane. 1985. Case Theory and the Projection Principle. Dissertation, MIT.
- Montalbetti, Mario. 1984. After Binding. Dissertation, MIT.
- Moro, Andrea. 1993. I predicati nominali e la struttura della frase. Unipress, Padova.
- Philippaki-Warbuton, Irene. 1992. Isagogi sti theoretiki glossologia [Introduction to Theoretical Linguistics]. Nefeli, Athens.
- Rizzi, Luigi. 1990. Relativized Minimality. MIT Press, Cambridge.
- Shi, Dingxu. 1990. "Is there Object-to-Subject Raising in Chinese?" *Proceedings of BLS 16*, 305-314.
- Teng, Shou-shin. 1974. "Double Nominative in Chinese." *Language* 50, 455-473.
- Ura, Hiroyuki. 1994. Varieties of Raising and the Feature Based Bare Phrase Structure Theory. *MIT Occasional Papers in Linguistics* 7.
- Vanden Wyngaerd, Guido. 1989. "Object Shift as an A-Movement Rule." *MIT Working Papers in Linguistics* 11, 256-271.
- Vikner, Sten. 1995. Verb Movement and Expletive Subjects in the Germanic Languages. Oxford University Press, New York/Oxford.
- Zwart, C. Jan-Wouter. 1992. "Dutch Expletives and Small Clause Predicate Raising." *Proceedings of NELS 22*, 477-491.
- Zwart, C. Jan-Wouter. 1993. Dutch Syntax. A Minimalist Approach. Dissertation, University of Groningen.
- Zwart, C. Jan-Wouter. 1996a. "N-Feature Checking in Germanic Verb Second Configurations." In *Studies in Comparative Germanic Syntax II*. H. Thráinsson, S.D. Epstein, and S. Peter, eds., Kluwer Academic Publishers, Dordrecht, pp. 257-275.
- Zwart, C. Jan-Wouter. 1996b. "Shortest Move" versus "Fewest Steps." In *Minimal Ideas. Syntactic Studies in the Minimalist Framework*. W. Abraham,



S.D. Epstein, H. Thráinsson, and C.J.W. Zwart, eds., John Benjamins, Amsterdam, pp. 239-261.

Zwart, C. Jan-Wouter. 1997. *Morphosyntax of Verb Movement. A Minimalist Approach to the Syntax of Dutch*. Kluwer Academic Publishers, Dordrecht.