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Null Complement Anaphora cannot involve transitivity alternations: A novel argument from Mayan

Rodrigo Ranero
UCLA
ranero@ucla.edu

Justin Royer
Université de Montréal
justin.royer@umontreal.ca

Carol Rose Little
University of Oklahoma
little@ou.edu

1 Introduction

We develop a novel morphosyntactic argument that supports one analysis of the silent element in the construction known as Null Complement Anaphora (henceforth NCA). Specifically, we argue on the basis of data from two distantly related Mayan languages—Chuj and Ch'ol—that the missing complement in NCA is simplex and syntactically active, providing new support for the classic analysis of NCA as involving a "deep anaphor" (Hankamer and Sag 1976; see Depiante 2001, 2019; Moulton 2013; Tyler 2022; Knyazev 2026). The data are difficult (if not impossible) to capture under analyses that propose instead that NCA involves a transitivity alternation and there is nothing in the silence, an analysis that we call the "*What-You-See-Is-What-You-Get*" (WYSIWYG) approach (Shopen 1972, 1973; Williams 1977; Grimshaw 1979; Napoli 1983, 1985; Saeboe 1996; Xiang et al. 2019).

In a nutshell, we contend that the morphosyntax of Chuj and Ch'ol reveals the *universal*, underlying structure that is present in NCA, specifically because the rich morphological marking of these languages encodes transitivity and alternations in multiple ways. In contrast, this underlying structure is not detectable in languages that have previously served as the empirical basis for arguing about the representation of NCA. We end by discussing (a) why the crosslinguistic implications of the Mayan facts should be interpreted in the strongest fashion possible—i.e., as reflecting the universal syntax of NCA—and (b) why a different conclusion that would take the syntax of NCA to be parameterized is not desirable. In other words, we argue that the WYSIWYG approach should not be maintained for NCA in other languages either. Methodologically, then, we provide an illustration of how a well-controlled set of facts from an understudied language family

can open the door for a reappraisal on the representation of one flavor of silent syntax.

Section 2 provides brief background on NCA. Section 3 provides information about (in)transitivity marking in Chuj, our initial language of focus. Section 4 discusses NCA in Chuj. We argue that the configuration consistently involves transitive verbs, and thus that there is a complement of the relevant verbs that must be a simplex *pro-form*. Section 5 expands our investigation into Ch'ol. We argue that the facts in that language lead us to similar theoretical conclusions. Section 6 wraps up with a discussion of crosslinguistic implications.

2 NCA and the argument in a nutshell

The phenomenon of interest here involves instances where a verb's non-nominal complement is missing on the surface. Consider how a speaker can utter an overt non-nominal complement of the verb *agree*, as in (1)b-c below. Importantly, the context suffices to license the speaker's utterance of the minimally different (1)a, where nothing follows *agree* overtly. In other words, (1)a is licensed under pragmatic control.

(1) **Context**: A speaker is defending a controversial analysis of NCA.

a. Do you agree? (=NCA)

b. Do you agree **with what they're saying**? (PP complement)

c. Do you agree **that this is a reasonable analysis**? (CP complement)

Constructions akin to (1)a will be our concern here. Discussions of this configuration date back to Freidin 1970 according to Napoli (1985). Its most relevant treatment for our purposes appears in Hankamer and Sag 1976, which analyzes the silence as a *null complement anaphor*. This account gave birth to the phenomenon's name in current parlance.

The proposal that there is a silent element in examples like (1)a was influential, yet it is only one of three possible analytical options, which are summarized below:[1]

[1] Napoli 1983 refers to analysis (2)a as DEL (for Deletion), (2)b as BASE (for Base Generated Analysis), and (2)c as NCA.

(2) *Analytical options for the status of the silent element in NCA*

a. NCA involves the ellipsis of an XP (see Napoli 1985 and Aelbrecht 2010)

b. NCA involves a null *pro*-form (Depiante 2001, 2019; Cinque 2004; Moulton 2013; Tyler 2022; see Hankamer and Sag 1976; Knyazev 2026)

c. NCA involves nothing at all, i.e., (in)transitivity alternations / WYSIWYG (Shopen 1972, 1973; Williams 1977; Grimshaw 1979; Napoli 1983, 1985; Saeboe 1996; Xiang et al. 2019).

Option (2)a has largely been disregarded since at least Hankamer and Sag 1976 and Napoli 1983, 1985, though see van Craenenbroeck and Merchant (2013) and Depiante's (2019) discussions of Aelbrecht 2010 for suggestions regarding this approach. We will provide evidence (in section 4) that this alternative cannot be justified for Chuj, in line with the general rejection of ellipsis underpinning the silence in NCA (see Knyazev 2026 for a recent study reaching similar conclusions on the basis of Russian data).

Given the generalized rejection of an ellipsis analysis of NCA, the literature has sought to adjudicate between the two remaining options: whether NCA verbs have a simplex *pro-form* complement (2)b, or whether cases that appear to lack a complement in fact involve an *intransitive* verb (2)c. The resulting debates, however, have been based on languages where the predicate itself would not overtly mark transitivity alternations in the NCA configuration. We will argue that, in contrast to these languages, Chuj and Ch'ol provide the right ingredients for a novel morphosyntactic adjudication between options (2)b-c, ultimately favoring (2)b.

Our arguments center on the appearance of morphological correlates of syntactic structure. For example, in Chuj NCA we observe (a) ergative agreement and (b) a final suffix that signals the transitive status of the configuration:

(3) **Context provided to speaker**: A politician is spurting a bunch of lies. In this case, can you ask your friend:

Tom tz-Ø-a-mek'-a'?
YNQ IPFV-ABS3-ERG2S-agree-TV
'Do you agree?' *Chuj*

Let us first delve deeper into Chuj to contextualize data like (3) above within our debate of interest. Once the Chuj argumentation is solidly in place, we will extend our investigation into Ch'ol, which will provide us with additional evidence from the domain of ditransitive configurations.

3 (In)transitivity in Chuj

Chuj belongs to the Q'anjob'alan sub-branch of Mayan languages (Kaufman 1974, Law 2014). Evaluating the most recent censuses in Guatemala (INE 2018) and Mexico (INEGI 2020), the language has approximately 60,000 speakers, primarily in Huehuetenango (Guatemala) and Chiapas (Mexico), but also in diasporic communities across North America (see Royer et al. 2025 on Chuj self-identification). There are two main dialects: San Mateo Ixtatán and San Sebastián Coatán (Maxwell 1981; García Pablo and Domingo Pascual 2007, Royer et al. 2025). Here, we discuss data from the former dialect, which were elicited by the authors using context-based and hypothesis-driven fieldwork methodology (Matthewson 2004; Davis et al. 2014; Bochnak and Matthewson 2020).[2]

Mayan languages are notoriously explicit about marking (in)transitivity status, often multiple times on the same verb (England 2001, Grinevald and Peake 2012; Coon 2016, Aissen et al. 2017, Coon 2019). Grinevald and Peake (2012: 21) summarize this characteristic of Mayan grammar as follows:[3]

> [...] transitivity is heavily marked in the morphology of the verbal complex of Mayan languages. As expected, the choice of person markers and the presence of voice markers are the essential elements for the determination of the level of transitivity of the construction. However, in this family of languages, transitivity may be signaled by the choice of particular tense/aspect/mood and voice markers sensitive to the nature of the

[2]For additional information about Chuj and more extensive bibliographies, see Hopkins 1967, 2021, Maxwell 1981, García Pablo and Domingo Pascual 2007, Buenrostro 2013, Royer et al. 2022, and Royer et al. 2025.

[3]Neither of the Mayan languages we discuss here exhibit TAM marking whose form is sensitive to the transitivity status of the verbal stem. One such language is Tseltal (Polian 2013). Future work could assess NCA in Tseltal, assessing whether the particular exponence of TAM morphemes could be leveraged to diagnose the transitivity status of an NCA verb and (as a result) the presence or absence of a silent *pro-form*.

verb itself (as either transitive or intransitive, whether by root or derivation). And as if to top it off, the final thematic suffix, when it appears, adds to this rather typically Mayan insistence on indicating the level of transitivity of the whole verb complex.

Chuj is no exception to this defining property of the Mayan family, since several of the transitivity indicators listed above apply. Transitive and intransitive verbal templates, as well as examples, are provided below for illustration. Notice that third person absolutive is null, indicated as Ø throughout.[4]

(4) *Transitive verb template: Chuj*

a. ASP–ABS–**ERG**–ROOT–{VOICE}–**TV/DTV**

b. Ix- ach- w- il -a'.
PFV- ABS2S- ERG1S- see -TV
'I saw you.'

c. Ix- Ø- ey- anh -t -ej heb' anima'.
PFV- ABS3- ERG2P- remedy -CAUS -DTV PL person
'Y'all cured the people.'

(5) *Intransitive verb template: Chuj*

a. ASP–**ABS**–ROOT–{VOICE}–**IV**

b. Ix- onh- b'at -i.
PFV- ABS1P- go -IV
'We went.'

c. Ol- ex- anh -t -aj -ok.
PROSP- ABS2P- remedy -CAUS -PASS -IV.PROSP
'Y'all will be cured.'

Three properties of the Chuj verbal complex serve to signal transitivity status. First, transitive verbs are distinguished from intransitives in showing ergative agreement.[5] Second, derivational

[4]Note that the morpheme set that is used to signal ergative agreement is also used to cross-reference possessors (Zavala Maldonado 2017). We depart in this paper from the Mayanist convention of using the unifying label "Set A" for the ergative agreement and possessive morphemes and "Set B" for the absolutive morphemes. We have chosen to do so in order to highlight in a transparent manner the nature of each set of markers as used in specific examples, which will be useful to understand our analytical points. We also transcribe a null ABS3 person index throughout for expository purposes, in order to highlight the transitive nature that we argue is involved in the crucial NCA examples.

[5]Chuj exhibits aspect-based split ergativity: in the progressive aspect, transitive and intransitive subjects are both co-indexed with Set A (i.e., ergative/possessive) marking (see previous footnote). Such aspect-based splits in Mayan have been analyzed as involving possessed nominalizations (see Zavala Maldonado 2017 and references therein),

voice morphology signals changes in valency (passive, antipassive, Agent Focus, etc.; see Hopkins 1967, ch. 2, and Buenrostro 2013, 2021), allowing verbs to be used in transitive or intransitive frames. Third, so called "status suffixes" (sometimes called "thematic suffixes") directly track the (resulting) transitivity status of the verbal complex (see Polian 2017: 210)—e.g., a verbal stem that includes a *transitive root* must bear a suffix that is distinct from the suffix that must be borne by a verbal stem that includes an *intransitive root* but is a derived transitive stem through causativization. There are four status suffixes, each observed in (4)-(5), which are sensitive to aspect and/or the underlying root of the verbal stem (see Coon 2019):

(6) *Status suffixes in Chuj*

Verb type	Root/aspect	Status suffix	Gloss
Transitive	Transitive root, all aspects	*-a', -o', -u'*	TV
	Non-transitive root, all aspects	*-ej*	DTV
Intransitive	Any root, non-prospective	*-i*	IV
	Any root, prospective	*-ok*	IV.PROSP

Three of the four status suffixes (TV, IV, IV.PROSP) are deleted in certain phonological environments, namely when they are not at the right edge of an intonational phrase, which roughly corresponds to the right edge of a CP (Royer 2022; see Henderson 2012 for similar phenomena in other Mayan languages). For instance, observe the absence of the status suffix when an overt DP argument follows the verb:

(7) Ix-Ø-y-il [$_O$ nok' tz'i'] [$_S$ ix unin].
PFV-ABS3-ERG3-see CLF dog CLF girl
'The girl saw the dog.' *Chuj*

Note, however, that the suffixes are retained in such an environment if their deletion would result in an illicit consonant cluster (Royer 2022, Royer et al. 2025).

where Set A uniformly indexes a possessor (Coon 2013, Coon and Carolan 2017, Coon and Royer 2020; see Ranero et al. 2026 for a recent evaluation of this analysis in Chuj). Chuj examples in the progressive aspect are therefore not ideal to illustrate the patterns that support our analytical claims. We thus use perfective and imperfective in our examples, which are the aspects in which the language's ergative alignment and concomitant signals of (in)transitivity are transparently detectable. See footnote 14 for similar comments regarding Ch'ol.

In sum, like other Mayan languages, Chuj signals transitivity alternations in multiple ways. This marking will serve in what follows as our window into the syntax of NCA.

4 NCA in Chuj

A Chuj NCA configuration different from the one in (3), this time involving the verb root *tak'* 'to accept / agree to', is provided below (see Hopkins 2012b, who translates it as 'to accept'): [6]

(8) Ix-Ø-a-tak'-a' [to tz-ach-b'at k'atzitz].
PFV-ABS3-ERG2S-accept-TV COMP IPFV-ABS2S-go wood
'You agreed to go cut wood.' *Chuj*

This verb does not take nominal complements, regardless of person specification.

(9) a. *Ix-Ø-in-tak' nok' tz'i'.
PFV-ABS3-ERG1S-accept CLF dog
Int: 'I accepted the dog.' / 'I agreed to the dog.'

b. *Ix-ach-in-tak'-a'.
PFV-ABS2S-ERG1S-accept-TV
Int: 'I accepted you.' / 'I agreed to you.' *Chuj*

The observation that this verb (and some of the others that we use in this paper) cannot take nominal complements is important to raise, since this behavior is unlike the behavior of other verbs that may participate in NCA, but can take either nominal or non-nominal complements (see

[6] A reviewer notes that it might be the case that non-nominal complement clauses come in different sizes, and clause size has been argued to be detectable via an array of diagnostics in Mayan (see Aissen 2017a). For example, the presence of an overt complementizer would be indicative of a full CP, whereas the absence of an overt complementizer would require that clausal size be determined via other diagnostics (e.g., a strong preference for aspect matching between matrix and complement clause would suggest that the latter is smaller than a CP, Aissen 2017a: 269; see Can Pixabaj 2015; Mendes and Ranero 2021 for K'ichean). Note that the aspect of matrix and complement clauses in examples with NCA verbs can be different (as in (8)) or they can be the same:

(i) **Context:** Xun accepts that everyday he must cut wood.
Tz-Ø-s-tak' winh [to tz-Ø-b'at winh k'atztiz].
IPFV-ABS3-ERG3-accept he that IPFV-ABS3-go he wood
'He agrees to (habitually) cut wood.'

We refrain here from extensive discussion of further nuances regarding the precise size of non-nominal complement clauses (see Royer 2022), since the only germane issue for our argumentation is that NCA verbs in Chuj (and Ch'ol) take non-nominal complements (of whatever size).

Depiante 2019).[7] Thus, the absence of an overt complement for our test verbs should signal NCA most clearly.

NCA uses of the verb *tak'* are provided in (10) and (11). Importantly, notice that NCA does not require an overt linguistic antecedent: the context in (11) suffices to allow the absence of an overt complement. This was also shown in (3) above.

(10) Hayik' ix-Ø-w-al t'ay-ach to tz'-ach-b'at k'atzitz,
when PFV-ABS3-ERG1S-say PREP-ABS2S COMP IPFV-ABS2S-go wood
ix-Ø-[a]-tak'-[a'].
PFV-ABS3-ERG2S-accept-TV
'When I asked you to go cut wood, you accepted.' *Chuj*

(11) **Context**: Axul's boss is always giving her new orders, and she's been complaining to Malin about this situation. One day, Malin sees that the boss is asking Axul to do additional things again. Malin asks Axul:

[7] What is methodologically crucial is that the examples under evaluation are contextually clear in that they involve the NCA use of the relevant verbs, something that we controlled for across the elicitations for both Chuj and Ch'ol. We note as well that the NCA verbs that we use throughout *can* combine with *wh*-free relatives, which are generally assumed to have the same distribution as nominals (Caponigro 2003).

(i) Ix-Ø-in-mek' [tas ix-Ø-k'anb'a-j-i].
PFV-ABS3S-ERG1S-agree what PFV-ABS3S-inquire-PASS-IV
'I agreed with what was inquired.' *Chuj*

While this may be surprising at first glance given (9), we note again that these verbs cannot combine with nominal complements that have a comparable meaning to the one expressed by the equivalent free-relative. The following example thus forms a minimal pair with the previous one:

(ii) * Ix-Ø-in-mek' k'anb'alil.
PFV-ABS3S-ERG1S-agree question
Intended: 'I agreed with the question.' *Chuj*

Compare the pair of examples just discussed with the behavior of verbs like *ab'* 'hear'/'understand', which are well-formed with either kind of expression as a complement:

(iii) Ix-Ø-w-ab' tas ix-Ø-k'anb'a-j-i.
PFV-ABS3S-ERG1S-hear what PFV-ABS3S-inquire-PASS-IV
'I heard/understood what was inquired.' *Chuj*

(iv) Ix-Ø-w-ab' k'anb'alil.
PFV-ABS3S-ERG1S-hear question
'I heard/understood the question.' *Chuj*

The overall picture suggests, then, that free relatives and DPs differ in their syntactic distribution. This might be surprising from the perspective of previous work on free relatives (see Caponigro 2003), including Chuj (Kotek and Erlewine 2019; Royer 2021), where they are sometimes argued to involve a DP layer headed by a null operator. As we see, NCA verbs like *mek'* 'agree' (which cannot combine with straightforward DPs) can nevertheless combine with free-relatives in Chuj, a restriction that we do not observe with DP-taking verbs like *ab'* 'hear/understand'. We thank Hunter Johnson and an anonymous reviewer for questions that led to our investigation of free-relatives in this context.

Tom ix-Ø-a-tak'-a'?
YNQ PFV-ABS3-ERG2S-accept-TV
'Did you accept?' *Chuj*

Notice crucially that the verb *tak'* 'accept' in (10) and (11) bears (a) ergative agreement and (b) the transitive status suffix. Moreover, and just as crucially, using this verb (and other NCA verbs) in the language without ergative agreement and with an intransitive status suffix is judged unacceptable. For example, using an intransitive version of the verb *tak'* renders (10) and (11) ill-formed:

(12) [...] *ix-ach-tak'-i. / [...] *ix-ach-tak'-i?
PFV-ABS2S-accept-IV PFV-ABS2S-accept-IV
Int: '[...] you accepted.' / '[...] accept?' *Chuj*

In sum, NCA in Chuj is consistently expressed with verbs that exhibit the key transitive markers discussed in section 3. We thus conclude that the silent element in NCA cannot be due to the wholesale absence of a complement. This in turn entails that the WYSIWYG approach (2)c, which analyzes NCA verbs as intransitive, cannot be right for Chuj (more on this in Section 6).

Having ruled out the approach in (2)c, let us now return to the two remaining analytical possibilities of the three highlighted in section 2: either NCA involves ellipsis of a complex constituent (2)a or it involves a null *pro-form* (2)b. As already widely assumed in work on NCA, we argue that (2)a is not a viable option, leaving (2)b as the only viable analytical possibility.[8]

Recall that NCA is possible under pragmatic control, as in (11). This is one ingredient that led previous work to propose that the silent element in NCA should not be treated as an elided constituent (Hankamer and Sag 1976). This is because ellipsis generally requires "syntactic control"; i.e., the presence of an overt linguistic antecedent. In sluicing, for example, the silent element must exhibit some level of syntactic/semantic identity with this antecedent (defined differently in different works Merchant 2019; see Ranero 2021, Ranero and Royer 2024 for Mayan). This is true cross-linguistically and the same result goes through in Chuj as well.

[8]It is worth reiterating here that an elliptical analysis would still be qualitatively at odds with WYSIWYG (2)c, since ellipsis entails the presence of structure. In the rest of this section, then, we are attempting to adjudicate between competing proposals about the nature of the present, yet silent structure that we argue must be proposed for the surface-missing element in NCA configurations.

A second reason to believe that NCA does not involve ellipsis comes from the result of a diagnostic predicated on the availability of sub-extraction from silence. Consider how the relevant argumentation goes for languages like English: in VP-ellipsis, for example, a *wh*-word can be sub-extracted from the silence; in contrast, a *wh*-word cannot be sub-extracted from the silence in NCA (Merchant 2013; Depiante 2019). This contrast suggests that the silence in NCA does not involve deletion of structure from which a movement dependency could be launched—i.e., NCA does not involve ellipsis:

(13) *No sub-extraction in NCA (English)*

a. Which films did she refuse to see and which films$_1$ did she agree to <see __$_1$ > ?
(=sub-extraction out of ellipsis site)

b. *Which films did she refuse to see and which films did she agree?
(=no sub-extraction out of NCA)

Applying the diagnostic delivers the same empirical result in Chuj. An example like (13-b) above is replicated in (14); i.e., a *wh*-phrase cannot be sub-extracted from the silence in NCA:[9]

(14) a. Mach pelikula maj-Ø-s-tak'-laj waj Xun to
which movie NEG.PFV-ABS3-ERG3-accept-NEG CLF Xun COMP
tz-Ø-y-il winh...
IPFV-ABS3-ERG3-see he
'Which movie did Xun not accept to see...'

b. ... *y mach pelikula ix-Ø-s-tak' winh?
and which movie PFV-ABS3-ERG3-accept he
Intended: '...and which movie did he accept?' *Chuj*

In order to conclude that the data above can be interpreted as meaning that NCA cannot involve ellipsis, we can contrast them with clear cases of ellipsis in the language, where sub-extraction from the silent element is, as expected, possible. The construction we will use as a point of comparison is sluicing, which is traditionally analyzed as *wh*-movement followed by deletion/non-insertion of

[9]The NCA verb *tak'* could combine with a directional *b'at* 'go' in this example and the judgment is identical.

complex syntax (Ross 1969, Merchant 2001). First, consider some baseline examples. In (15)a, an *in-situ* phrase involving a relational noun (RN) and its complement exhibits RN+complement ordering.[10] Note, however, that Chuj exhibits 'pied-piping with inversion' (PPI): in cases of extraction, the complement and relational noun are inverted from their canonical order (complement+RN); see Aissen 1996, Ewing 2022. This is illustrated in (15)b with a *wh*-question:

(15) a. Ix-Ø-s-pol anh seboya winhaj Pab'lu **yet' k'en kuchilub'** .
PFV-ABS3-ERG3S-cut CLF onion CLF Pab'lu with CLF knife
'Pab'lu cut the onion with the knife.'

b. **Tas yet'** ix-Ø-s-pol anh seboya winhaj Pab'lu?
what with PFV-ABS3-ERG3S-cut CLF onion CLF Pab'lu
'With what did Pab'lu cut the onion?' *Chuj*

Regardless of the cause of PPI, it is a fact about Chuj's grammar that such an ordering alternation occurs only in cases of extraction. Now, consider the case of sluicing in (16). What we see is that PPI occurs here as well: the *wh*-item and relational noun 'with' are inverted.[11]

(16) Ix-Ø-s-pol anh seboya waj Xun, pero machekel **tas yet'ok**$_1$ < ... __$_1$ ... >.
PFV-ABS3-ERG3-cut CLF onion CLF Xun, but unknown what with
'Xun cut onions, but it's unknown what with.' *Chuj*

Given that PPI only ever occurs in cases of extraction, this entails that extraction out of an elided complement is possible in Chuj (see Ranero and Royer 2024 for other asymmetries between ellipsis and NCA in Chuj; see also Ranero 2021 for an in-depth analysis of sluicing in Kaqchikel and similar considerations). Thus, we are led to the conclusion—building on Hankamer and Sag (1976) and others—that the unavailability of extraction out of the silence in Chuj NCA (14) means that it does not involve ellipsis. Having discarded two of the three analytical possibilities from section 2, we are left with only one analytical option, namely (2)b: NCA must involve a silent *pro-form*.[12]

[10]Relational nouns are used as adpositional elements in Mayan (see e.g., Coon 2016, Aissen et al. 2017).

[11]The long form *yet'ok* of the RN 'with' is observed in (16)—instead of *yet'*, as in (15)—because prosodic conditions govern the insertion of the short or long allomorph of certain lexical items. Long forms such as *yet'ok* surface clause-finally (see Royer 2022; Royer et al. 2025 on prosodic allomorphy in Chuj).

[12]Determining the makeup of this *pro-form* is outside the scope of this paper. What is clear, however, is that this *pro-form* will pick up CPs, PPs, or maximal free-relatives (see footnote 5), but crucially not run-of-the-mill DPs. The existence of *pro-forms* of different structural sizes is not controversial in itself (see Déchaine and Wiltschko 2002), but we concur with authors like Napoli (1983) and an anonymous reviewer that our analysis for the NCA configuration

In the next section, we expand our investigation into Ch'ol, which provides one additional empirical window into the nature of the silence in NCA. Our discussion of this second Mayan language will lead us to argue against WYSIWYG once more. With our entire empirical picture in place, we will then assess in Section 6 how broadly we should interpret the Mayan facts as bearing on the crosslinguistic representation of NCA. We will argue that the facts should be taken to reflect the universal syntax of NCA.[13]

5 Expanding the empirical picture: Ch'ol

Our Chuj investigation led us to conclude that NCA involves a silent *pro-form*. Since our discussion was the first to address the syntax of NCA through morphosyntactic diagnostics from an agreement-rich, ergative-absolutive language, it is desirable to test our proposal on other languages that share a similar set of properties to Chuj. If our proposal can be maintained in the light of new data, then we will be more confident that our approach does not merely derive a single outlier grammar within the scope of possible representations—rather, we can argue with greater confidence that our approach designates the underlying syntax of NCA more broadly. In this section, we assess data from Ch'ol that replicate the Chuj results. Additionally, we leverage a Ch'ol-specific argument involving ditransitive configurations that reinforce our conclusion that NCA cannot involve

leaves as an open question—worthy of future research—what the precise makeup is of our superficially missing element that is nevertheless structurally present (see also Depiante 2019). An ergative-absolutive language that is not *pro*-drop, but shares the transitivity marking pattern of Mayan languages, may shed light on this question in ways that our particular set of languages cannot.

[13]We have replicated the Chuj facts with three NCA verbs: *tak'*, *mek'*, and *tak'wej*, which is translated by Hopkins 2012a: 303 as 'to promise'. The latter appears to be a causativized form of the antipassive derivation of *tak'* (see (34)). We provide an example below, showing that it can also have a meaning corresponding roughly to 'acknowledge':

(i) **Context**: Xun was sentenced for a felony. In court, he acknowledged that he did something wrong. You say:

Ix-s-tak'-w-ej winh (to ix-y-ak' chukal winh).
PFV-ERG3-accept-AP-DTV he that PFV-ERG3-do wrong he

'He acknowledged so (that he did something wrong).'

Given that this paper is a first exploration of NCA in Chuj (and the Mayan family more generally), we do not aim to provide a full list of NCA verbs, an endeavor that we are working on by testing different entries in Hopkins 2012a that correspond in meaning to NCA verbs in other languages. We note, though, that a recurrent issue raised in the NCA literature concerns disagreements about *which verbs participate in NCA* and whether a universal, cross-linguistic characterization is achievable (see especially Depiante 2019).

a transitivity alternation and that the WYSIWYG approach is on the wrong track.

Ch'ol is a Mayan language of the Greater Tseltalan branch (Kaufman 1974, Law 2014), spoken by around 254,000 speakers today (INEGI 2020), mostly in the Mexican state of Chiapas, but also in Tabasco and Campeche. The language is divided into two main dialects that are mutually intelligible: Tila and Tumbalá (Vázquez Álvarez 2011; Coon 2017; Little 2020). Chuj and Ch'ol are distantly related: the Western Mayan sub-branch split into Greater Q'anjob'alan (of which Chuj is a member) and Greater Tseltalan around 3,000 years ago (Kaufman 2017). Ch'ol exhibits the same transitivity markers on the verbal stem as Chuj, namely (i) ergative agreement in transitive configurations, (ii) morphemes signaling transitivity/voice alternations, and (iii) status suffixes tracking the transitivity status of the verbal complex (see Vázquez Álvarez 2011: 193 for the conditions governing the appearance of the language's many status suffixes). In other words, Ch'ol provides the necessary ingredients to assess the underlying syntax of the NCA configuration in a manner that is similar to Chuj. There are slight differences on the position of the relevant morphemes on the verbal stem and the range of available derivational processes, which we will address as they become relevant.

To start, observe the transitive and intransitive verbal templates for the language, illustrated below with perfective aspect. Notice that a key difference between Chuj and Ch'ol concerns the placement of the absolutive marker: Ch'ol is a "low-absolutive" Mayan language, a term signaling that the absolutive morpheme is suffixed to the verbal stem (Tada 1993; Coon et al. 2014).[14]

(17) *Transitive verb template: Ch'ol*

a. ASP **ERG**–ROOT–{VALENCY}–**TV/DTV**–{VOICE}–ABS–{PL}

b. Ta' a- k'el -e -yoñ.
PFV ERG2- see -DTV -ABS1
'You saw me.'

c. Ta' i- tyaj -a -Ø k'am-añ.
PFV ERG3- find -TV -ABS3 sick-NML
'They became sick.' (*Lit*: 'They found sickness.')

[14]Ch'ol's ergative alignment is transparently detectable in the perfective aspect, so we use that aspect throughout our examples in order to support our analytical claims. Ch'ol exhibits a split in alignment in other areas of its grammar (imperfective and progressive aspects), so they are not ideal to illustrate the transitive nature that we argue for in the NCA configuration (recall footnote 5 for Chuj).

d. Ta' k- wäy -es -ä -Ø bebe.
PFV ERG1- sleep -CAUS -DTV -ABS3 baby
'I made the baby sleep.'

(18) *Intransitive verb template: Ch'ol*

a. ASP ROOT–{VOICE}–IV–ABS

b. Ta' wäy -i -yoñ.
PFV sleep -IV -ABS1
'I slept.'

c. Ta' k'ux -li -yoñ.
PFV bite -PSV.IV -ABS1
'I was bitten.'

With this basic description in place, we can turn to NCA. We will discuss data that were elicited using the same methodology that was applied in the Chuj context.

Just like in Chuj, some verbs in Ch'ol participate in NCA. Observe the example below, where the verb *jak'* 'to obey, agree' is used and takes a non-nominal clause as complement. Observe below that the complement clause is headed by *cha'añ* 'for':[15]

(19) Ta' a- jak' -ä -Ø [cha'añ mi a-k'ux a-waj].
PFV ERG2- obey -TV -ABS3 for IPFV POSS2-eat POSS2-food
'You agreed that you would eat your food.' *Ch'ol*

[15]See Coon 2013 for a proposal that the imperfective aspect marker *mi* observed in the complement clause is a predicate that triggers an apparent split in alignment. We gloss *cha'añ* as 'for', given that this element has a prepositional use (Coon 2017: 672, Vázquez Álvarez 2011). *Cha'añ* could be swapped with with *che'* in our examples, a run-of-the-mill complementizer. A reviewer noted that the complement of *jak'* may also be headed by a verb in its "incorporation antipassive" form, which combines with a bare nominal (Coon 2017: 673; see Little 2020: 83):

(i) Chukoch ma'añ=ik ta' i- jak' -ä -Ø k'ux waj?
why NEG=IRR PFV ERG3- obey -TV -ABS3 eat food
'Why did she refuse to eat food?' *Ch'ol*

Verbs in such a form do display nominal properties. It is important to note, then, that *jak'* can select complement clauses containing non-eventive verbs such as *om* 'want' (see Coon 2013:25):

(ii) Ta' a- jak' -ä -Ø [cha'añ aw-om majlel tyi *Estados Unidos*].
PFV ERG2- agree -TV -ABS3 for ERG2-want go PREP states united
'You agreed that you wanted to go to the United States.' *Ch'ol*

Crucially, non-eventive verbs cannot be derived into an incorporation antipassive form—i.e., there is no bare use of *om* 'want' akin to *k'ux* 'eat'. For more details on predicates akin to *om* that surface without overt aspect marking, see Little (Forthcoming).

Crucially, the NCA use of the verb is licensed under pragmatic control. Observe that the complement is missing on the surface here, but ergative agreement and the transitive status suffix nevertheless surface:

(20) **Context**: A baby is being fed by her mother, but the child won't open her mouth and moves away every time the mother tries to feed her. The mother stops. You ask the mother:

Chukoch ma'añ=ik ta' i- jak' -ä -Ø?
why NEG=IRR PFV ERG3- obey -TV -ABS3
'Why did she refuse?' (*Lit:* 'Why did she not obey?') *Ch'ol*

In the same context, it is not possible for this verb to lack ergative agreement and bear the intransitive status suffix:

(21) *Chukoch ma'añ=ik ta' jak' -i -Ø?
why NEG=IRR PFV obey -IV -ABS3
Intended: 'Why did she refuse?' (*Lit:* 'Why did she not obey?') *Ch'ol*

These examples thus replicate what we observed in Chuj—namely, that NCA verbs in Ch'ol bear the hallmarks of transitivity when the complement is missing on the surface. Thus, there must be a complement that is silent, but syntactically present.[16]

A second NCA verb in the language whose behavior leads to the same conclusion is the derived transitive *k'ajty* 'to ask/request' (Spanish *pedir*). We observe ergative agreement surfacing on the verb and a derived transitive status suffix:

(22) Ta' i- k'ajty -i -Ø aj-Eve cha'añ mi k-mel pizza.
PFV ERG3- ask -DTV -ABS3 CLF-Eve for IPFV POSS1-make pizza
'Eve asked that I make pizza' *Ch'ol*

Our NCA configuration of interest involves pragmatic control, which indeed suffices to license the use of this verb and a missing complement. Crucially, the stem remains transitive:

[16]To be clear, the Ch'ol facts argue against the WYSIWYG approach in (2)c, but we must leave for the future an assessment of whether there exist elliptical configurations in Ch'ol whose properties could be used to diagnose in greater detail whether the silent element in our NCA data must be simplex (just like we did in Chuj); i.e., using sub-extraction in addition to the availability of pragmatic control in order to further adjudicate between (2)a vs. (2)b. Given that ellipsis is entirely undiscussed in the Ch'ol literature, this will be an undertaking worthy of a separate paper that expands on our points here.

(23) **Context**: You walk into the kitchen and see me making pizza. I tell you:

Ta' i- k'ajty -i -Ø aj-Eve.
PFV ERG3- ask -DTV -ABS3 CLF-Eve
'Eve asked.' *Ch'ol*

In the same context, dropping the ergative morpheme renders the utterance ill-formed:

(24) *Ta' k'ajty -i -Ø aj-Eve.
PFV ask -IV -ABS3 CLF-Eve
Intended: 'Eve asked.' *Ch'ol*

We have thus replicated in Ch'ol the key observations from Chuj and conclude that a null *pro-form* should be posited. This straightforwardly captures why verbal stems retain the hallmarks of transitive status in the absence of an overt complement in the NCA configuration.

There is one additional window that Ch'ol provides into the underlying syntax of NCA configurations. In this language, there is a productive process that derives ditransitive verbs (Vázquez Álvarez 2011; Coon 2017).[17] An applicative suffix can be used on a transitive stem in order to introduce an applied argument that controls absolutive agreement. Ch'ol is thus a primary object language in the sense of Dryer 1986 (see Vázquez Álvarez 2011: § 10.6)—absolutive morphemes index the theme of a monotransitive and the applied argument of a ditransitive, and the theme of the derived ditransitive must be 3rd person (see Vázquez Martínez 2026). Consider the verbs *choñ* 'sell' and *ts'ijba* 'write', which are monotransitives that take nominal complements. The use of the applicative morpheme derives a ditransitive stem and a beneficiary is introduced that is cross-referenced by the absolutive suffix (data in (25) adapted from Little 2020: 29):[18]

(25) a. Ta' k-choñ-b-e-yety karu.
PFV ERG1-sell-APPL-DTV-ABS2 car
'I sold you a car.'

b. Ta' i-ts'ijba-b-e-yoñ i-k'a'ba.
PFV ERG3-write-APPL-DTV-ABS1 POSS3-name
'He wrote down his name for me.' *Ch'ol*

[17] Ditransitives have also been discussed in the NCA literature on languages like English (see e.g., Depiante 2019: 670-674).

[18] The thematic role borne by the argument introduced by the applicative can be either recipient, benefactive, malefactive, or target (Vázquez Álvarez 2011: 319).

Since ditransitives of this nature can only be created from transitive stems (Coon 2017: 672), we thus predict that our NCA verbs should be well-formed as inputs for the derivational process. This is indeed the case:

(26) Ta' i- kajty -b -e -yoñ aj-Eve cha'añ mi k-mel pastel.
PFV ERG3- ask -APPL -DTV -ABS1 CLF-Eve for IPFV POSS1-make cake
'Eve asked me to bake cake.' *Ch'ol*

Crucially, the relevant example is well-formed under pragmatic control and a missing clausal complement:

(27) **Context**: You walk into the kitchen and see me standing in front of baked goods that I made. I tell you:
Ta' i- k'ajty -b -e -yoñ aj-Eve.
PFV ERG3- ask -APPL -DTV -ABS1 CLF-Eve
'Eve asked me.' *Ch'ol*

We take this as additional, particularly compelling evidence that our proposal that there is a silent *pro-form* in the NCA configuration is on the right track, as opposed to any valency reduction—i.e., there must be a non-nominal *pro-form* in the above example, given that the hallmarks of ditransitive status are all present: (i) ergative agreement, (ii) an applicative morpheme, and (iii) absolutive agreement cross-referencing the applied argument:

A non-elicited example from a Ch'ol narrative serves to illustrate the exact same point. Observe how in (29) below, what is missing on the surface is the clausal complement of the ditransitive verb *su'-b* 'to tell', a phrase that had been uttered previously (data adapted from Vázquez Álvarez 2022: 187, translated by the authors into English):

(28) muk'=tyo tyäle i-muk-Ø=e' Carlos che'-oñ=loñ
IPFV-still come ERG3-bury-ABS3=CL Carlos say-ERG1=PL.EXCL
'Carlos will come to bury her, we said.' *Ch'ol*

(29) tyi k-su'-b-e-Ø=loñ y-ijñam
PFV ERG1-say-APPL-DTV-ABS3=PL.exclusive POSS3-wife
'We told his wife.' *Ch'ol*

To summarize, what is crucial about the Ch'ol examples (and our Mayan data overall) is that the

(di)transitive status of verbal complexes is overtly marked morphologically, so we are able to detect the presence of a null argument. Approaches that assume WYSIWYG for NCA cannot account for this fact.

6 Crosslinguistic implications

This paper has argued in favor of one analysis of NCA through the lens of novel data from two distantly related Mayan languages (Chuj and Ch'ol): the silent element is a null *pro-form*. As we argued, alternative analyses are not viable. First, NCA does not show the properties expected of ellipsis (Hankamer and Sag 1976). Second, NCA verbs display the morphemes that are expected if they are transitive: (i) ergative agreement, (ii) a transitive status suffix, and in the case of one Ch'ol configuration, (iii) markers of ditransitivity. Thus, NCA cannot be the result of transitivity alternations (specifically, a transitivity reduction). Our approach contrasts with what is proposed or assumed for other languages (Shopen 1972, 1973; Grimshaw 1979; Napoli 1983, 1985; Xiang, Grove, and Merchant 2019; see Culicover and Jackendoff 2012).

At this juncture, the following question deserves to be raised in order to contextualize our findings: how broadly should we interpret the Mayan results regarding the representation of NCA? Our answer will speak to the validity of doing cross-linguistic comparison to make claims about universal or variable representations. As is often the case in this matter, there are two possibilities:

(30) a. **Stronger conclusion**: NCA *universally* involves simplex syntax.

b. **Weaker conclusion**: NCA *in Chuj and Ch'ol* involves simplex syntax.

If (30)a is correct, it implies that the Mayan languages that we surveyed are the right ones to reveal the syntax of NCA across all languages. On the other hand, if (30)b is right, it implies that the syntax of NCA can vary—i.e., that it is parameterized. We argue in these closing paragraphs that our data suggest that the stronger conclusion in (30)a is on the right track.

In order to argue for the stronger conclusion, let us consider what a possible parameterization of the syntax of NCA could look like, In other words, let us assess the prospects of (30)b. Assume,

then, that NCA is parameterized as follows: transitivity alternations exist for NCA verbs in other languages, but they do not exist in Chuj or Ch'ol. That is, the locus of the parameter lies in the featural compatibility of NCA verbs with structure encoding (in)transitivity. Since we are dealing with linguistic variation, we must first determine what data learners are exposed to as they build their grammar. One crucial difference among populations is that Chuj and Ch'ol learners may receive explicit input that the complement of NCA verbs is filled (2)b as opposed to involving nothing at all (2)c. We repeat a relevant Chuj example below to remind the reader:

(31) Tom tz-Ø-a- mek' -a' ?
YNQ IPFV-ABS3-ERG2S-agree-TV
'Do you agree?' *Chuj*

In other words, NCA verbs show the hallmarks of run-of-the-mill transitive verbs in Chuj and Ch'ol, and it is reasonable to assume that learners would pick up on this similarity. In contrast, no such evidence is available to acquirers of languages such as English or Italian (the languages discussed in Napoli 1983, 1985), since there is no visible alternation regarding agreement or status suffixes in their input.

Let us assume, then, that learners posit that NCA involves simplex syntax if faced with positive evidence for this, whereas learners of languages where no such evidence is available conclude instead that the absence of signal entails the absence of any structure. Put differently, the default for learners would be to posit that NCA involves nothing at all:

(32) *Describing cross-linguistic variation in the syntax of NCA*

a. NCA = simplex syntax (2)b (Chuj and Ch'ol)

b. NCA = nothing at all (2)c (English; default)

To formalize (32), let us propose as a first alternative that the parameter is encoded as follows:

(33) *Parameterizing the syntax of NCA: version 1*

a. NCA verbs are incompatible with valency alternating processes (Chuj and Ch'ol)

b. NCA verbs are compatible with valency alternating processes (English; default)

The above would mean that certain stems in Chuj and Ch'ol—specifically, those that participate in NCA—are incompatible with syntactic structure specifying alternations in transitivity. We could encode this cross-linguistic variation featurally, in line with the general conjecture that parameters are related to featural specifications of lexical items (Borer 1984). What is crucial in evaluating this version of the parameter is the question of what would constitute independent evidence for the linguist that it, in fact, exists. One piece of support would be if we found that NCA verbs in our languages of interest resisted transitivity/valency alternations.

This is not the case. Starting with Chuj, observe that NCA verbs such as 'accept' *can* be antipassivized (34):[19]

(34) Ix-Ø-tak'-**w**-i ix Malin.
PFV-ABS3-accept-AP-IV CLF Malin
'Malin responded.' *Chuj*

This suggests that a general approach that would consider the syntax of NCA to vary in the manner encoded in (33) is on the wrong track.

The same kind of argument can be made via Ch'ol. Recall that we already observed that NCA verbs can undergo a valency change via the addition of an argument, as we showed by the ability of e.g. *k'ajtyi* to become a ditransitive via the applicative. We can illustrate valency reduction as well via antipassivization. In Ch'ol, an antipassivized verb is formally a nominal that can be used as the complement of a light verb *cha'l* (see Vázquez Álvarez 2011: 306), and our verbs of interest can indeed undergo such a derivation. This is illustrated below:

(35) Ta' i-cha'l-e k'ajtyi-**yaj** aj-Eve.
PFV ERG3-LV-TV ask-AP CLF-Eve
'Eve did some asking.' *Ch'ol*

We observe another instance of valency reduction with our NCA verbs when we manipulate the derived ditransitives that participate in NCA. Observe how these stems can be passivized:

(36) **Context**: You walk into the kitchen and see me standing in front of baked goods that I

[19]Importantly, example (34) is infelicitous in pragmatic control contexts where the active version is licensed, as in (11). Thank you to a reviewer for raising this question.

made. I tell you:

Ta' kajtyi-b-eñ-tyi-yoñ (cha'añ mi k-mel pastel).
PFV ask-APPL-DTV-PASS-ABS1 (COMP IPFV POSS1-make cake)
'I was asked (to make cake).' *Ch'ol*

Ch'ol suggests, then, that valency alternations are not generally banned for NCA verbal configurations (the parameter setting proposed in (33)a).

Finally, let us return to Chuj for another argument against the parameterization in (33). In a subset of Mayan languages, an extraction restriction exists such that a *wh*-question targeting the subject of a transitive verb requires the use of the "Agent Focus" voice (for syntactic ergativity in the family, see Aissen 2017b; Coon et al. 2021). What is crucial for our purposes is that Agent Focus is also required to construct a *wh*-question targeting the subject of our NCA verbs:

(37) Mach ix-Ø-tak'-**an**-i to ol-s-xik' k'atzitz?
who PFV-ABS3-accept-AF-IV COMP PROSP-ERG3-chop wood
'Who agreed to cut wood?' *Chuj*

Most importantly, Agent Focus is also required under pragmatic control, our crucial NCA configuration:

(38) Mach ix-Ø-tak'-**an**-**i**?
who PFV-ABS3-accept-AF-IV
'Who accepted?' *Chuj*

Using Agent Focus instead of active voice qualifies as a valency alternation, since ergative agreement disappears and a dedicated AF morpheme appears in the voice slot on the verbal stem.

Beyond the fact that the above examples provide more evidence against (33), the behavior of subjects of NCA verbs in relation to A'-extraction instantiates additional support for our proposal that the NCA configuration is transitive and involves a null *pro-form* in complement position: it is only *transitive* subject extraction that triggers Agent Focus in Chuj.[20] In sum, we consider that there is compelling evidence that (33) would be an inadequate response to the Mayan facts that we have brought to light in this paper.

[20]Unlike Chuj, Ch'ol is not syntactically ergative and does not have a dedicated Agent Focus voice.

Nevertheless, if one wanted to maintain the weaker interpretation of our results (30)b, one could respond that the specific parameter in (33) is not the most promising account deserving of assessment. Instead, the real parameter lies in the availability of the null *pro-form* in a language's lexicon: languages that lack the *pro-form* would need to resort to transitivity alternations.[21] Consider this second version of the parameter:

(39) *Parameterizing the syntax of NCA: version 2*

a. There is a null *pro-form* available for NCA configurations (Chuj and Ch'ol).

b. There is no null *pro-form* available for NCA configurations (English; default).

A challenge for this version of the parameter is that it must be supplemented with a stipulation that appears far from trivial. In order for (39) to be (at least) descriptively adequate, one would need to stipulate that languages with the setting in (39)a, which have the relevant *pro-form*, *must* use it in NCA configurations. In other words, one would need to somehow derive why such languages cannot avail themselves of valency reduction and an intransitive version of NCA verbs (i.e., (33)b) instead of deploying their *pro-form*. The question that arises is the following: does a stipulation of this sort explain why examples like (12) in Chuj or (24) in Ch'ol are ill-formed? It becomes even more worrisome that such a stipulation would be needed to give legs to (39) when one remembers that Mayan languages are notorious for the rich valency alternating processes at their disposal (recall Grinevald and Peake 2012's description)—the exact grammatical property that we used in this paper in order to ground our proposal.

We hope that one final remark will entice elaborations on the work we have started in this paper: for any parametric account to work, we would expect to find languages where NCA verbs *do* show the range of morphological hallmarks of intransitivity that we tested, something that has not yet been shown (to our knowledge). The burden of proof for proponents of WYSIWYG approaches to NCA thus lies in showing—*through the right kind of language(s)*—that intransitive NCA verbs in fact exist. Put differently, a reliable way of adjudicating the syntax of NCA involves

[21] Thank you to Audrey Li for raising this possibility.

studying languages that are morphologically explicit about transitivity alternations, as is the case with Mayan languages like Chuj and Ch'ol—i.e., these languages instantiate grammars for which a silent element must be posited given *overt* morphophonological evidence for its existence (see Culicover and Varaschin 2025: Ch. 5 for guiding discussion, within a framework that is skeptical in principle of postulating silent syntax).

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List of abbreviations:

< >	elided segment
ABS	absolutive
AF	agent focus
AP	antipassive
APPL	applicative
ASP	aspect marking
CLF	noun classifier
COMP	complementizer
DTV	derived transitive status suffix
ERG	ergative
EXCL	exclusive
IPFV	imperfective aspect
IRR	irrealis
IV	intransitive status suffix
LV	light verb
NEG	negation
NML	nominal suffix
P	plural person in agreement markers
PASS	passive
PFV	perfective
PL	plural marker
POSS	possessive
PREP	preposition
S	singular agreement marking
TV	transitive status suffix
YNQ	yes-no question particle