

Epistemics and/or evidentiality in Mojeño demonstratives

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- Mojeño Trinitario (Arawak, Bolivia)
- 57 demonstratives (54 adnominal + 3 adverbial), beside articles
- With epistemics and evidentiality values (\neq speculative and reportative on predicates and elsewhere)
- Corpus of 6 hours of spontaneous texts (~ 6000 quasi-sentences); stimuli-based data; little elicitation (50 entries on demonstratives; aiming at form rather than function)

Issues at stake

- TAME generally marked on the predicate or clause level, not in NP (Nordlinger and Sadler 2004)
- Distinction (or not) between epistemics and evidentiality
- Definition of demonstratives

1. Epistemic modality and evidentiality in determiners

- Determiners & epistemic modality
 - Assertion of existence (Matthewson 1996)
- Determiners & evidentiality
 - Visual/non-visual (Aikhenvald 2004: 130, Jacques to appear); non-visual sensory evidence (Gerzenstein 1994, Jacques to appear)
 - Individual perception/joint perception (Lowe 1999, Jacques to appear)
 - Rarely non-sensory evidential (Jacques to appear)
- Blurred boundary between epistemic modality and evidentiality
 - "Best/reliable evidence for assertion of existence" (Gutiérrez and Matthewson 2012) based on "best possible grounds" (Faller 2002)
- Temporal information in nominal evidentiality system
 - Sensory evidence at utterance time vs. at any point in speaker's life (Jacques to appear)
 - Sensory evidence in the past but not at utterance time (Lowe 1999, Carol 2011, Fabre 2016)
 - Sensory evidence at different past times, as in Nambiquara (Lowe 1999):
 - (1) *'This manioc root which we both see before us now.'*
 - (2) *'The manioc root that both you and I saw recently.'*
 - (3) *'The manioc root that both you and I saw some time past.'*
 - (4) *'The manioc root that I saw (but you didn't) some time past at some distant place.'*
 - (5) *'The manioc root that must have been at some time past, as inferred by me (but not by you).'*

2. What are the 54 adnominal Mojeño demonstratives ?

2.1. Form

Figure 1. Structure of the demonstratives

demonstrative prefix	personal root (6)	demonstrative suffix (8+Ø)
<i>p-</i> (→ <i>j-</i> / <i>_m</i>)	<i>ma</i> H.SG.M♂ <i>ñi</i> H.SG.M♀ <i>su</i> H.SG.F <i>no</i> H.PL <i>jo</i> NH.SG <i>ma</i> NH.PL	<i>-ka</i> ~ <i>-ni</i> <i>-ro</i> <i>-ena</i> <i>-kni</i> <i>-kro</i> <i>-ngi</i> <i>-ko</i> <i>-Ø</i> <i>-e</i>

- Personal root is almost identical with pronominal paradigm (prefixes on N and V, articles).
- Demonstrative suffixes for spatial distance and epistemics/evidentiality

2.2. Functions (Diessel 1999)

- Adnominal function

(6) *oni* *ma-k'e-e'i-ni* ***j-ma-kni*** *n-apiaru*
 here 3M-go_for-IPFV-CNTRF DEM-M-NVIS.EV 1SG-uncle
 ‘If only this uncle of mine could come here (and help me)!’ {text.6.057}

- Pronominal function

(7) *juiti* *te* *lasdose* *t-itekp-a-po* ***j-ma-kni***
 today PREP noon 3-arrive-IRR-PFV DEM-M-NVIS.EV
 ‘(Wait for him,) today he will arrive at noon.’ {text.6.087}

- Identificational function in the existential construction, without demonstrative prefix

(8) ***Ma-kñ-ojo-o'i*** *kristianu,* *t-ejve-k-jicha*
 M-NVIS.EV-EXI-IPFV human 3-smell-ACT-well
 ‘There is a human being over there, it smells strong.’ {text19.079}

3. What for 9 sets of demonstratives ?

- Here focusing on situational use (excluding use in narratives, as well as on elements encoding temporal information, and on abstract elements)
- Convey spatial and epistemic values, with temporal and evidential information. See Appendix.
- The first three sets (*-ka*, *-ro*, *-ena*) encode a speaker-centered distance-oriented three-term system (Anderson and Keenan 1985).

- (9) *ema tnoknu to confirmacion te pjoka resia.*
 ema ty-nok-nu to confirmacion te **p-jo-ka** 'resia
 3M 3-make-1SG ART.NH confirmation in DEM-NH-PROX church
 He gave me my (Catholic) confirmation here in this church. {text15.023}
- (10) *te to piestano tpiooriko ema viya 'chane te pjoro 'resiamíro'u*
 te to *piesta-ono ty-pioo-ri-ko* ema viya 'chane
 en ART.NH festivity-PL 3-shout-PLURACT-ACT 3M Sir person

te p-jo-ro 'resia-míro'u
 in DEM-NH-MED **church-front_of**
 During festivities, the man was shouting in front of that church. {text15.007} [a few blocks away from location of utterance]
- (11) *enopo no awaresano techpojrikono pjuena 'resia,*
 eno-po no awaresa-ono ty-echpojri-ko-ono **p-jo-ena** 'resia
 3PL-also ART.PL old_lady-PL 3-tend-ACT-PL DEM-NH-DIST church
 (I am speaking to...) and to the old women that take care of that church
 {text1.012}[church is many blocks away from situation of utterance, in a city]

- The last two sets are
 - Only used as adnominal modifiers
 - Very often found in describing stimuli
 - Very similar contexts as articles
- The other four sets:
 - are less specific about location
 - involve non-visual evidence at utterance time
 - vary in terms of
 - presence/absence of the referent
 - timing of the evidence
 - strength of assertion of the localization (epistemics)
- Continuum of reliability of evidence for localization

Figure 2. Degrees of reliability of evidence for localization

<i>-ka ~ -ni</i>	excellent evidence for localization
<i>-ro</i>	
<i>-ena</i>	
<i>-kni</i>	good evidence for localization
<i>-ngi</i>	past evidence for localization
<i>-kro</i>	weaker evidence for localization
<i>-ko</i>	no evidence for localization

3.1. The -kni set: assertion of localization on non-visual evidence

- Non-visual evidence
- But source is considered reliable enough to assert localization
- Non-visual sensory evidence (audible or odorous (12)), inference (13), common knowledge (14), reported (15).
- Localization is almost always specified in the sentence

(12) *makñojoo'i kristianu tejvekjicha tijyee'i jmakni*
ma-kni-ojo-ri'i kristianu ty-ejve-ko-jicha
 M-NVIS.EV-EXI-IPFV human 3-smell-ACT-well
 ty-ijie-ri'i **p-ma-kni**
 3-smell_good-IPFV DEM-M-NVIS.EV
 'There is a human being over there, he smells strong, he smells good' {text. 19.079}

(13) *majina, te muemtone makni.*
 majina te ma-emtone **p-ma-kni**
 NEG.EXI.M en 3M-work DEM-M-NVIS.EV
 'He is not here (at home), he is at work.' {6.086}

(14) *nokñojoo'i 'chañono, eneripo te pjokni (...) tow'o (...) to mari*
p-no-kni-ojo-ri'i 'chane-ono ene-ripo te **p-jo-kni**
 DEM-H.PL-NVIS.EV-EXI-IPFV person-PL allá-PFV in DEM-NH.SG-NVIS.EV
 ta-ou-ko to mari
 3NH-be-ACT ART.NH stone
There exists (invisible) men, there for example, in there where are stones (in the mountain. {text30.058} [about the spirits of the stones]

(15) *pjokni sos'oo'i.*
p-jo-kni s-o-s-'o-ri'i
 DEM-NH.SG-NVIS.EV 3F-live-ACT-APPL-IPFV
 She comes from there. {text09.055} [speaker speaks of me coming from France, where he has never been]

- Text 27 is a conversation about a past event (several decades before the conversation). Younger people, not present at the time the event took place, use *-kni*, older people, present at that time, use *-ngi*.

3.2. The -ngi set: assertion of past localization

- Non-visual evidence at utterance time
- Visual evidence at past time
- Not used in non-personal historical texts and tales.

(16) *Ene nim'o te mochila jmañgi.*
 ene n-imo-ko te mochila **p-ma-ñgi**
 here 1SG-see-ACT in bag DEM-NH.PL-PAST.EV
 [Context: The speaker is looking for documents in a bag. She does not find them.]
 Here I had seen them in the bag. {text37.080}

(22) *ñikrojopka, pero nsamrawo ene ñikemtoneyo.*
ñi-kro-jo-puka pero n-samrawo ene ñi-ko-emtone-i'o
 DEM-POT.LOC-EXI-SPEC but 1SG-think there 3M-VZ-work-APPL
He must be there, I think this is where he works. {37.018}

- Maybe also different engagement of speaker and addressee, with speaker localizing the entity but assuming a lower commitment to the localization from the addressee in declarative clauses, and the reverse in questions.



3.4. The -ko set: no proper evidence for localization

- No sensory evidence
- No assertion of localization: assumption (23), speculation (24), imaginary reportative (25).
- In the textual examples, no sensory evidence at any time in speaker's life, and no assertion of existence, but counterexample in elicitation 0.

(23) *wichu nakootokanu pnoko majanemuriono*
 wichu na-kooto-ko-a-nu **p-no-ko** ma-janemuri-ono
 APPR 3PL-catch-ACT-IRR-1SG DEM-H.PL-NAOL 3M-mate-PL
 [context: a man lost in the forest hears and then sees a man with a dog face. He decides to go and show himself in front of the man. Here is his reason:] lest his (FR: potential) mates could catch me. {text19.083}

(24) *takee'iro pjoko nye'eyo viaje.*
 ta-ke-ri'i-ro **p-jo-ko** n-ye'e-yo viaje
 3NH-be_so-IPFV-INDISP DEM-NH.SG-NAOL 1SG-POSS-FUT trip
 My future trip has to be like that. {text7.044}

(25) *tnikri'iji pjoko wray'a, tnikri'i pjoko vife, takochanee'iji pjoko chukurate te leche*
 ty-ni-ko-ri'i-iji **p-jo-ko** wrayu-'a
 3-eat-ACT-IPFV-RPT DEM-NH.SG-NAOL chicken-CLF:egg

ty-ni-ko-ri'i **p-jo-ko** vife
 3-eat-ACT-IPFV DEM-NH.SG-NAOL beef

ta-ko'chane-ri'i-iji **p-jo-ko** chukurate te reche
 3NH-accompany-IPFV-RPT DEM-NH.SG-NAOL cocoa with milk

She eats eggs, she eats beef, with hot cocoa (they say) {text26.020} [speakers having fun imagining my breakfasts, but overtly only repeating what someone supposedly reported them my breakfasts to be like]

(26) *nechjiko psuko nchicha*
 n-echji-ko **p-su-ko** n-chicha
 1SG-speak-ACT DEM-F-NAOL 1SG-offspring
 I talked to my daughter (on the phone). {elicitDEM.032}

4. Conclusions

4.1. Are they really demonstratives ?

- Articles in Mojeño
 - Share the determiner position (NP-initial) with demonstratives
 - Used with referential nouns, either indefinite or definite (27)
 - Made off a personal root only (not exactly identical in categories and forms with that of demonstratives)
 - Only the suffix-less set is in between articles and demonstratives.

(27) *v-echji-s-‘o-yre ma ‘móperu te to ma-peno*
1PL-talk-ACT-APPL-FUT ART.M child in ART.NH 3M-house
‘We are going to tell about a boy in (the) his house.’

- Demonstratives are “deictic expressions which are used to orient and focus the hearer’s attention on objects or locations in the speech situation” (Diessel 1999: 2)
 - Mojeño demonstratives are used for that.
- “In several languages, there are elements which share highly specific morphosyntactic features with distance sensitive demonstratives and, for this reason, have to be considered demonstratives, though distance is irrelevant to their semantics.” (Himmelmann 1996)

4.2. Mojeño and the typology of epistemics/evidentiality in determiners

- A demonstrative paradigm with some forms specialized for distance, others where localization is linked with epistemics and evidentiality
 - Aikhenvald (2004: 131). "Unlike evidentials, they [demonstrative with evidential features] are likely to have additional spatial and anaphoric meaning extensions. Only occasionally [...] do they acquire a set of extensions similar to evidentials proper."
- Only visual/non-visual distinction.
 - Jacques (to appear) "Non-propositional evidential systems encoding non-sensory evidential meanings are extremely uncommon, and all known systems also include sensory evidentials."
- Epistemics
 - In non-demonstrative determiners is about existence of the referent, as well as localization (Matthewson 1996)
 - In Mojeño demonstratives is about localization.
- Epistemics and evidentiality difficult to tease apart
 - Non-visual evidence ≈ weaker assertion
 - Epistemic modality based on source of evidence, cf. "best possible grounds" (Faller 2002)
 - But also multi-dimensional conception of evidentiality with evidence type vs. evidence strength (Matthewson submitted)

Abbreviations

♂ male speaker; ♀ female speaker; ACT active ; APPL applicative ; APPR apprehensive ; ART article ; CLF classifier ; CNTRF counterfactual ; DEM demonstrative ; DIST distal ; EXI existential ; F feminine (singular) ; IPFV imperfective ; IRR irrealis ; M masculine (singular) ; MID middle ; NAOL non-assertion of localization; NEG negation ; NH non-human ; NVIS.EV non-visual evidence ; PAST.EV past evidence ; PFV perfective ; PL plural ; PLURACT pluractional ; POSS possession ; POT.LOC potential location ; PREP preposition ; PROX proximal ; RPT reportative ; SG singular ; SPEC speculative ; UNDISP undisputable ; VZ verbalizer.

Appendix. Mojeño Trinitario demonstratives in use

Suffix	Gloss	NH.SG forms in texts	Location	Epistemics	Evidentiality
<i>-ka</i>	PROX	230	proximal	strong assertion of localization	present evidence at utterance time
<i>-ro</i>	MED	10	medial	strong assertion of localization	evidence at some point in time
<i>-ena</i>	DIST	103	distal	strong assertion of localization	evidence at some point in time
<i>-kni</i>	NVIS.EV	16	localized	strong assertion of localization	non-visual evidence at utterance time
<i>-ngi</i>	PAST.EV	9	past motion away	strong assertion of <u>past</u> localization, weak assertion of localization	non-visual evidence at utterance time + past sensory evidence
<i>-kro</i>	POT.LOC	17	uncertain localization	weak assertion of localization	non-visual evidence at utterance time
<i>-ko</i>	NAOL	8	absent	no assertion of localization	non-visual evidence (generally during the life-time of the speaker)
<i>-∅</i>		21 in texts + 293 in stimuli descriptions	proximal		specific knowledge shared by speaker and addressee ?
<i>-e</i>	DIST	3 in texts + 39 in stimuli descriptions	distal		

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