Reflexive Functional Head, Verbal and Nominal Predicates

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1. Introduction

This paper investigates reflexives in the Mayan language Kaqchikel. As shown in (1), reflexives are formed morphologically by the -i’ exponent and a person-number agreement marker corresponding to the antecedent.

(1) a. Rije x-a-ki-tz’ët rat b. Rije x-ki-tz’ët k-i’
   3PL PST-ABS.2SG-ERG.3PL-see 2SG 3PL PST-ERG.3PL-see 3PL-REFL
   ‘They saw you.’ ‘They saw themselves (in a mirror).’

The paper will demonstrate that, although reflexivized predicates in Kaqchikel remain syntactically and semantically transitive, Kaqchikel reflexives such as ki’ in (1) are not DPs in argument positions but rather clitics. I argue that Kaqchikel reflexives are best analyzed in terms of the functional head approach, initially developed by Labelle (2008). There is a special reflexive Voice-type head that introduces an external argument and establishes co-reference between the object and the subject. I further elaborate the original analysis to account for the specific properties of Kaqchikel reflexives, including their incompatibility with an absolutive marker, and for one puzzle in particular – a peculiar behavior of relational nominal predicates (similar to English friend, enemy) with respect to reflexives that contrasts with properties of non-relational nominal predicates.

The rest of the paper is structured as follows. Section 2 describes semantic and syntactic properties of Kaqchikel reflexives and reflexivized predicates. Section 3 presents the proposed analysis. Section 4 provides an account for the nominal predicate puzzle drawing a parallel between transitive verbs and relational nouns.

2. Kaqchikel syntax and reflexivity

2.1. Reflexive marking and transitivity

Kaqchikel is a Mayan language belonging to the K’ichean branch. Typically for all Mayan languages, it uses head marking, has rich verbal morphology and exhibits ergative alignment. Nominal arguments cannot be overtly marked for case and, as illustrated in (2), pronominal arguments can be easily dropped. According to the literature, the standard word order in Kaqchikel is VOS; however, it varies across different dialects (Patal Majzul 2000) and many speakers from Patzún prefer VSO sentences instead. Another common option is SVO word order. In Kaqchikel various voice-like transformations are available, including passive, antipassive and Agent Focus.2

The paradigms of Kaqchikel ergative and absolutive markers are given in (3). Following Preminger (2014), a.o., I assume that absolutive markers are clitics while ergative markers are true agreement morphemes. The same set of agreement prefixes is used as possessive markers. Morphologically, Kaqchikel reflexives are formed by the -i’ exponent and a person-number prefix.

(3) Agreements markers, clitics and pronouns

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<th>ERG / POSS</th>
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<th>Free pronouns</th>
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I argue that reflexivized predicates in Kaqchikel remain syntactically and semantically transitive. First, an ergative marker corresponding to the subject must be present (4).

(4) a. Rín x-at-in-tz’ët rat b. Rín x-in-tz’ët w-i’

1SG PST-ABS.2SG-ERG.1SG-see 2SG 1SG PST-ERG.1SG-see 1SG-REFL
‘I saw you.’ ‘I saw myself (in a mirror).’

Second, from the semantic point of view, the two arguments – the reflexive and its antecedent – do not have to be strictly coreferential. First, sentences with plural reflexives can get a reciprocal interpretation (5); in order to resolve potential ambiguity an adjunct can be used.

(5) Röj x-qa-tz’ët q-i’ (chi qa-kojól)

2PL PST-ERG.1PL-see 1PL-REFL between POSS.1PL-REL
(a) ‘We saw ourselves.’ (b) ‘We saw each other.’

Second, reflexives can receive the so-called proxy reading. For example, in (6a) and (6b) the subject referent is not identical to the object referent, although the two are clearly related.

(6) a. Ri político x-u-nïm r-i’ pa museo

DET politician PST-ERG.3SG-drop 3SG-REFL at museum
(about a sculpture) ‘The politician dropped himself in a museum.’

b. A Xwan x-u-q’ejela’ r-i’

DET Juan PST-ERG.3SG-approach 3SG-REFL
(about a dream) ‘Juan approached himself.’
2.2. Reflexives and referential DPs

It might be tempting to assume that reflexives in Kaqchikel are merely DPs in argumental positions similar to, for example, English -self reflexives (see Déchaine and Wiltschko (2017) for a universal typology of reflexives in respect to their structural size). In this subsection I compare the syntactic behavior of reflexives and referential DPs in Kaqchikel to demonstrate that they do not belong to the same category.

First, unlike referential DPs, reflexives resist any kind of A or A-bar movement. They cannot be individually focused or negated; likewise, they cannot be separated from the main predicate in sentences with ellipsis (compare the ungrammatical (a) examples in (7) and (8) with their grammatical (b) counterparts).

(7) Focus
a. *Ja r-i’ x-u-ch’äy ri Pedro
   FOC 3SG-REFL PST-ERG.3SG-hit DET Pedro
   {Who did Pedro hit?} ‘Pedro hit HIMSELF.’
   b. Ja ri Juan x-Ø-u-ch’äy ri Pedro
   FOC DET Juan PST-ABS.3SG-ERG.3SG-hit DET Pedro
   {Who did Pedro hit?} ‘Pedro hit JUAN.’

(8) Ellipsis
a. *Rïn x-in-ch’äy w-i’ y ri Pedro r-i’
   1SG PST-ERG.1SG-hit 1SG-REFL and DET Pedro 3SG-REFL
   Intended: ‘I hit myself and Pedro hit himself.’
   b. Rat x-Ø-a-tz’ët ri Maria y rïn ri Anna
   2SG PST-ABS.3SG-ERG.2SG-see DET Maria and 1SG DET Anna
   ‘You saw Maria and I saw Anna.’

Second, reflexives are restricted to the direct object position. Unlike referential DPs, they cannot be used within PPs (9) or in equative constructions (10).

(9) Complements of PPs
a. *Achike x-Ø-loq-ö ri q’anatz’ub’ chi (r-e) r-i’?
   who PST-ABS.3SG-buy-AF DET mango for POSS.3SG-REL 3SG-REFL
   ‘Who bought himself a mango?’
   b. Achike x-Ø-loq-ö ri q’anatz’ub’ chi r-e rija’?
   who PST-ABS.3SG-buy-AF DET mango for POSS.3SG-REL 3SG
   ‘Who bought him a mango?’

(10) Equative constructions
*Rïn in-w-i’
1SG ABS.1SG-1SG-REFL
Intended: ‘I am myself.’ (= I am what I am)

Third, reflexives prohibit coordination with referential DPs (11), although normally two phrases of the same type are expected to be able to be combined.

(11) a. *Rat x-Ø-a-ch’äy aw-i’ y ri Pedro
   2SG PST-ABS.3SG-ERG.2SG-hit 2SG-REFL and DET Pedro
   ‘You hit yourself and Pedro.’
Fourth, a reflexive cannot be linearly separated from the reflexivized predicate (12). As mentioned earlier, VSO word order is normally accepted by speakers, however when a reflexive is present, it is no longer an option. Similarly, no adverb can intervene between a reflexive and the predicate.

(12) a. *X-u-chop Pedro r-i’
   PSR-ERG.3SG-touch Pedro 3SG-REFL
   ‘Pedro touched himself (on his arm).’

b. X-Ø-u-chop Pedro ri Juan
   PSR-ABS.3SG-ERG.3SG-touch Pedro DET Juan
   ‘Pedro touched Juan (on his arm).’

c. Rat x-Ø-a-tz’ët (iwir) ri Pedro (iwir)
   2SG PST-ABS.3SG-ERG.2SG-see yesterday DET Pedro yesterday
   ‘You saw Pedro yesterday.’

d. Rat x-a-tz’ët (*iwir) aw-i’ (iwir)
   2SG PST-ERG.2SG-see yesterday 2SG-REFL yesterday
   ‘You saw yourself (in the mirror) yesterday.’

Finally, reflexive objects are not indexed a predicate by an absolutive clitic. An absolutive marker corresponding to the direct object is obligatory in (13b), but is prohibited in (13a).

(13) a. Rïn x-(*n-)in-tz’ët w-i’
   1S PST-ABS.1SG-ERG.1SG-see 1SG-REFL
   ‘I saw myself (in a mirror).’

b. Rïn x-at-in-tz’ët rat
   1S PST-ABS.2SG-ERG.1SG-see 2SG
   ‘I saw you.’

One might suggest that all Kaqchikel reflexives are morphologically third person singular and that in (13a) a silent absolutive marker is present (Coon and Henderson, 2011, a.o.). However, this assumption leads to a wrong prediction. As illustrated in (14), reflexives with a ‘proxy’ interpretation can be modified independently from their antecedents. In this case the modifier obligatorily agrees with the reflexive and the agreement marker is not necessarily third person singular.

(14) a. (Chpan re wachib’äl) rat x-a-tz’ët aw-i’ y-a-kikot.
    in the picture 2SG PST-ERG.2SG-see 2SG-REFL PRS-ABS.2SG-happy
    ‘In the picture you saw yourself happy.’ (You were happy in that picture.)

b. *(Chpan re wachib’äl) rat x-a-tz’ët (*iwir) aw-i’ ni-Ø-kikot.
    in the picture 2SG PST-ERG.2SG-see 2SG-REFL PRS-ABS.3SG-happy
    ‘In the picture you saw yourself happy.’ (You were happy in that picture.)

Taking into account all these properties, I argue that reflexivized predicates in Kaqchikel remain transitive and that reflexives differ from referential DPs in argument positions and resemble clitics. In the next section I present an analysis that can capture all relevant properties of Kaqchikel reflexives.

3. Reflexive Voice analysis

3.1. Introducing a Reflexive Voice head

Before proceeding with the analysis, a few words need to be said about the adopted background assumptions. First, I assume that the basic V1 word order results from the V head movement (see Clemens and Coon (in press) for a detailed discussion). Second, I follow Coon and Henderson (2011) in that in Kaqchikel vP is generated above VoiceP. Finally, I adopt the analysis proposed by Coon et al. (2014) to describe the agreement mechanism in transitive clauses. In Kaqchikel clauses I0 agrees with the object, raised to the Spec,vP, while v0 agrees with the subject, base-generated in Spec,VoiceP. This results in derivation of an absolutive clitic and an ergative agreement morpheme, respectively.
To describe reflexives in Kaqchikel I adopt and further elaborate the analysis proposed by Labelle (2008). Labelle’s main idea is that in some languages a special reflexive Voice-like head (ReflVoice°) can be introduced that serves two functions. First, ReflVoice° selects a VP with an internal argument (a silent variable) as its complement and introduces an external argument. Second, it defines the object variable via the subject reference. The semantic representation for the ReflVoice head is given in (15). Notice that the relation between the subject and object variables is described as a function, that is the two are not necessarily identical, which allows for reciprocal and proxy interpretations.

(15) Semantic representation for ReflVoice head (Labelle 2008)
\[ \lambda\hat{P}\lambda x\lambda y\lambda e [P(e, y) \text{ and } \text{Agent}(e, x) \text{ and } y = f(x)] \]

Labelle (2008) focuses on the French reflexive *se*. She argues that in French, reflexivized predicates become intransitive and, therefore, the above-mentioned object variable is present on the semantic level but not in the syntactic structure. I suggest that the syntactic presence of an object variable can be a language-specific parameter, since, as demonstrated in Section 2, in Kaqchikel reflexivized predicates remain syntactically and semantically transitive. The structure for Kaqchikel sentences with a reflexive is schematized in (16).

(16) Kaqchikel reflexivized predicates
\[ [vP\ v°[\text{VoiceP} \ \text{Subject}[\text{Voice} \ \text{Reflexive}[vP[v\ V [\text{Object variable}]]]]]] \]

I further elaborate Labelle’s analysis in an attempt to account for the absence of an absolutive marker. I propose that in Kaqchikel the reflexive voice head agrees with the object, resulting in an overt person-number marked -'i' clitic. The object becomes invisible for further cliticization and its agreement with the I head fails, which leads to the absence of an absolutive clitic (Preminger 2014).

3.2. Reflexive Voice and other functional heads on a clausal spine

The proposed analysis makes a few important predictions about the distribution of the ReflIV head and other functional heads on the clausal spine. First, ReflVoice° should be in complementary distribution with other Voice-type heads: it should be prohibited to passivize or antipassivize a reflexivized predicate. Second, ReflVoice° should be able to co-occur with functional heads of different types: for example, it should be possible to use a reflexive object in a causative construction. Both predictions are borne out (see the examples in (17) – (19) for passive, antipassive and causative constructions).

(17) Reflexives in passive constructions
   a. *X-tz’et-etäj w-i’ n-uma rín
      PST-see-PASS 1SG-REFL POSS.1SG-by 1SG
   b. X-i-tz’et-etäj r-uma nu-te’
      PST-ABS.1SG-see-PASS POSS.3SG-by POSS.1SG-mother
      ‘I was seen by myself.’

(18) Reflexives in antipassive constructions
   a. *X-i-t’z-et’on w-i’
      PST-ABS.1SG-see-AP POSS.1SG-for POSS.3SG-for 1SG-REFL
      Intended: ‘I saw myself.’ (antipassive)
   b. X-i-tz’et-on aw-ichin (rat)
      PST-ABS.1SG-see-AP POSS.2SG-for 2SG
      ‘I saw you.’
Another kind of verbal transformations common to Mayan languages is Agent Focus, also known in the literature as focus antipassive and agentive voice (Stiebels 2006). Many Mayan languages exhibit syntactic ergativity: in contrast with the direct object and the subject of an intransitive predicate, the subject of a transitive predicate cannot be A-bar extracted (see Polinsky (2016) for a detailed discussion of syntactic ergativity in world languages). In order to A-bar extract an ergative subject, the predicate needs to be detransitivized first; in Mayan languages Agent Focus is often used to do so (20).

(20) a. Achike x-i-ch’ey-o? b. Achike x-Ø-in-ch’äy?
   who PST-ABS.1SG-hit-AF who PST-ABS.3SG-ERG.1SG-hit
   ‘Who hit me?’ ‘Who did I hit?’

To describe the structure of Agent Focus constructions I adopt an analysis developed by Coon et al. (2014). In Mayan languages that exhibit syntactic ergativity A-bar extraction of the subject is blocked by the previous object raising to the Spec,vP; the direct object obligatorily moves in order to agree with I0 and the subject is trapped in its initial Spec,Voice position. Agent Focus is a Voice head that assigns a structural case to the direct object so that the latter stays in the lower position and the subject is free to move.

The only constructions that apparently do not comply with the syntactic ergativity restriction are those with a reflexivized predicate. Although these sentences are transitive, a subject can be freely extracted. Agent Focus transformation is not needed if the direct object is a reflexive; most importantly, reflexives in Kaqchikel cannot co-occur with agent focus (21).

(21) a. Achike x-u-ch’äy r-i’?
   who PST-ERG.3SG-hit 3SG-REFL
   ‘Who hit himself?’

The analysis for reflexives proposed in this paper easily accounts for this restriction. Reflexive arguments do not agree with I0 and do not move; therefore, the subject is free to be extracted. Furthermore, since reflexive is a Voice-type head it is in principle incompatible with the AF-Voice head.

4. Reflexives and nominal predicates

This section presents an additional puzzle that can be accounted for by the proposed reflexive voice analysis. In Kaqchikel both relational nouns (similar to English friend) and non-relational ones (similar to English doctor, dog, house) can be used as predicates. Relational nouns have to have a possessor, while for non-relational nouns the possessor is optional (22). In Kaqchikel, there is no overt copula; however, an absolutive marker corresponding to the subject of predication is normally required (23).

(22) a. ri *(aw-)achib’il b. ri (a-)jay
   DET POSS.2SG-friend DET POSS.2SG-house
   ‘your friend’ ‘your house’
(23) a. Rat at(-nu-)tijoxel  
b. Rîn in-aw-achib’il (rat)
   2SG ABS.2SG-POSS.1SG-student  
   ‘You are (my) student.’
   1SG ABS.1SG-POSS.2SG-friend 2SG
   ‘I am your friend.’

The puzzle under consideration is directly related to the behavior of reflexives. First, only relational nominal predicates can embed a reflexive possessor (24). Second, if the possessor is reflexive, an absolutive marker can no longer be present (25a), in contrast with non-reflexive examples where an absolutive clitic is required (25b).

(24) a. *Rat aw-aq’omanel aw-i’  
b. Rat aw-achib’il aw-i’
   2SG POSS.2SG-doctor 2SG-REFL 2SG ERG.2SG-friend 2SG-REFL
   Intended: ‘You are your (own) doctor.’ ‘You are your (own) friend.’
   c. Rat aw-aq’omaj aw-i’
      2SG ERG.2SG-cure 2SG-REFL
      ‘You cure yourself.’

(25) a. Röj (*oj-)q-achib’il q-i’  
b. Röj *(oj-)aw-achib’il (rat)
   1PL ABS.1PL-POSS.1PL-friend 1PL-REFL 1PL ABS.1PL-POSS.2SG-friend 2SG
   ‘We are friends (of each other).’ ‘We are your friends.’

To account for this peculiar behavior of nominal predicates in Kaqchikel I suggest, first, to look at the structural differences between relational and non-relational nouns. I follow Vergnaud and Zubizarreta (1992), Alexiadou (2003), a.o., in that possessors of non-relational nouns are base-generated above an NP in the dedicated Spec, PossP position, while possessors of relational nouns are base-generated within an NP as a complement of the nominal head.

Second, I propose that the reflexive functional head (ReflVoice⁰) can select not only a VP predicate but also an NP predicate as its complement. Remember that ReflVoice⁰ introduces an external argument and obligatorily links it with an internal one, that is, the selected VP / NP predicate must be transitive. Only NPs headed by a relational noun comply with this requirement.

Finally, treating relational nominal predicates as transitive accounts for the absence of an absolutive marker corresponding to the subject. I further suggest that possessive markers that are present in examples like those in (24) and (25) are in fact ergative agreement morphemes (as mentioned earlier, in Kaqchikel the paradigms for possessive markers and ergative markers are identical).

To summarize, the reflexive voice analysis provides a straightforward explanation for the nominal predicate puzzle and allows us to propose the following generalization: functional Voice heads do not select exclusively VP complements.

5. Conclusion

This paper has analyzed reflexivized predicates in Kaqchikel. In order to account for their properties, I have adopted and elaborated the Reflexive Voice analysis initially proposed in Labelle (2008) for French reflexives. According to this analysis, a special Reflexive Voice-type head can be used that selects a predicate with a silent variable as an internal argument, introduces an external argument and determines the reference of the internal variable via that of the external argument. Kaqchikel’s rich morphology allows us to further elaborate the analysis and to obtain new information about such properties of the functional reflexive head as agreement and selection.

Comparing the behavior of relational and non-relational nouns with respect to reflexives I have proposed that in Kaqchikel the reflexive voice head can select not only VP, but also NP complements. It should be further investigated if other Voice-type heads in Kaqchikel and beyond share this property.
References


