

**Summary.** We discuss how Mayan languages shed new light on the distinction between (silent) deep and surface anaphora (Hankamer & Sag 1976) and their syntax. We draw two theoretical conclusions from the Mayan data: **1)** the complement that is "missing" on the surface in Null Complement Anaphora (NCA) (a deep anaphor) is syntactically-instantiated as *pro* (Depiante 2001), contra proposals that take it to be literally absent; and **2)** the well-formedness of a subset of voice mismatches in sluicing (a surface anaphor) provides evidence that ellipsis is regulated by an Identity Condition that requires *featural nondistinctness* (Ranero 2021), as opposed to strict identity.

**Deep anaphora; NCA.** NCA is the phenomenon in which the non-nominal complement of a verb like ‘agree’ is missing on the surface (Depiante 2001, 2019). Consider (1)a, which can be interpreted as (1)b given the context alone (i.e., NCA in (1)a is *pragmatically controlled*):

- (1) *Context:* Presenters are arguing for a controversial analysis of NCA.  
 a. Do you agree?                                b. Do you agree with what they’re saying?

In combination with other facts, the discovery that NCA can involve pragmatic control, whereas other anaphora require an overt syntactic antecedent, led to the proposal (Hankamer & Sag 1976) that there exists a significant distinction between *deep anaphora* (e.g., NCA) and *surface anaphora* (e.g., sluicing; see below). We follow the consensus in assuming that deep anaphora does not involve ellipsis—i.e., it is not deletion regulated by an identity condition (see Depiante 2019).

With this assumption in place, we use data from Chuj (Q’anjob’alan branch of Mayan) to address the question of how the "missing" complement in NCA should be represented syntactically:

- (2) Does the missing complement in NCA involve (a) *pro* (Depiante 2001) or (b) nothing (Grimshaw 1979, Napoli 1983; Xiang et al. 2019; see Culicover & Jackendoff 2005, 2012)?

Options 2(a) and 2(b) can capture syntactic asymmetries between NCA on the one hand and ellipsis on the other (e.g., sub-extraction unavailable in NCA, available in VP-ellipsis; Merchant 2015). Adjudicating between 2(a) or 2(b) has thus largely involved semantic diagnostics: for instance, comparing the interpretation of missing complements in NCA with that of verbs whose transitivity alternates (e.g., ‘eat’). No consensus seems to have been reached on the basis of such criteria.

Unlike languages where NCA has been discussed (notice that ‘agree’ is surface-identical in (1)a-b), Chuj valency alternations are morphosyntactically detectable. The language thus brings new criteria to adjudicate between (2)a-b. Consider the verbal templates:

- (3) TAM – [ABS] – [ERG] – ROOT – [VOICE] – [TRANSITIVE SUFFIX (-V’)]  
 (4) TAM – [ABS] – ROOT – [VOICE] – [INTRANSITIVE SUFFIX (-i)]

Three observations: **i)** a transitive stem displays an ergative morpheme (3), whereas an intransitive stem does not (4); **ii)** the final slot indexes the transitivity status of the verb (transitive in (3); intransitive in (4)); **iii)** voice morphemes, when present (see (8-9) below), signal voice alternations.

Now consider NCA. The following is acceptable under pragmatic control (the missing complement is indicated in square brackets); crucially, this verb does not take nominal complements:

- (5) Ix-Ø-[a]-tak’-[a’] [ to tz-ach-b’at k’atztiz ].  
 PFV-ABS3S-[ERG2S]-accept-[TV] COMP IPFV-ABS2S-go log  
 ‘You accepted [ that you’d go cut wood ].’

Notice the following two facts about (5). First, the predicate displays ergative agreement: two arguments control agreement on the stem. Second, the final slot is filled by the transitive status suffix *-a’*, not intransitive *-i*. The verb is thus transitive. We conclude that Chuj morphosyntax supports analysis (2)a of NCA: there is a syntactically represented *pro* in complement position.

**Surface anaphora; sluicing.** In contrast to NCA, we assume that sluicing is a case of surface anaphora; i.e., it involves ellipsis regulated by an Identity Condition (see Merchant 2019).

A Mayan diagnostic that supports the existence of complex structure here involves PP wh-remnants. Wh-movement of PPs in Chuj requires pied-piping + inversion (Aissen 1996; Ewing 2022): an *in-situ* PP is P-initial (P+DP), whereas a fronted wh-PP is inverted (i.e., DP+P, (6)).

- (6) ¿**Tas** yet' ix-Ø-s-pol                      te' manzan waj Petul?  
 what with PFV-ABS3-ERG3-cut CLF apple    CLF Petul  
 'With what did Petul cut the apple?'

In sluicing, the same inversion is required (7). This is derived if the construction involves complex syntax with a movement step and deletion—i.e., ellipsis. Inversion here would be mysterious if sluicing were *not* a silent surface anaphor. (N.B. *yet'(ok)* 'with' exhibits allomorphy; Royer 2022).

- (7) Ix-Ø-s-pol                      anh seboya waj Xun, pero machekel **tas** yet'ok.  
 PFV-ABS3-ERG3-cut CLF onion    CLF Xun, but    unknown what with  
 'Xun cut onions, but I don't know with what.'

Since sluicing is regulated by the Identity Condition, the voice systems of Mayan languages provide an ideal window into the nature of (dis)allowed mismatches involving VoiceP/vP. A'-movement is sensitive to voice; e.g., A'-extracted transitive subjects are compatible with the Agent Focus (AF) voice (Aissen 2017) in Chuj and Kaqchikel (K'ichean), but incompatible with active. Ranero (2021) uses this fact to provide evidence that all voice mismatches involving the AF voice are well-formed in Kaqchikel sluicing, in contrast to the widely attested pattern that voice mismatches (e.g., Active-Passive) are ill-formed in sluicing (Merchant 2013). We discuss how this finding replicates in Chuj; consider well-formed AF-Active (8) and Passive-AF (9) mismatches (< > = ellipsis site):

- (8) A: Ha winhaj Xun ix-Ø-**man-an-i**.  
 FOC CLF    Xun PFV-ABS3-buy-AF-IV  
 'XUN bought them (the candies).'  
 B: ¿ Tom ix-Ø-y-al                      winh t'ay-ach b'ajti'il <ix-Ø-s-**man**                      winh>?  
 YNQ PFV-ABS3-ERG3-say he    PREP-you where    PFV-ABS3-ERG3-buy.ACT he  
 'Did he tell you where <he bought them>?'
- (9) Ix-Ø-pol-**chaj**                      anh seboya tik yuj jun anima', pero man wojtakoklaj mach  
 PFV-ABS3-cut-PASS CLF onion    this by one person but    NEG I.know    who  
 <ix-Ø-pol-**an**                      anh>.  
 PFV-ABS3-cut-AF them  
 'This onion was cut by someone, but I don't know who <cut them>.'

Well-formed data like (8-9) challenge versions of the Identity Condition based on strict identity (Merchant 2013); requiring head-by-head matching in the VoiceP/vP domain but allowing mismatches elsewhere (Rudin 2019, Anand et al 2021) cannot handle them either. Chuj thus supports Ranero's proposal that the antecedent and material properly contained within the ellipsis site must be *featurally non-distinct*. This condition rules out mismatches where there is a clash between heads; e.g., a clash between Voice<sub>ACT</sub> and Voice<sub>PASS</sub>, the familiar pattern. However, it rules *in* configurations where there is no clash—we extend Ranero's analysis of Kaqchikel and argue that AF in Chuj instantiates the absence of VoiceP. Thus, (8-9) involve mismatches where the antecedent (8) or the ellipsis site (9) lacks VoiceP, both correctly ruled-in by featural non-distinctness.

**Takeaway.** Silence in Mayan points to the continuing relevance of the classic dichotomy between deep and surface anaphora and sheds fresh light on theoretical debates about their representation.