Comments on Andreas Haida,
Two Classes of 3rd Person Pronouns in Tangale

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NELS 40 Workshop on Pronouns, MIT
Nov. 15, 2009

1. The empirical facts

Class 2 pronouns: [yi] as exemplar
   • only occur under attitude verbs
   • may, but need not be, bound by subject of a higher attitude verb
   • but must be bound somewhere

Class 1 pronouns: [mbe:ndam] as exemplar
   • *roughly:* only occur in all other contexts
   • hence - may occur under attitude verbs, but they must be "unbound" - see H-(2)

H-(2) Awaŋ-uŋ yimb-i ká: ndam **mbe:ndam** ya-ga mana-m kude puru-m dok
   A.m.-PRog think-Imp that possible 3SG.M do-have house big day one
   "Awang$_i$ thinks that he$_{*i/j}$ can have a big house one day."

   • *however* - not entirely true that they must be "unbound":

H-(4) Awaŋ gá: **mbe:ndaŋ** tashin landa-n kudek-kudek.
    A-m say 3SG M wear cloth-LNK black-black
   "Awang$_i$ says that he$_i$ is wearing dirty clothes"

   • but this good only on de re reading; no de se reading
   • Hence: may occur under attitude verbs, but just where
      (a) use of Class 2 gives only de se reading
        in these contexts, Class 1 good, and gives de re reading
      (b) they are unbound (within the largest S, presuambly)

2. The basic analysis (revised later, as there will be two yi's)

A. Class 2 pronouns - Part I:

[yi$_1$] is a logophoric pronouns:
  (a) it must be bound by the subject of a higher attitude verb (but this can be
    indefinitely higher)
  (b) it gives rise only to de se readings
  (c) it cannot be "disourse" bound - i.e., nothing akin to "modal subordination"
      (unlike t e.g. Ewe, according to Clements)

the analysis of this pronoun:
  - apparently no indexation
  - a function from contexts to individuals:

$$[[yi_1]]^{c,g} = \lambda c'[\iota x[x = a(c') \ \& \ c' \neq c^* \ \& \ x \neq a(c^*) \ and \ x \neq h(c^*)]]$$

for c* the actual speech context

the stuff in italics here just builds in to the semantics that the 3d person feature does enforce that the pronoun cannot refer to speaker or hearer (in actual speech context) and does not arise by "Maximize Presupposition" as is sometimes assumed

hence: a function from contexts to author in the context; the function is defined only for contexts distinct from speech context

> *Footnote 1:*   note that   c' ≠ c can be left out; it follows from x = a(c') and x ≠ a(c*) under the definition of context which includes "authors" as part of c
>
> *Footnote 2:*   not clear what the supersript g is doing here. Presumably some use is being made of assignment functions in the system somewhere, but not clear where in the material here.

i. How does the open argument slot get "bound"?

  - first, note it must "percolate up" - mechanism for this not spelled out, but could use, for example, the **g** ("Geach") rule discussed in the variable-free literature
        (see, e.g., Jacobson, 1999)

  - a "type shift" rule - or a (silent) "operator adjoined at LF" - which merges together the open context slot created by the existence of *yi₁* with the context argument slot that all expressions have

> *Note:* the rule which does this merges two context-argument slots. One is the one created by *[[yi₁]]*. The other is the presumably the argument slot which is the context of evaluation of any expression. Hence:

(19)   Awang said [that **yi** is wearing dirty clothes]

(20)   [[**yi** is wearing dirty clothes]]^{c,g} = (simplified, leaving off the person contribution)
        $\lambda c'[\text{wear-dirty-clothes} (\iota x[x = a(c') \ and \ x \neq a(c^*)](w(c)]$
    or
        [[**yi** is wearing dirty clothes]]^{g} =
        $\lambda c[\lambda c'[\text{wear-dirty-clothes} (\iota x[x = a(c') \ and \ x \neq a(c^*)](w(c)]]$

note on notation: H's handout uses c'' where I have c; this just notation. A more significant difference is that he assumes the context argument slots are in a different order than what it seems to me they will come in. This probably just depends on how one assumes the combinatorics are working "all the way up". In the end, however, it makes no difference since those are the two argument slots which get "merged".

→ "bind" by a "duplicator" rule (cf. *W* in much of the combinatory logic-inspired literature):

β_k (or, "W") = $\lambda R[\lambda c[R(c)(c)]]$

when this applies to (20), the two context-slots are merged; gives set of contexts c at which the author of c wore dirty clothes at c

the result is then taken as argument of [[say]]

note: follows (given suitable assumptions about authors of contexts and about the lexical meaning of *say*) that we get only the de se reading

(ii) How force binding? Recall from the generalizations above, that this <u>must</u> be bound; it cannot escape, even in a "modal subordination" context

Because the pronoun introduces a new context argument slot, if this were not "bound" (i.e., something happening to fill it/ merge it with another slot/ por otherwise zap it out), , the root would not be of type <c,t> (i.e., would not denote a set of contexts) but a function into a set of contexts (type <c,<c,t>>)

H's Hypothesis:
      This "induces semantic deviance". All argument slots must be closed off at the end of the day. Root clauses must be sets of context, and nothing more complex. (I'm assuming a "modulo assignment functions" here, depending on how this embedded into a more general theory)

Thus:<u>the context argument slot</u> must be "bound" because if not, we get the wrong type for the root.
<u>yi-1 does not introduce an individual argument "slot", but</u>: the individual informally corresponds to the pronoun is "bound" because the semantics says its the author of the context of the whole thing that it occurs in.

Comment 1:

  Note the consequences of this for (at least various versions of) the variable-free program. E.g., Jacobson (1999) etc.:
- *all pronouns (in English) introduce new argument slots*
  - *(though not context argument slots, but individual argument slots)*
- *"free" pronouns: as in <u>He left</u> are such that this is of type <e,<c,t>>*
  - *and is supplied to a contextually salient individual*
- *no assignment functions - so not a matter of picking an assignment*

Under H's analysis: this can't be right (unless Tangale and English differ in this way)

Hence: other pronouns which are not "bound" within a sentence: must be treated
  differently

Query 1 : what, then, is the analysis of other pronouns

  in particular: what is the analysis of the Class 1 pronouns in Tangale?
    in the abstract, was claimed these are ellipsis; no analysis here
  are they ellipsis? or are they "variables?

  Subquery: do they always need a linguistic antecedent (as one would expect if
  they are ellipsis)

  Why was ellipsis abandoned in early transformational grammar for English
  pronouns (though, granted, it has been revived in recent literature)?
  One reason: no linguistic antecedent required (Lasnik, 1972):

    An annoying guy that no one likes is at a party. No one speaks to
   him all night; no one utters his name. He finally leaves. I turn to you and
   say "Thank goodness, he left".

  NOTE: this is also not "deictic" in the sense of pointing

  Can similar cases be constructed with Class I in Tangale?

  If so (and, for the case of English) H's hypothesis would suggest these are "true
    variables", evalated relative to assignment functions
  Hence: the variable-free apparatus would work for Class 2, but not Class 1 in
    Tangale (nor in English)

  If not, would appear no use of assignment functions (and variables) in Tangale

    - allow languages to vary either:
      - (a) by use of non-use of assignment functions, or
      - (b) by adherence or non-adherence to H's hypothesis

Comment 2 :

      While I don't know how to account for the facts here, if we take this to be the basic analysis of logophoric pronouns - and not insist on H's hypothesis - we actually have an interesting account of logophoric pronouns in those languages where they can be "discourse" bound (or "modal subordination" bound)

Logophoric pronouns generally want to be embedded under attitude verb (and refer to the holder of the attitude). Take H's analysis, but let them remain unbound:

(1)   [[logophor was sick]] =
          $\lambda c'[\lambda c[$at c, the author of c' was sick, for c' $\neq$ c*]]

     we need to fill in two arguments: we fill in c as c*, as usual
     we can't do that for c' - but we can't find anything else to fill in for c'
     unless we are in an indirect speech report context
          Awang said he wanted to go to Tuloo, but he couldn't. He was sick.
             (understood as *He was sick, he said)*

     This bad or at least highly dispreferred in Tangale
     But is allowed in other languages with logophors -
     So actually having the open context slot - without a requirement against this living at the end of the day - would give an interesting analysis for logophors in such languages

The basic prediction: unless one can find a contextually salient c not equal to the actual speech context, this will be bad

B. H's analysis of the Class 1 pronouns

- as noted above, no actual semantics given - are these ellipsis? are they variables?
- But, basic idea: if Class 2 can be used, it must be used
     "Maximize Presupposition"

Query 2:
     not obvious (to me) in what way this connects to other use of "maximize presupposition" : one would like a general formulation

     more pressingly: we cannot really compute the sense in which the Class 2 pronouns have stronger presuppositions than the class 1 pronouns without knowing what the Class 1 pronouns mean (if, for example, they are ellipsis, then they have extremely strong "presuppositions")

However, let us assume that this can be answered and that there is a clear sense in which Class 2 pronouns are "stronger" than Class 1 pronouns and must be used where possible

Correct predictions of this:

• Class 1 pronouns can occur under attitude verbs if they are "unbound" or
• if they are "bound" to speaker of attitude verb but give a de re reading

C. But wait: Class 2 pronouns Part II

But wait, not so fast. It turns out that Class 2 pronouns *also* occur not bound by the subject of an attitude verb - but where there are two requirements met:
    (a) they are indeed under an attitude verb
    (b) they must be bound somewhere (within the root S, presumably)

H-(22)   Malaŋ   we:-g mu-m yim-go ká: **yi**   ŋa mana-m kude
                M-masc   see man-rel think   that 3SGM have house   big
                (irrelevant details suppressed in my glosses)
                "Malang$_i$ met [a man]$_j$ who thinks that he$_{i,j}$ has a big house

Presumably the use of a Class 1 pronoun here could not have either of these meanings. See H's subsequent set of data.

The analysis of these:

• There is a second form yi$_2$
• [[yi$_2$]] is the identity function on individuals (cf. Jacobson 1999 etc,) but defined only for contexts which are not the speech context:

$[[yi_2]]^c = \lambda x[x]$, defined only for c's such that $c = c*$

rewriting: $[[yi_2]] = \lambda c_{[c \neq c*]} [\lambda x[x]$ *& x ≠ a(c*) & x ≠ h(c*)*$]]$
        (again, stuff in italics is to get the contribution of the person feature to be part of the semantics)

for yi$_1$:

  (a) What ensured that it must be under an attitude verb?
        • if was a function from contexts to individuals --> opened up a new context slot;
        • this has to get filled in by H's hypothesis -
        • it can't be filled in by a W rule which merges it with the speech context,
        (because it stipulates that this is not the speech context)
        • hence it has to get bound somewhere else, and thus occur only under things that take sets of contexts as arguments

  (b) What ensured that yi$_1$ is "bound" to by the subject of the attitude verb?
        • this is part of its meaning; it is a function from contexts to authors of that context - and the relevant verbs are such that their subjects are the authors

for yi_2:

  (a) What ensures that it must be under an attitude verb?
- it is defined only in contexts not identical to the speech context
- this will ensure that for any S such that S contains yi_2, [[S]] is defined only for contexts which are not the actual speech context
- if it didn't get embedded under a verb that wants a set of contexts, it would end up living in an undefined space

  (b) What ensures that yi_2 is "bound"
> *NOTE: of course it does not have to be bound by the subject of the attitude verb, but does have to be bound*

      H's hypothesis: if it doesn't get bound, the root will be of type $<e,<c,t>>$ and hence deviant

Thus: * Sally thinks that yi-2 left. (where yi is masc. form)
      it's under *thinks* - so it is defined - but it isn't bound

How bind these?
      By a different variant of W
      $\lambda R[\lambda x[R(x)(x)]]$ (for any R of type $<e,<e,t>>$

<u>Query 3</u>: What is the relationship between the two *yi's?*
      H says: they are the same except that yi_1 has a stronger presupposition
      But they look pretty different (types are quite different)

H-(31) (notation slightly modified by me):

a. $[[yi_1]]^{c,g} = \lambda c'[\iota x[x = a(c') \& c' \neq c^* \& x \neq a(c^*) \& x \neq h(c^*)]]$
      (the part in italics could be removed, or it could be recast as a restriction on the domain of this function: that is this function only defined for contexts not equal to c^*, though again that restriction of course follows from the rest of this)

b. $[[yi_2]]^{c,g} = \lambda x_{x \neq a(c^*) \text{ and } x \neq h(c^*)}[x]$ defined only for contexts c in which $c \neq c^*$

we could rewrite these as:

a'. $[[yi_1]]^g = \lambda c[\lambda c'[\iota x[x = a(c') \& c' \neq c^* \& x \neq a(c^*) \& x \neq h(c^*)]]]$
   or $[[yi_1]]^g = \lambda c[\lambda c'_{c' \neq c^*}[\iota x[x = a(c') \& x \neq a(c^*) \& x \neq h(c^*)]]]$
   or $[[yi_1]]^g = \lambda c[\lambda c'_{c' \neq c^*}[\iota x_{x \neq a(c^*) \& x \neq h(c^*)}[x = a(c')]]]$

b' $[[yi_2]]^g = \lambda c_{c \neq c^*}[\lambda x_{x \neq a(c^*) \text{ and } x \neq h(c^*)}[x]]$

I am going through this exercize to make the meanings "look" as similar as possible
But they still have rather different types, not just different "presuppositions"

<u>More important question</u>:
　　　Why not just have yi₂ ? After all, everywhere that yi₁ can live, so can yi₂

 That is, could we not just say that yi₁ is the special case where it is bound by subject of
　　　the attitude verb?

<u>The answer</u>: This won't account for the obligatory de se reading of (3):

H - (3)　　　Awaŋ　gá:　**yi**　　tashin landa-n kudek-kudek.
　　　　　　　Awang　say　3SG-M　wear　cloth　black-black
　　　　　　　"Awangᵢ says that heᵢ is wearing dirty clothes".

　　　according to the handout, this is the only way to report Awang's having seen his
reflection in the window, knowing it was him and saying "I am wearing dirty clothes".
　　　More importantly, if he didn't know he was looking at himself and said that that
man was wearing dirty clothes, it has to be reported as H-(4):

H-(4)　Awaŋ gá: **mbe:ndaŋ**　tashin landa-n kudek-kudek.
　　　 A-m say　3SG M　　wear cloth-LNK　black-black
　　　"Awangᵢ says that heᵢ is wearing dirty clothes"

<u>Comment 3</u>: But now two (related) new problems open up:

　　　a. why can't the pronoun in (3) be yi₂? This would give the de re reading
　　　b. moreover, why should *mbe:ndaŋ* be good here? The earlier story required
　　　　　that *yi₂* is "stronger" than *mbe:ndaŋ,* so why aren't we forced to use yi₂ here?

<u>An attempted answer</u>: There is another competition-based account. (Which hopefully
　　　could be stated as a strategy of the hearer.) Interpret *yi* as the "strongest
　　　meaning" possible.
　　　• The general intuition: if two items are homophonous and one is "stronger" than
　　　the other and no other constraint is violated by either of them, then the stronger
　　　meaning is assumed by the hearer.
　　　• So: the weaker meaning will be chosen only if there is some other constraint
　　　blockiong the stronger meaning in that environment.
　　　• *NOTE: In addition to formulating the principle more precisely, we need to also
　　　formulate what it means to say that [[yi₁]] is "stronger" than [[yi₂]], but that
　　　seems reasonable*

above questions revisited:
　　　(a) why can't the meaning of the pronoun in (3) be *[[yi₂]]?* By the above
　　　principle.
　　　(b) Why isn't *mbe:ndam* blocked by *yi₂*? Because *[[yi₂]]* is blocked by *[[yi₁]]*

Aside: This sounds plausible, but there are (or should) always be worries about competiton based principles, and especially (as in this case) their interactions. The principles need to be carefully spelled out; and their generality checked (will this block other things that we don't want to block?)

But, leaving that aside:

<u>Comment 4</u>: This won't work. We should never be able to find a situation where either *yi* is allowed.   But we do find just this.

H-(22) Malaŋ we:g mu-m   yim-go   ká: **yi**   ŋa   mana-m kude
       M-m   see man-REL think   that 3SG-M have house   big

"Malang$_i$ met [a man]$_j$ who thinks that he$_{i/j}$ has a big house.

Both readings possible. (We don't know if the reading subscripted j is yi_1 or yi_2 - from what we see above it would have to be de se and thus would have to be yi_1 - but this doesn't affect the point.)
        The point: yi_1 is possible here, but it does not block the yi_2 reading.
        The principle that says: interpret the ambiguous item on the strongest meaning possible is not operative here. It would force the logophoric reading.

<u>Another attempted answer</u>:

        We are not locally comparing the meaning of the pronouns, but globally comparing the meanings of the sentences.

The principle: When a sentence is ambiguous between two readings where one entails the other, hearer will interpret only the stronger meaning.

So - the two meanings of H-(22) are not in competition; neither are stronger. But de se meanings are stronger than de re meanings, so de se blocks de re.

But there are any number of counterexamples to this. Why, for example, does English not require a de se interpretation with *he?*

Answer: *yi* is genuinely ambiguous in Tangale, but *he* is not ambiguous in English. The principle is more complex: interpret in the strongest meaning when it arises from a lexical ambiguity.

Question: How does the kid figure out whether they are learning Tangale or English?
        Tangale kid: hearing the full range of uses of *yi* - will conclude two separate lexical items.
        English kid: hearing the full range of uses of *he* - will conclude that they are the same item.

Answer: What would distinguish them: is hearing English *he* used de re and in a
       situation which distinguishes de se from de re (the amnesiacs, the men in the
       mirror, etc.) (Tangale kid hearing those same situations never hears a de re use.)

*Okay, maybe it's a "cheap shot" to indulge in "how does the kid figure this out"
       reasoning, but it does seem that the basic strategy that the competition-based
       account will have to take is going to run into problems specifying just where this
       competition is operative and where it isn't*

Conclusions:
   (a) H has proposed a very interesting (variable-free) account of yi_1 .
   (b) H has proposed an interesting hypothesis to the effect that root clauses can only be
       interpreted as sets of contexts.
   (c) If H's hypothesis is true, it says that the variable-free account of English
       pronouns cannot be correct.
   (d) If it is not true, it's an interesting account of logophors in languages that do
       allow "discourse binding".
   (e) In order to fully explain the distribution of Class 1 pronouns, we need a fuller
       account about their semantics, but the basic idea that they are not allowed where
       Class 2 is allowed seems quite plausible.
   (f) The existence of yi_2 is threatening to the account; it is not clear why there should
       be any yi_1 except to explain the obligatory de se readings, but the explanation   r
       aises additional problems.
   (g) In any case, though the distribution of yi_2 is extremely interesting: it must be
       embedded under an attitude verb, but need not be bound within that domain, but
       yet it must be bound. Are there other cases of creatures like this?