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German Superiority*

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1 Multiple Interrogatives: The Problem

This squib sets its task to be an investigation into conditions on movement. In particular, recent work within the Minimalist Program (Chomsky 1993, 1995, Chomsky and Lasnik 1993) will be adopted and combined with some proposals regarding word order phenomena in German (Grohmann 1996, Haegeman 1996) in order to take a fresh look at the phenomenon of *Superiority* (Chomsky 1973) and the lack thereof in German. The thesis of the present work is to discuss the possibility of an interaction between movement that results in (free) word orders in German, known as *scrambling*, and movement processes involved in question formation, *i.e.* Wh-movement, and with respect to Superiority, *multiple Wh-movement*.

Chomsky (1973) observed the following contrast:

(1) a. I wonder who bought what
b. * I wonder what who bought

While one Wh-element can precede over another in (1a), the same is not possible in (1b). It is important to note that the grammatical case involves overt Wh-movement of the subject while the Wh-object moves in the ungrammatical one. The general assumption is that one Wh-phrase in English moves overtly to SpecCP, while the other remains *in situ*. Chomsky's explanation is the Superiority Condition, which simply states that no rule R can apply to X when there is a superior Y to which it could also apply.[1]

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[1] As stated by Chomsky (1973: 101),

i) No rule can involve X, Y in the structure
… X… [$_{\alpha}$ … Z… — WYV…] …
where the rule applies ambiguously to Z and Y
and Z is superior to Y.

Over the next twenty years, attempts were made to explain the Superiority Condition by some deeper principle of grammar.[2] The most prominent efforts involve LF-movement of the Wh-element *in-situ* to the SpecCP position (Higginbotham and May 1981, Pesetsky 1982, 1987) and hence reduce the ungrammaticality of (1b) and similar cases to an ECP-violation (Aoun, Hornstein and Sportiche 1981, Huang 1982 and much subsequent work).[3]

Superiority was also investigated in other languages such as Japanese or Chinese (which presumably lack overt Wh-movement altogether; Huang 1982, Pesetsky 1987, Fiengo *et al.* 1987, Takahashi 1993, Tsai 1994) and Polish and related languages (where multiple Wh-phrases in SpecCP are presumably the norm; Rudin 1988, Pesetsky 1987).[4] It is difficult, however, to account for multiple interrogatives in German with any of these proposals, however. Here, the Wh-operations are analogous to those found in English, *i.e.* one Wh-phrase moves to SpecCP overtly while the other remains *in situ*. Curiously, though, Superiority effects are not found, which would be unexpected under any traditional analysis:

(2) a. Ich frage mich wer was gekauft hat
I wonder myself who what bought has
'I wonder who bought what'
b. Ich frage mich was wer gekauft hat

Within the Minimalist Program (MP), all of the old analyses for Superiority effects will have to be reformulated. As the essential principle at work in these accounts is the ECP, the task at hand is to either reformulate the ECP in minimalist terms or dispense with it altogether and replace it by other principles, already anchored in the grammar. With respect to Superiority and the ECP, Hornstein (1995: 124) notes that while the Superiority Condition is too specific (it only captures some instances of multiple interrogatives), the ECP is too general (by capturing subject/object-asymmetries and argument/adjunct-asymmetries, it overgeneralizes for many cases of Superiority violations). Recent approaches try to tie in

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[2] This is to say that the Superiority Condition as a descriptive generalization of the phenomenon still holds, of course. This has been established in the literature and the analysis proposed here will not challenge it; all I want to do here is discuss whether recent advancements in the theory may help us fill another gap.

[3] In this respect, it should be noted that "pure" Superiority (Hendrick and Rochemont 1982) effects cannot easily be captured by the ECP; these kinds of multiple interrogatives do not involve a subject Wh. This shall, however, not be relevant here as I will propose an alternative approach which can account for all types.

[4] Here I might note that Bulgarian or Japanese behave more like German. For reasons of space, I cannot present the relevant data here but refer to the literature (e.g. Boskovic 1993, Takahashi 1993).

Superiority effects with Weak Crossover (WCO), in particular Hornstein who bases his discussion on Chierchia (1991), and Williams (1994)[5]

In the present work, I will discuss an alternative to the WCO-style analysis and present new facts which should prefer an MP-style analysis in terms of a general condition on movement over a WCO-analysis. In particular, I will set the starting point to revolve around the Minimal Link Condition (MLC), as proposed by Chomsky (1995).[6]

After outlining the MLC and showing its suitability for Superiority effects in English,[7] I will look at German clause structure and pursue the intuitive idea that multiple interrogation and scrambling interact.[8] In particular, I will argue that based on the relatively free word order in German, Superiority effects are not only absent but are not even expected. Crucial here is an account of scrambling as reordering of elements below the Wh-projection (Haeberli 1995a, Grohmann 1996, Haegeman 1996). The upshot of the discussion will be that "Wh-*in-situ*" in German is actually some sort of "Wh-in-Agr", *i.e.* the apparently unmoved Wh-constituent has moved into the Agr-complex (and possibly beyond) in order to check strong features, an option that is not available in English. I will adopt the feature-checking theory of the Minimalist Program, enabling me to propose a parametric difference for Superiority based on strength of features.[9]

2 An Analysis for Superiority

Kitahara (1994: 70) presents an analysis of Superiority in terms of the Shortest Movement Requirement; I will expand his idea and replace the Shortest Movement Requirement with the MLC, as proposed in Chomsky (1995: 296).

(3) *Minimal Link Condition (MLC)*
α can raise to target K only if there is no legitimate operation Move β targeting K, where β is closer to K.

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[5] We will see in section 4 that there is evidence that the Superiority effect is a syntactic process and hence any semantic analysis (WCO, LF-movement, ECP *etc.*) falls short of accounting for it.

[6] To my knowledge, Kitahara (1994) was the first who proposed an analysis of Superiority in such terms. At the time, the locality principle within MP was the Shortest Movement Requirement.

[7] And by doing so, it also captures cross-linguistic data (see fn. 4).

[8] To spell out this idea was encouraged by discussions with Tom Roeper who I am hereby very grateful to. Fanselow (1995) makes a similar observation which has no further consequence within his base-generated account for scrambling, however, whereas Müller and Sternefeld (1993) categorically deny this. If there is anything to the analysis presented here, we have further evidence against Müller and Sternefeld's (1993) Principle of Unambiguous Binding (see also Culicover 1996 on this issue).

[9] We will see that the kind of feature(s) I am concerned with here must be categorial or nominal phi-features because they may not be deleted prior to Wh-movement (interpretable, Chomsky 1995: 277ff.).

(4) *Closeness and legitimate*
• Closeness is expressed in terms of c-command and equidistance (Chomsky 1993: 17)
• Legitimate means to satisfy Last Resort (Chomsky 1995: 280)

Let us assume, *pace* Chomsky (1993) and Kitahara (1994), that in a language such as English (and German) one Wh-element fills the SpecCP-position at Spell-Out while any other Wh-element undergoes absorption at LF, without movement.[10]

By (3) and (4), then, the predictions with respect to (1) are borne out, as shown in the following LF-representation (from Kitahara 1994: 71, absorbed elements are outlined):

(5) a. I wonder [$_{CP}$ who$_i$ C° [$_{AgrSP}$ t$_i$ bought what$_j$]]
b. I wonder [$_{CP}$ what$_j$ C° [$_{AgrSP}$ who$_i$ bought t$_j$]]

The LF-representation of (1a) as shown in (5a) indicates that the two Wh-elements are absorbed. The subject-Wh *who* moves overtly to SpecCP, the object-Wh *what* remains *in situ*. This movement satisfies the MLC: raising *who* to SpecCP is legitimate because *what* is not closer to SpecCP. Before movement of *what* in (5b), the same relations hold, hence movement of *what* to SpecCP is not raising of the closest element and thus it is ruled out.

This approach uses the intuitive idea that before Wh-movement, an argument undergoes the required movement operation to check features such as agreement (and possibly Case). English subjects are assumed to move overtly to SpecAgrSP for this reason due to strong features,[11] while objects remain in their base-generated position within VP and move at LF. (Note that even if the object in (5b) were to move to SpecAgrOP overtly, it still would be further away from SpecCP than the subject.)

Boskovic (1993) capitalizes on the differences in strength of features cross-linguistically, and proposes that in Spanish and Hebrew, for example, the reverse case appears: the (post-verbal) subject remains in SpecVP while the object moves overtly to SpecAgrOP. The result is that it is the object-Wh which satisfies the MLC by moving to SpecCP.

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[10] The idea of absorption dates back to Higginbotham and May (1981) who propose LF-movement of Wh-elements to then absorb the Wh-features at LF. The present framework does not assume movement at LF in order to undergo absorption. Note that neither Kitahara (1994: 71) nor Chomsky (1993: 26 and 47, fn. 30) are explicit about the actual technicalities regarding absorption but simply assume it; one possibility may be "unselective binding" (Juan Uriagereka, p.c.). This shall not be our concern here, though.

[11] The relevant feature is the D-feature (see fn. 9).

This idea correlates with the proposal made here in two points: i) I will use parametric variation in strength of features and ii) I will use an extended view of the clause structure to show that Superiority effects in German are not even expected under similar circumstances as in English.[12]

3 Implementation for German: Scrambling and Wh-Movement

German is well-known for its relatively free word order of arguments. This phenomenon, known as scrambling, will play a crucial role here. As alluded to above, Wh-movement is preceded by feature-checking when necessary. Feature-checking of any feature F is necessary if F is strong. Here we follow Chomsky (1995) and assume the strength of the feature to sit on a functional head. Phrase structure is not full-fledged from the outset; rather, it builds up as the derivation unfolds. Functional heads project only if they bear some feature that needs to be checked. While it is plausible that T (and plausibly the Agr-heads; but see Chomsky 1995, section 4.10) is always part of the array, other functional heads (such as Top) are only part of the numeration if they bear their respective features. Crucially, functional heads may check the respective features only with elements that also bear this feature. But unlike in earlier versions of the MP (e.g. Chomsky 1993), it is now assumed that a rule of the type Attract is operative: movement is triggered by some functional head that attracts a suitable element it c-commands.

Within an analysis of scrambling as assumed here (see Haeberli 1995a, Grohmann 1996),[13] all (definite) arguments in German are endowed with a (D-)feature that is related to a strong (D-)feature in the respective Agr-heads. The Agr-heads attract the arguments, forcing them to move out of VP overtly to the specifier positions of the respective AgrPs. In particular, both orders of objects, SU-IO-DO and SU-DO-IO, follow from a free ordering of AgrOP; pre-subject scrambling of objects is an instance of topicalization, driven by the presence of a strong Top-feature on a Top-head which needs to be checked. Topicalization targets TopP, situated below CP (in recent terminology regarding a finer structure of CP, it is

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[12] I will, of course, have more to say as in German the subject moves out of VP as well as the objects do, and thus the pure AgrO-approach of Boskovic has to be elaborated on.

[13] There arise two problems here: first, the technical issues over the free AgrOP-ordering need to be resolved. Second, what is called "topicalization" in Grohmann (1996) may actually be somewhat distinct from what is commonly known as topicalization; it may rather be a process of syntactic emphasis with a distinct A-character (as opposed to the A'-status of topicalization). For sake of complexity, I will refer to the process as topicalization nevertheless, an issue which needs to be resolved in future work. One possible solution may be

above FinP and below FocP whose head bears the Wh-feature; Rizzi 1995, Haegeman 1996, Grohmann 1997).[14]

The LF-representations for (2), thus, look as follows:

(6) a. Ich frage mich [$_{CP}$ wer$_i$ C° [$_{AgrSP}$ t$_i$ [$_{AgrOP}$ was$_j$ gekauft hat]]]
b. Ich frage mich [$_{CP}$ was$_j$ C° [$_{TopP}$ t$_j$ [$_{AgrSP}$ wer$_i$ [$_{AgrOP}$ t$_j$ gekauft hat]]]

The derivation of (6a) is as straightforward as in the English case: the subject-Wh, stopping on its way to SpecCP in SpecAgrSP, satisfies the MLC as it is closer to SpecCP than the other candidate, the object-Wh. In (6b) we observe that the object-Wh is the element overtly Wh-fronted. We can now capitalize on the analysis of scrambling assumed here: scrambling over the subject, *was* targets SpecTopP to check off a Top-feature. In this position, above the subject, only *was* can satisfy the MLC in the following Wh-movement.

The approach taken here, relies on a recent account of free word order in German (Grohmann 1996 for embedded clauses). On the grounds that objects or adjuncts preceding the subject in German (both, in matrix and in embedded contexts) are marked by intonational emphasis, an analysis involving a recursive TopP seems reasonable. I cannot go into detail with respect to the arguments here but simply adopt this approach (*cf.* fn 13).

One prediction, then, is that any Wh-argument may occur in SpecCP, with all other (Wh-) arguments lower. If all Agr-heads in German are endowed with a strong feature which drives the arguments to move out of VP overtly, these movement operations must also take place when endowed with an additional Wh-feature. The consequence is that prior to Wh-movement, the particular element is situated in the specifier of either TopP or AgrP. The relevant data are shown below, indicating the relevant projections and traces:

(7) Ich frage mich…
a. … [$_{CP}$ wem$_i$ [$_{TopP}$ t$_i$ [$_{AgrSP}$ wer [$_{AgrOP}$ t$_i$ [$_{AgrOP}$ das Buch gegeben hat]]]]]
b. … [$_{CP}$ wem$_i$ [$_{TopP}$ t$_i$ [$_{AgrSP}$ der Hans [$_{AgrOP}$ t$_i$ [$_{AgrOP}$ was gegeben hat]]]]]
c. … [$_{CP}$ wem$_i$ [$_{TopP}$ t$_i$ [$_{TopP}$ was$_j$ [$_{AgrSP}$ der Hans [$_{AgrOP}$ t$_i$ [$_{AgrOP}$ t$_j$ gegeben hat]]]]]]
d. … [$_{CP}$ wem$_i$ [$_{TopP}$ t$_i$ [$_{TopP}$ das Buch$_j$ [$_{AgrSP}$ wer [$_{AgrOP}$ t$_i$ [$_{AgrOP}$ t$_j$ gegeben hat]]]]]]

(8) Ich frage mich…
a. … [$_{CP}$ was$_i$ [$_{TopP}$ t$_i$ [$_{AgrSP}$ wer [$_{AgrOP}$ t$_i$ [$_{AgrOP}$ der Maria gegeben hat]]]]]

Rizzi's (1995) implementation of an AgrP related to TopP where the emphasized element moves to (see Shlonsky 1992 on an original formulation of Agr in CP).

[14] One important piece of work that led to an articulated structure of CP is, in fact, the analysis of topicalization in German, as proposed by Müller and Sternefeld (1993); also Haftka (1995) and Culicover (1996).

b. … [$_{CP}$ was$_i$ [$_{TopP}$ t_i [$_{AgrSP}$ der Hans [$_{AgrOP}$ t_i [$_{AgrOP}$ wem gegeben hat]]]]]
c. … [$_{CP}$ was$_i$ [$_{TopP}$ t_i [$_{TopP}$ wem$_j$ [$_{AgrSP}$ der Hans [$_{AgrOP}$ t_i [$_{AgrOP}$ t_j gegeben hat]]]]]]
d. … [$_{CP}$ was$_i$ [$_{TopP}$ t_i [$_{TopP}$ der Maria$_j$ [$_{AgrSP}$ wer [$_{AgrOP}$ t_i [$_{AgrOP}$ t_j gegeben hat]]]]]]

In (7), the Wh-IO is in SpecCP and all possible orders regarding a Wh- and a non-Wh-element (IO, SU) are grammatical. (8) shows the same paradigm for the fronted Wh-DO. Crucial here are two assumptions: i) AgrOP may be ordered freely, hosting either IO or DO first and ii) pre-subject scrambling involves topicalization. None of these assumptions are unreasonable or rely on pure stipulation. The special role of the subject — *i.e.* its canonical position in SpecAgrSP — is reflected in spoken language by two characteristics which go hand in hand with each other. For one, as is well-known (cited by deVilliers *et al.* 1996 and many others) some speakers regard constructions involving an object preceding the subject as more marked; this is also borne out in multiple interrogatives, where some speakers prefer (2a) over (2b). Secondly, as a direct consequence, any element preceding the subject receives an emphatic intonation. That this cannot be an instance of focalization is reflected in the A-dependency character of local scrambling, as often noted (e.g. Vanden Wyngaerd 1989, Mahajan 1990, Webelhuth 1989, Haeberli 1995b).

However, it remains to be accounted for why some speakers do not prefer one constellation over another. One such dialect is presumably Swiss German (Eric Haeberli, p.c.). Here one may adopt Haeberli's (1995a) approach concerning a free ordering of all AgrPs, including the subject. Given that in the majority of dialects — as outlined above — the subject plays a crucial role, this standpoint seems justified. Note that under such an account for scrambling, the same predictions are borne out with respect to multiple interrogatives: any ordering satisfies the MLC. We may take this to be one parametric difference among German dialects.[15]

The other prediction of the analysis presented here is that non-arguments should also be freely available to move to SpecCP or not. This is borne out:[16]

(9) a. Ich frage mich wer sie wie geküßt hat
I ask myself who she how kissed has

[15] If the subject does not carry a special role in some dialects (according to Eric Haeberli, p.c., Swiss German is one example), it is perfectly feasible that the entire Agr-complex is freely ordered (Haeberli 1995a, 1995b). The result would be that any argument may move to the highest of these positions and, if preceding the subject, does not necessarily be marked as a topic (*cf.* fn. 13 on the issue of topicalization in this respect). The constellations of (7) and (8) are thus reached without envoking further projections (due to the lack of a Top-feature). It follows that the top-most element is closest to SpecCP and may move without violating the MLC.

[16] Haider (1996) actually cites the analogue of (11) as ungrammatical with the explanation that *how* and *why* (universally) may not appear in situ when an operator is in SpecCP, as they are operators themselves (his Generalization I, p. 2). His judgements, however, do not coincide with my own, nor with any of the native speakers I have consulted (23 in number, and all get a pair-list reading). I have thus to refute his claims.

'*I wonder who how kissed her'

b. Ich frage mich wer sie warum geküßt hat

(10) a. Ich frage mich wie sie wer geküßt hat
b. Ich frage mich warum sie wer geküßt hat

(11) a. Ich frage mich warum er sie wie geküßt hat
b. Ich frage mich wie er sie warum geküßt hat

(12) a. Ich frage mich wann er sie wo geküßt hat
I ask myself when he her where kissed has
'*I wonder when he kissed her where'
b. Ich frage mich wo er sie wann geküßt hat

In (9) and (10), the adjuncts *wie* 'how' and *warum* 'why' are used in connection with a subject Wh-element. As predicted, all possibilities are fine. The subject, in SpecAgrSP, is closest to SpecCP and satisfies the MLC by moving in (9). In (10) the adjunct moves; this is fine if in these constructions, the adjunct moves from SpecTopP. (11) and (11) show that both interrogative adjuncts may be used in one clause (see fn. 16).

4 Some Consequences

The analysis concerning the lack of Superiority effects in German as presented here crucially relies on the assumptions that in a language that has strong nominal features (Case, Agr etc.), these have to be checked overtly in the course of Wh-movement, too. German, where all arguments move overtly to the Agr-complex for feature-checking, is one example; this has as a consequence that before the final Wh-movement, all Wh-elements are in the Agr-complex. This way we can account for some of the data. An elaboration of this idea ties in (multiple) Wh-movement with scrambling: assuming that scrambling is a movement process in order to check features, the free order of arguments in German is created prior to Wh-movement.[17] This aspect explains why Superiority effects are not found as readily in German, and are not even predicted (see also Richards 1996, 1997 who comes to the same conclusion under a different analysis).

In this respect, it has to be noted that long scrambling is not possible in German (unlike Russian, for example; see Müller and Sternefeld 1993). It is thus predicted that long Wh-movement should violate the Superiority Condition. Takahashi (1993: 664) presents

similar data from Japanese which further supports the view that scrambling and Wh-movement interact.[18]

(13) a. * Das Buch sagt sie daß er ihr gegeben hat
b. Was sagt sie daß er ihr gegeben hat?
c. * Was sagt wer daß er ihr gegeben hat?

(14) a. John-ga dare-ni [Mary-ga nani-o tabeta to] itta no?
John-NOM who-DAT Mary-NOM what-ACC ate COMP said Q
'Who did John tell that Mary ate what?'
b. ??Nani$_i$-o John-ga dare-ni [Mary-ga t_i tabeta to] itta no?
c. Pizza$_i$-o John-ga dare-ni [Mary-ga t_i tabeta to] itta no?

While (13a) shows that long scrambling is ungrammatical in German and (13b) that long Wh-movement is fine, (13c) is ungrammatical for most speakers.[19] In Japanese, we can see that long scrambling is fine (14c) while long Wh-movement is not (14b).

Another prediction is the occurrence of one Wh-element in SpecCP and the other above the Agr-complex, even with adjuncts (cf. (8)). This too is borne out:

(15) a. Ich frage mich [$_{CP}$ wen$_i$ [$_{TopP}$ t_i [$_{TopP}$ wann [$_{AgrSP}$ der Mann geküßt hat]]]
b. Ich frage mich [$_{CP}$ warum$_i$ [$_{TopP}$ t_i [$_{TopP}$ wen [$_{AgrSP}$ der Mann geküßt hat]]]

The approach taken here is an elaboration on recent work by Boskovic (1993) where multiple interrogatives in Hebrew, Spanish and Bulgarian receive a straightforward analysis by implementing AgrOP. Unlike these languages, German word order is relatively free and hence the analysis presented here is a reasonable expansion on Boskovic' idea. Now it remains to be tested how the idea to tie in multiple Wh-movement with scrambling works for other scrambling languages. Basque, Japanese and Korean, for example, are all languages with a free word order of arguments.[20]

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[17] Notice that it is not necessary to stipulate that Wh-movement takes place "late" in the derivation: assuming the minimalist conception of building structure rather than starting with a full-fledged phrase marker, the functional head with the Wh-feature is highest and thus introduced last into the clause structure.

[18] Takahashi's (1993) explanation is that long scrambling in Japanese is unambiguously A'-movement (unlike clause-bound scrambling). This would tie in with our apporach here in that something like TopP (or Agr in TopP) has not a clear A'-character, unlike FocP/CP, for example.

[19] The judgements for (13c) are not unanimous. Under a scrambling-approach to Superiority as proposed here, grammaticality would not be expected. However, the restrictive quantificational character of multiple Wh makes interesting predictions here, which will be explored in more detail (Grohmann in preparation a, b).

[20] Interestingly, Miyagawa (1987) investigates a possible interaction of the topicalization marker *wa* and Wh-movement in Japanese. He concludes that in certain contexts the Wh-element may indeed be marked with *wa*. This may support the analysis presented here in so far that TopP may be the relevant position that scrambled elements move to, even prior to Wh-movement, given that we justify this on the basis of emphasis and with the possible implementation of an AgrP "inside" TopP (*cf.* fn. 13).

But one of the main results of the analysis presented here regards the theoretical nature of Superiority. Past accounts of the Superiority Condition involve LF-movement or comparisons to WCO. This seems to suggest an underlying semantic character of Superiority effects. As deVilliers *et al*. (1996) have concluded on the basis of extensive experiments with children, the nature of Superiority is syntactic. German-speaking children use constructions which are violations of the Superiority Condition in English freely and unbiased along with the "normal" construction. A possible bias towards these constructions at a mature level cannot clearly disambiguate between the semantic or syntactic nature; children's behaviour, however, may give us a clear-cut answer. In line with their conclusion, the proposal here does not rely on LF-movement or similar semantic-like means but gives a straightforward syntactic account of the (lack of the) phenomenon in German.

References

Aoun, Joseph, Norbert Hornstein and Dominique Sportiche (1981) 'Some Aspects of Wide Scope Quantification'. *Journal of Linguistic Research* 1.3, 69-95.

Boskovic, Zeljko (1993) 'On Certain Violations of the Superiority Condition, AgrO, and Economy of Derivation'. Ms., University of Connecticut, Storrs.

Chierchia, Gennaro (1991) 'Functional Wh and Weak Crossover'. In D. Bates (ed) *Proceedings of WCCFL 10*. Stanford, 75-90.

Chomsky, Noam (1973) 'Conditions on Transformations'. In S. R. Anderson and P. Kiparsky (eds) *A Festschrift for Morris Halle*. New York: Holt, Reinhart and Winston, 232-286.

Chomsky, Noam (1993) 'A Minimalist Program in Linguistic Theory'. In K. Hale and S. J. Keyser (eds) *The View from Building 20*. Cambridge, MA: MIT Press, 1-52. [Appeared in Chomsky (1995), 167-217.]

Chomsky, Noam (1995) *The Minimalist Program*. Cambridge, MA: MIT Press.

Chomsky, Noam and Howard Lasnik (1993) 'The Theory of Principles and Parameters'. In J. Jacobs, A. von Stechow, W. Sternefeld and T. Vennemann (eds) *Syntax: An International Handbook of Contemporary Research*. Berlin: Mouton de Gruyter. [Appeared in Chomsky (1995), 13-127.]

Culicover, Peter W. (1996) 'On Distinguishing A'-Movements'. *Linguistic Inquiry* 27.3, 445-463.

Fanselow, Gisbert (1995) 'A Minimalist Approach to Free Constituent Order'. Ms, University of Potsdam.

Fiengo, Robert, C. T. James Huang, Howard Lasnik and Tanya Reinhart (1988) 'The Syntax of Wh-in-situ'. *Proceedings of WCCFL 7*. Stanford, 81-98.

Grohmann, Kleanthes K. (1996) 'Some Remarks on the West Germanic *Mittelfeld*: Scrambling, Case and Pronominalization'. BA Honours Diss., University of Wales, Bangor. [To appear in a shortened and revised version as 'Pronouns and the Left Periphery of West Germanic Embedded Clauses' in W. Abraham and E. van Gelderen (eds) *Problemsyntax Deutsch — Problem Syntax German*. Tübingen: Niemeyer.]

Grohmann, Kleanthes K. (1997) 'On Left Dislocation'. Ms., University of Maryland, College Park. [Also in this volume.]

Grohmann, Kleanthes K. (in preparation a) 'Scrambling, Topicalization and (Multiple) Wh'. Ms., University of Maryland, College Park.
Grohmann, Kleanthes K. (in preparation b) 'On the Left Periphery in German'. Ms., University of Maryland, College Park.
Haeberli, Eric (1995a) 'Morphological Case, *pro* and Word Order'. Ms., University of Geneva.
Haeberli, Eric (1995b) 'On Crossing A-Dependencies'. Ms., University of Geneva.
Haegeman, Liliane (1996) 'Verb Second, Split CP and Null Subjects in Early Dutch Finite Clauses'. Ms., University of Geneva.
Haftka, Brigitta (1995) 'Syntactic Positions for Topic and Contrastive Focus in the German Middlefield'. In I. Kohlhof, S. Winkler and H. B. Drubig (eds) *Proceedings of the Göttingen Focus Workshop*. SFB 340.
Haider, Hubert (1996) 'Towards A Superior Account of Superiority'. Ms., University of Stuttgart.
Hendrick, Randolph and Michael Rochemont (1982) 'Complementation, Multiple Wh and Echo Questions'. Ms., Universities of North Carolina and California, Irvine.
Higginbotham, James and Robert May (1981) 'Questions, Quantifiers and Crossing'. *The Linguistic Review* 1, 41-80.
Hornstein, Norbert (1995) *Logical Form: From GB to Minimalism*. Oxford: Blackwell.
Huang, C. T. James (1982) *Logical Relations in Chinese and the Theory of Grammar*. PhD Diss., Massachusetts Institute of Technology, Cambridge.
Kitahara, Hisatsugu (1994) *Target α: A Unified Theory of Movement and Structure Building*. PhD Diss., Harvard University, Cambridge.
Mahajan, Anoop (1990) *The A/A-bar Distinction and Movement Theory*. PhD Diss., Massachusetts Institute of Technology, Cambridge.
Miyagawa, Shigeru (1987) '*Wa* and the Wh-Phrase'. In J. Hinds, S. K. Maynard and S. Iwasaki (eds) *Perspectives on Topicalization: The Case of Japanese* wa. Amsterdam: Benjamins, 185-217.
Müller, Gereon and Wolfgang Sternefeld (1993) 'Improper Movement and Unambiguous Binding'. *Linguistic Inquiry* 24.3, 461-507.
Pesetsky, David (1982) *Paths and Categories*. PhD Diss., Massachusetts Institute of Technology, Cambridge.
Pesetsky, David (1987) 'Wh-in-Situ: Movement and Unselective Binding'. In A. ter Meulen and E. Reuland (eds) *The Representation of (In)definiteness*. Cambridge, MA: MIT Press.
Richards, Norvin (1996) 'Subjacency Forever'. To appear in *Proceedings of CONSOLE 5*.
Richards, Norvin (1997) 'Featural Cyclicity and the Orderng of Multiple Specifiers'. Ms. (draft), Massachusetts Institute of Technology, Cambridge.
Rizzi, Luigi (1995) 'The Fine Structure of the Left Periphery'. Ms., University of Geneva. [To appear in L. Haegeman (ed) *Elements of Grammar: A Handbook of Generative Syntax*. Oxford: Blackwell.]
Rudin, Catherine (1988) 'On Multiple Questions and Multiple Wh-Fronting'. *Natural Language and Linguistic Theory* 6.4, 545-601.
Shlonsky, Ur (1992) 'Agreement in COMP'. *The Linguistic Review* 11, 351-375.
Takahashi, Daiko (1993) 'Movement of Wh-Phrases in Japanese'. *Natural Language and Linguistic Theory* 11.4, 655-678.
Tsai, W.-T. Dylan (1994) 'On Nominal Islands and LF Extraction in Chinese'. *Natural Language and Linguistic Theory* 12.2, 121-175.
Vanden Wyngaerd, Guido (1989) 'Object Shift as an A-Movement Rule'. *MIT Working Papers in Linguistics* 11.

deVilliers, Jill, Tom Roeper and Jürgen Weissenborn (1996) 'Superiority: Syntax or Semantics?'. Handout from talk presented at *What the Child Has to Say about Linguistic Theory*, Utrecht, 1996.

Webelhuth, Gert (1989) *Syntactic Saturation Phenomena and the Modern Germanic Languages*. PhD Diss., University of Massachusetts, Amherst. [Appeared as Webelhuth (1992) *Principles and Parameters of Syntactic Saturation*. Oxford: Oxford University Press.]

Williams, Edwin (1994) *Thematic Structure in Syntax*. Cambridge, MA: MIT Press.