Epistemic indefinites in Daakaka

Kihu von Prince
Humboldt-Universität zu Berlin

Triple A III
Structure of the talk

1. Introduction

2. Possible solutions
   - Specificity
   - Domain widening/shifting
   - Modal restriction

3. Preliminary conclusions
Conditional clauses:

(1) a. *ka vyanten tuswa te me te saka ko=n sóró myane*  
   SUBCONJ person TUSWA DIST come CONJ NEG.MOD 2S=NEC speak myane  
   with  
   ‘if anyone comes, don’t talk to them’

b. *ka vyanten swa te me te saka ko=n sóró myane*  
   SUBCONJ person SWA DIST come CONJ NEG.MOD 2S=NEC speak myane  
   with  
   ‘if someone comes, don’t speak to him/her’ (I have someone specific in mind)
Swa vs. tuswa: Negative assertions/ questions

(2)  

a. Wotop swa to pwer.  
breadfruit SWA REAL;NEG stay  
‘One breadfruit is missing.’

b. Wotop tuswa to pwer./?  
breadfruit TUSWA REAL;NEG stay  
(i) ‘There is no breadfruit.’  
(ii) ‘Is there no breadfruit?’
(3) a.  \textit{Wotop swa mwe pwer.}  
\text{breadfruit swa REAL stay}
\text{‘One breadfruit remains.’}

b.  \textit{Wotop tuswa mwe pwer?}  
\text{breadfruit tuswa/ a.bit(NPSUP) REAL stay}
\text{‘Is there a breadfruit (left)?’}

c.  \textit{# Wotop tuswa mwe pwer.}  
\text{breadfruit tuswa/ a.bit(NPSUP) REAL stay}
\text{intended: ‘there is one breadfruit left’}
Possible solutions: Specificity

The Specificity Hypothesis

*Swa* signals familiarity with a referent on the side of the speaker, *tuswa* signals that the referent is not identifiable.
The Specificity Hypothesis: Pro

(4)  

a.  webung **tuswa** yaapu **ka**  we  **kueli** me  
   day  TUSWA:/ SWA  big.man MOD.REL POT  return come  
   ‘one day, God will return’

b.  #?webung **swa** yaapu  **ka**  we  **kueli** me  
   day  SWA  big.man MOD.REL POT return come  
   „on a certain day, God will return (namely next Tuesday)“
The Specificity Hypothesis: \textit{Contra}

(5) a. \textit{Yan swa ka \text{\textit{ta \text{\textit{ane mees swa te \text{\textit{sanga yen tes, te \text{\textit{wa on one COMP DIST eat food SWA DIST BAD in sea DISC POT}}}}}}}}
\text{\textit{kuowilye ka \text{\textit{wa tiye ngok}}}}
\text{\textit{know \text{\textit{COMP POT fight 2sg}}}}
\text{\textit{“Sometimes, if [this kind of fish] has eaten \textit{something bad}, it may attack you“}}

b. \textit{Yene en=tak, \text{\textit{ka \text{\textit{ko=t \text{\textit{esi ka \text{\textit{ó \text{\textit{swa te}}}}}}}}}}
\text{\textit{now DEM=DEM.PROX COMP 2SG=DIST see COMP COCONUT SWA DIST}}
\text{\textit{mur me \text{\textit{te ra=m \text{\textit{esi na sa vyaven en=te}}}}}}
\text{\textit{fall come DISC 1PL.IN=REAL see COMP TOP WOMAN DEM=DEM.PROX}}
\text{\textit{met-an \text{\textit{sa nge}}}}
\text{\textit{eye.of-3SG.POSS TOP NGE}}
\text{\textit{“Nowadays, if you see a \textit{coconut} fall down from a tree, we see this woman’s eyes there“}}
Hypothesis: Domain widening and/or shifting

Both *swa* and *tuswa* introduce existential quantifiers, but *tuswa* either lifts the contextual restriction on the quantifier or shifts the method of identification from the contextually salient one to a different one.

- In the context of EIs in European languages, the processes of domain widening (Alonso-Ovalle & Menéndez-Benito, 2010: e.g.) or domain shifting (Aloni & Port, 2006) are preferred methods to account for the difference between simple indefinites and epistemic indefinites.
Hypothesis: Domain widening and/or shifting

Both *swa* and *tuswa* introduce existential quantifiers, but *tuswa* either lifts the contextual restriction on the quantifier or shifts the method of identification from the contextually salient one to a different one.

- In the context of EIs in European languages, the processes of domain widening (Alonso-Ovalle & Menéndez-Benito, 2010: e.g.) or domain shifting (Aloni & Port, 2006) are preferred methods to account for the difference between simple indefinites and epistemic indefinites.
- This hypothesis would be able to deal with the examples seen so far.
But it fails to account for the differences between \textit{swa/tuswa} and their English or German counterparts:

1. Outside of generic temporal and conditional clauses, the use of \textit{swa} indicates that the speaker has a specific referent in mind. The same is not true for simple indefinites like \textit{a} in Standard European languages.

2. \textit{Tuswa} cannot generally occur in past realis contexts:

\begin{enumerate}
\item[(2)] #\textit{Wotop tuswa mwe pwer.}
\item[(6)] \textit{Some breadfruit(s) is/ are left.}
\item[(7)] \textit{Irgendeine Brotfrucht ist noch da/ irgendwelche Brotfrüchte sind noch da.}
\end{enumerate}
But it fails to account for the differences between *swa/tuswa* and their English or German counterparts:

1. Outside of generic temporal and conditional clauses, the use of *swa* indicates that the speaker has a specific referent in mind. The same is not true for simple indefinites like *a* in Standard European languages.

2. *Tuswa* cannot generally occur in past realis contexts:

   (2)  
   \begin{verbatim}
   #Wotop tuswa mwe pwer.
   \end{verbatim}
   breadfruit TUSWA/ a.bit(NPSUP) REAL stay intended: ‘there is one breadfruit left’

(6)  
*Some breadfruit(s) is/ are left.*

(7)  
*Irgendeine Brotfrucht ist noch da/ irgendwelche Brotfrüchte sind noch da.*

Note that this observation is compatible with the Specificity Hypothesis under the assumption that familiarity with a concrete situation is a sufficient condition for identifiability of the referent on the side of the speaker.
Hypothesis: Modal restriction

Tuswa takes a property $P$ and an individual $x$ and asserts that the property $P$ holds for non-real is indices. Swa asserts $P(x)$ for real is indices.

\[ \text{Hypothesis: Modal restriction} \]

\[ \text{Tuswa takes a property } P \text{ and an individual } x \text{ and asserts that the property } P \text{ holds for non-real is indices. Swa asserts } P(x) \text{ for real is indices.} \]

\[ \text{The following is joint work with Manfred Krifka} \]
Defining realis vs. non-realis indices: Branching Times

Realis: $i \leq i_0$
Non-realis: $i \not\leq i_0$
Outlining the proposal

**Definition: swa (one.sp)**

\[ \llbracket \text{swa} \rrbracket = \lambda i \lambda R \lambda P. \exists i', i' \leq i_0. \exists x P(x)(i'), R(x)(i) \]

**Definition: tuswa (one.nsp)**

\[ \llbracket \text{tuswa} \rrbracket = \lambda i \lambda R \lambda P. \exists i', i' \neq i_0. \exists x P(x)(i'), R(x)(i) \]
Modal restriction: conditionals

(8) a. [ka vyanten swa/ tuswa te me] te saka ko=n
    SUBCONJ person SWA/ TUSWA DIST come CONJ NEG.MOD 2S=NEC
    sóró myane
    speak with
    ‘if someone specific/ anyone comes, don’t talk to them’

Definition: $tV$ (DISTAL)

\[
[DIST] = \lambda i. i \neq i_0
\]

(9) (if) someone specific comes:
\[
\lambda i. i \neq i_0, \exists i'. i' \leq i_0, \exists x. person(x)(i'), \text{come}(x)(i)
\]

(10) (if) anyone comes:
\[
\lambda i. i \leq i_0, \exists i'. i' \neq i_0, \exists x. person(x)(i'), \text{come}(x)(i)
\]
Modal restriction: negation

**Definition: to (NEG.REAL)**

**Wide scope:**

\[ [\text{NEG.REAL}] = \lambda p. \neg \exists i \in R, i \leq i_0, p(i) \]

**Narrow scope:**

\[ [\text{NEG.REAL}] = \lambda P \lambda x. \neg \exists i \in R, i \leq i_0, P(x)(i) \]
Modal restriction: negation

(11)  \textit{Wotop swa/tuswa to pwer.}
breadfruit SWA/ TusWA REAL;NEG stay
‘One breadfruit is missing/ there are no breadfruits.’

(12)  \([\text{breadfruit SWA}](\text{NEG-REAL be.present})=\)
\[\exists i, i \leq i_0. \exists x. \text{breadfruit}(x)(i), \neg\exists i'. i' \in R_I, i' \leq i_0, \text{be.present}(x)(i')\]

(13)  \([\text{breadfruit TusWA}](\text{NEG-REAL be.present})=\)
\[\exists i. i \leq i_0, \exists x. \text{breadfruit}(x)(i), \neg\exists i'. i' \in R_I, i' \leq i_0, \text{be.present}(x)(i')\]

(14)  \([\text{NEG-REAL}](\text{breadfruit TusWA be.present})=\)
\[\neg\exists i' \in R_I, i' \leq i_0. \exists i, i \leq i_0 \exists x. \text{breadfruit}(x)(i), \text{be.present}(x)(i')\]
Modal restriction: *Contra*

(15)  

\[ \begin{align*} 
\text{barvinye swa ka we luk tevesye m-ada em} \\
\text{grass one ASR POT grow side.of CL2-1D.IN house} \\
\text{„a plant will grow at the side of our house“} \\
\end{align*} \]

...this plant does not exist yet, contrary to the prediction from definition swa.
Modal restriction: *Contra*

(15) *barvinye swa ka we luk tevesye m-ada em*  
grass one ASR POT grow side.of CL2-1D.IN house  
„a plant will grow at the side of our house“

...this plant does not exist yet, contrary to the prediction from definition *swa*. Note that, again, this example is compatible with the Specificity Hypothesis, since the speaker of the sentence has a specific individual plant in mind.
A weaker version of the modal-restriction hypothesis may be able to deal with (15):

Only *tuswa* may include a modal restriction to non-actual indices, *swa* may be underspecified with respect to its modal domain.
A weaker version of the modal-restriction hypothesis may be able to deal with (15):
Only *tuswa* may include a modal restriction to non-actual indices, *swa* may be underspecified with respect to its modal domain.
But then we would still fail to account for the specificity difference in future contexts. Examples like the following are problematic for both versions:

(16)  
a.  *webung tuswa yaapu ka we kueli me*  
day  TUSWA/ SWA big.man MOD.REL POT return come  
‘one day, God will return’

b. *webung swa yaapu ka we kueli me*  
day  SWA big.man MOD.REL POT return come  
„on a certain day, God will return (namely next Tuesday)“
A map of hypotheses and their relations to evidence

**Specificity**
The difference between "swa" and "tuswa" is based on specificity.

**Domain widening/shifting**
Tuswa conditions a widening of the domain of quantification and/or a shift in methods of identification.

**Modal restrictions**
The quantifiers are restricted to different modal domains.

- Ignorance effects in future contexts
- Identical distribution in generic conditionals
- Specificity of "swa" in future contexts
- Ban of "tuswa" from most actual past contexts
- Use of "swa" for not yet existent referents
Thank you!
Generic temporal clauses with *tuswa*

(17) a. or *tuswa na ka te vyan syokilyene an mees ar an* place one COMP MOD PAST go find DEF food place DEF te *ane mees* *tuswa te ka we mas pwer a-te* DISC eat food one DISC MOD POT must stay LOC.DEM-DEM.MED 
*mur sii we* piece three first 
„somewhere, if it finds **some food** there, it has to stay there for a little while first“

b. *ka ra=t du a ongane basée en=te te pwe* COMP 1PL.IN=DIST stay and hear bird DEM=DEM.PROX DIST stay * sóró yan bweti le-wotop * *tuswa te bwe ka na* talk on stem.of tree.of-breadfruit one DIST CONT say that *wotop ka we pa* breadfruit ASR POT bear.fruit 
„When we hear this bird sing on an **breadfruit** tree, then it’s announcing that this tree will soon bear fruit.“
There is one occurrence in my corpus with *tuswa* in a positive past realis context, where it gets a partitive reading.

(18)  

`temeli vyaven *tuswa* mwe me  kueli`

child  female TUSWA REAL come return

‘then one of the (two) girls returned’ „then one of the woman returned.“