

## INTRODUCTION

### 0. COMPARATIVE GERMANIC SYNTAX

This volume contains 13 papers that were prepared for the *Seventh Workshop on Comparative Germanic Syntax* at the University of Stuttgart in November 1991. In defining the theme both of the workshop and of this volume, we have taken "comparative" in "comparative Germanic syntax" to mean that at least two languages should be analyzed and "Germanic" to mean that at least one of these languages should be Germanic. There was no requirement as such that the research presented should be situated within the framework known as Principles and Parameters Theory (previously known as Government and Binding Theory), though it probably is no accident that this nevertheless turned out to be the case.

Within this theory, it is seen as highly desirable to be able to account for several differences on the surface by deriving them from fewer underlying differences. The reason is that, in order to explain the ease with which children acquire language, it is assumed that not all knowledge of any given language is the result of learning, but that instead children already possess part of this knowledge at birth (the innate part of linguistic knowledge will obviously be the same for all human beings, and thus this theory also provides an explanation of language universals). The fewer "real" (i.e. underlying) differences there are between languages, the less data children will have to encounter in order to be able to choose between alternative possibilities. The fewer data that have to be encountered to acquire any given language, the better the account for the ease of first language acquisition will be.

Linguists should therefore try to account for as many surface differences as possible by positing as few underlying differences as possible. This theory thus provides an interesting framework for the field of comparative Germanic syntax, and conversely, the Germanic languages comprise an interesting field for this theory, because at the surface the structural differences between the various Germanic languages and dialects are already quite restricted and have been relatively well described.

In sections 1 through 4 of the following introduction, we attempt to sketch an overview of the field of comparative Germanic syntax and in section 5 to indicate how the individual papers of this volume fit into this general picture.

## 1. FUNCTIONAL ARCHITECTURE OF THE CLAUSE

1.1. *Clause Structure and Functional Heads*

Current theorizing represents the clause as a cascade of functional projections terminating in a V-projection. Chomsky (1986) originally suggested integrating INFL and COMP into the class of projecting heads in order to assimilate sentence structure to the X-bar schema. In subsequent work on verb placement in French and English, cf. Pollock (1989) and Chomsky (1991), the need was recognized for breaking down INFL into its functional components AGR-S, T(ense) and AGR-O. In addition NEG was added to the general inventory of functional heads and soon further suggestions such as an additional AGR-S2 or TOP(ic) node appeared. Against the background of these ideas, Ouhalla (1991) argued that the relative order of the functional layers of a clause could account for characteristic affixal ordering on verbs in typologically different languages. However, it currently remains a hotly debated question what the exact number and category of the functional heads of a clause are, and whether there is indeed a cross-linguistically invariant number and array of categories.

At the same time, a second issue often referred to as the "uniformity vs. difference" hypothesis continues to spark debate, especially in literature pertaining to the sentence structure of German. The problem boils down to the question first posed by Reis (1985) as to whether independent and embedded clauses are of the same categorial type (i.e. CP) as characterized by the earliest generative studies of den Besten (1983) and Thiersch (1978) or whether they represent different categories (e.g. IP vs. CP). Travis (1991) and Zwart (1991, 1993) deviate from the purely uniform view held by e.g. Schwartz and Vikner (1989) that all sentences are CPs in suggesting that subject-initial main clauses are merely IPs. Brandt *et al.* (1992) argue that all non-complementizer introduced clauses are IPs whereas clauses with complementizers are manifestations of a hybrid category CP/IP. See also Haider (1988) and Heycock and Kroch (1993) for different variations of this idea. At issue in this debate are central theoretical questions like whether there is an I node and whether it is initial or final in SOV languages and whether the verb second phenomenon can be given a uniform definition as V-to-C in its various shapes, i.e. when it occurs generally in embedded clauses or is restricted to certain complements with or without an accompanying complementizer.

Among this lively and productive discussion, there is a consensus that the Germanic verb second property can be characterized as follows: The finite verb occupies the topmost functional head position, with a phrasal constituent in the Spec-position. A head-chain relates the derived position with the base position. There are ongoing controversies, however, about the categorization of the topmost functional category. Since Chomsky's

analysis (1986) of the clause as a CP, it is widely assumed that the V2-position is the C-position. If C is the category of a class of head elements, namely complementizers, the C-position should be inaccessible for elements not of category C. Verbs are not of category C. This rules out V-to-C as a substitution operation. The remaining option, V-to-C as adjunction of V to C, is no more attractive than the former: Finite verbs do not adjoin to lexical C-elements. Why should they adjoin to empty C-positions? But, if the topmost functional head position is not of category C, what is its category?

Perhaps it is the question that is misleading. The grammar should characterize the clause as a well-formed, autonomous functional projection. Whatever functional category is able to serve as an autonomous functional head will provide the topmost functional projection. The fact that C-heads are typically heads of dependent clauses whereas V2-patterns are the unmarked root constructions in V2-languages calls for a more abstract characterization of the clause structure. Unembedded clauses are functional projections whose topmost functional head is autonomous. This characterization amounts to a categorially underspecified characterization of the root projection (cf. Haider 1993, Grimshaw 1993).

1.2. *The Position of the Finite Verb*

Verb second (V2) is perhaps the most striking feature of the syntax of the Germanic languages: The finite verb occurs as the second element of the clause, irrespective of whether or not the subject is the first element. The only exceptions to V2 in main clauses are found in English, although even English has main clause V2 with topicalizations of negative elements and in questions.

- (1) a. En. \* [This article] [has] Peter already read  
b. Da. [Denne artikel] [har] Peter allerede læst  
c. Ge. [Diesen Artikel] [hat] Peter schon gelesen
- (2) a. En. \* [Maybe] [has] Peter already read this article  
b. Da. [Måske] [har] Peter allerede læst denne artikel  
c. Ge. [Vielleicht] [hat] Peter schon diesen Artikel gelesen
- (3) a. En. [Never before] [had] Peter read such a good article  
b. Da. [Aldrig før] [havde] Peter læst sådan en god artikel  
c. Ge. [Nie vorher] [hatte] Peter so einen guten Artikel gelesen
- (4) a. En. [Why] [has] Peter already read this article?  
b. Da. [Hvorfor] [har] Peter allerede læst denne artikel?  
c. Ge. [Warum] [hat] Peter schon diesen Artikel gelesen?

As noted in 1.1, whereas there seems to be general agreement that the

position of the verb in V2 is the highest functional head in the clause, it still remains open what the exact nature of this position is, why it is obligatory, and whether it is the same position in subject-initial and non-subject-initial V2 sentences.

It has often been suggested that when no other element occurs in the specifier position of the V2 head, an expletive has to be inserted. This analysis is advocated for German *es* e.g. by Safir (1984: 196), who cites Haiman (1974) and Breckenridge (1975). There are two reasons why this analysis is not feasible for all the V2 languages, but in fact only relevant for German and Yiddish. One is that these two languages are the only ones that do not display the so-called definiteness effect, i.e. they allow an expletive even in sentences with a definite NP:

- (5) a. Ge. Es ist heute [ein Brief von Maria] gekommen  
 b. Yi. Es iz haynt ongekumen [a briv fun Miriamen]  
 c. Ic. Það hefur í dag komið [bréf frá Maríu]  
 d. Da. Der er i dag kommet [et brev fra Marie]  
 There has today arrived a letter from Maria
- (6) a. Ge. Es ist heute [der Brief von Maria] gekommen  
 b. Yi. Es iz haynt ongekumen [der briv fun Miriamen]  
 c. Ic. \*Það hefur í dag komið [bréfið frá Maríu]  
 d. Da. \*Der er i dag kommet [brevet fra Marie]  
 There has today arrived the letter from Maria

It is clear from the ungrammaticality of (6c,d) that it could not be claimed for e.g. Icelandic and Danish that whenever nothing else occurs in the sentence-initial position, an expletive does. The second reason why this analysis could not apply to all the Germanic languages is that only German, Yiddish, and Icelandic restrict the expletive to the sentence initial position. Compare the following with (5):

- (7) a. Ge. Heute ist (\*es) [ein Brief von Maria] gekommen  
 b. Yi. Haynt iz (\*es) ongekumen [a briv fun Miriamen]  
 c. Ic. Í dag hefur (\*það) komið [bréf frá Maríu]  
 d. Da. I dag er \*(der) kommet [et brev fra Marie]  
 Today has there arrived a letter from Maria

Although there thus appears to be no direct link between expletives and V2, expletives are nevertheless relevant to the analysis of V2, in so far as they may be taken to show that, as opposed to the initial position in main clauses in VSO languages like the Celtic ones, the initial specifier position in V2 structures may not be left empty (with the possible exception of the so-called V1 declaratives found in a number of Germanic languages, cf. e.g.

Sigurðsson (1990: 45) for Icelandic, Santorini (1989: 60) for Yiddish, Önnerrfors (1993) for German, den Besten (1983: 62) for Dutch, and Platzack (1987) for Swedish).

Using the distinctions introduced above, the Germanic languages fall into three groups with respect to expletives. Some distinguish *it* from *there* in all positions (Danish: *det/der*, Dutch: *het/er*, English: *it/there*, and Frisian: *it/der*); some only make this distinction outside the specifier of V2, in which case what corresponds to *there* is an empty expletive (German: *es/pro*, Icelandic: *það/pro*, and Yiddish: *es/pro*) and finally some languages (like e.g. French or Italian) always use *it* (Faroese: *tað*, Norwegian: *det*, and Swedish: *det*).

- (8) a. Da. I går regnede *det/\*der*  
 b. Ge. Gestern regnete *es/\*pro*  
 c. Sw. I går regnade *det*  
 Yesterday rained *it/there*
- (9) a. Da. I går kom *der/\*det* et brev  
 b. Ge. Gestern kam *pro/\*es* ein Brief  
 c. Sw. I går kom *det* ett brev  
 Yesterday came *there/it* a letter

For further discussion, see, among others, Milsark (1974), Reuland (1983), Platzack (1983), Hoekstra (1983), Travis (1984), Rögnvaldsson (1984), Safir (1985), Bennis (1986), Tomaselli (1986), Cardinaletti (1990), Diesing (1990), Haider (1990, 1993), Brandner (1993), Falk (1993), Vikner (to appear, b).

Let us now turn to V2 in embedded clauses, where the Germanic languages display much more variation than in main clauses. One variation concerns the complementizer: In German, embedded V2 is only possible if *daß* is absent, whereas in most of the other languages the complementizer is not only possible but obligatory.

- (10) a. En. Peter said \*(that) [never before] [had] he read such a good article  
 b. Da. Peter sagde \*(at) [aldrig før] [havde] han læst sådan en god artikel  
 c. Ge. Peter sagte \*(daß) [nie vorher] [hatte] er so einen guten Artikel gelesen

Another variation concerns how general embedded V2 is: Whereas V2 is possible in all embedded clauses (except embedded questions) in Yiddish and Icelandic, it is only possible under certain matrix verbs, often referred to as "bridge verbs", in the other languages.

- (11) a. Ic. Jón efast um að [á morgun] [muni] María fara snemma á fætur  
 b. Da. \*Johan tvivler på at [i morgen] [vil] Maria stå tidligt op  
 c. Yi. Jonas tsveyfelt az [morgen] [vet] Miriam fri oyfshteyn  
 d. Ge. \*Johan bezweifelt, [morgen] [wird] Maria  
       John doubts (on) (that) tomorrow will Maria  
       früh aufstehen  
       get up early

Two different approaches have been taken in the literature, differing as to whether embedded V2 is seen as taking place inside or outside IP (AgrSP). One approach holds that the topic in embedded V2 occurs in Spec-IP. It has mainly been suggested for Icelandic (e.g. Rögnvaldsson and Thráinsson (1990), Iatridou and Kroch (1992)) and for Yiddish (e.g. Diesing (1990), Santorini (1989, 1992), Heycock and Santorini (1992), Iatridou and Kroch (1992)), though it should be mentioned that Reinholtz (1989) applies it to Danish and Pintzuk (1993) to Old English. Whereas it could be seen as a disadvantage of this analysis to have the topic (an A-bar-element) in what is otherwise the standard subject position (i.e. an A-position), the alternative analysis has a different disadvantage: It assumes the existence of two Cs, one containing the complementizer and the other containing the finite verb. The CP-recursion analysis has been advocated for Frisian by deHaan and Weerman (1986), for Swedish by Holmberg (1986: 110) and Platzack (1986: 225), for English by Rizzi and Roberts (1989: 22) and Authier (1992), for Danish and Frisian by Iatridou and Kroch (1992), and for all cases of embedded V2 under a complementizer by Schwartz and Vikner (1989), Vikner and Schwartz (to appear), and Vikner (to appear, b). A variation of the latter approach is presented by those analyses where a different functional projection intervenes between CP and IP: The head of this projection is labelled AgrI in Roberts (1993), F (for focus) in Tsimpli (1990), T (for topic) in Müller and Sternefeld (1993: 485), and AgrC in Shlonsky (1992a, b).

Finally, the position of the finite verb in non-V2 structures, i.e. in most embedded clauses, has also been the focus of much research. For the SVO languages, this question can be settled by observing the relative position of the finite verb and VP-initial material like sentence adverbials and negation (cf. Emonds (1978), Pollock (1989)). It turns out that the finite verb must follow sentence adverbs and negation in embedded clauses in Danish, English, Faroese, Norwegian, and Swedish. In Icelandic and Yiddish on the other hand, the finite verb has to leave VP, even though embedded questions are the only case where the verb undoubtedly occurs in I (AgrS), as all other embedded clauses are V2, which might entail a further step. V-to-I movement is often seen as linked to the richness of finite verb inflection, cf. e.g. Kosmeijer (1986), Holmberg and Platzack (1990: 101),

Roberts (1993: 246–273), Rohrbacher (1994: 30–69), and Vikner (to appear, b), as inflection is much richer in Icelandic and Yiddish than in the other Germanic SVO languages.

For the SOV-languages, the question is more difficult to settle. It is frequently assumed (e.g. den Besten (1986: 247)) that the finite verb in non-V2 structures in e.g. German has moved from its base position, V, to the right, into a clause-final I-position. However, clear evidence for this movement does not exist, and there is considerable counterevidence (cf. Reuland and Kosmeijer (1988), Haider (1993)). A particularly clear case is the interaction of extraposition and V-movement: Extraposed clauses follow the finite verb in its clause-final position. If this position is a derived functional position, the extraposed clause must be adjoined to a functional projection. However, the syntactic properties of extraposed clauses are not compatible with such an analysis (cf. Haider (1994)): Binding data show that the extraposed clause is in the c-command domain of non-scrambled objects, topicalized VPs are targets of extraposition, and extraposition does not turn a clause into an extraction-island, which it should, if the extraposition position were an adjoined A-bar-position. Independent evidence against V-movement to a clause-final I comes from the particular behavior of certain verbs in Dutch and German (e.g. Du. *her-in-delen* 'redistribute'; Ge. *ur-auf-führen* 'perform (a play) for the first time', cf. Höhle (1991)). These are verbs which may not be fronted, although they are well-formed in V-final finite clauses.

- (12) Du. a. . . . omdat hij het (her)indeeld  
           . . . because he it (re)distributes [lit. re-in-deal]  
       b. Hij deeld het (\*her)in  
           he (\*re)distributes it

If the position of the finite verb in final position is derived through V-to-I movement, it is unclear what would prevent the subsequent step from I to C. If, however, the final position is the base position, the verb simply cannot be moved. The resistance to movement comes from two conflicting demands. The first prefix is one that cannot be stranded when the verb moves, but the second prefix is one that must be stranded. It is impossible to comply with both of these demands. Hence the verb cannot be moved. If this conclusion is correct, (12a) shows that there can be no V-to-I movement in V-final clauses. Stranding becomes an issue only for V-to-C movement, which is ungrammatical, as expected.

If the verb does not move to the right, at least two possibilities arise: Either there are no clause-final functional heads or the verb does not move to these positions. However, if these functional heads must be considered to be empty, it is not clear whether they are clause-final heads or clause initial/medial. Empty functional heads which are clause medial are claimed to exist in finite, non-V2 clauses in the continental Scandinavian

languages and in English (cf. Holmberg and Platzack (1990), Vikner (to appear, b)).

From a more general perspective, the lack of verb movement to the right may reflect a more general property of derived positions. Movement to the right has been claimed to be a highly restricted or even a non-existing option in the grammar, cf. Haider (1993), Kayne (to appear), Zwart (1993). According to the latter, heads universally precede their complements. Head final structures are the result of complement fronting. If I were clause final, its complement would have to be assigned to the spec-position in order to derive the complement-head order. If this were an option in the Germanic OV-languages, however, V2 would coincide with V-final: I would be moved to C and the content of Spec-I to Spec-C. Thus, the resulting order would be the same as before movement.

Haider (1993) argues for a universal constraint on the direction of branching along the projection line. The branching node *follows* its sister node. This excludes both adjunction to the right as well as righthand heads or specifier positions, and therefore movement to such positions. Adjunction to the right or a righthand specifier position would entail a preceding sister node as part of the projection line. Final functional heads are ruled out by the following consideration: Functional projections are considered to be extended lexical projections if the head of the lexical projection moves to the functional head position. The branching constraint applies to extended projection lines as well. Therefore, a functional head in final position violates the branching constraint in an extended projection, because its preceding sister node is a branching node on the extended projection line. Lexical heads are either final, that is in the foot position of the projection, or initial, heading a chain that starts in the foot position.

### 1.3. Verb Clusters and Verb (Projection) Raising

Non-finite verbs often form a cluster with their selecting verb. In SVO languages the verb cluster is situated at the lefthand boundary of VP; in SOV languages it stands in VP-final position. In both cases a fixed order can be determined by successively subtracting the finite verb from the sentence; in SVO it is  $V_1 V_2 V_3$  (= (13a)) and in SOV the mirror image of this, namely  $V_3 V_2 V_1$  (= (14a)).

- (13) En. a. . . . that John must<sub>1</sub> have<sub>2</sub> read<sub>3</sub> the letter.  
b. . . . that John has read the letter.  
c. . . . that John read the letter.

- (14) Ge. a. . . . daß Hans den Brief gelesen<sub>3</sub> haben<sub>2</sub> muß<sub>1</sub>  
b. . . . daß Hans den Brief gelesen hat  
c. . . . daß Hans den Brief las

Bech (1983) termed a chain of such "status governed" verbs "coherent"

when the cluster formed a single topological unit and "incoherent" when more than one topological unit was involved.

Obligatorily coherent verbs in German are those selecting a bare infinitive or AcI complement (i.e. auxiliaries, modals and *lassen* 'let', *sehen* 'see', *hören* 'hear' and *fühlen* 'feel') as well as the raising verbs *scheinen* 'seem', *pflanzen* 'be in the habit of', *versprechen* 'promise', *drohen* 'threaten' and *haben* 'have', which select an infinitive with *zu* 'to'. When the verbs of two clauses form a coherent verb cluster the separation between matrix and subordinate clause no longer exists. This can be seen from the following empirical facts: The infinitival complement cannot be extraposed or scrambled (= (15)), a negative adverb in the matrix and an indefinite pronoun in the embedded clause "cohere" into one complex form, having possible scope over the matrix verb (= (16)), and constituents of the matrix and complement reorder to obey word order restrictions of pronominal elements in a single clause (= (17)).

- (15) Ge. a. . . . daß das Spiel den Schiedsrichter häufig zu  
          . . . that the game the referee often to  
                                überfordern schien  
                                overstrain seemed  
b.\*. . . daß das Spiel häufig schien, den Schiedsrichter zu  
                                überfordern  
c.\*. . . daß das Spiel den Schiedsrichter zu überfordern  
                                häufig schien
- (16) Ge. a. Er vermag [nicht], [etwas] Besseres zu tun  
          He could not something better to do  
b. Er vermag [nichts] Besseres zu tun  
          i. he could do nothing better  
          ii. he couldn't do anything better
- (17) Ge. a. . . . daß sie [nicht] wagt, [ihn] zu stören  
          . . . that she dares not him to disturb  
b. . . . daß sie [ihn] [nicht] zu stören wagt

Control constructions (with the exception of dative control verbs which are obligatorily incoherent) have the option of entering into either a coherent or an incoherent structure.

- (18) Ge. a. coherent: . . . daß sie sich nie zu  
                                . . . that she herself never to  
                                entschuldigen vergißt  
                                excuse forgets  
b. incoherent: . . . daß sie nie vergißt, sich zu entschul-  
                                digen

Generative studies have treated the coherent construction as a variant of the incoherent construction by deriving its monosententiality from an underlying biclausal representation via verb raising. In German, raising attaches the embedded verb to the left of the matrix verb and in Dutch to the right, cf. Evers (1975). The rule may apply successively.

- (19) a. Ge. . . . daß er [[das Buch  $t_3$ ]  $t_2$ ]  $t_1$ ] gelesen<sub>3</sub> haben<sub>2</sub>  
 . . . that he the book read have  
 soll<sub>1</sub>  
 should
- b. Du. . . . dat [hij [[het boek  $t_3$ ]  $t_2$ ]  $t_1$ ] zou<sub>1</sub> willen<sub>2</sub>  
 . . . that he the book should will  
 lezen<sub>3</sub>  
 read

Recent work has appealed to less controversial processes like verb incorporation, scrambling and reanalysis to attain the same result, cf. Rosengren (1992), Fanselow (1989), Haegeman and van Riemsdijk (1986) and Haegeman (1988). Haider (1993: 253), however, points out that the case inversion observed in (20) strongly suggests that coherent structures are monosentential already in the base. The incoherent version of the sentence in (20b) shows that the case expected on *Brief* 'letter', the object of *entziffern* 'decode', is accusative but – interestingly – it appears in the nominative when the two verbs form a coherent verb complex (= (20a)).

- (20) Ge. a. Zu entziffern gelungen ist mir der  
 To decode succeeded is me-dat the  
 Brief/\*den Brief auf Anhieb  
 letter-nom/\*the letter-acc at once  
 'I managed at once to decode the letter'
- b. . . . daß ihm auf Anhieb gelang,  
 . . . that him-dat at once succeeded,  
 den Brief/\*der Brief zu entziffern  
 the letter-acc/\*the letter-nom to decode

The internal argument of *entziffern* 'decode' has obviously been externalized in combination with the ergative verb *gelingen* 'succeed', indicating that the verbs have unified their argument structures. Haider assumes that optional coherent complementation has two distinct sources in the base, a monoclausal and a biclausal structure: The coherent verb complex is projected as a recursive V with a unified argument structure, whereas the incoherent structure results from a clausal complement. These dual selectional possibilities account for the contradicting topicalization structures

associated with these verbs. In (21a) *zurückbringen* 'bring back' forms a verbal constituent with *müssen* 'must', but in (21b) it heads a VP with its object *die Flaschen* 'the bottles'.

- (21) Ge. a. [Zurückbringen müssen] wirst du die Flaschen  
 Bring back must will you the bottles  
 wohl schon  
 surely indeed
- b. [Die Flaschen zurückbringen] wirst du wohl  
 The bottles bring back will you surely  
 schon müssen  
 indeed must

A further interesting topological property of the coherent verb complex is the infinitive as participle (IPP) construction which has been construed as an indication that the process of rightwards verb raising found in Dutch (cf. (19b)) may be more general than previously thought. The Standard German version of the IPP is illustrated in (22), where a participial form is altered to an infinitive when the verb complex occurs to the right of the finite auxiliary.

- (22) Ge. a. . . . daß sie das Obst abladen geholfen hat  
 . . . that she the fruit unload helped has
- b. . . . daß sie das Obst hat abladen helfen  
 . . . that she the fruit has unload help

Verb raising with IPP is possible when *haben* 'have', *sein* 'be' or *werden* 'become' (but only marginally a modal) select a participle that embeds a bare infinitive (which may itself embed another *zu*-infinitive or a participle). Constructions like (23) indicate that the IPP has a variant in which instead of just the lexical verb, a (partial) verb projection is moved (= verb projection raising or VPR), cf. den Besten and Edmondson (1983), Haegeman and van Riemsdijk (1986) and Geilfuß (1991) for a more detailed survey of the verb (projection) raising types in the Germanic dialects.

- (23) Ge. . . . wenn er einem Kind hätte das  
 . . . if he a child-dat had the  
 Märchen vorlesen dürfen  
 fairy tale-acc read-to been able to

Meier (to appear), using scope arguments with negative and focus particles based on Frey and Tappe (1991) and Bayer (to appear) attempts to show that all verbs (even coherent ones) embed maximal (VP-) projections under them to which an object or resultative can be adjoined. All such status-selected VPs must be licensed in the canonical direction of the governing



verb. This means that in VPR the relevant verb projection (= VP) is licensed in the canonical direction of government (to the left of the verb) and then extraposed. The IPP, on the other hand, results when two infinitives (the actual IPP being a lexically underspecified version of the participial in this case) form a base-generated complex V containing two minimal Vs. This complex V projects to VP, but due to its unmarked character isn't status governed and consequently isn't bound to the matrix verb's governing direction. Since only maximal projections can topicalize (cf. example (21) as well as our discussion of topicalization in section 3.4), this proposal seems to handle the facts in (24) well.

- (24) Ge. a. [<sub>VP</sub> Abladen]<sub>i</sub> hat er das Obst nicht t<sub>i</sub> geholfen.  
 b. \*<sub>V</sub>[<sub>V</sub> Abladen]<sub>i</sub> hat er das Obst nicht [<sub>VP</sub> [<sub>V</sub> t<sub>i</sub> helfen]].  
 c. [<sub>VP</sub> [<sub>V</sub> Abladen helfen]]<sub>i</sub> hat er das Obst nicht t<sub>i</sub>.

A status governed verb may topicalize in (24a) since it is a maximal VP. Also, the entire complex IPP predicate may be placed in Spec-CP, as (24c) shows. The reason (24b) is excluded is that under this analysis *abladen* is a minimal verb in the IPP combination.

## 2. LICENSING OF NOMINAL ARGUMENTS

### 2.1. Case

Nominal expressions must be case-marked. This is the essence of Chomsky's (1981: 175) case filter, which he tries to derive from the interaction between case and  $\Theta$ -marking. Case is the visibility condition for  $\Theta$ -marking. Thus the Case filter is reduced to the  $\Theta$ -criterion.

In the pre-minimalist framework, Case was regarded as an abstract feature assigned by a head element under government (object case) or under spec-head agreement (nominative case). In the minimalist framework (Chomsky 1993), Case is viewed as an abstract feature that needs to be licensed ('checked') in a spec-head configuration of a functional head that contains agreement features. There must be as many spec-head configurations as there are case-bearing phrases. Languages may differ, however, with respect to the level at which this spec-head configuration arises. In some languages like English, it is the invisible level of logical form.

Taraldsen (this volume) suggests on the basis of Icelandic VP-internal nominative constructions that the agreement involved in case checking should be split up into person and number agreement as separate functional heads because a VP-internal nominative phrase agrees with the finite verb only in number (3rd. sg. or pl.). First and second person pronouns are ungrammatical as VP-internal nominatives.

NPs are either arguments, adverbials or predicatives. Case theory deals mainly with the first type of function. Bare-NP adverbials have been

analysed as PPs with a silent P (Larson 1985). This solution is hard to maintain for languages with a morphologically diversified case system. It is unclear what kind of preposition could be postulated for cases like (25) which would have both the appropriate semantics and the relevant case feature:

- (25) Ge. a. Er sang die ganze Nacht<sub>ACC</sub>  
 He sang the whole night  
 b. Leichten Herzens<sub>GEN</sub> ging er nach Hause  
 (With) a light heart he went home

Predicate NPs are the most neglected type of NPs in investigations of case. Maling and Sprouse (this volume) devote their contribution to this topic and suggest that predicate NPs are assigned structural Case by I through a case transfer mechanism. Since predicative nominatives are licit in infinitival clauses, they assume on the evidence of Icelandic that I in general assigns nominative to the subject and the predicative NPs. It should be added, though, that in German ECM-constructions the predicative NP that relates to the ECM-subject has two case options, accusative or nominative (cf. Haider (1984)):

- (26) Ge. Er läßt ihn einen guten Mann/ein guter Mann sein  
 He lets him be a good man

This case is of potential relevance because in (26) there seems to be only one set of I-features available, namely the I-features of the matrix. The matrix I, however, does not necessarily agree with the predicate of the ECM-subject. If ECM-complements are bare VPs, the predicate nominative in (26) needs a different source. If it contains an I, however, it is unclear why nominative is not the only available case option.

### 2.2. Binding Relations

Within the Germanic languages, the binding situation in English is exceptional because of its simplicity, as there is only one opposition: the reflexive *herself* vs. the pronominal *her*. In all the other languages, e.g. Danish, there is at least a three-way opposition, the (morphologically) simple reflexive *sig* vs. the (morphologically) complex reflexive *sig selv* vs. the pronominal *hende* 'her'. This is often seen as the consequence of two more or less independent oppositions, one between *sig*-forms and pronominal forms and one between presence and absence of the element *selv* 'self'. Such a view has the consequence that a fourth type of element also exists, the combination of pronominal and *selv*: *hende selv* (cf. e.g. Vikner (1985: 10–18), Hellan (1988: 59–64)).

Two properties of the simple reflexive have attracted particular attention:

Its ability to be a so-called long distance anaphor and its subject orientation. Long distance anaphors allow the distance to their antecedent to be relatively long (cf. the contributions in Koster and Reuland (1991)). English *himself* is clearly not a long distance anaphor, as it cannot be bound (i.e. have its c-commanding antecedent) outside its own clause; Icelandic *sig* is clearly a long distance anaphor, as it may be bound both outside an infinitival clause and outside a finite (subjunctive) clause; and finally Danish *sig* is and is not a long distance anaphor, as it may be bound outside an infinitival clause though not outside a finite clause:

- (27) a. Ic. [Pétur] leyfði mér að raka [sig]  
 b. Da. [Peter] tillod mig at barbere [sig]  
 c. En. \*[Peter] allowed me to shave [himself]
- (28) a. Ic. [María] heldur að ég elski [sig]  
 b. Da. \*[Marie] tror at jeg elsker [sig]  
 c. En. \*[Mary] believes that I love [herself]

The domain inside which a (simple) reflexive must be bound is the lowest clause in English, the lowest finite clause in Danish, and the lowest finite indicative clause in Icelandic (cf. e.g. Anderson (1986), Everaert (1986), Manzini and Wexler (1987)). Another feature of simple reflexives is that their antecedent must be a subject. Compare (27), where the antecedent is a subject, with the following, where the antecedent is an (indirect) object:

- (29) a. Ic. \*Ég lofaði [Haraldi] að raka [sig]  
 b. Da. \*Jeg lovede [Harald] at barbere [sig]  
 c. En. \*I promised [Harold] to shave [himself]

Pica (1987) and Hestvik (1992) suggest that these facts (and a similar "antisubject orientation" for pronominals) may be explained by assuming that *sig* moves at LF. Such a movement would entail that at LF, *sig* could no longer be bound unless its antecedent were a subject.

Recent research has also been concerned with the acquisition of binding elements (cf. Sigurjónsdóttir and Hyams (1992) and references there) and with accounting for cases where more distance than expected is allowed between (both simple and complex) anaphors and their antecedent (cf. e.g. Hestvik (1991), Safir (1993a,b)).

### 3. TYPES OF PHRASAL MOVEMENT

#### 3.1. Scrambling

Scrambling, a word-order variation found in Germanic OV-languages, is unidirectional and local. It may affect more than one constituent. The scrambled position precedes the base position.

- (30) Ge. . . . wenn [letzten Sommer] [mit diesem Pferd]  
 . . . if last summer with this horse  
 [jemand] [den ersten Preis] gewonnen hätte  
 someone the first prize won had  
 ' . . . if someone had won the first prize with this horse  
 last summer'

Any order of the four bracketed constituents in (30) yields a grammatical German sentence. There are, however, systematic differences between the class of elements that may be scrambled and those that may be topicalized. Since topicalization is an instance of *wh*-movement, this seems to imply that scrambling is not an instance of *wh*-movement. Predicates are clear cases of constituents that cannot be scrambled but may be topicalized. (31) illustrates a resultative predicate. (32) exemplifies the contrast between VP-topicalization and VP-scrambling.

- (31) Ge. a. . . . wenn er sein Ei [hart] gekocht hat  
 . . . if he his egg hard boiled has  
 b. . . . \*wenn er [hart] sein Ei gekocht hat (scrambling)  
 c. [Hart] hat er sein Ei gekocht (topicalization)
- (32) Ge. a. . . . daß gestern niemand [ein Buch gekauft]  
 . . . that yesterday nobody a book bought  
 hat  
 has  
 b. . . . \*daß gestern [ein Buch gekauft] niemand hat  
 (scrambling)  
 c. [Ein Buch gekauft] hat gestern niemand (topicalization)

The theoretical analysis of scrambling is still a controversial issue. The theory of grammar provides two basic types of movement (substitution and adjunction) and two types of positions (A- or A-bar-positions). Hence there are four logically possible derivational analyses for capturing the word order variation plus a fifth possibility, namely base generation:

- (33) a. Scrambling = base generation of all alternative orders  
 b. Scrambling = substitution into A-bar-positions  
 c. Scrambling = adjunction resulting in A-bar-position  
 d. Scrambling = substitution into A-positions  
 e. Scrambling = adjunction resulting in A-position

All of these options except (33b) have found advocates. A selection of the pertinent literature is listed under (34).



- (34) a. Base generation: Fanselow (1993), Haider (1984), Neeleman (1993);  
 b. A-bar-chain (substitution): ———  
 c. A-bar-chain (adjunction): Hoekstra (1984), Müller and Sternefeld (1993), Saito (1989), Webelhuth (1992);  
 d. A-chain (substitution): Deprez (1989), Fanselow (1990), Moltmann (1990), Vanden Wyngaerd (1989);  
 e. A-chain (adjunction): Haider (1993), Rosengren (1993).

The substitution account assumes that scrambling is the effect of movement to the Spec-position of a functional projection. Deprez (to appear) relates scrambling to a case assignment alternative: In scrambling languages, Case is either assigned as a governed case or as a functional one. In the functional option, NP-movement creates an A-bar chain.

In order to motivate the last type (34e), a brief comment on the status of A-positions is necessary. A-positions are positions in which a lexical NP is licensed. Since the licensing of an NP involves two types of relations, there are two types of A-positions, linking positions and A-structure projection positions. The position in which S-structure linking (or Case checking) takes place is an A-position, and the projection positions (=  $\Theta$ -positions) licensed by the argument structure of the head are A-positions. If the two licensing requirements are not met in a single structural position, we find an NP-chain connecting the linking position with the projection position. Thus, adjunction within the checking domain of the  $\Theta$ -assigning head creates A-positions. If the checking domain is defined in terms of directionality and m-command by the head, the complete V-Projection of an OV-language constitutes the checking domain of V. In a VO-language, however, the checking domain is restricted by directionality, given a left-associative projection structure (Larson 1988, Haider 1992). In particular, left-adjoined positions within the VP of an OV-language qualify as A-positions, given that these are positions within the checking domain of the head V.

The A-chain found in scrambling is the default case when the licensing of linking and the licensing of projection are disassociated. Since linking applies only once for each head of a chain, the foot of the chain counts as an unlinked or non-case-checked projection position. Thus the A-chain of scrambling shares the characteristic A-chain properties with the familiar NP-movement chains.

There are various empirically testable differences between (34d) and (34e). First, (34d) predicts a fixed order for scrambled elements, given that the functional projections that host the scrambled elements are non-arbitrarily ordered. The German examples under (35) illustrate that the scrambling positions are not ordered with respect to case.

- (35) Ge. a. . . . daß [meinem Onkel]<sub>i</sub> [die Möbel]<sub>j</sub> eine  
 . . . that (to) my uncle the furniture a  
 hiesige Firma  $e_i$   $e_j$  zugestellt hat  
 local company delivered has  
 b. . . . daß [die Möbel]<sub>j</sub> [meinem Onkel]<sub>i</sub> eine hiesige  
 Firma  $e_i$   $e_j$  zugestellt hat

Second, non-nominal elements can be scrambled as well. As exemplified in (36) and (37), sentential and prepositional constituents may also be scrambled. This is problematic, if the scrambling position is characterized as an Agr-O position and if the element in the spec of an AGR-position needs features which are checked by the head. The fact that sentential constituents and PPs, but not NPs, may be extraposed in German shows that the licensing properties are different.

- (36) Ge. a. . . . daß bis jetzt jeder [die Tür zu  
 . . . that until now everyone [the door to  
 öffnen] vergeblich versucht hat  
 open] in-vain tried has  
 b. . . . daß bis jetzt [die Tür zu öffnen]<sub>j</sub> jeder  $e_i$  vergeblich  
 versucht hat  
 (37) Ge. a. . . . daß jetzt keiner mehr [auf die Farbe]  
 . . . that now no-one anymore [to the colour]  
 achtet  
 attention-pays  
 b. . . . daß jetzt [auf die Farbe]<sub>j</sub> keiner mehr  $e_i$  achtet

Third, scrambling is possible within topicalized VPs. If scrambling involved a functional head, the topicalized constituent would have to be larger than VP. It would have to be a functional projection. In this case, the functional head of the projection is part of the topicalized projection as well. This functional head, however, would constitute a link in the head chain between the finite verb and its base position. But, as (38b) shows, the fronted constituent may not contain any trace of the finite verb.

- (38) Ge. a. [Dein Gepäck<sub>i</sub> einem Fremden  $e_i$  anvertrauen]  
 [Your luggage (to) a stranger entrust]  
 solltest du nicht  
 should you not  
 b.\*[Dein Gepäck<sub>i</sub> einem Fremden  $e_i$  an- $e_j$ ] vertraute<sub>j</sub> sie  
 c. Dein Gepäck vertraute<sub>j</sub> sie einem Fremden an- $e_j$

The main line of demarcation between the accounts listed under (34) is the question of whether the S-structure positions of scrambled arguments are A-positions or not. The three proposals (34a, d, e) suggest different and incompatible implementations of the same tenet, namely the characterization of scrambling-positions as A-positions. The proposals under (34c) are close to (34e). The only difference is the characterization of the target position. The fact that the set of constituents that may scramble is but a proper subset of the set of constituents that can be *wh*-moved, is evidence against the *wh*-movement account, unless independent evidence can be found to motivate constraints that apply to scrambling but not to other cases of *wh*-movement. From the point of view of comparative syntax, it is unexplained why scrambling is confined to the Germanic OV-languages. If scrambling is A-bar-adjunction to VP, it should be possible in VO-languages. If, however, the scrambling position must be a potential checking position and the checking domain of the verb is subject to a directionality requirement, adjunction to VP creates a position outside the checking domain in VO-languages, but not in OV-languages.

Scrambling in Dutch is reported to be more constrained than in German (den Besten 1989: 268) in the sense that the arguments may not change their relative order. An object cannot be scrambled across another object or the subject.

- (39) Du. a. ... dat *gisteren* die gasten aan elkaar  
           ... that yesterday the guests to each other  
                     werden voorgesteld  
                     were introduced  
       b. ... \*dat *gisteren* die gasten<sub>i</sub> Jan *e<sub>i</sub>* aan elkaar heeft  
                     voorgesteld

The same is true for pronominal arguments. In German, the pronouns are fronted across all non-pronominal arguments. However, they are not cliticized to the C-element or the fronted finite verb, as adjuncts may intervene between the two (cf. (40a)).

- (40) Ge. a. Hat in diesem Fall es/ihn/sie jemand bemerkt?  
           b. \*Hat in diesem Fall denn es/ihn/sie jemand bemerkt?  
           c. Hat in diesem Fall es/ihn/sie denn jemand  
               Has in this case it/him/her PRT anybody  
               bemerkt?  
               noticed

The example (40b) contrasts with (40c) with respect to the position of the particle *denn*, which is representative for a whole class of modal particles (eg. *doch*, *je*, etc.). The modal particles cannot precede the fronted pronouns, but they may precede scrambled non-pronominal NPs:

- (41) Ge. Hat am Ende denn den Unterschied<sub>i</sub>/\*ihn<sub>i</sub>  
           Has at the end PRT the difference/\*it  
                     niemand *e<sub>i</sub>* bemerkt?  
                     nobody noticed

The contrast between the placement of particles in front of pronominal and non-pronominal NPs suggests that pronoun fronting targets positions distinct from scrambling positions.

### 3.2. Object Shift

As stated above, scrambling as such does not exist in the Germanic SVO-languages, although a somewhat similar process is found in the Scandinavian languages, object shift. According to Roberts (this volume) object shift may even be observed in English.

The only properties common to scrambling and object shift would seem to be that movement is leftwards and sentence-internal. Otherwise, the two differ with respect to a) whether the movement may trigger parasitic gaps (Scr: yes, OS: no), b) whether PPs may be moved (Scr: yes, OS: no), c) whether the movement may land between two adverbials (Scr: yes, OS: no), d) whether the movement may land to the left of the subject (Scr: yes, OS: no, with the exception of reflexive "long object shift" in Swedish, cf. Holmberg (1984) and Josefsson (1992)), and, finally, e) object shift requires that the verb leave VP, whereas scrambling has no such requirement:

- (42) a. Ic. Í gær las<sub>v</sub> Pétur [bókina]<sub>i</sub> eflaust ekki [<sub>VP</sub> t<sub>v</sub> t<sub>i</sub>]  
       b. Ge. Gestern las<sub>v</sub> Peter [das Buch]<sub>i</sub> ohne Zweifel  
               Yesterday read Peter the book undoubtedly  
                     nicht [<sub>VP</sub> t<sub>i</sub> t<sub>v</sub>]  
                     not  
       (43) a. Ic. \*Í dag hefur Pétur [bókina]<sub>i</sub> eflaust ekki [<sub>VP</sub> lesið t<sub>i</sub>]  
               b. Ge. Heute hat Peter [das Buch]<sub>i</sub> ohne Zweifel nicht  
                     Today has Peter the book undoubtedly not  
                     [<sub>VP</sub> t<sub>i</sub> gelesen]  
                     read

In Icelandic, all DPs may undergo object shift, whereas in the other Scandinavian languages, only pronouns may:

- (44) Da. a. \*I går læste<sub>v</sub> Peter [bogen]<sub>i</sub> uden tvivl ikke [<sub>VP</sub> t<sub>v</sub> t<sub>i</sub>]  
       b. I går læste<sub>v</sub> Peter [den]<sub>i</sub> uden tvivl  
               Yesterday read Peter book-the/it undoubtedly  
                     ikke [<sub>VP</sub> t<sub>v</sub> t<sub>i</sub>]  
                     not

Some analyses, e.g. Deprez (to appear), Holmberg (1991), Jonas and Bobaljik (1993), Josefsson (1992, 1993), therefore assume that only Icelandic shows real object shift and that what is found in the other languages is a kind of cliticization, whereas others, e.g. Holmberg (1986), Vikner (1989, to appear, a), Roberts (this volume), Holmberg and Platzack (to appear) take all the cases to be essentially the same, i.e. movement of a maximal projection.

Partly independent of this is the question of whether object shift is A-movement or A-bar-movement: It has to be answered for full DPs in Icelandic in any case, and also for object shift of pronouns in the other languages, provided this is not seen as cliticization. Whereas it seems uncontroversial that object shift is not A-bar-movement, it is not a clear case of A-movement either: It moves across the VP-internal base position of the subject violating the specified subject constraint and/or relativized minimality, cf. the analyses cited above. Within the minimalist framework, this is not seen as a problem, as object shift is taken to provide evidence for the notion of "equidistance", Chomsky (1993: 17–18), which limits the possibilities for A-movement across A-specifiers without totally excluding it, cf. also Jonas and Bobaljik (1993) and Collins and Thráinsson (1993).

Holmberg (1986: 207) suggests that morphological case is a necessary and sufficient condition for object shift, thus creating a natural class of the elements that undergo object shift: pronouns in e.g. Swedish and all DPs in Icelandic. One problem with this is that various kinds of DPs exist which have morphological case and yet may not undergo object shift: One kind is indefinite DPs in Icelandic and another is all Faroese DPs, which all have morphological case, and yet Faroese only allows object shift of pronouns (as noted by Barnes (1992: 28)). Holmberg and Platzack (to appear) take this to show that "strong morphological case" is needed and that e.g. Faroese morphological case is not strong enough, cf. that Faroese is missing the so-called quirky subjects (as opposed to Icelandic). Indefinite DPs also do not have "strong morphological case". This is somewhat related to the analysis of Diesing and Jelinek (1993), where the crucial difference is taken to be different degrees of definiteness.

Let us end this brief discussion of object shift by pointing to a hitherto little noticed fact, viz. that even in the languages where only pronouns may object shift, certain non-DPs like Danish unstressed *der* 'there' also show the positional properties displayed by object-shifted elements: They occur to the left of sentence adverbials and negation when the verb has left VP, otherwise to the right of both adverbs and the verb itself.

- (45) Da. a. Peter sov<sub>v</sub> [der]<sub>i</sub> alligevel ikke [v<sub>p</sub> t<sub>v</sub> t<sub>i</sub>]  
           b.\*Peter sov<sub>v</sub> alligevel ikke [v<sub>p</sub> t<sub>v</sub> der]  
               Peter slept (there) after-all not (there)

- (46) Da. a.\*Peter har [der]<sub>i</sub> alligevel ikke [v<sub>p</sub> sovet t<sub>i</sub>]  
           b. Peter har alligevel ikke [v<sub>p</sub> sovet der]  
               Peter has (there) after-all not slept (there)

If and how this is to be incorporated into an analysis of object shift has to be left open, but the problem for a case-related analysis is clear: *der* is presumably not a DP and does not receive case at all.

### 3.3. Extraposition

It has been standard in generative treatments to analyze extraposition as right adjunction. Rochemont and Culicover (1990) analyze the result of extraposition out of an NP as a base generated adjunction structure. The extraposed phrase is claimed to be adjoined either to VP or to IP (Rochemont and Culicover (1990: 35)). Baltin (1982: 16), following Reinhart (1980), concludes that extraposition of an argument clause is an adjunction to the right of VP. According to Reinhart's analysis (1983: 52), "extraposed 'sentential subjects' are attached to the VP, the other types of extraposed clauses are attached to S", that is IP, in current terminology.

The fact that an extraposed relative clause precedes an extraposed argument clause seriously undermines the standard analysis (cf. Haider (1994)). Grammatical phenomena sensitive to the c-command relation show the extraposed argument clause to be within the c-command domain of the object. Since the relative clause precedes the extraposed argument clause, it cannot be adjoined any higher.

- (47) Someone<sub>j</sub> told her<sub>i</sub> [who<sub>j</sub> she met at the conference] [that Rosa's\*<sub>i</sub> paper won a prize]

Since adjunct clauses may precede argument clauses (cf. (48)), regardless of what binding theory would lead one to believe, they must be in the c-command domain of an object as well.

- (48) Please tell him<sub>i</sub> [if you happen to see Bill<sub>j</sub>] [that Bill's\*<sub>i</sub> account number is missing]

The phenomena mentioned above are not specific to English. They can be found in all the Germanic languages and are presumably the reflex of a universal grammatical property. Whatever analysis turns out to be the correct one, it is beyond doubt that the current analysis of extraposition phenomena is in need of thorough revision.

### 3.4. Topicalization and Wh-Movement

There are two notions of topicalization, namely adjunction to a clause internal functional projection (cf. (49b)) and substitution into Spec-C (cf.

(49a)) with the finite verb in C. Recent investigations try to unify the two notions of topicalization (cf. Vikner to appear, b) and to differentiate it from *wh*-movement (Müller and Sternefeld (1993)).

- (49) a. Under no circumstances would I use topicalization  
 b. . . . that topicalization I would never use  
 c. He said \*(that) under no circumstances would he use topicalization

The fact that topicalization with auxiliary inversion applies in C-introduced clauses like (49c) is suggestive. (49b) can be analyzed as analogous to (49c) without inversion. This analysis straightforwardly captures the blocking effect of topicalization on *wh*-movement as a minimality effect: The topicalized element is a closer potential antecedent for the gap of the *wh*-element.

- (50) \* Who<sub>j</sub> did roses<sub>i</sub> he send e<sub>i</sub> to e<sub>j</sub>

Topicalization and scrambling are easy to differentiate. Topicalization cannot affect more than one constituent and it is not constrained to the local domain. In the Germanic V2 languages, topicalization goes together with V-movement: The target of topicalization is the spec-position of the head that hosts the fronted finite verb. In German and Dutch the presence of a C-element makes verb fronting impossible. In the continental Scandinavian languages internal V2 occurs in the complement of bridge verbs. Topicalization in the complement of C is free in Icelandic and Yiddish (cf. section 1.2 above). Internal topicalization excludes *wh*-phrases.

This and other differences between topicalization and fronted *wh*-phrases (no co-occurrence of topics with complementizers, strict topic islands) lead Müller and Sternefeld (1993: 484 ff.) to the conclusion that topicalized phrases are moved to spec positions different from those that *wh*-phrases occupy. They assume a topic-phrase as the immediate complement of C. *Wh*-phrases are moved to spec-C while topicalized phrases move to Spec-Top.

In order to derive the absence of internal V2 in German and Dutch in clauses introduced by an overt C-element, Müller and Sternefeld (1993: 488 f.) suggest a uniqueness constraint on the lexicalization of the two functional head positions, C and Top. Since this constraint is inoperative in other V2 languages like Icelandic and Yiddish, it remains a description of the facts until independent motivation for it is provided.

#### 4. FUNCTIONAL ARCHITECTURE OF THE NOUN PHRASE

##### 4.1. *Parallels with Sentence Structure*

The assimilation of the functional categories C and I to the class of projecting heads in Chomsky's (1986) analysis of clause structure as a CP stimulated an immediate response from linguists working on the noun phrase. In light of the many structural parallels between these two basic categories, Fukui (1986) and Abney (1987) were quick to point out the numerous advantages of considering nouns to be headed by a functional category, D, for determiner. Using an insight from Higginbotham (1985), Abney proposed that I and D both close off the projection of their lexical complement, binding the referential variable of V or N and thus specifying the reference of the phrase. He furthermore assumed that D – as a result of its feature specification (AGR and +/- poss) – functioned similarly to I (containing the features AGR and +/- tense) in regulating nominal (or verbal) agreement with a specifier and licensing the subject of the phrase. Szabolcsi (1983) had already pointed out striking similarities between the structure of the noun phrase and sentences in this regard in Hungarian. In this language, the head noun agrees with its specifier in person and number and the specifier surfaces in the nominative case just like the sentential subject, cf. (51). A functional head marked for the appropriate features ([+poss] and [2.sg.]) in (51a) will assign nominative case to the possessive pronoun *te* and regulate the phonological spell-out of these features on the head N by the affixes *-e* [+poss] and *-d* [2.sg.], cf. (51b).

- (51) Hu. a. [DP *te* [D' [D +poss, 2.sg.] [NP *vendég*]]]  
 b. a *te-ø* *vendég-e-d*  
 the you-nom guest-poss-2.sg. 'your guest'  
 c. *az pro* *asztal-a-ø*  
 the table-poss-3.sg. 'his table'

Strong morphological inflection of this kind within the DP also licenses the *pro*-drop phenomenon familiar from sentence structures. The DP in (51c) must be interpreted as 'his table' due to the possessive marking *-a-* on the noun, but it contains no overt possessor. Szabolcsi assumes that the specifier of the functional head contains a *pro* identified by the suffix on the head noun. 'A table' can only take the form *az asztal* where the possessive morpheme is missing on the noun.

A final asset of this analysis lies in the more precise conception that the functional category D allows of the notion "pronoun" as well as the insights it captures into the categorial relatedness of pronouns and articles. Pronouns (German *er*, *sie*, *es* 'he, she, it') are intransitive D elements (i.e. bundles of grammatical features) devoid of descriptive content but never-

theless capable of referring. Articles, in contrast, are transitive D elements that select an obligatory NP-complement (German *der Himmel, die Katze, das Bett* 'the heaven, cat, bed') spelling out the grammatical features of case, gender and number that characterize this selectional relation.

#### 4.2. Number and Types of Functional Heads

Research on the noun phrase subsequently opened up questions similar to those being asked about the number and types of functional heads necessary in the CP and whether this array is uniform cross-linguistically. Abney (1987) originally assumed the functional structure of (52): D selects a QP which in turn selects an AP that may have a DegP as its specifier and an NP as its complement. The intermediate functional structure between D and N was optional which meant that D (as well as Q) didn't uniquely select one specific category, but several: QP, AP or NP.

- (52)  $[_{DP} D [_{QP} Q [_{AP} DegP [_{A'} A NP]]]]$

Löbel (1993) and Bhatt (1990) defend Abney's position in their work on the German DP (cf. also Haider (1988)), whereas Felix (1988), Zimmermann (1991) and Olsen (1987, 1991) subscribe to the more rigid hypothesis that D (like I) functionally selects a unique lexical complement, namely NP, to which APs may adjoin as shown in (53). Zimmermann (1991) assumes Q elements in German to be adjectives.

- (53)  $[_{DP} D [_{NP} AP NP]]$

In the wake of Pollock's (1989) and Chomsky's (1991) split INFL hypothesis, work on the noun phrase also began to experiment with the idea that DP might comprise multiple functional heads. Giusti (this volume) proposes the universal instantiation of Q and Agr as further functional layers below an underspecified F-position subsuming articles and case-markers:

- (54)  $[_{QP} Q [_{FP} F [_{AgrP} Agr [_{NP} AP N]]]]$

Tappe (to appear) and Lattewitz (1994) place attributive adjectives in the specifier of an AgrP which selects NP as its complement and regulates agreement between the two via the spec-head relation.

- (55)  $[_{DP} D [_{AgrP} Adj Agr [_{NP} N]]]$

As will be discussed in more detail in 4.4, Delsing (1993) adds a POSS head to the inventory in order to come to grips with the variety of possessive constructions in the Scandinavian languages.

#### 4.3. Double Definiteness

Work on the DP in Scandinavian has brought another interesting parallel between clausal and noun phrase structure to light. As demonstrated in section 1.1 of this introduction, the finite verb in Germanic (with the exception of English) moves from its underlying position as head of the VP into the highest functional head in all main and some embedded clauses. Delsing (1993) argues that the suffixed definite article in the Scandinavian languages results from head movement within the DP in a similar fashion. The S-structure of the postnominal article of e.g. Danish (cf. (56)) is given in (57) where N has raised to the functional position D.

- (56) Da. huset  
house-the

- (57) Da.  $[_{DP} hus_i et [_{NP} t_i]]$

Additional evidence that head movement is indeed involved in such structures comes from Old Icelandic where case morphology is expressed twice within the same word, once on the noun and once on the incorporated article; cf. Delsing (1993: 76).

- (58) OIc. a. hestr-inn                      inn      gamli    hestr  
                 horse-nom-the-nom      the-nom   old      horse-nom  
                 b. hests-ins                      ins      gamla    hests  
                 horse-gen-the-gen      the-gen   old      horse-gen

When an attributive adjective occurs, the article must be realized as an independent prenominal element. Delsing suggests that head movement is blocked in these cases because the adjective is itself a head intervening between D and N, thus prohibiting N-to-D movement. In order to implement this idea, he offers several arguments that the NP should be generated as a righthand specifier to AP.

Whereas Danish only marks definiteness once in the DP as shown in (59),

- (59) Da. a. huset                      b. **det** store hus                      c. **det** hus  
                 house-the                      the big house                      this house

Swedish, Norwegian and Faroese show the phenomenon of double definiteness in that they display both a prenominal definite article and a suffixed article in DPs containing either a demonstrative or an attributive adjective. This is exemplified by the Swedish examples in (60).

- (60) Sw. a. huset                                      b. **det** stora huset  
                 house-the                                      the big house-the  
                 c. **det** huset  
                 this house-the

Icelandic patterns with Danish in not showing the double definiteness of Swedish, Norwegian and Faroese. Yet it differs from Danish in that the single definiteness marker occurs postnominally in construction with an adjective, cf. (61b) with (59b).

- (61) Ic. a. húsið                      b. stóra húsið                      c. það hús  
                 house-the                      big house-the                      this house

The DP structure permits an enlightening analysis of definiteness in these languages at a more abstract level. Delsing (1993) assumes that definiteness is only marked once in the DP. The languages differ along two parameters: a) where the definiteness marker is generated (whether in D or in N) and b) how an empty D position is licensed. Definiteness is generated in N in Swedish, Norwegian, Faroese and Icelandic and in D in Danish. In a simple DP with no attributive adjective or demonstrative, N raises to D accounting for the postnominal suffixed article in all the dialects (cf. (59a), (60a) and (61a)). When an attributive adjective is present, this movement is blocked, resulting in an empty D position in Swedish, Norwegian, Faroese and Icelandic. In Swedish, Norwegian and Faroese an expletive D-element must be inserted to fill the empty D-head. In Icelandic, due to its rich nominal morphology, no such expletive is necessary to identify the relevant features of the DP. Unfortunately, the demonstrative in constructions (59c), (60c) and (61c) doesn't lend itself quite so nicely to such an account. Under the preceding analysis, Delsing is forced to assume that the demonstrative is an adjective (except in Icelandic) that raises to D. This means that it must be [+definite] in Danish and [-definite] in Swedish, Norwegian and Faroese, in order to be compatible with the postulated feature make-up of D in these languages. In Icelandic it is a true demonstrative generated in D, excluding a definite marker in N. To avoid such problems, other authors have suggested a copying analysis of these data, cf. Holmberg (1987) or Giusti (this volume).

One positive consequence of his analysis, on the other hand, is that it incorporates proper names nicely into the general picture. Longobardi (1992) claims that proper names are inherently definite and therefore are Ns that raise to D, which he substantiates with the contrast between (62c) and (62d) in the following Italian examples:

- (62) It. a. E' venuto il vecchio Cameresi  
                 Came the old Cameresi  
                 b. E' venuto il Cameresi vecchio  
                 Came the Cameresi old  
                 c.\*E' venuto vecchio Cameresi  
                 Came old Cameresi  
                 d. E' venuto Cameresi vecchio  
                 Came Cameresi old

However, Delsing handles the facts somewhat differently in assuming that proper names are inherently definite but generated directly in N like common nouns in Swedish, Norwegian and Faroese. With adjectives, the empty D position is expletive and, if not filled, can only be licensed by deictic reference typical of proper names (*Lars, lille Lars*). This is possible also in English and German (*Little John, Old Yeller; Alt Frankfurt*). When deictic reference is not implemented, the article becomes obligatory (Delsing 1993: 132–134, cf. also Gallmann 1990 for German):

- (63) a. Sw. den besvärlige Olsson  
                 the troublesome Olsson  
                 b. Da. den unge Goethe  
                 the young Goethe  
                 c. Ge. der schlaue Peter  
                 the clever Peter

Dialects like Northern Swedish in which names are not inherently definite but require a proprial article can't omit the article even in deictic constructions (Delsing (1993: 134)).

- (64) NSw. \*(n) gamm Erik  
                 the old Eric

Languages with an optional proprial article like Icelandic will allow an optional article even with an adjective.

- (65) Ic. (hann) gamli Eiríkur  
                 (he) old Eiríkur

#### 4.4. Pronominal and Genitival Possessives

A further vexing question concerns the status of the possessive pronoun and the pronominal genitive (cf. the discussion between Olsen (1989), (to appear) and Löbel (to appear)). Zimmermann (1991), in one of the few works on this topic that includes a detailed analysis of the semantics of such constructions, assumes that subject expressions (the possessive pronoun or a possessive genitive, cf. (66))

- (66) Ge. a. (die) drei Hunde Peters  
                 (the) three dogs Peters-gen  
                 b. Peters drei Hunde  
                 Peters three dogs  
                 c. seine drei Hunde  
                 his three dogs  
                 d. dem Peter seine drei Hunde  
                 the Peter-dat his three dogs





4.5. *Binding and the Licensing of Arguments within DP*

In section 1.2 we discussed how Haider (1993) suggests a right branching structure for all basic projections: Arguments, inherently ordered by virtue of their role in the semantic representation of a lexical head, are projected in this hierarchy onto a right-branching X-bar configuration and licensed under a strict locality condition in the governing direction of the head. If these claims are to have universal validity, then they should apply to the DP as well. Indeed, here as well as in other phrase types, binding data of the type used by Larson (1988) and Haider (1993) yield evidence for this conclusion. In German V and A govern to the left, while N and P are head-initial governors. Hence, NP and PP in German should reveal the same configurational properties as the major projections in SVO languages like English and Scandinavian. In the following noun phrases the subject argument of the relational noun is able to bind the anaphor in object position indicating that the subject asymmetrically c-commands the object. Thus, according to Haider (1993: 23), the projections are structured as in (74).

- (74) Ge. a. die [Wut<sub>i</sub> des Mannes<sub>i</sub> [e<sub>j</sub> auf sich<sub>i</sub>]]  
           the anger of the man at himself  
       b. die [Meinungen<sub>j</sub> der Betroffenen<sub>i</sub> [e<sub>j</sub> über einander<sub>i</sub>]]  
           the opinions of those involved about each other

Since the head N governs to the right, it originates on the left side of a basic X-bar projection and projects a head chain as far as needed for the discharging and licensing of all its complements:

- (75) [N<sub>i</sub> [YP [e<sub>i</sub> XP]]]

Given the lexical semantics of a noun like *Betreuung* 'care' in (76) according to the framework proposed in Bierwisch (1989),

- (76)  $\lambda x \lambda y \lambda z [z \text{ INST } [y \text{ CARE-FOR } x]]$

the arguments of the noun may be projected in the manner shown in (77). First, all internal complements of nouns are optional. Therefore,  $\lambda x$  and  $\lambda y$  project optionally, either of which being able to be associated with the single complement position XP of (77a) where structural case (genitive) is assigned. The resulting phrase is ambiguous between a subject and object reading, cf. (77b). The raising of *Karl* to a position to the left of N where case is licensed by D is also possible along the lines discussed in the preceding section, cf. (77c).

- (77) a. [[N XP]]  
       b. die Betreuung Karls  
       c. [Karls<sub>i</sub> [Betreuung t<sub>i</sub>]]  
           Karl's care

If both arguments are projected, the base structure will be as in (78a) where a head chain is constructed in order for N to be able to license YP in its governing direction to the right. But since only one structural case is possible within NP, YP must move to the case position licensed by the functional head D, cf. (78b-c). The reason why the interpretation of *Vater* 'father' as the object of N is out in (78d) is puzzling when one compares this structure to the topicalization of objects in clauses. Zimmermann (1991) observes that only the subject can be realized outside the maximal projection of N. In the framework of Chomsky (1981), it was assumed that N contrary to V couldn't properly govern a trace. However the problem is solved, it is an important generalization that an object, which is more deeply embedded than the subject, can never appear preminally when both are present in the phrase.

- (78) a. [N<sub>i</sub> YP [H<sub>i</sub> XP]]  
       b. \*die Betreuung Karls seines Vaters  
       c. Karls Betreuung seines Vaters  
       d. \*[Vaters<sub>j</sub> [Betreuung<sub>i</sub> Karls [H<sub>i</sub> t<sub>j</sub>]]]  
           Karl's care of his father

A prepositional complement as in *seines Vaters Betreuung durch Karl* 'his father's care by Karl' will follow the same pattern as (78a) with a PP in the lowest head projection. An adjective like *liebevolle* 'loving' will always precede the NP in German (*die/Karls liebevolle Betreuung seines Vaters*).

Cinque (1992) discusses the interesting fact that in Italian the head noun appears to raise one step further, namely out of the NP into a functional head of the DP paralleling the raising of V to I in the Romance clause. In the well-formed examples in (79), the noun precedes the attributive adjective(s).

- (79) It. a. l'invasione italiana dell'Albania  
           the invasion Italian of Albania  
       b. \*l'invasione dell'Albania italiana  
       c. gli aiuti umanitari americani all'Italia  
           the aid humanitarian American of Italy  
       d. \*gli aiuti americani umanitari all'Italia

It is with this pattern in mind that we return to Longobardi's assumption in 4.3 that examples like (62d) argue for N-to-D movement. Since both *il Camerese vecchio* and *Camerese vecchio* are possible the question remains whether N is really in D in the second example or whether D is simply silent. Unless the adjectives are generated in the left specifier of NP (which Cinque argues against), the N appears to raise out of NP into a functional layer of DP in Italian.

## 5. THE INDIVIDUAL CONTRIBUTIONS TO THIS VOLUME

We turn now to a closer survey of the individual papers of this volume.

5.1. *Functional Architecture of the Clause*5.1.1. *Clause Structure and Functional Heads: Kayne*

Richard Kayne, in his paper entitled "Agreement and Verb Morphology in Three Varieties of English", suggests that English finite verbs are inflected for number only and not for person. The element *-s* is characteristic of the singular in general, as the forms normally assumed to also belong to the singular are analyzed either as not inflected for number at all (*I sing*) or as grammatical plural (*you sing*). Based on this assumption, the paper goes on to characterize the functional head Num(ber). One suggestion is that Num (at least in Newfoundland English) may have content, and that contentful Num may not raise to Tense. Another suggestion is that in a non-standard variety of American English, an extracted (non-subject) element may trigger agreement by adjoining to NumP on its way to Spec-CP. This analysis is supported by floated quantifiers being able to appear in the corresponding position (between the subject and the verb). The differences between this dialect and Standard English are accounted for by assuming only Standard English to have a zero inflectional ending in plural, whereas this dialect is assumed to have no inflectional ending outside the singular at all, much like Mainland Scandinavian. Finally, whereas Standard English must always spell out Num, this is not obligatory in the dialect in question.

5.1.2. *Verb Raising: Schönenberger and Penner*

Manuela Schönenberger and Zvi Penner argue in "Cross-Dialectal Variation in Swiss German: Doubling Verbs, Verb-Projection Raising, Barrierhood, and LF Movement" that scrambling and remnant VP raising - while perhaps appropriate for the verb-projection raising construction in Dutch and German dialects - make far too powerful an analysis to account for the doubling verb constructions (DVC) of Swiss German dialects and need to be restricted in cases where the remnant raised cluster contains scope-sensitive elements. The non-distinctness of the finite DV and the non-finite DV at S-structure (guaranteed by the fact that the former L-selects the latter) allows any constituent to scramble out of the embedded VP prior to raising at this level (*dass er goot go en wisse Waal fange* 'that he'll go catch a white whale'). However, a distinction is pointed out between the more liberal DVs *cho* and *aafe* ('come' and 'begin') which preserve their S-structural movement possibilities at LF and *ga* 'go' which excludes negative

existentials, anaphors and *wh-in-situ* from the raised phrase. To account for this behavior, *ga* is assigned the feature [+scope] at LF, which induces a barrier between it and its DV for QR movement of the scope-bearing elements out of the raised phrase. Interestingly, the universal quantifier can occur in the raised cluster in *ga*. Since it must undergo QR at LF as well as the other scope-sensitive elements, its movement must be possible despite the presence of the barrier. This is evidence that universal Qs can escape barrierhood by moving to an adjunction position (i.e. the DV-P). They thus exemplify A-bar-movement while the other elements (negative existentials, anaphors and *wh*-phrases) move by substitution (A-movement) and hence induce barrier violations.

5.2. *Licensing of Nominal Arguments*5.2.1. *Case: T. Hoekstra, Maling and Sprouse, Neeleman, and Taraldsen*

Teun Hoekstra's contribution "To Have to Be Dative" pursues a particular version of an idea that dates back at least to Benveniste (1966: 197), viz. that *have* (with its accusative case) is equal to *be* plus dative case. Hoekstra shows that this idea has a number of interesting consequences when the dative case is assumed to be assigned by a possibly empty preposition. Suggesting that all double object constructions can be analysed as one of four different versions of a possessive construction (recipient, resultative benefactives, affective benefactives, and inalienable possessions), Hoekstra shows that an intricate pattern of variation among languages can be explained based on two parameters: Whether the preposition assigning case to the indirect object is overt or empty, and whether the empty preposition is able to assign its own case or merely able to transmit a case from a governing head to its own complement. To mention just one of the details of the analysis: If the empty preposition is only a case transmitter, passivization of the verb governing the empty preposition makes it possible for the complement of the preposition to move to a position to which nominative case is assigned (as there is no longer any case for the preposition to transmit). If, on the other hand, the empty preposition is an independent case assigner, it is not affected by passivization of the verb, and this type of movement is not possible. This accounts for the fact that indirect objects may become subjects in passive sentences in English but not in German.

In "Structural Case, Specifier-Head Relations, and the Case of Predicate NPs", Joan Maling and Rex Sprouse argue that case theory treats predicate NPs like VP-internal arguments. In languages in which copular verbs do not license object case (e.g. Icelandic, German, Swedish), predicate NPs are assigned structural case from I by means of a case transfer mechanism. Since a nominative predicative NP may occur both in finite and in

non-finite IPs, they assume that I assigns nominative in general to the subject and predicative NPs and also that PRO in infinitivals receives nominative. Devoting much attention to the specific case alternation between VP-internal subject and predicate nominatives in Icelandic infinitival constructions, they conclude that predicates in the nominative should neither be treated as an instance of inherent case nor as the result of a default case assignment.

In "Complex Predicates in Dutch and English" Ad Neeleman argues against a small clause analysis and in favor of a complex predicate analysis of verb-predicate constructions like *John paints the door green* and *John considers his father intelligent* which he substantiates with evidence from nominalization, P-incorporation and topicalization patterns in Dutch. The semantics of both constructions can be captured by allowing theta roles to percolate to the complex predicate (Cpr). In resultative constructions Cpr inherits a Theme role from the nonverbal predicate, which explains why such constructions are transitive. In constructions of the type *find intelligent*, the external roles of the nonverbal predicate and the verb are passed on to the Cpr while the verb satisfies its internal (propositional) role within the Cpr. English follows the same pattern except that the nonverbal predicate undergoes short rightward movement to allow the assignment of case to the object under adjacency (*John paints  $t_i$  the door green $_i$* ). Predicate extraposition prohibits subextraction from the object (cf. *\*Who $_j$  does John consider  $t_i$  papers by  $t_j$  uninteresting $_i$* ) because its interaction with *wh*-movement results in a crossing A-bar-dependency.

Tarald Taraldsen's "On Agreement and Nominative Objects in Icelandic" discusses quirky subject constructions with VP-internal nominatives in Icelandic, which display an impoverished agreement relation: The nominative NP agrees in number but not in person with its governing verb, whence the unacceptability of first and second person nominative pronominal objects. Taraldsen argues that agreement as a functional node should be separated into its components, namely number and person agreement. The resulting structure is claimed to be the basis of a structural account for the agreement patterns manifested by nominative objects in Icelandic. Second, it is claimed that case licensing is a bipartite relation: Case must be structurally licensed and the value of the case feature must be identified. The realization of VP-internal nominative is described as the outcome of an elsewhere condition on structural case realization.

### 5.2.2. Binding: Reuland and Reinhart

In "Pronouns, Anaphors and Case", Eric Reuland and Tanya Reinhart elaborate their version of binding theory, first suggested in Reinhart and Reuland (1993). Monomorphemic reflexives like Dutch *zich* have in common with pronouns that neither have any "reflexivizing function" (as

opposed to self-anaphors like Du. *zichzelf*), whereas *zich* and *zichzelf* have in common that both are referentially dependent (as opposed to pronouns). According to their principle B, if a predicate is reflexive, i.e. if two of its arguments are coindexed, then the predicate must be reflexive-marked (i.e. it must be inherently reflexive or one of its arguments must be a *self*-anaphor). This accounts both for why a coindexed NP in an adjunct may be a pronoun (it is not an argument of the predicate, principle B does not apply) and for why *zich* may not be an object coindexed with the subject (unlike *self*-anaphors, *zich* has no reflexivizing function). In inherently reflexive predicates, where the arguments are necessarily coreferent (e.g. English *pride oneself on*), Dutch has *zich* but, surprisingly, English has a *self*-anaphor and Frisian a pronoun. An extended notion of chain, which says that only one link of a chain may be fully specified for phi-features, is what rules out a pronoun in Dutch and English, as the subject and the pronominal object would be coindexed, i.e. form a chain and be both fully specified for phi-features. Since all *self*-anaphors and Frisian pronouns are not marked for case, i.e. not fully specified for phi-features, coindexing them with a subject does not violate this chain condition. It is furthermore suggested that economy considerations rule out this option in Dutch and Frisian: The reflexivizing function of *self*-anaphors make these more costly than *zich* in Dutch and pronouns in Frisian which do not have this function.

### 5.3. Types of Phrasal Movement

#### 5.3.1. Scrambling: De Hoop and Kosmeijer

Three issues are correlated in "Case and Scrambling: D-structure versus S-structure" by Helen de Hoop and Wim Kosmeijer: Case assignment, scrambling and the semantic interpretation potential of indefinite NPs. A distinction is made between the existential interpretation, considered to be "weak", and "strong" interpretations such as referential, partitive, or generic interpretation. It is hypothesized that a strong interpretation for an indefinite NP is available if the NP occupies a position in which strong case is licensed. Strong and weak case are instances of structural case. Weak case is a D-structure case, whereas strong case is licensed at S-structure. Scrambling is characterized as movement to a position in which strong case is licensed. Since the scrambling of indefinite NPs goes together with strong interpretation, the strength of case accounts for the strength of interpretation. Scrambling is thus a case of A-movement. Object shift, which produces strong interpretations, is analyzed as the parallel to scrambling in a VO-system. In both cases, the merger of V and I is seen as an essential factor: In OV-languages V and I project as a complex head, whereas in VO-languages object shift is contingent on V-to-I movement.

5.3.2. *Object Shift: Roberts*

In "Object Movement and Verb Movement in Early Modern English", Ian Roberts shows that the reason object shift is not found in modern English is not that object shift is confined to the Scandinavian languages, but rather that modern English does not fulfill the conditions for object shift: Verbs that select DP complements (direct and/or indirect objects) never leave VP in modern English. This view, that object shift is not a purely Scandinavian phenomenon but rather one common to all Germanic SVO-languages, is supported by evidence from earlier stages of English, which did have object shift. In 16th century English, the main verb was able to leave VP (as shown by its preceding the negation) not only in questions but in all finite clauses. This verb movement was not obligatory, but when it took place, pronominal object shift also occurred. Roberts argues furthermore that pronominal object shift is not head movement but rather A-movement, which is triggered by strong phi-features of AgrO, forcing the pronominal object to move to Spec-AgrOP. Only pronouns, which consist of nothing but phi-features, are subject to this requirement; full DP objects have to have their case feature licensed but not their phi-features. AgrO's strong features are only activated when the verb moves through AgrO, i.e. only when the verb leaves VP. The advantages of this view are both that it is not necessary to assume that pronouns sometimes have to cliticize and sometimes not, and also that the only change that has to be assumed to have taken place between 16th century and Modern English concerns verb movement. The pronouns themselves have not changed; they do not have to cliticize now, nor did they have to cliticize in the 16th century.

5.3.3. *Extraposition: Bayer*

Josef Bayer claims in "On the Origin of Sentential Arguments in German and Bengali" that the position of an extraposed argument clause is an A-position. First he shows that the standard account of extraposition as A-bar-adjunction to a mother constituent is incompatible with the actual extraction data. The specific proposal for German defended in this paper rests on the assumption that extraposed clauses are adjoined to IP and governed by the verb, which has raised to the clause-final I-position. As a result of the deletion of the D-structure traces of both the raised verb and the extraposed clause, the verb in the I-position licenses the extraposition position as an A-position. Adjacency is invoked as part of a visibility condition for CP-licensing, in order to capture the distributional properties of clause-final and clause-initial complementizers. The so-called freezing effect of extraposition is attributed to the effect of canonical government on the status of VP as a barrier.

5.3.4. *Topicalization and Wh-Movement: Müller, J. Hoekstra*

"Preposition Stranding and Resumptivity in West Germanic" by Jarich Hoekstra starts out by discussing data that could be taken to show that Frisian (as opposed to other Germanic SOV-languages like Dutch or German) allows extraction of full DPs out of PP. Hoekstra, however, argues that full DP complements of prepositions may not actually be extracted. This is apparent from cases in which the form of the preposition varies depending on whether its complement is a full DP (cf. English *on this topic*) or a preposed *where/there/here* (cf. English *thereon*). What seem to be extractions are related to the latter construction, not to the former, even though the latter construction only allows *where/there/here* (the so-called R-pronouns) as complement of the preposition. Hoekstra therefore suggests that the "extracted" full DPs are in fact base-generated in their surface position and that an empty R-pronoun occurs as the complement of the preposition. This account is supported by some other differences between Frisian and Dutch: Frisian (but not Dutch) allows what seems to be scrambling out of PP and Frisian (but not Dutch) apparently allows a topicalized DP to count as the complement of verbs which otherwise select only PPs (cf. English *live*). In both cases there is no movement, but a resumptive R-pronoun occurs in the complement position. Like Frisian, German allows resumptive pronouns, and Hoekstra suggests that the relevant difference is that whereas resumptive pronouns in Frisian are base-generated, resumptive pronouns in German only occur as the spell-out of traces. This links two independent differences between the two languages, namely that Frisian has resumptive pronouns with topicalised full DPs, German only with topicalised R-pronouns, and that the link between the antecedent and the resumptive pronoun may cross *wh*-islands in Frisian but not in German.

Gereon Müller's "Crossover Effects, Chain Formation, and Unambiguous Binding" is a study of movement types and chain formation. Müller shows that strong crossover effects arise with *wh*-movement, head movement, scrambling, and topicalization but not with passive and raising constructions or dative movement. What distinguishes the latter type of movement from the former is that it is case-driven. He then looks at the class of improper movement phenomena and shows that they only occur with the non-case-driven movement types: Case driven movement indeed allows subsequent movement to another type of position. Rizzi's (1986) constraint on chain formation requiring a local binder for a trace is rejected as a basis for a general theory of movement for empirical reasons (it doesn't allow case-driven movement across a co-indexed item) as well as theoretical reasons (it can't be generalized to cover improper binding). The paper argues that the Principle of Unambiguous Binding (PUB) developed in Müller and Sternefeld (1993) in accordance with a proper definition of the notion "variable" not only prohibits improper movement (i.e. movement



to different kinds of A-bar positions) for which it was developed but also generalizes to cover strong crossover violations. Adopting the PUB thus simplifies the grammar by reducing the two types of movement to constraints of one general condition which renders the principles of the binding theory unnecessary.

#### 5.4. DP Structure: Giusti

Giuliana Giusti in "A Unified Structural Representation of (Abstract) Case and Article. Evidence from Germanic" attempts to develop a unified functional structure for the nominal projection which parallels certain formal aspects of the clause. She motivates the following structure by proposing that the functional head of the DP, now a generic FP, universally instantiates case to satisfy the Case Filter:

- (80)  $[_{QP} \text{Spec } Q [_{FP} \text{Spec } F [_{AGRP} \text{Spec } Agr [_{NP} \text{Spec } N \text{ XP}]]]]$

This position is subject to cross-linguistic variation: In languages without morphological case, F realizes the article; when both case and the article are part of a language, the strongest case morpheme will occur on the article and nominal case morphemes will instantiate agreement on the lexical noun. This proposal distinguishes articles which are realized in F from other kinds of 'determiners'. Quantifiers, for example, select the full nominal projection. Partitive Qs like German *viele* 'many' are followed by an empty F which allows the lower Agr nodes to trigger strong morphology on the adjectives in Spec-Agr. Universal Qs like *alle* 'all' incorporate F into Q, in which case the lower Agrs are properly governed and trigger weak agreement morphology on the adjectives (*viele alte Bücher* 'many old books' vs. *alle alten Bücher*). Possessives are adjectives which upon receiving an external theta role move to the highest Spec-Agr (Italian, German) or to Spec-FP (German) when it is empty. The fact that possessives co-occur with articles in certain languages shows that they are not determiners (Ital. *la mia domanda* 'the my question'). Demonstratives which also may co-occur with articles move to Spec-FP, forcing the possessive in German to remain in the highest Spec-Agr.

- (81) Ge. a. alle diese meine dummen Fragen  
all these my stupid questions  
b.  $[_{QP} \text{Spec } alle + F_i [_{FP} \text{diese } t_i [_{AGRP} \text{meine}_k \text{dumm} + en_j [_{NP} k \text{Fragen}]]]]$

In the historical development of the Germanic languages from Proto-Indo-European, case morphology in F came to be interpreted as an autonomous word, blocking the incorporation of N into F, while case inflection on the noun was interpreted as agreement until it fell away. Inflection

on the article may survive (German) or may fade (Dutch, English). The double definite marking in Mainland Scandinavian is seen as a reduplication of the F-feature as a bound morpheme on N: F lowers to N in Norwegian *huset* 'the house' (N incorporation in F would yield postnominal adjectives, which don't occur), but when an adjective intervenes, the F-morpheme is copied onto N (*det store hus(\*et)* 'the old house') since F must remain overt in order to license the lower Spec-Agr positions. The distribution of weak and strong adjectival inflection can be explained along the following lines: When the FP level is morphologically realized, all Agrs trigger further weak morphology on their adjectives in Spec-Agr, but when the FP projection is not manifest, all lower Agr receive strong morphology.

#### ACKNOWLEDGEMENTS

For advice and assistance in connection with the workshop and the preparation of this volume, we are grateful to Darcy Bruce Berry, Christine Haag-Merz, Axel Heilmann, Peter Stepan, and Heike Zinsmeister. The workshop was funded by the Deutsche Forschungsgemeinschaft as part of the activities associated with the Graduiertenkolleg "Linguistic Foundations of Language Processing", University of Stuttgart. Two of the papers presented at the workshop have been published elsewhere: Brandner (1993) and Sigurjónsdóttir and Hyams (1992).

#### REFERENCES

- Abney, Steven: 1987, *The English Noun Phrase in its Sentential Aspect*, unpublished Ph.D. dissertation, MIT, Cambridge, MA.  
Anderson, Stephen R.: 1986, 'The Typology of Anaphoric Dependencies: Icelandic (and other) Reflexives', in Lars Hellan and Kirsti Koch Christensen (eds.), *Topics in Scandinavian Syntax*, Reidel, Dordrecht, pp. 65–88.  
Authier, Jean-Marc: 1992, 'Iterated CPs and Embedded Topicalization', *Linguistic Inquiry* 23.2, 329–336.  
Baltin, Mark: 1982, 'A Landing Site Theory of Movement Rules', *Linguistic Inquiry* 13.1, 1–38.  
Barnes, Michael P.: 1992, 'Faroese Syntax – Achievements, Goals, and Problems', in Jonna Louis-Jensen and Jóhan Hendrik W. Poulsen (eds.), *The Nordic Languages and Modern Linguistics* 7, Føroya Fróðskaparfelag, Tórshavn, pp. 17–37.  
Bayer, Josef: to appear, *Directionality of Government and Logical Form: A Study of Focusing Particles and WH-Scope*, Kluwer, Dordrecht.  
Bech, Gunnar: 1983, *Studien über das deutsche Verbum infinitum*, Niemeyer, Tübingen.  
Bennis, Hans: 1986, *Gaps and Dummies*, Foris, Dordrecht.  
Benveniste, Emile: 1966, *Problèmes de linguistique générale*, Gallimard, Paris.  
Besten, Hans den: 1983, 'On the Interaction of Root Transformations and Lexical Deletive Rules' in Werner Abraham (ed.), *On the Formal Syntax of the Westgermania*, John Benjamins, Amsterdam, pp. 47–131. Also published in den Besten (1989: 14–100).  
Besten, Hans den: 1986, 'Decidability in the Syntax of Verbs of (Not Necessarily) West-



- Germanic Languages' in *Groninger Arbeiten zur Germanistischen Linguistik* 28, 232–256. Also published in den Besten (1989: 137–160).
- Besten, Hans den: 1989, *Studies in West Germanic Syntax*, Rodopi, Amsterdam.
- Besten, Hans den and Jerold Edmondson: 1983, 'The Verbal Complex in Continental West Germanic' in Werner Abraham (ed.), *On the Formal Syntax of the Westgermania*, John Benjamins, Amsterdam, pp. 155–216.
- Bhatt, Christa: 1990, *Die syntaktische Struktur der Nominalphrase im Deutschen*, Narr, Tübingen.
- Bierwisch, Manfred: 1989, 'Event Nominalizations', in Wolfgang Motsch (ed.), *Wortstruktur und Satzstruktur*, Akademie der Wissenschaften, Berlin, pp. 1–73.
- Brandner, Ellen: 1993, 'The Projection of Categories and the Nature of Agreement', in Gisbert Fanselow (ed.), *The Parameterization of Universal Grammar*, John Benjamins, Amsterdam, pp. 73–121.
- Brandt, Margareta, Marga Reis, Inger Rosengren and Ilse Zimmerman: 1992, 'Satztyp, Satzmodus und Illokution', in Inger Rosengren (ed.), *Satz und Illukution*, Vol. 1, Niemeyer, Tübingen, pp. 1–90.
- Breckenridge, Janet: 1975, 'The Post-Cyclicity of es-Insertion in German', in R.E. Grossman, L.J. San, and T.J. Vance (eds.), *Papers from the 11th Regional Meeting of the Chicago Linguistics Society*, pp. 81–91.
- Cardinaletti, Anna: 1990, 'Es, pro and Sentential Arguments in German', *Linguistische Berichte* 126, 135–164.
- Chomsky, Noam: 1981, *Lectures on Government and Binding*, Foris, Dordrecht.
- Chomsky, Noam: 1986, *Barriers*, MIT Press, Cambridge, MA.
- Chomsky, Noam: 1991, 'Some Notes on Economy of Derivation and Representation' in Robert Freidin (ed.), *Principles and Parameters in Comparative Grammar*, MIT Press, Cambridge, MA, pp. 417–454.
- Chomsky, Noam: 1993, 'A Minimalist Program for Linguistic Theory', in Kenneth Hale and Samuel Jay Keyser (eds.), *The View from Building 20*, MIT Press, Cambridge, MA, pp. 1–52.
- Cinque, Guglielmo: 1992, 'Functional Projections and N-Movement within the DP', *Glow Newsletter* 28, 12–13.
- Collins, Chris and Höskuldur Thráinsson: 1993, 'Object Shift in Double Object Constructions and the Theory of Case', *MIT Working Papers in Linguistics* 19, 131–174.
- Delsing, Lars-Olof: 1993, 'The Internal Structure of Noun Phrases in the Scandinavian Languages', unpublished Ph.D. dissertation, Lund.
- Deprez, Viviane: 1989, 'On the Typology of Syntactic Positions and the Nature of Chains: Move  $\alpha$  to the Specifier of Functional Projections', unpublished Ph.D., MIT, Cambridge, MA.
- Deprez, Viviane: to appear, 'Parameters of Object Movement', in Norbert Corver and Henk van Riemsdijk (eds.), *Scrambling*, de Gruyter, Berlin.
- Diesing, Molly: 1990, 'Verb Movement and the Subject Position in Yiddish', *Natural Language and Linguistic Theory* 8.1, 41–79.
- Diesing, Molly and Eloise Jelinek: 1993, 'The Syntax and Semantics of Object Shift', *Working Papers in Scandinavian Syntax* 51, 1–54.
- Emonds, Joseph: 1978, 'The Verbal Complex of V'-V in French', *Linguistic Inquiry* 9, 151–175.
- Everaert, Martin: 1986, *The Syntax of Reflexivization*, Foris, Dordrecht.
- Evers, Arnold: 1975, *The Transformational Cycle in Dutch and German*, Indiana University Linguistics Club, Bloomington.
- Falk, Cecilia: 1993, *Non-Referential Subjects in the History of Swedish*, Ph.D., Dept. of Scandinavian Languages, University of Lund.
- Fanselow, Gisbert: 1989, 'Coherent Infinitives in German: Restructuring vs. IP-Com-

- plementation', in Christa Bhatt, Elisabeth Löbel, and Claudia Schmidt (eds.), *Syntactic Phrase Structure Phenomena in Noun Phrases and Sentences*, John Benjamins, Amsterdam, pp. 1–16.
- Fanselow, Gisbert: 1990, 'Scrambling as NP-movement', in Günther Grewendorf and Wolfgang Sternefeld (eds.), *Scrambling and Barriers*, John Benjamins, Amsterdam, pp. 113–140.
- Fanselow, Gisbert: 1993, 'The Return of The Base Generators', *Groninger Arbeiten zur Germanistischen Linguistik* 36, 1–74.
- Felix, Sascha: 1988, 'The Structure of Functional Categories', *Groninger Arbeiten zur Germanistischen Linguistik* 29, 37–62.
- Frey, Werner and Thilo Tappe: (1991), 'Zur Interpretation der X-bar-Theorie und zur Syntax des Mittelfeldes – Grundlagen eines GB-Fragments', ms, Univ. of Stuttgart.
- Fukui, Naoki: 1986, *A Theory of Category Projection and its Application*, unpublished Ph.D. dissertation, MIT, Cambridge, MA.
- Gallmann, Peter: 1990, *Kategoriell komplexe Wortformen*, Niemeyer, Tübingen.
- Geilfuß, Jochen: 1991, 'Jiddisch als SOV-Sprache', *Working Papers of Sonderforschungsbereich 340* (Universities of Stuttgart and Tübingen) 11, 3–17.
- Grimshaw, Jane: 1993, 'Minimal Projection, Heads and Optimality', *RuCCS Technical Reports* 4, Rutgers University Center for Cognitive Science.
- deHaan, Germen and Fred Weerman: 1986, 'Finiteness and Verb Fronting in Frisian', in Hubert Haider and Martin Prinzhorn (eds.), *Verb Second Phenomena in Germanic Languages*, Foris, Dordrecht, pp. 77–110.
- Haegeman, Liliane: 1988, 'Verb Projection Raising and the Multidimensional Analysis: Some Empirical Problems', *Linguistic Inquiry* 19.4, 671–683.
- Haegeman, Liliane and Henk van Riemsdijk: 1986, 'Verb Projection Raising, Scope and the Typology of Rules Affecting Verbs', *Linguistic Inquiry* 17.3, 417–466.
- Haider, Hubert: 1984, 'Topic, Focus, and V-Second' in *Groninger Arbeiten zur Germanistischen Linguistik* 21, 72–120.
- Haider, Hubert: 1988, 'Matching projections', in Anna Cardinaletti, Guglielmo Cinque, and Giuliana Giusti (eds.), *Constituent Structure: Papers from the 1987 GLOW Conference*, Dordrecht, Foris.
- Haider, Hubert: 1990, 'Null subjects and Expletives in Romance and Germanic languages', in Werner Abraham, Wim Kosmeijer, and Eric Reuland (eds.), *Issues in Germanic Syntax*, Trends in Linguistics, Studies and Monographs 44, Mouton de Gruyter, Berlin, pp. 49–66.
- Haider, Hubert: 1992, 'Branching and Discharge', *Working Papers of Sonderforschungsbereich 340* (Universities of Stuttgart and Tübingen) 23, pp. 1–31.
- Haider, Hubert: 1993, *Deutsche Syntax Generativ*, Gunter Narr Verlag, Tübingen.
- Haider, Hubert: 1994, 'Detached Clauses – The Later The Deeper', *Working Papers of Sonderforschungsbereich 340* (Universities of Stuttgart and Tübingen) 41, pp. 1–22.
- Haiman, John: 1974, *Targets and Syntactic Change*, Mouton, The Hague.
- Hellan, Lars: 1988, *Anaphora in Norwegian and the Theory of Grammar*, Foris, Dordrecht.
- Hestvik, Arild: 1991, 'Subjectless Binding Domains', *Natural Language and Linguistic Theory* 9.3, 455–496.
- Hestvik, Arild: 1992, 'LF Movement of Pronouns and Antisubject Orientation', *Linguistic Inquiry* 23.4, 557–594.
- Heycock, Caroline and Beatrice Santorini: 1992, 'Head Movement and the Licensing of Non-Thematic Positions', ms, Oakland University and Northwestern University.
- Heycock, Caroline and Anthony Kroch: 1993, 'Verb Movement and the Status of Subjects: Implications for a Theory of Licensing', *Groninger Arbeiten zur Germanistischen Linguistik* 36, 75–102.
- Higginbotham, James: 1985, 'On Semantics', *Linguistic Inquiry* 16.4, 547–593.
- Hoekstra, Teun: 1983, 'The distribution of sentential complements', in Bennis, Hans and

- W.U.S. van Lessen Kloeke (eds.), *Linguistics in the Netherlands 1983*, Foris, Dordrecht, pp. 93–103.
- Hoekstra, Teun: 1984, *Transitivity: Grammatical Relations in Government-Binding Theory*, Foris, Dordrecht.
- Höhle, Tilman: 1991, 'Projektionsstufen bei V-Projektionen', ms, Univ. of Tübingen.
- Holmberg, Anders: 1984, 'On Certain Clitic-like Elements in Swedish', *Working Papers in Scandinavian Syntax* 13, pp. 1–31.
- Holmberg, Anders: 1986, *Word Order and Syntactic Features in the Scandinavian Languages and English*, Ph.D., Dept. of General Linguistics, University of Stockholm.
- Holmberg, Anders: 1987, 'The Structure of NP in Swedish', *Working Papers in Scandinavian Syntax* 33, 1–23.
- Holmberg, Anders: 1991, 'The Distribution of Scandinavian Weak Pronouns', in Henk van Riemsdijk and Luigi Rizzi (eds.), *Clitics and their Hosts*, EUROTYPE Working Papers (European Science Foundation), Tilburg University, pp. 155–173.
- Holmberg, Anders and Christer Platzack: 1990, 'On the Role of Inflection in Scandinavian Syntax', in Werner Abraham, Wim Kosmeijer, and Eric Reuland (eds.), *Issues in Germanic Syntax*, Trends in Linguistics, Studies and Monographs 44, Mouton de Gruyter, Berlin, pp. 93–118.
- Holmberg, Anders and Christer Platzack: to appear, *The Role of Inflection in the Syntax of the Scandinavian Languages*, Oxford University Press, New York.
- Iatridou, Sabine and Anthony Kroch: 1992, 'The Licensing of CP-recursion and its Relevance to the Germanic Verb-Second Phenomenon', *Working Papers in Scandinavian Syntax* 50, 1–24.
- Jonas, Dianne and Jonathan Bobaljik: 1993, 'Specs for Subjects: The Role of TP in Icelandic', *MIT Working Papers in Linguistics* 18, 59–98.
- Josefsson, Gunlög: 1992, 'Object Shift and Weak Pronominals in Swedish', *Working Papers in Scandinavian Syntax* 49, 59–94.
- Josefsson, Gunlög: 1993, 'Scandinavian Pronouns and Object Shift', *Working Papers in Scandinavian Syntax* 52, 1–28.
- Kayne, Richard: to appear, *The Antisymmetry of Syntax*, MIT Press, Cambridge, MA.
- Kosmeijer, Wim: 1986, 'The Status of the Finite Inflection in Icelandic and Swedish', *Working Papers in Scandinavian Syntax* 26, pp. 1–41.
- Koster, Jan and Eric Reuland (eds.): 1991, *Long-Distance Anaphora*, Cambridge University Press, Cambridge.
- Larson, Richard: 1985, 'Bare-NP Adverbs', *Linguistic Inquiry* 16.4, 595–621.
- Larson, Richard: 1988, 'On the Double Object Construction', *Linguistic Inquiry* 19.3, 335–391.
- Lattewitz, Karen: 1994, 'Die Analyse des deutschen Genitivs', *Linguistische Berichte* 150, 118–146.
- Löbel, Elisabeth: 1993, 'On the Parametrization of Lexical Properties', in Gisbert Fanselow (ed.), *The Parametrization of Universal Grammar*, Benjamins, Amsterdam, pp. 183–199.
- Löbel, Elisabeth: to appear, 'Zur kategorialen Bestimmung der Possessiva in der NP/DP', in Elisabeth Löbel and Thilo Tappe (eds.), *Struktur der Nominalphrase*, Niemeyer, Tübingen.
- Longobardi, Giuseppe: 1992, 'Proper Names and the Theory of N-Movement in Syntax and Logical Form', Ms, University of Venice.
- Manzini, Rita and Ken Wexler: 1987, 'Parameters, Binding Theory, and Learnability', *Linguistic Inquiry*, 18.3, 413–333.
- Meier, Judith: to appear, 'Zur Syntax des Verbalkomplexes im Deutschen', *Working Papers of Sonderforschungsbereich 340* (Universities of Stuttgart and Tübingen), 55, pp. 1–24.
- Milsark, Gary: 1974, 'Existential Sentences in English', Ph.D., MIT, Cambridge, MA.
- Moltmann, Friederike: 1990, 'Scrambling in German and the Specificity Effect', ms, MIT, Cambridge, MA.

- Müller, Gereon and Wolfgang Sternefeld: 1993, 'Improper Movement and Unambiguous Binding', *Linguistic Inquiry* 24.3, 461–507.
- Neeleman, Ad: 1993, *Complex Predicates*, Ph.D., University of Utrecht.
- Olsen, Susan: 1987, 'Das "substantivierte" Adjektiv im Deutschen: Attribuierung vs. syntaktische "Substantivierung"', *Folia Linguistica* 3–4, 337–372.
- Olsen, Susan: 1989, 'Das Possessivum: Pronomen, Determinans oder Adjektiv?', *Linguistische Berichte* 120, 133–153.
- Olsen, Susan: 1991, 'Die deutsche Nominalphrase als 'Determinansphrase'', in Susan Olsen and Gisbert Fanselow (eds.), *DET, COMP und INFL: Zur Syntaxfunktionaler Kategorien und grammatischer Funktionen*, Niemeyer, Tübingen, pp. 35–56.
- Olsen, Susan: to appear, 'Dem Possessivum seine Eigentümlichkeit', in Elisabeth Löbel and Thilo Tappe (eds.), *Struktur der Nominalphrase*, Niemeyer, Tübingen.
- Önnerfors, Olaf: 1993, 'Über narrative Verb-erst Deklarativsätze im Deutschen', *Sprache und Pragmatik* 31, 1–52.
- Ouhalla, Jamal: 1991, *Functional Categories and Parametric Variation*, Routledge, London.
- Pica, Pierre: 1987, 'On the Nature of the Reflexivization Cycle', in Joyce McDonough and Bernadette Plunkett (eds.), *Proceedings of NELS 17*, GLSA, Amherst, MA, pp. 483–499.
- Pintzuk, Susan: 1993, 'Verb Seconding in Old English: Verb movement to Infl', *The Linguistic Review* 10.1, 5–36.
- Platzack, Christer: 1983, 'Existential Sentences in English, Swedish, German and Icelandic', in Fred Karlsson (ed.), *Papers from the Seventh Scandinavian Conference of Linguistics*, pp. 80–100.
- Platzack, Christer: 1986, 'COMP, INFL, and Germanic Word Order', in Lars Hellan and Kirsti Koch Christensen (eds.), *Topics in Scandinavian Syntax*, Reidel, Dordrecht, pp. 185–234.
- Platzack, Christer: 1987, 'The Case of Narrative Inversion in Swedish and Icelandic', *Working Papers in Scandinavian Syntax* 31, 9–14.
- Pollock, Jean-Yves: 1989, 'Verb Movement, Universal Grammar, and the Structure of IP', *Linguistic Inquiry* 20.3, 365–424.
- Reinhart, Tanya: 1980, 'On the Position of Extraposed Clauses', *Linguistic Inquiry* 11.3, 621–624.
- Reinhart, Tanya: 1983, *Anaphora and Semantic Interpretation*, Croom Helm, London.
- Reinhart, Tanya and Eric Reuland: 1993, 'Reflexivity', *Linguistic Inquiry* 24.4, 657–720.
- Reinholtz, Charlotte: 1989, 'V-2 in Mainland Scandinavian: Finite Verb Movement to Agr', *Working Papers in Scandinavian Syntax* 44, 101–117.
- Reis, Marga: 1985, 'Satzeinleitende Strukturen im Deutschen: Über COMP, Haupt- und Nebensätze, w-bewegung und die Doppelkopfanalyse', in Werner Abraham (ed.), *Erklärende Syntax des Deutschen*, Gunter Narr, Tübingen, pp. 271–311.
- Reuland, Eric: 1983, 'On the Subject of Nonargument Subjects', in Werner Abraham (ed.), *On the Formal Syntax of the Westgermania*, John Benjamins, Amsterdam, pp. 1–46.
- Reuland, Eric and Wim Kosmeijer: 1988, 'Projecting Inflected Verbs', *Groninger Arbeiten zur Germanistischen Linguistik* 29, 88–113.
- Rizzi, Luigi: 1986, 'Null Objects in Italian and the Theory of pro', *Linguistic Inquiry* 17.3, 501–557.
- Rizzi, Luigi and Ian Roberts: 1989, 'Complex Inversion in French', *Probus* 1.1, 1–30.
- Roberts, Ian: 1993, *Verbs and Diachronic Syntax*, Kluwer, Dordrecht.
- Rochmont, Michael and Peter Culicover: 1990, *English Focus Constructions and The Theory of Grammar*, Cambridge University Press, Cambridge.
- Rögnvaldsson, Eiríkur: 1984, 'Icelandic Word Order and það-Insertion', *Working Papers in Scandinavian Syntax* 8, pp. 1–21.
- Rögnvaldsson, Eiríkur and Höskuldur Thráinsson: 1990, 'On Icelandic Word Order Once More', in Joan Maling and Annie Zaenen (eds.), *Modern Icelandic Syntax Syntax and Semantics* 24, Academic Press, San Diego, pp. 3–40.

- Rohrbacher, Bernhard: 1994, 'The Germanic Languages and the Full Paradigm: A Theory of V to I Raising', Ph.D., University of Massachusetts, Amherst.
- Rosengren, Inger: 1992, 'Zum Problem der kohärenten Verben im Deutschen', Peter Suchsland (ed.), *Biologische und soziale Grundlagen der Sprachfähigkeit*, Niemeyer, Tübingen, pp. 265–297.
- Rosengren, Inger: 1993, 'Wahlfreiheit mit Konsequenzen – Scrambling, Topikalisierung und FHG im Dienste der Informationsstrukturierung', in Marga Reis (ed.), *Wortstellung und Informationsstruktur*, Niemeyer, Tübingen, pp. 251–312.
- Safir, Kenneth: 1984, 'Missing Subjects in German', in Jindrich Toman (ed.), *Studies in German Grammar*, Foris, Dordrecht, pp. 193–229.
- Safir, Kenneth: 1985, *Syntactic Chains*, Cambridge University Press, Cambridge.
- Safir, Kenneth: 1993a, 'Semantic Atoms of Anaphora: SELFish Languages and SELFless Ones', ms, Rutgers University.
- Safir, Kenneth: 1993b, 'A Universalist Approach to Mainland Scandinavian Anaphora', ms, Rutgers University.
- Saito, Mamoru: 1989, 'Scrambling as Semantically Vacuous A' Movement', in Mark Baltin and Anthony Kroch (eds.), *Alternative Conceptions of Phrase Structure*, University of Chicago Press, Chicago.
- Santorini, Beatrice: 1989, 'The Generalization of the Verb-Second Constraint in the History of Yiddish', Ph.D., University of Pennsylvania.
- Santorini, Beatrice: 1992, 'Variation and Change in Yiddish Subordinate Clause Word Order', *Natural Language and Linguistic Theory* 10.4, 595–640.
- Schwartz, Bonnie D. and Sten Vikner: 1989, 'All Verb Second Clauses are CPs', *Working Papers in Scandinavian Syntax* 43, 27–49.
- Shlonsky, Ur: 1992a, 'The Representation of Agreement in Comp and Subject Clitics in West Flemish', ms, University of Geneva.
- Shlonsky, Ur: 1992b, 'Semitic Resumptive Pronouns, the Representation of Agr in CP and Aspects of V2', talk presented at GLOW 15, Lisbon, Abstract, *GLOW Newsletter* 28, 44–45.
- Sigurðsson, Halldór Ármann: 1990, 'V1 Declaratives and Verb Raising in Icelandic', in Joan Maling and Annie Zaenen (eds.), *Modern Icelandic Syntax and Semantics* 24, Academic Press, San Diego, pp. 41–69.
- Sigurjónsdóttir, Sigríður and Nina Hyams: 1992, 'Reflexivization and Logophoricity: Evidence from the Acquisition of Icelandic', *Language Acquisition* 2.4, 359–413.
- Szabolcsi, Anna: 1983, 'The Possessor that ran away from Home', *The Linguistic Review* 1, 89–102.
- Tappe, Thilo: to appear, 'Über DPs und Kongruenz im Deutschen. Das Problem der Projizierbarkeit', in Elisabeth Löbel and Thilo Tappe (eds.), *Struktur der Nominalphrase*, Niemeyer, Tübingen.
- Thiersch, Craig: 1978, 'Topics in German Syntax', unpublished Ph.D., M.I.T.
- Tomaselli, Alessandra: 1986, 'Das unpersönliche 'es' – Eine Analyse im Rahmen der Generativen Grammatik', *Linguistische Berichte* 102, 171–190.
- Travis, Lisa: 1984, 'Parameters and Effects of Word Order Variation', Ph.D., M.I.T.
- Travis, Lisa: 1991, 'Parameters of Phrase Structure and Verb Second Phenomena', in Robert Freidin (ed.), *Principles and Parameters in Comparative Grammar*, MIT Press, Cambridge MA, pp. 339–364.
- Tsimpli, Ianthi: 1990, 'The Clause Structure and Word Order of Modern Greek', *University College London Working Papers in Linguistics* 2, 228–255.
- Vikner, Sten: 1985, 'Parameters of Binder and of Binding Category in Danish', *Working Papers in Scandinavian Syntax* 23.
- Vikner, Sten: 1989, 'Object Shift and Double Objects in Danish', *Working Papers in Scandinavian Syntax* 44, 141–155.

- Vikner, Sten: to appear, a, 'Scandinavian Object Shift and West Germanic Scrambling', in Norbert Corver and Henk van Riemsdijk (eds.), *Scrambling*, de Gruyter, Berlin.
- Vikner, Sten: to appear, b, *Verb Movement and Expletive Constructions in the Germanic Languages*, Oxford University Press, New York.
- Vikner, Sten and Bonnie D. Schwartz: to appear, 'The Verb Always Leaves IP in V2 Clauses', in Adriana Belletti and Luigi Rizzi (eds.), *Parameters and Functional Heads*, Oxford University Press, New York.
- Webelhuth, Gert: 1992, *Principles and Parameters of Syntactic Saturation*, Oxford University Press, New York.
- Wyngaerd, Guido Vanden: 1989, 'Object Shift as an A-movement Rule', *MIT Working papers in Linguistics* 11, 256–271.
- Zimmermann, Ilse: 1991, 'The Subject in Noun Phrases', in Ilse Zimmermann (ed.), *Syntax und Semantik der Substantivgruppe*, Akademie, Berlin, pp. 33–68.
- Zwart, Jan-Wouter: 1991, 'Clitics in Dutch: Evidence for the Position of Infl', *Groninger Arbeiten zur Germanistischen Linguistik* 33, 71–92.
- Zwart, Jan-Wouter: 1993, 'Dutch Syntax, A Minimalist Approach', Ph.D., University of Groningen.