

SOME NOTES ON ADJUNCTION TO VP

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1. Introduction

The goal of the following analysis is to spotlight a rare moment of transition between two stages in the development of generative grammar. The two stages are: the principles-and-parameter model, as comprehensively outlined in e.g. Chomsky and Lasnik (in press), represented here by the “barriers approach” of Chomsky (1986a), and “the minimalist program” as of Chomsky (1993, 94). My main concern in this study will be to show how a once productive operation of VP adjunction fares in the hard days of transition from one paradigm to the other.

Recall first, that in the “barriers” model the predominant role of overt VP-adjunction is to provide VP-internal wh-traces with local antecedent governors to avoid the violations of the ECP in situations like (1):¹

(1) I wondered [whom_i [PRO to [_{V''} e_i [_{V''} blame e_i]]]]

Given that the verb in (1) is non-finite, the VP should not be L-marked by a lexical I and the VP should be a barrier to the antecedent government of e_i by *whom_i*; were it not for an intermediate trace e_i' adjoined to V''.²

Quite independently, In May's (1985) conception of the Logical Form, a VP-adjunction is a valuable LF operations indispensable for the licensing of a wide range of LF movements. I understand the present model shift calls for a thorough

¹ Elements formed by adjunction may be interpreted in two ways: each occurrence of a category X in a segmented structure may be interpreted as a category in its own right (Lasnik and Saito 1992) or the two occurrences of X may be treated as a single category [X₁, X₂] with two segments (e.g. May 1985). The present analysis follows the latter interpretation.

² Chomsky (1986a) assumes that a finite VP is not L-marked either, and intermediate adjunction to VP is thus needed also in cases like /a/ below:

/a/ what_i did you see t_i

Following Lasnik and Saito (1992) I will assume however that a tensed I is a suitable lexical L-marker for VP, hence a finite VP is not a barrier.

reformulation of the LF and a new interpretation of May's LF operation involving VP-adjunction. I will leave this for some further study.

The option of overt syntactic VP adjunction has often been claimed responsible for the possibility of "scrambling" structures in languages with a freer word order in which the object NP takes a pre-verbal position, as illustrated in (2). In English this option is heavily restricted by Strict Adjacency Principle on Case Marking.

(2) $[_{VP} NP_i [_{VP} \dots [_{V'} V e_i]]]$

2. Adjunction to VP in the minimalist program

The unifying structural element of the minimalist approach remains the X-bar scheme, illustrated in (3):

(3) $[_{\alpha'} [_{\alpha'} \alpha]]$

This serves as a matrix for syntactic computations by the operations of insertion, substitution and adjunction. Syntactic computation has a form of a generalized transformation which leads directly to PF and LF representations without any mediation of the levels of D-structure and S-structure. *Move α* applies in computation only when necessary. One example of necessary overt movement is subject raising in English where NP has to raise to the Spec. of IP (AGR-S Phrase) before PF because the feature [Tense] is "strong". Such a strong feature would cause a crash at PF unless previously checked and deleted in computation.

The basic structure of the clause adopted in the minimalist program is based on Pollock's (1989) with a further postulate that there are two AGR projections: AGR-S(ubject) and AGR-O(bject) separated by TP.³ Object NPs are thus initially raised to the Spec. of AGR-O Phrase for their Case to be checked. Simultaneously, verbs are raised to the head of AGR-O Phrase. The uniform feature checking domain, derived directly from X-bar theory is proposed and agreement checking becomes a central LF operation. Any agreement relation between a controller and the element controlled involving relevant feature sharing is reducible to (4), as a uniform "agreement domain":

(4) $[_{AGR'} Spec. [_{AGR'} AGR XP]]$

Adjunction to VP appears in this program a computational option which, like all other instances of *Move α* , must be necessitated by the circumstances, otherwise it does not apply according to the postulate of the economy of derivation.

³ The structure with two AGR Phrases is in fact a reconciliation of two conflicting proposals: Pollock's (1989) in which the structure is: $[_{IP} SPEC [_{TP} T[_{AGR'} AGR VP]]]$ and Belletti's (1990) in which the structure is $[_{IP} SPEC [_{AGR'} AGR[_{TP} T VP]]]$. The higher AGR Phrase is then involved in nominative Case assignment (the function previously assigned to Tense) and subject agreement, while the lower AGR Phrase - in object agreement and object Case.

3. Some problems for the "barriers" approach

Consider the set of examples (5)-(7):

- (5) * $[_{CP} [_{Spec} [_{CP} [_{VP} [_{VP} [_{V'} V e]]]]]]$ you found these details of Chopin's life?
 (6) * $[_{CP} [_{Spec} [_{CP} [_{VP} [_{VP} [_{V'} V e]]]]]]$ you decided to quit linguistics?
 (7) * $[_{CP} [_{Spec} [_{CP} [_{VP} [_{VP} [_{V'} V e]]]]]]$ would be silly?

In (5) and (6) the bracketed phrases are clausal participial adjuncts. The absence of the inverted auxiliaries in main clauses suggests that wh-phrases in (5) and (6) occupy the positions in front of the participial clauses, and not in front of the matrix sentences. Thus, presumably they are in the Spec. of CP of the participial clauses and not in the Spec. of CP of the higher clause. Note that examples with inverted auxiliaries like e.g. (8) below should be interpreted as standard cases of prohibited "long" wh- extractions out of adjunct positions:⁴

- (8) *Which book reading did you find these details of Chopin's life

My concern here will be however the internal structure of the bracketed participial clauses in (5), (6), and (7). The main verbs are non-finite, hence they do not raise to the category I (AGR-S) at LF. As a result, the VPs internal to the participial clauses in (5) and (6) are not L-marked.

Take now (7). Here the bracketed clause originally occupies an A position (subject) from which it moves to the Spec. of the matrix clause. Within the subject clause the infinitive verb does not raise to I for subject agreement, hence the subject clause internal VP is not L-marked.

Note that the ill-formedness of (5), (6) and (7) is problematic for the *barriers* approach. It may be claimed that because the VPs in these cases are not L-marked they constitute barriers for any antecedent government of the traces from outside. If the wh-phrases in (5), (6) and (7) are in the Spec. of CP positions, then their traces separated by a VP boundary offend the ECP. The problem is, however, that the barrierhood of VPs in such cases may be voided by a possible VP adjunction. Intermediate traces would not be excluded by the VP and its barrierhood should not affect them.⁵ The IP, being a "defective category", cannot be a barrier for wh-traces either, even if it is not L-marked, i.e. even if it is a blocking category.

Note also, that alternatively, it may be postulated that the clause initial wh

⁴ It seems however, that (8) could also be interpreted differently, i.e. the wh phrase in the Spec. of the matrix clause (8) may be the whole participial clausal adjunct, and not just the phrase *which book*. Under such an interpretation (8) should be confronted with a grammatical form:

/a/ Reading which book did you find these details of Chopin's life?

But the problem of the constraint on the wh movement within the adjunct clause remains.

⁵ Manzini (1993) suggests a radical step of prohibiting adjunction to VP, and generally to those maximal projections which have an A'-Spec. Instead of adjunction to VP, there would be another VP-internal escape hatch. She suggests that it be the Spec. of VP (cf. Manzini 1992:111ff.). This proposal has to be confronted however with Koopman and Sportiche's (1991) postulates that the Spec. of VP is a base position of the subject of the sentence.

phrases in (5), (6) and (7) are not in the Spec. of CP but rather that they are themselves “locally” adjoined to VP, the option to which I return. Now notice only, that in such a situation there would again be no problem with the antecedent government of the VP-internal traces. In brief, the *barriers* approach does not explain why the *last resort* application of adjunction to VP cannot save examples (5), (6) and (7).

4. A “mixed” approach

Consider now how the minimalist program fares in an analogous situation. Recall that VP adjunction is here a plausible computational option. Its effect again might be the elimination of the VP’s barrierhood for the intermediate traces adjoined to VP. But here this move appears entirely unmotivated given that the verb moves to the head of the AGR-O Phrase. From there the verb L-marks the non-segmented VP voiding its barrierhood. The move of the verb to the head of the AGR-O Phrase, unlike the VP-adjunction of the wh-phrase, is motivated by the licensing requirements.

But how about the problematic ungrammaticality of the examples (5), (6) and (7)? Note that the AGR-O heads a category AGR-O Phrase which itself is a complement of a higher head, namely T. A consequence of the application of the *barriers* premises to Pollock’s structure would be that the AGR-O Phrase constitutes a blocking category for the elements it dominates unless it is L-marked by the higher head. But the L-marking of the AGR-O Phrase could only be possible if the verb was raised to the head of AGR-S Phrase (IP in earlier notation) via T. This however never happens in case of non-finite predicates like those in (5), (6), and (7). AGR-S Phrase constitutes thus a barrier to the antecedent government of the wh-traces. This situation is illustrated in (9) below, in which I omit a possible Spec. of TP:

$$(9) \quad [C' \text{wh}_i [C' C [_{\text{AGR-S}} \text{PRO} [_{\text{AGR-S}} \text{AGR-S} [_{\text{T}} \text{T} [_{\text{AGR-O}} [_{\text{AGR-O}} \text{AGR-O} [_{\text{VP}} \dots e_i \dots]]]]]]]]]]$$

Note also, that even if the wh-phrase consecutively moved first to the Spec. of AGR-O Phrase, which is possible, its (intermediate) trace would still be offending.

It thus appears that the application of the apparatus of the *barriers* approach to the structural framework of the minimalist program allows to overcome problems raised by examples (5), (6) and (7). But consider what effect an analogous approach would have in cases like (10) and (11) below:

(10) *You enjoyed which game playing?

(11) I wondered what to do.

Here, too, the verbs in the complement clauses are non-finite, thus not raising to AGR-S (I). As a result, the non L-marked AGR-O'' should be BCs, and the AGR-S''- a barrier to the antecedent government of the wh-traces, just like in (9), resulting in the ECP violations. A combined “*barriers*- minimalist” approach

sketched above seems to work for (10) but it clearly fails in case of (11). Why should it be so? There apparently are limits to a harmonious non-conflicting co-operation of the two models. For the contrast between examples like (5-7) on the one hand and (10-11) on the other, there appears a need for a principled model-specific account.

5. A minimalist feature-checking approach

I think the explanation of the above asymmetry may be found in the very core of the minimalist approach. As mentioned above, one of the central ideas of the minimalist program is the licensing effect of a number of feature checking procedures in syntax or LF, occurring in appropriate “checking domains”. This extends also to interrogative constructions. It is postulated that an interrogative complementizer have an operator feature (call it Q or *wh*-). The same feature is a morphological property of wh phrases. For proper feature checking wh phrases have to raise to the checking domain of C, i.e. to the Spec. of C'' or to the position adjoined to the Spec. of C''. Thus any wh movement is driven by morphological necessity; appropriate features must be checked, if the feature Q is strong, the movement must be overt.⁶ Chomsky further postulates that the raising of I to C may automatically make the operator-feature of C strong.

Thus if wh phrases occur there are two sets of preconditions for their overt movement: a/ the presence of the interrogative complementizer (overt or not), and b/ the movement of I to C. Note that b/ accompanies a/ only in main clauses. In subordinate clauses a/ triggers wh movement without b/. In yes-no questions, on the other hand, a/ is not a prerequisite for b/ since the movement of I to C automatically makes C interrogative.

Consider now how these postulates apply to the above examples. In (5), (6) and (7) there are no interrogative complementizers in the Cs of the participial and subject clauses, respectively. A question now appears what actually makes a C interrogative, i.e. what makes it possess a (strong) Q feature. It seems two options are plausible: a/ Q is possessed inherently (i.e. it might be said to be “encoded” in it at the outset of syntactic computation), or b/ it is “assigned lexically” in computation. Consider first option a/. How can the interrogativeness of C be “encoded” at the very outset of computation? Logically, if the outset to syntactic computation means the first stage of clausal structure, the feature Q should appear with the appearance of a lexical I(AGR-S) (a case of *AUX-insertion*, or *Do-support* in other models). Later in computation this feature is carried to C to make it interrogative. The option of I to C movement clearly does not arise in non-finite examples (5), (6) and (7). Also, the option b/ does not appear to apply since for “lexical assignment” of the feature Q to C there would have to be some form of the lexical government of this position by some “ Q assigner”. What could be possible Q assigners? Logically, these are verbs lexically selecting interrogative clauses. Their

⁶ Cf. Cheng (1991) for a different account of the role of the element Q in languages without overt interrogative movement.

appearance in the computation would automatically make the lower C interrogative. But, in (5), (6) and (7) there are no such Q assigners. Thus the movement of wh phrases in (5), (6) and (7) has to be barred.

Turn now to (10) and (11). In (10) the subordinate, non-finite clause is not “interrogatively selected”, hence the wh-movement must be barred. In (11), on the other hand, the subordinate clause, which is also non-finite, is selected by the interrogative verb *wonder*, and the overt movement to C is necessarily triggered by the licensing requirements.

The problems raised by examples (5)-(7) for the pure *barriers* account, and by examples (10) and (11) for the mixed *barriers*-minimalist account are overcome in terms of the licensing procedures of the minimalist approach.

6. Adjunction to VP as a scrambling device

Consider now more closely an option that in (5)-(7) wh phrases are not moved by wh movement to the Spec. of C' , but rather they are simply adjoined to VP. Recall first, that in Chomsky (1986a) a distinction is made between different types of XPs with respect to the availability of adjunction. Thus, adjunction to a non-argument XP (e.g., VP) is permitted while there is no adjunction to arguments (e.g., NP or CP). The reason for this is that arguments require theta roles which, however, become invisible to those arguments if a segmental adjunction structure like (12) below, is built. As a result, there is a Theta Criterion violation. Additionally, an adjunction structure does not block theta marking of the XP if the XP is base-derived.

(12) $[_Y' Y [_{X''} \dots [_{X''} X']]]$

In the minimalist program, VP-adjunction is a computational option driven by necessity. Earlier we saw that it is unmotivated as a move to eliminate VP's barrierhood. But it might, for example, be motivated as a computational “scrambling” device, the role traditionally attributed to overt VP-adjunction in languages with a freer object-verb word order.

Before we return to VP-adjunction, let us consider example (13):

(13) *The magician put into the hat two rabbits.

Standardly under the GB theory (13) represents a violation of the Adjacency Principle, a sub-part of the Case Theory which states: “Where Case is not morphologically realized, a Case-marked element must be adjacent to its Case assigner” (Chomsky; 1986b:82). But this account is problematic under the *barriers* approach given two other assumptions of the theory: a/ “The terminal D-structure position of the chain retains the capacity to theta-mark and Case-mark” (Chomsky; 1986a: 72), and b/ adjunction to VP is a free option in English. Given these two assumptions, the structure of (13) would look like (14):

(14) The magician $[_I' [put_i] [_{VP} [into\ the\ hat_j] [_{VP} [e_i] [two\ rabbits] [_{PP} e_j]]]]$

Note, that if $[e_i]$ retains the Case assigning property of the verb raised to I, and given the option of overt VP-adjunction of a category XP, then (13) should be grammatical.

But clearly overt VP-adjunction is, after all, restricted in English. I would like to suggest that the effect which overt adjunction to XP has on theta marking, which was discussed above, extends to all theta marked XPs, not only to arguments, hence also to a VP. For arguments, the lack of theta marking leads to a Theta Criterion violation, but no such violation is involved in case of adjunction to VP since VP is not an argument. But a significant consequence of overt adjunction to VP is that the VP is no longer theta marked by the raised verb in (14). But unless theta marked, it cannot be L-marked according to Chomsky's (1986a) definition of L-marking, and the VP becomes a barrier for all elements it dominates. In such a situation, the trace of the verb in VP cannot be properly governed by the raised verb in (14), and the ungrammaticality of (14) falls under the ECP, without recourse to the Adjacency Requirement.

Like before however, the *barriers* approach sketched above fails to explain why in sentences (5)-(7) an overt adjunction of wh phrases to VP is not possible. In these cases, the verbs do not raise to I, thus apparently, the ECP violations due to the lack of the proper government of the verbal traces should never occur. A solution is however provided by a mixed *barriers*-minimalist approach: There are actually two consecutive instances of V-raising to AGR domains in LF, not just one move to I. The first movement is to the head of AGR-O', and the second to the head of AGR-S'. What happens in (5)-(7) is that verbs are raised to AGR-O positions, but there are no further movements to AGR-S. But even from the AGR-O position the verb cannot properly govern its own trace within VP if the VP is segmented.

Under a pure minimalist approach the option of overt computational adjunction of XPs (also of wh phrases) to VP in English may simply be excluded by economy principles since it is considered morphologically unmotivated. It does not appear, however, to be unmotivated in other languages. Maybe, it should not simply suffice to show the lack of positive licensing requirements, but it should also be necessary to find what other licensing requirements may be violated given that it applies. I think the above analysis in terms of the “breach” of the natural link between the verb and its trace in case of overt “scrambling” adjunction in English might be somehow incorporated into the minimalist program.

7. Further cases of wh-extraction

Examine now some more cases of wh-extraction from VP for which intermediate adjunction to VP is postulated in Chomsky (1986a):

(15) I wonder [what you saw]

(16) Who did you see e

Along the lines of Chomsky (1993), the overt wh-movement in (15) is directly to the Spec. of CP, necessary for checking the feature Q in a position of C. This

movement is possible since in LF the verb raises to the heads of both AGR Phrases and L-marks the VP, hence the VP is not a barrier either for the verbal or wh-trace.

Turn next to (16). A following overt computational path may be suggested for (16):

- (17) [V^o see what]
 ↓
 [V^o you see what]
 ↓
 [I^o{did}[V^o you see what]]
 ↓
 [C^owhat[I^odid you see e]]

In agreement with Lasnik and Saito's (1992) assumption that a lexical I (AGR-S) L-marks the VP, the lexical auxiliary inserted in I L-marks the VP and the VP is not a barrier for the traces within the VP.

Consider also (18):

- (18) *what you saw?

Note, that given the absence of the feature *Q* in C, which would license the movement to the Spec. of CP, the most economical way to compute the string (18) is with the use of VP-adjunction, as in (19) below:

- (19) [V^o saw what]
 ↓
 [V^oyou [V^o saw what]]
 ↓
 [V^o what[V^o you [saw e]]]

But, as discussed earlier, a computation like (19) would create an ECP violation at LF with the verbal trace not properly governed. Compare now (18) with (15). I believe that for (15) the most economical way to derive the embedded string, which is identical with (18), is different since (15) has to fit into a complement structure (20), below, which includes a *Q* feature assigned lexically. This feature must be checked overtly by the movement of the wh-phrase to the Spec. of CP.

- (20) [V^o wonder [C^o *Q* ...]]

8. Some English-Polish asymmetries

Consider now a set of examples from Polish, a language with a more relaxed word order:

- (21) Magik włożył do kapelusza dwa króliki.
 magician put to hat two rabbits
- (22) Którą książkę czytając znalazłeś te szczegóły z życia Chopina?
 which book reading (you)found these details from life Chopin's

- (23) Którą z jego książek przeczytawszy postanowiłeś rzucić językoznawstwo?
 which of his books having-read (you)decided to quit linguistics

- (24) Który hamburger zjeść byłoby niemądre?
 which hamburger to eat would-be unwise

(21) is a counterpart of the English example (13) and it is fully grammatical. Well-formed examples (22), (23), and (24) correspond to (5), (6), and (7) respectively.

I would like to propose an account of the above contrasts between Polish and English without recourse to Strict Adjacency Principle. In both languages VP adjunction is a computational option but it is unmotivated and restricted by economy considerations for English. Furthermore, if an XP gets overtly adjoined to VP in English an ECP violation arises in LF, since the link between the verb raised to AGR domains and its trace within the VP is broken.

9. In search for a parameter

What would be a parameter allowing for overt VP-adjunction in Polish but excluding it in English? There seem to be two possible directions to proceed: a/ to show that the ECP effect is avoided in relevant structures of Polish because the verbal trace is properly governed (licensed) not by the raised verb but by some other element, and b/ to show that in Polish the raised verb L-marks the VP even if the latter is in an adjoined structure derived by computation.

One might pursue a/, for example, by extending an idea that the verbal trace is properly governed by virtue of being co-indexed with a c-commanding object NP adjoined to VP. The basis for such a co-indexing might be feature sharing; the verbal trace carries a feature ACC (accusative), and the NP may be claimed, parametrically for languages with morphological cases, to possess the same feature lexically. A new chain link would then be composed including the verbal trace and the lexical NP in a VP-adjoined position.⁷

The problem may be, however, that the formation of such a new chain would not be "structure preserving" as it would involve the shift of the verbal trace from one chain to the other. Also, a structure typical for feature checking involves the placement of the relevant checkee in an appropriate AGR domain, while here the verbal trace would be in its original position. Besides, such an analysis may not be adequate for structures with intransitive verbs and e.g. VP-adjoined PPs, where there is no NP chain with which the verbal trace could be co-indexed.

Now, I would like to explore the second possibility, i.e. that "adjunction VP" is not a barrier for L-marking in Polish. To sustain such a claim it has to be shown that, under some circumstances, the whole VP, with all its segments, is "visible" for theta marking. Practically, it amounts to showing that despite a reordering effect of VP-adjunction, a segmented VP is still the same VP with respect to the

⁷ This conclusion appears on par with Baker's (1988) assumption that agreement (feature sharing) renders chains visible.

composition of its internal structure, as well as in a relation to the external argument (through the raised V).

Consider now the role of theta marking of the VP by the V-AGR complex, as in configuration (25):

(25) [_{AGR}' Spec. [_{AGR}' V-AGR VP]]

It seems justified to claim that configuration (25), apart from creating a checking domain for the object NP, has one more important property: it serves to license the category VP against the properties of its lexicalized head. What is intuitively wrong with structure (14) above is that the composition of the VP does not represent the kind of theta structure which the verb *put* s-selects. Note that formally, all the important licensing requirements are met in (14), i.e. the NP chain headed by *two rabbits* originates in a direct object position, theta governed by the trace of the verb, theta marked as 'theme', and the PP object may be theta marked as 'location'. Thus theta marking of the VP by the lexicalized verb is a form of checking if the s-selection properties are not distorted by permitted overt computational processes (e.g. VP adjunction). Given the option of free, overt VP-adjunction, there is a need for checking of a VP as a whole, to license it as an appropriate complement in the AGR domain.

Consider now what might constitute the content of this process of VP-checking by the lexicalized verb. Let us assume that the core of theta marking of VP by V is the filling of the theta'-grid of the VP by the composite theta'-role associated with the verb. The composite theta'-role abstractly reflects the actual theta structure which the verb *put* selects by its lexical properties; composite of all theta roles it assigns to its arguments. The next assumption would be that the actual theta structure of each VP is formalized as a theta'-grid. A simple licensing condition would require that a VP be licensed by the verb only if the theta'-role is successfully placed in the theta'-grid.

The parametric difference between Polish and English may thus be formulated as follows: in Polish the theta'-grid of the VP is 'visible' in, or 'percolates' to, the highest segment. In English, the theta'-grid is only 'visible' in the lowest VP segment. As a result, any overtly inverted VP-structure, due to adjunction to VP, is not actually the same VP, and hence cannot be licensed in agreement with the Projection Principle.

A tempting move would be to associate the possibility of theta'-grid percolation with the occurrence of morphological cases, and a formulation of a hypothesis like (26) below:

(26) In languages with morphological cases VP is licensed by its highest segment; while in languages without overt cases VP is licensed in its lowest segment.

A condition like (26) would then account for the possibility of a freer order of constituents within a VP in languages with case morphology and replace GB's Adjacency Principle, a sub-principle of the Case Theory.

10. Syntactic computation v. stylistic reordering

Consider now briefly if overt adjunction to VP in Polish must really be a part of computational syntax. Are the reordered structures not just stylistic variants which may be fully attributed to PF?⁸ I believe they are not always stylistic variants because the change of order of VP-internal constituents at least in some cases affects the structure at LF. Examine the pair (27) and (28):

(27) Magik włożył królika do kapelusza
magician put rabbit to hat
The magician put the rabbit into the hat

(28) Magik włożył do kapelusza królika
magician put to hat rabbit

Note, that a normal stress position in a sentence is on the last syllable. Such a main stress may be contrasted with a FOCUS stress on the last syllable, like in (29):

(29) Magik włożył do kapelusza KRÓLIKA

It is most natural to place a constituent designated for focus interpretation in a sentence final position. It appears to be the most economical method of placing it under contrastive stress. The VP adjunction may thus be envisaged as a productive computational operation, functional in stranding a VP-internal constituent designated for a focus interpretation in a final position.

But, it seems that not all VP-internal reorderings have a bearing on the structure of LF. In cases when no focus is involved, VP-internal reorderings may be treated as purely stylistic operations, attributable to PF. But even then, as it seems, they make use of the same computational options.

In conclusion, overt adjunction to VP appears to be an immediate, "first resort" computational operation available for reorderings of VP-internal constituents. Given the postulate of economy of derivation, any VP reordering should, actually, be conducted in this fashion. In languages in which such reorderings are not possible, some principle of grammar must be responsible for blocking overt adjunction to VP as an early computational option. I suggest that this principle may be ECP.

11. Summary and conclusions

To sum up, I started the foregoing discussion with a note on the role attributed to VP adjunction in a pre-minimalist model of the grammar. Next, I briefly outlined the minimalist program specifically commenting on the role of adjunction to VP

⁸ Specifically, it has been proposed that there may be conditions which apply at some level intermediate between S-structure and PF (e.g. Jaeggli 1980, Aoun et al. 1987). As noted by Chomsky and Lasnik (in press) these conditions cannot apply at PF because this level has only phonetic features with no further relevant structure.

within this framework. Next, I confronted some troublesome cases of disallowed adjunct-internal wh-movements with two possible approaches: a *barriers* approach, and a mixed, *barriers*-minimalist account. I argued that where the former failed the latter was more successful. But then I claimed that a more unified model-specific approach was needed to account for some further instances involving wh-extractions within complement clauses. Further I discussed a reordering effect of overt VP-adjunction and proposed an ECP account of the constraint on "scrambling" in English. Next, given some standard instances of English wh extractions, I suggested their account in terms of feature-checking procedures of the minimalist program. Next, I examined some contrasts between Polish and English with respect to availability of adjunct-internal extractions and suggested a way in which this contrast may be parametrizable in terms of a condition on VP licensing. This condition would state that in some languages a VP may be licensed by its highest segment, while in others only by its lowest segment, or when a VP is not segmented at all. Structures with overtly reordered VP, where the reordering is the result of adjunction to VP, are thus grammatical only in languages in which the features of VP to be checked may percolate to the highest segment of VP. No recourse to a questionable Strict Adjacency Principle is needed to account for the ungrammaticality of sentences with reordered VP-internal constituents in English, ECP violations occur in such cases with verbal traces not properly governed by verbs raised to the heads of AGR Phrases. Finally, I briefly explained why at least some instances of VP-reorderings in Polish should be regarded as syntactic, not stylistic.

Concluding, I would like to return for a while to the question of the paradigm shift from a theory of principles and parameters to the minimalist program. The foregoing discussion has illustrated that the two models are not fully compatible. This follows from a difference in goals they aspire to achieve. In Chomsky's own words: "the task (of the P & P model) is to show that the apparent richness and diversity of linguistic phenomena is illusory and epiphenomenal, the result of interaction of fixed principles under slightly varying conditions". The questions at the core of the newer approach is "How "perfect" is language?", i.e. how perfectly it represents "the computational system (...) (which) is not only unique but optimal" and: "To what extent is the lexicon "the repository of departures from virtual necessity?" (Chomsky 1994:4). The shift from "slightly varying conditions" (parameters) to "unique and optimal system" would require that the analysis look closer at lexical variations and "lexical parameters", like those involving differences in morphological composition or case features. It is in view of this postulate that conditions like (26) above, become better-motivated.

REFERENCES

- Aoun, J. et al. 1987. "Two types of locality." *Linguistic Inquiry* 18. 537-577.
 Baker, M. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.
 Belletti, A. 1990. *Generalized verb movement*. Turin: Resenberg and Tellier.
 Cheng, L.L. 1991. *On the typology of wh-questions*. Doctoral dissertation, MIT, Cambridge, Mass.
 Chomsky, N. 1986a. *Barriers*. Cambridge, Mass.: MIT Press.
 Chomsky, N. 1986b. *Knowledge of language*. New York: Praeger.

- Chomsky, N. 1993. "A minimalist program for linguistic theory." In Hale, K. and Keyser, S. (eds). 1993. 1-52.
 Chomsky, N. 1994. "Bare phrase structure." *MIT Working Papers in Linguistics* 5. 1-8.
 Chomsky, N. and Lasnik, H. in press. "Principles and parameters theory." In Jacobs, J. et al. (eds). in press.
 Hale, K. and Keyser, S. (eds). 1993. *The view from Building 20*. Cambridge, Mass.: MIT Press.
 Jacobs, J. et al. (eds). in press. *Syntax: An international handbook of contemporary research*. Berlin: Mouton de Gruyter.
 Jaeggli, O. 1980. "On some phonologically null elements in syntax." Doctoral dissertation, MIT, Cambridge, Mass.
 Koopman, H. and Sportiche, D. 1991. "The position of subjects." *Lingua* 85. 211-258.
 Lasnik, H. and Saito, M. 1992. *Move α* . Cambridge, Mass.: MIT Press.
 Manzini, M.R. 1992. *Locality. A theory and some of its empirical consequences*. Cambridge, Mass.: MIT Press.
 May, R. 1985. *Logical form: Its structure and derivation*. Cambridge, Mass.: MIT Press.
 Pollock, J.I. 1989. "Verb movement, Universal Grammar and the structure of IP." *Linguistic Inquiry* 20. 365- 424.