Epistemic indefinites in Daakaka

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Triple A III

Structure of the talk

Swa vs. *tuswa*

Conditional clauses:

(1) a. *ka   vyanten **tuswa** te   me   te   saka   ko=n   sóró*
         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*
         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?'

Swa vs. *tuswa* Assertions/ Questions with past reference

(3) a. *Wotop* **swa** *mwe pwer.*
         breadfruit SWA REAL stay
         'One breadfruit remains.'

     b. *Wotop* **tuswa** *mwe pwer?*
         breadfruit TUSWA/ a.bit(NPSUP) REAL stay
         'Is there a breadfruit (left)?'

     c. #*Wotop* **tuswa** *mwe pwer.*
         breadfruit TUSWA/ a.bit(NPSUP) REAL stay
         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

(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: *Contra*

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

   b. *Yene en=tak,   ka   ko=t   esi ka ó   **swa** te*
      now DEM=DEM.PROX COMP 2SG=DIST see COMP coconut SWA DIST
    mur me   te   ra=m   esi na   sa vyaven en=te
    fall come DISC 1PL.IN=REAL see COMP TOP woman DEM=DEM.PROX
    met-an   sa nge
    eye.of-3SG.POSS TOP NGE
    „Nowadays, if you see **a coconut** fall down from a tree, we see
    this woman's eyes there."

Possible solutions: Domain widening/shifting

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.

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- This hypothesis would be able to deal with the examples seen so far.

Domain widening/shifting: *Contra*

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) #*Wotop* **tuswa** *mwe*   *pwer.*
        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.*

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   (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.
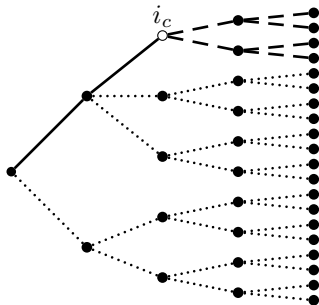
Possible solutions: modal restriction[1]

Hypothesis: Modal restriction

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

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[1]The following is joint work with Manfred Krifka

Realis: $i \leqslant i_0$
Non-realis: $i \nleqslant i_0$

Outlining the proposal

Definition: *swa* (one.sp)

$\llbracket swa \rrbracket = \lambda i \lambda R \lambda P. \exists i', i' \leqslant i_0. \exists x P(x)(i'), R(x)(i)$

Definition: *tuswa* (one.nsp)

$\llbracket tuswa \rrbracket = \lambda i \lambda R \lambda P. \exists i', i' \nleqslant i_0. \exists x P(x)(i'), R(x)(i)$

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)

$\llbracket \text{DIST} \rrbracket = \lambda i. i \neq i_0$

(9)   (if) someone specific comes:
      $\lambda i. i \neq i_0, \exists i'. i' \leqslant i_0, \exists x. person(x)(i'), come(x)(i)$

(10)   (if) anyone comes:
      $\lambda i. i \nleqslant i_0, \exists i'. i' \neq i_0, \exists x. person(x)(i'), come(x)(i)$

Modal restriction: negation

Definition: *to* (NEG.REAL)

Wide scope:
$$[\![\text{NEG.REAL}]\!] = \lambda p. \neg \exists i \in R_I, i \leqslant i_0, p(i)$$
Narrow scope:
$$[\![\text{NEG.REAL}]\!] = \lambda P \lambda x. \neg \exists i \in R_I, i \leqslant i_0, P(x)(i)$$

Modal restriction: negation

(11)   *Wotop   swa/ tuswa to   pwer.*
       breadfruit SWA/ TUSWA REAL;NEG stay
       'One breadfruit is missing/ there are no breafruits.'

(12) $[\![$**breadfruit SWA**$]\!]([\![$**NEG.REAL be.present**$]\!])$=
       $\exists i, i \leqslant i_0. \exists x.$**breadfruit**$(x)(i), \neg\exists i'.i' \in R_I, i' \leqslant i_0,$**be.present**$(x)(i')$

(13)   # $[\![$**breadfruit TUSWA**$]\!]([\![$**NEG.NEG be.present**$]\!]) =$
       $\exists i.i \nleqslant i_0, \exists x.$**breadfruit**$(x)(i), \neg\exists i'.i' \in R_I, i' \leqslant i_0.$**be.present**$(x)(i')$

(14) $[\![$**NEG.REAL**$]\!]([\![$**breadfruit TUSWA be.present**$]\!])$=
       $\neg\exists i' \in R_I, i' \leqslant i_0. \exists i, i \nleqslant i_0 \exists x.$**breadfruit**$(x)(i),$ **be.present**$(x)(i')$

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*.

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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.

Modal restriction, version 0.2

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.
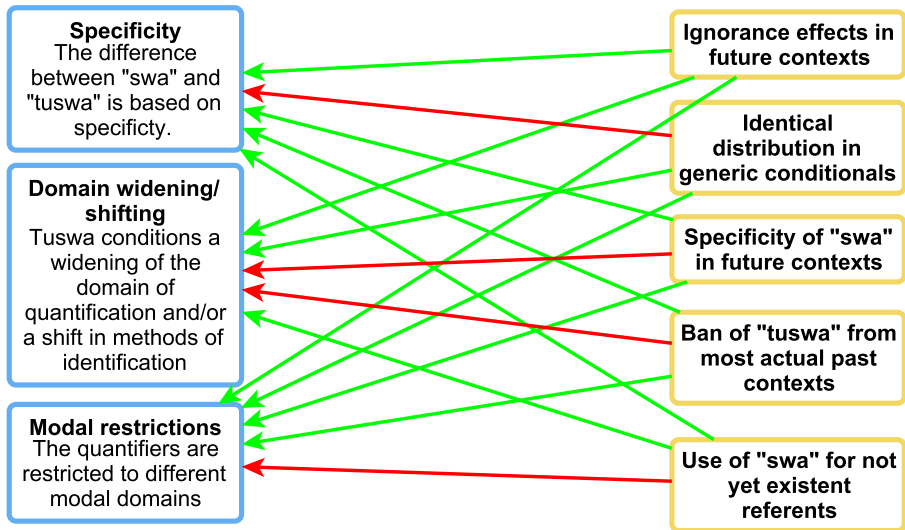
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Only *tuswa* may include a modal restriction to non-actual indices, *swa* may be underspecified with respect to its modal domain.

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 specificty.

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 baséé 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 **a breadfruit** tree, then it's
announcing that this tree will soon bear fruit."

Tuswa in a past context

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."

Aloni, Maria, & Port, Angelika. 2006. Epistemic indefinites crosslinguistically. *Pages 1–14 of:* Elfner, Emily, & Walkow, Martin (eds), *Proceedings of nels*, vol. 36.

Alonso-Ovalle, Luis, & Menéndez-Benito, Paula. 2010. Modal indefinites. *Natural Language Semantics*, **18**, 1–31. 10.1007/s11050-009-9048-4.