Predicative control in event nominals revealed by antipassive

1 The 'mixed projection' approach to nominalizations, whereby the verbal part providing the argument structure is embedded under nominal functional projections, has accounted for data from a broad variety of languages ([Borsley & Kornfilt 2000](), [Alexiadou 2001](), i.a.); the question remains whether the argument positions within the verbal part is occupied by lexical DPs or PROs. The present paper considers event nominalization in Mayan languages, for which both 'DP argument' and PRO analyses were postulated ([Coon 2010](), [Imanishi 2019]()), however, no support for either of the models has been given. Focusing on *-ik* event nominals in Patzún Kaqchikel (PK), we argue that they involve predicative control established between the verbal part ('predicate') and the possessor DP in the nominal part ('subject'; in the spirit of [Williams (1980)](), [Landau (2015)]()); support for this comes from the previously undescribed behavior of antipassive under nominalization: while in clausal antipassive only the external argument survives, antipassive in nominals promotes the internal argument instead.

2 Deverbal *-ik* nominalization applies to inherently intransitive / detransitivized predicates to create an event nominal that shares properties of nouns and verbs: (i) similarly to nouns, it allows determiners and prohibits (in)completive tense/aspect marking, (ii) similarly to verbs, it exhibits Voice morphology and is compatible with exclusively verbal adjuncts (*aninäq* 'quickly') ([Larsen 1988]()). Cf. a nominal in (1) derived from a passivized verb: the external argument (ExtA) is absent and the internal one (IntA) is matched by a POSS (ERG) marker (possessive and ergative share the paradigm).

(1) X-Ø-q-ajo'   ri   *qa/ru-tijo-**x-ïk**   ri   ala' aninäq.
    CMP-ABS.3SG-ERG.1PL-want DET ERG.1PL/ERG.3SG-teach-**PAS-NMZ** DET boy quickly
    'We wanted to teach the boy quickly.' (Lit.: 'We wanted the quick teaching of the boy.')

Following [Patal Majzul (2000)](), [Coon&Carolan (2017)](), i.a., we assume the following: (i) event nominals in PK consist of a verbal and a nominal parts; (ii) within the (intransitive) verbal part there is no source for case (since absolutive is assigned by finite Infl^0; see [Coon et al. 2014]()); (iii) the source of the 'external' POSS / ERG is within the nominal part.

3 Antipassive (AP; *-Vn*) in finite clauses either completely removes the IntA or demotes it to a bare NP; the verb is detransitivized and an ERG marker is prohibited (2).

(2) a. Ri alab'oni' x-Ø-ki-tik   ri   ixim.
      DET man.PL CMP-ABS.3SG-ERG.3PL-plant DET corn
      'The men planted corn.'
   b. Ri alab'oni' x-e-tik-**on**   (ixim / *ri   ixim).
      DET man.PL CMP-ABS.3PL-plant-**AP** corn   DET   corn
      'The men planted (at corn).'

AP predicates are expected to be able to nominalize. Indeed, (3) is acceptable to native speakers, and there is nothing in morphology that would suggest that, in this case, the *-Vn* marker is coincidentally homonymous to the AP one: they share identical phonologically conditioned distribution and indicate derived intransitivity. However, (3) receives an unexpected interpretation – the POSS marker can only correspond to the IntA.

(3) N-ø-inw-ajo'   ri   **nu**-kan-**on-ik**   aninäq.
    ICMP-ABS.3SG-ERG.1SG-want DET **ERG.1SG**-search-**AP-NMZ** quickly
    'I want someone to quickly look for me.'
    Intended, not available: 'I want to quickly look for something.'

Thus, unlike clausal AP, AP under nominalization promotes the IntA and suppresses the ExtA.

4 To analyze AP in clauses, we following [Ranero (2019)]() in that AP in Kaqchikel (including the Patzún variety) is, in fact, a morphological realization of v^0 in the absence of (transitive) Voice. Under ellipsis, Active / Passive mismatch is prohibited, but Active / AP mismatch is allowed. [Ranero (2019)]() proposes that (i) syntactic parallelism under ellipsis is satisfied by featural non-distinctness, and (ii) while Passive is a Voice, AP is the morphological realization of v^0 in the absence of VoiceP. The Active / AP mismatch in PK is illustrated in (4), where the elided part is given in <>.

(4) Ja ri   xta Maria x-Ø-kam-sa-**n**   (chiköp).
    FOC DET CLF Maria CMP-ABS.3SG-die-CAUS-AP   animal.
    Aw-etama-n   achike   (chiköp) <x-Ø-Ø-kam-sa-**j**>?
    ERG.2SG-know-VB   what   animal   CMP-ABS.3SG-ERG.3SG-die-CAUS-**TV**
    'MARIA killed someone / the animal. Do you know who / what animal she killed?'

The simplified structure of a transitive clause ([Preminger 2014](#), [Coon et al. 2014](#)) is given in (5). The structure of AP as the exponent of v^0 is schematized in (6).

(5) $[_{IP}$ Infl $[_{VoiceP}$ Theme$_i$ $[_{Voice'}$ Voice $[_{vP}$ Agent $[_{v'}$ v $[_{VP}$ V t$_i$]]]]]   (6) $[_{IP}$ Infl $[_{vP}$ Agent $[_{v'}$ v-n $[_{VP}$ V Theme]]]]]
    ABS   ERG   ABS

In the case of clausal AP, the structurally higher ExtA intervenes between Infl and the IntA and gets licensed first, leaving the object caseless. As a result, the latter cannot be a DP, but only a smaller (caseless) NP. Considering *-ik* nominals, the structural difference between nominalized antipassive (vP) and passive (VoiceP) predicates is demonstrated in the full paper by the (un)availability of particular types of verbal adjuncts. Regarding the status of arguments of event nominals, if we assume that DPs are merged into argument positions in the verbal part, we would expect to see the same result as in a clause (i.e. ExtA should survive), contrary to the facts (3).

5 We dismiss the DP argument analysis for event nominals and argue instead that the verbal part of an *-ik* nominal contains a PRO variable merged in the argument position; the PRO variable is controlled by a higher possessor merged in Spec,nP via predicative control as illustrated in (7) for 'passive' nominalizations: the DP$_{poss}$ is the subject of predication and the verbal part of a nominalization is the predicate (in the spirit of [Landau 2015](#)) (7).

(7) $[_{DP}$ D $[_{nP}$ DP$_i$ $[_{n'}$ n *-ik* $[_{VoiceP}$ PRO$_i$ Voice$_{PASS}$ $[_{vP}$ v $[_{VP}$ V t$_i$]]]]]]
            ERG

We support the predicative control analysis by demonstrating the impossibility of having idiom chunks, grammaticality of PP possessor arguments, and unavailability of partial control.

The analysis straightforwardly accounts for the peculiar behavior of AP if we assume that movement of PRO (an operator) within the verbal part of a nominalization is required to transform the latter into a predicate, allowing merge of a λ-binder ([Williams 1980](#)). Since in AP nominals the verbal part is structurally small, operator merged as an ExtA (Spec,vP) has no position to move to. The last resort strategy is to merge PRO as an IntA for it to raise to Spec,vP, while the ExtA is structurally absent and gets saturated on the semantic level (Reinhart 2002) (8).   (8) $[_{nP}$ DP$_i$ $[_{n'}$ n *-ik* $[_{vP}$ PRO$_i$ $[_{v'}$ v-n $[_{VP}$ V t$_i$]]]]]

Note that, although native speakers of PK accept 'antipassive' event nominals, they often consider them less frequently used or marginalized compared to the corresponding 'passive' nominals, which might be explained as related to their 'last resort' status.

6 [Imanishi (2019)](#) discusses *-ik* nominals in Kaqchikel, focusing on nominalized passives. He advocates the DP argument analysis and, following [Alexiadou (2001)](#), proposes the restriction: all nominalized verbs must lack a syntactically projected ExtA. Although the generalization could account for the AP puzzle, it is too restrictive: it predicts that no predicate can have an ExtA under nominalization, however, in sentences with the matrix verb *-ajo* 'want, like' (not considered by Imanishi) an embedded nominal derived from an unergative predicate preserves an ExtA (9).

(9) N-ø-aw-ajo'   (ri) **nu**-b'iy-ïn-**ik** /   **nu**-tzop-in-**ik**   aninäq.
    ICMP-ABS.3SG-ERG.2SG-wantDET ERG.1SG-walk-VB-NMZ ERG.1SG-jump-VB-NMZ   quickly
    'You want me to walk / to jump quickly.'

The nominalized predicates in (10) are derived from nominal roots. In finite clauses *b'iy-ïn* and *tzop-in* acquire all the necessary verbal inflections; following [Coon (2019)](#), we argue that such verbs are unergative with verbalizing v^0 introducing an ExtA; note that the *-Vn* verbalizer is identical to the AP marker, which further suggests that the two are, in fact, the same realization of v^0. Imanishi's generalization fails to capture such examples, while the presented analysis successfully accounts for them (10).

(10) $[_{nP}$ DP$_i$ $[_{n'}$ n *-ik* $[_{VoiceP}$ PRO$_i$ $[_{Voice'}$ Voice$_{ITV}$ $[_{vP}$ t$_i$ $[_{v'}$ v √NOM]]]]]]