

Deep and surface anaphora: Insights from Mayan

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Two key insights from Chuj about silent expressions

1. **Null complement anaphora** (NCA), a deep anaphor, involves a syntactically represented null *proform* in complement position.
 - Supports one approach (Hankamer & Sag 1976, Depiante 2001); against others (Napoli 1983).
2. **Ellipsis** (e.g., sluicing), a surface anaphor, is regulated by an Identity Condition predicated on “featural non-distinctness”.
 - In support of one approach (Ranero 2021); against others (Merchant 2013; Rudin 2019, a.o.).

In a nutshell: novel evidence for and a refinement of Hankamer & Sag (1976)’s classic finding that there exist **deep** and **surface anaphora**, even among *silent expressions*.

Data and methodology

Chuj

- Understudied Mayan language
- Q’anjob’alan sub-branch
- ≈ 80,000 speakers
- Chiapas (Mx) & Huehuetenango (Guat)

Fieldwork

- Conducted by both authors with 5 speakers of the San Mateo Ixtatán dialect
- Context-based and hypothesis-driven fieldwork methodology (Mattehwsen 2004, *et seq.*)



Figure: Mayan-speaking area today (Law 2014: 25)

Deep vs. surface anaphora revisited

(Hankamer & Sag 1976)

A significant finding in linguistic theory:

- (1) There exist different types of silent anaphora
 - a. deep anaphora: syntactically represented, simplex (e.g., a *proform*)
 - b. surface anaphora: syntactically represented, complex, subject to an identity condition

Classic diagnostics to distinguish (1)a from (1)b:

- Pragmatic control suffices to license? Deep anaphora: YES / Surface anaphora: NO
- Sub-extraction possible? Deep anaphora: NO / Surface anaphora: YES

Our claim: Chuj is uniquely positioned to provide new insights into this finding:

- ▶ **Insight 1:** NCA is truly a **deep anaphor**, contra alternatives positing that NCA involves nothing at all (Napoli 1983; see Culicover & Jackendoff 2005, 2012).
- ▶ **Insight 2:** The identity condition regulating **surface anaphora** must be predicated on featural non-distinctness, instead of strict identity (Ranero 2021).

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Insight I: NCA (a deep anaphor) = null *proform*

NCA: a verb’s non-nominal complement is missing on the surface, e.g.:

- (2) **Context:** A presenter is arguing for a controversial analysis of NCA.
 - a. Do you agree? (=NCA)
 - b. Do you agree **with what they’re saying?**

Two major analytical options for the status of the silent element:

1. NCA = a null *proform* (a silent deep anaphor) (Depiante 2001, 2019; Cinque 2004)
2. NCA = nothing at all, i.e., (in)transitivity alternation
 - What-You-See-Is-What-You-Get (WYSIWYG) (Shopen 1972; Grimshaw 1979;
 - think of how ‘eat’ can vary in transitivity (Napoli 1983, 1985; Xiang et al. 2019)

Chuj NCA involves a null *proform* (option 1)

Like other Mayan languages (Grinevald & Peake 2012), Chuj is ergative-absolutive and insistently explicit about transitivity alternations:

- (3) Ix-ach-w-il-a’.
PFV-ABS2S-ERG1S-see-TV
‘I saw you.’
- (4) Basic transitive verb template
ASP-ABS-ERG-ROOT-TV
- (5) Ix-ach-way-i.
PFV-ABS2S-sleep-IV
‘You slept.’
- (6) Basic intransitive verb template
ASP-ABS-ROOT-IV

▶ **Thus:** ideal testing ground to test transitivity status of NCA verbs such as *tak’*:

- (7) Ix-Ø-a-tak’-a’ [to tz-ach-b’at k’atzitz].
PFV-ABS3-ERG2S-accept-TV COMP IPFV-ABS2S-go log
‘You accepted to go cut wood.’

▶ **Important:** verbs like *tak’* in Chuj do not take nominal complements:

- (8) *Ix-Ø-in-tak’ nok’ tz’i’.
PFV-ABS3-ERG1S-accept CLF dog
Int: ‘I accepted the dog.’
- (9) *Ix-ach-in-tak’-a’.
PFV-ABS2S-ERG1S-accept-TV
Int: ‘I accepted you.’

Predictions: if *tak’* is used without an overt complement...

- ▶ **Analytical option 1**—NCA = *proform*—predicts that the verb will bear transitive subject marking (ERG) and the transitive (TV) suffix.
- ▶ **Analytical option 2**—NCA = nothing at all—predicts that the verb will bear intransitive subject marking only (ABS) and the intransitive (IV) suffix.

Result: The Chuj data favour analytical option 1; NCA involves a null *proform*.

- (10) **Context:** Axul’s boss is always giving her new tasks, and she’s been complaining to Malin about it. Malin sees that the boss is asking Axul to do additional things again. Malin asks:
¿Tom ix-Ø-a-tak’-a’?
YNQ PFV-ABS3-ERG2S-accept-TV
‘Did you accept?’
Only possible configuration.

▶ Pragmatic control suffices; NCA is a deep anaphor, analyzed as a null *proform* (sub-extraction is also impossible from the silence, Ranero & Royer 2023).

Conclusion: NCA involves a syntactically represented, simplex *proform*.

▶ See Ranero & Royer (2023) for arguments against parameterizing NCA.

Insight II: Sluicing (a surface anaphor) requires “non-distinctness”

Sluicing, clausal ellipsis with a *wh*- remnant, is a **surface anaphor**:

- ▶ It does not allow for pragmatic control; it requires syntactic control.
- ▶ It allows for sub-extraction; the *wh*-remnant is moved from the silence (11)-(12).

Whereas an *in-situ* PP is P-initial (P+DP), a fronted *wh*-PP is inverted (DP+P):

- (11) ¿ [**Tas yet’**] ix-Ø-s-pol an^h seboya winhaj Pab’lu?
what with PFV-ABS3-ERG3S-cut CLF onion CLF Pab’lu
‘With what did Pab’lu cut the onion?’

The inversion occurs in sluicing as well; hence, there’s been sub-extraction:

- (12) Ix-Ø-s-pol an^h seboya waj Xun, pero macheke^l [**tas yet’ok**]₁
PFV-ABS3-ERG3-cut CLF onion CLF Xun, but unknown what with
< ... __1 ... >.
‘Xun cut onions, but I don’t know what with.’

As a surface anaphor, ellipsis is regulated by a universal **Identity Condition**.

- ▶ **Important:** Evidence for the condition requiring strict syntactic identity is that **voice cannot mismatch** under sluicing in many languages (Merchant 2013 a.o.) (e.g., *That book was stolen, but no one knows who.).

Voice can mismatch in Chuj sluicing

Background: *Wh*-movement is sensitive to voice.

▶ *Wh*-movement of the subject of a transitive requires Agent Focus voice (AF).

- (13) Ix-Ø-pol-**chaj** an^h seboya tik yuj jun anima’, pero man wojtakoklaj
PFV-ABS3-cut-PASS CLF onion this by one person but NEG I.know
mach <ix-Ø-pol-**an** an^h>.
who PFV-ABS3-cut-AF it (✓PASS-AF)
‘This onion was cut by someone, but I don’t know who <cut it>.’

▶ *Wh*-movement of the object of a transitive requires active voice.

- (14) *Ix-Ø-chonh-**waj** ix Malin, pero macheke^l tas <ix-Ø-s-**chonh**
PFV-ABS3-sell-AF CLF Malin but not.know what PFV-ABS3-ERG3-sell.ACT
ix>.
CLF (*AP-ACT)
Intended: ‘Malin did some selling, but I don’t know what.’

Result: All mismatches involving AF are well-formed (like in Kaqchikel; Ranero 2021).

Consequence: Strict identity can’t generate the Mayan voice and sluicing pattern.

- ▶ We adopt Ranero (2021)’s version of the Identity Condition:
 1. The Identity Condition must be relaxed; it requires **featural non-distinctness**.
 - Only mismatches involving **featural clashes** are ruled out.
 2. Gist of the proposal—**Agent Focus clauses in Chuj lack Voice**.
 - There’s **no** Voice clash in (13); featural non-distinctness is satisfied.
 - There’s a **Voice_{AP-ACT}** clash in (14); featural nondistinctness is not satisfied.

Conclusion

Silence in Mayan...

- points to the continuing relevance of Hankamer and Sag’s (1976) classic dichotomy between deep and surface anaphora;
- sheds fresh light on theoretical debates about their representation.

References and more discussion are available here:

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