Does the preverb climb in Hungarian Preverb Climbing?

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1. The problem

Complex verbs in both Dutch and Hungarian pose a challenge to the concept of lexical integrity.[1] On the one hand these verbs are input to morphological derivation, hence they appear to qualify as bona fide morphological constructs. On the other hand the verbal head and the lefthand part (the "particle") can occur in separate positions in syntax. This means that it must be allowed that syntactic movement rules apply to parts of words (Neeleman & Weerman 1993, Ackema 1999), or that the same element from the lexicon sometimes is realized syntactically and sometimes morphologically (Groos 1989, Ackerman & LeSourd 1997, Ackema & Neeleman 1999), or that a construction can have independent syntactic and morphological representations that do not need to match (Farkas & Sadock 1989, Sadock 1991).

Whatever solution is adopted, an additional problem arises when the complex verbs of Dutch and Hungarian are compared. This is because, at least at first sight, Hungarian complex verbs appear to be even more extreme with respect to the independent syntactic behaviour of their parts than their Dutch counterparts.

In Dutch, particles hardly ever take part in movement processes that are independently established to occur in the language. This is illustrated by the data in (1)-(3). In the embedded clause in (1) the complex verb appears in its entirety in the base position at the end of the clause. The verbal part of such a complex verb undergoes Verb Second in a main clause alone, stranding the particle, as in (2a). Similarly, the verbal part undergo Verb Raising (raising of an embedded infinitive to a matrix auxiliary, see below) and strand the particle (2b), although in this case it can also take the particle along (2c). The particle, on the other hand, normally cannot move independently and strand the verbal part. For instance, it cannot undergo raising on its own (3a), it cannot scramble on its own (3b) and in the normal case it cannot topicalize (3c).

(1) (Ik zag) dat Siegfried de draak afslachtte
(I saw) that Siegfried the dragon off-slew
`(I saw) that Siegfried slew the dragon'

(2) a. Siegfried slachtte$_i$ de draak [af t_i]
Siegfried slew the dragon off
`Siegfried slew the dragon'

[1] Thanks go to László Molnárfi, Kriszta Szendrói, Ildikó Tóth, Fred Weerman and the audience at the University of Tübingen.

b. dat Siegfried de draak [af t_i] wilde slachten
that Siegfried the dragon off wanted slay
`that Siegfried wanted to slay the dragon'

c. dat Siegfried de draak wilde afslachten
that Siegfried the dragon wanted off-slay
`idem'

(3) a. *dat Siegfried de draak slachten wilde af
that Siegfried the dragon slay wanted off

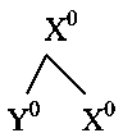
b. dat Siegfried de draak (*af) gisteren (af) slachtte
*that Siegfried the dragon (*off) yesterday (off) slew*

c. *Af_i heeft Siegfried de draak eindelijk [t_i geslacht]
off has Siegfried the dragon finally slain

The only exception to this immobility of particles is that, as shown by Hoeksema (1991), topicalization is not impossible if the particle is contrastively focused, as shown by the following discourse.

(4) Angola voert veel goederen in. Uit voert het alleen koffie.
Angola moves many goods in. Out moves it only coffee.
`Angola imports many goods. It exports only coffee.'

In Ackema 1999 it is argued that it can be made to follow from the ECP that from any complex of the form in (5) only the head X^0 can be excorporated, never the nonhead Y^0.

(5)


Cases like (4) involve exceptional projection of the particle to a full PP (see Neeleman 1994 and Ackema & Neeleman 1999 for more discussion). If correct, this means that the restrictions observed in Dutch with respect to the possibilities of splitting up morphological complexes by syntactic movement can be derived from an independently motivated syntactic principle, obviously a desirable state of affairs.

If so, Hungarian complex verbs pose a challenge, since movement of the nonhead part of such verbs is precisely what is said to occur in a number of constructions, not just in special

circumstances but, on the contrary, in unmarked orders (see below). Analyses that account for the relevant data in terms of particle movement have the disadvantage that the overall immobility of Dutch particles is somewhat unexpected, as Dutch particles do not seem to differ from their Hungarian counterparts in any other respect. In particular, Hungarian complex verbs are comparable to those in Dutch in that they can undergo further morphological derivation (Ackerman & LeSourd 1997):

(6) a. meg-old-ani `to solve'
b. meg-old-ás `solution'
c. meg-old-ható `solvable'
d. meg-old-hatatlan `unsolvable'
e. meg-old-andó `needing solution'

The aim of this paper is to show that an analysis is possible that accounts for the data without having to assume that there is unbounded particle movement in Hungarian, any more than there is in Dutch. I will argue that, in fact, the syntax of Hungarian complex verbs is almost like that of their Dutch counterparts: in some constructions the verb moves to the left in order to fill the head position of a projection on top of VP (as happens regularly in V2 main clauses in Dutch), and in some constructions the verb undergoes Verb Raising, adjoining to an auxiliary verb on its right.

Ackerman & LeSourd (1997:84) mention the following three general orders for particle and verb in Hungarian (where PV stands for "preverb", equalling "particle").

(7)

direct order	(X) PV V ...
inverted order	(X) V (Y) PV
discontinuous order	(X) PV Y V ...

I will discuss these orders in turn. The direct order reflects the basic word order (section 2). In section 3 it is argued that the inverted order involves movement of the verb to fill up the head position of a functional projection that is projected under some circumstances but not others. The main concern of the paper is the discontinuous order, which provides the biggest challenge in terms of apparent preverb movement. This is discussed in sections 4 and 5. There, it is argued that this order does not involve leftward preverb climbing, but rightward verb raising.

2. The direct order: basic OV order

The direct order PV-V is illustrated in (8), from Ackerman & LeSourd (1997:85).

(8) a. A fid **körbe járta** a házat
the boy around walked-3sg/DEF the house-ACC
'The boy walked around the house'

b. Nem **ki ment** belöle **benn szorult** a pára
not out went out.of-3sg inside confined the steam
'The steam didn't go out of it; it remained inside'

This order is generally assumed to reflect the basic order between preverb and verb, see for instance Horvath 1981 and Kiss 1987. This means nothing special need be said about this order as such. However, a crucial assumption of the analysis below is partly based on the observation that this order is basic. This assumption is that Hungarian is basically an OV-language. Particle-verb order in complex verbs is typical of other OV languages too, like Dutch and German, this in contrast to a VO-language like English, which has verb-particle.[2]

At first sight, it may not seem to make much sense to call Hungarian an OV-language, or a VO-language for that matter, given its free word order properties. It has been argued that it is wholly or partly a nonconfigurational language without a VP-constituent (see Kiss 1987 and references cited there). Kiss argues (contra Horvath 1981) that as far as the order between verb and object is concerned, neither OV nor VO can be considered the unmarked order. What the unmarked order for some sentence is depends instead on things like the thematic roles of the arguments and their being plus or minus human.

However, free ordering between the verb and its arguments need not mean that the OV/VO parameter is not set for the language in question. This can be illustrated with facts from (the OV language) Dutch. The order between a verb and its DP complements is not free, but the order between a verb and a PP-complement is. As argued in Ackema & Neeleman 1997, amongst others, no movement is involved in this variation; both the PP-V and the V-PP order are base-generated. In this respect there is real word order freedom. Nevertheless, there is a difference between PPs to the left of V and PPs to the right of V, in that subextraction is allowed from the former but not from the latter:

[2] Things are not as straightforward as this seems to imply, though, since in for example Swedish, a VO language, both verb-particle and particle-verb orders occur; see Ackema & Neeleman 1999 for discussion.

(9) a. Brünnhilde heeft [$_{PP}$ aan Siegfrieds trouw] getwijfeld
Brünnhilde has at Siegfrieds faithfulness doubted
`Brünnhilde doubted Siegfrieds faithfulness'

a'. Brünnhilde heeft getwijfeld [$_{PP}$ aan Siegfrieds trouw]
Brünnhilde has doubted at Siegfrieds faithfulness
`idem'

b. Waar$_i$ heeft Brünnhilde [aan t$_i$] getwijfeld
where has Brünnhilde at doubted
`what has Brünnhilde doubted'

b'. *Waar$_i$ heeft Brünnhilde getwijfeld [aan t$_i$]

This indicates that, although PPs can be generated both to the left and to the right of V, V governs only positions to its left, in accordance with the OV-nature of Dutch.

Neeleman & Weerman (1999) argue that in principle the same holds for DP-complements. These too can be freely generated to the left or to the right of V, in both OV and VO languages. Their restricted distribution in modern Dutch is due to their containing an empty position in their structure (just like PPs from which an element has been extracted). This empty position is the head of a projection containing functional information pertaining to the argument relation that the DP stands in with respect to the verb - a Case Phrase. Since this empty position must be governed by V, just like the empty position in (9b-b'), and since the verb governs to the left in the OV-language Dutch, DPs must occur to the left of V. In PPs the head of CaseP is filled by the preposition. PPs thus do not contain an empty position that is in need of being governed, hence they can freely occur on both sides of V (cf. (9a-a')). Neeleman & Weerman further argue that what holds for PPs in modern Dutch also holds for DPs in languages with a rich morphological case system. In such languages the head of CaseP is not empty in DPs either; it is filled by a morphological case affix. Hence, in such languages DPs can occur on both sides of V as well. However, this does not mean that the OV/VO parameter (V governs to the left/right parameter) is not set in such languages. It is just that DP complements are not affected by it, since they need not be governed by V at all in such a language. Since Hungarian has a rich case system, it may be assumed that it belongs to this type of languages.

If so, the basic OV or VO character of Hungarian cannot be deduced from the ordering between DP-complements and the verb, as this ordering is not affected by a particular setting of this parameter in this language. However, other properties appear to indicate that Hungarian is OV rather than VO, as already noted by Greenberg (1978:235).[3] One such property is that PV-V

[3] If so, it appears to be predicted that subextraction from DPs should be possible with OV but not VO orders. There is a problem with testing this, however. Some VO orders are not base-generated but derived by verb

is the basic order for a complex verb. Other indications are that Hungarian has postpositions, and that modifiers precede the head they modify (Kiss 1987:21). The basic OV-nature of Hungarian is the key to solving the problem that the inverted order (with apparently raised PV) poses if one wishes to restrict particle movement, as discussed in section 4. Before turning to this main issue, I will first discuss the inverted order, in the next section.

3. The inverted order: V-to-F movement

The inverted order V-(...)-PV is illustrated in (10), from Ackerman & LeSourd (1997:87).

(10) a. A fid nem **járta körbe** a házat
the boy not walked-3sg/DEF around the house-ACC
`The boy didn't walk around the house'

b. A fid a házat **járta körbe**
the boy the house-ACC walked-3sg/DEF around
`It was the house that the boy walked around'

c. Ki **járta körbe** a házat
who walked-3sg/DEF around the house-ACC
`Who walked around the house'

This order occurs in constructions with negation (10a), a focused constituent (10b), a questioned constituent (10c) and with some predicates also to convey progressive aspect. Some earlier accounts of this order involve preverb postposing (e.g. Horvath 1981), whereas it was argued above that it is desirable to do without this kind of particle movement (compare Dutch (3a)). However, it is likely that it is not the preverb but the verb that moves in (10). Brody (1990) and others have argued that the elements in whose presence the inverted order occurs (focus, Wh, negation) are operators in Hungarian, occurring in the specifier position of a special functional projection (a Focus Phrase) and that the verb moves to the head of this projection (compare `residual verb second' in English Wh-questions). In case the verb is complex this verb movement leaves the preverb stranded (compare Dutch (2a)) and the inverted order results.

More concretely, I assume the following. First, there is a general constraint to the effect that operators should occur in their scope position in overt syntax (cf. Grimshaw 1997, Ackema & Neeleman 1998). For our purposes here, the following suffices.

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movement, namely when an operator is present; see section 3. In that case the position of the object with respect to the base position of V is not clear. This means the prediction can only be tested if the subextracted element itself does not function as an operator (so not in cases of *wh*-movement, for instance). I do not know if such a case can be constructed.

(11) Operator in Scope Position (Op-Scope)
Syntactic operators must occur in their scope position

Obviously, this constraint can trigger movement of operator-XPs out of the VP they are generated in. Not all operators in all languages do move overtly, of course. This is a consequence of the possibility that (11) is outranked in the relevant languages by economy constraints prohibiting movement (assuming an optimality theoretic view on the interaction of constraints). In Hungarian, however, a focused or questioned XP, and negative and aspectual operators, obviously must satisfy (11). Hence such operators move to a projection on top of the projection of the verb.[4] Verb movement is related to this operator movement in the following way. Assume that functional projections (FPs) are only present when required (Ackema et al. 1993, Grimshaw 1997). When no operator is present in a Hungarian clause, there is no need for an FP on top of VP, but if there is an operator, such an FP must be present in order to provide a suitable landing site for the operator that must be moved out of VP according to (11). If the verb is not moved, this FP will have an empty head position. Projections with radically empty heads are undesirable,[5] since the properties of an XP should be licensed by its head (cf. Grimshaw's (1997:374) Obligatory Heads constraint). Verb movement then serves to fill this empty head position.

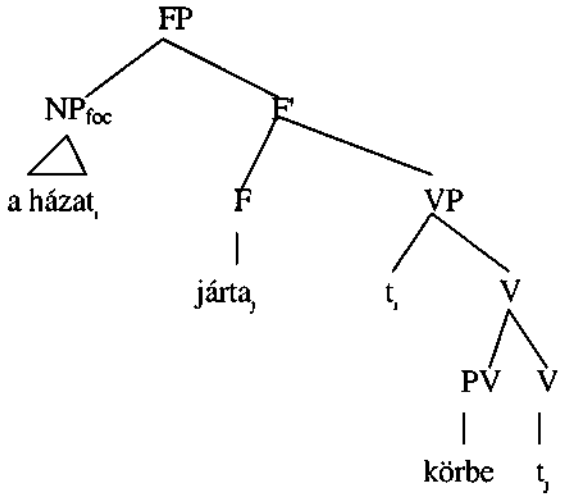
The inverted order in for instance (10b), with a focus-operator, thus receives the following analysis.[6]

[4] In this position they can be preceded by topics. I will ignore the question what position topics are in.

[5] "Radically empty" meaning that the head position literally contains nothing, in contrast to heads containing for instance a trace or an empty *pro*-like head (cf. Kester 1996).

[6] For the sake of simplicity the verb's projection is labeled VP in (12), but this does not imply any claim about the hierarchical structure or lack of it inside it, in particular concerning the respective positions of subject and object (cf. section 5).

(12)



As noted, this analysis basically equals those that assume V-movement to the head of a Focus Phrase in Hungarian, as in Brody 1990 and Horvath 1995. It explains that the inverted order only occurs when an operator-like element is present in the structure. It also explains that, in this order, the verb must be adjacent to the operator (Kiss 1987): operator and verb stand in a spec-head relation in an FP that is present only in the relevant constructions, so no other material will occur in this FP. Since the preverb occupies the same position in both the direct and the inverted order (adjoined to V^0), while focus operators occupy a different position (specifier of an FP), the fact that preverbs in the direct order do not have focus (Kiss 1987:62) follows automatically. That it is possible for the the "postposed" preverb to "occur further to the right" than in (10), as observed by Ackerman & LeSourd (1997:88), simply is a consequence of the fact that there can be material to the left of the basic V-position within VP in Hungarian (cf. section 2); this material occurs in between a moved V and a stranded PV. Finally, an analysis along these lines also explains that when the complex verb is further derived morphologically, the inverse order becomes impossible, as observed by Ackerman & LeSourd (1997:90-91). For example, from the complex verb *meg-old* `PERF-solve' the adjective *meg-old-hatatlan* `unsolvable' can be derived. The preverb and verb can only appear in the direct order within this adjective, the inverted order is impossible in this case, also if a focused constituent is present:

(13) a. Ez a feladat meg-old-hatatlan
this the task PERF-solve-not.able
`It's this task that's unsolvable'

b. *Ez a feladat old-hatatlan meg

If the inverted order is derived by verb movement which strands the preverb, (13b) is impossible because adjectives like *old-hatatlan* do not undergo V-movement.[7] If the inverse order involves preverb movement it is not immediately clear why this is blocked when further derivation of the verb takes place.[8]

So, both the direct order and the inverted order can be analyzed without having to invoke particle movement, without really saying anything about the syntax of Hungarian that has not been said before. However, if we want to dispose of movement of bare (unprojected) particles (because of the Dutch data mentioned in section 1), the real challenge is constituted by the discontinuous order, which is supposed to involve preverb climbing.

4. The discontinuous order: Verb Raising

4.1 The discontinuous order X-PreV-Y-V is illustrated in (14), from Ackerman & LeSourd (1997:85).

(14) a. **Be** akarom **csukni** az ajtát
into want-1sg/DEF close-INF the door-ACC
`I want to close the door'

b. Az ajtát **be** van **csukva**
the door into is close-GER
`The door is closed'

c. **El** kell hogy **menjek**
away must that go-1sg.SUBJ
`I have to go'

At first sight, the phenomenon appears to be comparable to clitic climbing in Romance VO languages (cf. Rizzi 1982).[9] If so, the structure would involve raising of the preverb out of the embedded clause, which is headed by the verb to which the preverb belongs, to a position adjacent to the auxiliary in the matrix clause. Indeed, the phenomenon is termed "preverb climbing" by Farkas & Sadock (1989), although their own analysis in fact does not make use of

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[7] Note also that the verb *old* cannot excorporate in this case (which would derive * ... *old meg hatatlan*) since it is not the head of the morphological complex any longer (cf (5)) - this is the adjectival suffix *-hatatlan* now.

[8] There is one exception to the observation that further derivation of a complex verb blocks the inverted order. When the complex verb is derived with *-hatá* `-able' the inverted order remains possible. However, forms with *-hatá* "generally retain more verbal properties than those, for example, with *-hatatlan*" (Ackerman & LeSourd 1997:90). If one of these verbal properties of *-hatá* forms is the ability to undergo verb movement the possibility of the inverted order is as expected, but I do not know how reasonable an assumption this is.

[9] It should directly be noted, however, that verb-clitic combinations in Romance crucially differ from complex verbs in Hungarian and Dutch in that they cannot be input to morphological derivation (cf. (6))

any movement operations. It is couched in a framework (Autolexical Grammar, cf. Sadock 1991) in which an element can occur in noncorresponding positions in the morphological, syntactic and lexicosemantic representations of the same construction. In cases of preverb climbing, the preverb forms a morphological unit with the auxiliary, but a lexicosemantic unit with the main verb. In other words, the position in which the preverb occurs in the morphological (and the syntactic) representation of the construction is different from the position in which it occurs in the lexicosemantic representation. As Farkas & Sadock (1989:332) put it, preverb climbing "is always the result of a discrepancy between the position *of the PV* in lexicosemantic form and its position in syntactic and morphological form' (my emphasis). We see that, as in analyses assuming actual movement of the PV, the discrepancy is supposed to concern the position of the PV, not that of the main verb. As noted, such discrepancies in the position of the preverb are undesirable in the light of the Dutch data.

Crucially, accounts of the order PV-Aux-V in terms of preverb climbing, whether by actual climbing (movement) or by coanalysis, appear to be based on the assumption that Aux-V is the base order between auxiliary and main verb. If Hungarian is a VO-language, that would be the expected base order. However, in section 2 it was noted that it is not so clear whtehr Hungarian is VO or OV. Here the observation that the order between the verb and its complements tells us little or nothing about the setting of the OV/VO parameter in a free word order language like Hungarian becomes important. As noted in section 2, the fact that PV-V is the basic order between PV and V is one indication among others that Hungarian is really an OV language. If so, the basicorder between main verb and auxiliary is not Aux-V but V-Aux.[10]

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[10] Following Kayne (1994), Koopman & Szabolcsi (1998) assume all languages are underlyingly VO and there is no rightward movement. In that case it must be assumed that Aux-V is the basic order, and the most plausible way of accounting for the discontinuous PV-Aux-V order is indeed by PV movement. In Ackema & Neeleman 1997 it is argued that Kayne's theory has empirical flaws where it concerns word order in the base, whereas the correct restrictions on rightward movement follow from nonsyntactic (parsing) principles. A consequence of Koopman & Szabolcsi's adoption of the LCA is that their arguments against a head movement approach (they assume PV climbing is an instance of XP movement) all presuppose Aux-PV-V as the basic order and do not apply to the alternative of PV-V-Aux plus rightward head movement of V proposed below. Those counterarguments that potentially do apply to it will be discussed in section 5.

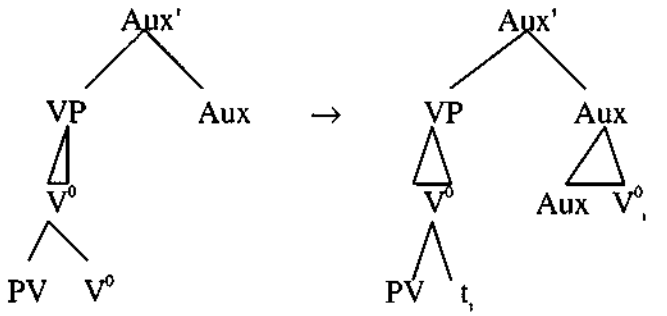
Note that the fact that complements of V can occur to the right of the Aux-V complex (see for instance (14a)) does not mean that the VP is generated to the right of Aux, if these complements need not be case-marked by V. PPs in modern Dutch can occur to the right of Aux-V as well, see (i) (see section 2 on the parallel between PP-complements in modern Dutch and DP-complements in languages with rich a morphological case system like Hungarian):

(i) dat Siegfried de ring niet wilde teruggeven aan de Rijndochters
that Siegfried the ring not wanted return to the Rhinemaidens
`that Siegfried didn't want to give the ring back to the Rhinemaidens'

If the underlying order is V-Aux, the discontinuous order PV-Aux-V cannot arise as a consequence of PV movement (at least, not of PV movement alone). Instead, it is now possible to give an account of this order in which it is the verb heading the PV-V complex that can excorporate from this complex, analogously to what was argued for the inverted order in section 3. The question then is what kind of movement this can be in this case, and if all relevant data can be accounted for under this view.

Another look at the OV language Dutch is useful here. In (2b) it was shown that the particle and the verbal head of a complex verb can be separated in this language as a consequence of Verb Raising, the process that right-adjoins an embedded main verb to an auxiliary on its right (cf. Evers 1975). Now, the discontinuous order in Hungarian can arise as a consequence of the same process. If so, "preverb climbing" to the left is in fact verb raising to the right, leaving the preverb in situ. Schematically:

(15)



This of course accounts for the observed order PV-Aux-V without having to assume that the preverb is subject to syntactic movement rules. It must be shown, however, that an analysis along these lines can account for all the data observed with respect to the discontinuous order, since there are some peculiar restrictions on this order. In the remainder of this section I will argue that the analysis is succesful in this respect.

4.2 The discontinuous order only occurs in constructions with an auxiliary (Farkas & Sadock 1989:322). This is directly accounted for if PV climbing (henceforth PVC) is Verb Raising (henceforth VR), since only auxiliaries trigger VR.[11] This is not to say that in all cases in which a verb takes a verbal complement PVC is possible. This is not surprising either: not in all cases where a verb takes an verbal complement in Dutch does VR occur. In some cases extraposition

[11] Ackerman & LeSourd (1997) note that a discontinuous PreV-X-V order can also occur in sentences without an auxiliary in case X belongs to a certain class of adverbs, in particular the negator *nem* 'not'. This is probably an independent phenomenon, since the elements in question can presumably form a complex incorporation structure with the verb (cf. Kiss 1999). .

of the complement is necessary. The distinction between VR and extraposition is illustrated in (16).

(16) a. dat Alberich [PRO de ring t_i] wilde houden$_i$
that Alberich the ring wanted keep
`that Alberich wanted to keep the ring'
a'. *dat Alberich t_i wilde [PRO de ring houden]$_i$
b. dat Wotan Alberich t_i dwong [PRO de ring af te staan]$_i$
that Wotan Alberich forced the ring to give up
`that Wotan forced Alberich to give up the ring'
b'. *dat Wotan Alberich [PRO de ring t_i] dwong af te staan$_i$

Whether VR or extraposition occurs depends on the matrix verb (cf. Evers 1975, Den Besten & Rutten 1989). A verb like *willen* `want' forces VR of the embedded infinitive ((16a-a')), a verb like *dwingen* `force' forces extraposition of the entire infinitival complement ((16b-b')), still other verbs allow for both possibilities (see below).

The class of verbs that trigger VR in Dutch and Hungarian respectively is very similar, though not completely identical. Farkas & Sadock list *fog* `will', *akar* `want', *próbál* `try', *tud* `be able to', *szeret* `like', *skozott* `used to', *kell* `must' and *szabad* `may, be allowed to' as the most common verbs allowing for PVC. These are also VR-triggering verbs in Dutch.[12] On the other hand, the verb *leren* `teach, learn' also triggers VR in Dutch (although it also allows for extraposition), whereas *tanul* `learn' does not do so in Hungarian (Farkas & Sadock 1989:325). Since it must be an idiosyncratic lexical property of the relevant verbs whether they trigger VR, Extraposition or both it is not very unexpected that the overlap in VR triggering verbs in both languages is not complete.

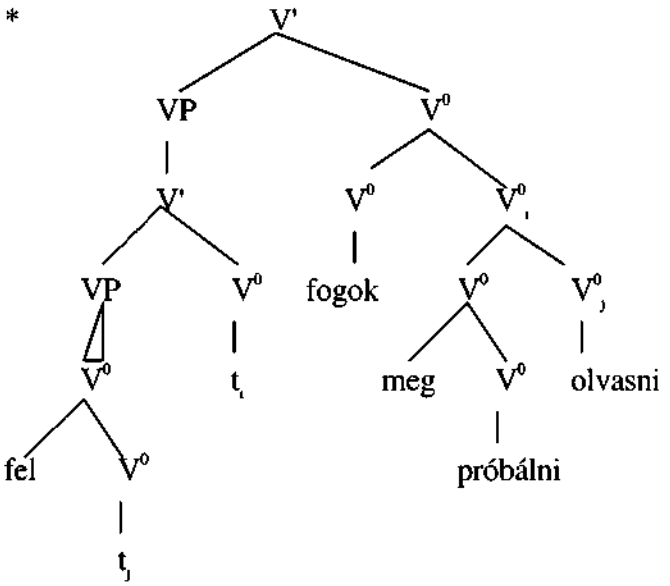
4.3 PVC cannot skip an intermediate preverb (Farkas & Sadock 1989:327). This is illustrated by (17).

(17) *In fel fog-(o)k meg-próbál-ni olvas-ni egy könyv-(e)t
I up will-1sg PERF-try-INF read-INF a book-ACC
`I will try to read a book aloud'

[12] Presumably the most common verb for `like' in Dutch does not take a verbal but a prepositional complement (*houden van iets* , lit.`like of something', but there is a verb for `like' which is a VR verb, namely *mogen* (*dat ik hem graag mag zien* , lit. `that I him gladly like see').

Here the PV *fel* (belonging to *olvasni*) has `skipped' the PV *meg* (belonging to *próbálni*). If PVC = VR then such examples must involve VR to a complex verb, in case of (17) raising of *olvasni* to complex *meg-próbalni* (followed by VR of this entire cluster to *fogok*), as in (18).

(18) *



Precisely this is known to be impossible in Dutch VR constructions as well. As noted already by Evers (1975), a verb that is already complex itself can never trigger VR out of its complement. For example, a verb like *leren* `learn' can trigger either VR or extraposition of its complement, but the particle verb *afleren* `unlearn' derived from it only allows the extraposition option. This difference is illustrated in (19) versus (20).[13]

(19) a. dat hij dat soort muziek heeft leren waarderen (VR)
that he that sort music has learn appreciate
`that he has learned to appreciate that sort of music'

b. dat hij heeft geleerd dat soort muziek te waarderen (Extraposition)
that he has learned that sort music to appreciate
`idem'

(20) a. *dat hij dat soort muziek heeft afleren waarderen (*VR)
that he that sort music has off-learn appreciate

[13] The difference between VR and extraposition corresponds to a difference in the form of the matrix verb in case this is itself complement to a higher perfect auxiliary: it occurs in the expected perfect participle form when its complement undergoes extraposition (see *geleerd* `learned' in (19b)), but as an infinitive when there is VR (see *leren* `learn' in (19a)) (see Vanden Wyngaerd 1996 and references cited there).

b. dat hij heeft afgeleerd dat soort muziek te waarderen (Extraposition)
that he has off-learned that sort music to appreciate
`that he has unlearned to appreciate that sort of music'

Whatever the ultimate explanation of this phenomenon (see section 5 for more discussion), it provides extra evidence for the contention that PVC = VR: the independently known fact that complex verbs cannot trigger VR also accounts for the impossibility of Hungarian (17), but only if PVC is indeed VR.

Note that (21), which is identical to (17) except for not containing a stranded preverb, is possible (Ildikó Tóth, p.c.):

(21) Peter fog megpróbálni olvasni egy könyv-(e)t
Peter will-1sg PERF-try-INF read-INF a book-ACC
`It is Peter who will try to read a book'

This of course also may not involve VR of *olvasni* to complex *meg-próbálni*, or the account just given for (17) fails. This means that (21) must involve extraposition. If so, *próbálni* `try' then must be a verb that allows both for VR of the infinitive from its complement and for extraposition of its complement, a possibility illustrated for Dutch *leren* `learn' in (19). This is not very remarkable. In fact, the same is true for the Dutch counterpart of *próbálni*, the verb *proberen* `try'. This too allows either for VR or extraposition:

(22) a. dat Mime een zwaard heeft proberen te smeden (VR)
that Mime a sword has try to forge
`that Mime has tried to forge a sword'
b. dat Mime heeft geprobeerd een zwaard te smeden (Extraposition)
that Mime has tried a sword to forge
`idem'

The possibility that the complement of *próbálni* can undergo extraposition does not interfere with the account of the impossibility of (17), since that example cannot involve extraposition. It is impossible to extrapose a VP but leave the preverb belonging to the head of this VP stranded (as this would involve movement of a nonconstituent). A stranded preverb indicates that VR has taken place, and VR is not allowed if it involves raising to a complex verb, as in (17)-(18).

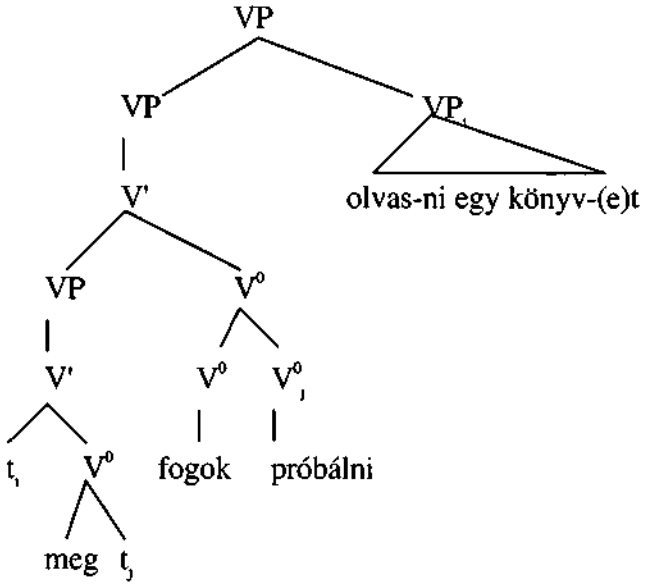
4.4 In case there is a sequence of auxiliaries plus main verb, PVC can not only involve climbing from the main verb to the highest auxiliary, but also from an intermediate auxiliary to the highest auxiliary. Farkas & Sadock (1989:327) give the following examples in this connection:

(23) a. In meg fog-(o)k próbál-ni olvas-ni egy könyv-(e)t
I PERF will-1sg try-INF read-INF a book-ACC
`I will try to read a book'

b. In fel fog-(o)k próbál-ni olvas-ni egy könyv-(e)t
I up will-1sg try-INF read-INF a book-ACC
`I will try to read a book aloud'

In these examples there is a sequence of two infinitival verbs, namely the main verb and an intermediate auxiliary. In (23a) the perfectivizing PV *meg* belongs to the intermediate auxiliary *próbálni*, in (23b) the PV *fel* belongs to main verb *olvasni*. Given the analysis proposed here, (23b) is a simple case of iterative VR: first *olvasni* raises to *próbálni* (stranding the PV *fel*), then the complex thus derived raises further to *fogok* `will'. However, (23a) cannot involve a first step of VR of *olvasni* to complex *meg-próbálni*, as discussed in 4.3. What occurs here instead is a combination of VR and extraposition, namely extraposition of the VP headed by *olvasni* (the complement of *próbálni* can indeed undergo extraposition, see 4.3) plus VR of *próbálni*, stranding *meg*, to *fogok*, as in (24). A completely parallel example from Dutch is given in (25) (compare this with (20b) where the particle is not stranded but taken along under VR).

(24)



(25) dat hij af heeft geleerd dat soort muziek te waarderen
that he off has learned that sort music to appreciate
`that he has unlearned to appreciate that sort of music'

4.5 PVC is blocked whenever the `climbed' PV cannot occur immediately to the left of the inflected auxiliary (Farkas & Sadock 1989:327). On instance of this ban is PVC across a non-auxiliary, which is ruled out under our analysis as it would have to involve a step consisting of VR to a verb that does not trigger VR (section 4.1). Another instance occurs when the inflected auxiliary has a PV of its own, as in (26) (from Farkas & Sadock).

(26) a. Mari meg-próbál-t ki-men-ni
Mari PERF-try-PAST out-go-INF
`Mari tried to go out'
b. *Mari ki meg-próbál-t men-ni
c. *Mari meg ki próbál-t men-ni

This is accounted for as follows: (30a) involves extraposition; (30b) is another instance of the impossibility of complex verbs acting as trigger for VR (section 4.3); (30c) cannot be derived as it would have to involve infixing *kimenni* into *megpróbálni* before VR takes place.

In general, if `climbed' PVs are in fact stranded PVs, left behind by their verb which forms a cluster with the verbs immediately on its right, this implies that no other elements should intervene between the PV and the verb cluster, which is correct. In fact, since it is assumed the

verbs form a cluster after VR, an even stronger prediction seems to be made, namely that no elements should intervene anywhere in the sequence of PV and verbs, which is not correct. This is discussed in section 5.

4.6 PVC seems to be blocked when there is a focus/negation/Wh in the matrix clause, that is, when any of the conditions under which the inverted order arises (section 3) occurs in the matrix clause. The following examples from Farkas & Sadock illustrate two relevant cases:

(27) There is a focused constituent before the auxiliary:

a. Mari TEGNAP próbál-t fel-olvas-ni
Mari yesterday try-PAST up-read-INF
`It was yesterday that Mari tried to read aloud'
a'. *Mari TEGNAP fel próbál-t olvas-ni
Mari yesterday up try-PAST read-INF

(28) The auxiliary is negated:

a. Mari nem próbál-t fel-olvas-ni
Mari not try-PAST up-read-INF
`Mari didn't try to read aloud'
a'. *Mari nem fel próbál-t olvas-ni
Mari not up try-PAST read-INF

In these circumstances the PV "must be found immediately before the verb that it is lexicosemantically associated with" (Farkas & Sadock 1989:328), as in the (a) examples of (27)-(28). It does not invert with this verb, as it does when any of the specific conditions mentioned hold in a clause with only a single VP (cf. section 3), as shown by (29).

(29) a. *Mari TEGNAP próbál-t olvas-ni fel
Mari yesterday try-PAST read-INF up
b. *Mari nem próbál-t olvas-ni fel
Mari not try-PAST read-INF up

These facts follow immediately when the analyses of the previous section and this one are combined. In section 3 it was argued that the inverted order arises as a consequence of verb movement to the head of a functional projection that is generated to provide a suitable position

for the focus/negative/Wh operator. In cases like (27)-(28) the operator occurs in the matrix clause. Hence, the FP is projected on top of the matrix VP and it is the auxiliary which heads this clause that must undergo V-to-F movement. This means that the observed word orders can be explained without having to assume that PVC (VR) is somehow blocked in these cases.

First, VR of main verb to auxiliary applies, stranding the PV to the left of the auxiliary. Then the auxiliary is moved out of its VP, to F, leaving the PV behind. This is illustrated in (30a). Note that the order that results is indistinguishable (at least if only two verbs are involved, the complex main verb and one auxiliary) from the order that results from letting the complex verb undergo VR in its entirety (i.e. including the PV), cf. (30b), but this might not be possible in Hungarian (see below).

(30) a. $[_{FP}$ OP $[_{F}$ $Aux_i]$ $[_{VP}$ $[_{VP}$ $[_{V}$ PV $t_j]]$ t_i V_j $]]$
b. $[_{FP}$ OP $[_{F}$ $Aux_i]$ $[_{VP}$ $[_{VP}$ $[_{V}$ $t_j]]$ t_i $[PV\ V]_j$ $]$

That the PV does not invert with the main verb in these cases (cf. (29)) is because it is the finite auxiliary, not the main verb, that undergoes V-to-F. (Note that "long head movement", with verbs skipping other verbs that are closer to the target position, is generally impossible, witness for instance English **why been you have there*; see Rivero 1991 for discussion of possible exceptions). This means the order in (29) could only arise as a consequence of PV postposing, i.e. precisely by a type of movement which the analysis here is intended to exclude; compare the impossibility of Dutch (3a) again.

Given this analysis, it is predicted that it need not always be the case that the PV ends up immediately before the verb it lexicosemantically belongs to when the finite auxiliary undergoes movement. In particular, this need not be so if there is an intermediate auxiliary present and the main verb is complex. In that case, if the PV is taken along under VR by the main verb it will still end up before this verb, but if the PV is stranded by VR then the intermediate auxiliary will intervene between it and the main verb, even if the highest (finite) auxiliary is moved out of the way. Schematically:

(31) $Aux1_i$ ... PV t_k t_j t_i $[Aux2\ V_k]_j$

This is indeed possible in Dutch, as illustrated by (32), where the highest auxiliary has undergone V2:[14]

[14] As noted, the particle can be taken along under VR in Dutch, meaning that the order *Siegfried zal de draak weer moeten afslachten* in which the particle does appear adjacent to the verb it belongs to is also possible.

(32) Siegfried zal de draak vanavond weer af moeten slachten
Siegfried will the dragon tonight again off must slay
`Siegfried will have to slaughter the dragon again tonight'

In other words, it is predicted that, in contrast to the order in (33a) (see (27a')), the order in (33b) should be possible in Hungarian. (In contrast, a theory which states that PVC is always blocked when the matrix clause contains focus etc. predicts that (33b) is just as bad as (33a). Both theories account for the possibility of (33c), the present one by the option of letting the complete complex verb undergo VR).

(33) a. * FOCUS PV Aux V
b. FOCUS Aux1 PV Aux2 V
c. FOCUS Aux 1 Aux2 PV V

It is unclear to me if this prediction is correct, as judgements I received on the example in (34) differed.

(34) (??) Mari HOLNAP fog fel próbálni olvasni egy könyvet
Mari TOMORROW will up try-INF read-INF a book-ACC
`It is tomorrow that Mari will try to read a book aloud'

Interestingly, a PV can certainly not occur in between two auxiliaries it does not belong to when the higher auxiliary is *not* moved. In other words, an order as in (34) but without a focused constituent in the matrix clause is impossible beyond a doubt, as shown by (35) (Farkas & Sadock's (23a)).

(35) *In fog-(o)k fel próbál-ni olvas-ni egy könyv-(e)t
I will up try-INF read-INF a book-ACC

As Farkas & Sadock state it, the PV cannot climb to an intermediate auxiliary. This too follows straightforwardly from the analysis proposed above, although there is a catch, to be discussed below. If PVC is VR, then (35) should be a case of iterative VR, first of the main verb to the intermediate auxiliary, then of this complex to the highest auxiliary. The fact that the intermediate auxiliary *próbálni* occurs in between the PV *fel* and the main verb *olvasni* that this PV belongs to indicates that the PV is stranded by the first application of VR. But if it is stranded already at the lowest cycle, the PV cannot possibly end up to the right of the highest

auxiliary *fogok* in (35), since this could only arise as a consequence of it being taken along under VR at the second cycle. Hence (35) is impossible.

Straightforward as this explanation may seem, there may be an empirical difficulty with it. This is because in Dutch, at least according to some speakers, the particle of the deepest verb can occur anywhere in the verbal cluster derived by VR (see Bennis 1991, Helmantel 1998), although other speakers only accept orders in which the particle is stranded before the lowest auxiliary, or taken along with the main verb all the way up.[15] This is illustrated in (36).

(36) a. dat Wotan Brünnhilde tegenwoordig even op zou kunnen laten bellen
that Wotan Brünnhilde today just up would can let call
`that today it would have been possible for Wotan to have Brünnhilde called up'
b. (*)dat Wotan Brünnhilde tegenwoordig even zou op kunnen laten bellen
c. (*)dat Wotan Brünnhilde tegenwoordig even zou kunnen op laten bellen
d. dat Wotan Brünnhilde tegenwoordig even zou kunnen laten opbellen

Bennis (1991) argues that it is possible to account for all possibilities in (36) by allowing for long head movement, i.e. by allowing violation of the HMC.[16]

Even if that were necessary, however, it is still possible to account for (35). This is because, for reasons to be discussed immediately below, Hungarian probably differs from Dutch in not allowing the PV to be taken along under VR under some circumstances. In that case, it will occur in front of the entire verb cluster (recall that (27)-(28) do not constitute counterexamples to this, since they involve excorporation of the finite auxiliary, which undergoes V-to-F, out of this cluster).

Farkas & Sadock (1989:325) note that with some matrix auxiliaries PVC is obligatory, whereas with others it is optional:

(37) a. Ki fog-(o)k men-ni
out will-1sg go-INF
`I will go out'
b. *Fog-(o)k ki-men-ni
will-1sg out-go-INF

[15] In case the reader cares for my personal judgment, for me sentences like (36b-c) are very marginal, say ?*.

[16] Bennis in fact also argues that the particle must be moved separately to derive the orders in (36b-c). This, however, relates to the fact that the particle and the verb do not form a unit in the base in his analysis; instead the complex verb results from syntactic incorporation. I cannot discuss this here, but for arguments that complex verbs of the type discussed in the text are not derived by syntactic incorporation see Groos 1989, Neeleman 1994, Ackerman & LeSourd 1997, Ackema & Neeleman 1998, among others.

(38) a. Ki próbál-(o)k men-ni
out try-1sg go-INF
`I am trying to go out'
b. Próbál-(o)k ki-men-ni
try-1sg out-go-INF

Given the VR analysis, this means at first sight that when a verb raises to *fogok* `will' it must strand its PV, whereas when it raises to *próbálok* `try' the PV may optionally be taken along. However, above it was argued that with a verb like *próbálni* `try', extraposition of the infinitival complement is an option next to VR. This means that a case like (38b) can actually be an instance of extraposition. This in turn means that the generalization can be made that (in some cases, see below) in Hungarian the PV must be stranded under VR, this then being the main difference with Dutch (apart from the possibility of NP complements to appear to the right of the verb cluster, of course). This also rules out (35), as desired.

There may be independent reasons for this difference between Hungarian and Dutch. Szendroi (1999) argues that a characteristic of verbs that trigger PVC is that they cannot bear neutral sentential stress and that the stress rules of Hungarian are such that if the verb is the first element in its VP it is in danger of being assigned stress. Hence, something must occur in front of it, and in the absence of for instance a focus operator (cf. (27)) the PV must function as this something. In terms of the analysis above, this ensures that a PV must be stranded when its host undergoes VR to the right of a stress-allergic auxiliary. Note that a case like (33c), in which the PV is not stranded but taken along under VR (though possibly still only optionally, if (33b) is possible as well) is possible because in this case there is something else in front of the auxiliary.

Some extra evidence for this comes from the observation by Koopman & Szabolcsi (1998) that negation or focus in the *embedded* clause blocks PVC as well:

(39) a. *Haza fogok akarni nem menni
home will-1sg want-INF not go-INF
b. *Haza fogok akarni (csak) MOST menni
home will-1sg want INF (only) now go-INF

If the operator occurs in the embedded clause, the embedded main verb must undergo V-to-F. As a result, it cannot undergo VR any longer, as this is only possible from its base position adjacent to the matrix auxiliary (cf. section 5). This means that the only way to save structures like (39) is to have extraposition of the complete embedded FP. That precludes PV stranding, as it has occurred in (39). However, extraposition of the embedded clause, including the PV,

would lead to the matrix auxiliary occupying the stress position again, which is also excluded under Szendroi's hypothesis. The result is that "these particular sentences do not have grammatical neutral orders" (Koopman & Szabolcsi 1998:131). Only if there is something in front of the finite auxiliary are they possible, as in (40). Note that, indeed, there is extraposition of the complete embedded clause, no PV stranding, as predicted.

(40) a. ÉN fogok akarni nem hazamenni
I/not will-1sg want-INF not home-go-INF
`It is me who will want to not go home'
b. Nem fogok akarni (csak) MOST hazamenni
not will-1sg want INF (only) now home-go-INF
`I will not want to go home NOW'

5. Scrambling into the verbal cluster, inversion, and reanalysis

In this section I will discuss a few phenomena which appear to be problematic for the head movement analysis proposed in section 4. I will argue that most of the relevant data can be explained if the type of head movement under discussion is in fact not movement, but reanalysis, as proposed by Haegeman & Van Riemsdijk (1986).[17]

A main problem for the analysis at first sight is that XPs can appear anywhere in the verbal cluster that is supposed to be the result of VR, in sharp contrast with Dutch. Even the matrix subject can occur in between the sequence of verbs, as in (41a) (from Koopman & Szabolcsi 1998). In contrast with this permeability of the cluster is the fact that no XP can appear in between a stranded PV and the verbal cluster, cf. (41b) (Kriszta Szendroi, p.c.).

(41) a. (Mari) be fog (Mari) kezdeni (Mari) akarni (Mari) menni (Mari)
(Mari) in will (Mari) begin-INF (Mari) want-INF (Mari) go-INF (Mari)
`Mari will begin to want to go in'

[17] At this point it is useful to consider the main argument Koopman & Szabolsci (1998) give against a head movement analysis. This is that full XPs can partake in PVC. In (i), for example, a full PP partakes in the process.

(i) A szobóban fogok akarni maradni
the room-in will-1SG want-INF stay-INF
`I will want to stay in the room'

b. Szet (*XP) fogja (XP) akarni (XP) kezdeni (XP) szedni a radiot
apart will want-INF begin-INF take-INF the radio-ACC
`PRO will want to begin to take apart the radio'

Any account of such data must take into consideration why this sort of head movement usually does *not* allow for intervening elements, since only if we have a reason for this is it possible to see whether independent properties of Hungarian account for its allowing things like (41a). That head movement which involves adjunction to a higher head indeed is subject to such an adjacency condition is disccused by Van Riemsdijk (1998). On the basis of various instances of the movement in question, form different languages, he posits it as an aboslute condition on any head movement that involves adjunction (not substitution) to a higher head that the moving head and the host be adjacent. If this type of head adjunction really were movement, that would be a rather curious condition, as this kind of linear adjacency between source and target does not seem to hold for any other kind of movement (in fact, an almost opposite condition on movement has been proposed, namely the `no vacuous movement' hypothesis, cf. Chomsky 1986). In contrast, as noted by Van Riemsdijk, the adjacency condition on head-to-head adjunction is not unexpected if this process does not involve movement, but reanalysis (cf. Haegeman & Van Riemsdijk 1986). On the contrary, reanalysis by its very nature can not alter the word order in a string. Hence, given that crossing branches are prohibited, it follows that only adjacent nodes can be reanalyzed as one complex node.[18]

Now, though auxiliay and main verb must be adjacent in cases of VR, their order can and in Dutch ususally does change: on the surface they can (in case the cluster consists of two verbs) or must (in case the cluster consists of more than two verbs) appear in VO (Aux-V) order. Accordingly, Haegeman & Van Riemsdijk (1986) assume that after reanalysis, which is obligatory, there can be either obligatory or optional inversion of the daughters of the reanalyzed nodes. This process can be sensitive to the number of verbs (see above) and to the particular auxiliaries that occur in the cluster. Since there is an enormous amount of

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This is no problem for an OV plus VR analysis, however Other elements belonging to the lowest VP may be stranded to the left of the raised verb just like a PV Given that these elements do not move at all in the proposed analysis, no distinction between X^0s and XPs is expected in the first place

[18] Note that reanalysis is not meant as an addition to the theory, but should replace the option of having head-to-head adjunction altogether Note also that assigning two representations to a single construction is not an addition as such to the theory, since movement analyses do nothing else than that the construction has a certain representation before movement and another one after it Just so, a construction has a certain representation before reanalysis and another one after it That both representations are usually represented in a single figure in cases of reanalysis is just a convenient and graphic way of illustrating the process, and should not be considered to be some extra device of the theory

crosslinguistic variation in this respect[19], it must be stipulated per language which nodes are targeted by inversion and which are not.

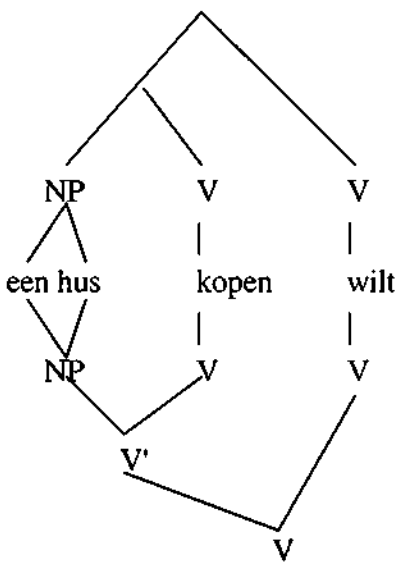
As argued by Haegeman & Van Riemsdijk, reanalysis can also involve a higher projection of the embedded verb, as stated in their definition of the process in (42). This possibility accounts for cases of Verb Projection Raising (VPR), as occurs in for example West Flemish and certain Swiss German dialects. An example is given in (43).

(42) *Reanalysis* (Haegeman & Van Riemsdijk 1986: 423)
If the representation of a sentence contains the line X V'_q V_r Y, where $0 \leq i \leq 2$ and V_r is a VR verb, then add the line X V_x Y to that representation

(43) da Jan wilt een hus kopen (West Flemish)
that Jan wants a house buy
`that Jan wants to buy a house'

This example receives the analysis in (44). The circled reanalyzed V-node is targeted by inversion.

(44)

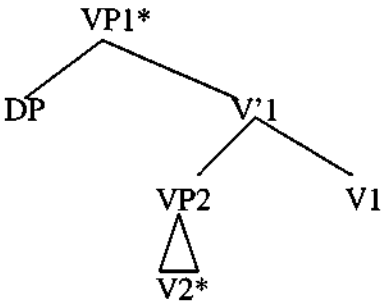


Let us now finally turn back to the problem of Hungarian (41). Given that higher projections of the embedded verb can take part in reanalysis, there is no reason why a higher

[19] For example, standard Dutch, Dutch dialects, older Dutch, its descendant Afrikaans, its neighbour German and *its* dialects all have different restrictions on the order within the verb cluster; see Den Besten & Edmondosn 1983 and Haeseryn 1990 for overviews.

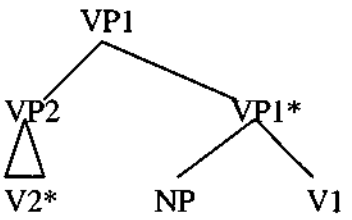
projection of the *matrix* verb cannot be involved in reanalysis as well. The null hypothesis is that in the input for reanalysis there is no particular restriction on the projection level of V_r in (42) either, i.e. that V_r should be replaced by V^i_r. In languages with configurational VPs like Dutch it is not possible that a higher projection of the matrix verb is involved in reanalysis. This is because in such languages the to-be-reanalyzed higer projection of the matrix verb will also include the complement VP. In other words, the nodes that are to be reanalyzed are included in one another, which makes renalsyis impossible. In (45), for example, VP1 cannot be reanalyzed with V2 or VP2, since these nodes are not adjacent, but in a domination relation.

(45)



Howver, it is an independently known property of Hungarian that it has nonconfigurational VPs (cf. Kiss 1987 and references cited there; for a dissenting view see Maracz 1989). This means the complement VP can be generated higher up in the matrix VP, above the subject of the matrix verb. In that case, reanalysis of a higher projection of the matrix verb and the embedded verb is possible:

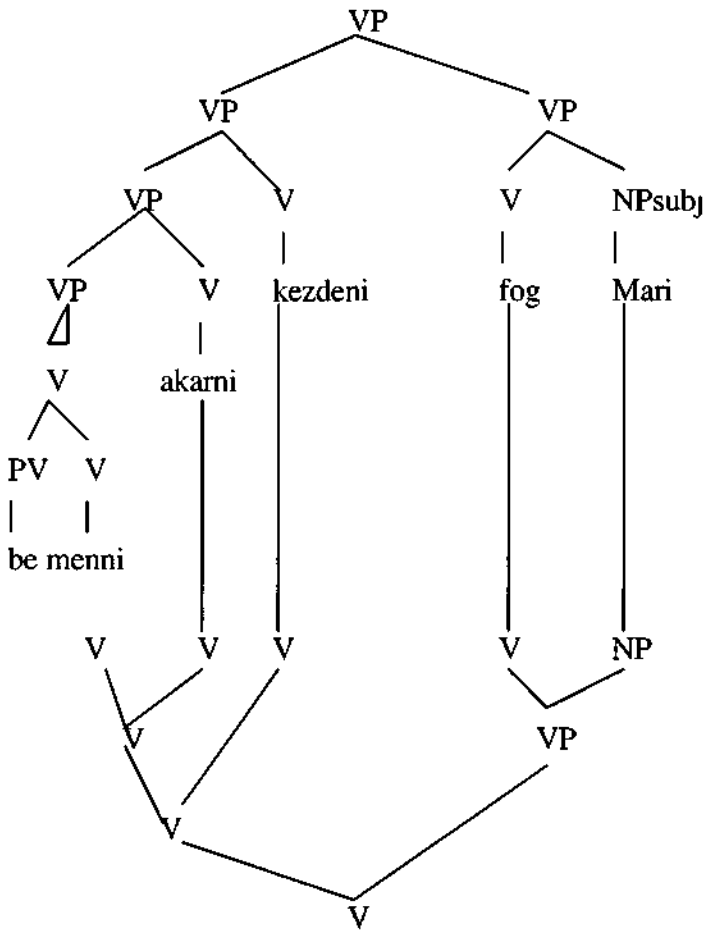
(46)



Hungarian (41a) can then be analyzed as follows. When the whole VP of the matrix verb is input to reanalysis, the order in which *Mari* is in between *fog* and *kezdeni* is derived, see (47) (as above, the circled nodes are targeted by inversion). The order in which *Mari* is at the end (or beginning, depending on where it is generated in the first place) of the complete sequence is derived when only the matrix V itself is input to reanalysis. The other orders can be derived only by noncyclic applications of VPR/reanalysis. For instance, first applying reanalysis to matrix *fog* and embedded *kezdeni* and only after this applying it to the node of the matrix VP

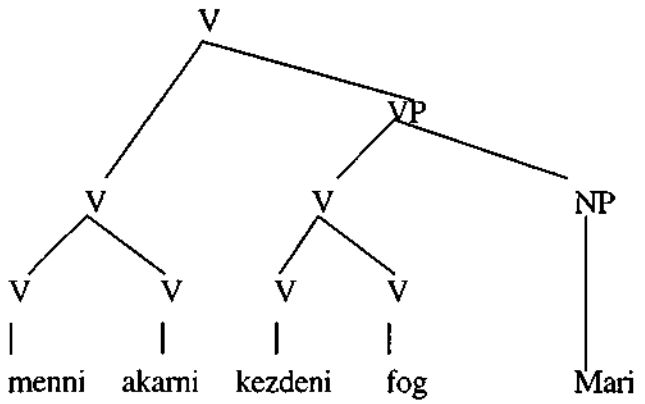
derives the order in which *Mari* is in between *kezdeni* and *akarni*, as illustrated in (48) (which for reasons of space only gives the reanalyzed structure; the unreanalyzed one is of course identical to that in (47)). However, noncyclic VR may be necessary anyway to account for orders in Dutch in which the particle occurs somewhere in the middle of the verb cluster, as argued by Bennis 1991 (see above). If noncyclic VR is possible, then so is noncyclic VPR.[20]

(47)



[20] As noted above, not all speakers of Dutch (including myself) readily accept the orders that are derived with noncyclic VR. I do not know if there are speakers for which there is a difference in acceptability of the Hungarian examples along the same lines

(48)



The permeability of the Hungarian verb cluster thus follows from an independently given property of this language (its having nonconfigurational VPs), if indeed PVC = V(P)R = reanalysis.

The fact that no material can occur in between the stranded PV and the cluster (the starred XP in (41b)) also follows. Such material occurs in between two nodes that should undergo reanalysis (note that the PV indicates the source position of the embedded verb, since it itself may not take part in the reanalysis, but must be stranded, for reasons discussed above). The demand that such nodes must be adjacent hence blocks this option.

A final phenomenon to be discussed is the following. If the matrix contains focus/negation/etc. the verbs can occur in `inverted' order (OV, i.e. Aux-V, order). In that case, the cluster suddenly is impermeable, and PVC is impossible (Koopman & Szabolcsi 1998, K. Szendroi p.c.). The following data illustrate this (the adjacency of the operator and the finite auxiliary was discussed in section 3 and is not relevant here):

(49) a. PETER (*XP) fogja (XP) akarni (XP) kezdeni (XP) szet (*XP) szedni a radiot
Peter will want-INF begin-INF apart take-INF the radio-ACC
`It is Peter who will want to begin to take apart the radio'
b. PETER (*XP) fogja (XP) akarni (XP) szet (*XP) szedni (*XP) kezdeni a radiot
c. PETER (*XP) fogja (XP) szet (*XP) szedni (*XP) kezdeni (*XP) akarni a radiot

Given the above analysis, `inversion' is in fact absence of inversion, since the verbs are generated in OV order. It is the VO order that is derived by inversion. This explains that there is no PVC in these cases. Since PVC is really stranding of the PV after inversion by VR, there is no PVC when there is no inversion. Put differently, the order PV-XP-V-Aux does not occur since V has not raised and (by assumption) PVs cannot raise. The fact that the cluster is impermeable when `inversion' (lack of inversion) occurs is explained as well. As discussed, the

adjancency condition on VR/reanalysis excludes material intervening between two nodes that are reanalyzed as one. The only way to get intervening material in the cluster is by having reanalysis target higher projections that include this material, and then applying inversion to the reanalyzed node, as in cases of VPR (see above). But since Aux-V order is an indication of absence of inversion, no material can end up in the cluster in this way then. Hence, the cluster is impermeable in this case. This leaves open the problem why the possibility of not applying inversion correlates with the presence of a focus/negative operator in the matrix clause. I do not have an answer to this.

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