Phrasal verbs and VP shells

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This paper first looks at the most important syntactic properties and possible movements regarding phrasal verbs, on the basis of which it aims to question the validity of the traditional distinction between phrasal and prepositional verbs. By claiming that the particle of a phrasal verb is a PP, it then puts phrasal verbs into a larger framework of double object/ complement constructions proposed by Larson (1988) and investigates the extent to which the linguistic phenomena and properties that phrasal verbs exhibit may be explained through rules and principles that apply to other double object/complement constructions. This more general approach is also believed to shed light on the real nature of the difference between transitive phrasal and prepositional verbs, namely the status of the particle and the preposition.

1 Introduction to phrasal verbs

In this section I will discuss the standard treatment of phrasal verbs in traditional descriptive grammar and the problems that this treatment presents. First, I will deal with a general grammatical test (clefting) that serves to identify the basic difference in constituency between phrasal and prepositional verbs. Secondly, I will investigate the problem concerning the category of the particle, namely whether it is lexical (P) or phrasal (PP), and will eventually claim that it is phrasal (PP). Thirdly, I will address problems of Particle Movement (a generally optional movement of the particle) and will propose that if we want to talk about Particle Movement at all, it is more plausible to suppose a movement going in the opposite direction to what has been traditionally presumed (i.e., left-to-right). I called this right-to-left movement Inverse Particle Movement and it captures the same word order facts with the traditionally presumed D-structure (non-separated case) and S-structure (separated case) interchanged.

1.1 Standard descriptive approaches: phrasal vs. prepositional verbs

The traditional definition of phrasal verbs states that a simple phrasal verb comprises a verb and an adverbial particle. The idea that phrasal verbs really exist, in other words, that the verb and the particle constitute one unit can easily be proven by clefting, a test for general constituency:

(1) **General formula:** It is ___ (single constituent slot) that...
a. Drunks would *put off* the customers.
b.*It is *off* the customers that drunks would put.
c. It is the customers that drunks would *put off.*

The ungrammaticality of (1b) shows that ***off*** *the customers* (=PP) is not a constituent of the VP ***put off*** *the customers.* However, (1c) supports the claim that *the customers* is a constituent (NP) and thus it follows that *put off* is the other subconstituent of the above-mentioned VP since *put* and *off* cannot fall into different constituents, as they are adjacent and there is no constituent boundary between them.

As the example suggests, phrasal verbs are normally compared with prepositional verbs, which look very similar to them but, in fact, they have different underlying structure. Radford's (1988 : 90f) analysis observes the evidence from clefting. The main difference is in the role of the particle; in the first case the particle is an "adverbial" (in the traditional terminology) that makes up a complex verb with the lexical verb *put* (phrasal verbs), whereas with prepositional verbs it functions as the head of the PP following the verb in the sentence.

(2) $[_{\mathrm{IP}}$ $[_{\mathrm{NP}}$ Drunks$]$ $[_{\mathrm{I'}}$ $[_{\mathrm{I}}$ would$]$ $[_{\mathrm{VP}}$ $[_{\mathrm{V}}$ *put off*$]$ $[_{\mathrm{NP}}$ the customers.$]]]]$

(3) a. $[_{\mathrm{IP}}$ $[_{\mathrm{NP}}$ Drunks$]$ $[_{\mathrm{I'}}$ $[_{\mathrm{I}}$ would$]$ $[_{\mathrm{VP}}$ $[_{\mathrm{V}}$ get$]$ $[_{\mathrm{PP}}$ off the bus.$]]]]$

Showing the clefted versions of (3a) analogously to (1b) and (1c), we can see that the main structural distinction between phrasal and prepositional verbs is manifested in the contrast between the grammaticality of (1b) and (3b). (1c) and (3c) do not provide contrast since (3c) is a grammatical instance of preposition stranding, a process by which the NP within the PP is raised by NP movement.

(3) b. It is off the bus that drunks would get.
c. It is the bus that drunks would get off.

There are a number of other criteria to distinguish between phrasal and prepositional verbs. Let us now contrast the following sentences with prepositional and phrasal verbs as in *A University Grammar of English* (Quirk & Greenbaum 1973 : 349).

(4) **Prepositional verb:** *call on* ('visit')
a. They called on the man.
b.*They called on him.
c.*They called the man on.
d.*They called him on.
e. They called early on the man.

(5) **Phrasal verb:** *call up* ('summon')
a. They called up the man.
b.*They called up him.
c. They called the man up.
d. They called him up.
e.*They called early up the man.

The example sentences isolate some major differences. With the prepositional verb no movement of the preposition to the right of the object NP is allowed, no matter whether it is a real NP or a personal pronoun (4c, 4d). This obviously stems from the fact that we are faced with a PP in which the head (preposition="pre-position") must normally precede its NP complement unless we move the NP out by NP- or wh-extraction (stranded prepositions). Also, the adverbial (*early*) can be placed between the verb (*call*) and the preposition (*on*) (4e). On the other hand, no adverbial can be put between the verb and the adverbial particle (5e), which seems to confirm the initial supposition that considers them as a single verb. With the phrasal verb in the example, Particle Movement to right of the object NP is possible in both (5c) and (5d). Moreover, particle movement is compulsory in the case of personal pronouns functioning as the object NP (5b). Before discussing the main issues linked with Particle Movement we must consolidate that a phrasal verb can either be transitive or intransitive (just like any other lexical verb) and obviously particle movement only applies to transitive combinations because otherwise there is no object for the particle to move around. However, the Particle Movement rule seems to refute our supposition that a phrasal verb can be taken for a single unit since the adverbial particle gets separated from the verb so it is highly unlikely that they can continue to form a single complex (compound) verb in this configuration.

There are also some obvious prosodic differences between phrasal and prepositional verbs. Stress patterns, for instance, play an important part in telling prepositional verbs from phrasal verbs. According to Mitchell: "... the particle component of the phrasal verb can, and does bear a full stress, and when final and not in post-nominal position, is pronounced on a kinetic tone..." (cited in Sroka 1972 : 164f). On the other hand, "it is true that the preposition, by and large, does not normally carry the accent"—Bolinger argues (1971 : 14). The following pair of sentences shows this contrast:

(6) a. Jim is not the person I was *<u>look</u>ing at.*
b. Kim is not the person I was *looking <u>up</u>.*

However, as the main focus of this paper is various syntactic desciptions of the data, I will not investigate phonological differences any further.

1.2 What category is the particle?

Let us observe the bracketed version of our initial example sentence with the particle moved (Radford 1988 : 90–101).

(2) a. [$_{\mathrm{IP}}$ [$_{\mathrm{NP}}$ Drunks] [$_{\mathrm{I'}}$ [$_{\mathrm{I}}$ would] [$_{\mathrm{VP}}$ [$_{\mathrm{V}}$ put] [$_{\mathrm{NP}}$ the customers] [$_{\mathrm{PP}}$ off.]]]]
b. Drunks would put the customers right off.

Radford argues that in the separated case the particle is a PP, because it can be premodified by PP modifiers. He also supports his claim by completing the PP with an NP complement (postmodifier) so that *off* becomes the head of a "real" PP (see (2d)). Both these arguments seem quite straightforward, although we have to add that completion with an NP (expansion) is not always possible (e.g., *look sth up the dictionary* etc.) but premodification is (e.g., *look sth right up*).

However, when the particle is not separated it cannot be considered a PP because it cannot be modified by PP modifiers, neither can it be completed by an NP complement (see (2c)).

(2) c.*Drunks would put right off the customers.
d. Drunks would put the customers right off their food.

Particle Movement seems to ruin the clear-cut definitions of phrasal and prepositional verbs since there is a shift from phrasal to "prepositional" verbs as Particle Movement is applied. It is, therefore, plausible to propose the separated position of the particle (demonstrated as optional in (5c) and compulsory in (5d)) to be underlying, which runs counter to the conventional approach and which is significant in that it eliminates the particle's "mysterious" status (adverbial) and consequently weakens the theoretical distinction between phrasal and prepositional verbs. Apparently, in such a framework, the movement of the particle would be the opposite of what is traditionally called "Particle Movement." However, whether the particle moves or not, we know that we have the same sentence with the same phrasal/"prepositional" verb since the meaning is exactly the same. Nevertheless, it must be noted that the particle counting as a PP is a phrase that comprises a head but no complement (2a). It can take a modifier

(2b) plus it may take a complement (see the completion in (2d)), but the main distinction between phrasal and prepositional verbs is still in effect because the "adverbial" particle (PP) can never take the object NP as its complement to form a full PP with, whether being separated or not.

(2) e. *Drunks would put [$_{\text{PP}}$ off the customers.]
f. *Drunks would put the customers [$_{\text{PP}}$ off the customers.]

1.3 Particle Movement

Let us now review the main points of two markedly different approaches to phrasal verbs. According to the traditional approach, the particle is an adverbial to the verb and it enters into a complex lexical verb (hence the name) with the verb in the D-structure (Akmajian et al. 1984 : 200–204). In other words, the particle is between the verb and the object underlyingly. At S-structure, an optional movement to the right of the object is possible, which is called Particle Movement (*op.cit.* : 202). However, Particle Movement (normally an option) becomes compulsory if the object is a personal pronoun. On the other hand, it cannot apply if the object NP is very "long" (phonologically "heavy"). It seems to follow from this that optionality is largely dependent upon the "size" of the object NP (the personal pronoun normally being very "light").

(6) c. You may look up [$_{\text{NP}}$ the word that you've been trying to guess].
d. ?*You may look [$_{\text{NP}}$ the word that you've been trying to guess] up.

As we have seen before, Radford (1988 : 90–101) claims that a phrasal verb is separated at D-structure and the particle is a PP in this case (see **1.2**). Thus, the optional movement that takes place in this framework is the exact opposite of Particle Movement, a reason why I call it Inverse Particle Movement (IPM). Naturally, optionality changes accordingly with personal pronouns and "heavy" NPs as objects since this model is to describe the same linguistic data. Otherwise, by S-structure IPM may (optionally) move the particle leftwards, between the verb and the object NP. However "innocent" this movement may seem, it raises some very crucial theoretical questions about transformations in general since the particle, after the application of IPM, seems to be "only" a P, and not a PP, as before the movement. The explanation for this is evident: when the particle is next to the verb, it cannot be pre- or postmodified so there is no reason to assume that it is a PP (unless we can come up with some sensible constraints), otherwise it must be a P (lexical category). The question is, then, the following: do we allow movement to change the syntactic category of the element moved? The answer to this is definitely no, since movement (assuming the basic principle of structure preservation) should only move elements and not do anything else to them. Then how can we resolve this contradiction? One possibility would be to presume that we are only moving the head (P) of the PP to the verb and not the whole phrase. However, that would also present a host of other serious problems (e.g., why cannot the specifier and the complement position of the PP continue to be filled in after head-movement has taken place?), so I will reject this alternative.

A possible answer is as follows: suppose that the particle is a PP even when it is non-separated. This is the position I am going to assume in this paper. Then the problem arises: why cannot we have the premodifier and the complement position filled in? I can provide no satisfactory answer to it at this stage but later in this paper I will try to give a possible explanation.

Another way around the problem would be to assume that the separated and the "corresponding" non-separated phrasal verbs are syntactically unrelated, a position which is hard to defend, given the semantic proximity (if not identity) of the structures in question.

Supposing, then that the particle is a PP, whether separated or not, one is tempted to test this assumption by clefting. This clefted version of (1a) is, however, ungrammatical.

(1) d. *It is *off* that drunks would put the customers.

Nevertheless, one should not necessarily consider failure on one constituency test as making the assumption unsustainable altogether. A possible reason why the particle (PP) cannot be clefted has certainly got to do with the fact that it is a single element PP, where only the head (P) position is occupied. While single element NPs (personal pronouns, names etc.) can be clefted, they can still be considered as full phrases since Ns do not have compulsory complements. On the other hand, prepositions do normally have NP complements, so if a PP, for some reason, is short of an NP complement, it is far from being a "PP proper" and thus its behaviour (e.g., in clefting) may be quite different. However, the fact that (at least) some particles can be expanded to full PPs (see (2d)) strongly suggests that the particle is a phrase (PP) on its own, with the Spec and Comp positions unfilled, and expansion simply fills both or one of these positions, rather than builds these positions around a lexical category (P), which would mean that the PP is only created by virtue of the expansion. I find this latter position unacceptable because it violates the Projection Principle.

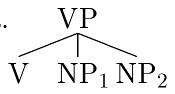
2 Larson's VP-shell hypothesis (1988)

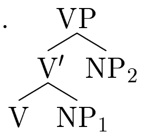
In this section I will give an overview of the motivation Larson has in proposing his theory of VP-shells. The VP-shell hypothesis in the analysis of double object constructions (DOCs) is, in my opinion, highly relevant to the analysis of transitive phrasal verbs. More specifically, if the particle is a PP, then transitive phrasal verbs are prepositional ditransitive verbs (V–NP–PP)—in other words—double complement verbs, quite close structurally to double object verbs (V–NP–NP), a claim that is also supported by Dative Shift. By adopting Larson's VP-shell treatment of double object verbs, we may give a fairly straightforward account of word order phenomena in phrasal verbs, where IPM will be replaced by V-raising in the Larsonian shell.

2.1 Motivation: Double Object Constructions

Double object constructions include sentences involving ditransitive verbs (*give, send, show* etc.); "heavy NP shift" transformations etc.

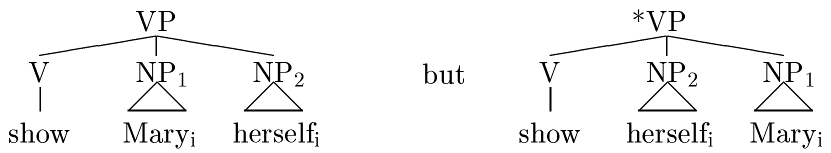
Among other models, the following structures were proposed to account for double object constructions (Larson 1988 : 336f):

(7) a.


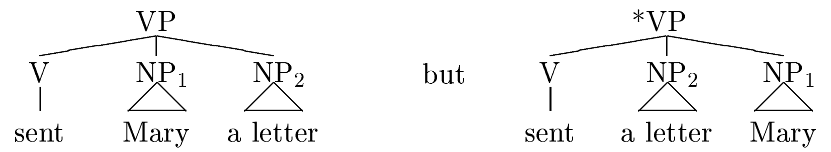
b.


One can easily point out the inadequacy of these models by presenting counterexamples. For instance, (7a) would suggest a completely symmetrical behaviour of the two NPs, which they do not exhibit since commutability is not always possible. To illustrate this, we can provide the following examples (*op.cit.* : 337):

(8) The psychologist showed Mary herself.

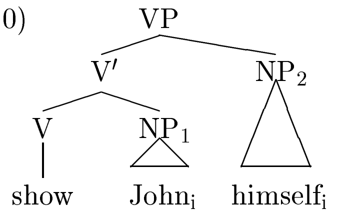


(9) John sent Mary a letter.



Similarly, the other model (7b), proposed by Chomsky (cited in Larson *ibid.*), fails abominably on phrases involving anaphors.

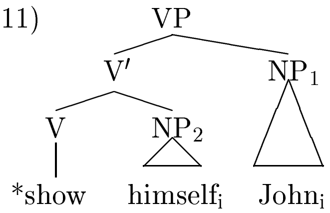
(10)



The structure presented above violates the Binding Principle on two accounts. NP_1 (*John*) is an R-expression, which must be free everywhere, but it is bound. On the other hand, NP_2 (*himself*) is an anaphor (reflexive pronoun), which must be bound in its governing category, but it is free.

Similarly, this model may be debunked essentially along the same lines but with the argumentation going in the opposite direction. One might claim that this representation is wrong because it generates structures that should be well-formed because they comply with the Binding Principle but, in fact, they are ungrammatical.

(11)



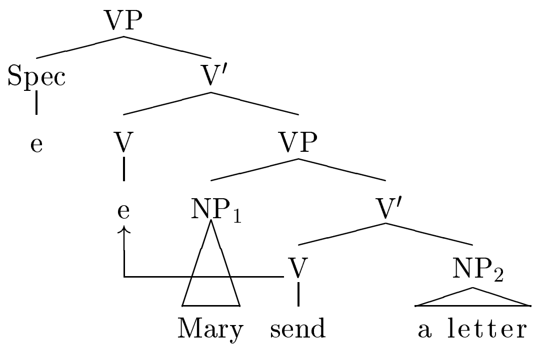
2.2 Larson's solution: VP within the VP (the VP-shell hypothesis)

To capture the structural properties of DOCs, Larson (1988) proposes a "rightward is downward" binary-branching model as shown in (12).

The model involves a lower VP, in other words, a VP-shell embedded in the higher VP. This configuration is unusual in many ways.

Since Larson proposes a VP complement to the higher V in order to enable his model to account for the presence of two objects under his self-imposed constraints ("rightward is downward," binary branching), we may wonder what occupies the two V terminals when we have only one verb (a single predicate). He claims that the verb is in the lower V position while the higher V position is empty at D-structure. By S-structure, however, the verb will raise to the higher V position, leaving a trace behind in the lower

(12)



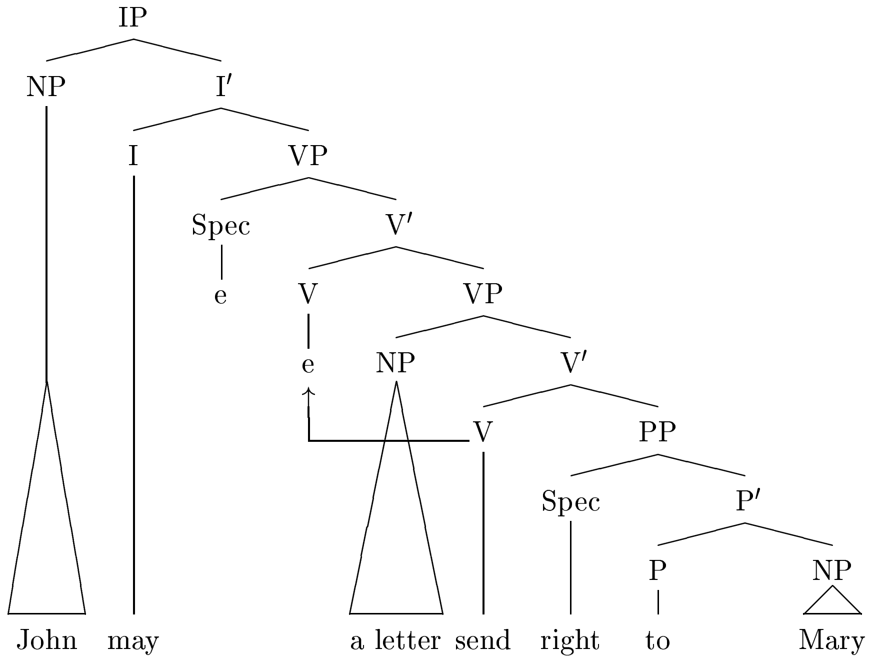
position. This trace will be properly governed by the verb, in compliance with the Empty Category Principle (antecedent government). Also, both NP_1 and NP_2 will be assigned accusative Case under government by the verb (and its trace) at S-structure.

V-raising proposed by Larson (1988 : 342f) has some appeal in that it associates the same (single) verb with both V positions, but does it have any other motivation? Larson claims that the reason why the verb has to raise to the higher V position is because it has an undischarged θ-role (GOAL in this case) that it has to assign to NP_1. This explanation, however, has its weak points. Jackendoff (1990 : 450), for instance, has strongly criticised Larson's V-raising analysis for its consequence, namely that θ-role assignment is not complete at D-structure, only at S-structure (after the verb has moved), which runs counter to the definitional property of D-structure θ-role assignment in Government and Binding. Jackendoff's (1990 : 445, 452) other main problem with Larson's hypothesis is that placing a complement (NP_1) of the verb in the Spec of the lower V position confuses basic standard X-bar notions and is unprecedented. However serious these criticisms may be, I will not address them here as they are not in the main scope of this paper. For now, I will just assume (together with Pesetsky (1995)) that neither of these problems will make Larson's VP-shell hypothesis necessarily unsustainable. The peculiar structural properties that DOCs have in a VP-shell model may still be accommodated in syntactic theory.

2.3 Other double complements and heavy NP shift: the V′ reanalysis

Let us now take a look at the following example of a double complement construction (V–NP–PP) as proposed by Larson (1988). As it is shown in (13), the VP-shell hypothesis can also be utilised in double complement constructions other than DOCs.

(13)



If we now take a look at "heavy NP shift" transformations we can say that there are two basic ways to account for them, based upon the fact that the positions of constituents are inherently relative with respect to movement, so the same S-structure may be the result of a different D-structure derived by a different movement (opposite direction). (14) shows the traditional approach, in which the NP moves rightwards to the end of the sentence, leaving its trace immediately after the verb. The other possible explanation, in (15), presumes "complementer movement," that is, it views the given structure as a result of a movement that raises (leftward movement) the reanalysed V (V′→V) into a postulated empty V position right in front of the NP, as in (17).

(14) I gave *t* to Jim [$_{\mathrm{NP}}$ everything that I owed him]

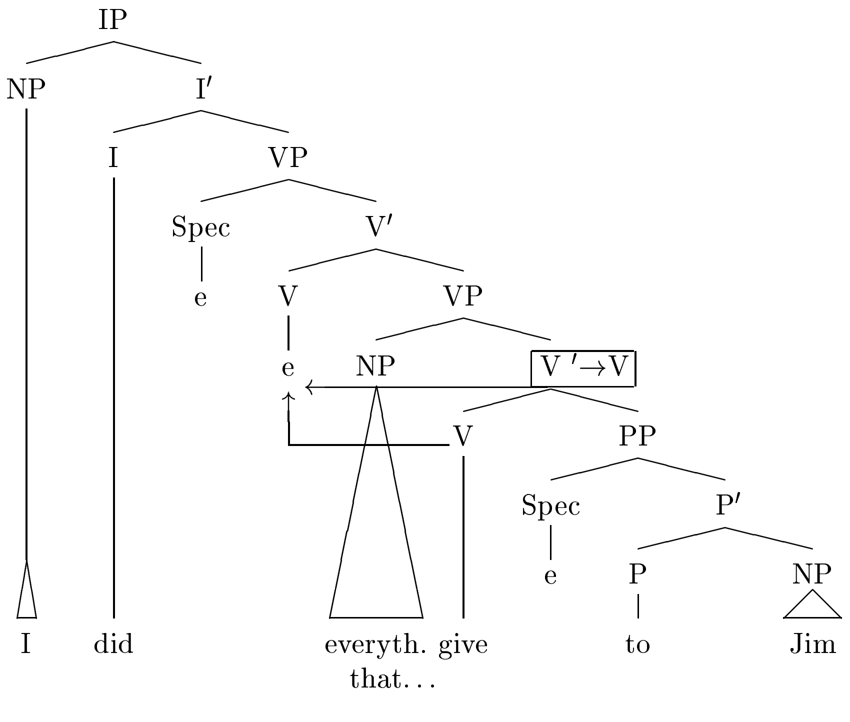
(15) I [$_{\mathrm{VP}}$ *e* [$_{\mathrm{NP}}$ everything that I owed him$_{\mathrm{i}}$] [$_{\mathrm{V'}\to\mathrm{V}}$ gave to Jim$_{\mathrm{i}}$]]

As we will see, the conditions of application of the V′ reanalysis far from being unproblematic. Larson gives his V′ reanalysis as an optional rule by which a V′ may be reanalysed as a V, if it contains exactly one undischarged internal θ-role (1988 : 348f). This thematic role (assigned to *Jim,* obviously) might be identified as the RECIPIENT. Since his conditions for V′ reanalysis hold, he adopts the latter perspective on these transformations and renames "Heavy NP Shift" as "Light (complex) Predicate Raising" (*op.cit.* : 347).

Larson's point about the optionality of V′ reanalysis can be disputed from a certain angle. Sentence (16) may be considered grammatical, but only on condition that the pronominal (*him*) and the R-expression (*Jim*) are *not* coreferential, otherwise we violate the relevant parts of the Binding Principle (see **2.1**). This constraint, however, does not apply to (15) (which, on the surface, reads as (14)), that is, the NPs mentioned above may well be coreferential. It is a rather serious discrepancy that obviously weakens the validity of the optional status (vs. obligatory application) of the V′ reanalysis rule with complex NPs (they are the "heaviest" kind of NPs, as in the example).

(16) *I [$_{\mathrm{VP}}$ gave[$_{\mathrm{NP}}$ everything that I owed him$_{\mathrm{i}}$] [$_{\mathrm{V'}}$ [$_{\mathrm{V}}$ *t*] to Jim$_{\mathrm{i}}$]]

(17)[1]



[1] The arrows indicate that *either* one *or* the other movement takes place, optionally.

3 A VP-shell analysis of phrasal verbs

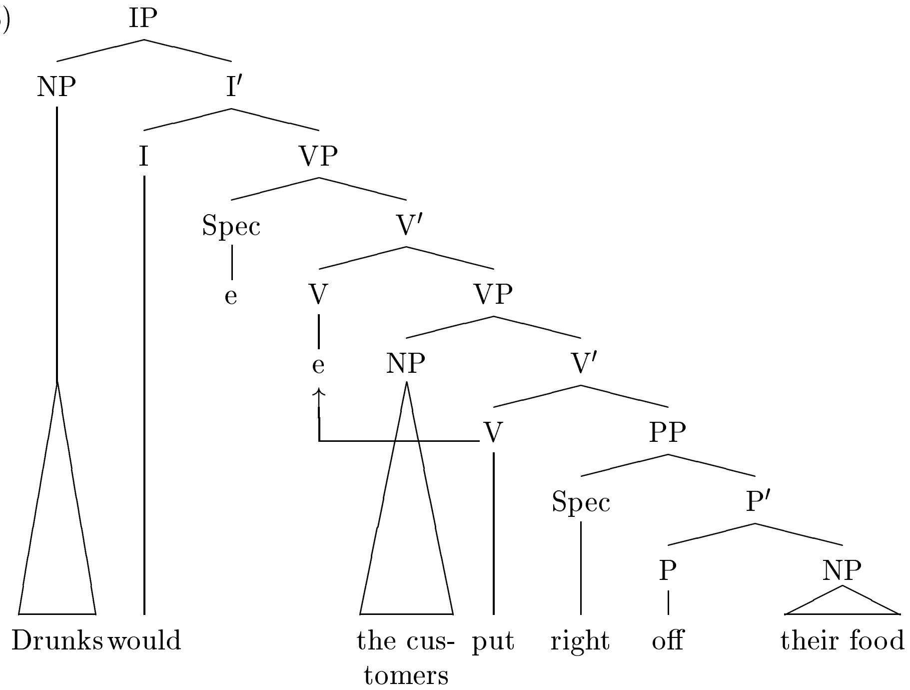
In this section, I propose that Larson's VP-shell analysis of DOCs is successfully applicable to transitive phrasal verbs (the latter being double complement constructions), although the conditions under which the $V' \to V$ reanalysis works in phrasal verbs are rather different from the ones that Larson states for DOCs. However, this discrepancy can be ressolved since Larson's conditions themselves are highly stipulative.

3.1 Facts and problems of application

Transitive phrasal verbs can also be regarded as double complement constructions (V–NP–PP). In this framework, phrasal verbs are syntactically nothing else but prepositional verbs, from which the verb is extracted by the type of V-raising put forward by Larson.

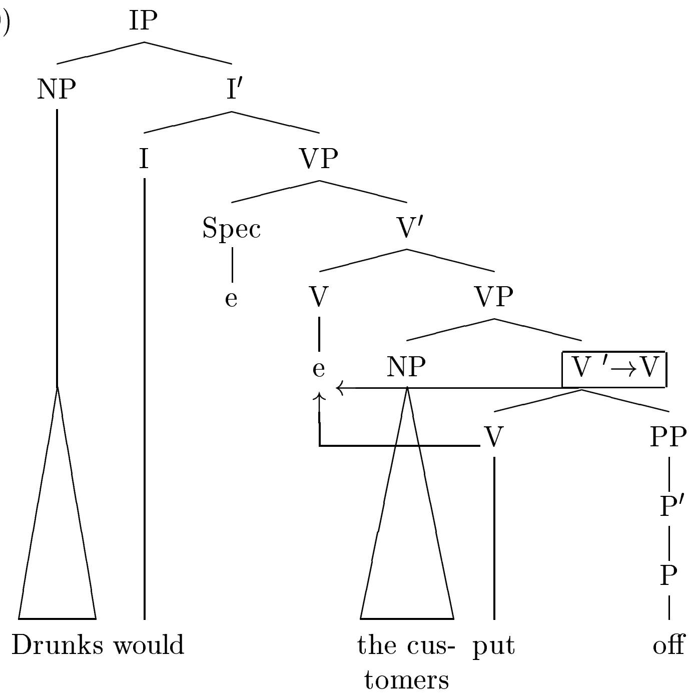
(2) d. Drunks would put the customers right off their food.

(18)



(2) Drunks would put off the customers.
a. Drunks would put the customers off.

(19)



What supports the claim that the particle here may not be a PP but "only" a P, if we want the V′ reanalysis to work? There is some theoretical opposition to presuming that a lexical category (even if reanalysed from a V′) may contain a phrase (maximal projection) as its constituent, although Larson's V′ reanalysis in (9b), for instance, also results in a V that contains a phrase category (PP) (1988 : 348).

The reanalysis in this case is only possible if the PP does not have a premodifier or a complement (NP), that is, if the PP consists of a P only. One could easily argue that in this case, it is just a P and not a PP, a position that has some justification (see previous paragraph) but if we accept it, we will be faced with an even more crucial theoretical problem: why do the two sentences require a different syntactic category for the particle when the phrasal verbs in them are believed to be identical (or at least so closely related semantically that we have no basis to consider them different verbs)? It is for this reason that I take the position that the particle must be a PP, even when non-separated (i.e., when the V′→V reanalysis is available) and I will suggest a possible explanation in **3.2** for why we cannot fill in any other position in the PP (i.e., other than the head) in this case.

3.2 Main point and conclusion

To sum it up, Larson's reanalysis rule can be adapted to phrasal verbs, with the important modification that the conditions of application are rather different. While Larson postulated one and only one undischarged θ-role within the V′ to validate the reanalysis, here a markedly different condition seems to hold as far as θ-roles are concerned: the V′ in phrasal verbs may only be reanalysed if they do not contain any θ-roles at all. The reason for this might have to do with the need to make the V′ as "light" as possible in order to facilitate the V′ reanalysis with object NPs that are not so "heavy" on absolute terms (e.g., the customers, which could obviously be "heavier" if it were a complex NP), but they may count as "heavy" relative to a very "light" V′. Larson also talks about "light predicate raising" when paraphrasing "heavy NP shift," which further supports the cruciality of relative phonological "weights" of constituents in the analysis (*op.cit.* : 347).

One may argue that this condition is almost the exact opposite of Larson's condition for the reanalysis so it is disputable if the two types of V′ reanalysis can be identified as one and the same rule applicable on different conditions.

Another important condition of Larson's reanalysis is that the NP occupying the Spec of the VP-shell must be "heavy" enough. This tendency remains valid for the V′ reanalysis in phrasal verbs as well but on a different scale. If the NP in question is any heavier than the "lightest" possible NP (a pronominal: just a small set of features) then the reanalysis is optional, as with Larson. For instance, if it is a full NP comprising a Determiner and a Head such as *the customers,* it is already "heavier" than a pronominal and consequently the V′ reanalysis will be an option. However, if it is a pronominal (i.e., a personal pronoun; the "lightest" kind of NP) then the reanalysis is not applicable (only the real V is raised), which conveniently explains why we have compulsory "separation" (see the earlier terminology) when the object is a personal pronoun.

On the other hand, if the object NP is a complex one (the "heaviest" case) the separation is quite unacceptable (see (6d) in **1.3**), which means that the V′→V is obligatory, as I have indicated may well be the case with Larson's analysis of "heavy NP shift" transformations, too (see **2.3**).

Thus, as we have seen, by and large the same tendencies (rules?) and determining factors (conditions?) seem to be at work in both Larson's original version of the VP-shell hypothesis and my application of it to phrasal verbs. However, even in the light of Larson's hypothesis, the main distinction between (transitive) phrasal and prepositional verbs is still basically valid since the former are double object constructions, whereas the latter are not. The status of the particle in these structures is also different. As for phrasal verbs it is a PP (phrase), whereas it is a P (lexical category) in prepositional verbs (i.e., we must have an NP complement in the PP in this case) so the traditional names happen to be relevant, not only in the original sense but with reference to the category of the particle (a phrase (PP) vs. a preposition (P)).

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