

Two ways to skin a cat: Meaning and use of Yucatec spatial demonstratives*

J. Bohnemeyer, University at Buffalo and MPI Nijmegen

bohnem@mpi.nl

Second, revised draft 21-Jul-2002 – Comments welcome! Please don't quote!

1. Introduction

This paper discusses the demonstrative system of Yucatec, a Mayan language spoken on the Yucatán Peninsula in Mexico and Belize. The emphasis here is on the uses of these demonstrative forms for *exophoric spatial reference*, i.e. for reference to real or imagined objects or events present in space at the moment of utterance. Other typical uses of demonstratives, e.g. for anaphoric reference tracking, 'textual deixis' (Lyons 1977), and 'recognitional' uses (Himmelman 1996), are only considered to the extent that they shed light on the issue of just how much exophoric reference is actually a semantic property of demonstrative forms, rather than the result of pragmatic inferences.

The vantage point from which the discussion proceeds is a comparison of different approaches to the analysis of demonstrative systems. A widely known study of the Yucatec system by Hanks (1990) is compared with results obtained by the author in field work applying the Demonstrative Questionnaire developed by David Wilkins at the Max Planck Institute for Psycholinguistics in Nijmegen (see the introduction to this volume). The methodological backdrop to this comparison is the lack of standard techniques for analyzing the semantics of indexical expressions. In the case of spatial deixis, this problem becomes particularly obvious, because the distinctions that are made are more complex than in other deictic domains. Numerous debates over the analysis of particular demonstrative systems bear witness to this; one example is the debate that has gone on for decades over the Turkish demonstrative *_u*. Some (e.g. Kornfilt 1997) have claimed it to be used to refer to objects at mid-distance from the speaker, while others (e.g. Lyons 1977) have considered it to be used for reference to objects close to the addressee. However, there never was a methodology in place to settle the question.

Standard techniques of semantic analysis seek to determine an invariant of reference, something that is being referred to across all the contexts in which the particular expression is used, and to extract the meaning of the expression by eliminating all context dependencies. But the meanings of 'indexicals' *are* particular kinds of context dependency.¹ What is invariant across the contexts in which indexicals are used is not *what* is referred to but *how* it is referred to (Kaplan 1990). So what is needed in order to study the use of demonstratives for exophoric spatial reference is a methodology that allows one to keep track of the *interactional* parameters of the speech context in which these forms are used. This includes the participants, their locations in real and in social space, and the location of the reference object (or 'denotatum') in these co-ordinate systems; e.g. the attention sharing among the speech act participants and the information status of the referent in discourse, but also possession of the object referred to by one of the participants. For example, Özyürek (1998) presents evidence suggesting that the use of *_u* does not depend on the location of the reference object relative to speaker or addressee, but rather on whether or not a joint focus of attention has been established among the two that includes the referent (see also Özyürek & Kita (ms.)).

The two approaches discussed here attempt to provide a methodology for keeping track of the interactional parameters in the study of spatial deixis. Hanks's (1990) 'practice' approach is based on recordings of natural interactions in culturally typified settings such as the household, corn field, church, etc. Hanks developed coding schemas for the participants when deictically referring to places and objects in these settings. These coding schemas showed the spatial layout of the settings, and Hanks assigned numbers to certain prominent locations and objects to code the interactions he recorded in the settings. Based on these data, Hanks carried out a detailed analysis of the *use* of the demonstrative forms in the interactions he had observed. However, Hanks did not attempt to go beyond usage and venture an analysis of the underlying semantics of the forms.

In contrast, the Demonstrative Questionnaire developed by D. P. Wilkins for the Space project at MPI Nijmegen gives instructions for the enactment of 25 settings, specifying for each setting the relative locations of the participants and the object to be referred to, as well as the object's status in discourse and its status with respect to the interlocutors's focus of attention (see the introduction to this volume). Enacting these settings, judgements of acceptability and preference of demonstrative forms for exophoric reference by adult native speakers of Yucatec were elicited. The results obtained thus do permit a (partial) assessment of the semantics of the demonstrative forms, since they involve systematic contrasts in the elicitation settings and *negative* evidence of the use of forms in particular settings, i.e. evidence of what native speakers do *not* consider acceptable in a particular context. Some of the outcomes of the Questionnaire study are surprising from the point of view of Hanks's analysis, in the sense that they could not have been directly predicted from it. However, conversely, many of Hanks's findings concerning the use of the demonstrative forms in spontaneous interactions could not possibly be predicted from the results of the Questionnaire study. An analysis of the Questionnaire data can only make generalizations over settings of the kind that actually occur in the questionnaire, and over the interactional parameters that are controlled for in the Questionnaire. But more generally, meaning is only a partial predictor of use, just as use is only a partial predictor of meaning. Hence, neither Hanks's approach nor the Demonstratives Questionnaire approach is superior to the other. Rather, the combined use of both methods is advocated here. Researchers are bound to miss important insights if they restrict themselves to any single one approach.

Section 2 introduces the relevant structural details of the Yucatec expressions used in exophoric spatial reference. The system is a fairly intricate one. Section 3 summarizes Hanks's (1990) analysis. In section 4, the Yucatec responses collected with the Demonstrative Questionnaire are discussed. The study has produced three main findings: (a) the location of the addressee does not seem to have a direct impact on the use of Yucatec demonstrative forms; (b) the distal forms are semantically distance-neutral and arguably not even specified for exophoric reference; and (c) the proximal-distal opposition intersects with a contrast between simple forms used with a pre-established focus of attention and augmented forms used for attention-direction. Performance of the two approaches on the Yucatec data is compared in section 5.

2. A sketch of the expression of spatial deixis in Yucatec

Yucatec is spoken in the northeast of the Mayan area, all across the Yucatan peninsula, by approximately 800,000 people in Mexico, Belize, and some villages in the Peten province of

Guatemala. Figure 1 shows a map of the Mexican part of the Yucatec language area, based on Grimes (1996: 80-81). At least two dialects may be distinguished, an eastern and a western variety. The lighter and darker shaded areas in Figure 1 give very rough estimates of where the western and eastern varieties are spoken, respectively, based on Edmonson 1986 and Pfeiler 1995.² Hanks's field site in Oxkutzcab in the Mexican state of Yucatán and the author's field site in Yaxley in the Mexican state of Quintana Roo happen to fall in the different dialect areas. The two dialects are mutually intelligible without restriction, and the differences between them are quite subtle; they only concern a few lexical items, some morphophonemic processes, and certain grammatical operators, such as aspectual and modal markers. The basic grammatical system, including word order, phrase structure, inflectional and derivational morphology, is the same across the two dialects.

To get a first impression of the expression of spatial deixis in Yucatec, consider Table 1, based on Hanks (1990: 18-19).³ Where Indo-European languages use a single form to mark indexical reference, say demonstratives like *this* and *that* or place adverbs like *here* and *there*, Yucatec uses combinations of two morphemes that occur in different positions in the clause. One part of these combinations occurs in the positions where English speakers expect them: as determiners, place adverbs, or presentative adverbs like French *voilà*. The other component is a clitic particle that always appears in clause-final position. Whenever one of the determiners or adverbs in the leftmost column of Table 1 is used, it co-occurs with one of those terminal particles. So the determiners and adverbs are 'triggers' of the terminal particles.

Each triggering adverb or determiner only co-occurs with a subset of the terminal particles.



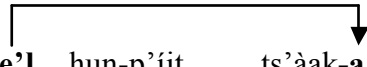
Figure 1. *Estimated locations of the Yucatec dialect areas in Mexico*

For the purposes of exophoric spatial reference, mainly the particles *-a'* and *-o'* need to be considered. Both particles occur with the presentative adverb *he'l*, the locative adverb *te'l*, and the determiner *le*. With the latter two, *-a'* and *-o'* may be said in first approximation to

distinguish proximal and distal reference. In this sense, *te'la'* may be glossed as 'here' and *te'lo'* 'there', and similarly *lela'* as 'this' and *lelo'* as 'that'.

In combination with the presentative adverb *he'*, the contrast is slightly different. In addition, the particle *-e'* needs to be considered, but only in combination with the locative adverb *way* 'here'.

Consider a few examples, starting with the presentative adverb *he'l*. In (1), *he'l* occurs as the main predicate of the clause:⁴

- (1) **He'l** hun-p'iit ts'aa*k*-a'!
 PRSV one-bit cure\ATP-D1
 'Here's some medicine!'
- 

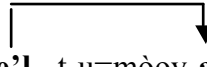
With these words, the speaker would typically hand over the medicine to the addressee. Note the proximal particle *-a'* that obligatorily accompanies *he'l* in this function. *He'l* also occurs as a noun-phrase-internal modifier, as in example (2):

- (2) K-u=bin Xokempich **le=bèeh** **he'l-a'**?
 IMPF-A.3=go Xokempich DET=way PRSV-D1
 'Does **this way here** go to Xokempich?'

In this case, *he'l* can occur with either *-a'* or *-o'*, and it's function is no longer presentative; instead, it is used to call the addressee's attention to the referent. This function is further discussed below. It is also possible to use *he'* nominalized in the same function, as in example (3):

- (3) Ba'x **le=he'l-o'**? Ba'x u=k'àaba'?
 what DET=PRSV-D2 what A.3=name(B.3.SG)
 'What's **this**? What's its name?'

Moving on to the locative adverb *te'l*, example (4) shows it forming an adverbial expanded by a prepositional phrase:

- (4) U=hòol+nah ken u=bin **te'l** t-u=mòoy-a'.
 A.3=hole+house SR.IRR A.3=go there LOC-A.3=apse-D1
 'The door is what will end up **here in the apse**.'
- 

Te'l cannot modify a noun phrase by itself. However, a relative clause headed by the existential and locative predicate *yàan* can be constructed around it, as in (5):

- (5) le=liibro **yàan** **te'l-o'**
 DET=book[EXIST(B.3.SG) there-D2]_S
 'the book **that's there**' (distal or anaphoric!)

And of course it is again possible to nominalize *te'l* and use it as a noun phrase head itself, as in (6):

- (6) **Le=te'l-a'**, es que kul-ub.
 DET=there-D1 is.which sit-INSTR(B.3.SG)
 'This one here, it's a pillar.'

Finally, the determiner *le* acts as a proximal demonstrative when combined with the proximal particle *-a'*:

- (7) A=ti'a'l **le=nah-a'**?
- 

A.2=property(B.3.SG)DET=house-D1
 ‘Is **this house** yours?’

Non-final indexical stem	Clause-final indexical particle	Gloss
	<i>-a'</i> <i>-o'</i> <i>-be'</i> <i>-i'</i> <i>-e'</i>	
Present-ative <i>he'l</i>	<i>he'la'</i> / <i>he' ...-a'</i> <i>he'lo'</i> / <i>he' ...-o'</i> <i>he'l ...-be'</i>	‘Here it is’ ‘There it is’ ‘There it comes (audible)’
Adverbial <i>te'l</i> <i>ti'</i> <i>way</i> <i>tol</i>	<i>te'la'</i> / <i>te' ...-a'</i> <i>te'lo'</i> / <i>te' ...-o'</i> <i>ti' ...-i'</i> <i>tolo'</i> / <i>to ... -o'</i>	‘Right there/here’ ‘There’ ‘There (anaphoric)’ ‘(In) here’ ‘(Out) there’
Adnominal <i>le</i>	<i>lela'</i> / <i>le ... -a'</i> <i>lelo'</i> / <i>le ... -o'</i> <i>le ...-e'</i>	‘This’ ‘That’ ‘As for that one’

Table 1. Synopsis of Yucatecan spatial indexicals (based on Hanks 1990: 18-19)

There is an alternative form *lel-* that constitutes a noun phrase head itself, as in (8):

- (8) A=ti'a'l **lel-a'**?
 A.2=propertyDET-D1
 ‘Is **this** yours?’

Now when *le* is combined with the distal particle *-o'*, it can be used for both distal deictic reference, as in (9), and the marking of definiteness, as in (10):

- (9) A=ti'a'l **le=libro-o'**?
 A.2=propertyDET=house-D2
 ‘Is **that** book yours?’

- (10) Káa=h-òok le=x-ch'úup chak u=nòok'-o', (...)
 káa=PRV-enter(B.3.SG) DET=F-female red(B.3.SG) A.3=garment-D2
 '(And then) **the woman** dressed in red entered, (...)'

In fact, any definite noun phrase 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, the distal particle *-o'* (and some form of the determiner *le(l)*) is used. And similarly, the non-attributive counterpart *lelo'* can be used anaphorically, as in (11):

- (11) Ba'x k'iin k-uy=úuch-ul lel-o'?'
 what sun IMPF-A.3=happen-INC DET-D2
 'What day does **that** usually happen?'

So effectively the clause-final particle indicates whether any indexical reference is made in the clause other than by pronouns. This makes the Yucatec system strikingly reminiscent of the system of marking referential status in the Wakashan language Kwawa'la of Vancouver island in Canada, according to Boas's (1947) classic description.

It has been shown that the forms that trigger the distal particle *-o'* occur with both deictic and anaphoric reference or as definite markers. This is also true of the locative adverb combination *te'lo'* and the manner adverb combination *bèeyo'*. This gives rise to the hypothesis that it is really only the combinations with the proximal particle *-a'* that have a genuinely deictic meaning, whereas the distal *-o'*-forms merely have an indexical meaning which does not *exclude* deictic use, but does not entail it either. This hypothesis is pursued further in section 4.

At this point, a preliminary observation may be stated as to what the semantic contributions of the adverbial or adnominal parts and the terminal particles are in the complex indexicals of Yucatec. The adverb or determiner indicates whether the referent is a place or an object or person, and what the function of this place or adverb in the clause is, i.e. whether it is an argument, an adjunct, etc. Plus, of course, the adverb or determiner also indicates that the referent is given indexically. However, in the case of the place adverb *te'l* and the determiner *le* it is only the terminal particle that distinguishes between deictic and anaphoric reference.

3. Hanks's (1990) analysis⁵

Hanks (1990) avoids the terms 'proximal' and 'distal', arguing that these are "obscured in standard approaches to deixis which take as their touchstone 'real' space rather than social interaction." (p. 488) Instead, Hanks uses the labels 'immediate' and 'non-immediate'. To prevent confusion and maintain consistency with the other contributions, I stick to 'proximal' and 'distal' here except when quoting Hanks's analysis.

Among the adnominal deictics, the 'immediate-non-immediate' opposition is the only opposition there is. But in the adverbial system, the 'immediate-non-immediate' opposition between *te'la'* 'here' and *te'lo'* 'there' semantically intersects with an 'inclusive-exclusive' opposition between *waye'* 'here' and *tolo'* 'there'. In other words, there are two *heres* and two *theres* in Yucatec. Hanks calls the 'inclusive-exclusive' opposition between *waye'* and *tolo'* an 'ego-centric' one. This distinction presupposes some kind of perimeter around the speaker, such that *waye'* refers to the inside of that perimeter and *tolo'* to its outside. The

perimeter can be defined for example by the house, the field, the village, or the state where the conversation takes place. The addressee is normally inside the perimeter as well. *Tolo* ' is used in indiscriminate reference to things that are "out there" in the relevant respect. Table 2 summarizes Hanks's analysis of the adnominal and adverbial spatial deictics of Yucatec.

Waye ' here' and *tolo* ' (out) there' cannot normally be contrasted in reference to places that speaker and addressee have visual access to, as such places would be within the perimeter and hence entirely inside the domain of *waye* '. Therefore, both terms can be used without accompanying gestures, and the only gestures that do accompany them are gestures that do not point to specific places.⁶

Meaning	Inclusive		Exclusive
	'Immediate' (proximal)	'Non-Immediate' (distal)	
Form class			
Deictic place adverbs	<i>way</i> ...-e' 'here'		<i>tol</i> ...-o' 'there'
	<i>te'l</i> ...-a' 'there'	<i>te'l</i> ...-o' 'there'	
Deictic adnominal determiners	<i>lel</i> -a' 'this one'	<i>lel</i> -o' 'that one'	
	<i>le</i> ...-a' 'this'	<i>le</i> ...-o' 'that'	

Table 2. The semantics of the adnominal and adverbial spatial deictics of Yucatec according to Hanks (1990)

In contrast to the 'ego-centric' 'inclusive-exclusive' distinction, the 'immediate-non-immediate' opposition between *te'l* ...-a' 'here' and *te'l* ...-o' 'there' and the adnominal forms *lela* / *le* ...-a' 'this' and *lelo* / *le* ...-o' constitutes what Hanks calls a 'socio-centric' system. He observes that these forms are used *contrastively* with respect to speaker and addressee, respectively: 'immediate' (i.e. proximal) forms are used for reference to objects or places closer to the speaker than to the addressee, while 'non-immediate' (i.e. distal) are used in reference to objects or places closer to the addressee.

Hanks notes that the usage patterns his analysis ascribes to the proximal vs. distal forms differ "in two details: (i) the relative remoteness of the (...) possible referents, and (ii) the foregrounding of the addressee rather than the speaker. The second feature is motivated by the fairly consistent association between the 'there' of *te'lo* ' and the addressee's location" (Hanks 1990: 437). Consider some of the examples that Hanks quotes in support of this analysis. These are examples in which speaker and addressee are in relatively close proximity, such as (12)-(13) in which a child is chided by an adult while both are in the same room and in the second case even less than two meters apart. Yet the speaker picks the distal form to refer to the child's location:

- (12) Mak a=chi' **te'l-o'**, páal!
Close(B.3.SG) A.2=mouth there-D2 child
'Shut up **over there**, kid!' (Hanks 1990: 438)
- (13) Ts'a' le=ba'l **te'l-o'**!
Give/put(B.3.SG) DET=thingthere-D2
'Put that thing down **there!**' (Hanks 1990: 438)

This raises the question – not addressed in Hanks (1990) – whether the distal (‘non-immediate’) terms, i.e. the adnominal *lelo’ / le ...-o’* and the place adverb combination *te’lo’ / te’l ...-o’*, are actually *semantically* addressee-based; i.e., whether what they encode proximity to the addressee, rather than distance from the speaker. However suggestive examples such as (12)-(13) may be, in order to determine whether the addressee’s location is really a decisive factor in the use of the distal forms, their use needs to be examined in contexts in which the relative locations of speaker, addressee, and reference object are systematically varied. This was done in the course of the Demonstrative Questionnaire study discussed in the following section.

Before turning to the results of the Questionnaire study, in order to get a better idea of what systems with addressee-based terms look like, let us take a brief look at the demonstratives of Japanese (for more examples of addressee-based demonstratives, see Guirardello (this volume) and Margetts (this volume)). Japanese has a demonstrative *ko* for objects close to the speaker, a demonstrative *so* for objects close to the addressee, and a demonstrative *a* for objects that are neither in the proximity of the speaker nor in the proximity of the addressee (this is a simplified account; see Özyürek & Kita (ms.) for details). Addressee-based terms like Japanese *so* are found somewhat regularly in three-term demonstrative systems; they compete with other types of three-term systems that distinguish three degrees of distance from the speaker or two degrees plus one distance-neutral term, as in the case of Turkish.

The problem with applying an addressee-based analysis to the proximal-distal contrast in Yucatec is that the latter is a binary contrast. So one would have *lela’ / le ...-a’* or the adverb combination *te’la’ / te’l ...-a’* for objects and places close to the speaker, *lelo’ / le ...-o’* or the adverb combination *te’lo’ / te’l ...-o’* for objects and places close to the addressee, and then the question arises as to what to use for objects and places that are neither in the speaker’s nor in the addressee’s zone of proximity. For this reason, a two-term demonstrative or deictic adverb system is not very likely to include an addressee-based term; and indeed, the typological surveys of Anderson & Keenan (1985) and Diessel (1999) do not include a single example of such a system - only three-or-more-term systems may include addressee-based terms. However, a two-term system with one speaker-based and one addressee-based term is by no means *impossible*. One conceivable realization of such a system might be found in a language in which demonstratives or deictic adverbs are simply *not used* in reference to objects that are neither close to the speaker nor to the addressee. The hypothetical language would employ other means to this end, such as explicit locative descriptions. But this is very clearly not the case in the dialect of Yucatec discussed here.⁷

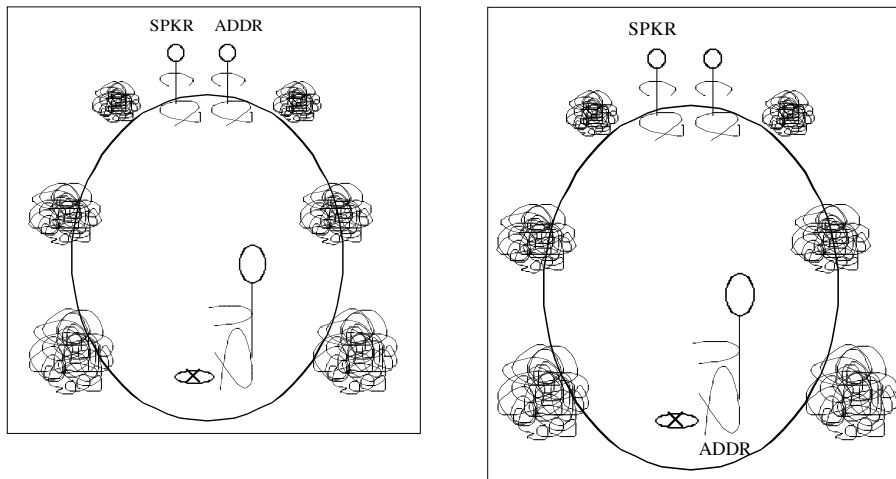
However, Hanks (1990: 490) observes that the *-o’* forms are in fact the forms used to make reference to objects in the ‘addressee’s zone’ *and* in the ‘common field’. It is not completely clear to me how this ‘common field’ is to be construed (see Enfield, this volume, for a possibly similar analysis). At any rate, the ‘common field’ would certainly cover a significant part of the space outside both speaker’s and addressee’s ‘zones’ (i.e. areas of proximity). Leaving aside the issue of how objects outside the ‘common field’ would be referred to, the main question that arises is how to reconcile the ‘foregrounding’ of the addressee by the distal forms with the fact that they are also used for reference to objects and places in the common field outside the addressee’s zone. Perhaps the extension of the distal forms is not homogenous, but has an internal structure: the prototypical referent of the distal

forms is in fact in the addressee's zone, while places in the common field outside the addressee's zone make for less "good" or "clear" instances of using the distal forms. This hypothesis entails that native speakers use the distal forms more readily and more consistently in reference to objects and places in the addressee's zone than in reference to objects and places in the common ground outside the addressee's zone. This is not consistent with the findings from the Demonstrative Questionnaire study presented in the following section – these data indicate that the addressee's zone plays no *direct* role whatsoever in the use of the spatial deictics. Note that this by no means precludes 'indirect' addressee-based effects as discussed by Meira (this volume; cf. also Enfield, this volume). That is, the addressee may well have an impact on what counts as proximal for the speaker. For example, it is argued below that physical accessibility is one of the parameters that determine whether a place is judged as proximal. And the presence of the addressee may of course influence the accessibility of the reference object or location to the speaker. Consider again examples (12) - (13) above. While the reference object/place is close to the speaker in both cases, it is not immediately physically accessible to the speaker. This may well be explained in part with reference to the fact that the speaker is referring to objects and places controlled by the addressee; this would be an instance of an 'indirect' addressee-based effect, as mentioned above.

4. The Questionnaire Study

The Yucatec Questionnaire data were collected in August 1999 with five adult native speakers, four men and one woman, aged between 25 and 52. All learned Yucatec as their first language, but have some command of Spanish as well. Only one is proficiently literate (in Spanish; Yucatec cannot at this point be considered a written language). The 25 Questionnaire scenes were enacted with the consultants as speakers and the author as addressee. The enactments were conducted at the appropriate scale, except for the far-distant scenes 13-18 and 24-25, which were enacted at a smaller scale. In order to judge the significance of the data (given the small number of consultants), it will be worth pointing out that the five consultants generally showed a high degree of convergence in their responses. For example, in their first choices between a proximal and a distal form (regardless of whether they also considered a form of the complementary set applicable, and whether they volunteered that other form or merely agreed to its applicability), all five consultants agreed with respect to 15 of the 25 scenes; and only three scenes elicited a two-to-three split in this regard. Moreover, in two of the three scenes that elicited the largest amount of variation, scenes 2 and 4, in fact all consultants agreed that both distal and proximal forms would be applicable, depending on the closeness of the speaker's pointing to the reference object. This suggests that the data do in fact permit viable generalizations about the knowledge of Yucatec native speakers regarding the use of demonstrative forms in exophoric spatial reference.

The Yucatec Questionnaire study has produced three major findings. First of all, there is no evidence suggesting that the relative location of the addressee with respect to the speaker or the reference object has any direct impact on the selection of forms for exophoric reference (notwithstanding indirect effects such as discussed at the end of section 3). It is not even the case that distal forms are applied more readily and/or consistently in reference to objects and places close to the addressee than in reference to objects or places distant from both speaker and addressee. This finding is somewhat surprising, given Hanks's (1990) observation, quoted



in the previous section, of a “fairly consistent association between the ‘there’ of *te’lo*’ and the addressee’s location” (Hanks 1990: 437). In particular, the results of the Questionnaire Study do not support the hypothesis that the addressee’s zone of proximity constitutes a focal area within the extension of the distal forms.

Secondly, use of the proximal forms is much more restricted than use of the distal forms. In general, proximal forms may be replaced by distal forms, while the opposite does not necessarily hold. However, the distal forms are not used within very close proximity of the speaker, in particular in reference to his/her body parts, to objects that are attached to his/her body, or to objects (s)he is pointing to at close range. And finally, there are in fact two overlapping systems for spatial deixis, a simpler one used only under joined focus of attention and a more complex one used for attention-direction. Both systems operate on binary distance distinctions, but the cut-off points on the two distance scales are different. These three findings are now addressed in turn.

(a) The impact of the addressee’s location on demonstrative choice

To determine the impact of the addressee’s location on the choice of deictic forms, responses to scenes that only differ in the addressee’s location need to be compared, such as scenes 13 and 16, depicted in Figure 2.

In both scenes, the speaker and the reference object are on opposite ends of a football field, but the addressee is very close to the speaker and far away from the object in one case and very close to the object and far away from the speaker in the other case. All five consultants unanimously use distal forms under both conditions, regardless of the location of the addressee. A typical response is (14):

- (14) Le=ràadyo-o’ (yàan te’l-o’), hach ma’+lóob.
 DET=radio-D2 EXIST(B.3.SG) there-D2 really NEG+bad(B.3.SG)
 ‘That radio (that is over there) is really nice.’

A distal form is optionally augmented by the deictic locative adverb *te’l*. The choice of whether or not the more complex form is used depends on the attention parameter; this is discussed below. The consultants just as readily used the distal forms in reference to an object

Figure 2. Demonstrative Scenes 13 (left) and 16

distant from both speaker and addressee in 13 than they did in reference to an object close to the addressee in 16; there is thus no evidence suggesting that places and objects in the addressee's proximity play any special role in the reference of the distal forms. A similar point can be made with respect to scenes 9 and 12, depicted in Figure 3. In 9, the reference object is close to the addressee and out of the speaker's reach. In 12, the object is equidistant from speaker and addressee and out of either's reach. Given Hanks's observations of a privileged association between the distal forms and the addressee's zone, it may have been expected that the distal forms are more readily applied in 9 than in 12. And on the hypothesis that reference to the addressee's zone is the semantic prototype of the distal forms, this is in fact clearly predicted. But if anything, the opposite is the case: all five consultants prefer distal forms in 12, but only four out of five do so in 9. Again, both simple distal forms and augmented constructions were used, depending on whether the addressee's attention was assumed to be on the object prior to the utterance. Notice, though, that the augmented form in this case is formed with the presentative adverb *he'l*, not with the locative adverb *te'l*. A typical example is (15).

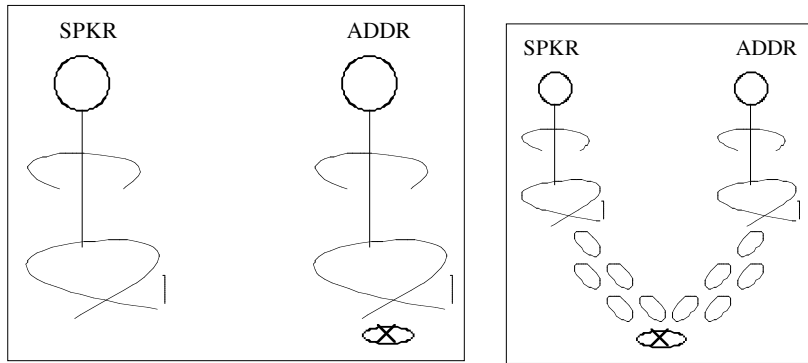


Figure 3. Demonstrative Scenes 9 (left) and 12

- (15) A=ti'a'l le=liibro (he'l)-o'?'
 A.2=property(B.3.SG)DET=book PRSV-D2
 'Is that book (there) yours?'

(b) The semantics of the distal forms

Having failed to find a direct addressee bias in the use of the distal forms, the hypothesis that the distal forms are semantically specified for exophoric reference to places and objects outside the speaker's proximity needs to be considered. A glance at the overall distribution of proximal vs. distal choices across the 25 Demonstrative Scenes as presented in the appendix shows that this cannot be correct. A single scene in which the use of distal forms is excluded – reference to the speaker's own body in scene 1 – contrasts with no less than 12 scenes that exempt the use of proximal forms. Distal forms infringe on proximal territory all the way up to that first scene, while the proximal forms are clearly confined to the speaker's zone of proximity. This distribution suggests a privative rather than an equipollent opposition, with the proximal forms as the marked terms. Only the proximal forms are semantically specified for exophoric reference *to a particular area*, namely, the speaker's zone of proximity. But what, then, is the common denominator in the uses of the distal forms?

Perhaps the distal forms express 'neutral deixis', i.e. exophoric reference without restriction to a particular region of space. However, given that it has been established in section 2 that the distal forms are also used for anaphoric reference and definiteness marking, the neutral-deixis hypothesis can only be maintained under an additional assumption of polysemy. Therefore, in the absence of further evidence, Occam's razor appears to favor an analysis of the distal forms as generic indexicals which do not semantically distinguish between exophoric and anaphoric reference.

Given that the distal forms are semantically neutral regarding the proximal-distal contrast, why are they dispreferred for reference to objects/places in the speaker's proximity? The semantic analysis just outlined cannot explain this, so the answer has to be sought in the pragmatics of the system. A traditional Gricean analysis would most likely argue for 'preemption' of the distal forms from the proximal domain, i.e. a generalized conversational implicature based on Grice's (1975) first maxim of Quantity ("Make your contribution as informative as is required") or Levinson's (2000) equivalent 'Q-heuristic' ("What isn't said, isn't"). This mechanism yields an inference to the negation of the entailments of the marked

term in case the marked term is not chosen. In the case of the spatial deictics of Yucatec, preemption generates a default interpretation of the distal forms according to which they do not refer to objects/places in the speaker's proximity, based on the reasoning that if the speaker were in fact referring to his or her proximity, why would (s)he not use a proximal form, given that the proximal forms are positively specified for this reference? This mechanism is invoked in several contributions to this volume; see e.g. Enfield (this volume), Levinson (this volume), and Meira (this volume).⁸

While I do find a preemption analysis of the spatial demonstratives of Yucatec rather attractive, and am certainly convinced that it cannot be wholly on the wrong track, I see two potential problems with such an account, and therefore remain somewhat cautious. The first problem is of a general theoretical nature; the second is particular to the case at hand. Gricean mechanisms generate the implicatures of an utterance from its entailments, or "what is said" by the utterance, in Grice's parlance, in relation to what else *could have been* said in the same context, loosely speaking. In the case at hand, the implicature of distance attributed to the distal forms is generated on the basis of a putative entailment of proximity by the proximal forms. A preemption analysis presupposes the existence of an 'entailment scale' or 'Horn scale' (after Horn 1972; see Levinson 2000 for discussion): the stronger (marked) term shares the entailments of the weaker (unmarked) term, but has additional entailments not shared by the latter. This could be argued in the case at hand along the following lines: the proximal forms entail exophoric reference to the speaker's proximity; the distal forms entail indexical reference; exophoric reference is a special case of indexical reference. But can demonstratives really be said to *entail* proximity or distance of the referent? Suppose I say, pointing to a mountain peak on the horizon, *I've climbed this mountain*. Certainly my choice of demonstrative would be pragmatically odd; but would it render my statement *false*? What *are* the truth conditions of demonstratives? Linguists and philosophers have grappled with this question for a long time. One analysis that has been fairly influential in contemporary discussions, summarized e.g. in Kaplan (1990), stresses that the location of the referent (or even the exophoric-anaphoric distinction) is *not* normally part of the contribution demonstratives make to the truth conditions of an utterance.

Now, it is not too difficult to see how a Gricean preemption analysis could be extended to cases of scales not constituted by entailments, but by mere inclusion of one term's meaning in that of another. Under such an analysis, the proximal forms preempt the distal forms from their domain of use, not because they entail the distal forms, but merely because they have more narrowly defined meanings and hence are informationally richer. Levinson (2000: 86-104) discusses a variety of applications of such implicatures. However, it remains unclear how an implicature analysis can be rigorously validated under such circumstances. Implicatures are identified by their defeasibility, i.e., essentially negatively, namely in contrast to entailments. Such a contrast does not appear to apply in the case at hand.

The more specific problem with the preemption analysis of the Yucatec demonstratives is that it fails to account for the exemption of the distal forms from reference to the speaker's own body, as in scene 1. This exemption in fact extends to objects touched by the speaker or pointed at at close range, as in scenes 2 and 4.⁹ Consultants consider the use of distal forms in these contexts decidedly odd. However, it seems conceivable that similar phenomena may be encountered in bona-fide cases of preemption as well. Perhaps the flip side of Grice's "Make your contribution as informative as is required" is that speakers who use a truth-conditionally

‘weaker’ term where evidence for the validity of the additional conditions of the ‘stronger’ term is clearly at hand are felt to not make their contribution *informative enough*. For example, to say *Steve ate some of the cookies* famously implicates but does not entail ‘He did not eat *all* of the cookies.’ But to say this holding the empty cookie jar (Steve still chewing) might well be interpreted, although not strictly false, as inaccurate in some contexts.

Before the matter of the proximal-distal opposition in Yucatec can be left, the question of the cutoff point between the proximal and distal domains must be addressed. As Hanks (1990: 488) points out, the knowledge Yucatec speakers have of this cutoff point cannot be represented in terms of metric spatial distance. One crucial parameter appears to be the accessibility of the reference object from the point of view of the speaker. Consider the sequence of scenes in Figure 4: Speaker and addressee are sitting next to each other, facing in the same direction, close enough so that both can reach and grab the object in the scene depicted in the central picture (scene 8). In this setting, accessibility is determined by whether the speaker can grab the object without having to get up. That is the case in scenes 6-8, but not in 9-10. Proximal forms are used when the speaker can grab the object, and distal forms when (s)he cannot. And in scene 12, depicted in the lower half of Figure 4, the object is equidistant from speaker and addressee, like in 8, but this time it is several steps away from both, so that the speaker cannot reach it without getting up. Unanimously, consultants prefer distal forms in this case.

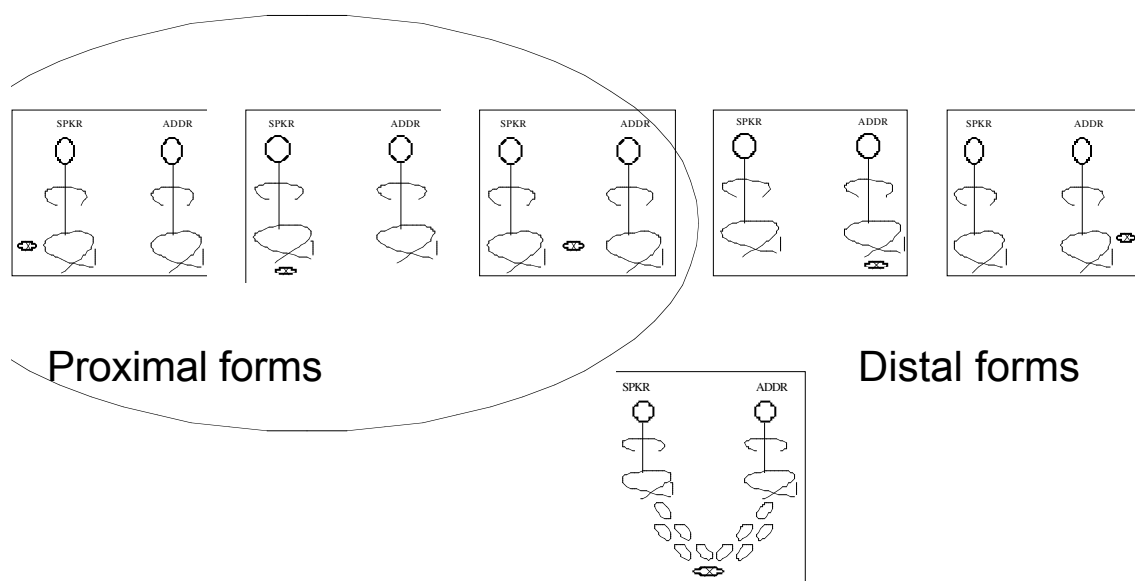


Figure 4. Accessibility in the Demonstrative Scenes

There is evidence suggesting that the critical measure of what counts as accessible depends on the setting. For example, Hanks (1990: 432-433) observes that the goal of a motion event which the speaker is en route to is often referred to using proximal forms, irrespective of how far away it is. Notice in this connection that it is virtually impossible to use the proximal forms in any of these scenes without accompanying pointing gestures. Consider also scene 11 (depicted in Figure 5), where the addressee is facing the reference

object, but the latter is within the speaker's easy reach, although the speaker cannot look at the object without turning around, which (s)he not supposed to do according to the instructions. All consultants strongly prefer proximal forms here. So manual access apparently overrides visual access.

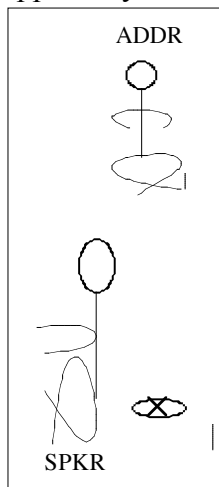


Figure 5. Demonstrative Scene 11

(c) The role of attention direction

Another interesting finding that has come out of the Questionnaire study is the consistent use of augmented forms for attention calling. Why does attention direction play such a prominent role in spatial deixis? The facts seem quite simple: spatial deictics do not provide *referents*, they only provide very vague information about where to *look* for the referent. In order to determine the speaker's intended referent, the addressee must attend to what the speaker is attending to, following his or her gaze and point (cf. Diessel 1999). In short, exophoric spatial reference requires a joint focus of attention. Under these conditions, the speaker may use attention-calling forms

to alert the addressee to the effect that the addressee's attention may not be on whatever the speaker has shifted attention to (see Özyürek & Kita (ms.); Levinson (in press)).

Based on these considerations, two distinct functions may be isolated in spatial deictic reference acts: one may be dubbed just simply *deictic anchoring*, the other one being the function of *attention calling*. Deictic anchoring alone is done in Yucatec using the simple proximal and distal forms, at least as far as reference to objects rather than to places is concerned. These forms operate on the accessibility scale, where the cutoff point is between objects that are readily accessible to the speaker and objects that are not so easily accessible. For attention calling, the augmented forms are used. These are the forms expanded by the presentative adverb *he'l*, where the distinction simply projects down from the accessibility scale (see Figure 5), and the form expanded by the deictic locative adverb *te'l* which requires a relative clause to modify noun phrases (see section 2).

The cutoff point between the forms expanded by the presentative adverb and the forms expanded by the locative adverb seems to be the difference between objects that are easily identifiable in the visual field so that attention is shifted to them easily and objects that are not so easily identifiable. It appears that in the latter case reference is reinforced by the place

adverb *te'l* because it is easier in such cases to refer to the place of the object than to the object itself. One instantiation of the cutoff point of the attention-calling system emerges from a comparison of the scenes depicted in Figure 2 above (scenes 13 and 16) with the scenes 14 and 17. The only difference across these two pairs of scenes is that the reference object is on the far side of the ball park from the speaker's point of view in 13 and 16, but in the center of the ball park in 14 and 17. In the former case, the augmented forms with *te'l* are used for attention calling (see example (14) above), while in the latter case, the augmented forms with *he'l* are used to this end, as in (16):

- (16) A=ti'a'1 le=ràadyo (he'l)-o'?'
 A.2=property(B.3.SG)DET=radio PRSV-D2
 'Is that radio (there) yours?'

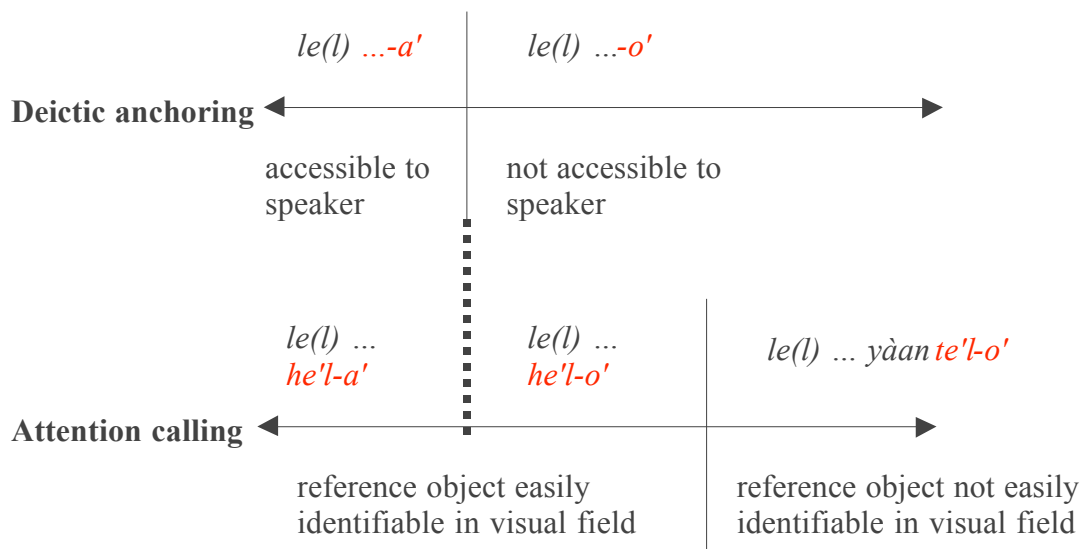


Figure 6. Anchoring and attention calling in Yucatec spatial deictics

However, the object does not have to be far away to be difficult to attend to. Another possibility is that the object is close by but occluded from vision, as in scene 10, where the addressee's body covers the object from the speaker's sight (this is the rightmost scene depicted in Figure 4 above). Note that the speaker has no problem directing the addressee's attention to the object in this context, as long as the speaker knows where the object is, because the object is not blocked from the addressee's vision. Four out of five consultants demand in response to this scene the form used for attention-direction to objects not easily identifiable in the visual field:

- (17) A=ti'a'1 le=bùulto yàan te'l-o'?'
 A.2=property(B.3.SG)DET=bag EXIST(B.3.SG) there-D2
 'Is the bag that is over there yours?'

5. Discussion

Hanks's (1990) 'practice' approach is based on the observation of deictic usage in naturally

occurring interactions. As has been demonstrated here, this approach falls short of determining category boundaries or cutoff points, at least unless it is pursued with respect to an extremely rich data base. In the case at hand, Hanks observes a frequent association between the use of distal forms and the addressee's location. But does that mean that the addressee's zone of proximity is a privileged domain in the *semantics* of the distal forms? Such a hypothesis can only be validated by systematically varying the respective locations of speaker, addressee, and reference object/place in controlled elicitation. This has been done in the Questionnaire study, and the results suggest that the distal forms are semantically generic indexicals, underspecified regarding the exophoric-anaphoric distinction. Within the exophoric domain, the pragmatics of the contrast with the proximal forms lead speakers to prefer use of the distal forms outside the speaker's zone of proximity.

The Demonstrative Questionnaire approach is based on controlled elicitation of usage under artificial conditions. This provides the negative evidence necessary to determine category boundaries and cutoff points, and therefore it is a useful tool for elucidating the semantics of the demonstrative forms. One drawback of this approach is that it is by itself blind, as it were: a questionnaire needs to be informed by specific research questions and will only provide answers to the questions implemented. Thus, Hanks (1990) makes a number of intriguing observations that the Questionnaire study failed to replicate, simply because the relevant parameter was not implemented in the Questionnaire. For instance, many of Hanks's examples refer to motion events rather than stative locations. Hanks (1990: 432-433) notes that speakers consistently use proximal forms in reference to motion goals they are en route to and distal forms in reference to motion sources that they have already left. The Demonstrative Questionnaire has no way of detecting this phenomenon, because motion is not coded in the Demonstrative scenes.

The second principled drawback of the controlled-elicitation approach is that it only determines what native speakers do under artificial conditions. One aspect where the Demonstrative Questionnaire proves artificial in a way that may well have imprinted itself on the data reported above has to do with the role of joint attention and attention direction in demonstrative usage. The Questionnaire study has produced evidence suggesting that attention direction is grammaticalized in the Yucatec systems of spatial deixis. While the simple proximal and distal forms are used when a joint focus of attention on the reference object or place has been established prior to the reference act, complex forms augmented with the presentative adverb *he'l* or the place adverb *te'l* are used to direct the addressee's attention to the reference object or place. The choice between the *te'l* forms and the *he'l* forms depends not on the physical accessibility of the reference object or place, as with the choice between proximal and distal forms, but on identifiability of the reference object/place in the visual field. However, attention is coded in the Questionnaire in instructions to ask the consultant to *imagine* that the researcher as the addressee is, say, not aware of the reference object, that (s)he may not have noticed it, etc. In essence, this means asking the consultant to imagine that (s)he is not thinking about something! Obviously, this is methodologically unsatisfactory. But controlling the focus of attention under experimental conditions is an extremely difficult task. In the absence of a technique for doing this, the observation of natural interactions may be our best bet in the study of the role of attention direction in spatial deixis.

The upshot of this comparison of the two approaches to the study of spatial demonstratives, observation of spontaneous interactions and controlled elicitation, seems

clear enough: to ensure optimal results, the two are best pursued in tandem.

References

- Andersen, S. & Keenan, E. (1985). Deixis. In: Shopen, T. (ed.) *Language Typology and Language Description*. Vol. III. Cambridge etc.: Cambridge University Press. 259-308.
- Boas, F. (1947). Kwakiutl grammar, with a glossary of the suffixes. Ed. By H. B. Yampolsky. *Transactions of the American Philosophical Society* 37: 203-377.
- Diessel, H. (1999). *Demonstratives: form, function, and grammaticalization*. Amsterdam etc.: Benjamins.
- Edmonson, M. S. (1986). *Heaven Born Merida and its Destiny. The Book of Chilam Balam of Chumayel*. Austin: University of Texas Press (The Texas Pan American Series).
- Fillmore, C. J. (1997). *Lectures on deixis*. Stanford, CA: CSLI Publications.
- Hanks, W. F. (1984). The evidential core of deixis in Yucatec Maya. *Papers from the Twentieth Regional Meeting, Chicago Linguistics Society*. 154-172.
- Hanks, W. F. (1990). *Referential practice: language and lived space among the Maya*. Chicago etc.: University of Chicago Press.
- Himmelman, N. P. (1996). Demonstratives in narrative discourse: a taxonomy of universal uses. In B. Fox (ed.), *Studies in Anaphora* (pp. 205-254). Amsterdam: John Benjamins.
- Horn, L. R. (1972). *On the semantic properties of logical operators in English*. Mimeo. Bloomington, IN: Indiana University Linguistics Club.
- Kaplan, D. (1990). Thoughts on demonstratives. In: Yourgrau, P. (ed.) *Demonstratives*. Oxford: Oxford University Press. 39-49.
- Kornfilt, J. (1997). *Turkish*. London: Routledge.
- Lehmann, C. (1998). *Possession in Yucatec*. Munich etc.: Lincom Europa.
- Levinson, S.C. (2000). *Presumptive Meanings: The Theory of Generalised Conversational Implicatures*. Cambridge, MA: MIT Press.
- Levinson, S.C. (in press). Deixis and pragmatics. In L. Horn & G. Ward (eds.), *The Handbook of Pragmatics*. Oxford: Blackwell.
- Lyons, J. (1977). *Semantics*. Vol. 2. Cambridge: Cambridge University Press.
- Özyürek, A. (1998). An analysis of the basic meaning of Turkish demonstratives in face-to-face conversational interaction. In S. Santi, I. Guaitella, C. Cave & G. Konopczynski (eds.), *Oralité et Gestualité: Communication multimodale, interaction*. 609-614. Paris: L'Harmattan.
- Özyürek, A. & Kita, S. (ms.). Joint attention and distance in the semantics of Japanese and Turkish demonstrative systems. Nijmegen: MPI for Psycholinguistics.
- Pfeiler, B. (1995). Variación fonológica en el maya yucateco [Phonological variation in Yucatec Maya]. In R. Arzápalo & Y. Lastra (Eds.), *Vitalidad e influencia de las lenguas indígenas en Latinoamérica*. México, D.F.: Universidad Autónoma de México, Instituto de Investigaciones Antropológicas. 488-497.
- Sperber, D. & Wilson, D. (1986). *Relevance: communication and cognition*. Oxford: Blackwell.
- Vapnarsky, V. (1999). *Expressions et conceptions de la temporalité chez les mayas yucateques (mexique)* [Expressions and concepts of temporality among the Yucatec Mayans (of Mexico)]. Ph.D. dissertation, Université de Paris X Nanterre.
- Wilkins, D. P. (1999). 1999 Demonstrative Questionnaire: "THIS" and "THAT" in

comparative perspective. In D. P. Wilkins (ed.), *“Manual” for the 1999 Field Season*.
Nijmegen: MPI for Psycholinguistics.