

Non-presuppositional possession in K'iche'*

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Abstract: Much of the research on pragmatic presupposition has centered around factivity in the clausal/propositional domain (Abbott 2000; Stalnaker 1974). This paper is a case study of pragmatic presupposition in the nominal/individual domain. I show that genitive marking in K'iche' is a softer trigger for existence implications than it is in English. This is manifest in the fact that possessors and recipients are formally indistinguishable in the language, a phenomenon which I call *internal reciprocity*. I argue that this cross-linguistic difference can be reduced to morphological expressibility in the determiner paradigm and how it interacts with the Strongest Meaning Hypothesis (Dalrymple et al. 1998).

Keywords: possession, recipients, pragmatic presupposition

1 Introduction

External possession refers to the state of affairs where a possessor—an argument canonically associated with nominal syntax—is realized as a verbal dependent (Deal 2013). The core data point discussed in this paper is the much lesser-known inverse phenomenon, where a recipient—an argument canonically associated with verbal syntax—is realized as a verbal dependent. The name *internal recipients* (IRs) will be used to refer to those arguments, and can be viewed as a descriptive label until the syntax of IRs is established in Section 3. For the moment, it suffices to note that possessors and recipients are syncretic across the board in K'iche'. This is exemplified in the following sentence, which is translated as either (1a) or (1b), depending on the context.¹

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¹Throughout the paper, I adopt the Mayanist convention to gloss person-number agreement markers as belonging to Set A and B. Absolutive agreement uses Set B, and Set A markers are used for both ergative and genitive agreement. The paradigm, for reference (Larsen 1988):

(i)

	1SG	2SG	3SG	1PL	2PL	3PL
Set A pre-vocalic	w-/inw-	aw-	r-	q-	iw-	k-
Set A pre-conson.	nu-/in-	a-	u-	qa-	i-	ki-
Set B	in-	at-	∅-	oj-	ix-	e'-/V'-

The verbal complex in K'iche' obeys the following form:

- (ii) Aspect - Set B - Set A - Root - Status
- { IMPFV k- }
{ PFV x- }

Status markers are collapsed with the root throughout the paper, as they are not relevant to the discussion.

- (1) K-u'-u-loq' nu-pwi' ri ali Maria.
 IMPFV-3PL.B-3SG.A-buy 1SG.A-hat DEF FEM Maria.
- a. 'Maria will buy **my** hats.'
- b. 'Maria will buy **me** hats.'

IRs in K'iche' were first discussed in Croft (1985). They have also been documented sporadically elsewhere in Mesoamerica (Sonnenschein 2004; Suárez 1983), South America (Derbyshire 1979), Melanesia (van den Berg 2012), Micronesia (Song 1997; Willson 2008), and Papua (Laycock 2003). However, the relation between (1a) and (1b) is not very well understood to this day. I consider the three possibilities in (2), and ultimately side with (2iii).

- (2) i. *Structural ambiguity*: The Set A marker in (1) can occupy two structurally distinct positions; one is associated with possession, the other with reciprocity.
- ii. *Derivational ambiguity*: The two readings have identical surface representations, but the recipient reading is *derived* via lowering into a noun phrase, in a move analogous to possessor raising. This is proposed in Croft (1985).
- iii. *Identity*: There is no representational difference whatsoever tracking the two readings. Instead, general pragmatic principles are responsible for the availability of recipient interpretations in K'iche'.

In Section 2, I introduce the construction in some detail, and expose the relevant contrasts for its licensing. In Section 3, I discuss its syntax. Specifically, I show that hypotheses (2i) and (2ii) are not well supported, and that the syntactic behavior of IRs is much like that of possessors. In Section 4, I flesh out a version of hypothesis (2iii) consistent with the facts, and situate K'iche' within the typology of possession systems.

2 Internal recipients

In this section, I discuss the specifics of internal recipients in K'iche'. First, they have a wider distribution than other forms of expressed recipients. Second, in a way completely parallel to the licensing of the English double object construction, there is an effect of the selecting predicate: recipient readings are only available with verbs that involve the creation, acquisition, or transfer of their object. Third, there is a definiteness effect: marking an object as definite blocks the recipient interpretation.

2.1 Ways of expressing recipients

In what is known as the dative alternation, recipients in English can be realized in one of two ways: as a prepositional phrase, (3a), or as an applicative, (3b).

- (3) a. Maria will give hats to me.
 b. Maria will give me hats.

However, the distribution of applicative recipients is strictly wider than that of PP recipients. Applicatives are available even with verbs which don't select for a recipient argument, like 'buy'.

2.3 Definiteness effect

One last qualification regarding the availability of IRs is the interaction with definiteness. K'iche' has a number of determiners that come with definite force. These determiners are morphosyntactically independent from genitive marking, which means that a definiteness contrast is maintained whether a noun is possessed or not.

A good place to introduce this effect is with the existential/locative copula *k'oo*. Possession ascription, shown in (10a), is achieved using this copula and an indefinite noun phrase. The argument of *k'oo* can also be definite, as shown by the addition of the determiner *ri* in (10b), but in that case an overt location must be specified.

- (10) a. E'-k'oo u-pwi' ri ali Maria.
 3PL-be 3SG.A-hat DEF FEM Maria.
 'Maria has hats.' (Lit.: 'There are Maria's hats.')
- b. E'-k'oo ri u-pwi' ri ali Maria *(pa ri nu-ch'ich').
 3PL-be DEF 3SG.A-hat DEF FEM Maria *(in DEF 1SG.A-car).
 'Maria's hats are in my car.'

What (10) shows is that the addition of *ri* in a copular sentence prevents an existential interpretation. Moving to predicates of transfer of possession, definiteness instead blocks recipient interpretations. Neither (11) nor (12) supports a reading where I acquire hats.

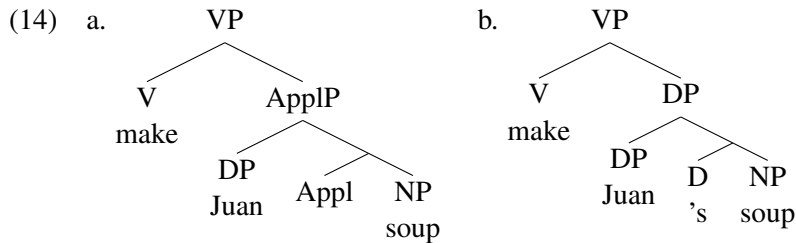
- (11) K-u'-u-loq' ri nu-pwi' ri ali Maria.
 IMPFV-3PL.B-3SG.A-buy DEF 1SG.A-hat DEF FEM Maria.
 'Maria will buy {✓my/✗me} hats.'
- (12) K-u'-u-k'ayij ri nu-pwi' ri ali Maria.
 IMPFV-3PL.B-3SG.A-sell DEF 1SG.A-hat DEF FEM Maria.
 'Maria will sell {✓my/✗me} hats.'

This creates an interesting expressibility gap. IRs are not available when the object is definite, (13a), or possessed, (13b).

- (13) a. Maria will buy me the hats.
 b. Maria made Juan her soup.

2.4 Taking stock

What is the best analysis of IRs given the properties discussed in this section? The first two properties suggest a similarity with low applicatives. Like them, IRs depend on the lexical semantics of the selecting predicate, and they are sometimes the only way to express reciprocity in the language. It might therefore be tempting to adopt a version of structural ambiguity hypothesis in (2i), where possessors occur inside a nominal, and recipients inside an applicative phrase.



In the next section, I show that this superficial similarity does not withstand further scrutiny.

3 The syntax of IRs

Possessors and applicatives usually show different patterns with respect to passivization and extraction. In this section, I show that IRs pattern very much like possessors, a fact which militates against the idea that they should have distinct syntactic structures.

3.1 Passivization

The only element that can be passivized out of a low applicative structure like (14a) is the recipient, i.e. the specifier (Pylkkänen 2002). In contrast, we see from (16) that K'iche' allows the equivalent of either (15b) or (15c), given the plural marking on the passivized form.

- (15) a. Juan was made soup. [specifier]
 b. *Soup was made Juan. [complement]
 c. *Juan soup was made. [specifier and complement]

- (16) X-e'-sipax u-pwi' ri a Xwan.
 PFV-3PL.B-give.PASS 3SG.A-hat DEF MASC Juan.
 'Hats were given to Juan.'

In fact, the option of passivizing the specifier in isolation is not available: (17), with singular marking on the verb, cannot be a sentence about multiple hats.

- (17) X-∅-sipax u-pwi' ri a Xwan.
 PFV-3SG.B-give.PASS 3SG.A-hat DEF MASC Juan.
 'A hat was given to Juan.' (✓hat, ✗hats)

3.2 Extraction

Nominals and applicative phrases also differ in their potential for extraction. Here, movement of the specifier is disallowed, as is movement of the whole applicative complex.

- (18) a. *Who did you make soup?
 b. *It's Juan you made soup.

(19) *It's Juan soup you made.

Crucially, K'iche' IRs allow both. Example (20) shows specifier extraction. Example (21) shows extraction of the whole phrase. Example (22) shows pied-piping with inversion.

- (20) a. ζ Chin_i x- \emptyset -a-b'an u-kalto t_i ?
 ζ Who_i PFV-2SG.B-3SG.A-make 3SG.A-soup t_i ?
 'Who did you make soup for?'
 b. Aree' [ri a Xwan]_i x- \emptyset -a-b'an u-kalto t_i .
 FOC [DEF MASC Juan]_i PFV-3SG.B-2SG.A-make 3SG.A-soup t_i .
 'It's Juan you made soup for.'

- (21) Aree' [u-kalto ri a Xwan]_i x- \emptyset -a-b'ano t_i .
 FOC [3SG.A-soup DEF MASC Juan]_i PFV-1SG.B-2SG.A-make t_i .
 'It's soup for Juan you made.'

- (22) a. ζ [Chin_j u-kalto t_j]_i x- \emptyset -a-b'ano t_i ?
 ζ [Who_j 3SG.A-soup t_j]_i PFV-3SG.B-3SG.A-make t_i ?
 'Who did you make soup for?'
 b. Aree' [[ri a Xwan]_j u-kalto t_j]_i x- \emptyset -a-b'ano t_i .
 FOC [[DEF MASC Juan]_j 3SG.A-soup t_j]_i PFV-3SG.B-2SG.A-make t_i .
 'It's Juan you made soup for.'

Synthesizing, we get the picture in (23) for extraction possibilities. Clearly, this suggests a nominal syntax.²

(23)

		Specifier	Complement	XP
English	ApplP	✗ (18)	✓	✗ (19)
	DP	✗	✗	✓
K'iche'		✓ (20)	✗	✓ (21)/(22)

3.3 Conclusion

The data presented in this section show that IRs are most consistent with a nominal structure, which justifies the original decision to call them *internal recipients*. This, taken with the fact that there are no obvious language-internal syntactic differences between possessors and recipients, makes any account based on syntactic ambiguity a hard sell. In what follows, I consider a purely pragmatic alternative, which also attempts to make sense of the definiteness effect introduced in Section 2.3.

²The main difference in this table is with respect to specifier extraction. This can be explained if we grant that pied-piping is obligatory in English, but not K'iche'.

4 Proposal

The main proposal advanced here is that genitive morphology should be treated as a simple nominal modification, and that type shifting operations derive the possessor and recipient interpretations. Under this view, K’iche’ differs from the familiar European possession systems in that genitive morphology is a weaker presupposition trigger. This cross-linguistic difference stems from morphological expressibility and how it interacts with the Strongest Meaning Hypothesis (Dalrymple et al. 1998): K’iche’—unlike English—does not neutralize the definiteness contrast for genitive-marked nominals.

4.1 The meaning of genitive marking

The semantics of genitive marking has received many analyses over the years. Although the details are not crucial to the point being made here, we can adopt a version of Barker (1995), where genitive marking turns a one-place predicate like ‘hat’ into a two-place predicate.

- (24)
- | | |
|---|--|
| <pre> DP ├── DP │ └── Juan ├── D │ └── 's └── NP └── hat </pre> | <p>a. $\llbracket 's \rrbracket = \lambda P.\lambda y.\lambda x.POSS(y,x) \wedge P(x)$</p> <p>b. $\llbracket 's \text{ hat} \rrbracket = \lambda y.\lambda x.POSS(y,x) \wedge HAT(x)$</p> <p>c. $\llbracket \text{Juan's hat} \rrbracket = \lambda x.POSS(j,x) \wedge HAT(x)$</p> |
|---|--|

Example (24) is a predicate, and as such needs to be “prepared” for further composition. This function is usually carried out lexically by the D category, but assuming that the genitive marker itself is of category D, there is no way in English to append an additional determiner like ‘a’ or ‘the.’ For this reason, we can say that English is essentially a determiner-less language when it comes to possessive descriptions. The widely accepted solution to the compositionality problem posed by determiner-less languages is type shifting (Partee 1987). To get the familiar existence presupposition associated with possessive descriptions, we can simply employ the IOTA type shift, the silent equivalent of ‘the.’ Modulo this shift, the meaning of (24) ends up being equivalent to “the hat x such that x is possessed by Juan.”³

In K’iche’, determiners freely co-occur with genitive morphology, suggesting that genitive relation markers are lexicalized under a distinct category. As such, standard possessive descriptions are standardly expressed using one of the definite force-bearing determiners, like *ri*.

- (25)
- | | |
|---|---|
| <pre> DP ├── D │ └── ri └── PossP ├── Poss │ └── u- ├── NP │ └── hat └── DP └── Juan </pre> | <p>a. $\llbracket u\text{-hat Juan} \rrbracket = \lambda x.POSS(j,x) \wedge HAT(x)$</p> <p>b. $\llbracket ri \text{ } u\text{-hat Juan} \rrbracket = \text{the maximal element in } \llbracket PossP \rrbracket \text{ when defined; undefined otherwise.}$</p> |
|---|---|

In contrast to definites, indefinite NPs in K’iche’ are bare, meaning that they must undergo existential type shifting. IRs now receive a straightforward analysis: they are simply bare genitive-marked nominals—essentially, the downstairs part of (25)—which get interpreted existentially. Because existence is entailed rather than presupposed, this opens the way to an interpretation where

³However, note the debate surrounding uniqueness and possessive descriptions (Partee and Borschev 2001).

an entity satisfying the descriptive content of (25a) is understood to exist *as a result of* the broader sentential context holding. This is obvious in the case of sentences involving a verb of creation like ‘make’: a hat-making event can easily cause the existence of a hat with any number of properties, including the property of being possessed by Juan. The idea also extends to cases where the bare possessive description is the object of a verb of transfer of possession like ‘give.’ In this case, it is the first conjunct of (25a) that’s relevant, and here again it is conceptually plausible that a giving event could bring into “existence” a hat owned by Juan.

The present proposal derives the two core distributional properties of IRs discussed in Section 2. First, because recipient interpretations are the result of existential type shifting, it is natural to expect an overt definite determiner to block these interpretations. Second, IRs are only available when the selecting predicate is one that conceptually allows its object to come into existence. In what follows, I discuss outstanding issues in turn. Section 4.2 expands on the selecting predicate requirement. Section 4.3 tackles the problem of cross-linguistic variation, and of what prevents existential interpretations in languages like English.

4.2 Possessive descriptions under other verbs

We now have a system which allows existential interpretations of indefinite genitive-marked NPs. The question arises as to whether such interpretations are allowed under non-existence-entailing verbs like ‘see.’ As was shown in example (9), repeated here, such NPs are translatable with a plain possessed form, suggesting that existence is presupposed here. By placing these in an entailment-canceling context like the antecedent of a conditional as in (26), we can verify that that is indeed the case.

(9) a. K-e’-r-il nu-pwi’ ri ali Maria.
 IMPFV-3PL.B-3SG.A-see 1SG.A-hat DEF FEM Maria.
 ‘Maria will see my hats.’

b. X-∅-u-tij u-kalto ri a Xwan ri ali Maria.
 PFV-3SG.B-3SG.A-eat 3SG.A-soup DEF MASC Juan DEF FEM Maria.
 ‘Maria ate Juan’s soup.’

(26) We x-∅-u-tij u-kalto ri a Xwan ri ali Maria,
 If PFV-3SG.B-3SG.A-eat 3SG.A-soup DEF MASC Juan DEF FEM Maria,
 k-∅-a-b’ij ch w-e.
 IMPFV-3SG.B-2SG.A-say PREP 1SG.A-REL.
 ‘If Maria eats Juan’s soup, tell me.’

Example (26) shows that the existence implication survives, passing the diagnostic for presupposition. What this suggests is that, even when not mandated by any hard principle or convention in the language, there is a strong conversational basis to existence presuppositions. In other words, K’iche’ possessive descriptions are still subject to pragmatic presupposition. This is not surprising, as similar conclusions can be drawn with other indefinite relational descriptions in English.

Consider the contrast in (28). The existence of an essay about albino bonobos is not implied in any way by (27a), but it is strongly suggested by (27b). This presupposition does not arise as a function of the intrinsic meaning of ‘an essay about albino bonobos,’ but instead is the result of

reasoning about the utterance meaning as a whole. Putting everything in perspective, my proposal amounts to a claim that this behavior with indefinites extends to possessive descriptions in some languages. K'iche' thus provides a good platform for the study of pragmatic presupposition in the nominal/individual domain, where most research has focused on factivity in the clausal/propositional domain (Abbott 2000; Abusch 2002; Simons 2001; Stalnaker 1974).

- (27) a. John will write an essay about albino bonobos.
 b. John will read an essay about albino bonobos.

However, with a richer context in hand, we find another class of non-presupposed possessive descriptions in K'iche'. The genitive-marked argument in those cases is neither an actual possessor nor an prospective possessor (recipient), but rather a suspected possessor. This interpretation crucially depends on verbs with evidential import like 'see' (*il*), 'find' (*riq*) and 'hear' (*ta*).

- (28) (Context: Juan has been warned repeatedly not to bring in dogs into his apartment, but I suspect that he might have. You are his neighbor. I would like you to help me enforce the rule.)

We k-θ-a-{il/riq/ta} u-tz'i' ri a Xwan,
 If IMPFV-3SG.B-2SG.A-{see/find/hear} 3SG.A-dog DEF MASC Juan,
 k-θ-a-b'ij ch w-e.
 IMPFV-3SG.B-2SG.A-say PREP 1SG.A-REL.
 'If you find out that Juan has a dog, tell me.'
 (Lit.: 'If you {see/find/hear} Juan's dog, tell me.')

This is consistent with the view that existence presuppositions are not conventional in K'iche'.

4.3 Blocking existential interpretations

To review the system developed so far: possessive descriptions are predicates semantically speaking, and undergo type shifting to compose with transitive meanings. Recipient interpretations rely on the existential type shift (\nearrow_{\exists} in (29a)), and traditional possessor interpretations rely on IOTA (\nearrow_{iota} in (29b)). As such, existence presuppositions behave like pragmatic presuppositions, in that they are completely optional.⁴ What is now left to explain is the behavior of existence presuppositions associated with genitive-marked NPs in languages like English, where they are much more rigid. In other words, (29b) is the only available representation in English.

- (29) Maria bought Juan's hat
 a. $\llbracket \text{bought} \rrbracket (\nearrow_{\exists} \llbracket \text{Juan's hat} \rrbracket) (\llbracket \text{Maria} \rrbracket)$
 $= \exists x. \text{POSS}(j, x) \wedge \text{HAT}(x) \wedge \text{BOUGHT}(m, x)$
 b. $\llbracket \text{bought} \rrbracket (\nearrow_{iota} \llbracket \text{Juan's hat} \rrbracket) (\llbracket \text{Maria} \rrbracket)$
 $= \text{BOUGHT}(m, \iota x[\text{POSS}(j, x) \wedge \text{HAT}(x)])$

⁴This is an understatement, as in the absence of a definite determiner, possessor interpretations are more often than not infelicitous in K'iche'. This is easily explained by Heim (1991)'s Maximize Presupposition! constraint.

These two sentence meanings are not logically independent; (29b) is strictly stronger than (29a). As such, the selection between the two is amenable to a version of the Strongest Meaning Hypothesis (Dalrymple et al. 1998). The SMH, first proposed for account for existential and universal readings of reciprocals, states that, when a linguistic expression is compatible with more than one representations, the strongest of the two is automatically selected at interpretation.

(30) *Strongest Meaning Hypothesis for nominal type shifts*

For any two meanings ϕ , ψ for a sentence S, pick ϕ over ψ if (i) ϕ asymmetrically entails ψ , and (ii) there is no distinct alternative S' to S compatible with ϕ to the exclusion of ψ .

Example (30ii) is the *ceteris paribus* clause, meaning that the SMH is subordinated to any other pragmatic principle that makes reference to linguistically available alternatives (e.g., scalar implicature, Maximize Presupposition!, Chierchia (1998)'s blocking principle). We thus predict (30) to produce different results based on the morphosyntactic expressiveness of the language at hand. English has no lexical means to express one meaning to the exclusion of the other, so SMH enforces a definite-like interpretation. On the other hand, because K'iche' maintains a formal definiteness contrast with possessive descriptions, the SMH has no say over which type shifting operation should be used.

5 Conclusion

In this paper, I have introduced the phenomenon of internal recipients in K'iche', in many ways the conceptual inverse of external possessors. Although the distribution of IRs is superficially similar to that of low applicatives, I have argued against the need for a specialized semantics, and in favor of a purely pragmatic approach. Under this view, languages are subject to variation with respect to whether genitive morphology is a conventional trigger for existence presuppositions. This variation is explained in terms of morphosyntactic expressibility in the D category, and the Strongest Meaning Hypothesis. This makes the strong prediction that a language should allow existential interpretations of possessive descriptions—and a fortiori internal recipients—so long as the following conditions hold: (i) this language has the formal means to express definiteness, and (ii) these means are independent from the possession system. This prediction is in principle easy to test. A good place to start would be languages in which possession ascription is achieved using an existential copula and a possessed nominal form.

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