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Dimensions of definiteness in Ch'ol: A dialectal comparison

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Introduction

- According to Coon (2010) there are two ways that Ch'ol (Mayan) marks definiteness
 - (1) Tyi i-k'ux-u-yoñ **jiñi** ts'i'. рғу а3-bite-vт-в1 **DET** dog 'The dog bit me.'

With a determiner

(2) Tyi k-pejk-ä PFV A1-read-vt book

'I read a/the book.' Bare nouns may also be definite

Before we begin...

- ► I am Morelia Vázquez Martínez
- ▶ I am from Campanario, Chiapas, Mexico
- ► My first language was Ch'ol
 - ► I speak the Tila dialect of Ch'ol (mutually intelligible with other Ch'ol dialects)
- ► I learned Spanish when I was 12
- Today, I am going give this presentation to you in my language

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Introduction

- ▶ We are interested in whether there is a difference in marking definiteness in Ch'ol across different dimensions (e.g., anaphoric vs unique definites)
- ► Also whether there are differences across dialects
 - For instance, Vázquez Álvarez (2011) notes that the Tila dialect of Ch'ol has an extra determiner, li

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Our plan today

- Background
 - Ch'ol and dialects
 - Definiteness: uniqueness and anaphoricity
 - Previous work on definiteness in Ch'ol
- Methodology
- Results
- Conclusions and broader impacts

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Background: Dimensions of definiteness

- ► Languages use different strategies to express definiteness
- ► Spanish uses a definite article in (3a) whereas in Shan, bare nouns can be interpreted as definite or indefinite (3b)
 - (3) a. El perro me mordió.

 the dog me bit

 'The dog bit me.'

 Spanish
- b. háw hăn lik.
 1 see book
 'I see a/the book.'
 Shan: Moroney (2018)

Background: Ch'ol

 222,000 speakers of Ch'ol (also known as Chol or lakty'añ)

- 3 mutually intelligible dialects: Tila, Tumbalá, Sabanilla
 - Our data comes from the Tila and Tumbalá dialects



Figure 1: Map of Chiapas and languages spoken in Chiapas

Background: Dimensions of definiteness

- Recent work has shown that definiteness can be split up into different dimensions and some languages mark these dimensions morphologically (Arkoh & Matthewson, 2013; Jenks, 2018; Schwarz, 2009, 2013)
 - ► We briefly review UNIQUE definiteness and ANAPHORIC definiteness

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Background: Uniqueness

Unique definites are entities which are unique to a situation (the Pope, the bed (in a room with one bed))

- ► Ebert (1971) shows that Fering (a Germanic language) uses a weak from of the definite article (a) to mark unique definite entities like 'sun' or 'king' in (4)
 - (4) A köning kamm to bischük. the_{weak} king came to visit 'The king came for a visit.' Fering (Ebert (1971) from Schwarz (2013: 541))

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Background: Definiteness in Ch'ol

- According to Coon (2010) there are two ways that Ch'ol (Mayan) marks definiteness
 - (6) Tyi i-k'ux-u-yoñ **jiñi** ts'i'.

 PFV A3-bite-VT-B1 **DET** dog

 'The dog bit me.'

With a determiner

(7) Tyi k-pejk-ä **juñ**.

PFV A1-read-VT **book**

'I read a/the book.' Bare nouns may also be definite

Background: Anaphoricity

- ► In other cases, Fering uses the weak form of the definite article (*di*) to refer to anaphorically to a referent (as in (5))
 - (5) Oki hee an hingst keeft. *A / **Di** hingst Oki has a horse bought. *DET_{weak} / DET_{strong} horse haaltet.

limp

'Oki bought a horse. The horse limps.' (Ebert (1971) from Schwarz (2013: 538))

Background: Definiteness in Ch'ol

- ► Here, we investigate whether there are differences in the way Ch'ol marks:
 - Anaphoric and unique definites
 - Indefinites
- We also investigate whether there are differences along these dimensions across dialects

Methodology: Tila data

- Speakers: 4 women (24–65), 4 men (27–80)
- Our data comes from El Campanario (2019)
- ► 6 recordings
 - Baj (145 lines), Kajpe' (63 lines), Lukum (226 lines), Radio (133), Lembal (195), Imojtyolty'añob lakña'ob (178 lines)



Methodology: Tumbalá data

- ► Speakers: 2 women and one man (40–70) (2016–2019)
- Our data comes from San Miguel (Salto de Agua) and La Ilusión (Tumbalá)
- 8 recordings
 - Xiba (95 lines), Bats' (57 lines), Kumale (54 lines), Ñoxi'aläl (80 lines), Bajlum (20 lines), San Miguel (24 lines), Lakchuchu' (83 lines)
 - 'Bajche' mi ik'atyiñob iyijñam wajali' Gutiérrez (n.d.) (61 lines) de Tumbalá



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Methodology: Identifying definiteness

- Our methodology is similar to that of Šimík and Burianová (To Appear) who conducted a corpus study with Czech on bare nouns interpreted as definite
- We recorded each noun as definite or indefinite, indicating context in a note as well
- We only included nouns that were arguments of verbs or in subject position of a predicate

Methodology: Unique referents

- Nouns referring to a unique entity in the global context were coded as unique
- ➤ Similarly nouns referring to a unique entity in the immediate situation were also coded as unique as in (8)
 - (8) There is a salient bird nearby the speakers and this is the first mention of the bird

Aj-kotorro ya' tyi wejl-i ju'be.

NC-parrot there PFV fly-IV DIR:down

'The parrot flew down.' Imojtyolty'añob lakña'ob (Tila)

Methodology: Anaphoric referents

▶ We coded nouns as anaphoric if they were previous introduced in the context, as in (9)

(9) Context: Speaker just said 'there was a snake.'
ya' me=ku k'uk'ux jolo li lukum=i.
there mir=aff edm coiled.up det snake=encl

'The snake was just there, all coiled up!' Lukum (Tila)

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Methodology: What we coded for

Story	Sentence	Noun	D/I	Det	5/0?	Order	A/U	Pred	
kajpe'	¿ichoch mi ak'äñ li rok ta' che'iñi?	li rok	d	li	0	vo	а	t	previous sentence: mi kch'äme'maj kchiki' yik'oty krok (virginia)
kajpe'	¿y jiñku jiñi kajpe'i säk'bil o ch'ajach mi a wa' tyikisañla?	jiñi kajpe'i	d	jiñi	s	sp	а	t	conversation about coffee
kajpe'	wa'li che mukbä la' juch' jiñ kajpe' mach sumuk bajche jiñi	jiñ kajpe'	d	jiñi	0	vo	а	t	conversation about coffee
lukum	chi'iñ kaña kwuty tyi ñumi tyi maja' li lukum	li lukum	d	li	s	vs	а	i	talking about the snake that is known to both speakers
lukum	mismo jiñäch ta' yubi ajkoralillo	aj coralillo	d	no	s	vs	a	i	established the snake is a coralillo
lukum	ya' meku kuk'ux jolo li lukumi, pero tyoj letse kx'ijal,	li lukumi	d	li	s	vs	а	а	said after añ lukum

Figure 2: Screenshot of data used in study for Tila dialect

► Possessed nouns

- Nonverbal arguments (like objects of prepositions and possessors)
- ► Proper names
- Generic referents
- ► Referents to kinds or classes
- ► Nouns in object position of a light verb

Methodology: Data not included

Cases where it was too difficult to determine

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Results: Total data

Table 1: Tumbalá total data

Table 2: Tila total data

Indefinite	13	9% of total	Indefinite	26	46% of total
Definite	128	91% of total	Definite	30	54% of total
Total	141		Total	56	

Indefinite: Tumbalá and Tila

Tumbalá

- Of the total 13 indefinite examples, 100% occurred without a determiner
- ▶ None were ergative subjects only objects of transitive verbs, subjects of intransitive verbs or in the theme position of the existential predicate $a\tilde{n}$

► Tila

- ▶ We found 26 examples of indefinite referents
- All except one were bare nouns
- ► They were all objects of transitive verbs or in the theme position of an existential predicate

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Definites in Tumbalá and Tila

Table 3: Definite nouns Tumbalá

Anaphoric	114
Unique	14
Total	128

Table 4: Definite nouns Tila

Anaphoric	11
Unique	19
Total	30

Summary: Indefinites

- ▶ In both the Tila and Tumbalá dialects, we did not find indefinites occurring with determiners (one exception with the Tila dialect)
- ► Furthermore, no ergative subjects were recorded as being indefinite
- Both dialects exhibit a similar pattern with respect to marking indefiniteness

- - -

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Unique definites

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Table 5: Tumbala unique definites

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Bare	14
Total	14

Table 6: Tila unique definites

Bare nouns 5 With a determiner li 12 jiñi 2 14 La Total 19

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Anaphoric definites

Table 7: Tumbalá anaphoric definites

Bare nouns			41
With a determiner	aj(iñi)/jiñi/je′	70	
	li/ili	3	
			73
		Total	114

Table 8: Tila anaphoric definites

Bare nouns			2
With a determiner	li	7	
	jiñi	2	
			9
		Total	11

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Implications

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▶ While both dialects allow bare nouns to be definite, there is greater tendency in the Tila dialect to use a determiner when referring to definite entities, though bare nouns may also be interpreted as definite

Methodology

- This suggests a grammaticalization process of the determiner li in Tila into a definite article¹
- In Tumbalá speakers use bare nouns to refer to unique referents as well as anaphoric referents but primarily use determiners to refer back to an anaphoric referent
 - ► The Tumbalá pattern is similar to languages that mark anaphoric definites but not unique definites (Jenks, 2018)

Summary: Definites

- ► Tumbalá speakers are more likely to:
 - Use bare nouns to refer to unique definites (100% of examples)
 - Use determiners to mark anaphoric definites though bare nouns may also refer anaphorically
 - ▶ 64% of anaphoric definites had a determiner
- ► Tila speakers are more likely to:
 - Use determiners with definite nouns
 - ▶ 74% of unique definites
 - ▶ 81% of anaphoric definites were marked with a determiner
 - Use the determiner li where this determiner was practically nonexistent with Tumbalá speakers

Broader impact: Dialectal inclusion

- ▶ All data from this study will be archived at AlLLA and publicly available for speakers and learners of Ch'ol
- ► This is especially important for the Tila dialect as many speakers view this dialect as being inferior to the Tumbalá dialect
- Therefore, we hope that with more dialectal studies like this one, speakers will appreciate dialectal differences, rather than judge them

Broader impact: Indigenous languages

- Many indigenous languages are in danger of becoming extinct, Ch'ol included
- ► For instance, in Campanario (where I am from), many believe that with Spanish they will have more work opportunities and be more accepted in the wider Mexican society



Broader impact: Indigenous languages

- But now there are more opportunities for speakers of indigenous languages than there were when I was growing
- ► I hope that other speakers will take advantage of these opportunities so that they can continue preserving their languages



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Wokolix la'wälä!

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Abbreviations

Glosses: 1: first person; 2: second person; 3: third person; A: ergative/possessive; B: absolutive; CL: classifier; DET: determiner; EDM: extreme degree modifier; IV: intransitive verb; NC: noun classifier; PREP: preposition; PFV: perfective; TV: transitive verb

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References II

Moroney, M. (2018). Interpretation of internally-headed relative clauses in shan. Presented at BLS 44.

Schwarz, F. (2009). Two types of definites in natural language (Unpublished doctoral dissertation). University of Massachusetts Amherst.

Schwarz, F. (2013). Two kinds of definites cross-linguistically. Language and Linguistics Compass, 7(10), 534–559.

Śimík, R., & Burianová, M. (To Appear). Definiteness of bare NPs as a function of clausal position: A corpus study of Czech. In T. Ionin & J. MacDonald (Eds.), Proceedings of formal approaches to Slavic linguistics (FASL) 26.

Uriagereka, J. (1988). On government (PhD thesis). University of Connecticut.

Vázquez Álvarez, J. J. (2011). A grammar of Chol, a Mayan language (Unpublished doctoral dissertation). University of Texas Austin, Austin, TX.

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References I

Arkoh, R., & Matthewson, L. (2013). A familiar definite article in Akan. Lingua, 123, 1-30.

Bošković, Ž. (2005). On the locality of left branch extraction and the structure of NP. Studia Linguistica, 59, 1–45.

Coon, J. (2010). Complementation in Chol (Mayan): A theory of split ergativity (Unpublished doctoral dissertation). MIT, Cambridge, MA.

Corver, N. (1992). Left branch extraction. In Proceedings of NELS 22 (pp. 67-84).

Ebert, K. (1971). Zwei formen des bestimmten Artikels. In D. Wunderlich (Ed.), Probleme und Fortschritte der Transformationsgrammarik (pp. 159–174). Hueber.

Gutiérrez, R. d. C. E. (n.d.). Cuentos cultura chol. Retrieved from https:// www.unicach.mx//ambiental/descargar/Gaceta6/Art5.pdf

Jenks, P. (2018). Articulated definiteness without articles. Linguistic Inquiry, 49(3), 501-536. Retrieved from https://doi.org/10.1162/ling_a_00280 doi:

 $10.1162/ling_a_00280$

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Theoretical implication: Left branch extraction

- ▶ The presence or absence of a definite determiner can have consequences for other structures in the language
- One implication is that languages that allow so-called "left branch extraction", a phenomenon where a modifier, like an adjective, appears far away from the noun it modifies, do not have definite articles $(10)^2$
 - (10) Left Branch Extraction Implication: If a language permits left branch extraction, it lacks articles. (Bošković, 2005; Corver, 1992; Uriagereka, 1988)

²This is formulated as a one-way implication: it does not mean that all languages without articles allow left branch extraction.

Theoretical implication: Left branch extraction

► The data in (11) where cha'kojty 'two' has been extracted from the absolutive subject is judged grammatical by Tumbalá speakers, but Tila speakers exhibit varying judgements for sentences like (11)

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(11) Cha'-kojty; ta' yajl-i [t; wakax.]
two-cl pfv cow
'Two cows fell.' Tumbalá ✓; Tila %
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- ▶ We suggest that this is because the determiner *li* is becoming a grammaticalized definite article in Tila
 - ▶ Evidence that the grammaticalization process of *li* affects other aspects of the grammar like the possibility for left branch extraction in (11)

Examples: Tila

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(15) Context: Speaker just said 'there was a snake.'
ya' me=ku k'uk'ux jolo li lukum=i.
there mir=aff edm coiled.up det snake=encl

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'The snake was just there, all coiled up!' Lukum (Tila) anaphoric

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- (16) Ta'=bi och-i tyi komisariado li x-ixik=i.

 PFV=REP enter-TV PREP komisariado DET NC-woman

 'The woman became the community leader.' Radio (Tila) unique
- (17) Aw-om=ki arus. A2-want=if rice

'If you want some rice...' Lembal (Tila) indefinite

Examples: Tumbalá

(12) The first mention of the man in the story 'Bats"

A=che' jiñi ya-tyal la=k-tyaty=i part=part det there-come pl.part=a1-father=top

'And then along came a man...' Bats' Tumbala, indefinite

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(13) Tyikäw=ix=ta **k'iñ** che'.
hot=already=rea **sun** part

'The sun was very hot (that day).'

Tumbalá unique

(14) After the first mention of 'men' in the story '
Päkpäk che'=tyak-ob **aj** wiñik-ob
lying.down part=pl.indef-pl det man-pl
'The men were lying down.' Xiba Tumbalá anaphoric