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

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Outline

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1. Introduction

- Eton is a Bantu language spoken in Cameroon
- The only analysis of it so far has been done by Van de Velde (2008)
- This talk is based on my own fieldwork with a native speaker of Eton
- The variety here slightly differs from the one in Van de Velde (2008), but only in minor respects
- Eton is an SVO language, a non-NC language and possesses neg-words
- The neg-words identified are te-mod ('nobody'), te-dzom ('nothing') and te-wom ('nowhere')
- These can appear pre- and postverbally without any licensor
- The occurrence of two neg-words results in a DN reading
1. Data

- Pre- and postverbal use of neg-words:
  
  (1) a. Te-mod a-ti di.  
      NEG-person 1-PROG eat.  
      ‘Nobody eats.’

  b. James a-ti di te-dzom. 
      James 1-PROG eat NEG-thing 
      ‘James eats nothing.’

- Use as a fragment answer:

  (2) a. Q: Paul a-ken-ge we?  
      Paul 1-go-PST where 
      ‘Where did Paul go?’

      A: Te-wom. 
      NEG-place 
      ‘Nowhere.’

  b. Q: Za-ti yen Linda? 
      Who.1-PROG see Linda 
      ‘Who sees Linda?’

      B: Te-mod. 
      NEG-person 
      ‘Nobody.’
1. Data

- Finally, when two neg-words co-occur or a neg-word occurs together with the negation marker (aa), the result is a DN reading:

(3) a. Te-mod aa-ti di.
   NEG-person 1.NM-PROG eat.
   ‘Nobody doesn’t eat.’

b. James aa-ti di te-dzom.
   James 1.NM-PROG eat NEG-thing
   ‘James doesn’t eat nothing.’

c. Te-mod a-ti di te-dzom.
   NEG-person 1-PROG eat NEG-thing
   ‘Nobody eats nothing.’

d. Alex a-ti ve te-mod te-dzom.
   Alex 1-PROG give NEG-person NEG-thing
   ‘Alex gives nobody nothing.’
1. Introduction

Why is that interesting?

   - Haspelmath (1997):
     - Languages where a neg-word alone can contribute negation are restricted to a certain European area
     - Eton clearly proves this wrong
   - Weiβ (2004):
     - English and German are actually hidden NC languages
     - Their neg-words only contribute negation because of standardization
     - A major criterion for being a non-NC language is the non-existence of neg-words in the corresponding language
     - Eton does not have a standard variety and even if, it would rather tend towards French
1. Introduction

2. The neg-words from Eton are obviously decompositional
   - The prefix *te* can be separated from the stem which can also appear alone:

   
   James 1.NM-PROG see person person 1-PROG eat
   ‘James doesn’t see anybody.’ ‘Somebody eats.’

   - In contrast, English and German neg-words are not as synchronically transparent
   - Due to the data, it seems plausible to assume that *te* contributes the negation, but no quantification
   - The prefix cannot be combined with any other elements than the neg-word stems (generalized indefinites)
   - The translation of the stems, by the way, provides evidence for treating the neg-words as contributing existential quantification and not universal quantification, as proposed for Korean by Sells & Kim (2006)
1. Starting position

- **Main aim:**
  - Integrating Eton's neg-words into the HPSG framework and accounting for
    - Their inherent negativity
    - Their obvious decompositionality

- Therefore, we need to reconcile the inherently negative approach proposed by de Swart & Sag (2002) or Richter & Sailer (2006) with the non-negative approach put forth by Penka & Zeijlstra (2005)

- The analysis itself is mainly based on the concepts presented and developed in Levine, Richter & Sailer (2014)
2. The negative approach

- Treating neg-words as negative quantifiers (de Swart & Sag 2002, Richter & Sailer 2006)
- In DN languages like Eton: multiple negative quantifiers cannot agree as opposed to NC-languages
- Evidence comes from the negative contribution the neg-words make whenever they appear in DN languages
- Negation Faithfulness Constraint (Richter & Sailer 2006:317):

\[
\text{NEGATION FAITHFULNESS CONSTRAINT (German, Dutch, English)}:
\begin{align*}
\text{a. In every phrase: there is no element of the form } &\neg \alpha \text{ which is on the parts list of both the head-daughter and the nonhead-daughter.} \\
b. \text{phrase } \Rightarrow &\left( \begin{array}{c}
\text{H-DTR LF parts A} \\
\text{N-DTR LF parts B}
\end{array} \right) \\
\text{and not E}_n E_\alpha &\left( \begin{array}{c}
\text{1 = } \neg \alpha \\
\text{and member}(1, A) \\
\text{and member}(1, B)
\end{array} \right)
\end{align*}
\]
2. The non-negative/decompositional approach

- Neg-words as combinations of an abstract negative operator and a non-negative indefinite (Penka & Zeijlstra 2005)
- Main argument for not treating neg-words in DN languages as inherently negative: split-scope readings
- German example:

  (6) Es muss kein Arzt anwesend sein. (Penka & Zeijlstra 2005:3)
  
  - there must no physician present be

  a. ‘It is not required that there be a physician present.’ ¬ > must > ∃
  b. *‘There is no physician who is required to be present.’ ¬ > ∃ > must
  c. ‘It is required that there be no physician present.’ must > ¬ > ∃

- The modal can intervene between the negation and the existential quantifier
- Proposal that neg-word is not inherently negative itself
3. The situation in Eton

- Te can only appear with the generalized indefinites, so, examples like (6) are impossible
- Te cannot function as a determiner unlike no or German kein(e)
- In these cases, sentential negation is used


John 1-PROG see ¬ car
John 1.NM-PROG see car

Intended: ‘John sees no car.’    ‘John sees no car.’

- However, there is still another possibility for split scope readings
3. The situation in Eton

- Sentences like Alex can do nothing also have split scope readings and are possible in Eton.

(8) Alex a-ne quam te-dzom.
    Alex 1-COP/can do NEG-thing
    ‘Alex can do nothing.’

- This, by the way, again provides evidence for the assumption that Eton’s neg-words are existential quantifiers and not universal quantifiers.

- Following Penka & Zeijlstra (2005:3), such examples theoretically have three possible readings:

(9) a. It is not possible that Alex does something. ¬ > can > ∃
    b. There is nothing, Alex can do. ¬ > ∃ > can
    c. It is possible that Alex does nothing. can > ¬ > ∃
3. The solution to this problem

- The constraints in LRS do not necessarily demand that the negation directly precedes the existential quantification.
- Richter & Sailer (2006:312) propose the following structure:

\[(10)\]

Thus, readings where the modal intervenes between the negation and the quantification are not disallowed, i.e. they are possible.
- This is an advantage over the approach by de Swart & Sag (2002)
3. Analysis

(11) Lexical entry for te-dzom:

\[
\begin{align*}
\text{PHON} & : \langle \text{te-dzom} \rangle \\
\text{HEAD} & : \text{noun} \\
\text{NEG} & : + \\
\text{VAL} & : \text{SUBJ} \rightarrow < > \\
\text{SPR} & : < > \\
\text{COMPS} & : < > \\
\text{DR} & : x \\
\text{PARTS} & : < x, \text{thing}, 1 : \text{thing(x)}, \exists, 2 : \exists x(\psi: \psi'), \neg \varphi > \\
\text{INC} & : 1 \\
\text{EXC} & : 2 \\
\text{Constraints:} & : 1 \models \psi \\
& : 2 \models \varphi
\end{align*}
\]
3. The decompositional approach

- Nonetheless, the decompositional concept of the non-negative approach can be helpful for Eton.
- The prefix te is similar to the covert negative operator that Penka & Zeijlstra (2005) assume following the syntactic agreement approach by Zeijlstra (2004).
- However, in contrast to this negative operator, te does not license the occurrence of the neg-words, but is crucial for their negative contribution.
- To capture the composition of the neg-words, we need a lexical rule.
- This lexical rule should merge the negative prefix with mod, dzom and wom.
- I will follow the basic concept of Iordachioaia & Richter (2015) who create a lexical rule for negative verb forms in Romanian.
- The concept of (de-)composition is perfectly applicable to HPSG.
3. Analysis

- (12) Lexical rule for neg-words in Eton (first version):

```
Input
PHON < 1 : dzom >
DR x
PARTS < x, thing, 2 : thing(x), ∃ 3 : ∃x(ψ : ψ') >
INC 2
EXC 3

Constraints: 2 < ψ
```

```
Output
PHON < te- 1 >
DR x
PARTS < x, thing, 2 , ∃ 3 , ¬ ψ >
INC 2
EXC 3

Constraints: 2 < ψ
3 < φ
```
3. Some problems

- Remaining issues with the lexical rule:
  i) - It is an applied rule and not a general one -> what distinguishes mod, dzom and wom from other elements?/what are the restrictions for te?
  ii) - Mod, dzom and wom can also be simple nouns meaning ‘person’, ‘thing’ and ‘place’
    - There is no indefinite article in Eton -> could it be that mod, dzom and wom do not contribute quantification at all and that the prefix is only a negative quantifier?
  iii) – If so, why can te only combine with three nouns?
3. Some answers

- Even though the neg-word stems can also be simple nouns, I propose that these three elements have a dual nature.
- This gains slight evidence from their lexical translation.
- Thus, there are two separate lexical entries for mod, dzom, and wom, one as a simple noun and the other as an indefinite.
- I suggest the generalized indefinites to be a (sub)part of speech, consisting only of the three neg-word stems.
- Due to the stems already contributing quantification, we have further evidence that te does not contribute quantification.
3. Analysis

(13) Class of nouns

NOUN

Pronouns

- Personal pronouns
- Other pronouns

- Indefinite pronouns
- ... (omitted)

- Generalized indefinite pronouns
- Non generalized indefinite pronouns

Simple nouns/non-pronouns
3. Some rules

(14) Descriptive rules:

a. Te can only combine with elements already contributing existential quantification themselves

b. Te can only combine with bare words, not with syntactic/semantic (cf. Beavers 2003 and literature therein for the treatment of nouns with no article) or morphological combinations (with the exception being noun class markers)

c. Te can only combine with indefinites denoting a person, thing or place

- These majorly ensure that only the generalized indefinites can be prefixed by te, however, one can get more concrete
3. Some rules

(14) Descriptive rules:
   a. Te can only combine with elements already contributing existential quantification themselves
   b. Te can only combine with bare words, not with syntactic/semantic (cf. Beavers 2003 and literature therein for the treatment of nouns with no article) or morphological combinations (with the exception being noun class markers)
   c. Te can only combine with indefinites denoting a person, thing or place
      ▶ These majorly ensure that only the generalized indefinites can be prefixed by te, however, one can get more concrete:

(15) a. Te can only combine with generalized indefinites.
   b. Generalized indefinites contribute existential quantification, have not undergone syntactic/semantic or morphological* processes and denote a person, thing or place.
   c. The only generalized indefinites in Eton are mod, dzom and wom.
3. Analysis

(16) Lexical rule for neg-words in Eton: (final version)

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>&lt;1</td>
<td>&lt;te-1 &gt;</td>
</tr>
<tr>
<td>HEAD</td>
<td>HEAD</td>
</tr>
<tr>
<td>generalized indefinite</td>
<td>noun</td>
</tr>
<tr>
<td>NEG</td>
<td>NEG</td>
</tr>
<tr>
<td>-</td>
<td>+</td>
</tr>
<tr>
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<td>FORM</td>
</tr>
<tr>
<td>bare</td>
<td>non-bare</td>
</tr>
<tr>
<td>DR</td>
<td>DR</td>
</tr>
<tr>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>PARTS</td>
<td>PARTS</td>
</tr>
<tr>
<td>2 : &lt;x, 3, 4 : 3 (x), ξ, 5 : ξ(x: Ψ') &gt;</td>
<td>2 ⊕ &lt;¬φ &gt;</td>
</tr>
<tr>
<td>INC</td>
<td>INC</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>EXC</td>
<td>EXC</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Constraints: 4 < Ψ

Constraints: 4 < Ψ

5 < φ
4. Conclusion

- Haspelmath’s (1997) geographic restriction on neg-words being able to contribute negation themselves is inadequate
- Weiβ’ (2004) criterion on neg-words and non-NC languages cannot be upheld
- The negative prefix is the overt proof for the negative contribution of the neg-words
- The negative prefix is similar to the silent negative operator assumed in other frameworks in only contributing negation
- Neg-words in Eton are inherently negative indefinites contributing existential quantification
- Split-scope readings can be accounted for by the constraints in LRS
- The decompositionality of the neg-words can be captured by a lexical rule
5. References