Classifier pronouns and definiteness in Chuj*

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1 Introduction

In Q'anjob'alan Mayan languages, like Chuj, a set of *noun classifiers* have been traditionally described as definite determiners (Craig 1977; Maxwell 1981; Buenrostro et al. 1989; Aissen 2000; Zavala 2000; Hopkins 2012; Mateo Toledo 2017; a.o.):[1]

(1) Ix-w-il   [*(**ix**) presidente].
    PFV-A1S-see   CLF president
    'I saw the (female) president.'

(2) Saksak [*(**k'en**) uj   ].
    white   CLF   moon
    'The moon is white.'

However, their distribution is exceptionally broad for definite determiners.

- They can function as third person pronouns:

(3) Ix-in-cha'   jun   tz'i'. Saksak *(**nok'**).
    PFV-A1S-find INDF dog   white   CLF
    'I found a dog. It's white.'

- They are generally required in presence of a demonstrative:

(4) Saksak [*(**nok'**) tz'i' *chi*   ].
    white   CLF   dog DEM
    'That/the dog is white.'

[1]Abbreviations and glosses: A: ergative/possession; B: absolutive; CLF: noun classifier; DEM: demonstrative; INDF: indefinite; EXT:existential; FCI: free choice item; HUM: human plural marker; IV–intransitive status suffix; PFV: perfective; TOP: topic; YNQ: yes-no question particle

- And most surprisingly, they can co-occur with indefinite expressions, forcing specific indefinite interpretations:

(5) Hin-gana tz-in-man   [jun   **ch'anh** libro].
    A1S-want IPFV-A1S-buy   INDF CLF   book
    'I want to buy a (certain) book.'   ($\exists$ > WANT / *WANT > $\exists$)

> **Goal:** Argue for a uniform analysis, where classifiers are always definite articles.
>
> - Specifically, classifiers exhibit the semantics of *weak* definite determiners, in only presupposing uniqueness (and not also familiarity) (Schwarz 2009):
>
> (6) *Denotation of classifier*   (e.g. Heim and Kratzer 1998)
> $[\![\text{CLF}]\!] = \lambda f: \exists! x \in C\ [f(x)].\ \iota y \in C\ [f(y)]$

All in all, the uniform account teaches us important things about pronoun formation, specific indefinites, and the composition of different kinds of definites in general.

- NP-deletion accounts for pronominal cases (3) (Postal 1966; Elbourne 2005, 2013).

- Specific indefinites (5) arise by embedding a definite DP under an indefinite DP.

- *Strong* definites (which presuppose uniqueness + familiarity) are derived compositionally by combining the weak definite classifier with an additional morpheme.

sequence	result	
CLF - NP	weak definite	§3
CLF - ~~NP~~	pronoun	§4
INDF - CLF - NP	specific indefinite	§5
CLF - NP - DEM	strong definite	§6

2 Additional background

Chuj. Chuj is a Mayan language (Q'anjob'alan) spoken in Guatemala and Mexico by ≈70,000 speakers (Piedrasanta 2009; Buenrostro 2013; for grammars, see Hopkins 1967; Maxwell 1981; and García Pablo and Domingo Pascual 2007.).
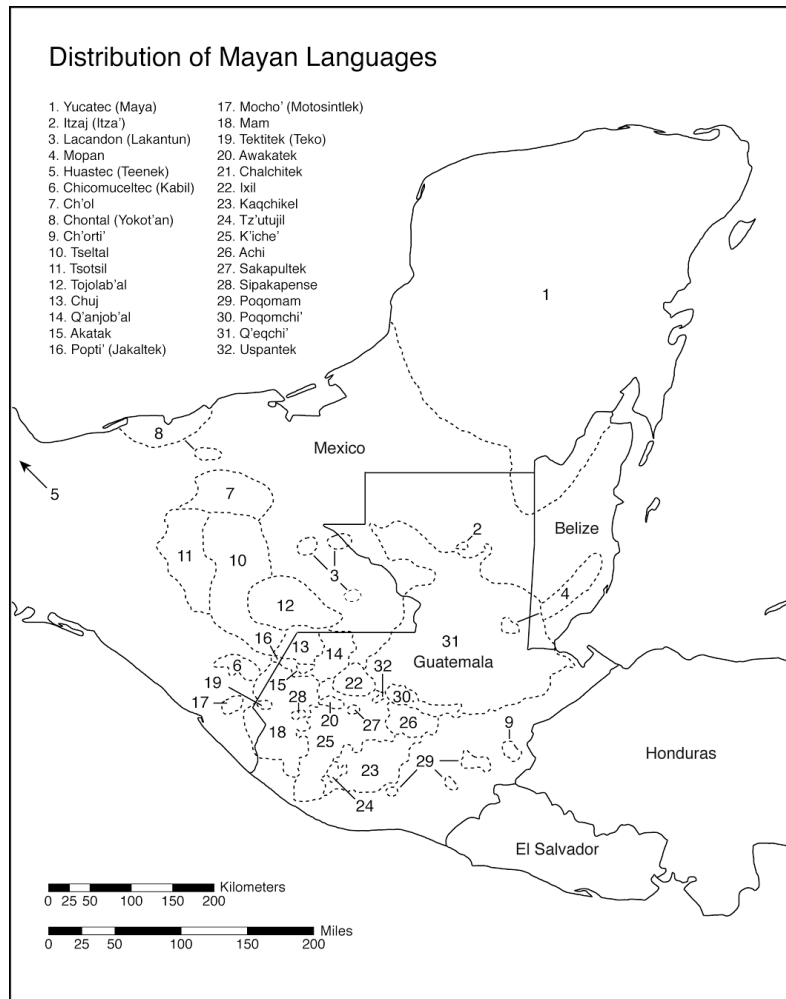

Distribution of Mayan Languages

1. Yucatec (Maya)	17. Mocho' (Motosintlek)
2. Itzaj (Itza')	18. Mam
3. Lacandon (Lakantun)	19. Tektitek (Teko)
4. Mopan	20. Awakatek
5. Huastec (Teenek)	21. Chalchitek
6. Chicomuceltec (Kabil)	22. Ixil
7. Ch'ol	23. Kaqchikel
8. Chontal (Yokot'an)	24. Tz'utujil
9. Ch'orti'	25. K'iche'
10. Tseltal	26. Achi
11. Tsotsil	27. Sakapultek
12. Tojolab'al	28. Sipakapense
13. Chuj	29. Poqomam
14. Q'anjob'al	30. Poqomchi'
15. Akatak	31. Q'eqchi'
16. Popti' (Jakaltek)	32. Uspantek

Figure 1: Chuj speaking area (Bennett et al. 2016)

Data. Unless otherwise indicated, all data come from original elicitation with speakers of the Nentón and San Mateo Ixtatán variants of Chuj, and in texts available on the Archive of Indigenous Languages of Latin America (Mateo Pedro and Coon 2017).

Distribution. There are 16 noun classifiers, and which classifier appears depends on the properties of the nominal referent (Buenrostro et al. 1989):[2]

Table 1: *Chuj noun classifiers*

CLF	Introduces	Example	
ix	female individuales	*ix chichim*	'the elder (f.)'
winh	male individuals	*winh icham*	'the elder (m.)'
nok'	animals & derived products	*nok' nholob'*	'the egg'
te'	wood & related entities	*te' k'atzitz*	'the log'
anh	plants & related entities	*anh paj'ich*	'the tomato'
k'en	stone/metal & related entities	*k'en tumin*	'the money'
lum	earth & related entities	*lum yaxlu'um*	'the mountain'
ch'anh	vines & related entities	*ch'anh hu'um*	'the paper'
ixim	corn & related entities	*ixim wa'il*	'the tortilla'
atz'am	salt & related entities	*atz'am atz'am*	'the salt'
ha	liquids	*ha niwan*	'the river'
k'ak	cloth(es)	*k'ak nip*	'the huipil'
k'inal	rain	*k'inal nhab'*	'the rain'
waj	masculine proper names	*waj Matin*	'Mateo'
naj/ni	young male individuals	*ni unin*	'the boy'
uch	young female individuals	*uch unin*	'the girl'

- Crucially, *noun* classifiers are not *numeral* classifiers.

- Chuj has numeral classifiers, and they can co-occur with noun classifiers.

(7) Ix-jaw   [ox-**wanh**   *nok'* chej] t'atik.
    PFV-arrive   three-NUM.CLF CLF animal   here
    'Three horses arrived here.'

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[2]Note that not all nouns in the language can be introduced by a classifier. For example, newly introduced nominals (e.g. 'plastic') or abstract nominals (e.g. 'rumour') do not belong to any of the classes in Table 1.

3   Noun classifiers as (*weak*) definite determiners

I propose that noun classifiers exhibit the semantics of *weak* definite determiners:[3]

(3)   *Denotation of classifier*   (e.g. Heim and Kratzer 1998)
       ⟦ CLF ⟧ = λf: ∃!x ∈ C [f(x)]. $ιy$ ∈ C [f(y)]

But *weak* vs what?

The contrast between *weak* and *strong* definites

- In relatively recent work, Schwarz (2009, 2013) argues that there are two kinds of definite determiners across languages.

(8)   *Weak definites:*
       Presuppose that there is a unique satisfier of the NP.

(9)   *Strong definites:*
       Presuppose that there is a unique *and familiar* satisfier of the NP.

- Schwarz's work has received considerable cross-linguistic support.
  To name only a few: Arkoh and Matthewson 2013 on Akan; Jenks 2015 on Thai and Mandarin; Cho 2016 on Korean; Ingason 2016 on Icelandic; Cisnero 2018 on Cuevas Mixtec; Irani 2018 on American Sign Language; Schwarz 2018; and Šereikaitė 2018 on Lithuanian.

We'll come back to *strong* definites in section 6.

Noun classifier pattern like *weak* definites

According to Schwarz 2009 (and subsequent work), *weak* definites include:

1. *Immediate situation uses*, e.g. *the table* if you're in a room with a single table.

2. *Larger situation uses*, e.g. *the president* (of Guatemala) when in Guatemala.

3. *Kind and generic uses*, e.g. *the lion* in the *the lion is a fierce animal*.

4. *Some special covarying uses*, crucially those that don't involve an antecedent.

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[3]The denotation in (3) intentionally ignores the fact that noun classifiers vary depending on the noun they introduce. I assume that this is no different than the fact that French *le/la* 'the' vary according to the gender of the nominal. Chuj is just an extreme case, as it has sixteen versions of the same definite article. Though I set aside the issue of how the choice of the classifier is determined, one likely possibility is that different classifiers are linked to separate presuppositional heads. This is similar to the presuppositional analyses of ϕ-features in e.g. Cooper 1983 and Heim and Kratzer 1998

Chuj noun classifiers show all these properties.

Immediate and larger situation uses

In Chuj, immediate and larger situation uses of definites require noun classifiers:

(10)   *Immediate situation use*
        Context: *There's only one book. The speaker asks you to move it.*

        Ak' em   [*(**ch'anh**) libro] t'achi.
        put DIR.down   CLF   book   there
        'Put the book over there.'

(11)   *Larger situation use*

        Ix-jaw   [*(**ix**) Presidente].
        PFV-arrive   CLF Presidente
        'The president arrived.'

Kind and generic uses

Kind or generic uses of nominals also require a classifier:

(12)   Context: *Talking about which animals, in general, are dangerous.*

        Te' ay s-may   *(**nok'**) ajawchan.
        INTS EXT A3-danger   CLF   rattle.snake
        'The rattlesnake is very dangerous.'

Covarying uses

Finally, Schwarz (2009) argues that *weak* definites can sometimes have "covarying" uses, crucially when they are not preceded by an antecedent.[4]

(13)   Junjun chonhab' b'aj ix-ek' waj Xun, ix-lolon winh yet' [*(**winh**) alkal].
        every town   WH PFV-go CLF Xun, PFV-talk CLF with   CLF   mayor
        'In every town that Xun visited, he spoke with the mayor.'

In sum: All prototypical uses of *weak* definites identified in the literature appear with a noun classifier in Chuj.

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[4]It is not trivial to account for covarying uses of weak definites. In Schwarz 2009, they are accounted by the presence of a bound situation pronoun (something like: in every situation s, Matin met the mayor in s). Another possibility could be to assume implicit material with a bound variable following "mayor" (something like: "in every town x such that Matin visited x, Matin spoke with the unique mayor ~~of x~~").

4 The case of pronouns

Recall that classifiers can surface without an overt NP:

(3)   Ix-in-cha'   jun   tz'i'. Saksak *(**nok'**).
      PFV-A1S-find INDF dog   white   CLF
      'I found a dog. It's white.'

Postal (1966), Elbourne (2001, 2005, 2013), Matthewson (2008), a.o.:

Pronoun = definite determiner + deletion of sister NP.   i.e. ⟦*they, it...*⟧ = ⟦ *the* ⟧

There are several good reasons to think this.
• First, pronouns often look like definite determiners:

(14)   *French*   (15)   *German*   (Elbourne 2001)
       a. Je vois **la** femme.   a. Hans sieht **den** Mann.
           I   see   the woman   Hans sees the man
           'I see the woman.'   'Hans sees the man.'

       b. Je **la** vois.   b. Hans sieht **den**.
           'I see her.'   'Hans sees him.'

• Second, unlike nouns, pronouns often pattern like definite determiners in accepting
  an overt noun (Postal 1966; Abney 1987; Ritter 1995; Déchaine and Wiltschko 2002):

(16)   we (linguists)   (17)   you (people)   (18)   you (liar)

• Third, pronouns and definite determiners often show similar effects, notably in cases
  of *donkey anaphora* (Geach 1962; Heim 1990; Elbourne 2001):

(19)   Every person who owns a donkey loves it / the donkey.

So Elbourne assumes that there is allomorphy in the realization of the (English) definite
determiner—realized as *the* with overt NPs, but as a pronoun with deleted NPs.

(20)   a. [the NP]   (21)   a. [*the dog*]
       b. [it ~~NP~~]   b. [*it ~~dog~~*]

Similarly, I argue that Chuj pronouns have the structure in (22) and (23):

(22)   a. [CLF NP]   (23)   a. [*nok' tz'i'*]
       b. [CLF ~~NP~~]   b. [*nok' ~~tz'i'~~*]

5 Indefinites with definite domain restrictors

Recall that classifiers can optionally co-occur with indefinite determiners:

(24)   CLF *indefinite:*   (25)   CLF ∃ *construction:*
       Ix-jaw   [*jun* (**winh**) winak].   Ay   [*jun* (**winh**) winak] t'atik.
       PFV-arrive   INDF CLF   man   EXT   INDF CLF   man   here
       'A man arrived.'   'There's a man here.'

....

• Note that (24) and (25) are not partitive, since:

   i. Partitives are disallowed in ∃ constructions like (25) (Milsark 1974; Enç 1991).

   ii. Such partitives in Chuj would require a plural marker as in English (see
       de Hoop 1997 on the fact that partitives select for pluralities):

   (26)   Ix-jaw   [jun #(**heb'**) winh winak].
          PFV-arrive   one PL   CLF man
          'One of the men arrived.'

....

Problem. If classifiers are truly definite determiners, then there are *too many determiners* in examples like (24) and (25).

• But note that noun classifiers always *optionally* occur with indefinites, in which case
  the indefinite appears to take obligatory "wide scope" over other operators, including
  out of syntactic islands.

• Consider the following example and scenarios (adapted from Matthewson 1999), in
  which the indefinite takes obligatory wide scope over the modal that the antecedent
  of the conditional restricts (assuming a Kratzerian (1986) analysis of conditionals):

(27)   Context: *Malin is organizing a party in the village*

       Te-junk'o'olal ix   Malin [tato tz-jaw   [jun **winh** icham]].
       INTS-happy   CLF Malin if   IPFV-come   INDF CLF elder
       'Malin will be happy if an elder comes (to the party).'

       ✓ *if there is just one elder, for example Xun, such that if Xun comes to the party,
          Malin will be happy.*

       # *if Malin will be happy if at least one elder comes to the party, but it doesn't
          matter who.*

• The classifier above is optional. Without it, the indefinite could be interpreted either
  with wide or narrow scope (both scenarios would be felicitous).

- The presence of a noun classifier also creates so-called "referential indefinites" (Fodor and Sag 1982), which cannot receive a scopal account:

(28)   Context: *We were going to eat a chicken, but when we arrived it was missing, someone says:*

Ix-ik'   b'at nok' kaxlan [jun   **nok'** tz'i']!
PFV-bring go CLF chicken   INDF CLF dog
'A dog stole the chicken!'

  ✓ *if a particular dog known to the speaker, say Fido, stole the chicken.*

  # *if there are traces of a dog in the speaker's house, e.g. paw prints, that lead the speaker to think that a dog stole the chicken.*

- Again, without the classifier, both scenarios above would be felicitous.

Singleton indefinites

- Schwarzschild (2002) argues that specific indefinites derive from implicit domain restriction of an indefinite quantifier to a singleton set.

(29)   If a relative of John ~~that I have in mind~~ dies, he will inherit a fortune.

- If an existential quantifies over a singleton set, then it must interpreted as specific.

> **Proposal:** Chuj classifier pronouns (i.e. definite DPs with elided NPs) can serve to restrict the domain of an indefinite quantifier to a singleton set.

- Solution to the *too many determiner* problem: the reason there are two determiners is that there are two DPs.

(30)   jun   **nok'** tz'i'
    INDF CLF dog
    'a dog'
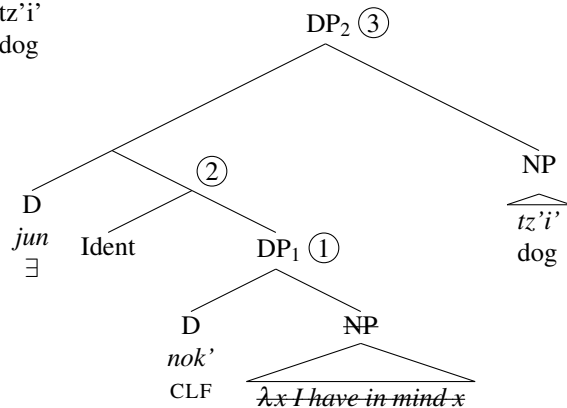
- I propose that indefinite quantifiers take two restrictor arguments:

(31)   *Denotation of the existential quantifier*
    $[\![jun]\!] = \lambda f.\ \lambda f'.\ \lambda g.\ \exists x[\ f(x) \wedge f'(x) \wedge g(x)\ ]$

- While the first domain restricting argument is generally regarded as covert (e.g. realized by a context variable C in e.g. von Fintel 1994 or by syntactic ellipsis, e.g. Collins 2018), I propose that it can be overtly realized in Chuj by a classifier pronoun.[5]

Derivation

- The classifier first composes with the (elided) NP, picking out a unique entity in a set of entities present in the context:

  ① $[\![DP_1]\!] = \iota x \in C$ [the speaker has x in mind]

- In order to compose with the indefinite, the restrictor DP Ident shifts from type e to $\langle e,t \rangle$ (Partee 1987), returning a predicate true of just one entity. I take Ident to be a covert morpheme, as in (32):

  ② $[\![\text{Ident } DP_1]\!] = \lambda y.\ y = \iota x$ [the speaker has x in mind]

(32) $[\![\text{ Ident DP }]\!] = \lambda x.\ x = [\![\text{ DP }]\!]$

- Because classifier pronouns are type e (and so pick out an individual), Ident shifitng will result in a singleton set as the quantifier's innermost restrictor argument.

- The overall result is an indefinite DP whose domain is doubly restricted by the intersection of the first domain restrictor argument, DP_1, with the second domain restrictor argument, the overt NP.

  ③ $[\![DP_2]\!] = \lambda g.\ \exists y[y = \iota x$ [the speaker has x in mind] $\wedge\ y$ is a dog $\wedge\ g(y)]$

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[5]The choice of syntactic structure follows Westerståhl (1984) and von Fintel (1994), who treat C as an argument of the quantifier. Another possibility, which as far as I know would not have any consequences on the account, would be to treat the classifier as an adjunct of NP, and have it compose with the NP via Predicate Modification. I remain agnostic as to which parse is correct.

Predictions

This analysis of specific indefinites in Chuj makes clear predictions that are borne out.

Prediction 1.   Noun classifiers should not be allowed with "non-specific" indefinites (those which don't allow domain restriction down to a singleton).

- They are illicit with random choice indefinites, independently argued to have an anti-singleton restriction on their domain (Alonso-Ovalle and Menéndez-Benito 2018):

(33)   Yalnhej tas **(#anh)** itajil ix-in-yam-a'.
          FCI   WH   CLF   herb PFV-A1S-grab-TV
          'I grabbed a random herb.'

          (Compare with English #*I grabbed a certain random herb*)

- They are incompatible with certain NPIs like *junok* 'any'. These have been independently argued to be domain wideners (Kadmon and Landman 1993).

(34)   Maj   hin-chax laj   junok **(#ch'anh)** libro.
          NEG.PFV A1S-find NEG NPI   CLF   book
          'I didn't find any book(s).'

          (Compare with English #*I didn't buy any certain book*)

- They are incompatible with WHAT-questions (with a singleton domain restrictor, the question would be trivialized).

(35)   Tas **(#anh)** nib'al ha-gana?
          WH CLF   huipil A2S-desire
          'What huipil do you want?'

          (Compare with English #*What certain dress do you want?*)

Prediction 2.   Uses of classifiers with indefinites should not trigger a uniqueness presupposition relative of the overt nominal, whereas uses without indefinites should.

(36)   Context: *Yuxquen has five priests and the speaker and addressee know it. The speaker and addressee are currently in Yuxquen.*

          Ix-in-lolon   yet' [jun **(winh)** pale   ].
          PFV-B1S-speak with INDF CLF   priest
          'I spoke with a priest.'

(37)   [DP *jun* [DP winh ~~NP~~] [NP pale]]

- Consultants judge the utterance in (38) as infelicitous in the context in (36).

- Examples like (38) are only possible with contexts like the one below, where the presence of the classifier becomes required.

(38)   Context: *There's only one priest in Yuxquen and the speaker and addressee know it. The speaker and addressee are currently in Yuxquen.*
          Ix-in-lolon   yet' [#(**winh**) Paleh].
          PFV-B1S-speak with   CLF   priest
          'I spoke with the priest.'

(39)   [DP winh [NP paleh]]

Prediction 3.   Classifiers should be optional with indefinites (as domain restrictors) but obligatory when they appear alone with a noun (when they head the sole DP).

- This follows, since the possibility for indefinites to be implicitly restricted via the use of a contextual variable or elided relative clause should remain (see e.g. von Fintel 1994; Schwarzschild 2002).

- This is indeed the case, as shown by the optionality of the classifier in (36), but the obligatoriness of the classifiers in (38).

In sum: It is possible to account for the distribution of noun classifiers in indefinite DPs by maintaining their analysis as *weak* definite determiners.

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6   Deriving *strong* definites

So far, I have argued that Chuj's classifiers are *weak* definite determiners. This allowed us to reconcile their occurrences as weak definite determiners (§3) with their occurrences as pronouns (§4) and in specific indefinite DPs (§5).

- But what about *strong* definites? Recall Schwarz's (2009) proposal:

  → Weak definites (≈ uniqueness).

  → Strong definites (≈ familiarity + uniqueness).

Here, I show that *strong* definites in Chuj are derived compositionally by combining the weak definite classifier with additional morphology, typically a demonstrative (also with topic marking, but we won't have time to see this, see Royer 2019).

Strong definites cross-linguistically

According to Schwarz 2009 (and subsequent work, e.g. Jenks 2018 on Mandarin), *strong* definites involve the following uses (apart from deictic uses):

1. *Discourse anaphoric uses*

2. *Covarying anaphoric uses*, e.g. donkey anaphora.

3. *Producer-product bridging uses*, e.g. I read a book. **The author** is Brazilian.

For all these uses, Chuj noun classifiers must combine with a demonstrative.

Discourse anaphoric uses

Full definite DPs with overt nouns in Chuj that have been previously mentioned in discourse require the presence both of a noun classifier and a demonstrative:

(40)   *Narrative sequence in Chuj*
    a. Ay [jun   (nok') **tz'i'**] yet' jun   nok' mis t'atik.
        EXT INDF CLF   dog   with INDF CLF cat here.
        'There's a dog$_i$ and a cat here.'
    b. Saksak [*(**nok'**) tz'i' #(**chi**)].
        white   CLF   dog DEM
        The dog$_i$ is white.'

Covarying anaphoric uses

The relevant Chuj DPs in donkey sentences also require the presence of both a classifier and a demonstrative:

(41)   Junjun anima' ix-ilan junjun much, ix-s-mak' [*(**nok'**) much #(**chi**)] heb'.
    each   person PFV-see each bird   PFV-A3-hit CLF   bird   DEM PL
    'Each person who saw a bird, killed the bird.'

Producer-product bridging uses

Classifiers and a demonstrative are also required with producer-product bridging uses:

(42)   *Producer-product bridging definite*
    Ix-w-awt-ej   jun ch'anh libro. Te-wach   [**ix**   tz'ib'um #(**chi**)].
    PFV-A1S-read-DTV INDF CLF   book. INTS-good CLF writer   DEM
    'I read a book. The author is really good.'

In sum: Prototypical uses of *strong* definites identified in the literature take both a classifier and a demonstrative in Chuj.

Sketching a proposal.   I propose, building on Schwarz 2009 and Jenks 2018, that demonstratives introduce a familiarity presupposition on the referent of the unique NP, as implemented in the denotation in (43) (1 = index interpreted relative to a contextually provided assignment function *g*; Heim 1982):

(43) $[\![\text{DEM}_i]\!]^g = \lambda x\colon x = g(i).\ x$

(44)   nok' tz'i' chi
    CLF dog DEM
    'this/the dog'

    DP
    D'   *chi*$_1$
          (DEM)
    D   NP
    nok' *tz'i'*
    (CLF)
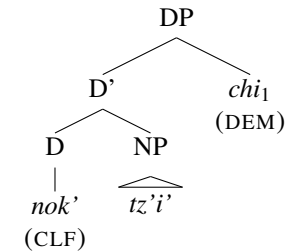
$[\![\text{D'}]\!]([\![chi]\!]^g)$
P: $\exists! x \in C\ [x \text{ is a dog}] \wedge \iota x \in C\ [x \text{ is a dog}] = g(1)$
A: $\iota x \in C\ [x \text{ is a dog}]$

- For the relevant dog to be in the range of the assignment function, I assume it must have either already been mentioned in discourse or be deictically identifiable.

So *strong* definites in Chuj are decompositional: classifiers trigger the uniqueness presupposition, while demonstratives trigger the familiarity presupposition.

Puzzle: anaphoric pronouns

Classifier pronouns are most often used anaphorically. My NP-deletion account of pronouns (§4) predicts that such pronouns should co-occur with demonstratives:

(45)
    DP
    D'   *chi*$_1$
         (DEM)
    D   ~~NP~~
    nok' ~~*tz'i'*~~
    (CLF)
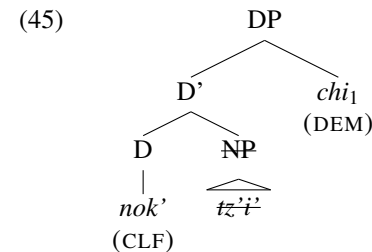
However, this prediciton is **not** borne out, as shown (3')—classifier pronouns cannot co-occur with a demonstrative.

(3')   Ix-in-cha'   jun tz'i'. Saksak *nok'* (*****chi**).
    PFV-A1S-find INDF dog white CLF   DEM
    'I found a dog. It's white.'

I leave this puzzle for future work, but potential solutions could be put forward:

- *Ellipsis* could be triggering a similar familiarity presupposition to the one introduced by the demonstrative.

- Or perhaps there's a phonological restriction on the overt realization of the demonstrative head: that it must suffix to nominals.

7   Summary & discussion

I argued for a uniform account of noun classifiers in Chuj as *weak* definite determiners.

- Maintaining a uniform account teaches us important things about pronoun formation, specific indefinites, and the formation of strong definites. What unifies all of these is a uniqueness presupposition, triggered by the *weak* definite classifier.

sequence	result
CLF - NP	weak definite
CLF - ~~NP~~	pronoun
INDF - CLF - NP	specific indefinite
CLF - NP - DEM	strong definite

Two kinds of pronouns?

My proposal builds on distinct accounts of pronoun and determiner formation.

- On the one hand, I build on Postal 1966; Elbourne 2001, 2005, 2013, a.o.:

  (46)   Pronouns are definite determiners with elided NPs.

- On the other hand, I build on Schwarz 2009, 2013 and Jenks 2018, a.o.:

  (47)   There are two kinds of definite determiners across languages.

- Put together, these two proposals predict:

  (48)   There should be two kinds of pronouns across languages.

  → A similar hypothesis is made by Matthewson (2008): "perhaps in general, the semantics of third-person pronouns in a language L is based on the semantics of determiners *in L*".

  → And also by Bi and Jenks (2019), who argue that "a language's pronominal inventory is isomorphic to its determiners used for the expression of definiteness distrinctions".

  → Finally, previous proposals on pronouns have argued they don't form a homogeneous class (e.g. Ritter 1995; Déchaine and Wiltschko 2002). Perhaps a parallel can be drawn between the different classes of pronouns and the presuppositions they can trigger.

Question: Are there other languages like Chuj?

- Matthewson (2008) describes a language with determiners (and pronouns) that *only presuppose uniqueness*, and not familiarity: St'át'imcets.

- Chuj and St'át'imcets pronouns share an interesting property: they don't seem to be governed by an antecedence requirement (see Davis 2006).

  (49)   Context: *You just arrived in a town and you want to be sure the bus stop is across the street. You ask a stranger:*
  T'achi tz-el   **k'e'en**?
  there   IPFV-leave CLF
  'Does the bus leave over there?' (lit. 'Does *it* leave from there?')

- Perhaps the absence of an antecedence requirement is a feature we should expect to see with *weak* pronouns.

Weak definites and specific indefinites

There is another parallel between Chuj and St'át'imcets, which might lend support to the specific indefinite analysis spelled out in §5, and which might also help explain why examples like (50) are banned in English.

  (50)   I want to buy some (*it/*the) book.

- Perhaps only *weak definites* (those that presuppose uniqueness, but not familiarity) can create a singleton indefinite by restricting the domain of an indefinite.

- Interestingly, St'át'imcets determiners "are (i) felicitous in both novel and familiar contexts; [and] (ii) felicitous in existential sentences" (Matthewson 2008).

- Strikingly, in existential sentences, such determiners force wide scope (or specific) interpretations of indefinites (Matthewson 1999), just like in Chuj:

  (51)   *St'át'imcets*   (Matthewson 1999, (16))

  cuz'   tsa7cw kw-s   Mary lh-t'íq-as   [**ti qelhménen'-a**   ]
  going.to happy   DET-NOM Mary HYP-arrive-3CONJ DET old.person(DIMIN)-DET
  'Mary will be happy if an elder comes.'   (Matthewson 1999, (16))

  = $\exists x$ [elder(x) $\wedge$ [come(x) happy(Mary)]]   (wide scope)
  ≠ [$\exists x$ [elder(x) $\wedge$ come(x)]] → happy(Mary)   (narrow scope)

- Though further work is required, I believe that my proposal could potentially be extended to account for the (also wide) distribution of determiners in St'át'imcets.

- St'át'imcets determiners could be potentially analyzed as *weak definites* that can combine with (covert) indefinites to create singleton indefinites.

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