

## The status of syntactic ergativity in Kaqchikel<sup>1</sup>

### 1. K'ichean syntactic ergativity

-A restriction on syntactic processes applying to ergative arguments (with respect to A' extraction) (Dixon 1994, Manning 1996, Polinsky, to appear)

-Term has a long history of application to Mayan (and specifically K'ichean) languages to describe the phenomenon where a special verb form/syntactic construction is required to question, relativize, or cleft/focus ergative arguments, whereas no such construction is required to front absolutive arguments (e.g. Dayley 1981; Mondloch 1978b; Pye 1991; Larsen 1987).

**Table 1:** Syntactic ergativity

<i>Process:</i>	<i>Verb form:</i>
Fronting the ergative subject of a transitive verb	Agent Focus or Antipassive
Fronting the absolutive subject of an intransitive verb	Transitive
Fronting the absolutive object of a transitive verb	Transitive (or Passive)

#### 1.1 Agent Focus (AF)

Aissen 2011, 1999, 1992; Preminger 2011; Coon et al. in press; Erlewine 2013; Stiebels 2006; Smith-Stark 1978; a.o.

- (1) Xa ri ačín š-ox-k'am-o  
 FOC<sup>2</sup> DET man PST-1PL.ABS-bring-AF  
 'It was the man who brought us'
- (2) Ačike n-i-č'el-en ri štan  
 WH PRS-3SG.ABS-carry.in.arms-AF DET girl  
 'Who is carrying the girl?'

#### 1.2 Antipassivization (AP)

ABSOLUTIVE + VERB + ANTIPASSIVE DERIVATION (+ OBLIQUE OBJECT)

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<sup>2</sup> Glossing conventions: 1=1<sup>st</sup> person, 3=3<sup>rd</sup> person, ABS=absolutive, AF=agent focus, AP=antipassive, ASP=aspectual suffix, DET=determiner, DIR=directional particle, ERG=ergative, IMP=imperative, IP=independent pronoun, FOC=focus particle, MP=mediopassive, also called 'completive' passive, OBL=oblique, PL=plural, POS=possessive, PREP=preposition, PRS=present, PST=past, REL=relative clause marker, SG=singular, TV=transitive derivation, WH=wh-word.

- (2b) Ačike n-i-č'el-en r-ič'in ri š'tən  
 WH PRS-3SG.ABS-carry.in.arms-AP 3SG.ERG-OBL DET girl  
 'Who is carrying the girl?'

-APs "...seem to be disfavored as a means of disambiguation in most Mayan languages that exhibit agent focus" (Stiebels 2006:513) – ~1:4 AP:AF ratio

## 2. Status of syntactic ergativity

-Transitive verbs can be used with extracted ergative arguments, which can create ambiguity.

- (1b) Xa ri ač'in š-ox-ru-k'əm pe  
 FOC DET man PST-1PL.ABS-3SG.ERG-bring DIR.toward  
 'It was the man who brought us'

- (3) Ri ala? ri n-Ø-u-č'el-eχ ri š'tən  
 DET boy REL PRS-3SG.ABS-3SG.ERG-carry.in.arms-TV DET girl  
 'the boy who is carrying the girl' OR 'the boy who the girl is carrying'

-García Matzar and Rodríguez Guaján (1997), Majzul et al. (2000) noted that not all speakers require AF/AP

-Mondloch (1981), Trechsel (1993), Campbell (2000:225) noted some acceptance for transitives in RCs, Wh-questions, and cleft in K'ichee', especially in semantically unambiguous cases

-Similar pattern noted by Clemens et al. (2014) for Q'anjob'al relative clauses

## 3. The study

-Goal: To measure the vitality of the primary constructions exhibiting syntactic ergativity in Kaqchikel

-3 small studies (one per construction: RCs, Focus, Wh-questions) conducted in 2013 and 2014

-Tested subject extraction for RCs, Focus, and Wh-questions, and object extraction for RCs and Wh-questions.

-Object conditions showed 95-99% use of transitives (as expected).

Results below therefore only deal with subject extraction.

-Tested for:

-Animacy effects (Does semantic ambiguity have an effect on structure?)

-Age effects

### 3.1 Procedure and participants

-28 native speakers between the ages of 19 and ~70, from 10 mutually intelligible Kaqchikel dialects

-Single, monolingual interview sessions

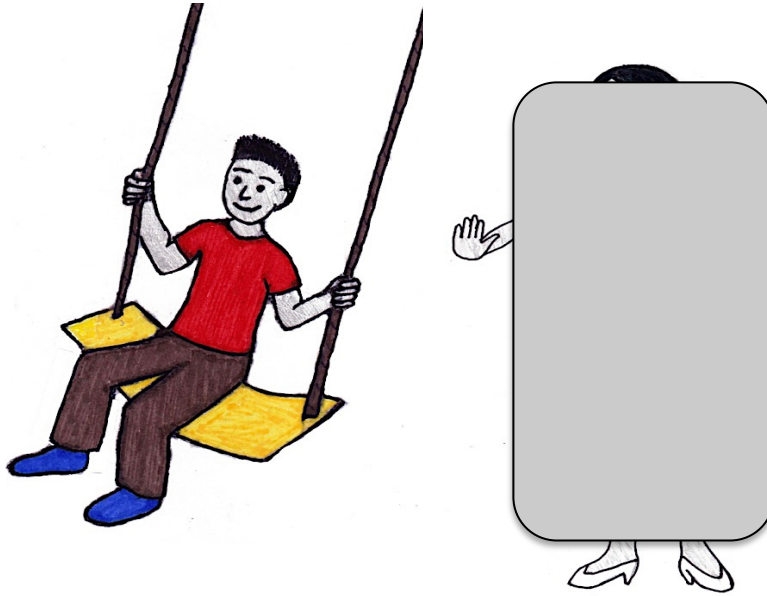
-All picture-based elicitation tasks

-3sg-3sg arguments only, to increase ambiguity in matched animacy items and cause AF to always show agreement with A.

**Figure 1:** Sample WH-question elicitation item

(4) Xun winəq n-Ø-u-nım ri ala?. Rım w-etama-n  
one person PRS-3SG.ABS-3SG.ERG-push DET boy 1SG.IP 1SG.ERG-know-ASP

ačike. T-Ø-a-k'utuχ pe č-we!  
WH IMP-3SG.ABS-2SG.ERG-ask DIR.toward PREP-1SG  
'Someone is pushing the boy. I know who. Ask me!'



**Figure 2:** Sample RC elicitation item

(5) E k'o ka?i? štan-i?, kinəq', škoya?. Ačike štan k'o ri retaļ pa ru-wi??  
3PL exist 2 girl-PL bean tomato WH girl exist DET sign PREP 3SG.POS-top  
'There are two girls, a bean plant, and a tomato plant. Which girl has the arrow over her?'



**Figure 3:** Sample focus elicitation item

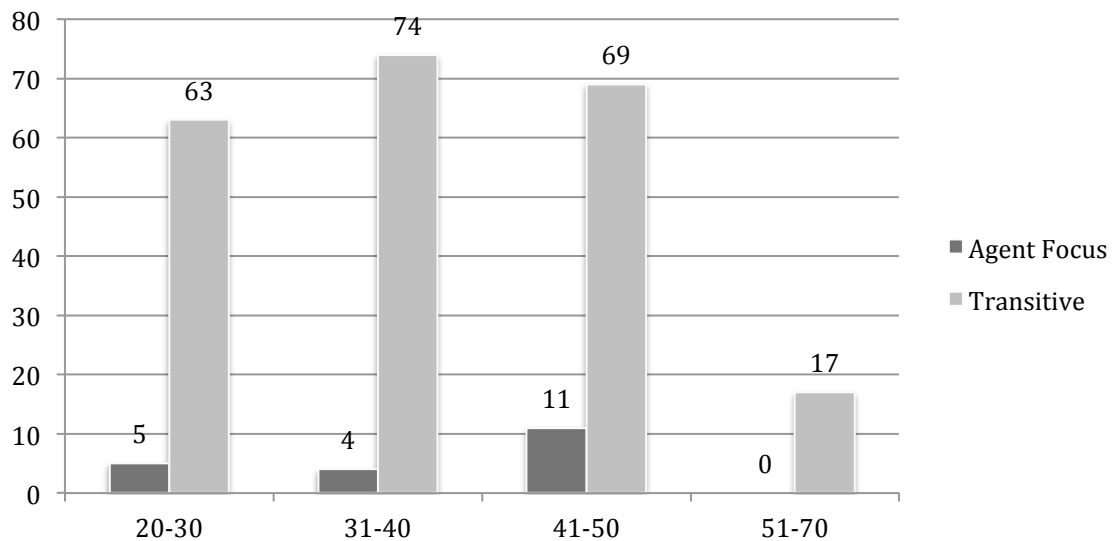
(6) E k'o xun štən čuqa xun ala? pa ru-či? palow. Ačike š-Ø-ban-atəχ?  
 3PL exist 1 girl also 1 boy PREP 3SG.POS-mouth sea WH PST-3SG.ABS-do-MP  
 'There are a boy and a girl at the beach. What happened?'



## 4. Results

### 4.1 Relative Clauses

**Figure 4:** Instances of transitives vs. AF/AP in subject relative clauses by age

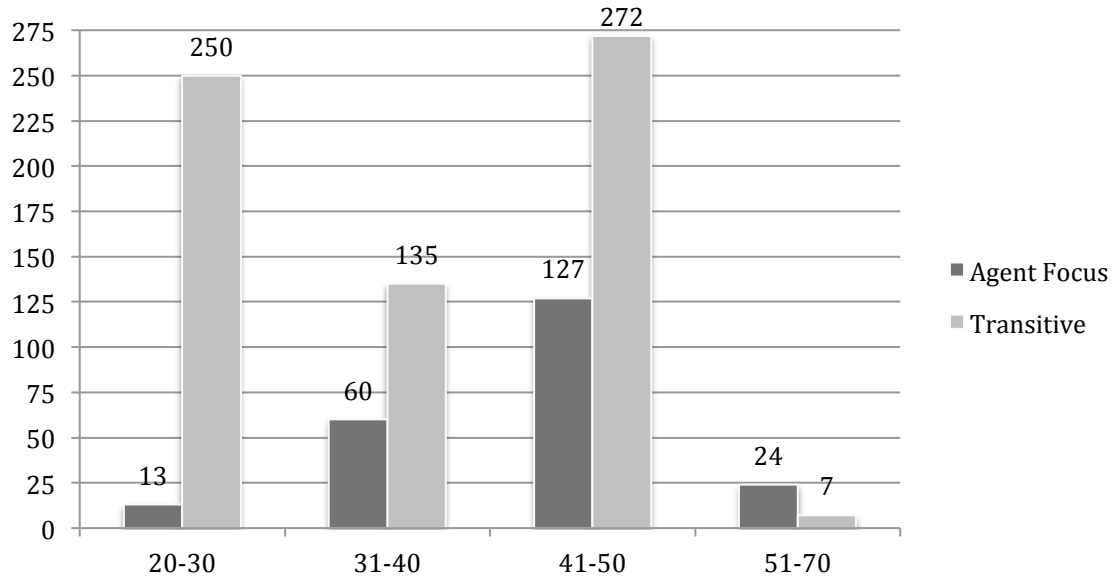


-Transitives are quite prevalent in SRCs for all ages, even the oldest generation  
 -AF/AP was not mandatory for ANY speaker

- No significant<sup>3</sup> age effect
- No significant animacy effect (119 vs. 104 transitives in AA vs. AI conditions)

#### 4.2 Focus constructions

**Figure 5:** Instances of transitives vs. AF/AP in subject focus constructions by age

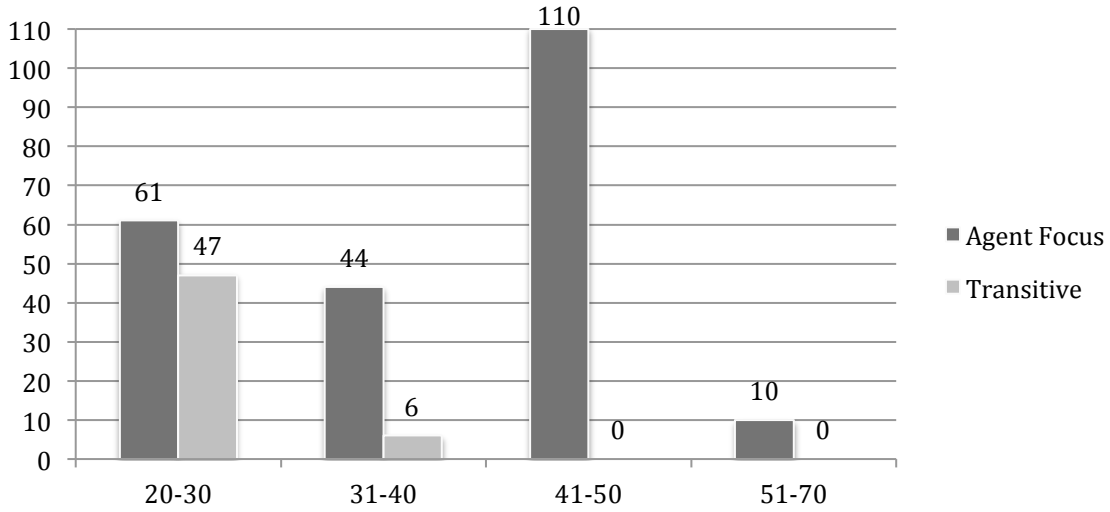


- transitives are both acceptable and used more frequently than AF/AP by all but the oldest generation
- For the youngest generation, AF is never mandatory and appears only 5% of the time
- While several stated a preference for AF, only 1 speaker (41-50) used AF for all items
- Significant age effect ( $\beta$ :  $-6.04 \pm 4.80$ ,  $p < 0.05$ )
- No significant animacy effect (291 vs. 397 transitives in AA vs. AI conditions)

#### 4.3 Wh-Questions

<sup>3</sup> Significance was calculated using a fixed effect linear regression with subject and item as random effects.

**Figure 6:** Instances of transitives vs. AF/AP in subject wh-questions by age



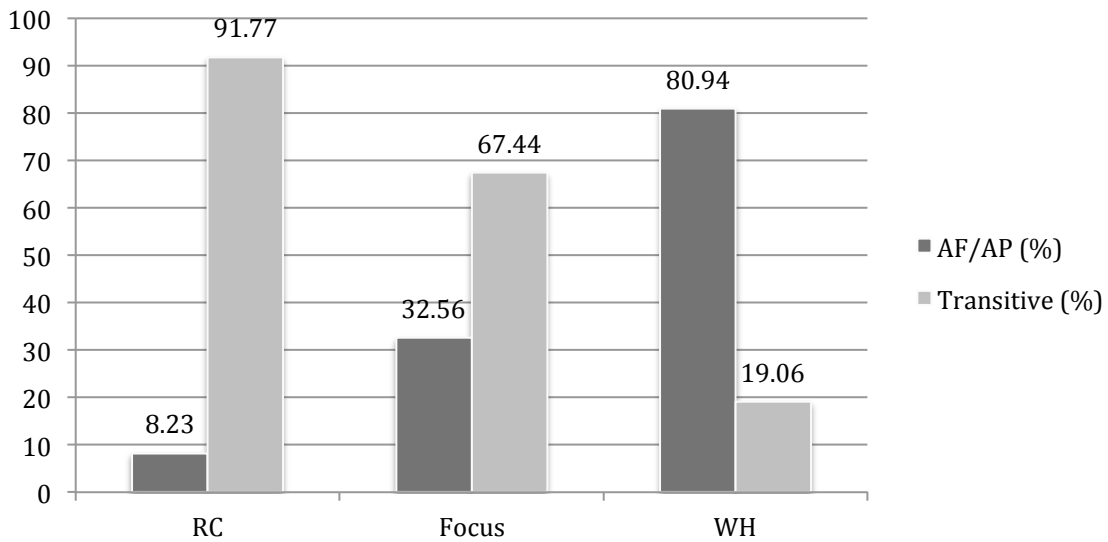
- AF/AP is mandatory for most speakers, and all speakers over the age of 40
- BUT transitive structures are becoming more acceptable when questioning subjects for speakers 20-30
- Significant age effect ( $\beta$ :  $14.19 \pm 2.04$ ,  $p < 0.0001$ )
- No significant effect for animacy (24 vs. 29 transitives in AA vs. AI conditions)

**4.4 Overarching trends**

**Table 2:** Instances of transitives vs. AF/AP in subject extraction

	AF/AP	Transitive
RC	20	223
Focus	224	464
WH	225	53

**Figure 7:** Instances of transitives vs. AF/AP in subject extraction (%)



-Asymmetrical distribution of syntactic ergativity

-Subject wh-questions are the only constructions which still require AF/AP for a majority of speakers

## 5. Thoughts on the asymmetry

-Counterexample to the observed tendency that subordinate clauses are less subject to syntactic change than main clauses (Givón 1971, 1984).

Extraction contexts within Mayan:

-Observation from Stiebels (2006:510-11) that AF is most often mandatory in focus contexts (12/15), followed by questions (9/15), then relative clauses (6/15).

-Only Mam has mandatory AF for wh-questions and not focus or RCs (cf. England 1983)

-Poqomam and Poqomchi' have optional AF in all three contexts

-Chukchi shows the opposite pattern, with restrictions on the ergative in RCs but not wh-questions (Polinsky to appear, examples 15-17).

-Frequency and/or salience effects: Wh-questions vs. relative clauses

## 6. Conclusion

-It is not only 'some' speakers who do not have mandatory AF/AP in contexts of A' extraction, it is now quite common, suggesting that syntactic ergativity is being lost in Kaqchikel

-This loss is asymmetric, with RCs and focus constructions employing more transitives than wh-questions

-There is evidence of age-grading, where the young adult generation is least likely to find AF/AP mandatory in any of the three contexts

-Animacy (semantic ambiguity) does not affect the use of AF/AP

-Research on AF and AP in Kaqchikel therefore needs to be conducted carefully

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