Julian Form
Goethe University, Frankfurt am Main

Neg-words in Eton (Bantu): an HPSG-analysis

1. Introduction

Eton is a Bantu language spoken in Cameroon that is basically unknown in the literature so far. Only van de Velde (2008) has examined it and provided a general overview. However, despite its anonymousness, Eton displays a very prominent phenomenon, the existence of neg-words. In this study, I will show that these are inherently negative and can be perfectly integrated into the HPSG framework by combining the negative approach that is, for example, presented in de Swart & Sag (2002) or Richter & Sailer (2006) with the decompositional approach that is developed in Penka & Zeijlstra (2005). This reconciliation follows (i) from the negative contribution the neg-words make whenever they occur and (ii) from the decompositionality of these words into the negative prefix *te* and a non-negative stem.

Eton is not a negative concord (NC) language and its standard word order is SVO which is why its neg-words are comparable to neg-words from Germanic languages like English and German. The sheer existence of these words in Eton clearly opposes Weiß (2004) who claims that English and German are actually hidden NC languages and that a major criterion for being a non-NC language is the non-existence of neg-words in the corresponding language. He argues that neg-words in Standard English and German are only able to contribute negation due to processes of standardization. However, Eton does not even have a written form, let alone a standard variety, so, this argument loses its power and his criterion cannot be maintained. Furthermore, Haspelmath's (1997) attempt to restrict languages where one neg-word alone can contribute negation to a certain European area fails.

This study is based on my own fieldwork and the data in this paper have been gathered in various elicitation sessions with a native speaker of Eton. Even though Eton is a tonal language, I will not include the tones here since my focus was entirely on the neg-words and it would take further elicitation sessions to be able to correctly describe them.

2. Relevant data

In Eton, neg-words are transparently (de-)compositional. They are built out of a non-negative stem in combination with the prefix *te*. Thus, it seems plausible to assume that it is the prefix that adds negation, negating the constituent. The neg-words identified for Eton are *te-dzom* ('nothing'), *te-mod* ('nobody') and *te-wom* ('nowhere'). These can appear in subject as well as object position without having to be licensed by the negative marker, which is the affix *aa*, or any other negative element:

(1) a. Te-mod   a-ti   di.   b. James a-ti   di te-dzom.
       NEG-person   1-PROG eat   James 1-PROG   eat NEG-thing
       'Nobody eats.'   'James eats nothing.'

The examples in (1) clearly hint towards the inherent negativity of the neg-words because they are the only elements in such sentences that can contribute negation. Moreover, neg-words in Eton can form a fragment answer. This is further evidence for their inherent negativity, as visible in (2):

(2) a. Q: Paul a-ken-ge we?   A: Te-wom.
       Paul 1-go-PST   where   NEG-place

'Where did Paul go?' 'Nowhere.'

b. Q: Za-ti   yen Linda?   A: Te-mod.
   Who.1-PROG see Linda   NEG-person
   'Who sees Linda?'   'Nobody.'

One can see that in (2a), the question is about the object constituent, where else the question in (2b) asks about the subject. Both answers only consist of the neg-word, showing again that they contribute negation themselves in subject as well as object position. Finally, neg-words in Eton can cause double negation (DN) readings. The constructions that lead to a DN reading are the combination of a preverbal neg-word and the negative marker, the co-occurrence of a postverbal neg-word and the negative marker as well as the combination of a pre- and postverbal neg-word, as illustrated in (3b-d). (3a) shows a sentential negation by the negation marker itself:

(3) a. Mod   aa-ti   di.   b. Te-mod   aa-ti   di.
       person   1.NM-PROG   eat   NEG-person 1.NM-PROG   eat
       'Somebody does not eat.'   'Nobody does not eat.'

    c. James aa-ti   di te-dzom.   d. Te-mod   a-ti   di te-dzom.
       James 1.NM-PROG eat NEG-thing   NEG-person 1-PROG eat NEG-thing
       'James does not eat nothing.'   'Nobody eats nothing.'

Besides showing that the negative marker *aa*, that melts with the marker for noun class 1 without a visible change, also contributes negation when standing alone, (3a) illustrates that the non-negative stems that *te* combines with to form a neg-word can stand alone. In these cases, they can never contribute negation, as also shown in (4):

(4) James aa-ti   yen mod.
    James 1.NM-PROG see person
    'James does not see anybody.'

Thus, I assume the non-negative stem to be a generalized indefinite pronoun. These indefinites can also combine with other prefixes, such as the prefix *i*. In that particular case, they form an embedded question pronoun. *I-mod*, for example, can be translated as 'which person'.
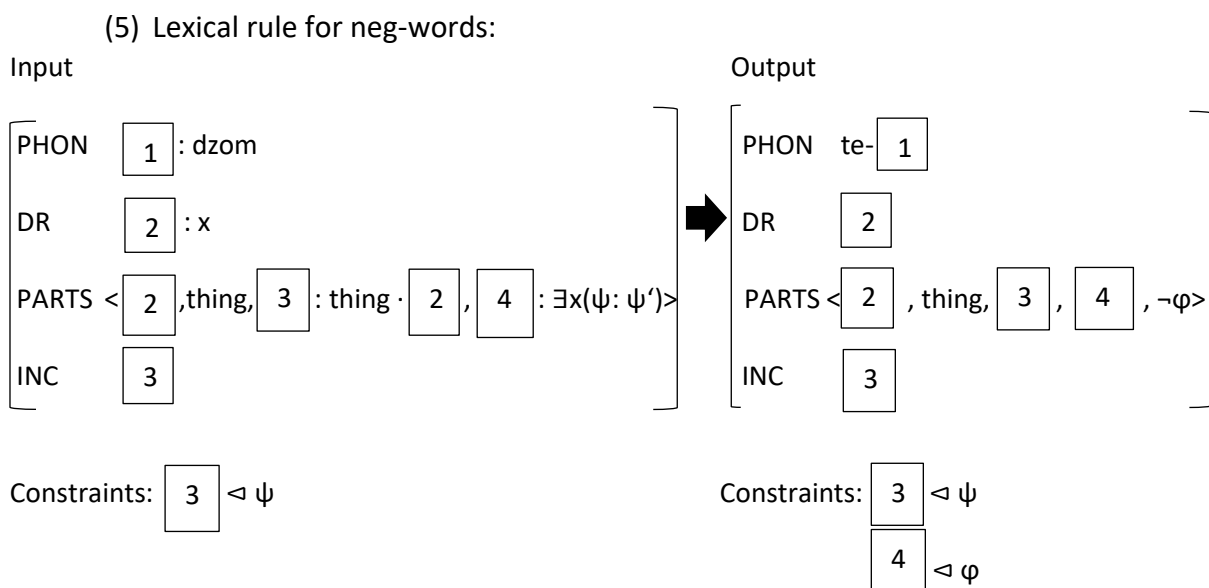
3. Previous approaches

The study of neg-words in Eton needs to combine two general previous approaches. The inherently negative approach of neg-words that is put forth in de Swart & Sag (2002) or Richter & Sailer (2006) is needed because a neg-word in Eton is one lexical item that is obviously negative in every position it occurs in. de Swart & Sag (2002) argue that all neg-words are inherently negative. Whether the combination of two neg-words results in a DN or a single negation (SN) reading depends on language internal factors. Either the sequence is interpreted as an iteration, which causes a DN reading, or the multiple neg-words create one resumptive polyadic quantifier yielding only a SN reading. Richter & Sailer (2006) take a similar

approach by stating that in NC languages, multiple neg-words can agree, whereas in non-NC languages, this agreement is impossible. The correct interpretation is guaranteed by language type specific constraints.

The decompositional approach that is developed in Penka & Zeijlstra (2005) is needed since the neg-words in Eton are obviously (de-)compositional. Penka & Zeijlstra (2005) follow the syntactic agreement approach by Zeijlstra (2004) and claim that in DN languages, neg-words are combinations of an abstract negative operator and a non-negative indefinite that agree with each other. Thus, they argue for neg-words as not being inherently negative. They state that the neg-words are already licensed by the negative operator in the lexicon, entering the syntax as one unit.

4. Analysis

The following technical analysis is mainly based on the concepts developed and explained in Levine, Richter & Sailer (2014). As shown above, the non-negative stem can be separated from the prefix and occur alone. However, *te* cannot appear alone due to being a prefix only. Furthermore, *te* only appears within neg-words in Eton and cannot be separated from them to combine with other elements. That is why, I assume a lexical rule that merges *te* as a negation contributing element with the neg-word stem. This is depicted in (5):

(5) Lexical rule for neg-words:

Input

$$\begin{bmatrix} \text{PHON} & \boxed{1} : \text{dzom} \\ \text{DR} & \boxed{2} : x \\ \text{PARTS} < \boxed{2}, \text{thing}, \boxed{3} : \text{thing} \cdot \boxed{2}, \boxed{4} : \exists x(\psi : \psi')> \\ \text{INC} & \boxed{3} \end{bmatrix}$$

Output

$$\begin{bmatrix} \text{PHON} & \text{te-}\boxed{1} \\ \text{DR} & \boxed{2} \\ \text{PARTS} < \boxed{2}, \text{thing}, \boxed{3}, \boxed{4}, \neg\varphi> \\ \text{INC} & \boxed{3} \end{bmatrix}$$

Constraints: $\boxed{3} \lhd \psi$

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$\boxed{4} \lhd \varphi$

The input shows how the non-negative stem looks like before being combined with *te*, while the output demonstrates how it looks like afterwards. On the one hand, the prefix adds some phonology, transforming the word from *dzom* to *te-dzom* and on the other hand, it adds negation, which is visible on the PARTS list. Therefore, the second constraint on the output follows which says that the quantification that is contributed by the indefinite is in the scope of the negation which results in the whole constituent being negated. This is because the INC of the indefinite is already contained in the restrictor of this quantification, as per the first constraint. The function that combines *te* and the indefinite can be described as: $f_{te}(\text{mod})$. To ensure that *te* only occurs within neg-words, one can add a principle saying that *te* can only adjoin generalized indefinite pronouns. These are not allowed to have already combined with

other elements when entering a relation with *te*. Consequently, any combinations except for the neg-words are disallowed for the inherently negative prefix *te*.
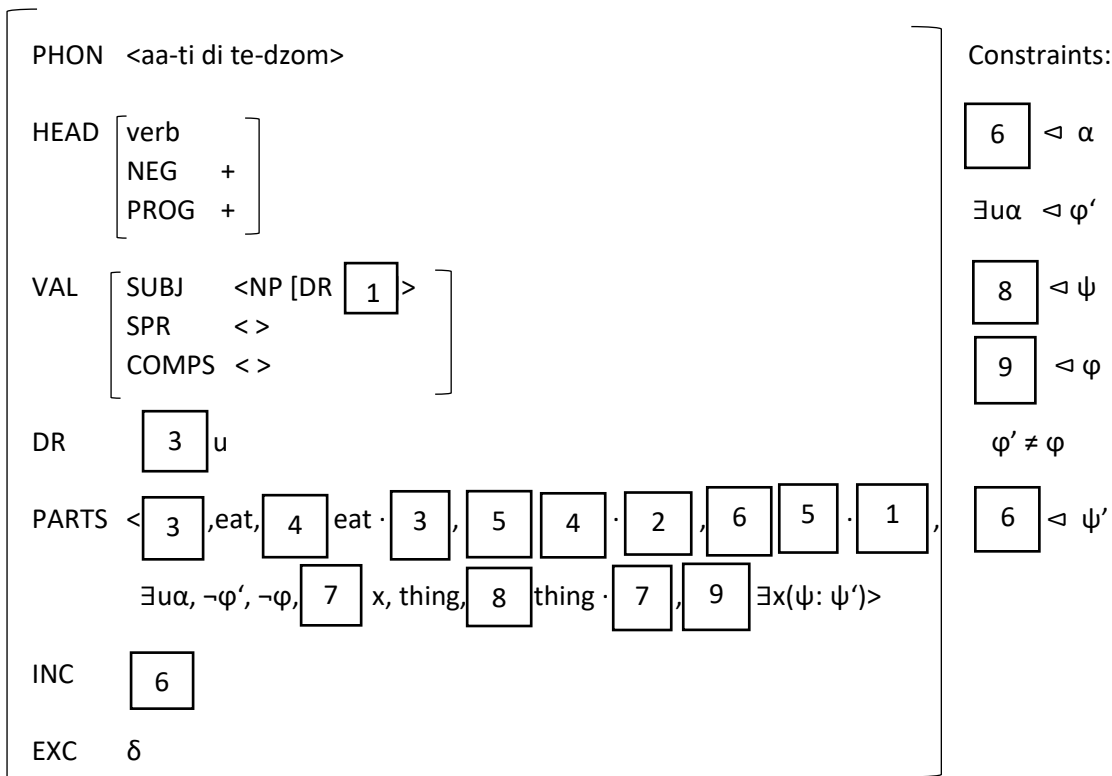
Finally, I want to discuss the interplay between sentential negation and neg-words in Eton. Due to the arising of a DN reading when two negative elements occur in one sentence, the Negation Faithfulness Constraint, formulated by Richter & Sailer (2006:13), is also at work in Eton. It says that one logical negation cannot be present in two lexical items. This means that the negation contributed by the neg-word ($\neg\varphi$) and the negation contributed by the negative marker ($\neg\varphi'$) are distinct which is vital for getting a DN reading. This is indicated next to the AVM in Figure 1 on page 5. The AVM represents the verb phrase (VP) from the example sentence in (3c). Except for the elements that are already on the PARTS list of *te-dzom* in (5), the other elements on the VP's PARTS list in Figure 1 are contributed by the smaller VP (*aa-ti di*). The object noun phrase (NP) adds the same constraints as the output in (5). The other constraints concern the smaller VP as well as the combination of this VP and the object NP resulting in the bigger VP. The former express that the internal content (INC) of the VP, which is the basic verb applied to all of its complements, is in the scope of the event quantification. Furthermore, the event quantification scoping over the INC is a subexpression of φ' which results in the VP being negated. The latter say that the two negations are not the same and that the INC of the VP is in the scope of the quantification which is contributed by the object NP. Besides, the tag 2 refers to the object of the VP which is *te-dzom*. Following all these constraints and inserting *James* as the subject, one gets the following logical form: $\neg\exists u(\neg\exists x(\text{thing}\cdot x : (\text{eat}\cdot u\cdot x\cdot\text{james})))$. This seems to be the natural interpretation of the utterance in (3c). Although other formulae with minor deviations are possible, too, they will definitely contain two distinct negations which is correct given that Eton is a non-NC language.

5. Summary

My investigations show that Haspelmath's (1997) geographic restriction of neg-words that can contribute negation is inadequate in light of the semantic similarities between Germanic and Eton's neg-words. Furthermore, Weiß' (2004) criterion that non-NC languages do not possess neg-words cannot be maintained and the non-negative treatment of neg-words, which he argues for, is impossible for Eton, as demonstrated in this study. Eton is a natural language unaffected by any prescriptive rules and its neg-words provide strong evidence for the natural negativity of negative indefinites.

The results of my analysis support prior examinations on neg-words in HPSG by also revealing the inherent negativity of these words in Eton, reconciling this negative approach with the decompositional approach used in other frameworks. Given the transparent composition of the neg-words in Eton, a decompositional approach allows us to separate the indefinite, which is the neg-word stem, from the negative prefix. The advantage is that one can easily explain the non-negative readings of the indefinites and also account for the obvious fact that the negation is contributed by the prefix. This, in turn, favours the negative approach because the overtness of the negation contributing element fits the surface orientation of HPSG perfectly. The prefix is like a realization of the covert negative operator, researchers in other frameworks assume for neg-words. When it is omitted, there never arises a negative reading of the neg-word stems and when it is used, one never gets a non-negative reading. My analysis showcases that the composition of the neg-words in Eton can be easily integrated into HPSG by the creation of a lexical rule.

Figure 1: AVM for *aa-ti di te-dzom*

PHON   <aa-ti di te-dzom>

HEAD   [verb
         NEG   +
         PROG   +]

VAL   [SUBJ   <NP [DR [1]]>
         SPR   < >
         COMPS   < >]

DR   [3] u

PARTS < [3] ,eat, [4] eat · [3] , [5] [4] · [2] , [6] [5] · [1] ,
         ∃uα, ¬φ′, ¬φ, [7] x, thing, [8] thing · [7] , [9] ∃x(ψ: ψ′)>

INC   [6]

EXC   δ

Constraints:

[6] ⊲ α

∃uα ⊲ φ′

[8] ⊲ ψ

[9] ⊲ φ

φ′ ≠ φ

[6] ⊲ ψ′

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