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REMARKS ON THE PARTICLE VERB DOMAINS

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Particle Verbs and Local Domains, by Jochen Zeller,

1.   Introduction

Particle verbs have challenged linguistic analysis because of their unique and sometimes contradictory characteristics. A verb particle combination behaves like a complex V^0 in some respects. For instance, on the one hand, the semantics of <u>look up (the information)</u> is not compositionally transparent and thus must be stored in the lexicon. Some morphosyntactic properties also indicate that a particle verb combination is a morphological object (not a syntactically composed unit).[1] To deal with their word-like properties, various types of complex predicate analysis of particle verbs have been proposed (e.g. Chomsky (1957), Johnson (1991)). On the other hand, however, particles are syntactically independent of the base verb. For instance, they can be separated from the base verb as in <u>look NP up</u>, which is a property not observed with genuine complex V^0s. This leads to the proposal (since Emonds (1972)) that particles are not part of a complex V^0 but rather are intransitive prepositions that project their own maximal projection.[2]

In his recently published book, Zeller proposes a specific structural relation, "structural adjacency," between the particle and the verb, to explain the intriguing nature of particle verbs, which are different either from complex V^0s or from ordinary complements (specifically, full prepositional phrases). In this article, I will argue that some of Zeller's

arguments do not necessarily strongly support his postulation of the new structural notion in the theory. I will then suggest that the same fact can possibly be captured without appealing to the new special notion of "structural adjacency." This is actually the same line of claim which Zeller himself explores in his subsequent work (Zeller 2002).

The organization of this paper is as follows. Section 2 summarizes Zeller's arguments that particles are not part of a complex V^0, nor are they syntactically incorporated into the base verb. Rather, they remain in-situ in syntax as syntactically independent elements. In Section 3, I will review three types of Zeller's arguments for a special local relation between a particle and the base verb, and then I will argue that his claims based on the non-referential property and the special semantic behavior of particles does not necessarily give strong evidence for the special local relation. Section 4 suggests a possible alternative to define the relevant local domain. Section 5 is the summary.

2.   Arguments for a Syntactic <u>In-Situ</u> Approach

Zeller proposes a verb particle structure as in (1a), where the particle projects the maximal projection of its own which is the complement of the head verb,[3] and the specific relation between the verb and the particle is called "structural adjacency."

(1)   a.   VP
                         /   \
                    V^0 PP
                                    |
                                   P^0
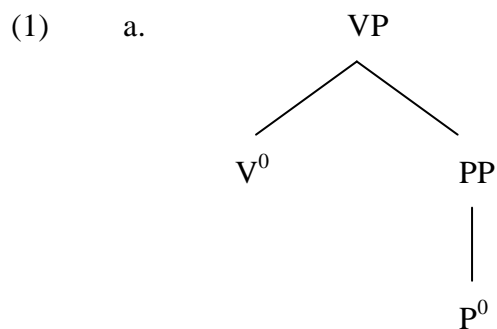
         b.   A head X and the head Y of its complement YP are <u>structurally adjacent</u>.

         (P.36)

This proposal is intended to explain two important (and apparently contradictory) behaviors of particle verbs:

(2)   Particles are syntactically independent of the base verb.

(3)   Particles have special semantic and morphosyntactic properties, suggesting that the verb-particle relation is very local.

There are three major approaches to analyzing verb particles in the literature; (i)the morphological approach (e.g. Johnson (1991), Neeleman and Weerman (1993), Stiebels and Wunderlich (1994), McIntyre (2001)) which claims that verb particles are complex V^0s (i.e. morphological objects), (ii) the syntactic incorporation approach (e.g. van Riemsdijk (1978), Koopman (1995)) which claims that a particle is syntactically incorporated into the base verb in the overt syntax, and (iii) the syntactic in-situ approach (e.g. Zeller (1997), Wurmbrand (1998)) which claims that a particle remains in the complement position to the base verb. In Chapter 2, Zeller reviews and provides various arguments in favor of the in-situ approach. Let us consider here two of German examples Zeller provides. First, in the V2 context, only the base verb moves to C^0, leaving the particle behind as in (4). This is syntactically similar to full prepositional phrases as in (5).

(4)   Peter lädt$_i$ das Heu [auf] $\underline{t}_i$

         P.   loads   the hay   <u>part</u>

         'Peter loads the hay (onto something)'

         (Cf. weil Peter das Heu aufladt)

(5)   Peter lädt_i das Heu [auf den Wagen] t_i

        P.   loads   the hay   onto the wagon

        'Peter loads the hay onto the wagon'   (p.59)

Secondly, (6) illustrates that particles can be topicalized.

(6)   (An der Haltestelle stiegen   hübsche Frauen ein).

        at   the   bus-stop   climbed   pretty women part(in)

        [Aus]   stiegen nur   Männer

        part(out) climbed only men

        'at the bus-stop, pretty women got in. Only men got off'

                                                         (p.89)

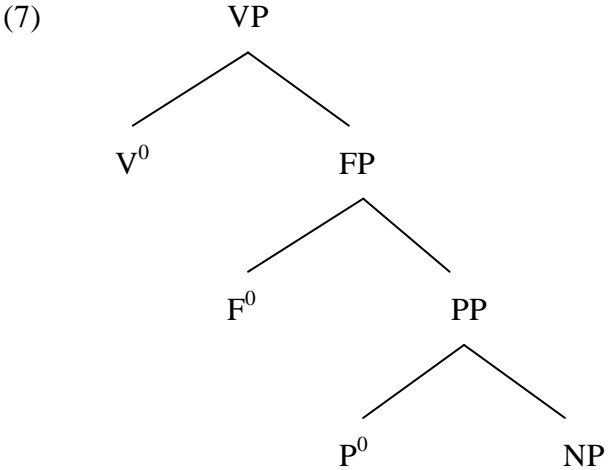These examples provide a strong argument for the claim that particles are syntactically independent of the base verb.[4]

However, "particle verbs have properties of morphological objects" (p.14) and "the semantics of many particle verbs is non-transparent, which shows that at least some particle verbs must be stored as a complex elements in the lexicon." Now, the syntactic independence indicates that particle verbs are syntactic constructions, while their word-like properties suggest that they are formed in the lexicon. This may pose a serious problem if we adopt the "linear perspective of lexicalist theories" (p.14) in which a syntactic object is composed after the lexical insertion and may have no further access to the lexicon (see Zeller's discussion on pp.13-14). To deal with this issue, Zeller proposes a model of grammar based on Jackendoff (1997) and Marantz (1997). Chapter 1 is devoted to the introduction of this particular model of grammar, in which a syntactic unit larger than X^0

may have access to idiosyncratic lexical information. Zeller then claims that under Jackendoff/Marantz's type model of grammar, even though particle verbs may have non-compositional/idiomatic meaning, they are compatible with the proposal that a particle and a verb constitute a VP (a syntactic object), not a V^0 (a morphological object).

In sum, given the arguments in Chapters 1 and 2, Zeller concludes that there is good reason to reject the complex predicate analysis ("morphological approach") and the syntactic "incorporation approach," in favor of the in-situ approach. In Chapters 3 – 7, however, Zeller argues that the structural relation between a particle and the verb nonetheless must be local enough to explain the word-like properties of particle verbs. Let us examine his arguments in the next section.

3.   Arguments for a Special Local Relation

It has been noted in the literature that although particles are syntactically independent in many respects, they behave very differently from ordinary prepositional phrases. To explain this difference in an explicit way, Zeller proposes that a "normal" prepositional phrase (but not a particle) is the complement of a functional head which in turn is the complement of the base verb, giving the structure in (7).

(7)

```
              VP
            /    \
         V⁰       FP
                /    \
             F⁰       PP
                    /    \
                 P⁰       NP
```

Because of the intervening functional head F^0, the preposition and the head verb are not structurally adjacent. In other words, the V-P relation in (1a) is more local than the V-P relation in (7). Zeller claims that it is this special local structural relation that is responsible for the properties in (3). Further, in Chapters 6 and 7, Zeller claims that under a specific condition, the structurally adjacent particle and verb are "reanalyzed" as a complex V^0, a morphological object as shown in (8).

(8)

$$V^0$$
$$V^0 \qquad P^0$$
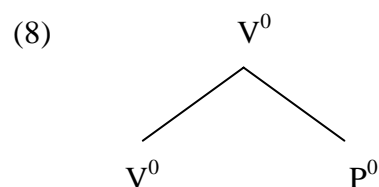
Zeller proposes that only when the relevant verb and particle are structurally adjacent, is reanalysis possible (under a special additional condition). In other words, reanalysis possibility is another argument for structural adjacency.

3.1.   Lack of Functional Projection

Zeller adopts van Riemsdijk (1990) and assumes that an ordinary prepositional phrase is a complement of a functional projection. Then in order to show that a particle phrase does not have a functional projection, supporting the structure (1a) for particle verbs, Zeller gives arguments based on the (non)referentiality of particles. Since this is a crucial argument for his proposal of the structure (1a), let us examine his arguments carefully. Zeller's logic is illustrated in (9).

(9)   a.   There is a strong correlation between the referentiality and the existence

of a functional projection; that is, a phrase is non-referential (i.e. expressing a type/property) when it has no functional projection, and it can be referential (i.e. expressing a token) when it has a functional projection.

b.   Path/Place (generally expressed by a prepositional phrase) can be a type (i.e. non-referential) as well as a token (i.e. referential)

c.   The implicit object of a particle only can express a type, and hence is non-referential.

d.   Hence, the particle phrase itself is non-referential.

e.   Therefore, a particle phrase does not project a functional projection.

Zeller assumes (9a), adopting arguments by Stowell (1989, 1991) and Longobardi (1994) among others. In German examples, when the speaker mentions a particular token of the type "car" or "piano," the definite article cannot be omitted as in (10).

(10)   a.   Peter repariert das Auto

P.   repairs   the car

'Peter repairs the car (cf. *Peter repariert Auto)

b.   Peter putzt das Klavier

P.   cleans the piano

'Peter cleans the piano' (cf. *Peter putzt Klavier)

(P.129)

However, certain verbs in German can take singular count nouns without a determiner as in (11).

(11)   a.   Peter fährt Auto

                P.   drives car

                'Peter is a car-driver'

       b.   Peter spielt Klavier

                P.   plays   piano

                'Peter plays the piano'   (p.129)

Zeller then assumes that the absence of a determiner follows from the absence of the D-projection; that is, nominal particles in (11) are bare NPs. Significantly, the nominal expressions Auto and Klavier in (11) do not express a particular token of the type "car" or "piano"; they do not refer. If we assume that the bare NPs in (11) lack a functional projection and that the referentiality of a phrase is contingent on the presence of a functional structure, the non-referentiality of nominal particles follows from the fact that the noun phrases in (11) are bare NPs.

Jackendoff (1983, 1990) shows that the type-token distinction (referentiality/non-referentiality) can be applied to Paths and Places as well as Things (9b). Zeller applies this idea to the difference between German h-postpositions and particles.[5] McIntyre (2001) observes that the underlying objects of h-verbs are referential, specific, and are tokens, while those of particle verbs are non-referential, non-specific, generic, and are types (9c). Consider (12) and (13).

(12)   Peter will einen Kreis   herausschneiden

       P.   wants a   circle   H-out-cut

      'Peter wants to cut a circle (out of some unspecified entity)'

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(13)   Peter will einen Kreis   ausschneiden

P.   wants a   circle   <u>part</u>-cut

'Peter wants to cut out a circle'   (p.139)

Although the reference object is syntactically unexpressed in both (12) and (13), the hearer of (12) is mentally aware of the entity that corresponds to the reference objects of the element with <u>h</u>-verbs. Hence, (12) is very unnatural if it is uttered in a context in which there is no contextually salient element as the reference object. For McIntyre, intransitive <u>h</u>-postpositions are <u>prepositional proforms</u>. Like nominal pronouns, they express tokens. In contrast, for (13), the hearer is not aware of the entity that the reference object of the particle corresponds to.   "The conceptual argument of the particle that corresponds to the reference object is not present in the projected world of the hearer" (p.139).

        Given (9c), Zeller goes on to (9d). Since the implicit object argument is referential, the prepositional phrase headed by the <u>h</u>-postposition <u>heraus</u> is also referential. Using the same logic, since the implicit object argument "is non-referential, it is clear that the whole Path expressed in [13] is non-referential as well" (p.139).   Given all this, Zeller claims that we are led to the conclusion that the PP headed by a <u>h</u>-postposition projects a functional projection, while the PP headed by a particle does not (9e).

        Now, I would like to raise one question with respect to the alleged correlation between the referentiality and the functional projection. Zeller assumes that a lexical preposition can only assign case to its DP-complement if a functional structure is present (see his discussion on p.124ff). This indicates that an ordinary full preposition always has a functional projection, quite independently of the referentiality <u>per se</u>. Now, let us consider (14) where the internal arguments are obviously not a token of "park" or "party" and thus non-referential in the ordinary semantic sense.

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(14) a. You can see the tree in every park.

b. Bill cannot enjoy himself in any party.

Although the internal argument of the preposition <u>in</u> is non-referential, the functional projection is necessary to give case to the internal argument DPs, according to Zeller's theory. Therefore, the presence of the functional projection does not force the referential interpretation. This suggests that the existence of functional projections can be quite independent of whether the phrase is referential or not. If this is the case, it is possible that the referentiality difference between <u>h</u>-verbs and particle verbs is not contingent on the presence of a functional projection.

3.2. Special Meanings

The second type of arguments Zeller gives are based on the semantics of the verb particle combination. His arguments are classified into three types. First, there are many idiomatic particle verbs whose meanings are not compositionally transparent, and such special meanings are stored in the lexicon. This is possible because the particle and the verb are structurally adjacent. Second, the meanings of many particles are different from the meanings of the corresponding prepositions. Zeller assumes that both special particle meaning and regular prepositional meaning of a single lexical item are lexically associated with it, and that the special particle meaning can be licensed (or activated) only when the particle is in a local relation with a specific type of the base verb. Zeller claims that the relevant local relation is structural adjacency. Third, among various possible meanings of a verb, some specific meaning is licensed only when a certain type of particle co-occurs with it. Zeller again claims that this is possible because the verb and the particle are structurally

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adjacent. Now, I will show that Zeller's arguments based on semantic behaviors of particles are not as strong as he has intended.

Consider the German particle verb <u>aufhören</u> 'stop,' for example. Zeller proposes the following representation as the lexical entry for this particle verb (p.161ff).[6]

(15) a. LPS   b.   LSS

(Links to the lexical $V^{n,\,n>0}_x$

Entries of <u>auf</u>$_a$ and <u>hören</u>$_b$)

PP V^0_b

P^0_a
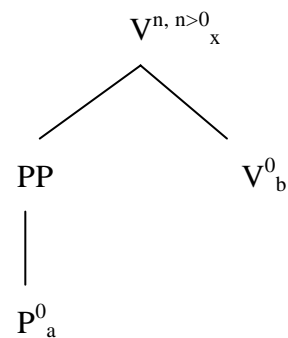
c.   LCS

$[_{Event}\ STOP\ ([_{Event}\ ])]_x$ (p.162)

The lexical representation in (15) states "that 'the regular' meanings of these two entries [i.e. <u>auf</u> and <u>hören</u>] are overwritten by [15c] when the two occur together in the syntactic context specified in [15b]" (p.162). Here Zeller explicitly claims that the relevant structural relation between the P^0_a and V^0_b is structural adjacency. However, as den Dikken (2002) already points out quite correctly, there are robust examples of non-transparent/idiomatic expressions that are not restricted in the structural adjacent domain:

(16)   a.   kick the bucket (i.e. die)

b.   let the cat out of the bag (i.e. tell a secret)

In (16), we can reasonably say that the literal meaning of the verb <u>kick</u> and the noun <u>bucket</u>

are overwritten by the idiomatic meaning "die" when the two occur together in the syntactic context specified as [$_{VP}$ kick [$_{DP}$ the [$_{NP}$ bucket]]]. However, it is obvious that the N heads in (16) (i.e. <u>bucket</u>, <u>cat</u> and <u>bag</u>) are not structurally adjacent to the verbs. Therefore, it is reasonable to conclude that idiomatic meaning of particle verbs does not necessarily motivate the structural adjacency requirement.

Next, among various possible meanings of a particle stored in the lexicon, only some of them are licensed when it appears with a specific class of verbs. For example, the German particle <u>an</u> means 'direct-towards' when it appears with "agentive intransitive verbs" (p.176) as in (17a), while it means 'part' when it appears with "transitive verbs with an incremental Theme" (p.176) as in (17b).

(17) a. anschreien 'shout at,' ansingen 'sing towards'

   b. anlesen 'start reading …/read … partially'

      anspielen 'start playing …/play … partially'

Crucially, Zeller claims that this choice in the meaning of the particle depends on the relevant verb that is structurally adjacent to it.

Thirdly, along the same line of argument, Zeller in Chapter 5 argues that "a particle is a kind of 'semantic affix,' which requires a 'host' (the verb) within a particular local domain" (p.196). In what sense is a particle a kind of affix? Zeller's argument claims that a phonological form of certain irregular verbs is determined by the Tns-affix. For instance, the past form of the verb <u>go</u> is determined by the [+past] Tns affix. Namely, among the lexical paradigm {<u>go</u>, <u>wend</u>}, [+past] Tns affix selects {<u>wend</u>} and then makes it the appropriate past form <u>went</u>. The same logic applies to the verb-particle relation. That is, the base verb may have several meanings and the specific meaning in the given structure

can be determined by the particle. For example, the German verb <u>richten</u> means 'to judge' or 'to point, direct.' However, when a particle is attached to the verb, <u>richten</u> may mean 'to arrange something, do something properly, make something right' as in (18).

(18)   (jemanden) zurichten, make a mess of someone'

                    (somebody) <u>part</u>-judge

      b.   (ein Fest) ausrichten, 'give a party'

            (a party) <u>part</u>-judge

      c.   (einen Hund) abrichten

            (a dog)   <u>part</u>-judge, 'train a dog'

      d.   (die Wohnung) einrichten

            (the flat)   <u>part</u>(in)-judge, 'furnish'   (p.201)

Zeller claims that this kind of special semantic interaction between a particle and the base verb is possible because they are in a special local structural relation, i.e. structural adjacency.

As we have seen so far, the point of his argument was that some meaning of a verb is licensed only when it appears with a certain type of particle, or some meaning of a particle is licensed only when it appears with a certain type of verb. This is the idea of the context-sensitive semantic licensing explored in Marantz (1997). And Zeller specifically claims that for this kind of semantic licensing to work, the verb and the particle must be structurally adjacent.

However, the context-sensitive semantic licensing can be observed more generally and is not restricted to the verb-particle relation. For example, with the idiom <u>spill the</u> <u>beans</u> (i.e. give away (confidential) information), the NP <u>beans</u> roughly means 'confidential

information' or 'secret.' This special meaning is available (or licensed/activated) only when it appears as the complement of the verb spill. Thus, keep the beans does not mean 'keep the secret.' Or, when we say "read/write/cite the book," we are talking about the written content of the book (one semantic aspect of the noun book), while when we say "burn/destroy the book," we are talking about the book as a physical object (another semantic aspect of the noun book). It is true that this kind of licensing of special meaning occurs within the well-defined local domain.[7] For example, there should be no inter-sentential idioms.[8] Notice, however, that the relevant local domain can be larger than the domain defined by the structural adjacency. In the present case, the relevant domain is VP, and crucially the N heads beans or book are not structurally adjacent to the verb; a functional projection headed by D the intervenes.

The same comment applies to Zeller's third argument: attaching a particle may induce a different meaning of the base verb which is not observed otherwise. Zeller claims that this is possible because particles are structurally adjacent to the base verb. Again, however, it is easy to find examples in which the meaning of a verb is substantially affected by the (non-)existence of different types of complement phrases other than particles. Let us consider the following English examples in (19) and (20).

(19)   a.   read (a book)

        b.   read a riddle/dream/one's thoughts

(20)   a.   tell (the truth/a lie)

        b.   tell the difference/ A from B / which is which

In (19a), the verb read may have the literal meaning assigned to it (i.e. reproduce mentally or vocally the words of an author, book, and so on). On the other hand, the verb can mean

'interpret' when it has a particular type of object as in (19b). Likewise, <u>tell</u> in (20a) means 'express with words,' probably the most common meaning of the verb, but in (20b), again with a particular type of object, it means 'distinguish.' Therefore, according to the general picture of the lexicon and grammar that Zeller assumes, we can say that the verbs <u>read</u> and <u>tell</u> have all the potential meanings listed in the lexicon and its special meanings are licensed when they co-occur with a certain semantic type of object. It is obvious that structural adjacency is too restricted as a candidate for the relevant local domain.

As we have seen above, the special semantic behaviors of particles are not unique to particles (and their relation to the base verb), but rather are more generally observed in a larger domain in syntax. Therefore, as far as semantic behavior is concerned, Zeller's arguments do not seem to have provided strong evidence for the postulation of the special local relation between particles and base verbs.

3.3.   Morphosyntactic Behavior

Let us finally review Zeller's arguments based on morphosyntactic behavior of particles. Adding a particle changes some morphosyntactic properties of the base verb, and such changes are not observed when the verb co-occurs with the corresponding prepositional phrase. Therefore, the relation between a verb and a particle must be different from the one between a verb and a full fledged prepositional phrase. Zeller claims that the relevant structural relation is the structural adjacency. That is, the particle is structurally local enough to the base verb and this is why the particle can change the relevant morphosyntactic properties of the base verb, while an ordinary prepositional phrase is not local enough to the verb and this is why prepositional phrases do not induce the comparable morphosyntactic property changes. Let us look at Zeller's four arguments: change of selectional properties, case assignment, auxiliary selection, and the possibility of

"reanalysis."

First, (21) shows that the base verb is intransitive, while the corresponding particle verb is transitive.

(21)   a.   Peter arbeitet

                    P.   works

                    'Peter works'

        b.   Peter arbeitet seine Schulden ab

                    P.   works   his   debts   <u>part</u>

                    'Peter works off his debts'   (P.155)


The verb <u>arbeiten</u> 'work' is intransitive but adding the particle <u>ab</u> makes it possible to take an argument. Similarly, (22) shows that although the particle does not change the valency of the verb, it does change the selectional properties of the verb: the direct object argument is Theme in (22a), while it is Source in (22b).

(22)   a.   Peter trinkt ein Bier

                    P.   drinks a   beer

                    'Peter drinks a beer'

        b.   Peter trinkt sein Glas aus

                    P.   drinks his glass <u>part</u>

                    'Peter empties his glass'

Both in (21) and (22), the verb has moved to C^0, leaving the particle behind, but in the underlying structure before V-raising, the verb and the particle are structurally adjacent as

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in $[_{VP} [_{PP} P^0] V^0]$. Zeller claims that because the particle and the verb are structurally adjacent (in the underlying structure),[9] the particle is local enough to change the selectional properties of the base verb. Such a change is not attested with regular prepositional phrases.

The next argument is based on case assignment property. Some particles may change the case assigning property of the base verb.   For example, the verb hören 'hear' assigns accusative case to its internal argument, but the particle verb zuhören 'listen to (somebody)' assigns dative case. The preposition zu assigns dative case, and thus Zeller claims that the particle verb zuhören inherits the case assigning property from the particle. Zeller proposes the following specific mechanism of this dative case assignment/checking. The case-assigning property of the prepositional element percolates to the head of the base verb that it is structurally adjacent to. The verb then incorporates into v^0 and the complex can assign the dative case to the DP (the internal argument of the particle verb) that appears in the Spec of vP.

(23) vP

Spec   v'   dative case assignment/checking

DP

VP $v^0_{i/j/k}$

PP $V^0_{i/k}$ $V^0_{i/k}$ v^{0j}

P^0_k dative case assigning property   (p.224)
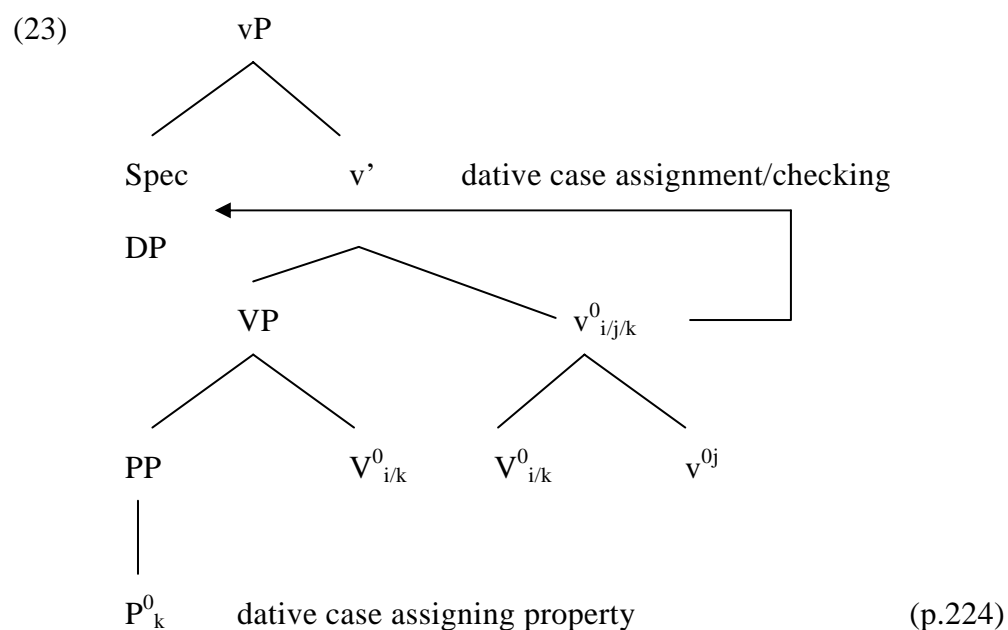
Crucially, Zeller claims that the percolation of the case assigning property is possible

because the particle and the verb are structurally adjacent.

Note, however, that Zeller's percolation scenario in the case assignment property is not as straightforward as it appears. As Zeller himself points out, there are some instances in which the case assigning property of the particle verbs does not reflect that of the particle. "The preposition aus [in German] always assigns dative case to a complement, but particle verbs derived from aus always take accusative complements if the base verb is not itself a dative case assigner" (fn 9, p.220). It is therefore plausible to assume that the case assigning property of particle verbs is an idiosyncratic property of the entire particle verb unit specified in the lexicon. Recall now that we have seen above in section 3.2 that syntactic units larger than the structural adjacency domain may well have access to idiosyncratic lexical information. Thus the case assigning property does not necessarily constitute an argument for structural adjacency.

Zeller's third argument is based on the auxiliary selection data. Auxiliary selection alternation is contingent not only on the purely lexical nature of the verbs (i.e. unaccusative/unergative difference; see Burzio (1986), for example), but also on the existence of particular types of PP complements (e.g. Van Valin (1990)).   Take an example from Dutch in (24).

(24)　　a.　　　Ik heb gevlogen

　　　　　　　　I have　flown

　　　　　　　　'I have flown'

　　　　b.　　　Ik ben naar Amsterdam gevlogen

　　　　　　　　I　am　to　　A.　　　flown

　　　　　　　　'I have flown to Amsterdam'　　　　　　(Booij 1990: 55)

Vliegen 'fly' basically selects hebben 'have' as in (24a) but when it has a preposition to specify the endpoint of the activity, it takes zijn 'be' as in (24b). However, with non-motion verbs, we cannot attest the comparable paradigm. Auxiliary selection property of non-motion verbs changes when we add a relevant particle. For example, studeren 'study' selects hebben, while afstuderen 'finish one's studies' selects zijn (Booij (1990:54)).   But "it is impossible to find examples where the addition of a full prepositional phrase leads to the choice of a different auxiliary" (p.217). Zeller claims that this is because particles, not regular prepositional phrases, are in a special local relation with the base verb.

Lastly, let us look at Zeller's argument (in Chapter 6) that verb particles may be "reanalyzed" as V^0s, morphological objects, under the condition that the compounds appear inside another X^0 element:

(25)   Principle of Reanalysis

a.   Given two terminal nodes X, Y, and a lexical entry L that requires X and Y to be structurally adjacent. Then the lexical entries of X and Y can be unified with a syntactic structure in which X and Y are part of the same word X^0.   (p.255)

b.   Condition: X^0 must be adjoined to W^0, W^0 a lexical head.

(p.257)

(25) captures the traditional observation that a particle verb can be an input into morphological derivations. For instance, the German nominalizer suffix –ung attaches to a particle verb einführ- 'introduce', deriving [$_{N0}$ Einführung] 'introduction.' Zeller claims that the word-like properties of this type suggest that "whenever particle verbs in German undergo ung-nominalization ..., they must be represented as V^0s" (p.154). As is clearly seen

in (25a), structural adjacency is the prerequisite for reanalysis. In other words, reanalysis is possible only when a particle and a verb are structurally adjacent (with the additional condition (25b)).

In sum, particles affect morphosyntactic properties of the base verb, which the corresponding prepositions are not able to do.[10] Zeller claims that this is because particles are structurally adjacent to the verb, while ordinary prepositions are not. Further, some obviously word-like properties of particle verbs require reanalysis, which is possible only when a particle and a verb are structurally adjacent.

Finally in the next section, I will suggest that there is a possible alternative which does not refer to the notion of structural adjacency. I will briefly discuss the implications of this alternative.

4.   Local Domain Reconsidered

There are at least two language design related issues about Zeller's proposal. First, Zeller's original structure (1a), repeated here as (26), is not desirable under the current conception of the bare phrase structure theory (Chomsky (1994, 1995)) because we have a maximal projection (i.e. PP) which does not branch.

(26)   VP
              /   \
            V   PP
                     |
   P
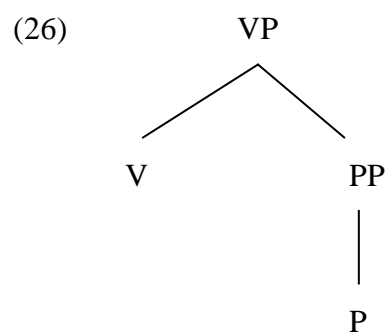
Zeller himself points this out, and briefly explores a bare phrase structure analysis in the

Conclusion Chapter (pp.297-303).

The second issue concerns the theoretical status of the new structural notion "structural adjacency." This is a new conception of a certain structural relation between two heads, which has been brought into the theory as a crucial means to account for the relevant facts.[11] Now, it would be conceptually desirable if we can account for the same facts using a theoretical notion already available in the theory, without referring to the new structural notion.

Let me point out that adopting the bare phrase structure analysis can give a solution to the second issue as well. First of all, verb particle phrases will have the following structure as in (27).

(27)

```
            V
           / \
          /   \
         V     P
```
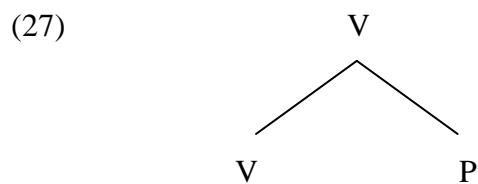
The P is both minimal and maximal because it is not a projection at all (hence, minimal) and at the same time it does not project any further (hence, maximal).[12] Syntactic separability properties of particles can be accounted for straightforwardly since P in (27) is a maximal projection.

Notice now that given this structure, the particle itself is the sister of the verb. On the other hand, the head P of the corresponding regular prepositional phrase is obviously not the sister of the verb. Therefore, it is reasonable to assume that the relevant local domain can be expressed in terms of the familiar head complement relation (or sister relation) between the two heads V and P, rather than in terms of the new notion structural adjacency. This is actually what Zeller proposes in his subsequent work (Zeller 2002).[13] As

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far as I can see, we will not lose anything with respect to the empirical coverage if we replace "structural adjacency" with the head complement relation in any of the explanations proposed in Zeller's book. For example, instead of stating that reanalysis is possible only when V and P are structurally adjacent, we may state that reanalysis is possible only when V and P are sisters.

Let me finally point out that given that the relevant local relation can be expressed by the familiar head-complement relation between the head V and the head P, we do not have to have the intervening functional projection in order to distinguish particles and the comparable preposition head, because the head P is not the sister of the verb as is clearly shown in (28).

(28)

```
            V
           / \
          /   \
         V     P
              / \
             /   \
            P     DP
```
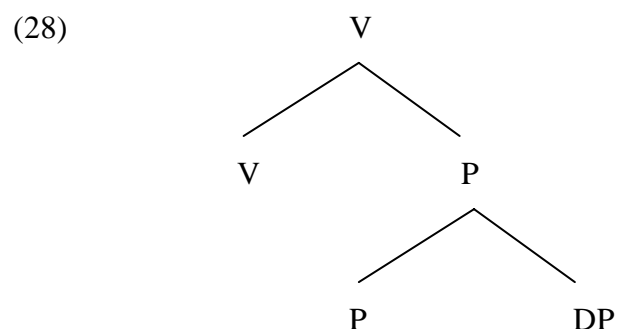
In fact, Zeller (2002) states that "reanalysis" is possible between a verb and its complement only if a "verb's complement is a non-branching projection, which means that its head does not take any arguments" (Zeller (2002:256)).

If the crucial difference is whether the head P takes an argument or not (i.e., whether the head P is the sister of the verb or not), we do not have to appeal to the existence of the intervening functional projection to distinguish particles and the heads of regular prepositional phrases. We have seen in Section 3 above that the referentiality and the existence of a functional projection may be independent of each other, because regular

prepositions always have a functional projection for the case assignment reason, according to Zeller's theory, but they can be non-referential with a DP object which is non-referential in the ordinary semantic sense (e.g. in any park).

I am suggesting a possibility that the difference stems not from whether there is a functional projection between V and P, but rather from whether the P has a complement or not. It is possible that adding a complement DP affects some potential properties of the P, and hence particles may have some special properties. The following scenario, which is consistent with Zeller's assumption about the lexicon and the model of grammar, does not seem to be implausible. Suppose that P has potential properties A, B, C specified in the lexicon. We may then assume that the property A is suppressed by adding a complement DP. Therefore, only the particle manifests the property A which the corresponding preposition head does not. Likewise, we may assume that the property C is "activated" or becomes available only by adding a complement DP, and therefore the property C is attested only with the prepositional phrase, but not with the corresponding particle. This idea again is well compatible with the theory of context-sensitive licensing of the meaning and the function of lexical items, an important assumption throughout Zeller's theory.

Let me give a specific example which is a possible instantiation of the context-sensitive licensing scenario above. Consider the auxiliary selection alternation in Dutch again (which has been discussed in Chapter 5 in a different context).

(29)   a.   Ik heb gevlogen

             I have   flown

             'I have flown'

       b.   Ik ben naar Amsterdam gevlogen

             I   am   to   A.   flown

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'I have flown to Amsterdam'   (Booij 1990: 55)

Adding a complement PP changes the auxiliary selection property of the verb. We may say, in Zeller's general framework, that the verb <u>vliegen</u> 'fly' (or motion verbs in general) has a property to license either <u>hebben</u> 'have' or <u>zijn</u> 'be' as its lexical specification and the latter is activated when it has a PP complement of the appropriate type (which specifies the end point of the activity), and the former is activated when it does not have such a type of PP complement. It is clear that the (non-) existence of a complement affects the nature of the head.

In this section, I suggested an alternative way to differentiate particles and the head of the corresponding prepositional phrases, without appealing to the existence of an extra intervening functional projection. There are some conceptual advantages in this alternative over Zeller's proposal. We do not have to assume a non-branching maximal projection, and more crucially we do not have to introduce a new structural notion "structural adjacency," but rather, we simply refer to the familiar notion of the head-complement relation between the head V and the head P. The entire design will be simpler. [14]

5.   Summary

Zeller proposes that introducing a new structural notion "structural adjacency" can explain various unique properties of particle verbs. Extensive arguments are given to show that there is a special local relation between a particle and the head verb, although particles and verbs are independent of each other in many syntactic respects.

The book is interesting and insightful, trying to argue that the unified concept of structural adjacency plays a significant role to account for intriguing (and sometimes

conflicting) characteristics of verb particles. An extensive amount of relevant data is explored, taken from some major Germanic languages (mostly German and Dutch with occasional reference to English, Norwegian, Swedish, and Danish). Zeller also provides careful suggestions of possibilities to deal with various types of apparent counter examples.

In this article, I first demonstrated that Zeller's semantic-based arguments, and his referentiality-based arguments are not as strong as Zeller seems to have intended. Then, I pointed out two conceptual issues and suggested a minimalist way of describing a difference between particles and other ordinary complements, in terms of the structural relation to the head verb, which still captures Zeller's intuition that the verb and the particle are in a special local relation.

FOOTNOTES

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[1] For example, "particle verbs may provide the input to further operation of derivational morphology." (p.14)

[2] Another major party proposes that particles are not only syntactically independent of the base verb but they also make a syntactic unit (i.e. small clause) together with the argument (e.g. Kayne (1985), Hoekstra (1988), den Dikken (1995), among others). It is controversial whether the NP-particle makes a syntactic unit (see Jackendoff (2002), for example), and Zeller does not assume the small clause type analysis at all. Hence, I will not go into this issue in the present paper. See den Dikken (2002) for a critical comment on Zeller's analysis from the perspective of small clause type analysis.

[3] For the purpose of exposition, I will basically use the head-initial VP system representation unless otherwise specified. This order applies to English and Norwegian, while German and Dutch employ the head-final VP system.

[4] Syntactic separability of particles is lexically conditioned to some extent, but I will not get into this issue in the present paper. For a relevant discussion, see Ishikawa (1999) and Jackendoff (2002).

[5] Certain postpositions in German consist of a deictic h-element her ('towards the speaker') or hin ('away from the speaker'). Zeller calls them "h-postpositions" and verbs that combine with h-postpositions are called "h-verbs."

[6] The representation in (15) is based on the model of Jackendoff (1997). LPS stands for lexical phonological structure, LSS, lexical syntactic structure, and LCS, lexical conceptual structure.

[7] For a relevant discussion of the local domain, see Marantz (1997).

[8] For example, "John spilled something, and it turned out to be the beans" cannot mean something like "it turned out that John gave away the confidential information."

[9] Zeller assumes a "reconstruction" of verb raising under the copy theory of movement, and thus the verb and the particle are always structurally adjacent at the relevant level of representation.

[10] Recall, however, that Zeller's case-assignment arguments may not go through as I pointed out above in Section 3.3.

[11] Note that appealing to a structural relation to account for some data is quite different from the fact that such a structural relation actually exists. Zeller's "structural adjacency" relation obviously holds between any head and the head of its direct complement phrase. The relation was understood in terms of the minimality condition on head-government in the GB-theoretic terms (e.g. Chomsky (1986)). In the GB era, minimality and

(head-)government were assumed to be overarching, general guiding concepts which function in various aspects in the entire theory. The minimality condition on head-government was a specific instantiation of them. A question in the present context then is what the theoretical status of the notion "structural adjacency" is in the entire theory of grammar.

[12] See Chomsky (1995:242)

[13] It is curious, however, that Zeller (2002) does not explicitly say that the familiar verb-complement relation can replace the notion of structural adjacency to account for the relevant verb particle data.

[14] There are many details to be worked out in this alternative view. For instance, we have to propose a way to distinguish the difference between particles and h-prepositions extensively discussed in Chapter 3.

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