Studies in Language Variation
18

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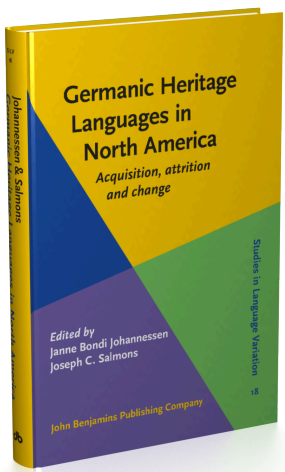
https://doi.org/10.1075/silv.18.07afa



Pages 161–177 of
Germanic Heritage Languages in North America: Acquisition, attrition and change
Edited by Janne Bondi Johannessen † and Joseph C. Salmons
[**Studies in Language Variation**, 18] 2015. vi, 418 pp.

Hybrid verb forms in American Norwegian and the analysis of the syntactic relation between the verb and its tense

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English verbs that are nonce borrowed into American Norwegian regularly show Norwegian tense inflection. In this article, I use data of such hybrid verb forms as a starting-point for an investigation of the general theoretical analysis of the morpho-syntactic relation between a verb and its tense affix. I argue that the hybrid verb forms in American Norwegian should be taken as evidence that it is *not* the case that verbs (and inflected words generally) are fully listed with inflectional features in the lexicon and subsequently checked for their inflectional features in the syntax (as suggested in recent minimalist analyses). Instead, I argue that what is contained in the lexicon are the bare verbal items, and that tense morphology is syntactically *assigned* to the item during the derivation.

Keywords: American Norwegian, borrowing, code-switching, language mixing, tense, verb movement

1. Introduction

American Norwegian comprises varieties of the Norwegian language that have been and still are used by Norwegian immigrants to the USA and their descendants from the first half of the 19th century up to today (Haugen 1953, Hjelde 1992, Johannessen and Laake 2011). American Norwegian varieties are often characterized by a quite high degree of mixture from English. A striking property of the English words used in American Norwegian is that these words receive Norwegian inflection even though the stem is borrowed from English. This is illustrated by the verb in bold in (1) (from Haugen 1953: 503).

(1) *Å e å n Eijil helt på å* ***hunta*** *frosk ute.*
and I and he Eijil kept on and hunted frogs outside
'And I and Eijil were busy hunting frogs outside.'

DOI 10.1075/silv.18.07afa

Here the verb stem, *hunt*, is clearly English (the corresponding Norwegian stem would be *jakt-*), while the tense inflection is clearly Norwegian, *-a* being a past tense suffix belonging to the main class of Norwegian weak verbs (thus the Norwegian verb form corresponding to 'hunted' is *jakta*).

In this article, I discuss hybrid verb forms of this type. I investigate what such verb forms may tell us about the relation between the verb stem and the tense suffix in general, and in particular I want to investigate what it can tell us about the proper syntactic analysis of the tense – stem relation in generative grammar. I hope to show that the hybrid verb forms are theoretically interesting, because they support a particular analysis of the relationship between tense and its verbal stem, and of how the verb stem acquires its tense inflection.

The article is organized as follows. In Section 2, I discuss the notion of single word loanwords versus single word code-switching. It is important for my analysis that the hybrid verb forms do not involve just established loanwords, i.e., words that have been borrowed from English and integrated into Norwegian, but that they are rather some type of unintegrated spontaneously borrowed items, i.e., that they are really *hybrid* forms in a sense to be made more precise. In Section 3, I present more data showing hybrid verb forms in American Norwegian. This section, then, provides the empirical basis for the following theoretical discussion. In Section 4, I discuss some theoretical points of departure for the analysis to come, and in Section 5 I discuss some mechanisms that have been proposed in the literature concerning the relation between the verb and its tense inflection and how the verb acquires its tense affix. Section 6 presents my analysis of the tense – verb relation, and show how the theoretical problems posed by the hybrid verb forms are solved given my analysis. Section 7 concludes the article.

2. Why the hybrid verb forms are really hybrid

If verb forms like *hunta* 'hunted' in (1) were established as part of the American Norwegian mental lexicon, they would reasonably be categorized as established loanwords, and it would not be surprising that they get Norwegian tense inflection, like other Norwegian verb stems do. In that case, they would not be hybrid verb forms in the sense under discussion here. So what is a hybrid verb form? I understand a hybrid verb form to be a spontaneously created verb form consisting of elements from (at least) two different languages. Thus, a hybrid verb form is not an established loanword or a single word borrowed form that has become a member of the host language; it is rather a single word code-switched form that is spontaneously borrowed.

There is a long-lasting discussion in code-switching theory about how or to what extent it is possible to tell if a given form is an established loan or a spontaneously borrowed form, e.g., Pfaff (1979), Poplack (2004). Spontaneously borrowed forms are also called 'nonce borrowing'; these are forms that are borrowed *ad hoc* by a speaker in a given situation, and they are not typically used by other speakers of the speech community in similar situations. Established loans, on the other hand, are used by many speakers in the community and may be quite common. It is also usually assumed

that spontaneous borrowing presupposes that the speaker is bilingual, at least to some extent, whereas established loanwords are also used by monolingual speakers. Spontaneous borrowing therefore typically takes place in situations of language contact, like the American Norwegian setting.

From the discussion above, it follows that if verb forms in American Norwegian, like *hunta* 'hunted' in (1), are to be counted as hybrid verb forms, they must be spontaneously borrowed or code-switched forms. I take that to mean, among other things, that they are not assigned to a particular inflectional tense class in the established lexicon of (American) Norwegian, but that they are rather assigned tense *ad hoc* when they are 'nonce borrowed' into American Norwegian grammatical structure. The following is a probable kind of procedure for this type of 'nonce borrowing.' Over time the Norwegian mental lexicon internalized by the American Norwegian language users is weakened, and simultaneously they build an ever growing English mental lexicon, which is used when they talk English (they are bilinguals). In situations when they fail to retrieve a Norwegian word for what they want to say (because of lexical attrition or problems with lexical access), or when they simply want to spice up their Norwegian, they pick an English word from their parallel English lexicon and integrate it into the Norwegian structure. Thus, an English verb is 'nonce borrowed' into Norwegian and is assigned tense in the Norwegian syntactic structure, in an *ad hoc* way.

The principled distinction between established loanwords and spontaneously 'nonce borrowed' words is reasonably clear, and can be described as a question of whether the word is drawn from the domestic mental lexicon (established loan), or from the foreign mental lexicon (nonce borrowing). In a given instance, on the other hand, it is often difficult to decide whether a given extraneous form is an established loan or a spontaneously borrowed form (e.g., Eide and Hjelde, this volume). Important criteria have to do with frequency, stability, and diffusion in a speech community. For instance, the more frequently the form is used, the more likely it is an established loan.

Because of the practical indeterminacy in distinguishing between established forms and spontaneously borrowed forms, I cannot guarantee that the examples given below were actually spontaneously borrowed in the particular instance given. Such a determination would at least require a careful investigation of the linguistic situation when the data were collected and the context of utterance of each particular example, which is next to impossible since the data were collected years ago. Still, I believe it is reasonable to assume (i) that spontaneously borrowed and therefore genuinely hybrid verb forms exist in American Norwegian in principle, and (ii) that the mixed forms given were spontaneously borrowed when they first were used in American Norwegian, even though some may have become established loans later. This last point is emphasized in Myers-Scotton (1993: 174), where it is pointed out that words that are included as established loans in a language typically started out as spontaneously borrowed words. Spontaneous borrowing is the gateway through which established loanwords come into a language, according to Myers-Scotton. I therefore assume that all the mixing examples that I use are in principle possible examples of spontaneously borrowed forms, and therefore possible examples of genuinely hybrid verb forms in American Norwegian, and I refer to them as such in the remainder of this article.

3. Data

I now look at more data that exemplify hybrid verb forms in American Norwegian. In (2) I show data that are taken from Haugen (1953: 556 ff.). The English stem that is borrowed is given first, followed by an American Norwegian utterance where this stem is used with Norwegian tense inflection (the relevant inflectional category is given in square brackets).

(2)
a. Break: *dei **brek-te** opp prærien.* [past]
'they broke up the prairie.'
b. Care: *E tenkte ikkje du **kær-a** så mykje.* [past]
'I didn't think you cared so much.'
c. Change: *Han **kjeinj-a** main sin.* [past]
'He changed his mind.'
d. Feed: *Dei kan du **fid-a** upp sjøl.* [infinitive]
'Those you can feed up yourself.'
e. Feel: *…je **fil-er** likså gått såm da je var to å tjugu år.* [present]
'…I feels as good as like I was 22 years old.'
f. Fine: *So **fain-a** eg dai ain dalar kvar.* [past]
'So I fined them a dollar each.'
g. Harvest: *sådde å ikkje **harvist-a**.* [past]
'sowed and not harvested.'
h. Keep: *De er mange såm **kipp-er** Decorah-Posten.* [present]
'There are many who keep the Decorah Post.'
i. Leave: *…frå dei **liv-a** heimen å te dei kåm te kjerka.* [past]
'…from when they left home and until they came to church.'
j. Make: *Vi **mæk-ar** goe peing.* [present]
'We make good money.'
k. Play: *så **plei-de** dom geimer.* [past]
'then they played games.'
l. Reap: *så **ripp-a** dai de.* [past]
'then they reaped them.'
m. Run: *såm **rønn-er** farmen.* [present]
'who runs the farm.'
n. Settle: *her **sætl-a** e ne å her he e vore.* [past]
'here I settled down and here I have been.'
o. Teach: *han **titsj-a** ve Luther* [*College*]. [past]
'he taught at Luther College.'
p. Travel: *han måtte **travl-e** omtrent to å tredve mil.* [infinitive]
'he had to travel about 32 miles.'

Here are some similar examples from Hjelde (1992) (picked from "Alfabetisk liste over lån i amerika-trøndsk," in *op. cit.*: 99ff.).

(3) a. Beg: ***begg-a.*** [past]
'begged.'

b. Break: *…de* ***brækk-a*** *stavanj…* [past]
'…they broke their sticks…'

c. Call: *…vess du* ***kall-a*** *op-en fekk du svar…* [past]
'…if you called him up, you would get an answer…'

d. Cause: *kjøtt som* ***kås-e*** *kænser.* [present]
'meat that causes cancer.'

e. Claim: ***kleim-e.*** [present]; ***kleim-a.*** [past]
'claims.' 'claimed.'

f. Collect: *dæm* ***kollækt-a*** *skatt.* [past]
'they collected tax.'

g. Dust: *(ho)* ***døst-a*** *støv.* [past]
'she dusted.'

h. Hunt: *de e moro å* ***hønt-e.*** [infinitive]
'it is fun to hunt.'

i. Keep: *ein som* ***kip-e*** *boksa si på.* [present]
'one who keeps his trousers on.'

j. Move: *vi* ***mov-a*** *frå minesota.* [past]
'we moved from Minnesota.'

Neither Haugen (1953) nor Hjelde (1992) have found hybrid verb forms in American Norwegian where the verbal stem is Norwegian and the tense affix is English, or where the verbal stem is English and the tense affix is English as well. What they in fact found is ordinary Norwegian stems with Norwegian tense inflection, naturally enough, since American Norwegian is a variety of Norwegian, and besides that, they also found several instances of English stems with Norwegian tense inflection, as we have already seen in (1)–(3).

In other words, what is found in American Norwegian are the patterns in (4a) or (4b), whereas the patterns in (4c) and (4d) are never found. A proviso is in order here, since the pattern in (4d) may of course be found in a larger chunk when a whole English phrase is code-switched into American Norwegian, a case that I ignore here.

(4) a. $\text{stem}_{\text{NO}}\text{-tense}_{\text{NO}}$
b. $\text{stem}_{\text{ENG}}\text{-tense}_{\text{NO}}$
c. $^{*}\text{stem}_{\text{NO}}\text{-tense}_{\text{ENG}}$
d. $^{*}\text{stem}_{\text{ENG}}\text{-tense}_{\text{ENG}}$

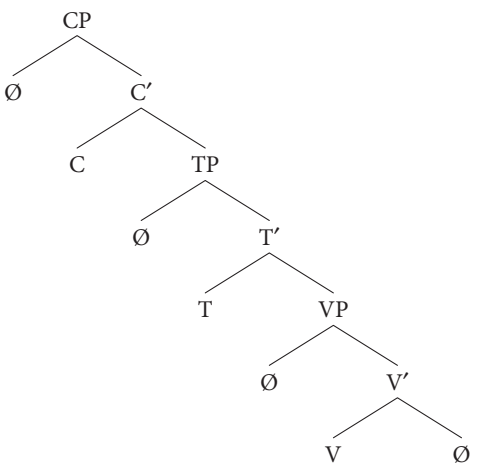
The pattern in (4) is very robust, and at the outset that is quite surprising, since the speakers in question must be assumed to have parallel lexicons for both Norwegian and English (they are bilingual, as mentioned), and therefore one should expect that they could borrow fully inflected verb forms from English, like in (4d), but that doesn't happen.

On the other hand, the pattern in (4) is fully in tune with what is found in corresponding language mixing or code-switching situations around the globe. (I use the term 'code-switching' both for spontaneous borrowing of bigger phrases and spontaneous borrowing of single words/stems.) Myers-Scotton (1993, 2002) claims that there is necessarily an asymmetry between the two languages involved in code-switching, where one language defines the grammatical frame or matrix – the *Matrix Language* – whereas the other – the *Embedded Language* – is a source for borrowing of lexical stems that are inserted into the grammar frame that the Matrix Language makes available. According to Myers-Scotton, the inflectional affixes as a rule come from the Matrix Language, and they are therefore part of the grammar frame. In American Norwegian, Norwegian is the Matrix Language, whereas English is the Embedded Language, and the pattern shown in (4) is as expected on Myers-Scotton's theory.

4. Theoretical assumptions

I now clarify some theoretical points of departure for my analysis. First of all, I assume that ordinary finite clauses have a minimal structure consisting of CP, TP, and VP, as explained in standard textbooks of generative syntax. This basic structure is shown in (5).

(5)



Tense is generated under T, and the main verb is generated under V, and T c-commands V. I assume, as is standard in generative grammar, that the verb 'receives' tense through a special relationship between V and its c-commanding T. It is the precise nature of this 'special relationship' that is the topic of this article.

Generally, I take it that hybrid verb forms like those in (2) and (3) indicate that the relation between the verbal stem and its tense inflection is not as tight as one might be inclined to believe, and I proceed on the hypothesis that these hybrid verb forms

actually support the generative thesis that the tense inflection is generated independently of the stem that it ultimately becomes a part of (Lasnik 2000). The analysis I defend in Section 6 is founded on this basic assumption, and to the extent that the analysis is successful it constitutes support for the basic assumption.

I make two non-trivial assumptions. First, I assume that the analysis of hybrid verb forms as in (2) and (3) does not require any special mechanisms that are not relevant for the analysis of ordinary monolingual verb forms. In other words, my analysis is a so-called 'Null Theory.' This implies that the analysis of hybrid verb forms can give important insights into the general UG mechanisms that regulate the relationship between a verbal stem and its tense inflection. Actually, as I show, the hybrid verb forms turn out to be a testing ground for any analysis of the relationship between the verb and its tense inflection.

The second important assumption I make is that there is only one mechanism in UG that takes care of the relationship between a verbal stem and its tense inflection. In other words, I will *not* assume that UG allows, e.g., both syntactic V-to-T movement and syntactic T-to-V movement (Affix Hopping). I believe that this is a proper assumption to a restrictive and minimalist analysis.

Towards the end of Section 3, I referred to Myers-Scotton (1993, 2002) and the idea that the Matrix Language provides the grammar frame and the inflectional morphology, whereas the Embedded Language occasionally provides lexical items that are inserted into these frames. I adopt a similar point of departure for my analysis, but this is not unproblematic in a principles and parameters approach (which I am following), where the formation of clause structure is usually assumed to be derivational in that elements from the lexicon are successively taken as input by the operation *Merge* to build larger structures. Such an approach excludes a model where grammar frames are generated first, followed by insertion into those frames by lexical items. Still, there exist models that must be characterized as principles and parameters type models, and where a notion of a grammar template or frame is crucial, like so-called neo-constructional models, which are defended in e.g., Van Hout (1996), Borer (2005), Åfarli (2007), Brøseth (2007), Ramchand (2008), Lohndal (2012), Marantz (2012), and Nygård (2013), cf. also the generator component of Brown and Putnam (this volume). These neo-constructional models agree, broadly speaking, with Myers-Scotton's assumption that structures are generated independently of the lexical items, which are inserted into these structures later, assuming Late Lexical Insertion, but unlike Myers-Scotton they seek to integrate this assumption into an articulated principles and parameters approach to grammar.

I cannot provide a detailed examination of neo-constructional theories, but simply assume it is possible to integrate a frame and late insertion analysis and a generative principles and parameters analysis into one unified and consistent model of grammar. The minimal assumption I want to make explicit here is that the functional structure of the clause (say, the C-projection and the T-projection) and open lexical proto-projections (say, a V-projection) are generated in the Matrix Language as a grammar frame, whereas Late Lexical Insertion inserts lexical stems into the open lexical positions of

the proto-projections. Therefore, in American Norwegian, the T-projection and tense will always belong to the Matrix Language, which is Norwegian, whereas it is possible to insert verbal stems from the parallel English lexicon into the verbal proto-projections. In that way, hybrid verb forms like those illustrated in (2) and (3) are generated. I now turn to the generation of such forms.

5. The syntactic relation between T and V: Some (im)possible analyses

We are now in a position to take a closer look at the concrete syntactic mechanisms that relate T and V, resulting in the tense inflection ending up as an integrated morphological part of the verb. I take as my point of departure the two ways for syntactically relating T and V discussed in Chomsky (1995: 195) (my emphasis):

> The main verb typically 'picks up' the features T and Agr […], adjoining to an inflectional element to form [V I]. There are two ways to interpret the process, for a lexical element a. *One is to take a to be a bare, uninflected form; PF rules are then designed to interpret the abstract complex [a I] as a single inflected phonological word. The other approach is to take a to have inflectional features in the lexicon as an intrinsic property (in the spirit of lexicalist phonology); these features are then checked against the inflectional element I in the complex [a I].*

I now investigate these two possibilities in turn, and since I am dealing with American Norwegian, I ignore Agr and just concentrate on the relationship between T and V. Recall that both ways for relating T and V cannot be right, given the parsimonious assumption that UG permits only one mechanism, mentioned in the previous section.

The first possibility, i.e., "to take a to be a bare, uninflected form; PF rules are then designed to interpret the abstract complex [a I] as a single inflected phonological word," seems at the outset quite promising as an analysis of hybrid verb forms in American Norwegian. One could simply assume that the English stem, after being inserted in the V position, moves to T where it "picks up" the Norwegian tense inflection, thus creating the hybrid form.

However, such a straightforward movement analysis runs into a well-known problem when applied to tensed verbs in English. Consider the main clause in (6a), which has a structure like the one shown in (6b).

(6) a. He always claimed these things.
    b. He T [$_{VP}$ always [$_{VP}$ claimed these things]]

According to Pollock (1989), a sentence adverbial (SA) like *always* is left-adjoined to VP in English, cf. *I doubt* [*that he will always make such claims*], where the complementizer is positioned in C, the modal auxiliary in T, the main verb in V, and where the SA accordingly must be left-adjoined to VP.

If the SA *always* is left-adjoined to VP in a main clause like the one in (6) as well, which Pollock assumes, the linear position of the SA shows that the main verb cannot

have moved out of VP, at least not before Spell-Out, i.e., before the structure is fed into PF (Phonetic Form). Still, the verb has tense inflection. That in fact means that the verb cannot have acquired its tense inflection by V-to-T movement. In other words, English data like the example in (6) show that the tensed verb cannot have acquired its tense inflection by simple V-to-T movement, showing that Chomsky's first possibility cannot be right. Holmberg and Platzack (1995: 49–50) find a corresponding problem in the analysis of embedded clauses in Mainland Scandinavian, a problem that I will not pursue here. Since Chomsky's first mechanism is excluded for English, and possibly also for Mainland Scandinavian, it follows that it cannot be assumed as a possible UG mechanism.

A possible alternative analysis would be to assume syntactic Affix Hopping, i.e., syntactic T-to-V movement downward in the structure. That is the mechanism that Pollock (1989) suggests as a solution to the problem presented by English data like (6). However, I reject such an analysis because it violates a basic principle on movement, namely that the constituent that moves must c-command the position that it moves from. That principle implies that all syntactic movement is upward. There is overwhelming empirical evidence that that assumption is correct. It would amount to a brute stipulation to assume that the analysis of the T – V relation should constitute an exception to this general principle.

A third solution that one could think of is that a 'phonological' version of T-to-V movement (Affix Hopping) takes place in PF, where the c-command restriction (or other syntactic restrictions) is not operative (since PF is not a component in narrow syntax). However, if that were the case, it would be necessary that there is a corresponding invisible LF V-to-T movement in narrow syntax in order to check that the structural restrictions on the T – V relation are actually fulfilled. Technically, this is a possible analysis, but I will still reject it, since it is not parsimonious enough. The analysis is too complex to be credible in a minimalist type analysis, since it involves an operation in one component (PF) that must be checked in another component (LF).

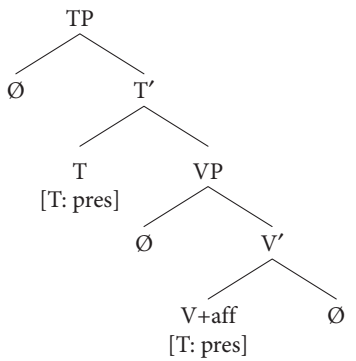
My conclusion from the above is that Chomsky's first take on the T – V relation (i.e., V-to-T movement where the verb as a bare uninflected form picks up tense in T) is not workable. I will now try the other way that Chomsky suggests, namely "to take a to have inflectional features in the lexicon as an intrinsic property (in the spirit of lexicalist phonology); these features are then checked against the inflectional element I in the complex [a I]" (Chomsky 1995: 195).

This second approach assumes that the inflected form of the verb is already created in the lexicon before it is inserted into syntax, and therefore that it is subsequently inserted into the syntax in its fully tensed form. In order to prohibit arbitrary insertion of tensed forms, a given tensed form that is inserted into syntax must be checked to ensure that it occurs in a structurally correct position, i.e., that it is in a structurally appropriate position in relation to T. This check can be accomplished by movement of V to T, observing standard restrictions on head movement. This movement may in principle take place either in visible syntax (before Spell-Out) or in invisible syntax (after Spell-Out), i.e., in LF. What is relevant for the English problem presented by (6)

is the second option, i.e., invisible V-to-T movement in LF, since the verb has obviously not moved out of VP in (6) (in the visible syntax), as discussed above.

Assuming invisible V-to-T movement in LF, the mechanism Agree checks if the ready-made tense inflection (feature) on the verb is identical to the tense feature of T. If it is, the tensed form of the verb is licensed, and if it is not, the tensed form is not licensed and the structure is deemed ungrammatical. This analysis is schematically shown in (7). Note that the structure shown here is the structure before the putative LF movement of V+aff to T has taken place.

(7)



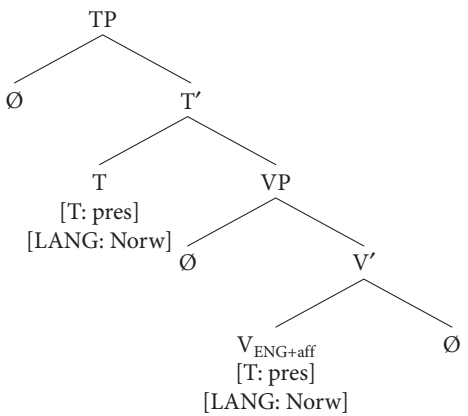
This analysis solves the English problem in (6) because the verb now has tense inflection as a lexical property, i.e., at the *in situ* point where it is inserted in the syntax. In other words, the verb has tense before Spell-Out to PF, and therefore it is the tensed form of the verb that is pronounced. Subsequently, invisible V-to-T movement in LF will ensure that the tensed form is licensed (or not), as explained above.

Even though this analysis solves the English problem in (6), as we have seen, the hybrid verb forms in American Norwegian now present a problem. The problem is simply how to ensure that an English verb stem must receive Norwegian tense inflection. If the verb has "inflectional features in the lexicon as an intrinsic property," as suggested by Chomsky (1995: 195), it is in fact very difficult to see how verbs borrowed into American Norwegian from the English parallel lexicon can fail to have English tense inflection, contrary to fact, cf. (4d). In other words, Chomsky's second mechanism seems to make the wrong predictions in the hybrid cases.

Actually, there is a way that this conclusion can be avoided, while maintaining Chomsky's second mechanism, but the cost is high. It is possible to envisage a system where tense affixes are generated freely in the lexicon, e.g., that an English or Norwegian verb stem can be generated in the lexicon with tense inflection taken from any language. So, in the case of American Norwegian hybrid verb forms, how is it possible to ensure that among the maybe fifty or hundred possible tense inflections (possibly belonging to different languages) that a given speaker has in his repertoire, it will turn out that the American Norwegian speaker will select a Norwegian tense inflection to put on a borrowed English verb?

In fact, that can be ensured by adopting a morphological feature which tells what the Matrix Language is in the given instance, in addition to the usual morphological features for tense, etc. In American Norwegian, T belongs to the matrix frame, which is Norwegian. We can therefore assume that T, in addition to the tense feature, also contains a feature <Norwegian>. At the point where the inflected form is LF-moved to T to be checked, only verb forms with features that agree with the corresponding features in T will be licensed. Thus, only English forms with a Norwegian affix, and therefore with the feature <Norwegian> as the highest (and therefore visible) feature, will be able to agree with the corresponding language feature in T. This ensures that the verb ends up as a hybrid form with a Norwegian tense inflection. This analysis is sketched in (8).

(8)



If both the tense inflection and the stem are English in a structure like (8), the agreement will fail and the clause will be ungrammatical. This analysis in terms of language features has as a general prediction that a Norwegian grammar frame (i.e., when Norwegian is the Matrix Language) will only license Norwegian inflection on the verb, irrespective of the language of the (borrowed) verb stem. The pattern shown in (4) indicates that this prediction is correct.

Before we take a look at the cost of this analysis, I want to mention briefly another technical possibility for relating T and V. Instead of invisible LF-movement of the verb to T, like I suggested above, one might assume a probe – goal analysis where T is a probe that seeks the verb as its goal (Chomsky 2001). Such an analysis does not assume invisible V-to-T movement, but it still requires that the probe (T) and the goal (V) have matching language features to ensure that the tense inflection of the verb will belong to the same language as the Matrix Language.

What is the cost of adopting an analysis that makes use of language features? First, observe that an analysis in terms of language features manages to 'get the job done.' However, a language feature like <Norwegian> or <English> is not the type of feature that one would expect to be part of the specification of a morphological

feature matrix associated with a syntactic structure. The reason is simply that a language feature is not really a morphological feature, but rather a tag for a sociopolitical property. It is the type of 'feature' that one would not expect to be handled by the syntactic checking mechanisms. I therefore assume that language features do not exist in the sense of features that can be checked by the morphological checking mechanisms of language.

To conclude, Chomsky's second take on the T – V relation apparently does not explain the properties of the hybrid verb forms in American Norwegian, and therefore it must be rejected as an analysis of the T – V relation in general, i.e., in UG. Thus, both possibilities proposed by Chomsky (beginning of Section 5) have been rejected as possible candidates for a general UG-based analysis of the T – V relation. What I do in the next section is propose a third type of analysis that, I argue, is able to handle both the hybrid verb forms in American Norwegian as well as the English problem illustrated in (6). The analysis that I'm going to propose relies on root theory and valuation of features.

6. The syntactic relation between T and V: My analysis

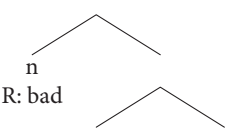
I start from an analysis that assumes that a lexeme is a category-neutral root without any inherent morphological features (e.g., Marantz 1997, 2012, Pylkkänen 2008). I refer to this type of analysis as a root analysis. A direct motivation for such an analysis is the existence of a large set of words that can be used as both nouns and verbs. An indication of this word class flexibility is given in (9).

(9)	a.	noun:	(eit) **bad** 'a bath.'	–	verb:	ikkje **bad** her. 'don't take a bath here.'
	b.	noun:	(ein) **mann** 'a man.'	–	verb:	**mann** deg opp! 'pull yourself together.'
	c.	noun:	(ei) **sol** 'a sun.'	–	verb:	**sol** deg! 'sun yourself.'
	d.	noun:	(ein) **buss** 'a bus.'	–	verb:	**buss** dei til byen. 'bus them to town.'
	e.	noun:	(mykje) **mjølk** 'much milk.'	–	verb:	**mjølk** denne kua! 'milk this cow.'
	f.	noun:	(eit) **skriv** 'a note.'	–	verb:	**skriv** brevet straks! 'write the letter at once.'
	g.	noun:	(eit) **telt** 'a tent.'	–	verb:	ikkje **telt** her! 'don't pitch your tent here.

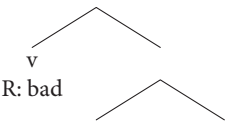
According to the root analysis, word class category and the morphological features of a word are syntactically assigned by the root being syntactically related to the relevant

functional categories. Thus, a root becomes a noun by being syntactically related to a nominal functional head (call it *n*), and a root becomes a verb by being syntactically related to a verbal functional head (call it *v*). Pylkkänen (2008: 103) describes the operation that takes place thus: "I will assume that what enters the syntax are category-neutral roots and category-defining functional heads, v (deriving verbs), n (deriving nouns), a (deriving adjectives), and so forth." According to a root analysis, the noun *bad* 'bath' and the verb *bad* 'take a bath' in (9a) are the same element at the lexical root level, but this root is turned into noun by being syntactically related to the functional head n, and to a verb by being related to the functional head v. The relevant structures are sketched in (10) where *R* is used to designate the category-neutral root.

(10) a.



b.

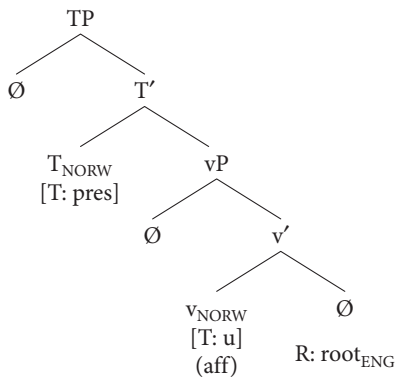


The functional heads n and v are in turn syntactically related to higher functional heads which specify the morphological features (inflectional features) that are relevant for the respective word class categories. Both the categorial heads (n, v, …) and the higher functional heads (D, T, …) belong to the grammar matrix or frame of the Matrix Language. Therefore, these heads will always be Norwegian in American Norwegian, i.e., they will contain the properties and features that are relevant for Norwegian.

I use the probe – goal mechanism in my analysis, and furthermore assume valuation of features in a system that operates with valued and unvalued features. For instance, I assume that an inherently valued tense feature under T will value an unvalued tense feature under the categorical functional head v. Note that both T and v are independently motivated categories that belong to the Matrix Language, i.e., Norwegian in the case of American Norwegian. Therefore, tense inflection will always be Norwegian in American Norwegian. On the other hand, a root can in principle be picked from any language, that is from any of the mental lexicons (or lexicon fragments) that the speaker knows. Thus, in the English – Norwegian hybrid verb forms, the root is borrowed from English.

The main point in this analysis is that the generation of the tense inflection is divorced from the generation of the root, and that these two elements are syntactically integrated during the derivation. The analysis is sketched in (11).

(11)



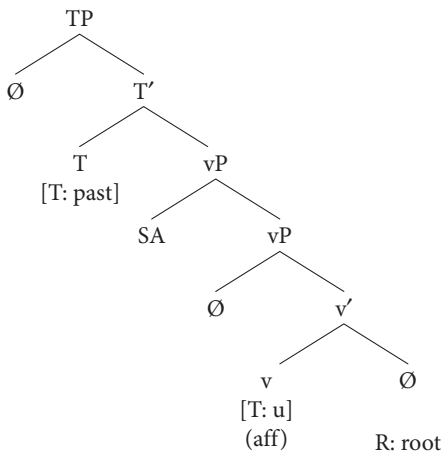
By definition, a root does not contain an inflectional affix, so it is impossible for a root borrowed from English into American Norwegian to get English inflectional morphology. Similarly, it is impossible (in American Norwegian) for a Norwegian root to get English inflectional morphology. Therefore, this analysis predicts that the empirical patterns (4c) and (4d) above are excluded, while (4a) and (4b) are correctly predicted to exist.

How will this analysis make designated language features irrelevant? The functional frame will always belong to the Matrix Language, so for instance T and v only accommodate Norwegian properties and features, and will therefore only permit Norwegian inflectional properties. On the other hand, roots can be borrowed from other languages freely, e.g., from English, and such loans come into the Matrix Language in a prototypical form that is determined in the language that they are borrowed from. Therefore, there is no need for language features on individual lexical items, simply because the language is defined for the whole Matrix Language frame in its entirety, and correspondingly for a whole mental lexicon (or lexicon fragment) in its entirety. Since individual roots or affixes do not need designated language features, such features cannot exist, following minimalist principles.

My analysis permits a root to be borrowed from any mental lexicon (or lexicon fragment) that the speaker may happen to know. It also opens the possibility that new roots may be created spontaneously, thus explaining the existence of so-called 'new words' or nonsense words. My analysis therefore readily predicts the great lexical creativity and flexibility that is in fact encountered in everyday use of language.

How does the analysis proposed above solve the English problem discussed in Section 5 in connection with (6)? Pollock (1989) assumes that sentence adverbials are typically left-adjoined to VP in English, which corresponds to left-adjunction to vP in the structure that I have suggested. The relevant part of the structure of the English example in (6a) is therefore as given in (12).

(12)



Here the sentence adverbial (SA) is adjoined to vP, as mentioned, and the inherently valued tense feature under T values the unvalued tense feature under v. The root is associated with v and becomes a verb with tense inflection. The adjoined sentence adverbial does not block the valuation process, following standard assumptions. The analysis of the English problem is therefore straightforward on the proposed analysis.

7. Conclusion

If the full tensed verb form is generated in the lexicon, as assumed in Chomsky's second take, there is absolutely no reason to expect that the tense inflection should belong to a language that is different from the language that the verb stem belongs to. On the contrary, one should in fact expect that the stem and inflection belong to the same language, since such a putative generation would take place within one mental lexicon. Hybrid verb forms are therefore clearly unexpected on the assumption that the fully inflected verb form is assembled in the lexicon.

In other words, the existence of the American Norwegian hybrid verb forms discussed here constitutes strong support for the following conclusions: (a) that fully inflected verb forms are not created in the lexicon, and therefore (b) that tense is assigned in the syntax, so that a verb acquires its tense inflection during the syntactic derivation.

Also, I conclude that language features, understood as morphological features that are checked/valued by the mechanisms of narrow syntax, are not required and therefore prohibited in syntax. Thus, any analysis that must assume such features should be discarded, cf. Section 5.

My analysis correctly predicts the empirical patterns given in (4). These patterns are non-trivial and very interesting, not least since they are so clear. Specifically, they show that, hybrid-wise, not any combination of stem and inflection is permitted. My analysis correctly predicts the combinations that are actually found. At the same time, it predicts that extensive borrowing and creation of verb forms take place as a natural part of our everyday use of language, a welcome result given what is in fact encountered in the casual language use.

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