

Chapter 15

Particle-verbs in an Austrian-American code-switching idiolect

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We describe a productive construction in an Austrian-American code-switching idiolect, in which English particle verbs are integrated into a German frame with what appears to be a melange of grammatical properties from the two languages, including apparent doubling of inflectional morphology. We suggest that English particle verbs are too large to be simply borrowed as verbs, but are instead the right size to be pressed into the mold of a different complex verbal structure that occurs independently in German: verb clusters. This minimal reanalysis provides a structure that is similar enough to allow for congruent lexicalization in code mixing. Intuitions about the distribution of the construction suggest that it is systematic and not merely a case of doubling or copying of the suffixes, and our proposed analysis captures the main distinctions between possible and impossible contexts.

1 Introduction

In this paper, we describe a productive construction in an Austrian-American code switching (CSw) or code-mixing idiolect, illustrated in (1):

- (1) a. Ich geh es sett-en upp-en.
I go it set-INF up-INF
'I'll go set it up.' (2017.12.26)
- b. Wir werden hang-en out-en.
We will hang-INF out-INF
'We're going to hang out.' (2017.06.02)



The hallmark of this construction is the use of an English particle verb in a German sentence, with the English verb-particle order (otherwise impossible in German outside of verb-second contexts) but with German inflectional morphology on – it appears – both the verb and particle. The construction is freely available in contexts like (1), but is otherwise restricted, and for example is completely impossible in simple main clause configurations with no auxiliary or modal:

- (2) a. *Wir sett-en es heute Abend upp-en.
 we set-1PL it today evening up-1PL
- b. Wir sett-en es heute Abend up.
 we set-1PL it today evening up
 ‘We’ll set it up this evening.’

Our first goal in this paper is to provide a description of the construction, and its distribution. Secondly, we offer some thoughts about why the construction has the peculiar distribution it has, focusing in particular on the contrast in (1) versus (2), relative to typologies of code-mixing. For example, Muysken (2000) provides a typology of code-mixing with three major types, but this construction seems not to match up to any of them. Muysken’s proposed types (p. 3) are as follows:

- (3) a. *alternation* between structures from multiple languages
- b. *insertion* of lexical items or entire constituents from one language into a structure from the other
- c. *congruent lexicalization* of material from different lexical inventories into a shared grammatical structure

We assume that the matrix language frame for all examples considered here is German, and that these are not *alternations*. The code-mixed contexts we describe here are perceived by the participants as being in German. Instead, we will focus on *insertion* and *congruence* – the ways in which English material is integrated into a German syntactic frame (see also Myers-Scotton 1993). We suggest that examples like (2b) represent *congruent lexicalization*: both German and English have particle-verb combinations that can be discontinuous, where the (inflected, finite) verb precedes the particle. That is, the sentence meets all the conditions of German syntax (including separation of the finite verb and the particle to meet the verb second [V2] requirement), and also satisfies the English syntax of the particle-verb construction: the verb precedes the particle, though may be separated from it by (leftward) verb movement.

The intuition we wish to pursue is that the construction in (1) represents a type of repair, when congruence would otherwise fail. The phrasal nature of particle verb combinations makes them “too big” to integrate via insertion into a V position. At the same time, there is no congruent parse which satisfies both the (German) verb-final requirement, and the English requirement that the particle follows the verb. Despite this, we suggest that (1) is nevertheless made congruent by coopting another independently occurring piece of German syntax, which results in the apparent morphological doubling. In a manner reminiscent of the notion of “derivatively grammatical” in Chomsky (1965: 242): the construction is not, as such, derived by the grammar, but it comes “close-enough” to a structure that is congruent to be usable.

2 Setting up the puzzle

2.1 Background: The code-switcher

The linguistic behaviour that we describe here is that of a balanced bilingual (Austrian German and American English). The speaker lived in New England (USA) until age 11, and has for the five-and-a-half years since then lived in Vienna (Austria), though over both periods spent time in the other location. In the US, his schooling, and thus peer-group, was exclusively English, but the language of the home was German (the native language of one parent, an L2 of the other). In Austria, schooling is in German, though with some English instruction through a “dual language program”; the peer group is primarily, though not exclusively, German-dominant, but all speak English as well. Data here is drawn from passive observations by the speaker’s parents (sporadic language notes over many years), combined with the intuitions/acceptability judgments of the second author, who is a native speaker of the CSw idiolect. Use of English particle-verbs in German frames is attested in the parental notes since 2016, and the construction with doubled inflection occurs since 2017.¹

¹A reviewer asks about the extent of code-mixing in the data. The parental notes were not kept in a way that allows us to provide a quantitative answer. Our intuition is that some amount of mixing occurs daily, although most utterances are primarily in one language. We suspect that some conversational scenarios, such as discussion in German of events that took place in English (school, movies, computers, US news), favour more mixing. In response to the reviewer’s query, the second author examined a sample of 100 text messages (of two words or more) between him and his L1-English parent. 93 of these were entirely in German, and 7 involved switching (none were entirely in English). Both authors share the intuition that this medium under-represents the frequency of switching in conversation. Most mixed SMSs involved an English word inserted into German, with German morphosyntax (i), but some involved larger constituents (ii):

As far as we have been able to determine, the construction is idiolectal. A small survey of seven members of the speaker's peer-group in Vienna, Austria, found no other users of the construction in (1), although none of the peer code switchers have the same linguistic background (other survey respondents have lived primarily in German-speaking social contexts for far longer, some exclusively). Nevertheless, the *setten uppen* construction has been observed as a stable part of the speaker's grammar for a period spanning multiple years, was used un-self-consciously in spontaneous, running discourse, and the speaker has consistent acceptability judgments about the distribution of the construction. We assume, therefore, that the construction is grammatical in this idiolect. By all available evidence, it constitutes systematic, rule-governed linguistic behaviour, and thus it should be amenable to an account within a theory of code-switching.

2.2 Distribution of the construction

The *setten uppen* construction is most natural, and most attested in our limited notes, in the configuration in (1), where it occurs in the clause-final position that corresponds to an infinitive verb in German:²

- (4) a. Ich geh es sett-en upp-en. (CSw)
 I go it set-INF up-INF
 'I'll go set it up.' (2017.12.26)
- b. Wir werden hang-en out-en. (CSw)
 We will hang-INF out-INF
 'We're going to hang out.' (2017.06.02)
- c. Ich muss es noch turn-en on-en. (CSw)
 I must it still turn-INF on-INF
 'I still have to turn it on.'

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- (i) Es renewed am 15.
 It renew-3SG on 15th
 'It renews on the 15th.' (From context, it is clear that orthographic "-ed" here represents German 3SG.PRES -t. Autocorrect may have influenced the orthographic form.)
- (ii) Mama musste solemnly swear.
 Mama must-PAST solemnly swear-INF
 'Mama had to solemnly swear.'

²The most frequent spontaneously occurring examples are those with no obvious parallel particle verb in German, such as *hang-en out*, and *sett-en up*. Examples like *throw-en out*, and *turn-en on*, for which there are German particle verb with the same meaning (*weg-werfen* 'away-throw'; *ein-schalten* 'on-switch') are judged less natural, but still possible.

Doubling of any sort is categorically impossible in finite main clauses, that is, in the V2 construction where the verb is in second position, and the particle final (whether or not there is intervening material):

- (5) a. * Wir sett-en es heute am Abend upp-en. (CSw)
 we set-1PL it today at evening up-1PL
 b. * Wir sett-en up(p-en) es heute am Abend. (CSw)
 we set-1PL up(-1PL) it today at evening
 c. * Wir sett-en es up(p-en) heute am Abend. (CSw)
 we set-1PL it up(-1PL) today at evening
 ‘We’ll set it up this evening.’

Instead, in simple main clauses, English particle verbs are readily integrated into German syntax: the verb is inflected as a finite verb and the particle occurs clause-finally, uninflected.³

- (6) a. Wir sett-en es heute am Abend up. (CSw)
 we set-1PL it today at evening up
 ‘We’ll set it up this evening.’
 b. Und dann chopp-en sie die Oreos up. (CSw)
 and then chop-3PL they the Oreos up
 ‘And then they chop the Oreos up.’ (2017.08)
 c. Sie figure-t es out. (CSw)
 she figure-3SG it out
 ‘She’ll figure it out.’ (2017.06.02)

Between these two poles, the data are somewhat less clear. Apparent doubling of inflectional morphology is possible in embedded finite clauses, where the finite verb is final, in particular with first and third person plural subjects (7a). Thus we have minimal pairs between matrix and embedded clauses:⁴

³We assume that the particle in (6a–6b) is English *up* although phonetically, this is hard to distinguish from the German particle *ab* [ap] ‘down.’ We do feel that the vowel quality, in careful introspection, is reliably distinct: English [ʌp] rather than German [ap]. If it were reanalyzed as German *ab*, we would not expect the behaviour in (4) etc., but instead patterning with (14), below. Particle *out* does not raise this issue, as there is no homophonous German particle.

⁴Since first person plural inflection is identical to infinitival morphology, the glosses in this example are to be taken with a grain of salt. We will suggest below that (7a) does not actually involve doubling of the 1PL finite inflection.

- (7) a. ...bevor wir hang-en out-en.
 ...before we hang-1PL out-1PL
 ‘...before we hang out.’
 b. *Wir hang-en out-en.
 We hang-1PL out-1PL
 ‘We’re hanging out.’

First and third person plural subject inflection has the property that it is homophonous with infinitival morphology. With other subject person-number combinations, judgments about finite embedded clauses are less clear. Over a small sample of introspective judgments, we find doubling sometimes accepted (8b) but sometimes not (8a).

- (8) a. *...bevor du hangst outst.
 ...before you hang-2SG out-2SG
 ‘...before you hang out.’
 b. ...bevor du es settest upst.
 ...before you it set-2SG up-2SG
 ‘...before you set it up.’

Note that there is an alternative with *-en* on the verb and person inflection only on the particle:

- (9) a. ...bevor du hangen out(e)st.
 ...before you hang-INF? out-2SG
 ‘...before you hang out.’
 b. ...bevor du es setzen upst.
 ...before you it set-INF? out-2SG
 ‘...before you set it up.’

Examples like this suggest that the construction is not to be modeled simply as copying or doubling of an inflectional affix. This seems to distinguish the construction from the colloquial English *picker upper* nominalizations, to which we return below.

Finally, we note that participial constructions are also verb-final in German. For particle verbs, whatever pattern there is does not appear to be particularly stable. The following was attested, in spontaneous speech, as was *geline*d up ‘lined up’ (2017.02.05, noted without sentential context):

- (10) Ich hab-'s schon ge-sett-et up.
 I have-it already PTCP-set-PTCP up
 'I already set it up.' (2016.08.15)

Other combinations also sometimes appear to be possible:

- (11) a. Ich hab(e) es ge-set-up-t.
 I have it PTCP-set-up-PAST
 b. Ich hab(e) es ge-sett-en up-t.
 I have it PTCP-sett-PTCP up-PTCP
 c. Ich hab(e) es ge-sett-et up-t.
 I have it PTCP-set-PAST up-PTCP
 'I set it up.'

Yet in the second author's judgment, for many participle verbs one might try to integrate, including five other combinations that freely enter into the *setzen uppen* configuration considered here, there is simply no acceptable outcome as a participle:

- (12) a. *Ich hab(e) ge-hang-ed ge-out-ed.
 I have PTCP-hang-PAST PTCP-out-PAST
 b. *Ich hab(e) ge-hang-ed out.
 I have PTCP-hang-PAST out
 c. *Ich hab(e) ge-hang-out-ed.
 I have PTCP-hang-out-PAST
 'I hung out.'

3 Analysis

3.1 Preliminaries

We start by noting that the construction at issue differs from simple lexical borrowing since it involves an apparent blend of German and English grammar: German particle verbs (separable prefixes, see Wurmbrand (1998) for an analysis) categorically show the order particle-verb when the verb is not in second position – the order between verb and particle is decidedly English in (1) – while the remainder of the sentence shows distinctly German grammar, for example, verb-finality when abstracting away from verb second – note pre-verbal object in (13c) and (1):

- (13) a. I have to throw out something. (Eng., also: ...throw something out)
 b. Ich muss etwas weg-werf-en. (Ger.)
 I must s.th. away-throw-INF
 ‘I must throw something away.’
 c. Ich muss etwas throw-en out-en. (CSw)
 I must s.th. throw-INF out-INF
 ‘I must throw something away.’

English particle verb combinations can be borrowed into German, and used fully within German syntax. Constructions where only the English verb is borrowed, and combined with a German particle, are well established: *aus-flipp-en* ‘to flip out’, *aus-freak-en* ‘to freak out’, etc. Spontaneous examples of this pattern are also attested in our corpus:

- (14) a. (CSw/Ger)
 Ich glaub mein Lunch ist aus-ge-spill-ed.
 I believe my Lunch is out-PTCP-spill-PAST
 ‘I think my lunch spilled (out).’ (2016.04.21)
 b. (CSw/Ger)
 ...und dann [es] runter-scrape-n, und es wird ein-ge-roll-t.
 ...and then [it] down-scrape-INF, and it AUX in-PTCP-roll-PAST
 ‘and then [they] scrape [it] off, and it is rolled in.’ (2017.09.01)

In one corpus study (Willeke 2006) this is the only form in which English particle verbs are attested as borrowings into German: the particle is always German and only the verb is borrowed.⁵ These may of course also occur in separated form:

⁵Willeke phrases the observation differently, since he treats verbs like *download*, *upgrade*, *update* as particle verbs. For English, we reserve the term *particle verb* for those constructions in which the verb and particle do not form a single word (sometimes also called “phrasal verbs”), so our category includes *set up*, *flip out*, etc., but not *download*, *upgrade* since *load down* and *grade up* are not possible forms of these verbs. Willeke’s classification focuses on participial forms such as *down-ge-loaded* and *up-ge-graded*, in which the position of the participial prefix *ge* suggests separability. It is worth noting that with the exception of a single occurrence of *load ... down* (from *Die Presse*), these forms do not occur with the prefix separated in Willeke’s corpus. Such separation is felt to be wholly unnatural to the second author of the present study:

- (i) a. Ich upgrade bald meinen Computer. [ʌpgreɪd-ə]
 I upgrade soon my computer [ʌpgreɪd-ɪsg]
 b. *Ich grade bald meinen Computer up.
 I grade soon my computer up
 ‘I’ll upgrade my computer soon.’

(15) (Ger)

Steffi flipp-te nach ihrem sechsten Streich in Wimbledon nicht aus, ...
 Steffi flip-PAST after her sixth coup in Wimbledon not out
 'Steffi didn't flip out after her sixth coup at Wimbledon, ...' (*Mannheimer Morgen* cited in Willeke 2006: 67)

Some (though not all) members of the code-switching peer-group also permit borrowing of both English verb and particle, but with the particle showing fully German syntax, at least for some examples. Five of seven speakers reported (16a) as acceptable and 4 allowed (16b):

(16) a. % Ich muss etwas out-throw-en. (CSw-peers)

I must s.th. out-throw-INF

'I must throw something away.'

b. % Ich muss es noch out-hand-en. (CSw-peers)

I must it still out-hand-INF

'I still have to hand it out.'

Finally, we note that a sporadically attested pattern of borrowing treats the English verb-particle combination as an unanalyzed whole: Two speakers accepted (17a) and one of them also accepted (17b), suggesting that those particular particle verbs have been reanalyzed as stems, but these were not widely accepted in the group:

(17) a. % Wir hang-out-en am Abend. (CSw-peers)

we hang-out-1PL on evening

'We're hanging out this evening.'

b. % Wir turn-on-en das Gerät. (CSw-peers)

we turn-on-1PL the machine

'We turn on the machine.'

The *setten uppen* construction differs from all of these in that it combines elements of both German and English syntax, rather than embedding English morphemes in a completely German syntactic frame. At the same time, it differs from the three canonical code-switching constructions in the typology proposed by Muysken (2000), which recognizes (i) insertion of single constituents into the other language, (ii) a mid-sentence switch from one code (language) to the other, and (iii) congruent lexicalization where the gross syntax of the two languages coincides. This construction is instead a blend of the two, conforming directly to neither, and this is what we think makes it interesting.

Before proceeding further, we note also that in all of the code-switched examples in the idiolect described here, English phonology is clearly retained in the English morphemes even when they combine with German inflectional morphology. Thus e.g., [θɪoʊ-ŋ] is pronounced with phonemes that are impossible in German. This is not merely a question of possibly borrowed non-native phonemes, but also application of English phonology (e.g., flapping in (19)) or violations of German phonological constraints, such as the failure of final devoicing in examples such as the following:⁶

- (18) Die war die Einzige, die nicht ge-begg-ed ([ge-bæg-d]) hat.
 she was the.FEM only.one who.FEM not PTCP-beg-PAST has
 ‘She was the only one who didn’t beg.’ (2014.06.01)⁷
- (19) Der Mann, der ge-visit-ed ([gə-vɪzɪt-əd]) hat, hat gesagt, dass
 The man who.MASC PTCP-visit-PAST has has said that
 jemand hat ge-sledd-ed ([gə-slɛd-əd]), und ist waist-deep ins Wasser
 someone has PTCP-sled-PAST and is waist-deep into water
 gekommen.
 come
 ‘The man who visited said that someone went sledding and went
 waist-deep into the water.’ (2016.02.15)
- (20) Es war von jemandem, der ein Server-owner ist, und er hat jemanden
 it was from someone who a Server-owner is and he has someone
 ge-bann-ed ([ge-bæn-d]).
 PTCP-ban-PAST
 ‘It [a video] was about someone who owns a server, and he had banned
 someone.’ (2016.05.01)

⁶The preservation of English final voiced consonants in *ge-* prefixed participles among German emigrant code-switching is also noted in Gross (2000), as cited in Myers-Scotton (2002: 159–160). Examples are also attested in our corpus with English phonology on roots combined with adjectival morphology (note English diphthong [eɪ], and interdental [θ]):

- (i) Ich glaub, er hat was alien-es. [ˈeɪliən-əs]
 I believe he has something alien-NEUT.SG
 ‘I think he has something alien.’ (2016.04.25)
- (ii) Für jeden Holiday machen sie etwas ge-theme-t-es. [ge-θim-t-əs]
 For every holiday make they something PTCP-theme-PAST-NEUT.SG
 ‘For every holiday, they do something themed.’ (2015.09)

⁷On some interesting properties of the *Einzige* construction, in particular as regards semantic versus grammatical gender, see Wurmbrand (2017a).

This is in apparent violation of the Free Morpheme Constraint (Poplack 1980) and the related claim in MacSwan (1999: 45) that phonological systems cannot be mixed. Our observations thus align with those of Myers-Scotton (2002: 159–160) and others cited there, where code-switching within the word, with morphemes retaining the phonology of their source language, is both possible and routine.

3.2 Integrating English particle verbs

We return now to some thoughts on the analysis of the *setten-uppen* construction. Above, we have noted that it is more of a blend than a switch between two codes: the construction preserves features of both languages. More specifically, the context of use of all of these utterances is perceived by the participants to be German, although it is clearly recognized that these are English elements. We suggest, then, that one way to think about all of these examples is that they involve integration of an English particle verb into an otherwise German sentential frame. We say “integration” (i.e., Muysken’s *congruent lexicalization*) rather than “borrowing” for the reasons noted in the previous subsection: the construction involves preservation of the English syntactic order: *verb ... particle*.

Seen this way, we can explain why in the verb second configuration, nothing special happens: In German main clauses in simple tenses (with no modal or auxiliary), the verb moves to second position, yielding a surface string that can be superficially similar to English (as in 21b). Even when a non-subject topic precedes the verb, the construction still shares with English the property that the finite, inflected verb precedes the uninflected particle (as in 21c):

- (21) a. I gave it up.
 b. Ich gebe es auf. (Ger)
 I give it up
 ‘I’ll give it up.’
 c. Seine Spitzenposition gibt er nicht so leicht auf. (Ger)
 His Lead.position give.3sg he not so easily up
 ‘He won’t give his lead up so easily.’

English particle-verbs can be fully integrated (other than phonology), and there is no motivation for inflection doubling or any other accommodation:

- (22) a. Wir sett-en es heute am Abend up. (CSw)
 we set-1PL it today at evening up
 ‘We’ll set it up this evening.’

- b. Und dann chopp-en sie die Oreos up. (CSw)
and then chop-3PL they the Oreos up
'And then they chop the Oreos up.' (2017.08)
- c. Sie figure-t es out. (CSw)
she figure-3SG it out
'She'll figure it out.' (2017.06.02)

Even examples where the particle is not strictly final can be seen as being fully integrated into German syntax, since German allows extraposition of PPs, as in (23b) (with German particle-verb *an-fangen* 'on-catch' = 'begin, start'):

- (23) a. Die 2. Staffel kick-t off mit einem Cliffhanger. (CSw)
the 2nd season kick-3SG off with a Cliffhanger
'The second season kicks off with an event.' (2020.05.26, adapted)
- b. Der 2. Staffel fängt t_{pp} an [mit einer wichtigen Szene]. (Ger)
the 2nd season catch-3SG on with an important scene
'The second season starts with an important scene.'

Outside of simple declaratives (more accurately: apart from verb-second contexts with no auxiliaries), the languages diverge. For example, in the presence of a modal or auxiliary, or in an embedded finite clause, English preserves the coarse syntax: *verb ... particle*, but in German, the order of particle and verb are inverted and the particle occurs as a (separable) prefix on the verb (see Wurmbrand 1998 for an analysis):

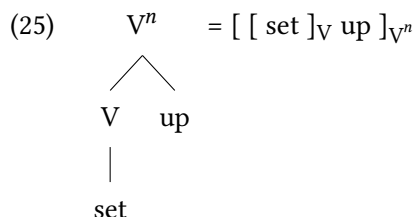
- (24) a. Ich werde es {auf-geben} / {*geben auf}. (Ger)
I will it up-give / give up
'I will give it up.'
- b. Ich habe es {auf-ge-geben} / {*ge-geben auf}. (Ger)
I have it up-PTCP-given / PTCP-given up
'I have given it up.'
- c. ...bevor wir es {auf-geben} / {*geben auf}. (Ger)
...before we it on-give / give up
'...before we give it up.'

Thus, the idea of integration as congruent lexicalization, meeting grammatical conditions of both languages, allows us not only to explain why the particle verbs integrate unchanged into matrix contexts, but why they fail to do so in clause-final position. In clause-final position, there is no way to simultaneously

preserve the demands of English and German syntax, since these impose conflicting linearization constraints on the particle and the verb.

So why, then, is doubling a solution?

We suggest that part of the answer, though not the whole answer, lies in the kind of ambivalent structure of English particle verbs that leads to doubling, at least colloquially, in agent-nominalizations like *picker upper*, *hanger outer*, *setter upper* and so on. As many authors have observed, (see, for example, Sproat 1985, Ackema & Neeleman 2004: 160), such forms seem to be the result of a tension between trying to add the suffix *-er* to the genuine verb, and on the other, to the right edge of the phrasal verb as a lexical unit. Doubling is then the (or an) optimal repair. This suggests a representation along the lines in (25), where the phrasal verb is larger than a single word, yet not a maximal phrase, leaving some ambiguity about the projection level of the topmost node:



But this can't be the whole answer for the code-switching construction, since forms such as *setten upst* in (9b) suggest there is more than just copying or doubling involved.

We suggest, tentatively, that the answer might lie in another construction made available by German syntax, namely, verb clusters (see Wurmbrand 2017b), in particular, constructions involving more than one verb in the clause-final position, either as infinitive forms or where the structurally highest (and often, but not always rightmost) form is inflected:

- (26) a. Sie wird das Buch kauf-en könn-en. (Ger)
 she will the book buy-INF can-INF
 'She will be able to buy the book.'
- b. ...bevor sie es kauf-en könn-en. (Ger)
 ...before they it buy-INF can-3PL
 '...before they can buy it.'
- c. ...bevor du es kauf-en kann-st. (Ger)
 ...before you it buy-INF can-2SG
 '...before you can buy it.'

Superficially, examples like (26a) have a sequence of *-en* morphemes on the two final elements of the clause, just like the *setten uppen* construction in (1).

- (27) a. Sie wird es kauf-en könn-en. (Ger)
 she will it buy-INF can-INF
 ‘She will be able to buy the book.’
 b. Sie wird es sett-en upp-en.(CSw)
 she will it set-INF up-INF
 ‘She will set it up.’

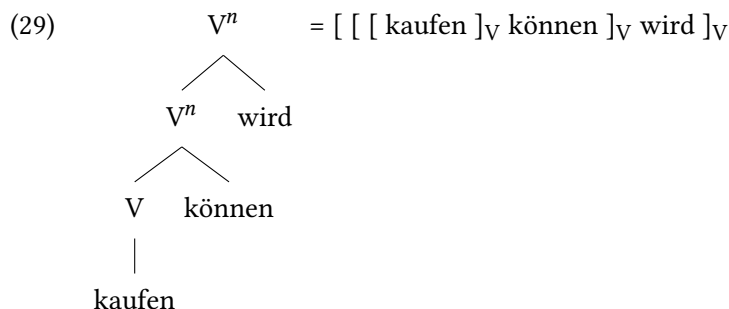
Of course, *up* is not a verb, and the “doubling” in (27a) is simply an effect of the future modal *wird* selecting for an infinitival complement *können* which in turn selects an infinitival complement. But there are two ways in which these constructions are more similar than they may appear.

First, in phrase-final position, German verb clusters have properties of compounds, such as compound stress (Wurmbrand 1998). In addition, they have special grammatical properties including re-ordering effects that show variation among speakers, languages, and dialects. In a head-final language like German, verbs selecting clausal (or verbal) complements are expected to line-up in the mirror-order of their English counterparts, as in (28a). While this is possible in German, numerous other possibilities exist. Austrian varieties also allow, for the combination of the future auxiliary, a modal, and a main verb, the orders shown in (28) (Wurmbrand 2017b):⁸

- (28) a. ...weil er es kaufen₃ können₂ wird₁. (Ger)
 ...since he it buy can will
 b. ...weil er es kaufen₃ wird₁ können₂. (Ger)
 ...since he it buy will can
 c. ...weil er es wird₁ kaufen₃ können₂. (Ger)
 ...since he it will buy can
 all: ‘since he will be able to buy it.’ (Wurmbrand 2017b)

The important observation for us here is that these cluster effects in many varieties (but not all) implicate a kind of compound-like structure consisting of all (and only) the verbs, perhaps derived via head-movement from phrasal complementation structures:

⁸We follow Wurmbrand (2017b) in using subscripts to note the hierarchical order of the verbs – in all of the orders in (28), the future modal *wird* ‘will’ is finite, and selects the modal complement headed by *können*, which in turn selects the phrase *es kaufen* ‘to buy it’.



Special (re-)ordering rules then apply within this derived complex verb (see Wurmbrand 2004 for a survey of the empirical landscape of West Germanic verb clusters).

Our suggestion is that it is this type of compound-like verbal structure in clause-final position that provides the linguistic scaffolding for the *setzen uppen* construction. The verb cluster structure in (29) on the one hand, and the peculiar English phrasal-verb structure in (25) that leads to suffix-doubling in nominalizations on the other, conspire together to provide a point for congruent lexicalization. In clause-final position, complex verbs are allowed, with inflection (including infinitival marking) on multiple elements. In German, this happens of course uniquely where all of the inflected elements are themselves verbal, but since particle verbs are a type of compound verb (25), they can, informally “sneak in” to the cluster structure, permitting inflection on the final element because the whole complex constituent is, in some sense, verbal.

Since clusters only arise in final position, the inflectional doubling will not be supported in simple verb-second clauses: those allow integration without needing to borrow the cluster structure, as in (22). And since the basic cluster structure involves infinitival complementation, we can draw an analogy to the more acceptable examples of finite inflection of borrowed particle-verbs in final position considered above. In examples like (9), repeated here: we see the actual verb inflected as an infinitive, with the finite morphology expressed at the end of (on the rightmost element of) the verbal complex, comparable to a cluster (31).

- (30) a. ...bevor du hangen out(e)st. (CSw)
 ...before you hang-INF? out-2sg
 ‘...before you hang out.’
 b. ...bevor du es setzen upst. (CSw)
 ...before you it set-INF? out-2sg
 ‘...before you set it up.’

- (31) ...bevor du es kauf-en kann-st. (Ger)
 ...before you it buy-INF can-2SG
 ‘...before you can buy it.’

Finally, we note that the cluster hypothesis does not provide a transparent model for the participial construction. Only modal-verb complements of *haben* ‘have’ enter into cluster formation, and then only in the *infinitivus pro participio* ‘infinitive for participle’ construction (IPP), in which the modal complement to the auxiliary surfaces in infinitival form (*könn-en*), where a participle (*gekonnt*) would have been syntactically expected:

- (32) Der Kommissar hat den Fall nicht lös-en könn-en. (Ger)
 The detective has the case not solve-INF can-INF
 ‘The detective couldn’t solve the case.’ (after Wurmbrand 2017b)

Since there is no modal in *set up* or *hang out*, the IPP provides a poor basis for analogy, and since the participle in German involves a combination of prefix and suffix, there is no easy way to be ambivalent about whether the morphology is inflecting the combination as a whole, or just the peripheral element, which was the key to our analysis of the particle as part of a verbal cluster in the examples where the *setten uppen* construction succeeds. We suggest that this may be why judgments about the participle construction are far less robust than with those configurations that do match up nicely to widely attested verb clusters.

4 Discussion and conclusion

To wrap up, we come back to one point that we started with – it seems clear that the *setten uppen* construction is an admixture of two grammars. In matrix clauses, code-shifting takes the form of a *verb ... particle* order, which is fully integrated into German syntax, and at the same time meets the demands of English syntax that the verb precede the particle. The *setten uppen* construction comes about only when simple integration, in the form of borrowing of the individual pieces, is not possible, and the demands of the two languages conflict. In clause-final position, particles precede their verbs in German but follow them in all clause types in English. We suggested that the outcome is nevertheless grammatical, with the restrictions discussed above, in the mental grammar of the specific code switching idiolect we are documenting. It is clear from the evidence that the construction is rule-governed, and involves integration of an English constraint into a German grammatical frame. But ultimately we must recognize that the

construction deviates from some aspect of German grammar somewhere along the line. Whatever causes German particles to surface as (separable) prefixes, for example, is not respected. Also, we have treated the construction as saying that it adheres to the linear order imposed by English verb-particle syntax, but have not said what that syntax is. It seems entirely reasonable to think that the *verb ... particle* order in English is not a special property of particle verbs, but rather a general property of the head-initial nature of English syntax. This general property does not carry over to the CSw idiolect: the object of the particle verb follows regular German syntax, freely preceding the English-sourced verb. Intuitively, we think that the singling out of the linear relation between the verb and the particle is because it is these elements together that are listed as a unit with special meaning, and thus the evaluation of congruence in the CSw grammar “cares” only about the syntactic properties relating these two elements. But we are a long way from being able to formalize that in any useful way. Perhaps for these reasons, we might reconsider the notion of “derivatively grammatical” from Chomsky (1965: 242): that the grammar itself does not in fact *directly* generate this construction at all, but instead, the on-the-fly demands of code switching provide for a type of “close-enough” acceptability. Code-switching may be seamless when congruence is achieved, and simply switching out lexical items (especially content words) yields strings that locally respect morphosyntactic demands on the lexical items. But, we suggest, it may also be nearly seamless when congruence as such is impossible to achieve, but at least some derivation exists that provides for a close analogy to support a given string within the matrix language. In the case at hand, German allows for verb clusters at the right periphery of the clause, and English allows for idiosyncratic interpretations of particle-verb combinations that have a tight structure as a kind of complex verb. These two properties are not normally coextensive, but provide just enough structure to allow for a successful integration of an English verb-particle combination into German as a complex, but separable, lexical unit, including its hallmark English syntactic order, but bearing inflection on each head.

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References

- Ackema, Peter & Ad Neeleman. 2004. *Beyond morphology: Interface conditions on word formation*. Oxford: Oxford University Press.
- Chomsky, Noam. 1965. *Aspects of the theory of syntax*. Cambridge: MIT Press.
- Gross, Steven. 2000. *The role of abstract lexical structure in first language attrition: Germans in America*. University of South Carolina. (Doctoral dissertation).
- MacSwan, Jeff. 1999. *A Minimalist approach to intrasentential code switching*. New York: Garland.
- Muysken, Pieter. 2000. *Bilingual speech: A typology of code-mixing*. Cambridge: Cambridge University Press.
- Myers-Scotton, Carol. 1993. *Duelling languages: Grammatical structure in code-switching*. Oxford: Clarendon Press.
- Myers-Scotton, Carol. 2002. *Contact linguistics: Bilingual encounters and grammatical outcomes*. Oxford: Oxford University Press.
- Poplack, Shana. 1980. Sometimes I'll start a sentence in Spanish y termino en Español: Toward a typology of code-switching. *Linguistics* 18(7-8). 581–618.
- Sproat, Richard William. 1985. *On deriving the lexicon*. Massachusetts Institute of Technology. (Doctoral dissertation).
- Willeke, Felix. 2006. *Die morphologische Integration englischer Verben im Deutschen unter besonderer Berücksichtigung von Partikelverben*. Berlin: Humboldt-Universität. (MA thesis).
- Wurmbrand, Susi. 1998. Heads or phrases? Particles in particular. In Richard Wiese & Wolfgang Kehrein (eds.), *Phonology and morphology of the Germanic languages*, 267–296. Tübingen: Niemeyer.
- Wurmbrand, Susi. 2004. West Germanic verb clusters: The empirical domain. In Katalin É. Kiss & Henk van Riemsdijk (eds.), *Verb clusters: A study of Hungarian, German and Dutch*, 43–85. Amsterdam: John Benjamins.
- Wurmbrand, Susi. 2017a. Feature sharing or how I value my son. In Claire Halpert, Hadas Kotek & Coppe van Urk (eds.), *The Pesky Set: Papers for David Pesetsky*, 173–182. Cambridge: MIT Working Papers in Linguistics.
- Wurmbrand, Susi. 2017b. Verb clusters, verb raising and restructuring. In Martin Everaert & Henk van Riemsdijk (eds.), *The Wiley Blackwell companion to Syntax*, 2nd edn., vol. 5, 229–343. Oxford: Blackwell.