Bipartite indexicals in Yucatec: Toward a situation-semantic analysis

1. Introduction – This paper introduces to the semantic literature a phenomenon in Yucatec and other Mayan languages that has so far received no theoretical attention: ‘bipartite’ indexicals. Various classes of indexicals exhibit a semi-compositional non-contiguous bimorphemic structure whereby one element indicates the place in the utterance at which the referent enters the semantic composition while the other expresses distinctions concerning the type of indexical reference (deictic vs. anaphoric, with further subclassification of the latter into various types). A situation-semantic analysis is sketched.

2. Data – Examples (1) and (2) illustrate the interplay between the two components for the Yucatec place-deictic adverb te’l. In (1), te’l combines with the ‘D1’ particle =a’ when used for proximal exophoric reference (‘here’) and with the ‘D2’ particle =o’ when used for distal exophoric (‘there’).

   (1)   
   U=hòol+nah       ken       u=bin   te’l   t-u=mòoy=a’/=o’
   A3=hole+house SR.IRR A3=go there PREP-A3=apse=D1/=D2
   ‘The door is what will end up here/there in the apse’

   The determiner le shows the same variation, translating as a proximal or distal demonstrative depending on the particle it co-occurs with:

   (2)   
   A=ti’a’l  le=nah=a’/=o’?
   A2=property(B3SG) DET=house=D1/=D2
   ‘Is this/that house yours?’

   When le is combined with the D2 particle =o’, it can be used for both distal deictic reference, as in (2), and the marking of definiteness, as in (3):

   (3)  Káa=h-òok   le=x-ch’úup   chak   u=nòok’=o’, (...)   
   káa=PRV-enter(B3SG) DET=F-female red(B3SG) 3=garment=D2
   ‘(And then) the woman dressed in red entered, (…)'

   In fact, any definite description whose lexical head is a common noun has to be accompanied by a clause-final particle, and in case the referent has been mentioned before or is assumed by the speaker to be uniquely identifiable to the addressee, D2 =o’ (and some form of the determiner le(l)) is used. The particles appear in two positions: on the right edge of the matrix clause, as in the above examples, and on the right edge of phrases that are left-dislocated (LDed) or topicalized:

   (4)  Hun-p’éeel   téen=e’,  hun-túul   máak=e’,  káa=h-k’áax   le=ha’=o’/=e’,
   one-CL.IN time=D3 one-CL.AN person=D3 CON=PRV-fall(B3SG) DET=water=D2/=D3
   ma’   t-u=pak’   u=kóoll=l’
   NEG(B3SG) PRV-A3=plant(B3SG) A3=clear\ATP=D4
   ‘One time, a man, when the rain fell, he didn’t plant his milpa’ (i.e., he didn’t plant corn at the onset of the rainy season as one is supposed to do)

   There are four indexical particles in the dialect under investigation. Each position contains maximally one particle. When triggers of multiple particles co-occur in the same clause or phrase, the hierarchy in (5) determines which particle is realized (D2 and D3 are in free variation in certain contexts, cf. (4)):

   (5)   The Highlander Principle (‘There Can Be Only One’)
   D1 =a’  >  D2 =o’  D3 =e’  >  D4 =i’

   This system is described in Hanks (1990) and [ANON]. [ANON] argues that the distal exophoric uses of D2 illustrated in (1)-(2) can be derived as scalar implicatures through preemption by the more informative D1. Similar structures are attested in Mopan (Danziger 1994) and Tseltal (Brown 2006).

3. Questions – The paper addresses the following questions: (i) What is the semantic motivation underlying the bipartite structure of Yucatec indexicals, and what is its pragmatic function? (ii) The Highlander Principle stipulates that every Yucatec matrix clause (and every LD/ed /topicalized phrase is
assigned to exactly one type of indexical reference. What is the semantic motivation and pragmatic function of this? (iii) Most Yucatec spatio-temporal indexicals exhibit the bipartite structure, but none of the pronominal expressions do. Why is this? (As Yucatec is head-marking, pronominals are usually morphologically bound. The morphemes glossed ‘A’ and ‘B’ in the examples illustrate.)

4. Assumptions – The version of Situation Semantics assumed here follows most closely that of Cooper (1996). The propositional content of natural language utterances is assumed to have the format $s \vdash \sigma$, where $s$ denotes a situation, $\sigma$ an ‘infon’ or situation type, and $\vdash$ the ‘support’ relation. The interpretation of a natural language utterance is assumed to involve maximally three distinct situations: the ‘topic situation’, which the utterance is about; the utterance situation, and a ‘resource situation’. The utterance situation uniquely assigns the roles of speaker and addressee, along with the time and place of the utterance. Resource situations are the situations that license the uniqueness presupposition of definite descriptions (Barwise & Perry 1983; Cooper 1996).

5. The basic idea – The paper focuses on the contrast between $D_1 = \sigma^?$ and $D_2 = \sigma^\neq$, setting the semantically more specific $D_3$ and $D_4$ aside for the moment. In a nutshell, the proposal is that both $D_1$ and $D_2$ introduce a resource situation to the interpretation of the utterance. In addition, $D_1$ requires this resource situation to be a part of the utterance situation characterized in terms of speaker proximity. As in [ANON], $D_2$ picks up distal interpretations under exophoric reference by scalar implicature. For illustration, the meaning of the declarative counterpart of (2) can be roughly represented as in (2') for the version with $D_2$ and as in (2'') for the version with $D_1$:

(2')  $\exists s. \exists r. x. s \vdash \text{own}(\text{addr}_w, x) \land r \vdash \text{house}(x)$
(2'')  $\exists s. \exists r. x. s \vdash \text{own}(\text{addr}_w, x) \land r \vdash \text{house}(x) \land r \vdash \text{speaker_proximal}(r, u)$

In these formulae, $u$ denotes the utterance situation, $\text{addr}_w$ the addressee, $r$ the resource situation, and $\text{speaker_proximal}$ denotes a mereological relation characterized by proximity to the location of the speaker.

6. How the proposed analysis accounts for the data – The proposed analysis suggests the following answers to the questions raised in §3: (i) The particles serve to identify the involvement of a resource situation in the interpretation of an utterance. In addition, the choice of particle specifies whether or not the resource situation is anchored to the utterance situation. (ii) The Highlander Principle is a reflection of the uniqueness of the utterance situation and resource situation of an utterance. See Cooper (1996: 11) for an argument to the effect that utterances are not normally interpreted with respect to multiple distinct resource situations. (iii) The pronominal system does not participate in the bipartite grammar because the pronouns are inherently specified for interpretation vis-à-vis the utterance situation ($1^{\text{st}}/2^{\text{nd}}$ person) vs. some other resource situation ($3^{\text{rd}}$ person).

7. Conclusion – While the bipartite indexicals of Mayan languages seem exotic at first sight, better-studied languages such as English likewise systematically classify utterances in terms of whether or not their interpretation is anchored to the utterance situation. They do so, however, through tense inflection. Strikingly, Yucatec has been described as a tenseless language ([ANON], [ANON], [ANON]). Future research will have to examine whether this distribution of properties is coincidence.