A compositional morphosemantic analysis of exclusivity in Ch’ol*

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1 INTRODUCTION

• We provide novel empirical generalizations on exclusive operators in Ch’ol (Mayan)
  – These provide strong evidence for a separation of exclusivity into a core semantic entry and focus sensitivity.
• There is a robust literature on exclusivity and the distributions of scalar particles in various languages (Beaver & Clark, 2003, 2008; Orenstein & Greenberg, 2010; Coppock & Beaver, 2011).
  – Recent work on the semantics of focus constructions in Mayan languages include Yasavul (2013) for K’iche’ and AnderBois (2012) for Yucatec Maya
  – Syntactic work on focus includes Aissen (1992) for Mayan in general and Clemens et al. (2017) for Ch’ol
• Little work has been done on the variation among exclusives in morphologically rich languages like Ch’ol.
• Original data from fieldwork indicate that exclusivity can occur independently of focus marking, and when divorced from focus, the exclusive morpheme has a wider distribution and range of meanings.

1 jiñ aj-Maria ts’á
FOC NC-Maria PRF NC-Maria=EXCL PRF
ju-i-Ø.
arrive-IV-B3
‘jìñ=jach aj-Maria’
FOC=EXCL NC-Maria
ju-i-Ø.
arrive-IV-B3
PRF arrive-IV-B3
‘jìñ=jach aj-Maria’

• We argue that =jach is an exclusive and jiñ a focus restrictor

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1 Glosses: 1 = first person; 2 = second person; 3 = third person; A = Set A markers (ergative/possessive); B = Set B markers (absolute); CL = classifier; EXCL = exclusive; FOC = focus; IV = intransitive verb; NC = noun classifier; PRF = preposition; PRF = perfective aspect. Ch’ol uses a Spanish-based orthography: ä = [ä]; ë = [i]; b [ Ø] ch = [£]; j = [β]; ñ = [n]; ty = [t]: x = [f]; y = [j]; C′ = ejective consonant.

2 BACKGROUND ON EXCLUSIVITY

• Exclusives are generally assumed to be quantifiers over propositions taken from an alternative set (usually derived via association with focus) (Rooth, 1992)
• Generally use schema “X and no more than X”
  – E.g., English only, just, merely, simply
• Beyond the general schema, exclusives can differ in their meaning and distribution

(4) a. He just has three dogs. (5) a. Your house is just gorgeous!
  b. He only has three dogs.
  b. # Your house is only gorgeous!

Wiegand (2018, 2017, Forthcoming) proposes a morphosemantic framework to explain the differences between only, just, and merely in English

• Main idea:
  – All exclusives have at least the core exclusive meaning EXCL (given in (4.1))
  – Exclusives that are more restricted in meaning/distribution contain (covert) morphosemantic restrictions
  – So, since only is more restricted than just, only is more complex than just
• This analysis can account for the distribution of exclusives in English, but relies heavily on the assumed existence of covert morphological restrictions
  – However, the pattern of exclusive operators in Ch’ol provides strong empirical evidence for separating exclusivity into smaller morphological units

ROADMAP

• Empirical generalizations and the distribution of =jach, jiñ, and jiñ=jach
  – We give background on the compositionality of English exclusives
  – We argue that jiñ is an overt manifestation of a restricting operator (with an added definiteness condition) and =jach carries the exclusive meaning
• Further evidence in Ch’ol for separating exclusive =jach from focus comes from the use of =jach in emphatic and unexplanatory contexts
• We expect other morphologically rich languages to derive exclusives similarly, with variation coming from other selectional requirements
• We conclude with some remaining questions and directions for future research with Ch’ol and across other languages

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3 Empirical generalizations on Ch’ol

3.1 Distribution of jiñ, =jach, and jiñ=jach

• The morphemes of interest are a focus particle jiñ, an exclusive clitic =jach, and a bimorphemic exclusive jiñ=jach.
  - Focus-marked NPs can be marked with the focus particle jiñ (6).
  - Exclusivity is marked with the second position clitic =jach, or the bimorphemic jiñ=jach

(6) Majki ts’a jul-i-Ø?
    who        PRF arrive-IV-B3
‘Who arrived?’

a. Jīn aj-Maria ts’a jul-i-Ø.
    FOC NC-Maria PRF arrive-IV-B3
[FOC Maria] arrived.

• Vázquez Álvarez (2011) reports that the particle jiñ is restricted to focused nominals that are definite.

(8) a. * Jīn jul-k’ej k-om-Ø 3-maj.
    FOC one-CL A1-want-B3 tortilla.
    Intended: ‘I want [FOC one] tortilla.’

  b. * Jīn tsi Palenque ts’a k’oty-i-Ø.
    FOC PREP Palenque PRF arrive-IV-B3
    Int: ‘He arrived [FOC to Palenque.]’

• However, =jach shows no such distributional restriction.

  =jach is licensed as an exclusive over numerals (9a) and PPs (9b), cf. jiñ in (8).

(9) a. Juñ-k’ej=jach k-om-Ø maj.
    one-CL=EXCL A1-want-B3 tortilla.
    ‘I want just one tortilla.’

b. Tyi Palenque ts’a jiñ=jach k-om-Ø maj.
    PREP Palenque=EXCL one-CL=EXCL A1-want-B3 tortilla.
    ‘He arrived just to Palenque.’

• The bimorphemic jiñ=jach ‘only’, though synonymous with =jach, is restricted in the same way as jiñ, i.e., not licensed over numerals (10a) or PPs (10b).

(10) a. * Jiñ=jach jul-k’ej k-om-Ø maj.
    FOC=EXCL one-CL A1-want-B3 tortilla.
    Intended: ‘I want only one tortilla.’

b. * Jiñ=jach tsi Palenque ts’a =jach k’oty-i-Ø maj.
    FOC=EXCL PREP Palenque=EXCL one-CL=EXCL A1-want-B3 tortilla.
    Intended: ‘He arrived only to Palenque.’

• This pattern indicates that for jiñ=jach, the semantic content of exclusivity is provided by the morpheme =jach, but selectional requirements come from jiñ.

• We argue that this parallels the distribution of English only and just: only is more restricted, always requiring focus, while just exhibits a wider range of uses.

2Indeed the morpheme jiñ (jiñ+) is a determiner in Ch’ol, however Vázquez Álvarez (2011) 250 analyzes it separately from jiñ the focus marker.
Wiegand (2018, 2017) argues that just allows quantification over implicit arguments like causes.

(14) Sample derivation of exclusive semantics for unexplanatory just:

Uterance: The lamp just broke.
- $c$: the event of the lamp breaking
- $C = \{c \mid \text{because } x \} \text{ is a contextually salient potential cause for } c$

$$\phi = \Box \text{because } CAUSE_0, \text{ where } CAUSE_0 \text{ is some "minimal cause"}$$

$$\text{[EXCL}(\phi)\text{]} = \lambda w.\forall q(q \in C \land w \in q) \rightarrow \phi \leq q$$

Resulting Paraphrase: "For all explanations $q$ The lamp broke necessarily because $x$ that are not entailed by $\phi$ . The lamp broke necessarily because $CAUSE_0$, $q \not\in w$ ."

The reason that just can quantify over these covert elements while only cannot is attributed to the presence of the [FR] restriction on only, which results in obligatory association with a prosodically focused element in the preajacent

- This is a reframing of the Focus Principle (Koontz 1992) as a lexical restriction rather than a general rule for all exclusives.\footnote{We used for selectional requirement/presupposition; $\leq$ a variable over orderings on $C$}

(15) [FR] = $\lambda F.\lambda K.\lambda q(F(K)(q) \land \partial(K \subseteq [q]^F))$

- In this framework, just contributes only the exclusive semantics of [EXCL], while only contributes [EXCL] restricted by [FR]:

- The addition of [FR] to [EXCL] actually restricts the meaning.

(16) Only: Composition of [EXCL] and [FR]:

$$\lambda w.\forall q(q \in C \land w \in q) \rightarrow \phi \leq q \land \partial(C \subseteq \lambda x.\phi)$$

$$\lambda r.\lambda w.\forall q(q \in C \land w \in q) \rightarrow r \leq q \land \partial(q \subseteq \lambda y.\phi)$$

$$\text{EXCL} := \lambda C.\lambda p.\lambda w.\forall q(q \in C \land w \in q) \rightarrow p \leq q$$

FR := $\lambda F.\lambda K.\lambda q(F(K)(q) \land \partial(K \subseteq [q]^F))$

- The lack of restriction on just accounts for its wider distribution of interpretations compared to other English exclusives.

- These include emphasis, temporal or spacial nearness, mitigation of social implications, and others

(17) a. I just love your scarf! (emphasis)

b. That fish was just gigantic! (emphasis)

c. I’m just finishing my homework. (temporal recency)

d. You have something just below your eye. (spacial nearness)

e. I’m just saying... (social mitigation)

- In the framework presented, the availability of these uses is due to the lack of the [FR] restriction present with other exclusives

4.2 Applying the formalism to Ch’ol

- Starting point (English exclusive semantics):

(18) a. [EXCL] = $\lambda C.\lambda p.\lambda w.\forall q[(q \in C \land w \in q) \rightarrow p \leq q]$

b. [FR] = $\lambda F.\lambda K.\lambda q(F(K)(q) \land \partial(K \subseteq [q]^F))$ (focus restriction on only)

c. [EXCL+FR] = $\lambda C.\lambda p.\lambda w.\forall q[(q \in C \land w \in q) \rightarrow p \leq q \land \partial(C \subseteq [p]^F)]$ (only)

- For Ch’ol, we need more than the restriction to subset of focus alternatives, as jiñ=jach is restricted by definiteness. However, since the focus particle jiñ is also restricted, this restriction must be part of the semantics jiñ, rather than exclusivity.

- As the formalism stands now, we do not have access to the focused element inside the proposition $p$

- Therefore we are not able to restrict jiñ to compose only with arguments of type $e$

- Thus we adopt a structured meaning from von Stechow (1991) to replace $p$ in (18) that lets us target focused elements and restrict what the focused element is

(19) a. Structured propositions for focus (von Stechow 1991)

$$\langle x , f \rangle$$

- From the structured proposition we can easily get back the original proposition from (18a), by applying the property $f$ to the focused element $x$ to get the ordinary $p$ in (18a)

- We assume =jach in (20) is identical to (18a), simply with the structured proposition formalism from (19a)

- We propose jiñ is exactly like [FR], except it also contains a requirement that the focused element be of type $e$ in (20)

(20) [jiñ=jach] = $\lambda C.\lambda x.\lambda f.\lambda w.\forall q[(q = f(y) \land q \in C \land w \in q) \rightarrow p \leq q]$, where $p = f(x)$

(21) [jiñ] = $\lambda F.\lambda C.\lambda x.f(F(C)(x,f)) \land \partial(C \subseteq [p]^F \land x \in D_x)$

(22) [jiñ=jach] = [jiñ]([jiñ=jach]) = $\lambda C.\lambda x.f.\lambda w.\forall q[(q = f(y) \land q \in C \land w \in q) \rightarrow p \leq q \land \partial(C \subseteq [p]^F \land x \in D_x)]$

- This approach requires an additional operator so that jiñ occur without =jach

- We suggest that this is an optional identity function that is inserted freely when jiñ is modifying its proposition

- We argue that exclusivity comes from =jach, the selectional restriction comes from jiñ

- Given this analysis, we expected =jach to occur in environments where the selectional restrictions are not met
Exclusives in Ch’ol

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5 FURTHER EVIDENCE FOR SEPARATING EXCLUSIVITY FROM FOCUS

- In addition to places where definiteness isn’t met (see 9), \(=jach\) appears as an intensifier in (23a) and an unexplanatory exclusive in (23b), paralleling the English in (24a-b)

(23) a. \(\text{Ut’s ay}=jach\ aw-otyoty.\) nice=EXCL A2-house PART=EXCL PRF arrive-IV-B3
   ‘Your house is so nice.’

b. \(\text{Che’}=jach\ tsab ju-l-i-\text{Ø}.\)
   ‘Just like that he arrived.’

(24) a. \(\text{Your house is just gorgeous!}\)

b. \(\text{The man just appeared!}\)

- This is strong evidence that exclusives when dissociated from focus can result in a variety of discourse effects beyond basic exclusivity, including intensification and mitigation of social implications.

- Overall, these original data constitute compelling crosslinguistic support for separating the meaning attributed to exclusive operators like only into smaller components, each of which contribute a portion of exclusive semantics in general.

6 CONCLUSIONS AND FUTURE DIRECTIONS

- We expect to find other morphologically rich languages that have their exclusives compositionally derived from one another
  - There may be variation on how they are morphologically derived – other morphemes involved may contribute different restrictions

- We expect a language to have exclusive operators that occur without a focus structure
  - In Hebrew, the exclusive stam ‘just/merely’ appears in the absence of a focus structure (see Orenstein (2015) for more discussion)

- We want to investigate if there are other combinations of morphemes in Ch’ol with \(=jach\) that result in other types of meanings, e.g., the depreciatory meaning associated with merely and stam

- Ch’ol has another exclusive ko=jach that is not restricted in the way jiı̇=jach is
  - Thus far we have found that ko=jach occurs with definite and indefinite nouns
  - We think that ko is an affirmative marker, though we are still investigating its distribution and meaning

- We will be investigating ko=jach and further questions on exclusivity in Ch’ol in our upcoming fieldwork
  - In fact, we’re flying to Mexico tomorrow!

- Wokoli x’a wäläl\’a!

\(^{1}\)In this case, \(=jach\) is in its phonetically reduced form [h�]. This parallels usages of ‘just’ [dʒəs] as an exclusive marker separate from focus.

References


Clemens, Lauren; Jessica Coon; Carol-Rose Little; and Morelia Vázquez Martínez. 2017. Focus in Ch‘ol. Presented at The Society for the Study of the Indigenous Languages of the Americas (SSILA).


