



# So near, yet so far: Spatial, temporal, discourse deixis in Mixteco

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# Background: Mixteco / Tu'un Savi

- Tu'un Savi (The language of the clouds/rain) is an indigenous **Otomanguean language** of southern México (Oaxaca & Guerrero)
  - Population: 30,000 (2011 SIL). 18,000 monolinguals (Cuautipan)
  - Population: 10,000 (1994 SIL). 4,000 monolinguals (Alcozauca)
- A large number of Mixteco speaking Mexican communities reside in New York City; many can be found in **East Harlem**.
  - “More than 17 percent of Mexicans speak an indigenous language, Mixtec and Nahuatl being the largest” (Semple, 2014)



# Introduction: Mixteco / Tu'un Savi

- A tone language with three basic tones: **High** [ú], **Mid** [u], **Low** [u] <ù>
- Majority of lexical words have two syllables
- Transitive sentences have **Verb Subject Object** word order.
- Complex system of noun classifiers that distinguish gender, animacy, round objects, wood objects, metal objects, among other categories.

	(V)	(S)	(O)
<u>Mixteco</u> :	<i>Ka'ni</i>	<i>ra</i>	<i>yusu</i>
	hunt	3sg.m	deer
<u>Spanish</u> :	Él va a cazar venados		
<u>English</u> :	He's going to hunt deer.		

<b><u>Noun Classifiers System:</u></b>	Initial Pronouns		Dependent Pronouns	
	<u>Singular</u>	<u>Plural</u>	<u>Singular</u>	<u>Plural</u>
masculine (masculino)	<b>ta</b>	<b>ta/na</b>	<b>ra</b>	<b>ra/na</b>
feminine (femenino)	<b>ñá</b>	<b>ná</b>	<b>ñá</b>	<b>ná</b>
animal (animal)	<b>tí</b>	<b>tí</b>	<b>rí</b>	<b>rí</b>
spherical (esférico)	<b>tí</b>	<b>tí</b>	<b>rí</b>	<b>rí</b>
liquid (líquido)	<b>tá</b>		<b>rá</b>	
wood (madera)	<b>tón</b>	<b>tón</b>	<b>nó</b>	<b>nó</b>
other inanimates (cosa)	<b>ña</b>	<b>ña</b>	<b>ña</b>	<b>ña</b>
spirits (espíritu)	<b>ñá</b>	<b>ña/na</b>	<b>ña</b>	<b>ña/na</b>
human (humano)		<b>na</b>		<b>na</b>

# Introduction: Deixis

- Deixis: “Pointing with words” (Bühler 1934)
- A linguistic means of identifying participants through reference to **location** and **relative orientation**.
- English used to have a three-way distinction, *here*, *there* and *yonder*, which has been reduced to a two-way distinction: *here* and *there*.
- The same development can be seen in Spanish.

# Reduction of a three-way contrast: Spanish

Original system:

<b>Near to speaker</b>	<b>Near to hearer</b>	<b>Far from both</b>
<i>Este, aquí</i> 'this', 'here'	<i>Ese, ahí</i> 'that', 'there'	<i>Aquel, allí</i> 'that', 'there'

Merged categories:

<b>Near to speaker</b>	<b>Far from speaker</b>
<i>Este, aquí</i> 'this', 'here'	<i>Aquel, allí</i> 'that', 'there'
<i>(Ese, ahí)</i> 'that', 'there'	



## 4-way deictic systems

- Other languages have more complex deictic systems that show a 4-way contrast.
- In these systems, **visibility** seems to play a role, in addition to person features (speaker-proximate, hearer-proximate).

## A four-way system: Sinhala (Chandralal 2007)



<b>Deictic property</b>	<b>Deictic form</b>	<b>English approximation</b>
Proximate to speaker	<i>mee</i>	'this/these'
Proximate to hearer	<i>oyə</i>	'that/those'
Distant but visible	<i>arə</i>	'that/those'
Distant and invisible	<i>ee</i>	'that/those'



## Alacatlatzala Mixtec deictics (Zylstra 2012:75)



éste o ésta	ése o ésa (visible)	ése o ésa (not visible)	éste o ésta (previously mentioned)
<b>yó'o</b>	<b>kaà</b>	<b>kán</b>	<b>jààn</b>

- Note that the fourth deictic is described by Zylstra as a **discourse or anaphoric deictic**.
- It does not point out a particular location. Instead, it refers to something previous in the discourse.
- We examined the use of the equivalent system under several conditions with several native speakers.

# Basic conditions for Tu'un Savi deictics

- A telephone scenario where the speaker is in NYC and the hearer is in Mexico:

(i) the house that the speaker is in	<i>yó'ó</i>
(ii) a visible house across the street from the speaker	<i>kaà</i>
(iii) the house that the hearer is in	<i>yàhà</i>
(iv) a visible house across the street from the hearer	<i>yàhà</i>
(v) a house far from both speaker and hearer, not visible to either	<i>kán</i>

# A feature based analysis



- This is a productive, active system in the grammar of Tu'un Savi which is applied by speakers to new situations.
- What underlies this ability?
- We want to investigate whether the meaning of these deictics can be reduced to a constrained set of universal features.
- A first attempt is shown in the following table.

# A feature based analysis

- The proximity features are [+] when the referent is in the immediate domain of the speaker or hearer.
- The [ $\pm$ visible] feature is [+] when visible to the speaker and [-] elsewhere.
- The application of the four deictics to novel situations can be predicted on the basis of these three features.

	<i>yó'o</i>	<i>yàhà</i>	<i>kaà</i>	<i>kán</i>
[ $\pm$ 1]	+	-	-	-
[ $\pm$ 2]	-	+	-	-
[ $\pm$ visible]	+	+	+	-

# A feature based analysis

- However, these are just the most obvious cases.

- Which deictic is chosen if an object is both close to the speaker and hearer?


- What if the object is close to the speaker or hearer but invisible?

	<i>yó'o</i>	<i>yàhà</i>	<i>kaà</i>	<i>kán</i>
[±1]	+	−	−	−
[±2]	−	+	−	−
[±visible]	+	+	+	−

- Which features take priority over the others?

- We addressed these questions through a pilot experiment and traditional elicitation.

out of reach of hearer, visible to speaker

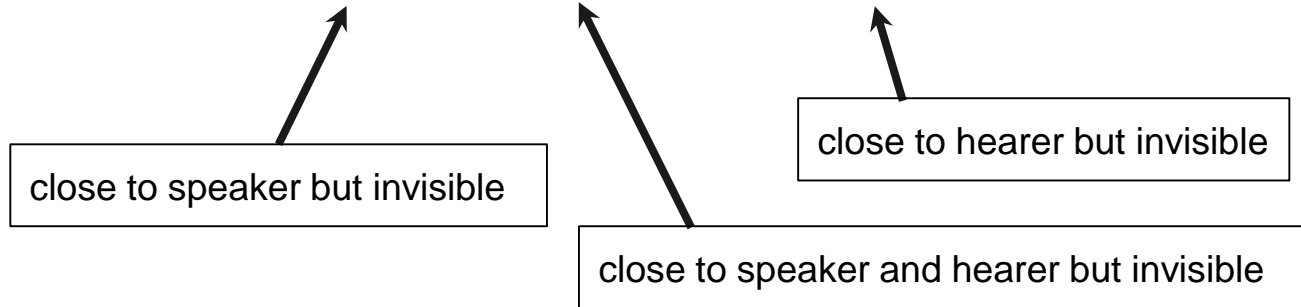
A woman with long dark hair, wearing a white long-sleeved shirt and glasses, is seated at a large wooden conference table. She is pointing her right hand towards a book on a shelf to her left. A man in a dark polo shirt is seated across from her at the table, looking towards her. The room contains a window with blinds, a printer, and a water cooler in the background.

And this one that's also behind me but a little further?

# A feature based analysis: the full picture

- Visibility is irrelevant when the referent is near the speaker or addressee.
- When far from both speaker and hearer, visibility comes into play to determine when *kaà* (visible) is used as opposed to *kán* (invisible).

	<i>yó'o</i>				<i>yàhà</i>		<i>kaà</i>	<i>kán</i>
[±1]	+	+	+	+	-	-	-	-
[±2]	-	-	+	+	+	+	-	-
[±VIS]	+	-	+	-	+	-	+	-



# A feature based analysis with underspecification

- The concept of feature **underspecification** (Archangeli 1988) helps us simplify the analysis.
- *yó'o* is found in more cases because it has two **underspecified** features.
- *yàhà* is found in more cases than *kaà* and *kán* because it has one **underspecified** feature.

	<i>yó'o</i>	<i>yàhà</i>	<i>kaà</i>	<i>kán</i>
[±1]	+	−	−	−
[±2]	(±)	+	−	−
[±visible]	(±)	(±)	+	−



# Structure of noun phrases



- The basic elements of the noun phrase:  
[[**Noun Adjective**] **Deictic**]
- A fuller expansion of noun phrase structure:

ART NUM NOUN ADJ [POSSESSOR NP] DEICTIC [RELATIVE CLAUSE]  
ña uni libro na'nu ta taa lo'o **kaa** ndoso nuu mesa  
DEF 3 book big CL man small VIS on top  
table

'those three big books of the boy that are on the table'

(ART = article, NUM = numeral)

## Structure of noun phrases

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Ña tondá'a ra sandi'i\_xa'a ña si'ún ra  
CL wedding 3SG.MSC finish CL money 3SG.MSC  
'In his wedding, he spent all his money.' (p.178)

Kóni ra s\_ikó ra uni ve'e va kán  
want 3SG.MSC sell 3SG.MSC three house just INVIS  
'He wants to sell just those three houses.'

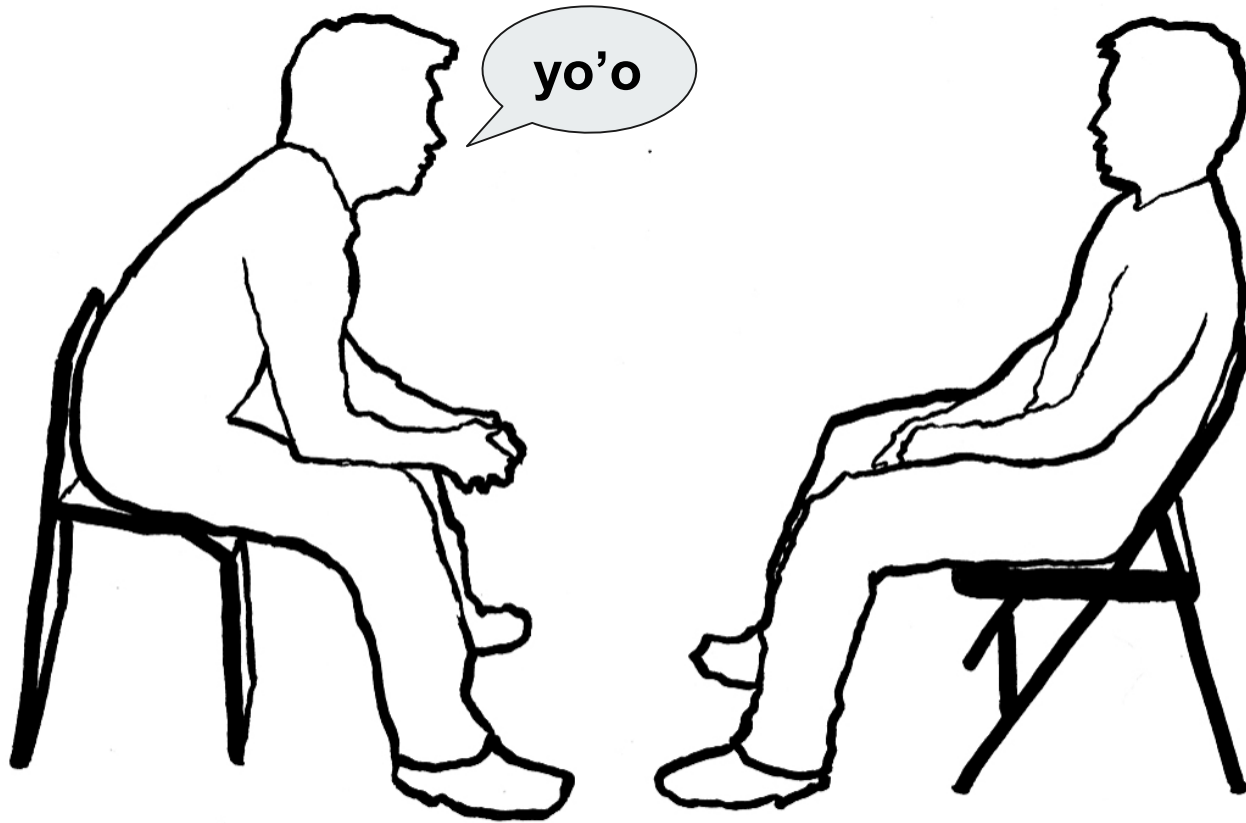
# Temporal Deixis



- Deictic expressions are typically extended into the domain of time.
- In simple systems like English, this is straightforward:
  - near in space → near in time (this day)
  - far in space → far in time (that day)
- But how is a complex 4-way deictic system extended to time?
- We can imagine a system that takes the speech act as the reference point: The further the deictic is from the speaker the further it is in time.

# Temporal Deixis

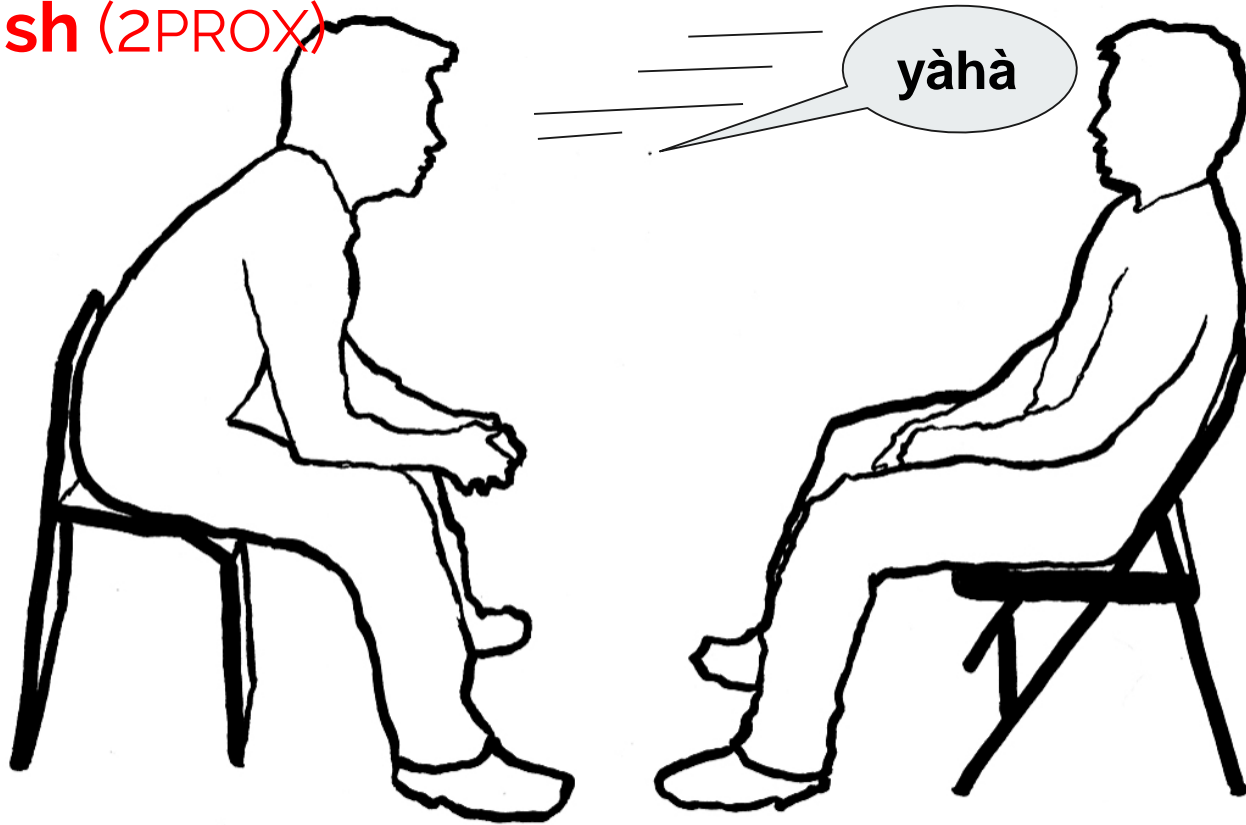
**NOW** (1PROX)



# Temporal Deixis

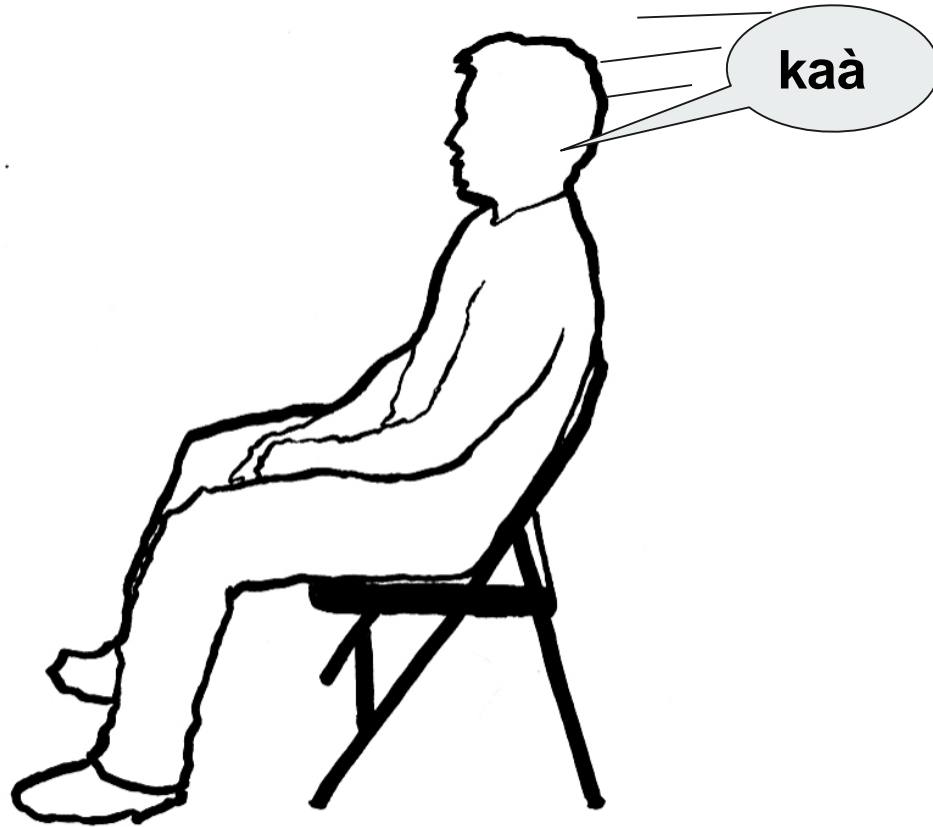
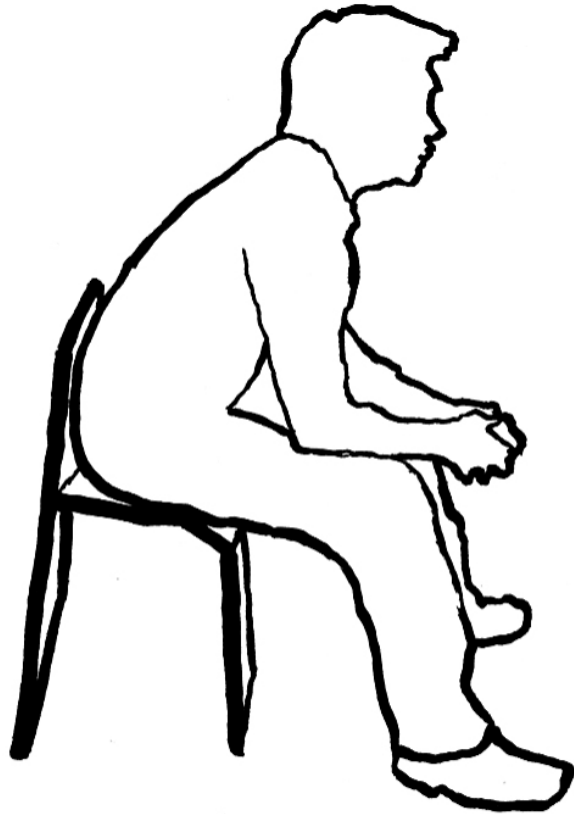
NOW-

ish (2PROX)

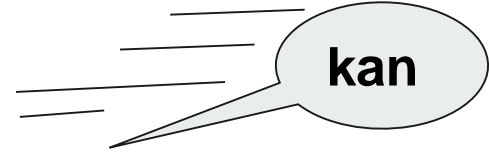
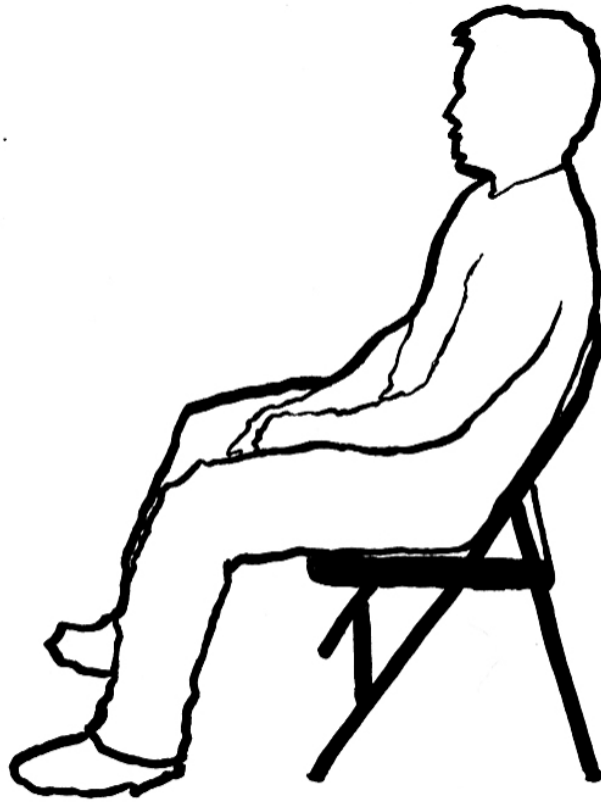
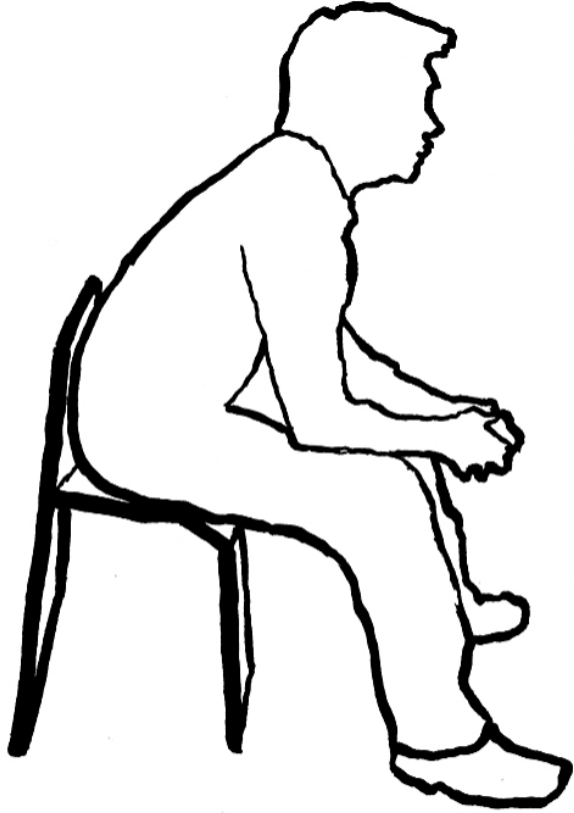


# Temporal Deixis

**RECENT**



# Temporal Deixis



# Temporal Deixis



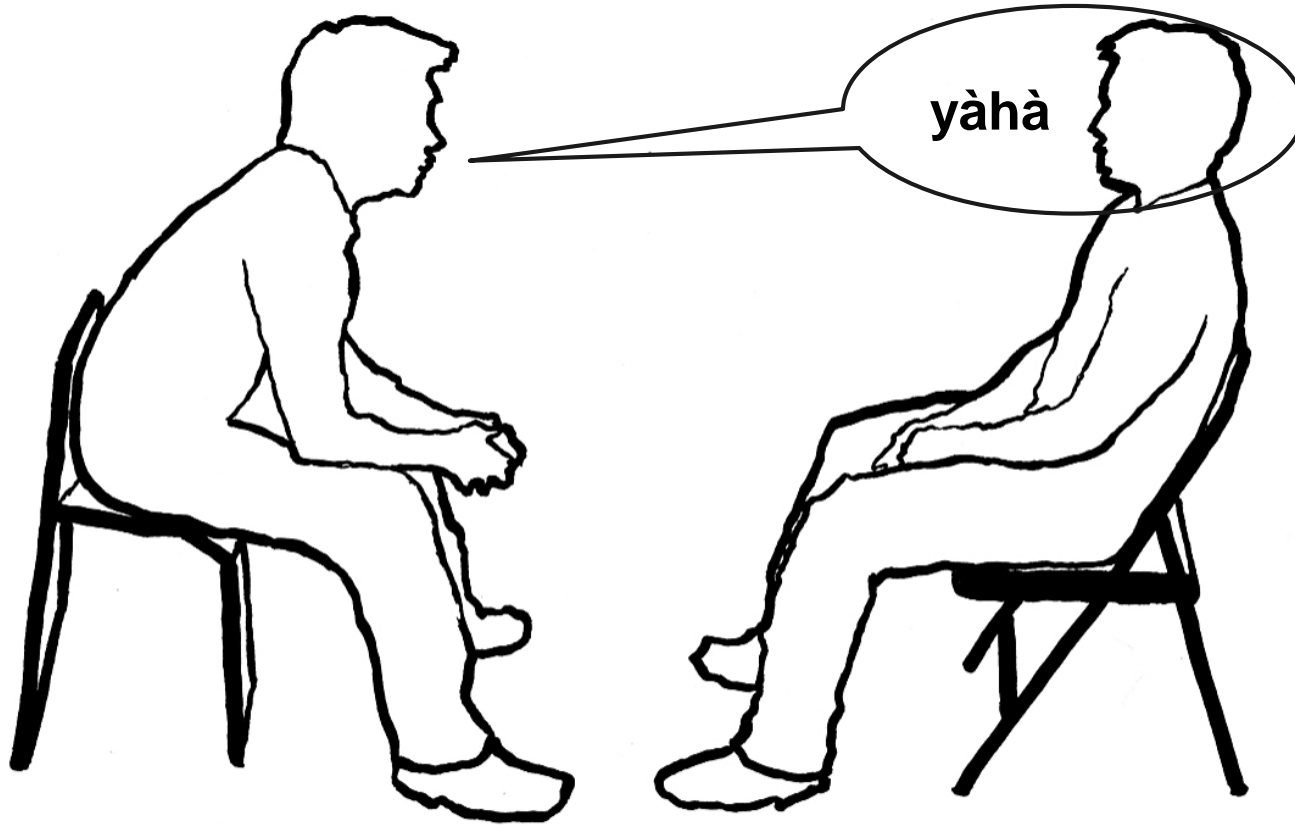
- There is actually some reality to this:
  - *yo'o* (speaker-proximate) is consistently interpreted as referring to “now” (speech time).
  - *kan* (invisible) is consistently interpreted as referring to far from now.
- But there are several complicating factors:
  - *ñaja* has a tendency to be used *anaphorically* (to refer back to something in discourse, as suggested by Zylstra).
  - it remains unclear how the visible deictic *kaa* works in temporal contexts although it seems to have a recent past interpretation.



# Anaphoric Deixis



- As shown earlier, *ñaja* is described as having two functions:
  - hearer proximate deictic (referring to an object close to hearer)
  - discourse anaphora (referring to something previously mentioned)
- Can these be connected?



A discourse anaphora must refer back to something that is already “with” the hearer.

In this sense it is hearer proximate.

# Conclusion and further directions

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- Deictics are interesting because they make use of person features like “hearer” and “speaker” but unlike personal pronouns, which refer to discrete entities, deictics must refer to a non-discrete space, e.g. in between hearer and speaker, slightly closer to hearer than speaker, etc.
- We have reported here on how Mixteco divides up space using three features  $[\pm 1]$ ,  $[\pm 2]$  and  $[\pm \text{visible}]$ .
- We also showed how a complex 4-way deictic system is extended to refer to time and discourse.

# Conclusion: Mixteco in the bigger picture

*“The goal is that the people understand that we should not forget where we came from, that we should not forget our languages because it is our identity... We cannot disappear in the present.” -*

*- (Ambrosio, 2017)*

## Shifting languages causes:

- Discrimination, Political Exclusion, Religious Proselytizing, Globalization, Migration, and Economic Opportunities

## Why should you care:

- A vast reservoir of human knowledge and cultural conceptualizations will vanish into the past. (Wallis, 2017)
- A language is a library. It's the link that allows a connection between generations of wisdom acquired through observation— through experience of a people's geography. (Wallis, 2017)
- Languages are pivotal in the areas of human rights protection, peace building and sustainable development, through ensuring cultural diversity and intercultural dialogue. (UNESCO, 2018)

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