Nominalized antipassive constructions in Kaqchikel (Mayan)*

Irina Burukina
Hungarian Research Centre for Linguistics & Eötvös Loránd University

Abstract: The paper examines Voice transformations under event *-ik* nominalization in Kaqchikel (a Mayan language, ergative) presenting a previously undescribed puzzle: in a variety of Kaqchikel spoken in Patzún, Guatemala, antipassive in deverbal *-ik* nominals patterns with passive promoting an internal argument instead of the external one, unlike in finite clauses where the external argument survives antipassivization. To account for this peculiar behavior, I adopt Ranero's (2019) analysis for antipassive, whereby it is not a voice but a realization of the v head in the absence of VoiceP.

Keywords: antipassive, event nominals, argument structure, Kaqchikel, Mayan

1 Introduction

The paper discusses behavior of verbal categories under nominalization in Kaqchikel, a Mayan language, focusing on the antipassive voice in event *-ik* nominals. Based on novel data collected in Patzún, Guatemala, in 2018 I demonstrate that antipassive in *-ik* event nominalizations (1a) differs from its clausal counterpart (1b) and antipassive constructions found in other languages, as it unexpectedly promotes an internal argument instead of the external one.[1] Thus, nominalizing antipassivized predicates yields the same results with respect to the argument structure as nominalizing passivized predicates (see (2a) for an example of passive under nominalization and (2b) for an example of clausal passive).

(1) *Antipassive under nominalization and in finite clauses:*

a. X-Ø-inw-ajo' ri nu-kan-on-ik (rïn).
CMP-B.3SG-A.1SG-want DET A.1SG-search-AP-NMZ I
Only: 'I wanted someone to look for me.'
Not available: 'I wanted to look for something.'

b. Rïn x-i-kan-on (*ri llave).
I CMP-B.1SG-search-AP DET key
'I looked for something.'

(2) *Passive under nominalization and in finite clauses:*

a. X-Ø-inw-ajo' ri ru-kan-ox-ik ri llave.
CMP-B.3SG-A.1SG-want DET A.3SG-search-PASS-NMZ DET key
'I wanted (someone) to look for the key.'

* I would like to thank Maria Polinsky, Marcel den Dikken, and the audience at WSCLA 24 for their immensely helpful commentaries and suggestions. Thank you to my Kaqchikel consultants in Patzún, Guatemala, to Pedro Mateo Pedro and his family for organizing the field work, and to the Raquec Teleguario family for their support during my stay in Guatemala. The research has been funded by Jacobs Research Funds. All errors are my own.

Contact info: irina.burukina@btk.elte.hu

[1] Glossing abbreviations: A = set A (ergative/genitive), AP = antipassive, API = incorporating antipassive, APO = oblique antipassive, B = set B (absolutive), CAUS = causative, CMP = completive, DET = determiner, DTV = derived transitive, FOC = focus, FP = fronting particle, ICMP = incompletive, NMZ = nominalizer, PASS = passive, PL = plural, PROG = progressive, SG = singular.

Proceedings of the Workshop on the Structure and Constituency of Languages of the Americas 24, D. K. E. Reisinger and Hannah Green (eds.). Vancouver, BC: UBCWPL, 2023.

b. Rïn x-in-kan-ox (r-uma ri Pedro).
I CMP-B.1SG-search-PASS A.3SG-by DET Pedro
'I was looked for by Pedro.'

To account for these data, I first side with Ranero (2019) in that antipassive in Kaqchikel should be analyzed as absence of a VoiceP and not as a direct manipulation with the argument structure (contrary to Baker 1988, i.a.). Second, I argue that the deverbal event nominals under consideration are mixed categories derived via predicative control: a verbal extended projection is predicated of a possessor DP introduced in a higher nominal projection. For a saturated VoiceP/vP to serve as a predicate, it must contain a PRO variable that functions as an operator moving to the edge (Spec,VoiceP/vP). As the antipassive verbal projection lacks a VoiceP layer, PRO merged as an external argument has no higher position to move to. The last resort strategy is to use PRO as an internal argument. Hence, the derived antipassive nominal receives the same interpretation as its passive counterpart.

The paper contributes to the discussion of event nominalization and presents novel data in support of the analysis of antipassive as a 'no-Voice'. Many syntactic approaches to antipassive consider it to be a special type of Voice, directly interacting with the argument structure or restricting the case assignment (cf. Baker 1988; Dunn 1999; Basilico 2004, i.a.). The present paper provides an additional argument against such an analysis for Kaqchikel and in favor of the idea that the antipassive configuration is a vP in the absence of a VoiceP (Ranero 2019).

The paper is structured as follows. Section 2 provides an overview of the Voice system in Kaqchikel, while Section 3 considers event *-ik* nominals and presents the central puzzle. Section 4 proposes an analysis. Section 5 concludes the paper.

2 The Voice system in Kaqchikel

2.1 The basics of Kaqchikel syntax

Kaqchikel is a Mayan language belonging to the K'ichean branch; typically for all languages of the family, it uses head marking, has rich verbal morphology, and exhibits the ergative alignment. These properties are illustrated in (3), where objects of transitive predicates and a sole argument of an intransitive predicate are doubled by an absolutive clitic (Set B in the traditional Mayanist notation), while subjects of transitive predicates are encoded in a verb via an ergative agreement morpheme (Set A); furthermore, pronominal arguments are frequently dropped.[2]

(3) a. (Röj) y-at-q-oyo-j (rat).
we ICMP-B.2SG-A.1PL-call-DTV you
'We call you.'

b. (Rat) y-oj-aw-oyo-j (röj).
you ICMP-B.1PL-A.2SG-call-DTV we
'You call us.'

c. (Röj) y-oj-ok.
we ICMP-B.1PL-enter
'We enter.'

[2] For a discussion of morpheme vs. clitic status of the set A and set B markers in Mayan languages see Preminger (2014), a.o.

It should also be mentioned that the same set of agreement markers is used as ergative and genitive/possessive (4);[3] within the paper, I gloss all ergative/possessive/genitive morphology as (Set) A.

(4) a. Röj n-Ø-qa-tz'ët rija'.
we ICMP-B.3SG-A.1PL-see s/he
'We see him/her.'

b. qa-tz'i' / q-ochoch / qa-b'i'
A.1PL-dog A.1PL-house A.1PL-name
'our dog' / 'our house' / 'our name'

The standard word order in Kaqchikel is VOS (England 1991; Patal Majzul 2000; a.o.); however, it varies across different dialects (Patal Majzul 2000) and many speakers of the Patzún variety under discussion prefer VSO sentences instead. Another common option is the SVO word order, as can be seen in the examples above, which is usually analyzed as subject topicalization (external/internal merge in the topic position; England 1991; Clemens & Coon 2018).

2.2 The Voice system

2.2.1 Passive Voice

Both passive and antipassive are detransitivizing operations and, thus, apply only to transitive predicates. Under passivization, the external argument is either removed or demoted to an oblique phrase headed by the adposition *-u/oma*, while the internal argument is promoted to the subject position. Consequently, ergative marking is prohibited and only an absolutive clitic is present.

Passive Voice is encoded with either a zero exponent or the *-Vx* marker,[4] depending on the morphological properties of the stem. The zero marker is used on non-derived transitive predicates (mostly CVC clusters) (5).

(5) *Root transitives:*

a. Ri ak'wala' x-oj-ki-tz'ët röj.
DET children CMP-B.1PL-A.3PL-see we
'The children saw us.'

b. Röj x-oj-tz'et-Ø k-oma ri ak'wala'.
we CMP-B.1PL-see-PASS A.3PL-by DET children
'We were seen by the children.'

The overt marker appears on derived transitive verbs, including causatives, where it substitutes the *-j* marker of derived transitivity (6, 7).

[3] Incompletive is marked either with *n-* (if followed by the silent third person singular absolutive marker) or with *y-* (elsewhere).
[4] The vowel in Voice markers is typically *o*; occasionally, *u* appears instead, usually if there is *u* in the stem.

(6) *Derived transitives:*

a. Ri ak'wala' x-oj-ki-q'ete-j röj.
DET children CMP-B.1PL-A.3PL-hug-DTV we
'The children hugged us.'

b. Röj x-oj-q'etë-x k-oma ri ak'wala'.
we CMP-B.1PL-hug-PASS A.3PL-by DET children
'We were hugged by the children.'

(7) *Derived (causative) transitives:*

a. Ri ak'wala' x-e-ki-kam-isa-j ri ka'i' äk'.
DET children CMP-B.3PL-A.3PL-die-CAUS-DTV DET two rooster
'The children killed the two roosters.'

b. Ri ka'i' äk' x-e-kam-isa-x k-oma ri ak'wala'.
DET two rooster CMP-B.3PL-die-CAUS-PASS A.3PL-by DET children
'The two roosters were killed by the children.'

2.2.2 Antipassive Voice

Antipassivization is often referred to as an operation opposite to passive (Polinsky 2017): in this case, the internal argument is either absent or demoted to a bare (pseudo-incorporated) NP or to an oblique *-(i)chin* phrase. The usual morphological exponent for antipassive is *-Vn*; however, some variation has been attested between different dialects of Kaqchikel with respect to non-derived transitive CVC roots. As reported by Heaton (2017), Ranero (2019), a.o., in many varieties of Kaqchikel, the *-Vn* marker is preserved in case of an implicit/bare NP Theme (8), while the so-called oblique antipassive applied to CVC roots is marked with *-o/u* (9).[5]

(8) *Incorporating antipassive:*

Y-e-tik{-on/*o} (ixim).
ICMP-B.3PL-plant-API corn
'They are planting corn.' (Ranero 2019:11)

(9) *Oblique antipassive:*

Ja ri jäb' x-Ø-chup{-u/*un} r-ichin ri q'aq'.
FOC DET rain CMP-B.3SG-put.out-APO A.3SG-of DET fire
'The rain put out the fire.' (Ranero 2019:11)

[5] The same morphological exponents (*-Vn/o/u*) are used in Agent Focus constructions in all dialects of Kaqchikel, including the Patzún variety under consideration in the present paper. In contrast to antipassive, Agent Focus does not demote the internal argument, which remains a DP, although the verb is detransitivized in a sense that only an absolutive marker is present; compare (10c) to (i) below. For detailed discussions of Agent Focus I refer the reader to Coon et al. (2014), Preminger (2014), Ranero (2019), a.o.

(i) Ja ri alab'oni' x-e-tik{-*on/o} ri ütz ixim.
FOC DET man.PL CMP-B.3PL-plant-AF DET good corn
'THE MEN planted good corn.'

Antipassive in the variety of Patzún Kaqchikel under discussion differs from antipassive constructions in other varieties of the language in that *-Vn* is used for all stems regardless of the status of the demoted argument (10).

(10) *Antipassive in the Patzún Kaqchikel:*

a. Ri alab'oni' x-Ø-ki-tïk ri ütz ixim.
DET man.PL CMP-B.3SG-A.3PL-plant DET good corn
'The men planted good corn.'

b. Ri alab'oni' x-e-tik{-on/*o} (ixim).
DET man.PL CMP-B.3PL-plant-AP corn
'The men planted (corn).'

c. Ri alab'oni' x-e-tik{-on/*o} r-chin ri ütz ixim.
DET man.PL CMP-B.3PL-plant-AP A.3SG-of DET good corn
'The men planted good corn.'

The variation itself is of great interest, however, its detailed discussion lies beyond the limits of this paper. For the present research it suffices to merely acknowledge the availability of distinct marking options for antipassive, and the rest of the paper focuses on the particular dialect spoken in Patzún.

3 Presenting the puzzle: Voices under nominalization

3.1 Event *-ik* nominals

The paper focuses on the particular kind of event nominalization derived with the *-ik* suffix; for a detailed discussion see Imanishi and Mateo Pedro (2013), Imanishi (2014), and Burukina (2021). The nominalization applies only to inherently intransitive or detransitivized predicates; an example of a nominalized inherently intransitive predicate is given in (11).

(11) a. Rije' y-e'-atin aninäq.
they ICMP-B.3PL-bathe quickly
'They bathe quickly.'

b. N-Ø-inw-ajo' (ri) k-atin-ik aninäq.
ICMP-B.3SG-A.1SG-want DET A.3PL-bathe-NMZ quickly
'I want them to bathe quickly.'

As further demonstrated in (12), passivization under nominalization proceeds as expected: the external argument is demoted, while the internal argument survives passivization and gets obligatorily encoded via a Set A marker.

(12) a. N-Ø-inw-ajo' (ri) ru-kan-ox-ik ri llave.
ICMP-B.3SG-A.1SG-want DET A.3SG-search-PASS-NMZ DET key
'I want (someone) to look for the key.'
Literally: 'I want the key's search.'

b. Röj x-Ø-qa-rayi-j ki-tz'et-Ø-ik ri oxi' tz'i'.
we CMP-B.3SG-A.1PL-desire-DTV A.3PL-see-PASS-NMZ DET three dog
'We wanted to see the three dogs.'
Literally: 'We wanted the three dogs' seeing.'

The external argument (Agent/Cause) can be encoded neither as an adpositional possessor with *-(i)chin* (13a) nor as a DP possessor cross-referenced by a Set A marker on the possessum (13b); however, it can, with some variation, be realized as an oblique *by*-phrase used in passive constructions in general (14). Out of the four native speakers of Patzún Kaqchikel that I consulted two found such examples acceptable.[6]

(13) a. *ru-kam-isa-x-ik ri äk' r-chin ri Maria
A.3SG-die-CAUS-PASS-NMZ DET rooster A.3SG-of DET Maria
Intended: 'Maria's killing of the rooster'

b. *nu-ru-kan-ux-ik / *ru-nu-kan-ux-ik ri llave
A.1SG-A.3SG-search-PASS-NMZ A.3SG-A.1SG-search-PASS-NMZ DET key
Intended: 'my search for the key'

c. nu-kan-ux-ik
A.1SG-search-PASS-NMZ
Only: '(someone's) search for me'
Not available: 'my search (for something)'

(14) %ru-kam-isa-x-ik ri äk' r-uma ri Maria
A.3SG-die-CAUS-PASS-NMZ DET rooster A.3SG-by DET Maria
'killing of the rooster by Maria'

Below I use nouns derived from passivized predicates to illustrate the general syntactic properties of *-ik* nominals. Event nominals derived using the *-ik* suffix can appear in the subject position (15) or be embedded under the progressive verb *-ajin* (16a), desideratives such as *-ajo*' 'want' (16b), and implicatives such as *-chäp* 'begin' (16c).

(15) a. Röj y-e-qa-tijo-j ri ak'wala'.
we ICMP-B.3PL-A.1PL-teach-DTV DET children
'We taught the children.'

b. Katzin-el ri ki-tijo-x-ik ri ak'wala'.
need-ADJ DET A.3PL-teach-PASS-NMZ DET children
'It is necessary to teach the children.'
Literally: 'The children's teaching is necessary.'

[6] The adposition *-u/oma* also introduces reason adjuncts (i). Thus, the examples (5b) and (14) are ambiguous and can receive the second reading 'We were seen because of the children.' and 'killing of the rooster because of Maria', respectively.

(i) Y-oj-kikot r-uma jun wuj.
CMP-B.1PL-happy A.3SG-by one book
'We are happy because of a book.'

(16) a. Röj y-oj-ajin (ri) ki-tijo-x-ik ri ak'wala'.
we ICMP-B.1PL-PROG DET A.3PL-teach-PASS-NMZ DET children
'We are teaching the children.'

b. N-Ø-inw-ajo' (ri) ki-tijo-x-ik ri ak'wala'.
ICMP-B.3SG-A.1SG-want DET A.3PL-teach-PASS-NMZ DET children
'I want to teach the children.'
Literally: 'I want the children's teaching.'

c. Röj n-Ø-qa-chäp (ri) ki-tijo-x-ik ri ak'wala'.
we ICMP-B.3SG-A.1PL-begin DET A.3PL-teach-PASS-NMZ DET children
'We begin to teach the children.'
Literally: 'We initiate the children's teaching.'

Event *-ik* nominals pass all of the original diagnostics for mixed categories proposed by Grimshaw (1990) and exhibit properties of both nouns and verbs. On the one hand, similarly to nouns, they are compatible with determiners such as *ri* (see the examples above in (11) to (16)) (Larsen 1988), prohibit completive/incompletive marking (17), and allow only Set A morphology (ergative/possessive).

(17) a. N-Ø-inw-ajo' (ri) {*x/*y-}ki-tijo-x-ik ri ak'wala'.
ICMP-B.3SG-A.1SG-want DET CMP/ICMP-A.3PL-teach-PASS-NMZ DET children
Intended: 'I want to teach the children.'

b. N-Ø-inw-ajo' chi (*ri) *(x/y-)e-n-tijo-j ri
ICMP-B.3.SG-A.1SG-want that DET CMP/ICMP-B.3PL-A.1SG-teach-DTV DET
ak'wala'.
children
'I want to teach the children.'

On the other hand, similarly to verbs, *-ik* nominals are compatible with exclusively verbal modifiers: manner adverbs (18) and temporal expressions (19).

(18) a. (ri) ru-loq-ox-ik ri llave aninäq
DET A.3SG-search-PASS-NMZ DET key quickly
'the quick search for the key'

b. *aninäq tzij / *aninäq samaj
quickly word quickly work
Intended: 'quick word' / 'quick work'

(19) Röj n-Ø-q-ajo' ru-sik'i-x-ik jun libro chupam ka'i' ramaj.
we ICMP-B.3SG-A.1PL-want A.3SG-read-PASS-NMZ one book inside two hour
'We want (someone) to read the book in/for two hours.'

Furthermore, as evident in the examples above, *-ik* nominals derived from detransitivized predicates exhibit internal Voice morphology. This section considered examples with a passive nominal, while the next one focuses on nominalized antipassive predicates.

3.2 Antipassive under *-ik* nominalization

Since antipassive is another operation that detransitivizes verbs, we expect antipassivized verbal forms to be able to serve as a base for *-ik* nominalization. This prediction is borne out: as illustrated in (20), *-ik* nominals often contain the marker *-Vn*, and there is nothing in morphology that would suggest that this marker should be treated as coincidentally homonymous to the antipassive one. The two have identical phonologically conditioned distribution and serve to indicate derived intransitivity.

(20) N-Ø-inw-ajo' (ri) nu-kan-on-ik.
CMP-B.3SG-A.1SG-want DET A.1SG-search-AP-NMZ
Only: 'I want someone to look for me.'
Not available: 'I want to look for something.'

Crucially, with regard to the argument structure, antipassive under nominalization behaves differently from antipassive in finite clauses, discussed in Section 2. If antipassive is an operation on argument structure, we expect the internal argument to be demoted or removed completely in *-ik* nominals, while the external argument survives; thus, (20) should be interpreted as 'I want to look for something'. However, as shown in the example, such a reading is unavailable. The only possible interpretation of (20) — 'I want someone to look for me' — indicates that exactly the opposite of what we might expect happens: the external argument disappears and cannot be encoded via a Set A marker, while the internal argument ('I') is still present. The examples in (21) further demonstrate that the internal argument does not have to be a silent pronoun.

(21) a. Röj x-Ø-qa-chäp (ri) {*qa/ru-}sik'i-n-ik ri wuj.
we CMP-B.3SG-A.1PL-begin DET A.1PL/A.3SG-read-AP-NMZ DET book
'We began to read the book.'
Literally: 'We initiated the book's reading.'

b. N-Ø-inw-ajo' (ri) {*nu/ru-}-kan-on-ik ri llave.
CMP-B.3SG-A.1SG-want DET A.1SG/A.3SG-search-AP-NMZ DET key
'I want (someone) to look for the key.'
Literally: 'I want the key's search.'

Another option for a nominalized antipassive construction is to have both arguments implicit (22); in this case, there is no Set A marker on the derived noun.

(22) N-Ø-inw-ajo' ri kan-on-ik.
CMP-B.3SG-A.1SG-want DET search-AP-NMZ
'I want (someone) to look for something.'

Note that, similarly to nominalized passive constructions, the external argument cannot be expressed as the second possessor via an oblique phrase ((23) is only grammatical if the *-ichin* phrase is interpreted as a Beneficiary), nor is it possible to use two possessive markers on a nominal to manifest both the Agent/Cause and the Theme/Patient (24).

(23) #qa-kan-un-ik aw-ichin rat
A.1PL-search-AP-NMZ A.2SG-of you
Only: 'search for us for your sake/benefit'
Intended, not available: 'your search for us'

(24) * qa-ru-kan-un-ik
A.1PL-A.3SG-search-AP-NMZ
Intended: ‘our search for him/her’ or ‘his/her search for us’

Thus, the following empirical **puzzle** is discovered: Antipassive under nominalization behaves as passive, promoting the internal argument, while in clausal antipassive constructions only the external argument survives.

Although in finite clauses passive and antipassive are clearly two distinct operations leading to the opposite results, under nominalization the two unexpectedly pattern together resulting in semantically equivalent constructions; compare (12) and (20) above.[7] This behavior has not been previously noticed in the literature on Mayan languages, however, its examination may reveal new characteristics of both antipassive and event nominalization.

4 The analysis

4.1 Background assumptions

Before I proceed by presenting the proposal, a few words must be said about the background assumptions regarding Kaqchikel syntax adopted in this paper.

First, following Coon et al. (2014), i.a., I assume that in finite clauses in Kaqchikel absolutive case is unanimously assigned by finite T^0. In case of a transitive predicate, the internal argument raises to Spec,VoiceP in order to get licensed. I further follow Aldridge (2004) and Legate (2008) in that ergative is assigned by transitive $Voice^0$ to the external argument base-generated in Spec,vP.[8] The structure of a finite clause is schematized in (25).

(25) $[_{TP}\ T^0\ [_{VoiceP}\ Voice^0\ [_{vP}\ ExtArgument\ [_{v'}\ v^0\ [_{VP}\ V^0\ IntArgument]]]]]$

Second, building upon the work by Imanishi and Mateo Pedro (2013), Coon and Carolan (2017), and Burukina (2021), I adopt the following basic structure for *-ik* nominalization (26).

(26) $[_{nP}\ DP_i\ [_{n'}\ n^0\ [_{VoiceP}\ PRO_i\ [_{Voice'}\ Voice_{PASS}\ [_{vP}\ [_{v'}\ v^0\ [_{VP}\ V^0\ t_i\ ]]]]]]]$

As discussed above, event *-ik* nominals exhibit properties of both verbs and nouns. This ambiguous behavior stems directly from the dual nature of their syntactic structure, namely the presence of a verbal component (vP/VoiceP) and higher nominal projections (nP and DP); see detailed discussions in Bresnan (1997), Borsley and Kornfilt (2000), Alexiadou (2001), a.o. In essence, the verbal component is responsible for the argument structure and the availability of specific verbal modifiers, while the nominal projections host a possessor and various nominal dependents.

Regarding the specific properties of Kaqchikel event nominals, the unavailability of absolutive objects follows directly from the assumption that absolutive is assigned higher in a clause, by T^0, while only smaller verbal phrases can be nominalized. To account for the restriction on the number of arguments, I assume that, in the case of *-ik* nominalization, n^0

[7] It should be noted that, although all the native speakers that I consulted accept passive nominals, some of them consider antipassive counterparts marginal, which may also indicate that antipassive under nominalization is the last resort configuration. No native speaker accepts antipassive nominals with the external argument preserved.

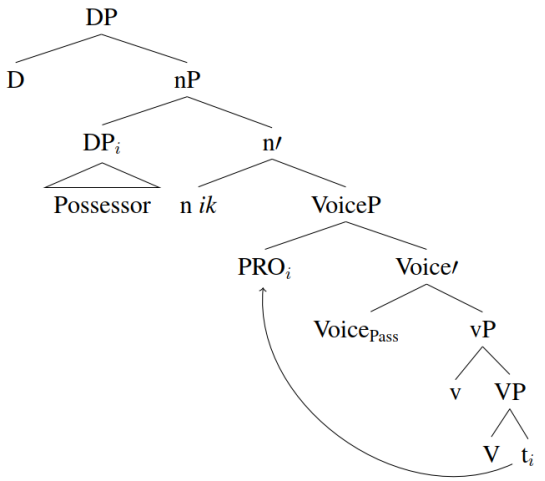
[8] Coon et. al (2014), i.a., place vP above VoiceP, while Ranero (2019) places vP below VoiceP. I adopt the second analysis; what is important is that under both approaches the external argument is projected by the lower head, while the specifier position of the higher projection is used as a landing site for movement.

cannot select a transitive VoiceP capable of assigning ergative case. Thus, within a verbal part of a nominal there is no source for case, and ergative/possessive is assigned externally by n^0.

I further assume that an argument position within the verbal part of a nominalization is occupied by PRO controlled by a higher possessor merged in Spec,nP; due to the limitation of space, I refer the reader to Burukina (2021) for argumentation and to Coon (2010, 2013) for similar PRO-based accounts put forward for other Mayan languages. Here, one piece of support for such an analysis should be mentioned, directly related to the present discussion. If under nominalization DPs were merged directly into the argument positions in the verbal part (cf. Borsley & Kornfilt 2000; Alexiadou 2001; Imanishi 2014), we would not expect to find any difference between *-ik* nouns and clauses in respect of antipassive: the external argument should survive the derivation and the internal argument should be removed or demoted, contrary to the facts. In contrast, as will be shown in the next section, the PRO-based approach leaves us enough room to account for the antipassive puzzle.

Adopting a predication approach to obligatory control (going back to Williams 1980, i.a.), I consider PRO to be a variable. Its movement to Spec,VoiceP/vP creates a lambda-abstract (with PRO functioning as an internally merged operator), allowing the extended verbal projection (VoiceP/vP) to be predicated of the possessor in Spec,nP (cf. Clark 1990). This is schematized for *-ik* nominals derived from passivized verbs in (27): the PRO variable moves from the internal argument position (Comp,VP) to the edge of VoiceP (Spec,VoiceP) turning the VoiceP into a predicate (a property) for the possessor DP. The latter thus ends up controlling PRO.

(27) *Passive* -ik *nominals:*



As I argue below, it is precisely this obligatory movement of PRO that is responsible for the peculiar behavior of antipassive under nominalization.

4.2 The proposal

I argue that a unified analysis for Kaqchikel antipassive can be developed based on the following two assumptions, without stipulating morphemic homonymy (antipassive1 for clauses vs. antipassive2 for nominals).

First, I adopt Ranero's (2019) analysis of antipassive as absence of Voice: while passivization is a proper Voice transformation, the antipassive configuration occurs when the structure lacks a VoiceP. Second, as noted in the previous section, I assume that *-ik* nominals

are mixed categories in which the verbal part is predicated of a possessor merged within the nominal part due to the presence of a PRO variable and that movement of PRO is required to turn the verbal projection into a property.

Let us take a closer look at these two ideas and see how combining them accounts for the peculiar behavior of antipassive under nominalization.

4.2.1 Antipassive as absence of Voice

To analyze antipassive in finite clauses, I follow Ranero (2019) in that antipassive in Kaqchikel is a morphological realization of v in the absence of (transitive) Voice. Support for this comes from the behavior of different predicates under ellipsis. In general, Voice mismatches in sluicing constructions are prohibited across the world's languages (Merchant 2013; Rudin 2019; Den Dikken 2020; i.a.); compare, for instance, ungrammatical attempts to have Passive/Active and Active/Passive mismatches in English sluicing to their perfectly acceptable counterparts with no ellipsis in (28).[9]

(28) a. * The animal was killed, but I don't know who.
b. The animal was killed, but I don't know who killed it.
c. * Someone killed the animal, but I don't know {by whom/who by}.
d. Someone killed the animal, but I don't know {by whom it was killed}.

In Kaqchikel, Ranero (2019) notices that Antipassive/Active mismatch is allowed under ellipsis. This is illustrated for the Patzún variety of Kaqchikel under consideration in (29). The base sentence with antipassive is given in (29a), while (29b–d) are potential continuations: (29b) and (29c) demonstrate that Antipassive/Active mismatch is allowed, with and without ellipsis, and (29d) shows that the elided part in (29d) cannot be a symmetrical antipassive expression.

(29) a. Ja ri alab'oni' x-e-loq'-on r-ichin ri ütz wäy.
FOC DET man.PL CMP-B.3PL-buy-AP A.3SG-of DET good bread
'THE MEN bought good bread.'

b. Awetaman ankuchi?
know.2SG where
'Do you know where?'

c. Awetaman ankuchi x-Ø-ki-loq' wi ri ütz wäy?
know.2SG where CMP-B.3SG-A.3PL-buy FP DET good bread
'Do you know where they bought good bread?'

d. * Awetaman ankuchi x-e-loq'-on wi r-ichin ri ütz wäy?
know.2SG where CMP-B.3PL-buy-AP FP A.3SG-of DET good bread
Intended: 'Do you know where they bought good bread?'

[9] It is impossible to check whether Passive/Active mismatches are allowed in Kaqchikel sluicing examples: as a syntactically ergative language, Kaqchikel prohibits A-bar extraction of transitive subjects, including that in wh-questions. I also could not test the Active/Passive mismatch, since none of my consultants accepted questions of the type 'By whom was the animal killed?'; the reason for this is yet to be discovered, however, the same observation was made earlier by Ranero (2019).

To account for the peculiar behavior of antipassive under ellipsis, Ranero (2019) proposes that the syntactic parallelism in examples such as (29a–b) is satisfied by featural non-distinctness; the idea can be traced back to Chomsky (1965). While active is a special $\text{Voice}_{\text{act}}$ and passive is a special $\text{Voice}_{\text{pass}}$, there is no special Voice_{ap}; instead, the antipassive *-Vn* marker is a morphological realization of v in the absence of VoiceP. In other words, an antipassive clause is a clause with no VoiceP layer. Thus, (29a) can be mismatched under ellipsis as in (29b) since there will be no conflict with any Voice feature present. The structure for antipassive as the exponent of v adapted from Ranero (2019) is schematized in (30).[10]

(30) $[_{\text{TP}}\ T^0\ [_{\text{vP}}\ \text{ExtArgument}\ [_{\text{v'}}\ v^0\ [_{\text{VP}}\ V^0\ \text{IntArgument}]]]]$

As shown in (30), in the case of clausal antipassive, the structurally higher external argument intervenes between T^0 and the internal argument and gets licensed first, leaving the object caseless; as a result, the latter cannot be a DP, but only a smaller (incorporated) NP or an oblique phrase. With this analysis for antipassive in mind, we can now go back to antipassive under *-ik* nominalization.

4.2.2 Deriving antipassive *-ik* nominals

The predicative control analysis combined with the analysis of antipassive as absence of VoiceP successfully accounts for the antipassive puzzle. Recall that, under the predicative control analysis, the verbal part of an *-ik* nominal contains a PRO variable merged in the argument position. The variable is controlled by a higher possessor merged in Spec,nP via predicative control, which requires movement of PRO to the edge of the predicate phrase. In antipassive nominals the verbal part lacks a VoiceP layer. Because of this, PRO that is merged as an external argument in Spec,vP has no higher position to move to and predication cannot be established; the derivation crashes. A last resort solution is to merge PRO first as an internal

[10] An important remark should be made. Ranero (2019) notices that the 'Voice-less' antipassive is only allowed when the external argument is extracted. As mentioned in footnote 9, Kaqchikel is a syntactically ergative language, that is, A-bar movement of the subject of a transitive verb is normally prohibited. A widely accepted explanation for this is that the obligatory movement of the internal argument to Spec,VoiceP (with VoiceP being a phase; see Chomsky (2001)) traps the external argument in its original position and makes it inaccessible to higher probes. The same restriction (antipassive only when the Agent/Cause is fronted) seems to apply to Patzún Kaqchikel, as shown in (i) and is straightforwardly accounted for under the assumption that the phasal VoiceP in antipassive clauses is absent.

(i) a. N-Ø-ki-tïk ri alab'oni' ri ütz ixim.
ICMP-B.3SG-A.3PL-plant DET man.PL DET good corn
'The men plant good corn.'

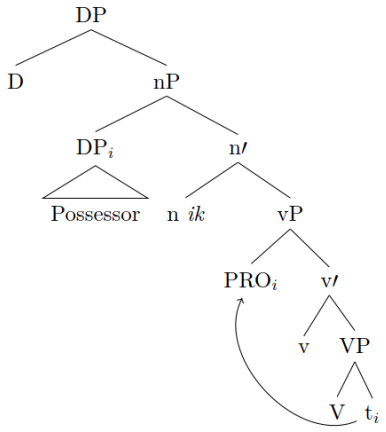
b. * Y-e-tik-on ri alab'oni' r-ichin ri ütz ixim.
ICMP-B.3PL-plant-AP DET man A.3SG-of DET good corn
Intended: 'The men plant good corn.'

c. Ri alab'oni' y-e-tik-on r-ichin ri ütz ixim.
DET man.PL ICMP-B.3PL-plant-AP A.3SG-of DET good corn
'The men plant good corn.'

However, I remain agnostic regarding the precise mechanism behind the absence of VoiceP in antipassive sentences. Ranero (2019) adopts and expands the Exfoliation approach developed by Pesetsky (2019): the VoiceP is added but gets removed later. An alternative is to suggest that VoiceP is never present in such a structure; the configuration can be restricted under a Top-Down approach to derivation advocated for, among others, by Den Dikken (2018). Regardless of the solution, I leave the problem aside, as it is not related directly to the present research.

argument for it to raise to Spec,vP, while the external argument is structurally absent and gets saturated on the semantic level (Reinhart 2002).

(31) *Antipassive* -ik *nominals:*



Note that all the native speakers of Patzún Kaqchikel that I consulted agree that antipassive nominals cannot get expected interpretations with the external argument being preserved and the internal argument being demoted and can only get "passive" readings. As a consequence, an antipassive nominal often co-exists with a passive nominal derived from the same verb and they receive identical interpretations.

(32) a. Röj x-Ø-qa-chäp (ri) ru-sik'i-n-ik ri wuj.
we CMP-B.3SG-A.1PL-begin DET A.3SG-read-AP-NMZ DET book
'We began to read the book.'

b. Röj x-Ø-qa-chäp (ri) ru-sik'i-x-ik ri wuj.
we CMP-B.3SG-A.1PL-begin DET A.3SG-read-PAS-NMZ DET book
'We began to read the book.' (a = b)

My consultants often consider antipassive nominals as less frequently used or marginal compared to the passive counterparts. The use of antipassive in Kaqchikel is usually motivated semantically (to receive a habitual interpretation, etc.) or syntactically (to facilitate A-bar extraction of the external argument). None of these factors are present in the cases under discussion, which can explain the 'last resort' status of the strategy outlined in (31).

5 Conclusion

The paper examined nominalized antipassive constructions in Kaqchikel that pattern with passive in promoting an internal argument instead of the external one, in contrast with antipassive in finite clauses. Having presented the novel data, I followed Ranero (2019) in arguing that Kaqchikel antipassive is not, strictly speaking, a Voice-type transformation but the absence of Voice: the antipassive morpheme is an exponent of v in the absence of a higher VoiceP. I further proposed that the deverbal nominals under consideration are mixed categories in which an extended verbal projection (vP/VoiceP) is predicated of the possessor introduced in Spec,nP; the former is turned into a property-type predicate due to the movement of a PRO variable to its edge (cf. Williams 1980; Clark 1990). In antipassive nominals the Voice-less verbal part is too small in that PRO merged as an external argument (in Spec,vP) has no place

to move to; the derivation crashes. An alternative solution is to introduce PRO as an internal argument and to raise it to Spec,vP, which results in the observed antipassive-as-passive configuration. The paper contributes to the ongoing discussion of antipassive across the world's languages, further supporting the idea that, at least in some languages, antipassive does not involve direct manipulations with the argument structure.

References

Aldridge, Edith. 2004. *Ergativity and word order in Austronesian languages.* Doctoral Dissertation, Cornell University, Ithaca, NY.

Alexiadou, Artemis. 2001. *Functional structure in nominals: nominalization, and ergativity*. Amsterdam, Netherlands: John Benjamins.

Baker, Mark C. 1988. *Incorporation: A Theory of Grammatical Function Changing*. A Chicago Original Paperback. Chicago, IL: University of Chicago Press.

Basilico, David. 2004. Antipassive, anticausative and reflexive: Phases and reflexive morphology. Paper presented at the *35th Meeting of the Northeastern Linguistic Society (NELS 35)*, University of Connecticut, October 2004.

Borsley, Robert, and Jaklin Kornfilt. 2000. Mixed extended projections. In: Robert Borsley (ed.), *The nature and function of syntactic categories*. New York, NY: Academic Press, 101–131.

Bresnan, Joan. 1997. Mixed categories as head sharing constructions. In Miriam Butt and Tracy Holloway King (eds.), *Proceedings of the LFG97 conference*. Stanford, CA: CSLI Publications, 1–17.

Burukina, Irina. 2021. On the nature of arguments in event nominals. *Proceedings of the Linguistic Society of America* 6(1):996–1008.

Clark, Robin. 1990. *Thematic theory in syntax and interpretation*. London, UK: Routledge.

Clemens, Lauren, and Jessica Coon. 2018. Deriving Verb-Initial Word Order in Mayan. *Language* 94(2):237–280.

Coon, Jessica. 2010. *Complementation in Chol (Mayan): A theory of split ergativity.* Doctoral Dissertation, MIT, Cambridge, MA.

Coon, Jessica. 2013. *Aspects of split ergativity*. Oxford: Oxford University Press.

Coon, Jessica, and Elizabeth Carolan. 2017. Nominalizations and the structure of progressives in Chuj Mayan. *Glossa: A Journal of General Linguistics*, 2(1):22.

Coon, Jessica, Pedro Mateo Pedro, and Omer Preminger. 2014. The role of Case in A-bar extraction asymmetries: Evidence from Mayan. *Linguistic Variation* 14(2):179–242.

Den Dikken, Marcel. 2018. *Dependency and directionality.* Cambridge, UK: Cambridge University Press.

Den Dikken, Marcel. 2020. *Unmatched and unparalleled: Voice and argument structure mismatches in ellipsis — Analysis and implications*. Ms. Eötvös Loránd University, Budapest, Hungary.

Dunn, Michael John. 1999. *A grammar of Chukchi.* Doctoral Dissertation, Australian National University.

England, Nora. 1991. Changes in Basic Word Order in Mayan Languages. *International Journal of American Linguistics* 57(4):446–486.

Grimshaw, Jane. 1990. *Argument structure*. Cambridge, MA: MIT Press.

Heaton, Raina. 2017. *A Typology of Antipassives, with Special Reference to Mayan.* Doctoral Dissertation, University of Hawaii at Manoa.

Imanishi, Yusuke. 2014. *Default ergative.* Doctoral Dissertation, MIT, Cambridge, MA.

Imanishi, Yusuke, and Pedro Mateo Pedro. 2013. Deriving nominals in Kaqchikel. In Michael Kenstowicz (ed.), *Studies in Kaqchikel grammar*. Cambridge, MA: MIT Working Papers in Linguistics, 51–66.
Larsen, Thomas W. 1988. *Manifestations of ergativity in Quiche' grammar.* Doctoral Dissertation, University of California, Berkeley, CA.
Legate, Julie Anne. 2008. Morphological and abstract case. *Linguistic Inquiry* 39:55–101.
Patal Majtzul, Filiberto. 2000. *Rujunamaxi ri Kaqchikel Chi': Variación dialectal en Kaqchikel*. Cholsamaj.
Pesetsky, David. 2019. *Exfoliation: Towards a derivational theory of clause size*. Ms. MIT, Cambridge, MA.
Polinsky, Maria. 2017. Antipassive. In Jessica Coon, Diane Massam, and Lisa Demena Travis (eds.), *The Oxford handbook of ergativity*. Oxford, UK: Oxford University Press, 308–331.
Preminger, Omer. 2014. *Agreement and Its Failures*. Cambridge, MA: MIT Press.
Ranero, Rodrigo. 2019. *Voice mismatches in Kaqchikel sluicing: Consequences for syntactic parallelism.* Ms. University of Maryland, College Park.
Williams, Edwin. 1980. Predication. *Linguistic Inquiry* 11(1):203–238.