Picking up Particles

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1. The context

The analyses of verb particle constructions fall into two classes. These can best be illustrated with reference to a Dutch example like (1). Some analyses (which we will refer to as the Complex Verb (CV) approaches) take the particle–verb combination (op bellen) as a lexical unit with the NP zijn vrouw as the direct object. Recent examples of analyses along these lines can be found in Johnson (1991) and Neeleman & Weerman (1993). Others analyse the particle as a secondary predicate in the complement of the verb. In these analyses (of which the Small Clause (SC) approach is a prime representative) the particle and the verb do not constitute a lexical unit, and the NP zijn vrouw is an argument of the particle. An analysis along these lines can be found in Kayne (1984), Bennis (1992) and Den Dikken (1992). The simplest structural representations of the CV– and SC–analyses (for an OV language such as Dutch) are given in (2a) and (2b), respectively.

(1) Jan moet zijn vrouw op bellen.
Jan must his wife up call
‘Jan should call up his wife.’

(2) a. \[ V' \]
\[ NP \]
\[ zijn vrouw \]
\[ Prt op \]
\[ V \]
\[ bellen \]

b. \[ V' \]
\[ PrtP \]
\[ zijn vrouw \]
\[ Prt op \]
\[ V \]

Recently, Hyams, Schaeffer & Johnson (1993) and Broihier, Hyams, Johnson, Pesetsky, Poeppel, Schaeffer & Wexler (1994) have argued that facts from the domain of the acquisition of the particle–verb construction both in English and in Dutch and German provide evidence in favour of the Complex Verb approach to this construction (2a) and against the Small Clause approach in (2b). In this paper we will argue against their conclusion. We will show (i) that their analyses have serious theoretical problems, (ii) that a more detailed look at the data provides evidence against a CV–approach, and (iii) that a SC–analysis does not have these problems. Our conclusion is thus opposite to theirs: acquisitional data in fact support the SC–analysis.

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One of the characteristics of the particle-verb construction is that particle and verb can be separated, as in (3a):

(3) a. Jan belt iedere dag zijn vrouw op.
     Jan calls every day his wife up
b. *Jan opbelt iedere dag zijn vrouw.
     Jan up-calls every day his wife

The example in (3b) demonstrates that verb and particle even have to be separated under Verb Second in Dutch. A somewhat similar situation is found in English. Verb and particle may appear at the same side of the object, or separated by the object, as in (4a,b); but sometimes verb and particle have to be separated, as in (4c,d).

(4) a. John calls his wife up.
     b. John calls up his wife.
     c. John calls her up.
     d. *John calls up her.

The separability of particle verbs and the restrictions thereon will be seen to play a central role in the discussion to follow. But first, let us turn to a brief survey of the case that Hyams, Schaeffer & Johnson (1993) and Broihier et al. (1994) have endeavoured to make for the complex verb approach.

2. Theoretical arguments against the CV-approach

Hyams et al. (1993) and Broihier et al. (1994) show that the acquisition of the particle-verb construction has two interesting characteristics:

(5) a. The order V-NP-Prt (4a) is acquired prior to the order V-Prt-NP (4b).
     b. The verb appears as a root infinitive (Wexler 1992) in the early stages.

They provide an account for these properties in the following way. They first claim that verbal stems may not surface alone in Germanic languages, as codified in the condition in (6) (cf. Broihier et al. 1994:4):

(6) No Germanic verbal stem may surface alone.

It thus follows that V must be supplied with inflectional morphology at some point in the derivation. Now, they assume (explicitly in Broihier et al. 1994) that inflectional morphology may be attached to a verb either before lexical insertion (morphological inflection) or in the course of the syntactic derivation (syntactic inflection). The two (slightly simplified) basic structures of calls his wife up, instantiating syntactic and morphological inflection respectively, are given in (7). The orders in (4a,b) can be derived through movement to T of either V2 (yielding (4a)) or V1 (resulting in the word order reflected in (4b)).
Observing that derivational morphology cannot be attached to verb–particle combinations, in view of the ungrammaticality of the constructs in (8), Broihier et al. (1994) postulate a principle called PAP, reproduced below as (9). They then go on to show that the explanation of the late appearance of the order V–Prt–NP in child language can be related to (9) if it is assumed that children start out with a more general version of PAP. This child version is called PAPETTE, and is given in (10).

(8) *look uper, *look uping, *look uped
(9) The Particle–Verb Affixation Prohibition (PAP)
    Derivational morphology may not attach to [\[V V \text{ particle}].
(10) The Particle–Verb Affixation Prohibition (Child version: PAPETTE)
    Morphology may not attach to [\[V V \text{ particle}].

The crucial difference between (9) and (10) is that inflectional morphology falls under PAPETTE, but not under PAP. As long as PAPETTE has not been replaced by PAP, children cannot add inflectional morphology to the V–particle complex, either before lexical insertion or through head movement. Then (7b), instantiating lexical attachment of inflectional morphology, is straightforwardly ruled out in child language because it presupposes the attachment of inflectional morphology to the V–Prt complex. The alternative in (7a) with movement of V1 to the inflectional morpheme will also be impossible in child language, for the same reason. But some sort of verb movement will have to take place in (7a), given the condition in (6). So what will happen is that V2, the verbal part of the V–Prt complex, moves alone, stranding the particle. This yields a V–NP–Prt order; the non-occurrence of the V–Prt–NP order in the early acquisitional stages of English is hereby explained.

What remains to be explained is why the verb must appear as a root infinitive (cf. (5b)), and cannot bear finite inflection in early child language. Broihier et al. (1994) claim that this is due to the locality requirement on head movement. This can be illustrated with reference to the derived structure in (11):
The structure in (11), which is the result of adjunction of V to Agr, and subsequently to T, violates the locality constraint on head movement, since the verbal trace \( t_j \) is not locally bound. The nearest binder is \( t_i \), the trace of Agr. For both adults and children (11) is an ungrammatical structure. However, while adults have a way out through the structure in (7b), children do not, because of \textsc{papette}. Assuming the \textit{root infinitival} morpheme to originate in Agr, not T, Broihier \textit{et al.} correctly predict that children can move V2 to the root infinitival morpheme violating neither the Head Movement Constraint nor \textsc{papette}.

Ingenious though this proposal may be, it has a number of serious problems, which lead us to doubt that this is the correct way to account for the factual differences between adults and children in the particle construction. We will present three problems in section 3.

3. Theoretical arguments against the CV–approach

3.1. A hybrid system

Recall first of all that Broihier \textit{et al.} assume that inflectional morphology may be attached to a verb either before lexical insertion (morphological inflection) or in the course of the syntactic derivation (syntactic inflection). It is quite unattractive to assume that there are \textit{two} ways to add inflectional morphology to a verbal stem. One either adheres to the strong version of the lexicalist hypothesis (as in the Minimalist Program) or takes inflectional morphemes to be the lexical realizations of functional heads (as in pre-minimalist work); doing both would render the status of inflectional morphemes unclear and would seriously weaken both the checking theory and the decomposition theory. Such a hybrid approach extends the available technical apparatus rather substantially. Moreover, the availability of both ways to add inflectional material to a verbal stem is necessary only in their account of the \textit{child} language data. Nowhere in the Broihier \textit{et al.} theory do adults crucially need syntactic inflection; all of their structures can be derived strictly with the aid of morphological inflection. Econ-
omy considerations then dictate that adults have morphological inflection only. But since PAPETTE excludes morphological inflection for particle verbs, the child is forced to resort to syntactic inflection in constructions containing them. In the process of language acquisition, then, children have to get rid of syntactic inflection. Broihier et al. (1994) thus create quite a large and, as we will show, unnecessary difference between child language and adult language.

3.2. Complex verbs and affixation prohibitions
A second theoretical argument against a Broihier et al. type CV–approach concerns the status of the ‘affixation prohibitions’ that it resorts to. It can easily be seen that as they stand PAP and PAPETTE are simply pointless, making reference as they do to a putative complex of the type [\(\nu V \text{Prt}\)]. Such a construct is straightforwardly ruled out by the Right-hand Head Rule of Williams (1981) (see also Kayne 1993). PAP and PAPETTE are hence trivially applicable to all languages and stages of acquisition. Potentially more sensible versions of the two constraints would make reference to complex heads of the type [\(\nu \text{Prt V}\)], as in (12) and (13):

(12) \textit{Re: The Particle–Verb Affixation Prohibition (PAP')} Derivational morphology may not attach to [\(\nu \text{Prt V}\)].

(13) \textit{Re: The Particle–Verb Affixation Prohibition (Child version: PAPETTE')} Morphology may not attach to [\(\nu \text{Prt V}\)].

Formulated this way, (12) is flatly false, not just for languages like Dutch and German, as is shown by the productive derivations in (14a), but also for English, which (unproductively) allows derivations of the type in (14b).

(14) a. opbeller ‘up-call-er’, afleesbaar ‘off-read-able’, opmerkzaam ‘upnotice-ive’, ...
   b. onlooker, ongoing, outgoing, upcoming, uprising, upheaval, upsurge, upset, offset, bypass, output, input

Since PAP' in (12) is false, PAPETTE' cannot be correct either. The crucial point that PAPETTE strives to capture for child language, however, is that inflectional morphology cannot attach to complex heads. This part of PAPETTE is presumably correct — but not just for child language, but for adult Dutch, German and English as well. For Dutch and German this is evidenced by the fact that [\(\text{Prt V}\)] may not show up in Verb Second position, as was demonstrated in (3b). Although more elaborate, non-construction-specific accounts are available in the literature (see e.g. the Complexity Constraint of Bennis 1992), for our purposes in this paper we will refer to this condition as PIP:

(15) \textit{The Particle–Verb Inflection Prohibition (PIP)}
Inflectional morphology may not attach to [\(\nu \text{Prt V}\)].
Given that PIP applies not just to child language, but to adult language as well, it will be clear that PIP — or any constraint on the combinability of particle verbs with morphology — does not explain the acquisition facts, summarized in (5). This undermines the foundations of the account presented in Hyams et al. and Broihier et al., based on a CV–approach to particle constructions.

3.3. Incompatibility with Johnson (1991)
Perhaps the most striking argument against Broihier et al.'s proposal (related to the previous) is the fact that it is in conflict with the analysis of Johnson (1991), on which it is based. In Johnson (1991) it is extensively argued that the ungrammaticality of (4d) (*John calls up her) is due to the fact that a particle–verb cannot be inflected, which is of course a consequence of PIP, not of PAP. To account for the ungrammaticality of (4d) Johnson argues that pronouns must occupy the Spec-position of the projection governed by the Tense-position (an instance of Object Shift). Given that the affix in T may only receive V and not a complex Prt–V, there is no possibility for Prt to appear in between T and a pronoun, because there are no intervening head positions. Non-pronominal NPs are not moved through Object Shift; they surface in a lower Spec-position, thereby creating the possibility for Prt to appear in a head position in between T and NP. Now notice that Johnson's analysis of the paradigm in (4) crucially involves a condition with the effect of PIP. Broihier et al. are led to assume, however, that the particle–verb can be morphologically inflected (in adult English), and can subsequently be moved as a whole to T. Clearly, the two proposals cannot both be right.

Our point here is not that an analysis along the lines of Broihier et al. (1994) could not accommodate the pronoun restriction in (4c,d) — creative minds will doubtless be able to make it account for these facts in some way. But that account will have to be radically different from Johnson's (1991), which in any event in the domain of 'affixation prohibitions' avails itself of a much more sensible constraint (our PIP) than does Broihier et al.'s, as section 3.2 showed.

Let us close this section by concluding that the analyses of Hyams et al. (1993) and Broihier et al. (1994) show serious theoretical shortcomings. It thus cannot be maintained that the acquisition of particle–verbs provides an argument in favour of a CV–analysis. With this conclusion in mind, let us now proceed to presenting some empirical support for the rival SC–analysis.

4. Empirical arguments for a SC–analysis

Returning to the generalizations in (5) further below, we will first introduce a number of other generalizations that conspire to make the case for a SC–approach to particle constructions. The generalizations to be presented are based on an inspection of the following child language data, mostly culled from the CHILDES database (CH):²
<table>
<thead>
<tr>
<th>CHILD</th>
<th>SOURCE</th>
<th>AGE</th>
<th>MLU range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hein</td>
<td>Utrecht (CH)</td>
<td>2;4.11 – 3;1.24</td>
<td>1.59 – 3.57</td>
</tr>
<tr>
<td>Niek</td>
<td>Wijnen (CH)</td>
<td>2;7 – 3;10.17</td>
<td>1.34 – 3.30</td>
</tr>
<tr>
<td>Maria</td>
<td>Schaerlakens (CH)</td>
<td>1;10.18 – 2;9.19</td>
<td>1.10 – 5.54</td>
</tr>
<tr>
<td>Diederik</td>
<td>Schaerlakens (CH)</td>
<td>1;10.18 – 2;9.19</td>
<td>1.29 – 4.35</td>
</tr>
<tr>
<td>Katelijne</td>
<td>Schaerlakens (CH)</td>
<td>1;8.29 – 2;10.23</td>
<td>1.11 – 4.9</td>
</tr>
<tr>
<td>Gijs</td>
<td>Schaerlakens (CH)</td>
<td>1;8.29 – 2;10.23</td>
<td>1.31 – 5.41</td>
</tr>
<tr>
<td>Joost</td>
<td>Schaerlakens (CH)</td>
<td>1;8.29 – 2;10.23</td>
<td>1.21 – 4.11</td>
</tr>
<tr>
<td>Jasmijn</td>
<td>Jordens (diary)</td>
<td>1;3.30 – 1;8.22</td>
<td>1.0 – 4.09</td>
</tr>
<tr>
<td>Laura</td>
<td>Van Kampen (diary)</td>
<td>1;9.26 – 7;1.22</td>
<td>not available</td>
</tr>
<tr>
<td>Sarah</td>
<td>Van Kampen (diary)</td>
<td>1;7.8 – 1;11.9</td>
<td>not available</td>
</tr>
</tbody>
</table>

The first generalization that can be argued to constitute an argument in favour of the SC-approach is given in (i):

(i) Children use NP + particle before they acquire particle verbs.

As is shown in Table 1, children use particles from the earliest stages on. Braine (1963) records several cases of particles in the first word combinations, Andrew (around 1;8) using off often enough (as in boot off, light off, pants off, shirt off, shoe off and water off) for Braine to call it a pivot.³
Two other generalizations that emerge from an inspection of the child language data are those in (ii) and (iii):

(ii) *Children use transitive verbs before they acquire particle verbs*

(iii) *The V–NP–Prt construction is acquired around the same time as Double Object constructions, Causative and Perception Verb constructions and PUT-resultatives* (Snyder & Stromswold 1994).

Table 2 shows that, in conformity with (ii), children use verbs from the earliest stages on, and that particle–verbs are consistently acquired later. The generalization in (iii) stems from Snyder & Stromswold (1994), who show that the constructions mentioned in (iii) are all acquired around the mean age of 2;2. Table 3 presents the mean ages of acquisition of the four construction types for a set of three children (Adam, Eve and Nina), a subset of the children investigated by Snyder & Stromswold.4

<table>
<thead>
<tr>
<th>CHILD</th>
<th>AGE OF FIRST VERB</th>
<th>AGE OF FIRST PRT + V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diederik</td>
<td>1;10.18</td>
<td>2;0.19</td>
</tr>
<tr>
<td>Maria</td>
<td>1;10.18</td>
<td>2;0.19</td>
</tr>
<tr>
<td>Katelijne</td>
<td>1;8.29</td>
<td>1;11.27</td>
</tr>
<tr>
<td>Gijs</td>
<td>1;8.29</td>
<td>1;10.29</td>
</tr>
<tr>
<td>Joost</td>
<td>1;8.29</td>
<td>2;0.12</td>
</tr>
<tr>
<td>Laura</td>
<td>1;9.29</td>
<td>1;11.22</td>
</tr>
<tr>
<td>Sarah</td>
<td>1;7.8</td>
<td>1;11.9</td>
</tr>
</tbody>
</table>

**TABLE 2**

<table>
<thead>
<tr>
<th>MEAN AGES OF ACQUISITION (Adam, Eve, Nina)</th>
<th>V–NP–Prt</th>
<th>DOD</th>
<th>SC</th>
<th>Put</th>
</tr>
</thead>
<tbody>
<tr>
<td>2;2.7</td>
<td>2;2.5</td>
<td>2;4.9</td>
<td>2;2.9</td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 3**
Snyder & Stromswold's (1994) conclusion that 'double object datives, put-constructions, 'small clause' constructions with verbs of causation and perception, and V–NP–Particle constructions were all acquired concurrently by 12 children in the course of learning English', as well as the other two generalizations mentioned above, are directly accommodated by a SC–analysis of the V–NP–Prt construction. Given that in a SC–analysis the particle heads its own predicate, a V–NP–Prt construction is an instance of a syntactic complex predicate. We thus expect the simplex predicates Prt and V to appear prior to the complex predicate, and we expect that the acquisition of the particle construction correlates with the acquisition of other instances of syntactic complex predicate formation. This is exactly what we have found. It remains unclear how the generalizations in (i)–(iii) would follow from the CV–analysis.

A final observation that favours a SC-approach is given in (iv):

(iv) Dutch shows no clear instances of inflected particle verbs in V2 position.

There is no particular reason why the CV–approach should not expect sentences of the type in (3b) to be grammatical — after all, the difference between morphologically complex verbs such as be+vallen ('please'), ver+zetten ('put away'), where the prefix must accompany the verb on its way to the second position, and particle verbs as op+vallen ('strike'), weg+zetten ('put away'), forcing stranding of the prefix, is rather marginal on the CV–analysis. For each individual complex verb the child has to learn whether or not PAPETTE is applicable, and we thus expect mistakes. The fact that we do not find mistakes of the type in (3b) suggests a more substantial difference between morphologically complex verbs and particle–verbs. The SC–analysis provides such a difference. It does not treat particle–verbs as morphological complexes, and hence does not lead us to expect Verb Second to take the particle along.

5. The generalizations in (5) revisited

Let us finally turn to the two generalizations that are the point of departure of Hyams et al. (1993) and Brohier et al. (1994). Of these, (5a) is perfectly neutral in the debate between SC and CV, since a SC–analysis can capture it easily by hypothesizing that early child language lacks the possibility of incorporating the particle into the verb. Hyams et al. object to such a hypothesis on the grounds that early child language does certainly feature other cases of head movement. Verb Second (V–to–I–to–C) and Verb Raising (V–to–V) are attested, and so, they claim, is adjective incorporation. However, their example of adjective incorporation is irrelevant (or at least unilluminating) — (16) simply reflects the standard, unincorporated complement–verb order of Dutch VPs.

(16) even schoonmaken
    just clean-make

(2;5)
And Verb Second and Verb Raising are different from particle incorporation in that they are triggered by functional features, serving the purpose of connecting the verb to a Tense-feature. There is ample reason, then, to question the view that all cases of head movement constitute one homogeneous phenomenon. Once this is recognized, the existence of F-feature triggered cases of head movement in early child language tells us nothing about the existence or non-existence of non-F-feature triggered cases of head movement, like particle incorporation. What we will assume (to accommodate the generalization in (5a)) is that early child language lacks the possibility of incorporating the particle into the verb. This is why the English child starts off with the V–NP–Prt order.

The generalization in (5b) is Broihier et al.'s principal occupation. Broihier et al. (1994) and Poeppel & Wexler (1993) found that in Dutch and German, particle–verbs appear significantly more often as non-finite verbs than do plain verbs. Such a difference for them provides the justification for treating particle–verbs differently from plain verbs. Since PAPETTE is formulated for particle–verbs exclusively, Broihier et al. provide an analysis that is able to account for this difference. It is not immediately clear how this difference should follow in a SC–account of particle–verbs. If the particle is not incorporated, the verb is no different from other verbs. The SC–analysis thus predicts no difference between particle–verbs and plain verbs. If (5b) were true, it would constitute a serious argument against a SC-analysis.

However, it seems to us that (5b) is irrelevant, the reason being that we have to distinguish between different classes of verbs. As has been observed by many others, including Poeppel & Wexler, in early Dutch and German aspectual and modal auxiliary verbs appear as finite verbs in second position only, while thematic verbs appear predominantly as non-finite verbs in final position. Given that particle–verbs are predominantly thematic verbs, we should leave auxiliary verbs out of consideration if we want to determine whether there is a difference between particle–verbs and plain verbs. We thus have to compare thematic particle–verbs with thematic plain verbs. In part on the basis of the same data used by Broihier et al., we have found that the proportion of finite and non-finite verbs does not differ significantly for thematic plain verbs and thematic particle verbs. This is shown in the tables on the next page. The observed facts do not give rise to a substantial distinction between plain verbs and particle verbs with respect to their occurrence as root infinitives (see the last table). First of all, finite particle verbs appear quite often (48%) in a stage at which we also find root infinitives. Second, there is only a relatively minor difference between the percentage of root infinitives of verbs without a particle (36%) and verbs with a particle (45%). We thus conclude that (5b) is a spurious generalization.

If this is correct we not only get rid of an argument against the SC–approach to particles, we also introduce an argument against the CV–account of Broihier et al. Their analysis predicts (5b) to be correct. But given that (5b) is incorrect, the only remaining piece evidence in favour of PAPETTE will also fall.
<table>
<thead>
<tr>
<th>NIEK</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
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<tr>
<td>finite</td>
<td>2210</td>
<td>1325/60%</td>
<td>885/40%</td>
<td>548</td>
<td>300/55%</td>
<td>248/45%</td>
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<tr>
<td>non-finite</td>
<td>575</td>
<td>83 / 14%</td>
<td>492/86%</td>
<td>174</td>
<td>9 / 5%</td>
<td>165/95%</td>
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<tr>
<td>past participle</td>
<td>29</td>
<td>0</td>
<td>29</td>
<td>35</td>
<td>0</td>
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<table>
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<tr>
<td>finite</td>
<td>2423</td>
<td>1338/55%</td>
<td>1085/45%</td>
<td>199</td>
<td>149/75%</td>
<td>50/25%</td>
</tr>
<tr>
<td>non-finite</td>
<td>600</td>
<td>75 /  13%</td>
<td>525/87%</td>
<td>120</td>
<td>9 / 8%</td>
<td>111/92%</td>
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<tr>
<td>past participle</td>
<td>38</td>
<td>2 / 1%</td>
<td>36 / 99%</td>
<td>10</td>
<td>0</td>
<td>10</td>
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<table>
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<th>VI</th>
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<tr>
<td>finite</td>
<td>14</td>
<td>10 / 71%</td>
<td>4 / 29%</td>
<td>3</td>
<td>3</td>
<td>0</td>
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<tr>
<td>non-finite</td>
<td>130</td>
<td>11 / 8%</td>
<td>119/92%</td>
<td>10</td>
<td>0</td>
<td>10</td>
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<tr>
<td>past participle</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
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<table>
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<tr>
<th>V-lexical</th>
<th>total</th>
<th>finite</th>
<th>non-finite</th>
<th>past part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>V without particle</td>
<td>3178</td>
<td>1974 / 62%</td>
<td>1136 / 36%</td>
<td>68 / 2%</td>
</tr>
<tr>
<td>V with particle</td>
<td>629</td>
<td>298 / 48%</td>
<td>286 / 45%</td>
<td>45 / 7%</td>
</tr>
</tbody>
</table>

6. Conclusion

We have shown that the CV-analysis of particle-verbs of Hyams et al. (1993) and Brohier et al. (1994) has a number of serious shortcomings, that their arguments against a SC-analysis do not hold water, and that one of the two empirical generalizations they introduce for the CV-approach is a spurious one. On the other hand, we have introduced a number of empirical generalizations that support the SC-analysis. We thus conclude that the acquisitional data warrant an analysis of the particle-verb construction along the lines of a syntactically complex combination of verb and particle.
Notes

1. We will return to the pronoun restriction illustrated in (4c,d) later in the paper (see section 3.3, below).
2. Note that Niek is a notoriously slow starter; his MLU range is a better indicator of his development than his age.
3. While we would certainly agree that the particle status of some of these instantiations of off is questionable (some presumably being more adequately characterized as intransitive prepositions; this is particularly likely for boot off, pants off, shirt off and shoe off). Andrew’s pivots include several true particles (as in light off and water off; other particles include away, down, on, out, up). In any event, since Hyams et al. and Broihier et al. themselves do not distinguish between ‘true’ particles and, for instance, intransitive prepositions, we have elected not to do this either, thus rendering the comparison of the two types of approaches to particle constructions maximally direct.
4. ‘DOD’ is short for ‘double object dative’; ‘SC’ in Snyder & Stromswold’s work refers to causative and perception verb constructions. We refer to Snyder & Stromswold’s article for fuller details (particularly, the precise acquisition dates for each individual child).
5. Child German shows some apparent instances of finite particle–verbs, but none of these feature vowel changes typical of finite verbs — cf. Clahsen’s (1986) wiedervahrt ‘back drive–AFF’, used with a 3SG subject, instead of the unequivocally finite wiedervahrt, with unlauned a, which is not attested (while unlaunted fahrt unaccompanied by the particle is attested). This indicates that such apparently finite particle–verbs really are not finite, but most likely participial instead (see Jordens 1990:1419 for discussion).

References


