
Keywords: particle-verb constructions, continuous order, discontinuous order, complex verbal head, focus feature

1. Introduction

In the recent literature, English particle-verb constructions (henceforth, PVCs, for expository convenience) such as (1)–(3) have, in general, been analyzed mainly in three ways, as in (4).¹

(1) He cut off the branches. / He cut the branches off.
(2) The store keepers took in the students. / The store keepers took the students in.
(3) I’ll look up the information. / I’ll look the information up.
ii) A verb and a particle are combined together and gener-

* I would like to thank two anonymous EL reviewers for their invaluable comments and suggestions. Needless to say, all remaining inadequacies are my own.

¹ In previous studies, the constructions relevant here are normally referred to as ‘verb-particle’ constructions when Present-day English facts are dealt with, because verbs normally precede particles in the language. Unwillingly following the book under review, I dare to use the term ‘particle-verb (PV)’ instead of the term above, though this book deals mostly with Present-day English data.
ated as one single complex verb in all PVCs. (cf. Johnson (1991), Koizumi (1993), Olsen (2000), etc.)

iii) The structures of PVCs differ with their types: idiomatic type, semantically transparent (compositional) type, etc. (cf. Aarts (1989), Ishikawa (1999, 2000), etc.)

As for (4iii), a particle and a verb in the idiomatic type (e.g. take in (= deceive)) form one single complex verb as in the case of (4ii). In the semantically transparent (compositional) type (e.g. carry away), where both a verb and a particle have their own literal meanings, these two are originally separated as in the case of (4i). The analysis in the book under review belongs to (4ii). The book further develops the analysis of the structure and the derivation of PVCs by incorporating the theories of information structure and focus.

In this review article, I will first outline Dehé’s approach to English PVCs. Then I will critically review her main proposals, and show that my analysis, i.e. a slightly revised version of Ishikawa’s (1999) analysis, can more successfully account for various facts of PVCs. Beyond the present introductory section, the paper consists of four further sections.

In section 2, Dehé’s (2002) basic ideas are summarized in comparison with previous analyses in the literature. Section 3 describes the main systems of Dehé’s approach in more detail, and points out a number of problems for them. In section 4, I consider these problems within Ishikawa’s (1999) framework with a slight modification. Section 5 presents some brief concluding remarks.


The book is organized as follows. Chapter 1 introduces general remarks on the basic behaviors of English PVCs. Dehé focuses on transitive particle verbs as in (1)–(3), and refers to (5a) and (5b) as the continuous order and the discontinuous order, respectively.

\[
\begin{align*}
5 & \quad a. \quad V -prt- object DP \\
& \quad b. \quad V- object DP - prt \quad \text{(cf. p. 3)}
\end{align*}
\]

Then Dehé classifies English PVCs into three groups (cf. 3.2.1).

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2 In Wurmbrand’s (2000) analysis as well, the structures of PVCs differ with their types, but it deals mainly with German facts; hence it is not listed in (4iii). Dehé rejects this analysis (cf. (6v)).
Chapter 2 examines the following types of previous analyses:

(6) i) the traditional analyses ... Radford (1988), etc.

ii) the small clause analyses ... Kayne (1985), Hoekstra (1988), den Dikken (1995), etc.

iii) the extended-VP-analyses (EVPAs)
   a. the analyses where a verb and a particle are generated as separate heads ... Radford (1997), Harley and Noyer (1998), Nicol (2002), etc.
   b. the analyses where a verb and a particle form a complex verbal head ... Johnson (1991), Koizumi (1993), Olsen (2000), etc.

iv) the analyses that view a particle as a functional category ... Solà (1996), Dehé (2000), etc.


Dehé basically agrees with the type in (6iiib), which falls under (4ii), but rejects all the other ones in (6). Four of these, i.e. (6i), (6ii), (6iii), and (6iv) all fall under (4i), and the type in (6v) includes the approaches in (4iii), i.e. Aarts (1989). Ishikawa (1999, 2000).³ As for (6i), (6ii), and (6iv), for example, their typical underlying structures of PVCs are schematically represented in (7), (8), and (9), respectively (p. 6, p. 22, pp. 61-62).

(7) a. Discontinuous construction:
   \[ VP \ [v \ put] \ [NP \ the \ customers] \ [PP \ off] ]

b. Continuous construction:
   \[ VP \ [v \ [V \ put] \ [P \ off]] \ [NP \ the \ customers] ]

   (cf. Radford (1988: 91, 100))

(8) ... V [SC NP Part] (cf. Kayne (1985))

(9) [CP ... [MoodP \ [TP ... [RelTP ... [AspP \ Spec \ [Asp' Asp^0 \ ate_i \ [TelP \ [the \ cake_k \ [Tel' \ [Tel \ up] \ [VP \ tsubj \ V' \ [ti \ tk]]]]]]]]]] \ (RelTP = Relative Tense Phrase (Relative Tense appears as auxiliary verbs.),
   Tel = Telicity, Asp = Aspect) (cf. Solà (1996: 228, 246))

The reason why Dehé rejects (6i) is that the structure in (7a) does not follow the binary principle, which is adopted in the book under review.

³ But in chapter 5, she adopts Ishikawa’s theoretical device, which successfully deals with excorporation of a verb from a complex head ‘verb-particle.’ For details, see 3.3.1.
The guiding ideas in this book follow Chomsky’s (1993, 1995) Minimalist Program and related work, where the binary principle is a consequence of merge, which is the central operation within the sentence building process. For (6ii), Dehé raises a lot of problems (pp. 19–36). For example, small clauses generally allow the insertion of an infinitival to be or paraphrasing of the construction by a semantically equivalent CP, as illustrated in (10) (p. 20).

(10)  
  a. I consider [SC John [NP a fool]].
  vs. I consider [John to be a fool].
  b. Nobody heard [SC it [VP rain last night]].
  vs. Nobody heard [it rained last night].

But neither of these relations can be established for PVCs, as shown in (11) (p. 20).

(11)  
  He looked [? the information up].
  vs. *He looked [the information to be up].
  *He looked [that the information was up].

With respect to (6iv), Dehé points out that the analysis in (9) can only account for the discontinuous, but not the continuous structure. In (9), the overt movement of the object and the verb leaves the particle in a position that cannot be adjacent to the verb (p. 60).

As for (6iiib), the underlying structure of the verb-particle unit for all PVCs is schematically represented in (12).

(12)  
[VP [V V Prt]]

Though she follows this basic line, Dehé points out theoretical shortcomings with some of the approaches listed in (6iiib). Especially, she notes that the choice of the surface word order, i.e. the continuous order in (5a) or the discontinuous order in (5b), is perfectly optional in Koizumi’s (1993) and Johnson’s (1991) analyses. To the contrary, she claims that the choice is not optional, but driven by the information structure of the context in which a PVC appears (p. 71).

In chapter 3, Dehé briefly introduces the factors that have been suggested as governing the alternation of word order, and claims that the continuous order is the underlying one from which the discontinuous order must be derived by means of a syntactic operation.

Chapter 4 is devoted to the analysis of the word order alternation above on the basis of the theory of information structure. She suggests the hypothesis that the information structure of the context in which a PVC occurs is a determining factor in the choice of the word order. By conducting two experimental studies, she provides strong additional
Chapter 5 is the core of the discussions of the syntax of PVCs. Assuming a clause structure like the ones in some of the analyses in (6iiiib), Dehé attempts to account for the derivations of PVCs with the continuous order and the discontinuous order. She encodes the role that information structure plays with regard to the placement of a verb and a particle in the syntactic structure. Specifically, she postulates a structure for PVCs which integrates a focus feature, and assumes a condition on focus domains. This condition triggers the excorporation of only a verbal portion from the complex head ‘verb + particle,’ with a particle stranded. This process gives rise to the discontinuous order, as schematically shown in (13).

(13) ... \[vP [v V_i] [AgrOP obj.DP] [AgrO \tau_i] [VP [v t_i Prt] \tau_j]]

Chapter 6 concludes her study with a summary and an outlook to possible future research.

3. Dehé’s Approach to English PVCs

In this section, I will present the basic syntactic properties of English PVCs and examine Dehé’s approach, focusing on the classification of PVCs, the derivations of PVCs and ‘V plus adverb’ constructions, her arguments for the complex verbal head, and the motivation for excorporation of V from the complex verbal head on the basis of the information structure.

3.1. Basic Syntactic Properties

Dehé describes the basic syntactic properties of PVCs in the same way as previous approaches like Bolinger (1971) and Fraser (1976) do.

She first presents the typical behaviors of PVCs: a particle can precede an object DP and occur in the position adjacent to a verb, as in (5a) and it can follow an object DP, as in (5b). This latter order is obligatory with unstressed pronouns, as shown in (14).

(14) He wiped it off. /*He wiped off it.

She next shows in what syntactic points a particle is distinguished from a pure adverb and an ordinary preposition. The distinction between a particle and a pure adverb is that the former can precede an object DP, as in (15a), while the latter cannot, as in (15b) (p. 4).

(15) a. Nicole carried *out, in, up, down, along, around, back the basket.
b. *Nicole carried/pushed upwards, inside, ahead, together the chairs.

A particle is different from an ordinary preposition in that the former can follow a direct object, as in the second example of (16) while the latter cannot, as in the second case of (17) (pp. 4–5).

(16) He picked up the handout. / He picked the handout up.
(17) He walked up the road. / *He walked the road up.

3.2. Classification

3.2.1. Three Groups

Dehé classifies English PVCs into the three groups in (18) on the basis of their syntactic and semantic properties (pp. 6–7).

(18) a. Compositional PVCs
b. Idiomatic PVCs
c. Aspectual PVCs

The examples of (18a), (18b), and (18c) are shown in (19), (20), and (21), respectively (p. 6).

(19) a. Sheila carried in the bags. / Sheila carried the bags in.
    b. Sam took out the clothes. / Sam took the clothes out.
(20) a. You shouldn’t put off such tasks. / You shouldn’t put such tasks off. (‘postpone’)
    b. The baby threw up the meal. / The baby threw the meal up. (‘vomit’)
(21) a. John ate up the cake. / John ate the cake up.
    b. Ann used up her money. / Ann used her money up.

With compositional PVCs, their meaning is made up of the literal meaning of the verb plus the literal meaning of the particle. The particles in this group are often directional or spatial in meaning, as in (19). In this use, the particle can often be replaced by an appropriate (directional) PP, as in (22).

(22) a. The lady put the hat on/on her head.
    b. Sheila put the books away/on the shelf/there.

As for examples of (18a) with the discontinuous order like the latter sentences in (19a, b), it should be noticed here that Dehé’s view is different from that in previous standard approaches like Bolinger (1971)

and Fraser (1974a, 1976). Dehé follows Olsen (1998, 2000) in arguing that there is an ambiguity between compositional PVCs and ‘V plus adverb’ constructions only in the case where adverbial elements follow object DPs (p. 5, p. 21, pp. 56–57, p. 99, p. 264). Specifically, in the latter examples in (19a, b), the adverbial elements in, up, and out are ambiguous between true particles on the one hand and pure adverbs on the other (for the details of the structural difference between the two, see 3.3.1). Henceforth I will use the term ‘adverbial elements’ as the one covering true particles and pure adverbs. In the standard view, by contrast, the adverbial elements in these examples are unambiguously regarded as pure particles for the reason that the adverbial elements can precede object DPs, as shown in the former examples in (19a, b). In the former examples in (19a, b), however, the adverbial elements are unambiguously pure particles in both Dehé-Olsen’s view and the standard view. Note also that in the case of idiomatic and aspectual PVCs, there is no such ambiguity between the two constructions above (p. 100). Dehé-Olsen’s view, which seems problematic to me, will be discussed in more detail in 3.3.1 and 3.3.2.

3.2.2. A Problem

The classification describes the main differences in syntactic and semantic property among the groups of PVCs, but it does not seem to be completely clear-cut. Consider the following examples:

(23) a. I’ll look up the information. / I’ll look the information up.

b. The student figured out the problem. / The student figured the problem out.

The verb-particle combinations look up and figure out carry the idiomat-
ic meanings ‘examine’ and ‘solve.’ Thus it seems that the cases in (23) fall under the group of idiomatic PVCs. But note that the particles up and out can be modified by an intensifier such as right, as shown in (24).

(24) a. I’ll look the information right up. (Fraser (1974a: 25))
    b. The student figured the problem right out. (ibid.)

Quirk et al. (1985: 1152–1154) and Konishi (1989: 1569) observe that when a particle carries its own clear meaning, the particle can be modified by an intensifier like right; when the meaning of the particle is thin, the acceptability of a sentence with such a modification is low in general, as in (25).

(25) a. *John put his vacation right off until Christmas. (put off = postpone) (Emonds (1972: 552))
    b. *Bill should take his friends right up on their offer. (take up = accept) (ibid.)

The examples in (25) include more idiomatic PVCs. Unlike (25), (24) indicates that the particles up and out in (23) carry their own meaning ‘perfective or completive.’ From this consideration, we can say that the cases in (23) also fall under the group of aspectual PVCs. Should the cases in (23) belong to the group of idiomatic PVCs or that of aspectual PVCs?

3.3. Derivations

As we have seen in section 2, Dehé analyzes a verb-particle combination as a complex verbal head for all PVCs, i.e. all three groups of PVCs in (18), as shown in (12) (cf. (6iiib)). This section first schematically presents Dehé’s clause structure and V0-internal structure, and the derivations of PVCs and ‘V plus adverb’ constructions (cf. 3.2.1). I will next point out a number of problems.

3.3.1. PVCs and ‘V Plus Adverb’ Constructions

Essentially following Johnson (1991), Koizumi (1993), and Lasnik (1999), Dehé assumes the following clause structure:

(26) \[AgrSP AgrS [TP T [vP subj.DP [v [AgrOP [AgrO’ AgrO [VP [V v obj.DP]]]]]]]]

In (26), the verb V moves to AgrO to check its Agr-features, then on to v in overt syntax, and the object DP raises, equally overtly, to Spec-AgrOP to check its Case feature (p. 239ff). Dehé further adopts Ishikawa’s (1999, 2000) V0-internal structure in the two V0-internal
The category V^0 is divided into three levels: the lowest level V^{00} (a verb stem), the middle one V^{01} and the uppermost one V^{02}. Syntactic rules like extraction (or excorporation (cf. Roberts (1993))) and incorporation (cf. Baker (1988)) cannot apply in domain A, but can in domain B. By contrast, morphological rules of word formation can apply in both domain A and domain B.

Based on (26) and (27), Dehe argues that PVCs with the continuous order like (28a) are all derived as indicated in (28b) (cf. p. 241f).

(28) a. Nate put away the phone.
   b. \[
      \text{AgrSP} [\text{DP Nate}]_i \text{ AgrS} [\text{TP T [vP t_j [v} [V^{02} [V^{01} \text{ put}] \\
                     [\text{prt away}]])]_k \text{ AgrOP [DP the phone]}_i \text{ AgrO' [AgrO} \ f'_i \\
                     [\text{VP [v} \ t_i \ t_k)]]]]]]]]_j
   \]

In (28b), the complex head \([V^{02} [V^{01} \text{ put}] [\text{prt away}]]) is generated in the V position, and raises to v via Agr-O. PVCs with the discontinuous order like (29b) are all derived as in (29b) (cf. p. 245).

(29) a. Nate put the phone away.
   b. \[
      \text{AgrSP} [\text{DP Nate}]_i \text{ AgrS} [\text{TP T [vP t_j [v} [V^{01} \text{ put}])_l \text{ AgrOP [DP the phone]}_k [\text{AgrO'} \ f'_i \\
                     [\text{VP [v} \ t_i \ t_k)]]]]_j]
   \]

In this case, the complex head \([V^{02} [V^{01} \text{ put}] [\text{prt away}]) is generated in the V position, and then the verbal portion \([V^{01} \text{ put}]) is excorporated from within domain B of the complex head, with the particle \([\text{prt away}]) stranded. The discussion of what triggers the V-movements in (28b) and (29b) will be presented in 3.5.

Let us next see Dehe's structure of 'V plus adverb' constructions. Recall her claim that there is a structural ambiguity between these constructions and compositional PVCs in examples like (29a), as we have seen in 3.2.1. Following Olsen (2000: 153), Dehe assumes that the adverb occurs as PP in the complement position of V and an object DP is generated in the Spec-VP position in 'V plus adverb' constructions, as represented in (30) (cf. p. 265).

(30) \[
      \text{AgrSP} [\text{DP Nate}]_i \text{ AgrS} [\text{TP T [vP t_j [v} [V^{02} \text{ put}])_l \text{ AgrOP [DP the phone]}_k [\text{AgrO'} \ f'_i \\
                     [\text{VP t_k [v} \ t_i \ [pp away]])]]]_j]
   \]

But it should be noted here that in Dehe's analysis, once intensive mod-
ifiers of adverbial elements such as right/straight occur as in (31), examples involving such modifiers unambiguously fall under ‘V plus adverb’ constructions (cf. pp. 99–100, p. 265).

(31) Nate put the phone right away.

The reason is that no modifier can be intervened between the verb and the particle within the underlying complex head (cf. (29b)) (p. 260). Thus the adverbial elements in cases like (31) are unambiguously pure adverbs, no longer particles. In her analysis, such modifiers are generated within PP, as in (32).

\[
(32) \quad \text{[AgrSP \ [DP \ Nate]j \ AgrS \ [TP \ T \ \_j \ [vP \ t_j \ [v \ \_i \ [v_02 \ \_i \ [\text{put}\_i]]]]]} \quad \text{[AgrOP \ [DP \ the \ phone]_k \ [AgrO' \ t'_i \ [vP \ t_k \ [v' \ t_i \ [PP \ \text{right \ away}]]]]]}
\]

Dehé herself does not explicitly show the specific positions of the modifiers (p. 265). But if we adopt Olsen’s (2000) analysis of such intensive modifiers, which Dehé follows, we can say that the modifiers are adjoined to PP (cf. Olsen (2000: 155)).

3.3.2. Problems

Dehé’s analysis faces three problems. The first concerns the ambiguity above. Let us now consider this from a semantic viewpoint. If the adverbial element in the pattern ‘V + obj. DP + adv. element’ is a particle, then it should carry both of the meanings in (33) as its defining property (cf. Visser (1963: 597), Bolinger (1971: 85), Tenny (1994: 148)).

\[
(33) \quad \begin{align*}
\text{a.} & \quad \text{motion-through-location or direction} \\
\text{b.} & \quad \text{terminus or result}
\end{align*}
\]

In (29a), for example, away as a particle carries both meanings ‘separation’ and ‘a terminus or a result state, i.e. the phones being away from a place.’ As for (33b), Tenny claims that a particle provides an endpoint to the scale on which the event expressed by a verb is measured out. Tenny motivates this by examples with ‘in/for + time’ phrases like (34).

\[
(34) \quad \text{look an article over in an hour/*for an hour} \quad \quad \text{(Tenny (1994: 148))}
\]

The temporal adverbial in-phase shows that the event continues for an hour and then stops. The for-phase shows that the event continues over an hour’s duration but does not of necessity stop after an hour. The grammaticality in the case of in an hour in (34) makes it clear that the particle over carries the meaning in (33b).

If the adverbial element in the pattern ‘V + obj.DP + adv. element’ is
an adverb, then it should not carry both of the meanings in (33). A question then arises of which meaning of the two it carries. The pure adverbs Dehé presents in contrast with particles are *ahead, behind, and upwards.

(35)  
   a. Nicole carried the basket ahead, behind, upwards.
   b. *Nicole carried ahead, behind, upwards the basket. (p. 57)

Under Dehé’s analysis, the adverbial element as a pure adverb in examples like (29a) should be dealt with on a par with *ahead, behind and upwards. According to Bolinger (1971: 85), *behind and *upward(s) have the meaning in (33a) but not that in (33b). The adverb ahead, which means ‘forward,’ also has only the meaning in (33a), as is clear from the following examples with ‘in/for + time’ phrases:  

(36)  
   a. ??Mike pushed the cart ahead in two minutes.
   b. Mike pushed the cart ahead for two minutes.

The strangeness of (36a) shows that ahead does not carry the meaning in (33b). From this consideration, it follows that the adverbial element in instances like (29a) also has an ambiguity between (i) both (33a) and (33b) (as a particle) and (ii) only (33a) (as a pure adverb). Here Dehé’s analysis is insufficient in that she does not empirically consider in what cases the adverbial element has the meanings in (i) and in what cases it has the meaning in (ii).

The second problem concerns the semantic property of the pure adverbs with modifiers such as right. In Dehé’s system, if the modifier is added to the adverbial elements, they are not particles but pure adverbs. This suggests that they must have only the meaning in (33a) but never the meaning in (33b). But the meaning of the modifier right is ‘quite or completely’ (cf. OED). This indicates that the adverbial elements carry the meaning in (33b) (as well as the meaning in (33a)). In (31), for example, right away has the meaning ‘quite or completely away,’ which is a resultant state, as well as its directional meaning. Thus unlike Dehé, we can conclude that even if the modifier is added to adverbial elements, or rather just because it is added, the adverbial elements are particles.

The third problem concerns Dehé’s complex verb analysis of aspectual PVCs. In this analysis, modifiers like right should never be added

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6 The judgement of acceptability of (36) is based on the comments of two native speaking teachers of English in my university.
to the particles in aspectual PVCs, because there is no position for modifiers within the original complex verb \([V_0^2 V_0^1 \text{prt}]\) (p. 260). But see the following counterexamples:

(37)  
  a. I will clean the room right up. (Fraser (1974b: 573))
  b. Ben glued the chair right up. (Jackendoff (2002: 76))
  c. Aaron wiped the counter right up. (ibid.)
  d. Hilary packed the suitcase right up. (ibid.)

The grammaticality of (37) suggests that the particles should be generated as XP categories outside \(V_0^2\) in aspectual PVCs.

In section 4, I will show that Ishikawa’s (1999) analysis with a slight modification solves all the problems above.

3.4. The Status of the Complex Verbal Head
3.4.1. Dehé’s Arguments for the Complex Verbal Head

Dehé provides a number of arguments for the status of a verb-particle combination as a complex head. As space is limited, I will present only four of her arguments. First, verb-particle combinations are able to undergo morphological processes, such as nominalizations (38), adjective formation (39), and formation of middle constructions (40) (cf. Johnson (1991: 590f.)) (p. 48).

(38)  
  a. Mikey’s looking up of the reference.
  b. Their calling out of his name.

(39)  
  a. The dance seemed called off.
  b. the dusted off table

(40)  
  a. Bridges blow up easily.
  b. His car breaks down easily.

These examples suggest that the verb-particle combinations are single lexical items, i.e. single complex heads.

Second, the selectional requirements of the verb-particle combinations are not derived from the selectional properties of their parts. Verb-particle combinations as complex units can select CP-complements ((41); cf. Johnson (1991: 591)) or idiosyncratic prepositional objects ((42); cf. Olsen (1997: 58)) (p. 48).

(41)  
  a. We can’t make out \([CP \text{ whether he is lying or not}]\).
  b. Fill in \([CP \text{ whether you are married or not}]\).

(42)  
  a. let someone in \([PP \text{ on something}]\)
  b. fix someone up \([PP \text{ with something}]\)

Johnson claims that a particle undergoes Gapping with the verb and cannot be stranded, as shown in (43). In other words, what undergoes Gapping must be the whole complex head \([v \ V \ Part]\) (p. 49).

\[(43)\]
\begin{enumerate}
  \item a. Betsy looked up the address quickly and (*up) the phone number slowly.
  \item b. Gary looked up Sam’s number, and Mitte, (*up) my number.
\end{enumerate}

Fourth, verb-particle combinations can be coordinated with simplex verbs, as shown in (44) and (45) (p. 49).

\[(44)\]
\begin{enumerate}
  \item a. I [brought out] and [aired] the flag.
  \item b. He [picked up] and [threw] the ball.
\end{enumerate}

\[(45)\]
\begin{enumerate}
  \item a. She [brought up] and [spoiled] her children.
  \item b. She [put up] and [entertained] her friends.
\end{enumerate}

The instances in (44) and (45) are compositional PVCs and idiomatic PVCs, respectively. In the next section, I will examine these arguments.

3.4.2. Problems

The arguments above seem to be unconvincing and dubious to some extent. As for the first argument, it seems that Johnson’s test by the morphological processes is not completely valid. It is doubtful whether the possibility of morphological processes such as (38)-(40) directly entails that verb-particle combinations form single complex verbal heads in all cases. In what follows, we focus our discussion on nominalization and adjective formation. Let us see some compounds such as (46) and (47), which underwent the morphological processes.

\[(46)\]
\begin{enumerate}
  \item a. truck-driving
  \item b. bell-ringing
  \item c. peacemaking
\end{enumerate}

\[(47)\]
\begin{enumerate}
  \item a. the stomped-flat grapes
  \item b. the spun-dry sheets
  \item c. the smashed-open safe
  \item d. the scrubbed-clean socks
\end{enumerate}

(Roeper and Siegel (1978: 207))

(Roeper and Siegel (1978: 208))

(Carrier and Randall (1992: 195))

Note that there are no original complex verbal heads like truckdrive, bellring, peacemake, stomp-flat, spin-dry, smash-open, and scrub-clean as single lexical items in the lexicon, and instead the parts of the compounds in (46) and (47) occur as separate lexical items in their underlying verb phrases like (48) and (49).
This suggests that the possibility of morphological processes such as (38) and (39) is not directly connected to the status of verb-particle combinations as single complex verbal heads. The compounds in (46) and (47) are derived by certain morphological rules from the verb phrases in (48) and (49), respectively. Thus we can say that Johnson-Dehè's tests by means of the morphological processes are not perfectly adequate.

With respect to the second argument in the preceding section, it seems that it only holds for idiomatic PVCs. It is indeed true that the selectional requirements of idiomatic verb-particle combinations like make out and fill in are not derived from those of their parts. But the selectional requirements of compositional and aspectual verb-particle combinations clearly are. In the case of the compositional PVC (19a), repeated here as (50), for example, the selectional requirement of the verb carry after the formation of the PVC is almost the same as that of the verb before it in (51).

(50) Sheila carried in the bags. / Sheila carried the bags in.

(51) Sheila carried the bags into the house.

In the original example (51), the verb carried selects the theme argument the bags and the directional argument PP into the house. Similarly in (50), the verb selects the theme argument the bags and the particle in with the meaning of direction 'inward' (and result state 'in some place'). According to Jackendoff (2002: 75), a particle with its directional use satisfies one of the verb's argument positions. Thus we can say that the particle in satisfies the PP argument position of carried. In the case of aspectual PVCs such as (21a), repeated here as (52), the selectional requirement of the verb ate after the formation of the PVC is almost the same as that of the verb before it in (53).

(52) John ate up the cake. / John ate the cake up.

(53) John ate the cake.

In (53), the verb ate takes the theme argument the cake. In (52), the verb selects the same theme argument. As for the particle up with
some completive meaning, Jackendoff (2002: 76) argues that it does not satisfy an argument position of a verb: it can freely be omitted. Hence we can say that the particle up functions as only a marker imparting its completive meaning to the verb rather than as an independent argument of the verb, unlike the case of its directional use. These considerations also suggest that Dehé’s second argument is valid only for idiomatic PVCs.

Dehé’s third argument seems to be appropriate at first sight, but it does not hold for all groups of PVCs. Before entering directly into the detailed discussion of the argument, it is worth noting the analyses against her view. Unlike her, Radford (1997), Harley and Noyer (1998), and Ishikawa (1999, 2000) assume that the complex verb \([V \ V \ \text{particle}]\) in the continuous order is not formed in the lexicon, but rather formed in overt syntax by incorporating a particle into a verb (cf. (6iii), (6v)). In Ishikawa’s (1999) analysis, for example, its derivation is represented as follows:

\[
(54) \quad \ldots [\text{V} [v_{02} [v_{01} \text{cut}] [\text{P off}]_j] [\text{PP } t_j]] \quad (\text{cf. Ishikawa (1999: 344)})
\]

For expository convenience, I refer to this opposing analysis as the incorporation analysis.

Let us now turn to Dehé’s argument. In her analysis, Gapping facts with the continuous order in compositional PVCs such as (55) are excluded on a par with (43).

\[
(55) \quad *\text{John will cut off the branches and Mary off the leaves.} \\
(Aarts (1992: 86))
\]

But in the incorporation analysis as well, a similar account can be provided for the ungrammaticality of such Gapping facts: what undergoes Gapping in (55) is only the verbal portion cut, but not the syntactically formed complex verb cut off. From this, we can say that the Gapping test is not adequate for the continuous order. Therefore it is necessary to see whether the Gapping test is valid for PVCs with the discontinuous order, where a verb and a particle can never be assumed to form a complex verb in overt syntax. In Dehé’s analysis, the discontinuous order is derived by excorporating \(V^{01}\) from \(V^{02}\) with a particle stranded, as we have seen in (29b). Again in this case, her analysis should predict that Gapping yields ungrammaticality, because what undergoes Gapping is still only the verbal portion \(V^{01}\). In accord with this prediction, Gapping cases in idiomatic PVCs are not grammatical, as in (56).

\[
(56) \quad a. \quad *\text{Gary looked Sam’s number up, and Mitte, my number}
\]
up. (look up = examine) (Johnson (1991: 591))
b. *Jones pulled the deal off, and Peters the money in.
   (pull off = succeed, pull in = earn) (Fraser (1974a: 3))
But the corresponding cases in compositional PVCs are grammatical, contrary to the prediction, as in (57).
(57) a. Jan will cut the branches off and Mary the leaves off.
   (Aarts (1992: 86))
b. Jones pulled the old tablecloth off, and Peters, the new one on.
   (Fraser (1974a: 3))
The grammaticality of (57) sharply conflicts with Dehé’s complex verb analysis. Thus, as a special case, Dehé attempts to view examples like (57) as the ones of ‘V plus adverb’ constructions, but not PVCs (p. 264, p. 266). Even if this might be correct, the Gapping test is not valid for compositional PVCs with the discontinuous order. Thus we can say that the test does not hold for compositional PVCs with either the continuous order or the discontinuous order.

Dehé’s next argument also seems to be dubious in that the examples of compositional PVCs in (44) can be derived without resort to postulating the underlying complex verbal head. Let us consider the derivation of (44a). Adopting Dehé’s clause structure in (26), I will assume its derivation within vP as in (58).

(58) a. \[vP \[DP I\] \[ AgrOP \[DP the flag\]j AgrO \[VP t] \]
   \[v \[v02 [V01 brought][P out][PP t]]\] and \[v \[v02 aired]]]]
   \[V\] \[V\] \[V\]
b. \[vP \[DP I\] \[v' \[v [v \[V02 [V01 brought] [P out][PP t]]\] [PP t]]\] and \[v \[v02 aired]]]]kj \[AgrOP \[DP the flag\]j AgrO \[VP t] tj\]]\]
   \[V\]' \[V\]' \[V\]
On the basis of Ishikawa (1999) and the argument in 3.3.2, I assume that the particle out occurs as PP in the complement position of the V02 brought, i.e. the same position as a resultative predicate, and then the complex verb brought out is syntactically formed by incorporating the head P into the V02, as in (58a). Noting that Dehé’s VP-shell type structures have their roots in Larson’s (1988) analysis, I also assume that the coordinated V’s undergo V’-Reanalysis, satisfying the condition in (59).

(59) V’-Reanalysis
   Let α be a phrase \[v ...\] whose θ-grid contains one undischarged internal θ-role. Then α may be reanalyzed as \[v ...\].
   (Larson (1988: 348))
The θ-grid of the coordinated V's in (58a) contains one undischarged internal θ-role, i.e. Theme, which should be assigned to the object DP outside the V's. Then I claim that the reanalyzed coordinated V, i.e. \([V \ [V_{02} \ [V_{01} \ \text{brought}] \ [P \ \text{out}]i] \ [PP \ ti]] \) and \([V \ [V_{02} \ \text{aired}]i]\)k raises to v via AgrO, as shown in (58b); hence (44a) follows. From this, we conclude that the facts in (44) can be derived even if the complex verbal head is not assumed.

3.5. The Motivation for Excorporation of V from the Verbal Complex Head

In 3.3.1, we discussed Dehé's approach to the derivations of PVCs. She argues that a focus feature plays a role in the derivation of PVCs with the discontinuous order (p. 221). In this section, we will discuss the analysis which integrates the focus feature.

3.5.1. The Analysis Based on the Information Structure

Dehé integrates the focus feature \([±F]\) into her framework. \([±F]\) differs from Chomsky's (1995) syntactic and categorial features in that it is not a morpho-syntactic, i.e. not a formal feature, but an Information Structure (IS) feature (p. 218). Thus \([±F]\) is not subject to the feature checking system that operates on formal features (p. 219). Then the overt movement operations in PVCs are not triggered by IS-features (cf. (28b)). However, \([±F]\) does play a role in the derivation of PVCs with the discontinuous order. Furthermore, \([±F]\) is freely assigned to the appropriate constituents, and this assignment precedes overt syntax and accent assignment. Dehé considers the following kinds of foci concerning PVCs, where F stands for the focus domain (pp. 241–245):

(60) a. Maximal focus: (What happened?)
   [Nate put away the phone]_F (continuous order)

b. Non-minimal focus: (What did Nate do?)
   He [put away the PHONE]_F (continuous order)

c. Minimal focus: (What did Nate put away?)
   He put away [the PHONE]_F (continuous order)

d. Object DP as a background constituent:
   (What did Nate do with the phone?)
   Nate put the phone away. (discontinuous order)

In discussing (60), Dehé assumes that verb movement in PVCs is movement of the complex verbal head whenever possible. In other words, excorporation of the verb out of the complex head would be an
additional operation that would render the derivation more costly, i.e. less economical, and should thus be avoided whenever possible (p. 240). Under her analysis, if [+F] is assigned to one constituent and [-F] is assigned to another within the same focus domain, then the feature mismatch triggers the excorporation above, an additional operation (p. 244).

As space is limited, I only discuss (60b, c, d). In the case of (60b), the relevant structure is given in (61).

(61) \[
\text{[vP [v \text{[v' [v [V02 [V01 put] [prt away]]i][+F]] [AgrOP [DP the PHONE]k [+F] [AgrO' [AgrO t'i[+F]] [VP [V' ti[+F] tk[+F]]]]]]]]} (p. 242)
\]

The movement operations take place for grammatical reasons. Since the moved elements constitute the focus of the sentence, the corresponding traces ti and tk are both marked [+F] for focus. There is no feature mismatch within the same focus domain, i.e. VP; hence no additional process like excorporation of V01 is triggered. The moved elements are within the functional domain of the lexical projection that constitutes the focus domain VP, and thus they are correctly interpreted as the focus of the sentence. Dehé assumes that the accent assignment rule sees the focus features on the lexical elements and assigns the focal accent to the relevant constituent within the focused part of the sentence, which is the noun phone within the internal argument of the verb. According to Gussenhoven’s (1999) focus projection rule, a focused predicate (P) that is adjacent to an accented argument (A) is de-accented. It follows then that neither the verb nor the particle is assigned an accent.

The derivation of (60c) is represented in (62), where the focus domain is DP.

(62) \[
\text{[vP [v' [v \text{[v' [v [V02 [V01 put] [prt away]]i][+F]] [AgrOP [DP the PHONE]k [+F] [AgrO' [AgrO t'i[+F]] [VP [V' ti[+F] tk[+F]]]]]]]]} (p. 243)
\]

Clearly, no feature mismatch occurs in DP; hence no excorporation of V01 again. The accent assignment rule sees the [+F] focus feature on DP, and the accent is placed on the noun.

As for (60d), Dehé begins by considering the structure in (63), where the continuous order is yielded.

(63) \[
\text{[vP [v' [v \text{[v' [v [V02 [V01 put] [prt away]]i][+F]] [AgrOP [DP the phone]k [+F] [AgrO' [AgrO t'i[+F]] [VP [V' ti[+F] tk[-F]]]]]]]]} (p. 244)
\]

In (63), the focus domain is the VP because the verb is under focus.
and the focus feature is assigned to the relevant maximal projection. Here, Dehé follows Lambrecht (1994: 215) in assuming that a focus domain is always a phrasal, but never a lexical syntactic category. It is necessary to note that the object DP is not part of the focused part of the sentence, while the verb is. Thus within the VP, the traces of the verb and the object DP are marked for [+F] and [-F], respectively; hence the feature mismatch. Dehé claims that the mismatch is not allowed unless the condition in (64) is satisfied. (64) is Dehé’s final version.

(64) Condition on Focus Domains

Within a focus domain, a [+F] focus feature must be bound by some kind of verbal affix if there is a mismatch with regard to focus features. (p. 248)

(63) is inadequate because (64) is not fulfilled. Then Dehé considers the corresponding derivation in (65).

(65) \[
\begin{array}{c}
[vP \langle v \langle v01 \text{put} \rangle_{i+F} \rangle \text{AgrOP} \langle \text{DP the phone} \rangle_{i-F} \text{AgrO} \langle i_{i+F} \rangle] \\
[\langle vP \langle v \langle v02 \text{ti}_{i+F} \text{prt} \text{aWAY} \rangle_{i+F} \rangle_{i-F} \rangle_{i-F}]]]
\end{array}
\] (p. 245)

To fulfill (64), (65) makes use of the exorporation of V01, an additional or less economical operation. The particle aWAY, which Dehé views as a verbal affix, remains within the focus domain, binding the [+F] feature; hence (64) is satisfied. The accent assignment rule sees the focus feature on the particle, which is part of the focused predicate V02, and the particle is assigned the accent.

Dehé also attempts to account for the case of simplex verbs like (66) in terms of (64).

(66) DP as a background constituent: Simplex verb

(What did Nate do with the phone?) He LOST the phone.

Before providing an account for (66), she first assumes that simplex verbs of course do not have overt particles, but instead they have covert abstract ones. She then assumes under Ishikawa’s (1999, 2000) 2VD analysis that all simplex verbs have the structure in (67).

(67) \[
\begin{array}{c}
[v02 \langle v01 \text{aff1} \phi \rangle \text{V}^{00} \text{aff2} \phi]]
\end{array}
\] (p. 256)

In (67), [aff1 \phi] and [aff2 \phi] are abstract affixes. In English, the former is overtly reflected by verbal prefixes, and the latter by verbal particles. For (66), she assumes the derivation in (68).

(68) \[
\begin{array}{c}
[vP \langle v \langle v01 \text{LOST} \rangle_{i+F} \rangle \text{AgrOP} \langle \text{DP the phone} \rangle_{i-F} \text{AgrO} \langle i_{i+F} \rangle] \\
[\langle vP \langle v \langle v02 \text{ti}_{i+F} \text{prt} \phi \rangle_{i+F} \rangle_{i-F} \rangle_{i-F}]]]
\end{array}
\] (p. 245)

focus domain: VP
Here, the affix \([\text{prt } \emptyset]\) binds the trace \(t_i\), which satisfies (64); hence the excorporation of \(V^{01}\) in (68) can be accounted for on a par with (65).

3.5.2. Problems

Dehé's analysis in the preceding section is brand-new or epoch-making in that it attempts to account for the continuous order and the discontinuous order of PVCs in the light of focus in a context. However, it faces at least four problems. The first problem concerns (60b) and (60c). Olsen (1997: 59) observes that besides the answers with the continuous order in (60b) and (60c), answers with the discontinuous order like (69) and (70) are possible, respectively.\(^7\)

(69) (What did Nate do?) He put the phone away.
(70) (What did Nate put away?) He put the PHONE away.

In (69), the accent is assigned to away, and in (70) to phone. The two examples are not in accord with what Dehé's analysis predicts. In view of her analysis of (61) and (62), it is expected that the excorporation of \(V^{01}\), a more costly process, will never take place, and thus the responses in (69) and (70) will not be made.

The second problem concerns (64). Dehé gives no explicit and persuasive explanation of the reason why the mismatch with regard to focus features is allowed by the binding of a [+F] feature by a verbal affix. The condition in (64) seems to be an ad hoc stipulation.

The third one is that Dehé regards a particle, phonologically null or not, as an 'affix,' as we saw in (67). A particle is, in general, a free morpheme, but not a bound morpheme like a true affix.

The final one concerns the licensing of the abstract 'affixes' \([\text{aff1 } \emptyset]\) and \([\text{aff2 } \emptyset]\) in (67). In the literature, it is generally agreed that empty categories must be licensed in an appropriate way. From the viewpoint of the principle of identification in the sense of Rizzi (1986) and Roberts (1993), the contents of null elements must be recovered from a phonetically realized environment. Specifically, identification is per-

\(^7\) Olsen's examples corresponding to (69) and (70) are (i) and (ii), respectively.

(i) What did they do?
They called their engagement off. (Olsen's (39b))

(ii) What did they call off?
They called their engagement off. (Olsen (1997: 59))
(cf. ?They called their engagement off. (Olsen's (39c)))
formed through a coindexing relation in some cases. For example, the feature content of trace and variable is recovered through coindexing in the formation of an A- or A'-chain with an antecedent or an operator, respectively. The content of pro in subject position is recovered through coindexing Infl with pro; hence pro has the grammatical specification of the features on Infl coindexed with it. From this point of view, there seems to be no element that recover the contents of $[\text{aff1 } \emptyset]$ and $[\text{aff2 } \emptyset]$ in (67). This leads us to say that Dehé assumes $[\text{aff2 } \emptyset]$ only to satisfy (64), which seems to be an ad hoc move.

To improve the new approach, which integrates the notion of focus, it will be necessary that Dehé should solve at least the four problems above.

4. Different Types, Different Derivations

In this section, I will make a slight modification to Ishikawa’s (1999) analysis, and show that the revised analysis does not face problems such as the ones pointed out in 3.2.2, 3.3.2, and 3.4.2.

On the basis of the two criteria in (71), Ishikawa (1999: 331) classifies PVCs into the three types in (72).

\begin{enumerate}
\item whether or not particles retain their own meanings when they are combined with verbs, and
\item whether or not the selectional properties of verbs are changed when they are combined with particles.
\end{enumerate}

\begin{enumerate}[resume]
\item simple combination type: Particles retain their own meanings, and the selectional properties of verbs are not changed.
\item pure idiom type: Particles lose their own meanings, and the selectional properties of verbs are changed.
\item hybrid idiom type: Particles retain their own meanings, and the selectional properties of verbs are changed.
\end{enumerate}

\begin{enumerate}[nosep]
\item Originally, Ishikawa (2000) postulates the abstract null prefix $[\text{PREF } e]$ for (ia) in accounting for the contrast in cases like (i).
\begin{enumerate}
\item a. He threw out the ball.
\item *He rethrew out the ball.
\end{enumerate}
But unlike Dehé, the content of $[\text{PREF } e]$ is recovered from a phonetically realized particle like out. Then $[\text{PREF } e]$ is properly licensed by the particle.
Hereafter, I will use the following abbreviated forms: SC type for simple combination type, PI type for pure idiom type, and HI type for hybrid idiom type. I would like to make a small modification to the determination of the SC type in Ishikawa (1999).

My explanation in Ishikawa (1999: 332) is as follows. To illustrate (72i), I observe that the particle off in (73) retains its own meanings, and the selectional property of the verb cut is not changed: the verb selects a theme DP, whether the particle is added or not.

(73) He cut off the branches. / He cut the branches off.

Dehé points out the insufficiency of this account (p. 8).\(^9\) She first argues that a verb-particle combination such as put on in examples like (74) should belong to the SC type, because they are fully transparent semantically.

(74) The lady put on the hat. / The lady put the hat on.

But she claims that under my analysis, the verb-particle combination wrongly belongs to the HI type for the reason that the particle retains its meaning but the selectional properties of the verb are different. Specifically, put originally must have a PP argument.

(75) *The lady put the hat.

In view of this, I will modify my analysis and present my new explanation of the classification of (73) just like the case where I discussed the similarity between (50) and (51) (cf. 3.4.2). Specifically, I add the proposal in (76) to (71) and (72) as the modification.

(76) In classifying the PVCs, it is necessary to take into account the whole of the selected arguments.

Under my new analysis, the explanation is as follows. In (73), the particle off retains its own meanings in the light of (71i). The verb cut originally selects a theme DP and can optionally select a source PP such as off the tree. A particle with its directional use satisfies one of the relevant verb’s argument positions (cf. Jackendoff (2002: 75)). As for (73), we can say that the particle off satisfies the PP argument position of cut; hence the selectional property of the verb cut is not changed in the light of (71ii). In the case of (74), I can offer a similar explanation as follows. The particle on retains its own meanings. The verb put originally must select a theme DP and a goal PP such as on

\(^9\) I would like to thank Dehé for her comment.
the head. If the particle on occurs instead of the PP, the selectional property of the verb put is not changed. Thus (73) and (74) belong to the SC type.

Furthermore, it is necessary to consider PVCs with completive particles like (77), which Ishikawa (1999: 346) also classifies as the SC type.

(77) John ate up the cake. / John ate the cake up. (= (21a), (52))

Before considering (77), it is in order here to clarify the notion of ‘selectional properties’ in (71ii) and (72) as follows:

(78) ‘The selectional properties of verbs’ in (71ii) and (72) are the properties of argument selection of verbs.

Let us now look at (77). The particle up retains its completive meanings in the light of (71i). The verb ate originally selects only a theme argument DP. Jackendoff (2002: 76) suggests that a completive particle (an aspectual particle, in his terms) like up in (77) is not an argument of a verb (cf. the discussion concerning (52) and (53)). Hence even if the particle up is added, the property of argument selection of the verb ate is not changed in the light of (71ii). Thus the PVCs in (77) belong to the SC type. As for a completive particle, I assume that it is generated as a non-argument in the complement position of the V02 (cf. Ishikawa (1999: 346), the discussion concerning (52) and (53)).

In my analysis, the structures of PVCs of the SC type are given in (79), which are based on Bowers’ (1993) clause structure.

(79) a. ... [PrP [Pr [V02 cut]]] [VP [DP the branches] [V' t1 [PP off]]]
   b. ... [PrP [Pr [V02 [V01 cut] [P off]]] [VP [DP the branches] [V' t1 [PP t2]]] (cf. Ishikawa (1999: 344))

Recall that particles with spatial meanings should carry both the mean-

---

10 For the argument for the generation of such particles in that position, see Ishikawa (1999: 346–347). Besides the argument, note that they can function as predicates in contexts like (i).

( i ) a. The meeting is over. (terminated)
   b. School is out. (dismissed)
   c. His term is up. (finished) (Bolinger (1971: 69))

Thus it is quite reasonable to view these particles as occurring in the complement position of the V02 like the particles with spatial meanings and the resultative predicates. It will be implausible to assume with Dehé that these particles are generated within V02.
ing ‘motion-through-location or direction’ and the meaning ‘terminus or result’ (cf. (33)). The particles can be taken to occupy the same position as resultative predicates. They occur as PPs in the complement position of the V^02, as in (79a) (cf. Ishikawa (1999: 343)). Note that they are unambiguously true particles, but not pure adverbs here, unlike in Dehé’s analysis (cf. 3.3.1). In (79a), V^02 raises to Pr, which yields the discontinuous order, and in (79b), the particle is first incorporated as P into V^02, and the complex V^02 raises to Pr; hence the continuous order.\(^{11}\) Note that even in this continuous order, the particle carries both of the two meanings above (cf. Bolinger (1971: 81)). This is exactly parallel to the case of preposed resultative predicates in the following:

\[(80)\]
\[
a. \text{Break open the cask.} \quad \text{(Bolinger (1971: 70))}
b. \text{Will it bleach white the undies?} \quad \text{(ibid.: 74)}
\]

It is in order here to present the motivation for the particle-incorporation. First, it is worth noting that particles in PVCs of the SC type impart the two meanings in (33), repeated here, to verbs and hence require the existence of such verbs.

\[(33)\]
\[
a. \text{motion-through-location or direction}
b. \text{terminus or result}
\]

Note also that verbs themselves do not necessarily require the existence of particles in this type. In (73), for example, the particle off requires the verb cut, while the verb originally does not necessarily need the particle: it optionally selects the particle. With this in mind, I adopt Roberts’ (1993) notion of morphological subcategorization, and assume that the head P^0 of a particle has the morphological subcategorization frame (hereafter, MSF) in (81), which has a quasi-clitic status.

\[(81)\]
\[
\text{particle } P^0: [+ \text{V}^01 ___ ]
\]

I further assume that a particle P^0 must be incorporated into the V^02 to fulfil (81) in overt syntax or at LF. If the P-incorporation takes place in overt syntax, as in (82a), then (81) is satisfied at S-structure, and the continuous order follows. If the process takes place at LF and (82b) is an S-structure representation, (81) is fulfilled at LF; hence the surface

---

\(^{11}\) One might be tempted to say that the P^0-incorporation may possibly yield a wrong derivation with the intensifier right stranded, as in (i) (cf. pp. 58–59).

\[(i)\]
\[
[\text{P}_{\text{PP}} [\text{Pr} [\text{V}^02 [\text{V}^01 \text{cut}]] [\text{P off}]]] [\text{VP} [\text{DP the branches}]] [\text{VP} [\text{PP right } t_1]]
\]

For the blocking of this kind of head movement, see Ishikawa (1999: 345–346).
discontinuous order.

(82) a. ... [PrP [Pr2 [V02 [V01 cut] [P off]]]i] [VP [DP the branches] [V' t_i [PP t_i]]]
    b. ... [PrP [Pr2 [V02 [V01 cut]]]i] [VP [DP the branches] [V' t_i [PP off]]]

The structure and the derivation of PVCs of the PI type are the same as Dehé’s analysis: a verb and a particle form a complex verbal head, i.e. \( V^{02} \), and the verbal portion \( V^{01} \) can be overtly excorporated from within domain B of the \( V^{02} \).

As for the HI type, I take (83) as an illustration.

(83) I looked up the information. / I looked the information up.

In the idiom look up whose meaning is ‘examine,’ the particle up retains its completive meaning. It is generated as PP in the complement position of \( V^{02} \), as shown in (84) (cf. Ishikawa (1999: 347)).

(84) ... [PrP [Pr' Pr [VP [DP the information] [V' [V02 [V01 looked]] +_up] [PP [P' [P up]]]]]]

Note that the verb look requires the particle up in order to assure the idiomatic meaning above, unlike the case of the SC type. Thus it is plausible to assume that a MSF such as \(+ ___ up\) is specified for \( V^{01} \), and the particle must be incorporated as \( P^0 \) into the \( V^{02} \) in overt syntax or at LF, whereby the \( V^{01} \) fulfills the MSF and a complex verb is formed. If the particle \( P^0 \) is first incorporated into \( V^{02} \) to satisfy the MSF \(+ ___ up\) in overt syntax and the \( V^{02} \) is further overtly raised to Pr; then the continuous order follows. This is represented in (85).

(85) ... [PrP [Pr' [Pr [V02 [V01 looked] [P up]]]i] [VP [DP the information] [V' [V02 e] [PP [P' [P e]]]]]]

If the particle-incorporation takes place at LF, then the discontinuous order is yielded. The particle occupies its original position in overt syntax; hence the surface order the information up is derived. If the particle-incorporation does not occur in overt syntax or at LF, then the \( V^{01} \) look remains defective in that the MSF \(+ ___ up\) is unsatisfied and the complete idiomatic meaning ‘examine’ cannot be assured.

Here let us summarize the motivations for the particle-incorporation. For the SC type, it is motivated by the MSF in (81), which is specified for a particle. For the HI type, by contrast, an MSF like \(+ ___ up\) for \( V^{01} \) is a device for motivating the particle-incorporation.

We are now in a position to consider the problems with Dehé’s
analysis under the revised version of Ishikawa’s (1999) analysis. The problems pointed out in 3.2.2 and 3.3.2 are briefly summarized as follows:

(86)  
  a. the difficulty in classifying the cases in (23) under one group, idiomatic PVCs or aspectual PVCs (in 3.2.2)  
  b. the dubious structural ambiguity between compositional PVCs and ‘V plus adverb’ constructions (in 3.3.2)  
  c. the dubious semantic property of the pure adverbs with modifiers such as right (in 3.3.2)  
  d. the wrong prediction that modifiers are never attached to completive particles (in 3.3.2)

My analysis faces none of these problems. First, (86a) does not arise, because the examples in (24) unambiguously fall under the HI type in my analysis. Unlike Dehé, I assume no ambiguity between the SC type of PVCs and ‘V plus adverb’ constructions; hence (86b) and (86c) do not arise, either. (86d) is cleared up because in my analysis, particles with modifiers like right are all generated outside V^0 in the SC type and the HI type, whether their meanings may be spatial or completive.

In 3.4.2, I also showed that Dehé’s arguments for the complex verbal head in 3.4.1 are dubious or inadequate. I will further present some advantages of my analysis. Specifically, I will show that my analysis is adequate for some of the correct views I presented against her arguments in 3.4.2. The relevant views concern her second and third arguments. Her second one deals with the test for examining whether the selectional requirements of verb-particle combinations are derived from those of their parts. In 3.4.2, I viewed the test as valid only for idiomatic PVCs, contrary to what Dehé claims. But my analysis is successful in incorporating the basic idea of the test into my framework. I used the test as one of the criteria for classifying PVCs (cf. (71ii)). This leads to the proper classification of PVCs, as we have seen in (72).

Her third argument concerns the Gapping test. I pointed out the inadequacy of this test for compositional PVCs. In my analysis, the Gapping facts in (57), which are problematic in Dehé’s approach, can be successfully explained. I first summarize Johnson’s (1991: 591) view of Gapping as follows (cf. 3.4.1):

(87) Only a single verb or a single complex verb (henceforth, a single (complex) verb) can be Gapped.
The point is that a verbal portion of a single (complex) verb cannot be Gapped. Here I regard Gapping as a PF deletion rule (cf. Chomsky (1980)). Thus we can say in our terms that Gapping should see at PF whether the relevant verb is \( V^0_2 \) or \( V^0_1 \). Based on this, I will propose the following requirement for the single (complex) verb, which Gapping respects at PF:

\[
(88) \text{The single (complex) verb must be a properly lexicalized } V^0_2.
\]

Here, a properly lexicalized \( V^0_2 \) is the category which includes a phonetically realized verb and if it has an MSF, a phonetically realized particle.

In the light of (87) and (88), let us first see (56b), repeated here as (89), which includes a PVC of the PI type.

\[
(89) * \text{Jones pulled the deal off, and Peters the money in.}
\]

\[
(\text{pull off} = \text{succeed}, \text{pull in} = \text{earn}) \quad (\text{Fraser (1974a: 3))}
\]

This is clearly ungrammatical because what undergoes Gapping is the \( V^0_1 \) \textit{pulled}, part of the complex verb \( V^0_2 \) \textit{pulled in}, which violates (88).

We will next consider (56a), which includes a PVC of the HI type. The relevant structure of (56a) is (90).

\[
(90) *... \text{and Mittie, } [\text{PrP } [\text{Pr } [V^0_2 [V^0_1 \text{looked}]]_i ] [\text{VP } [\text{DP my number}]
[v' \text{ti } [\text{PP up}]]]]. \quad (\text{looked } \Rightarrow \phi) \quad (\text{look up} = \text{examine})
\]

In (90), the possible candidate to undergo Gapping is the lexicalized \( V^0_2 \), but not its trace in accord with (88). But note that the particle \textit{up} is not incorporated into \( V^0_2 \) before PF, though the \( V^0_2 \) has the MSF \([+_\text{up}]\). Therefore the \( V^0_2 \) is not properly lexicalized. Hence (56a) violates (88), and the ungrammaticality follows.

Let us now turn to the cases in (57), repeated here, which Dehé fails to regard as PVCs.

\[
(57) \quad \text{a. Jan will cut the branches off and Mary the leaves off.}
\]

\[
\text{(Aarts (1992: 86))}
\]

\[
\text{b. Jones pulled the old tablecloth off, and Peters, the new one on.}
\]

\[
\text{(Fraser (1974a: 3))}
\]

They belong to my SC type. This type involves an ordinary single verb, which has no MSF. Thus in (57), the properly lexicalized \( V^0_2 \)s, \textit{cut} and \textit{pulled} in the second conjuncts, satisfy (88) and can be Gapped; hence the grammaticality.
5. Conclusion

In this review article, I have examined Dehé’s analysis of English PVCs. She offers two main proposals. One is that a verb and a particle form a complex verbal head in all groups of PVCs. The other is that information structure plays a role with regard to particle and object placement onto the syntactic structure of PVCs. But they raise a number of problems and inadequacies, as we have seen. As for the former proposal, I showed that Ishikawa’s (1999) analysis with a slight modification solves all the problems with it. On the other hand, the latter proposal is brand-new and interesting in that the choice of the linear order, continuous or discontinuous, is driven in syntax by the information structure of the context in which a PVC occurs. But it will be necessary to modify devices such as (64) and (67), and to reconsider at what interface level the focus features should be allowed within the minimalist framework.

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