

CHAPTER 1

Introduction

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This volume presents a collection of chapters of recent generative research into the properties of phrasal and feature movement, which explore these key syntactic phenomena from different angles. The volume has its origin in a workshop on (remnant/feature) movement organized by the Research Centre for General Linguistics (ZAS, Berlin), the Linguistics Department of the University of Potsdam and the Dutch Graduate School in Linguistics (LOT) and hosted in Potsdam in July 1999 during the LOT Summer School. In Section 1 of our introduction we introduce the theoretical background and outline the main issues and questions that have been the object of much debate in the syntactic literature on the triggers and the properties of movement. In Section 2, we offer a summary of the chapters.¹

1. The theoretical background

In the development of generative syntax, one can recognize the following attempts in constraining the theory of movement, which has been a major concern of syntactic theory at least since Ross ([1967], 1986).² First, construction-specific movement transformations like *PASSIVE*, *WH*, *SAI*, *RELATIVIZATION* etc. were replaced by the general operation *MOVE- α* (Chomsky 1981). Informally speaking, this operation permitted syntax to move anything anywhere.³ Crucially, *MOVE- α* involves creation of a trace in the original position of the moved element. Descriptive adequacy was attained by means of a set of constraint-modules (e.g. Binding Theory, Bounding Theory, Case Theory, Theta Theory) governing the shape of input and output

representations.⁴ Construction-specific details were integrated in the (functional) lexicon.

Second, locality conditions on MOVE- α were microscopically scrutinized (cf. Chomsky 1986; Cinque 1990; Rizzi 1990). In *Barriers* Chomsky seeks an adequate definition of barrierhood aiming at a unification of *Subjacency* and the *Empty Category Principle*. A question that arose within the Barriers framework was whether the barrierhood of constituents persists under displacement. This rekindled interest in “freezing” effects (Ross 1986) and led to research into *remnant movement*, to which we return. An important development of Barriers was *Relativized Minimality*, a locality system in which minimality barriers are relativized according to the type of intervening material. This has led to a typology of movement and locality which separates X⁰-movement from XP-movement and splits up the latter into A- vs. A-bar-movement.⁵

Third, recent research being pursued within the framework of minimalism, focuses on the operation MOVE- α as such. Most importantly, every application of MOVE- α is taken to be triggered and leads to feature-checking (Chomsky 1995). Taking the idea that movement targets the functional domain of the clause (CP, AgrP, TP) seriously, the need arises to address questions dealing with the kind of triggers, the types of features (see Alexiadou and Anagnostopoulou’s contribution) and the nature of optionality operations. Looking at movement this way leads to a view of movement according to which an element that has features matching the feature of a functional head F is displaced into the local domain of F. This has arguably provoked one of the most fruitful questions minimalist syntacticians are currently investigating: How much material is subject to displacement under which circumstances? In other words: What is the range of α in MOVE- α ? Most minimally, one might expect exactly the features to be checked to undergo movement. AgrS⁰, for example, could force just the ϕ -features of an appropriate DP to move somewhere into AgrSP. (1) captures this idea.

- (1) Nothing but features matching the attracting functional head ever moves.

Call such an operation MOVE-F^{MIN}. The availability of such an option would be expected under the LEAST EFFORT principle governing minimalist research. However, feature movement in (1) has been interpreted as affecting not just isolated features but the full set of formal features introduced by a lexical item into the syntactic computation.⁶ Taking these X⁰-categories to be $\langle p, f, s \rangle$ -

triples, including (sets of) *phonological*, *formal* and *semantic* features, we can call the variant of feature movement actually implemented in minimalist syntax MOVE-F^f .

At the same time, more solid evidence for displacement is standardly taken to be provided by word-order effects detectable on PF-strings. Trivially, the minimal unit of word-order manipulation is the linguistic counterpart to “words,” i.e. lexical items. These constitute the input to minimalist syntactic computation and may be represented as terminal (X^0 -)nodes in phrase-markers. Assuming the integrity of these minimal PF-detectable syntactic building blocks, something like (2) can be postulated to govern the “overt” part of syntax.

- (2) Before Spell-Out, nothing less than X^0 ever moves.⁷

Thus, the computation feeding PF requires movement of a feature F to “pied-pipe” at least the minimal X^0 containing F . As a consequence of (1), (2) can only hold of “covert” movement. This is expressed in (3).

- (3) After Spell-Out, nothing but features matching the attracting functional head ever moves.

While (2) is largely accepted,⁸ (3) is highly controversial. Certain researchers attempt to show that there should be no covert movement at all. Thus, Chomsky (Chomsky 2000: 147, n.71) points out that assuming MOVE-F^f to alter binding domains, one could interpret the unavailability of anaphor binding in (4) as counting against the raising of features of *many men* into the domain of matrix I^0 :

- (4) *There seem to each other [to be many men in the room].

In a similar manner, Brody (1995:133) argues that nothing ever moves covertly because covert XP movement might yield the wrong results for binding theory. He points out that covert WH -movement does not extend the binding domain for the anaphor *himself* in (5).

- (5) *John wondered when Mary saw which picture of himself.

Both (2) and (6) could account for this.

- (6) After Spell-Out, nothing more than X^0 ever moves.

On the other hand, the necessity of covert XP-movement has been argued for by e.g. Kennedy (1997), Wilder (1997), Fox (1999), and Pesetsky (2000). QR,

for example, which is taken to be involved in the construal of ACD cases of VP-ellipsis, seems to bleed principle C effects (Fox 1999: 185).

(7) You introduced him_i to everyone John_i wanted you to.

This, of course, directly contradicts the above mentioned principles.⁹ The case for MOVE-F in connection with the syntax-semantics interface remains somewhat under-explored. An exception to that is Ruys (1997) who analyzes its relation to QR, arguing that quantification over choice function variables goes some way toward eliminating the need for moving restrictive material along with the features of asymmetric quantifiers.¹⁰ Another exception is Lasnik (this volume) who suggests that overt MOVE-F may be instrumental in an account for certain ellipsis facts.¹¹

On the technical side, the typology of features and the status of features calls for a number of clarifications. As soon as isolated features or feature sets are introduced into the group of syntactic objects (Chomsky 1995:262), a question arises as to whether they are accessible only to MOVE or to both MOVE and the structure building operation MERGE. Chomsky (1995) and others assume that there is a universal set of features, and each language draws from that pool. The types of features that are present in the syntactic terminals are those that are relevant for semantic interpretation at LF e.g. Tense. Languages will differ as to whether they will realize the feature at all, and whether they will realize it by means of an auxiliary, an affix, a particle and so on. Other features such as case are merely present to trigger displacement (see Alexiadou and Anagnostopoulou's contribution for some discussion on Case and Agreement relations). A number of further questions arise in connection with the operation MOVE. In terms of phrase structure, MOVE-F^f has been treated on a par with MOVE-X⁰, at least as far as its landing site (but not the kinds of intervening elements) is concerned. This is indicated in the following structure (Chomsky 1995: 360).

(8) [_T FF(Obj) [_T Vb T]]

Here the formal features of a direct object, FF(Obj), are adjoined directly to T⁰.¹² Under the Chomskyan construal of MOVE-F^f, this could potentially lead to an atomization (and multiplication) of operations. Earlier, successive-cyclic X⁰-movement could pied-pipe all of the functional features associated with a lexical head and thus make the whole collection available for checking in a higher functional projection. Assuming MOVE-F^f, however, one could assume that once MOVE-F^f has applied to one feature then another feature

will not be affected but be stranded in the position of Y^0 . This problem does not arise in Chomsky (1995), as he assumes that features can only move in bundles, and never independently. A further way of dealing with this question would be to generalize the notion of modified lexical item (MLI) (cf. Chomsky 2000), such that moved features integrate into the feature structure of the target.¹³ Alternatively, one could adopt a radical late insertion theory in the spirit of Jackendoff (1997). There (narrow) syntax is all and only about formal features. Phonological and semantic features are inserted at the respective interfaces. This would allow an identification of sets of formal features with X^0 categories. Consequently, $\text{MOVE-}X^0$ would equal $\text{MOVE-}F^f$. This second perspective is attractive only to the extent that $\text{MOVE-}X^0$ continues to be part of syntactic theory. In fact, there have been attempts to abolish this operation. One way of doing so is to attribute its effects to the PF-component (cf. Chomsky 1999). Another technique takes X^0 -movement to be re-analyzed in terms of XP remnant movement, an issue to which we return in more detail below.

In view of the empirical, technical and conceptual difficulties with feature movement mentioned above, an altogether different alternative which is recently being explored by Chomsky is to replace feature movement by a different operation. Viewing functional heads as “attractors” which “probe” their c-command domain for compatible features opens the possibility to eliminate feature movement entirely and to dissociate checking from movement. In such a conception, if a matching item is found, checking can take place “long-distance.”¹⁴ This first subroutine of $\text{MOVE-}\alpha$ is called AGREE (Chomsky 1999, 2000). Specifically, AGREE establishes a long distance checking relation (agreement, Case-checking) between a lexical item and some feature F in some restricted search space (its *domain*). In addition, there may be “displayable” effects of AGREE (Frampton and Gutmann 1999). Minimally, nothing other than feature elimination occurs. Locality conditions yield an intervention effect if probe α matches β which is closer to α than matching Γ , barring $\text{AGREE}(\alpha, \Gamma)$. Of course, independent evidence distinguishing $\text{MOVE-}F^f$ (or $\text{MOVE-}F^{\text{MIN}}$) from AGREE may be hard to come by.¹⁵

Feature movement (or, for that matter, AGREE) takes syntactic operations to not manipulate exclusively what is traditionally known as “syntactic constituents” but rather features, elements which by their very nature are invisible to the eye. On the other extreme, there is a recent family of analyses which take syntax to manipulate very large constituents, so large that the operations yield outputs which are once again hard to detect. The latter analyses make use

of extensive remnant movement. This approach generalizes an earlier treatment of German VP-fronting by den Besten and Webelhuth (1990). Remnant movement has the following general format:

$$(9) \quad [_{\text{ZP}} \dots Z \dots t_i \dots]_j X_i t_j$$

First a constituent or head X is extracted from the constituent ZP . Subsequently, the entire ZP including the trace of X is moved across X . A definition of remnant movement could look as follows:¹⁶

- (10) A constituent α is a *remnant* iff
 there are constituents β and γ , β a trace and γ the antecedent of β , and
 such that α includes β , and α excludes γ .

Consider the analysis of VP-topicalization in German and Dutch, involving scrambling of one or more arguments out of VP and subsequent preposing of the remnant VP. Den Besten and Webelhuth (op. cit.) suggest that what looks like X^0 -fronting of a non-finite verb is actually VP-fronting preceded by direct object scrambling. The reasoning presupposes that only XPs move into the highest specifier of German clauses. The relevant structure is given in (11).

- (11) a. Gelesen hat Hans das Buch.
 b. $[_{\text{CP}} \text{hat}_i [_{\text{IP}} \text{Hans} [_{\text{VP}} \text{das Buch gelesen}] t_i]]$.
 c. $[_{\text{CP}} \text{hat}_i [_{\text{IP}} \text{Hans} [_{\text{VP}} \text{das Buch}_j [_{\text{VP}} t_j \text{gelesen}]] t_i]]$.
 d. $[_{\text{CP}} [_{\text{VP}} t_j \text{gelesen}]_k \text{hat}_i [_{\text{IP}} \text{Hans} [_{\text{VP}} \text{das Buch}_j t_k] t_i]]$.

Kayne's antisymmetry framework has given rise to analyses of phenomena such as extraposition, right dislocation and heavy NP-shift in terms of remnant movement. A consequence of antisymmetry is that constituents cannot occur in a right-peripheral position as a result of rightward movement or right-adjunction. Complements aside, a constituent can only end up in right-peripheral position if all material c-commanded by it moves across it to the left. One way of obtaining this result is remnant movement, as depicted in (9).

The theoretical possibility of remnant movement makes it necessary to reconsider the syntactic status of all right-peripheral constituents, including complements. Kayne (2000), for example, argues that in the wide scope interpretation of the complement *no one* in *I will force you to marry no one*, [*no one*] has moved overtly to a position preceding *force*. After that, the surface order is derived by movement of the remnant introduced by *force* as depicted in (12) (Kayne 2000: 232):

- (12) I will force you to marry no one → (neg phrase preposing)
 I will no one_i force you to marry t_i → (VP-preposing)
 I will [force you to marry t_i]_j no one_i t_j

Thus, remnant movement not only makes it possible to dispense with rightward movement and right-adjunction, but also with covert movement. Note that recent minimalist considerations on the status of feature movement (see above) also lead to the same result, i.e. abandoning covert movement.

A system that makes use of extensive remnant movement also does away with head movement, although the line of approach taken radically differs from the one put forth in Chomsky (1999). Let us briefly summarize such an attempt. Koopman and Szabolcsi (2000) account for the different word order and constituency of verbal complexes in Hungarian, Dutch and German in terms of a derivational theory which relies on overt (remnant) XP movement only. Since all orders are derived by remnant movement, large structures are necessary, so that the relevant XP remnants can be created. The authors exploit these structures, and argue that they allow for a substantial simplification of the computational system. Movement is XP movement only, it is feature driven, and of overt phonological material only. Movement is not subject to economy conditions such as the Minimal Link: the computational system is fully automatic. Such a system relies on the use of complexity filters formulated on the representations that are generated; they hold for designated Spec positions, and express how much structure is allowed to dominate overt material. Complexity filters seem a natural way to control the size of allowable pied-piping. This approach is further developed in Koopman's contribution to this volume.

If the grammar makes only use of remnant movement, the next task is to develop a restrictive theory of remnant movement and to find supporting evidence. The following issues arise. First, for every movement proposed the trigger and the landing site must be established. A recurrent idea is that the trigger of remnant VP or TP movement can be a Topic or Focus feature in a left-peripheral functional head (e.g. Zubizarreta (1998), Kayne and Pollock (1998), among others). Another idea is that certain cases of remnant movement are triggered by the need to restore canonical word order (Müller, this volume, Noonan, this volume).

Secondly, diagnostics are needed to distinguish head movement (if it exists; see above) from movement of a remnant constituent consisting of the head and a number of traces. Bański (this volume) proposes a prosodic diagnostic. Another diagnostic that comes to mind is the distribution of adverbs.

If a remnant VP is fronted we expect VP-internal adverbs to be carried along, while verbal head movement should entail stranding of VP-internal adverbs.

Thirdly, diagnostics must be found to establish whether a constituent is in its base position or in a derived position, since this can not be deduced from its surface linear position. For example, Longobardi in recent work argues on the basis of the distribution of the different interpretations of subjects that Italian has two types of postverbal subjects, VP-internal subjects and subjects that occur postverbally as a result of subject movement to SpecIP followed by remnant movement of the verbal predicate across the subject. Other possible diagnostics are scope and classical tests for A-bar movement.

Fourthly, it is necessary to find diagnostics to decide whether certain orders are derived by a combination of independent movement operations or by remnant movement. For example, the VOS order in Portuguese can be derived by object shift and verb movement or by movement of the subject and subsequent movement of a remnant containing V and O. See Costa (this volume) for diagnostics to distinguish between these derivations.

Finally, there are questions concerning the size of remnants, i.e. does any XP qualify as a potential moving remnant? Den Besten in recent work observes that a remnant VP can move across the antecedent of the trace contained in the remnant VP in Dutch, while a remnant PP cannot. Still there are issues concerning the circumstances under which extraction from moved remnants is possible.

The above discussion summarizes some of the main issues raised in recent models of movement which capitalize either on generalized feature movement or on generalized remnant movement. Both approaches attempt to develop a restrictive theory of movement aiming at a simplification of the operations of the computational system. At the same time both approaches face important difficulties on both the conceptual and the empirical side, some of which have been highlighted in this introduction. Interestingly, despite the fact that they are so different technically, generalized feature movement and generalized remnant movement both push the theory of movement to the same direction in two important respects: (a) Elimination of head movement. (b) Elimination of covert movement. This is why we chose to juxtapose them in this book.

2. The chapters

Alexiadou and Anagnostopoulou discuss the role of Agreement in the computational system on the basis of Greek Raising. Their point of departure is

Chomsky's claims that (i) structural Case (nominative/accusative) is associated to phi-features in the sense that complete subject-verb and object-verb agreement checking results in structural Case checking and (ii) successive cyclic movement depends on incomplete feature checking on T (EPP but not Case). The authors provide evidence for the presence of Raising in Greek. They further show that in Greek agreement does not correlate with Case because nominative Case is not assigned in Raising subjunctives which nevertheless show full agreement. In Portuguese and English, however, full agreement does correlate with Case and for this reason nominative Case is assigned in inflected infinitives and Raising is impossible. This flexibility of Agreement-Case relations across languages leads the authors to the proposal that Agreement is a PF reflex of formal feature checking either Case or EPP. There are two features associated with T: an EPP feature (D) and a Case feature (N). Both are formal features of the same type, i.e. [-interpretable] nominal features on functional heads and both are responsible for the movement operations performed by the computational system. Agreement spells-out at the PF branch of the grammar these formal feature checking relations. Cross-linguistically then there are at least two types of Agreement-Case, Agreement-EPP relations: (i) Agreement is a reflex of N/Case-checking. This is the case in English and Portuguese. (ii) Agreement is the reflex of EPP checking. This is found in Greek and potentially in other Balkan languages which lack infinitives.

Bański's contribution addresses the question of how to distinguish empirically between remnant movement of a phrase from which all non-head material has been extracted on the one hand, and movement of the head of that phrase alone on the other. Bański shows on the basis of present tense predicative adjectival constructions in Polish that prosodic properties of auxiliary clitics make it possible to distinguish between head-movement and phrasal-movement, and thanks to that it is possible to determine that in Polish, whenever the head of an adjectival phrase ends up in the clause-initial position, it is actually the entire AP projection that fronts, with all its non-head material having been previously extracted. Furthermore, the chapter highlights the importance of prosodic phenomena for diagnosing the output of syntactic operations.

Barbiers investigates the possibility to strand remnants of phrasal movement in intermediate landing sites of successive cyclic movement. Presenting new data from Dutch, he shows that remnant stranding is possible in the matrix vP but not in the highest Spec of an embedded complement clause. He

argues that the latter stranding is impossible because the highest Spec of an embedded complement clause can never serve as an intermediate landing site in Dutch. Propositional complement clauses in this language are incomplete, hence not phases, and therefore they cannot attract any constituent to their edge. Factive complements are strong islands, so the highest Spec of such a complement can only serve as a final, not as an intermediate landing site. Matrix vP dominating a propositional clause is a phase and when v has a focus feature it can attract a constituent from the embedded clause. The fact that remnant stranding in matrix vP is possible is claimed to be an instance of the broader generalization that extraction from constituents is only possible when these constituents are inside vP.

Costa provides eight arguments against a remnant movement analysis of the VOS order in European Portuguese. According to the remnant movement analysis (e.g. Ambar and Pollock 1998), the VOS order is derived in two steps. First the subject moves out of VP, secondly the remnant VP, containing the verb, the object and the trace or copy of the subject, moves as a whole to the Spec of a functional projection higher than the landing site of the subject. Costa argues that the remnant movement analysis faces serious problems in view of restrictions on VP-preposing in other constructions, the VP-internal distribution of adverbs, floating quantifiers, pronominal doubling and question tags, the discourse function of the subject, scope and c-command, clitics, and properties of the object. Costa shows that no such problems arise in his own analysis of VOS, according to which VOS order is the result of V to I movement and object scrambling (adjunction to VP).

Fanselow criticizes the remnant movement analysis of incomplete category fronting as applied to VP, e.g. *geküsst hat sie Peter nicht* ‘kissed has she Peter not’. The primary motivation for the remnant movement analysis of such structures is crucially linked to two background assumptions concerning phrase structure and thematic theory. Fanselow compares the remnant movement analysis to its predicate raising alternative and argues that the latter is superior. The results reported in this chapter should not be interpreted, however, as evidence against remnant movement as such, and not as evidence against the application of remnant movement in German in other contexts. Rather, the crucial point is that the string *geküsst hat sie Peter nicht* does not have a remnant movement analysis — because there is no movement operation that could evacuate the VP before topicalization.

The remnant movement analysis of such strings is also criticized in Hinterhölzl’s chapter. Hinterhölzl deals with two questions: whether specific

cases of incomplete category dislocation be better explained in terms of conditions on movement or in terms of conditions on deletion, and whether the grammar allows for both remnant movement and partial deletion to occur, since both operations yield similar results. He shows that there are cases of incomplete category dislocation, namely PPs-out-of-NPs and Discontinuous NPs, that cannot readily be explained in terms of remnant movement and call for an analysis in terms of partial deletion. On the other hand, there are also cases of incomplete category dislocation, namely the cases of conflicting structural requirements that cannot readily be explained in terms of deletion and call for an analysis in terms of remnant movement. Thus both operations can coexist in the grammar. The two operations differ in the conditions of their application. Partial deletion occurs when the checking position for the feature of the constituent that may pied-pipe the whole phrase (typically the head and agreeing positions) is closer. Remnant movement occurs when the checking position for the feature of the constituent that may not pied pipe the whole phrase (typically the complement) is closer.

Koopman builds on and extends aspects of the framework introduced in Koopman and Szabolcsi (2000), which makes use of a derivational theory which relies on overt (remnant) XP movement only. In particular Koopman establishes the need for complexity filters and discusses the role they play in the grammar. These filters act on the representations that the derivations generate, and are sensitive to overt material only. They impose restrictions on the ‘size’ or ‘internal complexity’ of certain constituents in specific locations (designated Spec positions) at the end of the derivation. The patterns that filters exclude are anomalous from a broader Dutch internal point of view, from a crosslinguistic point of view and from a theoretical point of view. If correct, complexity filters must be part of UG. This bound on ‘complexity’ is expressed and integrated with the basic syntactic derivations and representations. As a consequence of the derivations, the internal representations of the different VPs vary in very precise ways. They differ in internal complexity, where complexity is measured by counting the number of nodes dominating the most deeply embedded overt element. Their internal complexity further varies as a function of the length of derivations.

Lasnik constructs a non-trivial way of distinguishing overt feature movement from agreement at a distance, showing the former to be superior to the latter, at least in one empirical domain. The argument is based on a suggestion by Ochi (1999) that a constituent from which overt feature movement has taken place is PF-deficient, leading to PF-crash unless deleted. Thus, overt

feature movement either pied-pipes an entire category or must be “compensated” by PF-ellipsis. The latter strategy, Lasnik suggests, is what we find in Pseudogapping and Sluicing. An additional argument for preferring (covert) feature movement to agreement at a distance comes from the ill-formedness of remnant WH-movement across an expletive in cases like **How likely t_i to be a riot is there_i*. While Agree would have incorrectly established the expletive-associate relation before WH-movement, covert feature movement from *a riot* to *there* can correctly be ruled out, given the lack of c-command. Finally, Lasnik explores consequences of the theory for the EPP.

Müller distinguishes between two types of remnant movement on principled grounds. Thus, “primary remnant movement,” i.e. remnant movement of the den Besten and Webelhuth (1990) type, is feature driven. Kayne (1998)-style “secondary remnant movement” is argued to be “repair driven,” i.e. it answers a need for “shape conservation” in the sense of Williams (1999), where word order is the crucial factor determining shape. The distinction is empirically motivated on the basis of five criteria, involving independent availability of movement operations, secondary object fronting, extraction, movement types, and successive cyclicity. The account is worked out in an OT-syntax employing local optimization.

Nakamura offers arguments for the existence of feature movement based on null operator constructions (NO) (see Takahashi 1997). At the same time, he shows that Takahashi is incorrect in adopting Chomsky’s (1995) economy condition on Attract as the reason for F movement of NOs. Under Nakamura’s analysis, F movement is a direct consequence of the morphological nature of NOs: the operator to be attracted is nothing but a bundle of features. Moreover, Nakamura demonstrates that the theory of Attract-F can fruitfully be applied to account for the various traits of NO structures found in different languages. Nakamura shows that the distinction between category movement and F movement is not motivated by global economy, as argued by Collins (1997). As for the parametric variation in NO movement, it would not have to be stipulated at all if the CED reduces to the morphological properties of functional categories and the blocking effects derive from the feature specifications of T-related elements.

Noonan proposes a new analysis of agreeing complementizers in Irish in terms of CP-pied piping and remnant IP movement. Ever since McCloskey (1979), the fact that CPs containing a WH-trace are introduced by the complementizer *aL* instead of the normal embedding complementizer *go/gur* has been taken to constitute evidence for successive cyclic movement. Noonan

argues that *aL* is not a complementizer but an agreement morpheme that signals argument shift of the CP from which a WH-phrase is extracted. One of the advantages of this approach is that it becomes possible to generalize over “complementizer *aL*” and a homophonous preverbal particle *aL* that occurs in infinitival clauses in which an object DP precedes the verb. In Noonan’s analysis of WH-movement from embedded clauses, a WH-constituent is first fronted within the CP containing it. Then, the entire embedded CP is fronted to a position higher than the matrix IP. After that, the remnant IP including the trace of the fronted CP is preposed, restoring the canonical VSO order. Finally, the WH-constituent moves out of the embedded clause to sentence-initial position. Noonan argues that this analysis can be extended to other languages, and in particular to partial WH-movement constructions.

Finally, Sichel investigates the various movement types (XP vs. X) that are effective within the Hebrew DP and examines the properties of the different movement operations involved. First, she argues that phrasal movement within the DP is in fact more pervasive than the surface position of D^0 -related morphemes would lead one to expect. In particular, she proposes that XP raising to spec DP derives some noun initial orders in Hebrew DPs. Second, she shows that N-initial orders in Hebrew are derived by various types of movement. In particular, construct state nominals are derived by head movement (as previously argued for in Ritter (1991), while attributive adjectival constructions are derived by pied-piping an NP/DP constituent across an adjectival head, and free state genitive constructions are derived by raising a remnant NP/DP from which the genitive argument has been extracted.

Notes

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1. The volume contains only a selection of the papers that were presented at the workshop. Alexiadou and Anagnostopoulou’s contribution was not presented at that event.
2. The title of the unpublished 1967 MIT-dissertation is “Constraints on variables in syntax.” This was published as Ross (1986).
3. An even more general view is advocated under the name of AFFECT- α by Lasnik and Saito (1992: vii). ‘Do anything (move, delete, insert) to anything’.

4. The relation between moved “antecedents” and traces was formalized in terms of ‘chains’, which are subject to binding conditions (cf. Chomsky 1981).
5. A-bar-movement was further split into types like SCRAMBLING, WH, TOPICALIZATION (cf Müller 1995). This strategy has its roots in the STRUCTURE PRESERVATION HYPOTHESIS (cf. Emonds 1972). This principle imposes uniformity conditions on base positions and landing sites, ruling out ‘improper movement’.
6. For discussion, see Chomsky (1995: 265).
7. Strictly speaking, movement of phonological features, i.e. MOVE-Fp would be sufficient for yielding PF-detectable effects. In frameworks that dispense with the distinction between overt and covert (movement) operations, which results in a “single output syntax,” the following discussion would have to be properly rephrased. See for Bobaljik (1995), Groat&O’Neil (1995), Roberts (1997), Stabler (1997), and Uriagereka (1999).
8. But see Roberts (1997), Stabler (1997), Anagnostopoulou (1999, to appear), Pesetsky (2000), Pesetsky and Torrego (2001), Takahashi (2000), Lasnik (this volume), Nakamura (this volume).
9. An argument for the necessity of covert A-movement of full-fledged XPs is developed in Nakamura (1998).
10. Pesetsky (2000) could also be said to be an exception since he argues that feature movement is sensitive to different locality effects (‘Beck effects’) than overt or covert XP movement. However, Pesetsky does not attempt to distinguish between feature movement and agreement at the distance (AGREE) and for this reason, he is not mentioned in the main text in connection to the issue discussed.
11. For a further case of overt MOVE-F, see Takahashi (2000).
12. This would be another potential violation of “chain uniformity” postulated in Chomsky (1995: 253), given that FF(Obj) counts as a maximal projection at the base position while in the landing site its status is undefined.
13. However, see Chomsky (2000: 147, n. 72) for some thoughts on the project of treating features as full-fledged syntactic objects, since this would require a large-scale revision of notions applying to constituents.
14. This revises the original idea in Chomsky (1995) that checking should be confined to local relations like head-specifier. Arguments built on this view, which took government to be too liberal a licensing relation, have to be reconsidered (cf. Chomsky 1995, 1999, 2000).
15. See also the careful but somewhat inconclusive discussion in Pesetsky (2000). There another variant of “small sized movements” is contemplated, namely, MOVE-MORPHEME.
16. If feature movement is part of the theory, the notion of constituent has to be defined in a way that features and their traces are included. It is an open question whether MLIs, i.e. elements containing deleted features due to Agree, should also be considered remnants. If so, then all movement is remnant movement.

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