Learning to Point in Zinacantán

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Sketch

• One anthropologist’s view of “development”
• Language, gesture, culture
• The semiotics of pointing
• My goddaughter learns to point
• Acquisition and (vs.?) socialization
Tzotzilandia
Zinacantán, Chiapas, México
Tzotzil (Mayan), ~300K++ speakers
What is the “unit” of development?

• An anthropologist in the wild
  – compare Quine, Cook;
  – what are “the data”?
• Genes, cells, brains, kids, kids & caretakers....
• Language inherently designed for “face to face interaction” (*ergo*, multiple faces)
  – “Person” systems (1, 2, 3...)
  – Language as paradigmatic locus of the supraindividual
    • Bakhtin – ‘voice’
    • Goffman – ‘participation, footing’
    • H. Clark – ‘joint action’
    • Simon Kirby – ‘iterative learning’
    • Emergent sign languages (Nicaragua, Berber, Yucatán...)
Gesture and speech

• Thorough mutual integration
  – Synchrony
  – Semantic complementarity
  – Speaker’s and hearer’s phenomena

• Part of the cultural “target” for language acquisition
  – Geography of gesture (“emblems”) (Morris et al.)
  – Comparative gesture “styles” (Kendon)

• Cultural/language specific gestural imagery
  – Tweetie Bird cartoons
  – Mayan positionals
Culture & semiosis

- “Culture”: perception, parsing, and signification
- One Peircean trichotomy of signs
  - Icon = similarity
  - Index = contiguity
  - Symbol = convention
- NB: the public, shared (or sharable), and “symbolic” nature of all culture
- The central problem of social science
Referential gestures

- Pointing as ontologically primordial referential device
- Linguistic expressions which “typically require” gestural “supplementation”
- But:
  - Wittgenstein’s signpost
  - Gaze, lips, fingers, and conventions
Semiotics of pointing

• Complex indexicality: cardinal directions
• Cultural history: pointing at absent entities
• Trichotomous pointing
Absolute orientation: “east..”
Where is he pointing?
K’av-te`: descriptions and demonstrations

Video 1990, Maya K. D. Haviland
Made a hole

They had made a hole like this.
Stuck in, both of them

- Both of the pieces of wood were stuck in this way.
Language development in Zinacantán

Infants from the Tzotzil speaking Indian community of Zinacantán, Chiapas, Mexico, are incorporated into communicative routines from the moment of birth (when they are addressed directly by the attending midwife).

From an early age they are seen as volitional if limited interlocutors, capable of using developing bodily, gestural, and linguistic abilities to communicate with others in their expanding social universes.

Their earliest gestures and actions are glossed with the metapragmatic presentational –*chi* ‘say, go, be like, be all.’ (Cf. John Lucy, 1993.)
Longitudinal studies by Lourdes de León (CIESAS, México)

Lourdes de León Pasquel 20005. *La llegada del alma: lenguaje, infancia y socialización entre los mayas de Zinacantán.* México: CIESAS: INAH.
Preliminary example: gesture and words in complex interaction

- 18 months: M musters a complex act of reference and predication, with a pointing gesture (to an apparently absent referent) plus a “single word” *me* `mother.'
The interaction transcribed

Who went to the forest?
There’s an old woman.
They went to accompany her.

Did your mother go?
Did your mother go?

Yes?
She said “look for”

“She went to find firewood,” she says.
So, she pronounces well.
“She went to find firewood,” she says, indeed.
She went to find firewood according to her.
Let’s go.
Let’s you and I go.

MM.
Once more in Tzotzil
Some linguistic features of gesture

• According to the gloss, the gesture provides the predicate (“went”).
• The gesture has a conventional form (with the index finger) plus a meaningful direction.
• Thus: it is abstract, conventionalized, and meaningfully indexical.
5 months – movements interpreted as deliberate communications

• At 5 months, Mal’s reaching, attending, and manipulating are metapragmatically interpreted.
Deliberate reaching

- Mal’s reaching gestures, at 8 months, are apparently deliberate and communicative; they elicit glosses and responses.
9 months: stylized “reaching”

- At 9 months, with increased mobility, her reaching is more stylized, a kind of proto-pointing, since it is apparent that she cannot reach the desired object.
True pointing and play—11 months

- Mal, at 11 months, makes well-formed index finger points to evident referents. Sometimes she accompanies her motions with vocalizations.
Routines of pointing and showing

• She also (at 11 months) incorporate pointing into play routines, toying with a cat, or intentionally calling her interlocutor’s attention.
Games of mutual perception: interactive and abstract pointing

- Mal, at 13 months, uses pointing to call the attention of third parties to unnoticed referents, or socially significant aspects of a situation.
- At 16-18 months, she is able to “point” at absent, non-visible (but audible) distant referents – a truck announcing wares for sale, the arrival of a visitor.
The pragmatics of pointing

- At 13 months, Mal can use pointing for more complex pragmatic effects—for example, “narrating” a fall, pointing to where she fell with a vocalization (and grimace), perhaps feigning a cry of pain.
Gestural requests

- Mal, at 16 months, uses pointing to “request” her interlocutor to offer the other sandal. (She also shows that she comprehends pointing pragmatically.)
- She calls for her mother, combining a word (me` ‘mother’) with a point.
Pointing as accusation

- Mal, at 16 months, also uses pointing to allocate blame.
- Her playmate Isabel has pushed her down, and as she wails, she points an accusing finger.
Mal uses multimodal deictics

• By 18 months, Mal’s vocabulary includes demonstratives which ordinarily occur with deictic gestures.
• When I ask her where she will put the bottle she is carrying, or where the baby chicks are, she responds with a distal *taj* “over there [perceptually inaccessible].”
Pointing to signal intention and desire

- With limited mobility, at 18 months, Mal can express intention and desire which exceed her physical and verbal capabilities, by pointing interactively.
- Such signs combine vocalization with other communicative gestures (e.g., hitting someone).
• By 18 months, Mal can “characterize” a situation. Hearing a cry, she “describes” ho a neighbor’s baby (nene`) ‘wants something’ with a gesture (indicating the location of the baby) plus a word (titi` ‘meat’).
Pragmatic and participatory skills: multi-modal commands

- Lupa, at 20 months, is able to issue a “baby talk” command coupled with deictic gestures.
- She coordinates appropriate speech (bebex ‘sit’) with gesture (“there”) showing both pragmatic competence, and interpersonal involvement with her interlocutors.
The ethnographic context of socialization into communicative competence

- Zinacantecs treat infants as volitional interloctors—as potential “participants”—from the very start of life.
- They actively socialize them for gestural-linguistic interaction.
- The contexts of emerging development are public, interactive, and intersubjective.
- But gradually, gestural/spoken routines give way to speech
There is no distinction between gesture and speech as communicative modalities in pragmatic development

- Bodily movements, from very early in life, as interpreted and glossed in the same way as vocalizations.
- Zinacantec ethnopragmatics does not privilege a verbal channel, but instead considers gestures and other bodily expressions as reportable “sayings.”
- The normal linguistic criteria of morphology (form) can be applied equally to gestures as to words: Saussurian “arbitrariness,” perhaps combinatorial syntax.
The “target” for gestural development

• Integration of visible and audible action
• Semiotic complexity of linguistic signaling:
  – Trichotomous modes of meaning
  – Knowledge of space/time/history
  – “Common ground”: knowing that your interlocutors knows, that you know, that she knows...
• The inherent possibility of multimodality in interaction
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