TP inside subject nominalizations: Evidence from Oshiwambo

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Abstract Subject nominalizations have been argued to be deprived in verbal structure and do not showcase extended verbal projections such as TP (Baker & Vinokurova 2009). We show that TP is realized in Oshiwambo (R20, Bantu) subject nominalizations. Other functional elements associated with passive, causative, and applicative constructions are observed in Oshiwambo subject nominalizations. Anaphor binding is also attested. We further demonstrate that subject nominalizations are different from reduced and headless relative clauses. An implication of this work is that Oshiwambo subject nominalizations are best described under a phrasal layering approach (Alexiadou & Schäfer 2010, among others) and that their syntactic size can be as articulated as a finite clause.

Keywords: subject nominalizations; TP; argument structure; Oshiwambo (R20, Bantu)
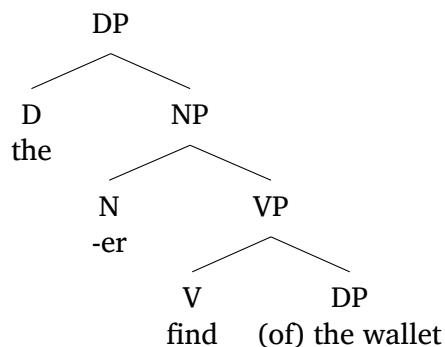
1 Introduction

It has been assumed that English agent nominalizations associated with the morpheme *-er,* as in (1), are deprived in syntactic structure (Baker & Vinokurova 2009; Alexiadou & Schäfer 2010).

(1) a. the danc**er**
     b. the find**er** of the wallet

The morpheme *-er* in (1) is taken to be the head N that selects a bare VP without an external argument (EA) (Baker & Vinokurova 2009). Baker & Vinokurova's take on the derivation for (1b) is provided in (2).[1]

(2) The derivation for *the finder of the wallet* (Baker & Vinokurova 2009:520)

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                    DP
                   /  \
                  D    NP
                 the   / \
                     N    VP
                    -er   / \
                         V   DP
                       find (of) the wallet
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[1] It has been argued, however, that agent nominalizations can host external arguments (EAs) in languages such as Spanish, Malagasy, French, Romanian, and Wá·šiw (Fábregas 2012; Ntelitheos 2012; Roy & Soare 2014; 2020; Hanink 2021).

Baker & Vinokurova (2009) mention that the pattern observed in Gĩkũyũ (Bantu) cannot be captured under the analysis they established for agent nominalizations. Due to the fact that non-agentive unaccusative predicates are allowed in the derivation, as in (3), Baker & Vinokurova posit that Gĩkũyũ exhibits *subject* nominalizations instead of agent nominalizations.

(3) a. mu-**ku**-i
         1-die-ɪ
         'one who dies (dier)'
     b. mu-**twek**-i
         1-melt-ɪ
         'one who melts'   (Gĩkũyũ, Baker & Vinokurova 2009:547)

Quite notably, a reflexive anaphor can participate in Gĩkũyũ subject nominalizations, as shown in (4), which is from (Baker & Vinokurova 2009:548).

(4) Andü ma-ti-thü-ire   **mû-ï-end-i** ta **mu-ï-yamb-i.**
     people 3ᴘʟ.ꜱ-ɴᴇɢ-hate-ᴘᴇʀꜰ 1-ʀᴇꜰʟ-like-ɪ like 1-ʀᴇꜰʟ-pride-ɪ
   'People don't hate one who likes him/herself as much as one who is full of him/herself.'

Baker & Vinokurova claim that the external argument (EA) PRO is introduced in the derivation as the antecedent that syntactically binds the reflexive anaphor *ï.*
  Gĩkũyũ subject nominalizations additionally allow low adverbs, such as *üüru* 'badly,' as shown in (5). This suggests that a parallel can be drawn between the clausal domain and the nominal domain in terms of adverbial modification.

(5) **A-thmj-í   mbüri üüru** acio m-má-á-tüm-a   tü-caamb-e.
     2-slaughter-ɪ goats   badly ᴅᴇᴍ ꜰᴘ-3ᴘʟ.ꜱ-ᴘᴇʀꜰ-make-ᴀ 1ᴘʟ.ꜱ-bad.rep-ꜱʙᴊ
     'Those (people) who slaughter goats badly have given us a bad reputation.'

Baker & Vinokurova's analysis of the subject nominalization in (5) is fleshed out in (6). Under their view, the suffix *-i* is the nominalizer that caps off VoiceP in subject nominalizations. In (6), the syntactic projection c-selected by the 'aspectual (Asp)' nominalizer cannot be bigger than VoiceP. PRO is the subject, and it is co-referential with the nominalizer *-i* and the entire NP.

(6) A derivation for the subject nominalization in (5) (Baker & Vinokurova 2009:548)
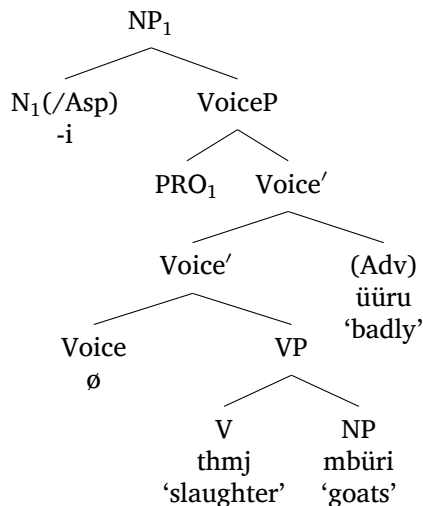
Based on (3)–(5), it is not clear where the nominalizing noun class prefix, *mu-* or *a-*, would be realized in (6) if *-i* is the nominalizer. Clearly, noun classes in general serve the role of nominalizing a given constituent (see Lee & Lee 2019; Fuchs & van der Wal 2022, among others). It seems more needs to be articulated in terms of deriving the entire nominal structure.

We emphasize that (6) does not fully capture the subject nominalizations in Oshiwambo. In addition to unaccusative predicates and reflexive anaphors, Oshiwambo subject nominalizations can host causative, applicative, reciprocal, and passive (CARP) markers, suggesting that more parallels can be drawn between the clausal domain and the nominal domain. Perhaps more strikingly, Oshiwambo subject nominalizations can be associated with a past tense reading, indicating that the size of the nominal can be as big as TP. When a transitive predicate undergoes passivization in subject nominalizations, the noun phrase suffix can be realized as either *-i* or *-a*. While (7a) shows that a past tense reading is not available with the suffix *-i*, (7b) shows that it is available with the suffix *-a*. In (7b), the temporal adverb *hela* 'yesterday' modifies the content internal to the subject nominalization, whereas the adverb *nena* 'today' modifies the content of the entire sentence.

(7) a. O-mu-dheng-w-**i** (ku-Penda) (*gwo-**hela**)   o-ta-alukwa   **nena**.
         AUG-1-hit-PASS-I by-Penda   ASSOC-yesterday AFF-IMPERF-sick today
         'One who is hit (by Penda) is sick today.'
     b. O-mu-dheng-w-**a** (ku-Penda) gwo-**hela**   o-ta-alukwa   **nena**.
         AUG-1-hit-PASS-A by-Penda   ASSOC-yesterday AFF-IMPERF-sick today
         'One who was hit (by Penda) yesterday is sick today.'

The co-occurrence of the past tense-denoting adverb and the present tense-denoting adverb in (7b) suggests that subject nominalizations in Oshiwambo can be tense-associated. The implication of this work is that subject nominalizations can be more clause-like than previously assumed in Baker & Vinokurova (2009). We also argue that an extended version of the phrasal layering analysis (Alexiadou & Schäfer 2010) captures the facts about Oshiwambo subject nominalizations. Alternative analyses, including the complex head analysis to nominalizations (Wood 2023) do not seem to be applicable here.

The organization of this work is as follows: Section 2 lays out the basic facts about Oshiwambo. Section 3 shows that unaccusative predicates as well as passive, reflexive, reciprocal, applicative, and causative markers, can be introduced in subject nominalizations. It also shows that tense can be associated with subject nominalizations. Section 4 fleshes out the analysis. Section 5 demonstrates that subject nominalizations are different from reduced and headless relative clauses in Oshiwambo. Section 6 concludes.

2   Basic data

Oshiwambo is a southern Bantu language of the Niger-Congo family spoken in the northern part of Namibia and the southern part of Angola. We focus on the dialect, Oshingandjera. The canonical word order is SVO. Similar to other Bantu languages, Oshiwambo displays a number of noun class prefixes. Noun classes 1 and 2 are often used for human-denoting nouns. Noun class 1 is used with singular-denoting entities, and noun class 2 for plural-denoting entities. In addition to noun class prefixes, an augment prefix is in-

troduced in Oshiwambo noun phrases.[2] (8) shows how simple nouns are realized in the language.

(8)   a.   **o-mu**-ntu
           AUG-1-person
           'a person'
   b.   **a-a**-ntu
           AUG-2-person
           'people'

In many cases, agentive nominals host noun classes 1 and 2, since these noun phrases are often human-denoting. Agentive nominals are also realized with the suffix *-i*. In (9), the suffix *-i* is realized together with the augment and the noun class prefix. The templates 'AUG-1-V-i' and 'AUG-2-V-i' are productively used in Oshiwambo agent nominalizations.

(9)   a.   o-mu-nhuk-**i**
           AUG-1-jump-I
           'a jumper'
   b.   a-ba-nhuk-**i**
           AUG-2-jump-I
           'jumpers'

The pattern observed in (9) extends to subject nominalizations. More discussion on Oshiwambo subject nominalizations is provided in the following section.

3   Subject nominalizations

Similar to agent nominalizations, subject nominalizations in Oshiwambo are associated with a noun class prefix and the suffix *-i*. This is attested in many other Bantu languages (Du Plessis 1997; Krüger 2006; Mletshe 2010). One difference between agent nominalizations and subject nominalizations boils down to whether the noun denotes an agent or not.[3] Oshiwambo subject nominalizations can host a wide range of predicates, including unaccusative and passive predicates. Reflexive and reciprocal markers, as well as applicative and causative markers, can be showcased inside Oshiwambo subject nominalizations. Quite importantly, tense can also be associated with subject nominalizations.

3.1   Unaccusatives & passives

Oshiwambo allows unaccusative and passive predicates inside subject nominalizations. This suggests that the type of nominalization at issue is flexible in terms of hosting different types of argument structures (see also Hanink 2021 on Wá·šiw subject nominalizations and Gotah & Lee 2024 on Ewe subject nominalizations).

     The sentences in (10) contain the unaccusative predicates *gw* 'fall' and *s* 'die,' respectively.

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[2] While the exact role of an augment is debatable, augments generally serve the role of denoting aspects of referentiality. Indefinite and unspecified noun phrases (e.g., *wh*-words and NPIs) tend to lack augments (see Hyman & Katamba 1993; Progovac 1993).

[3] It is worth mentioning that agent nominalizations are an instance of subject nominalizations. Agent nominalizations denote agentive entities, while subject nominalizations denote agentive or non-agentive entities. Hence, they are not mutually exclusive. For this reason, it is not clear whether a fundamental distinction should be made between the two.

(10)   a.   Penda o-kwa-**gw**-a.
                Penda AFF-3SG.PST-fall-A
                'Penda fell.'
       b.   Penda o-kwa-**s**-a.
                Penda AFF-3SG.PST-die-A
                'Penda died.'

In (11), the verbs *gw* 'to fall' and *s* 'to die' are associated with the suffix *-i*, denoting subject nominalizations. The verbs are also realized together with an augment and a noun class, as is usually the case with Oshiwambo noun phrases (see Section 2).

(11)   a.   o-mu-**gw**-i
                AUG-1-fall-I
                'one who falls (a faller)'
       b.   o-mu-**s**-i
                AUG-1-die-I
                'one who dies (a dier)'

When a transitive predicate undergoes passivization, the passive suffix *-w* surfaces. (12), hosting the predicate *dhipag* 'to kill,' demonstrates this point. (12a) is an active sentence, and (12b) is its passive counterpart. The *by*-phrase is optional in (12b).

(12)   a.   Penda o-kwa-dhipag-a   Elago.
                Penda AFF-3SG.PST-kill-A Elago
                'Penda killed Elago.'
       b.   Elago o-kwa-dhipag-**w**-a   (ku-Penda)
                Elago AFF-3SG.PST-kill-PASS-A by-Penda
                'Elago was killed (by Penda).'

The passive suffix *-w* can surface together with the predicate *dhipag* 'to kill' inside subject nominalizations. The passivization of (13a) leads to (13b). In (13b), the *by*-phrase is optional, which aligns with the pattern observed in (12b).

(13)   a.   o-mu-dhipag-i
                AUG-1-kill-I
                'a killer'
       b.   o-mu-dhipag-**w**-i (ku-Penda)
                AUG-1-kill-PASS-I by-Penda
                'one who is killed (by Penda)'

Based on the empirical facts covered so far, we see that Oshiwambo subject nominalizations accommodate unaccusative and passive predicates (e.g., *gw* 'to fall' and *dhipag-w* 'to be killed'), in addition to unergative and transitive predicates (e.g., *nhuk* 'to jump' and *dhipag* 'to kill'). Overall, we argue that different types of argument structure can be established inside Oshiwambo subject nominalizations.

3.2   Causatives and applicatives

The introduction of arguments such as the causers and beneficiaries are signaled by causative and applicative markers in Bantu languages. Oshiwambo is not an exception, and the language displays these markers in the clausal domain, as shown in (14).

(14)   a.   Penda o-kwa-nhuki-**th**-a   Elago.
                Penda AFF-3SG.PST-jump-CAUS-A Elago
                'Penda made Elago jump.'
        b.   Penda o-kwa-telek-**el**-a   Elago o-shi.
                Penda AFF-3SG.PST-cook-APPL-A Elago 9-fish
                'Penda cooked fish for Elago.'

Causative and applicative markers can be realized inside subject nominalizations, as shown in (15). Here, subject nominalizations parallel the clausal syntax with respect to the functional morphemes that they host.

(15)   a.   o-mu-nhuki-**th**-i   Elago
                AUG-1-jump-CAUS-I Elago
                'one who makes Elago jump'
        b.   o-mu-telek-**el**-i   Elago o-shi
                AUG-1-cook-APPL-I Elago 9-fish
                'one who cooks fish for Elago'

In fact, causative and applicative markers can surface together with the passive marker -*w*, as shown in (16). This suggests that more parallels can be drawn between the nominal domain and the clausal domain in Oshiwambo than those reported in other languages (Baker & Vinokurova 2009; Alexiadou & Schäfer 2010; Hanink 2021; Wood 2023).

(16)   a.   o-mu-nhuki-**th**-**w**-i   (ku-Penda)
                AUG-1-jump-CAUS-PASS-I by-Penda
                'one who is made to jump (by Penda)'
        b.   o-mu-telek-**el**-**w**-i   (ku-Penda)
                AUG-1-cook-APPL-PASS-I by-Penda
                'one who is cooked for (by Penda)'

Bantu languages, in general, exhibit causative, applicative, reciprocal, and passive (CARP) markers in the clausal domain. So far, we have seen that causative, applicative, and passive markers are allowed inside subject nominalizations. In Section 3.3, we will see that the reciprocal marker, as well as the reflexive marker, can be realized inside the type of nominalization at issue.

3.3   Reflexives & reciprocals

Reflexive and reciprocal markers can be realized in Oshiwambo sentences. In (17), the reflexive marker *i* refers to the subject *Penda*.

(17)   Penda o-kwi-**i**-dheng-a.
        Penda AFF-1SG.PST-REFL-hit-A
        'Penda hit himself.'

We argue that reflexive anaphor binding in Oshiwambo is achieved syntactically rather than semantically or lexically. A piece of evidence comes from the availability of the *statue*-reading or the *near-reflexive* (proxy) reading. Similar to English reflexive anaphors (e.g., *himself* and *herself*), Oshiwambo reflexive morpheme *i* allows the *statue*-reading. Parallels can be drawn between (18) and (19).

(18)   John hit himself. ([i] John$_1$ hit John$_1$ or [ii] John$_1$ hit a statue of John$_1$)

(19)   Penda o-kwi-**i**-dheng-a.
        Penda AFF-1SG.PST-REFL-hit-A
        'Penda hit himself.' ([i] Penda$_1$ hit Penda$_1$ or [ii] Penda$_1$ hit a statue of Penda$_1$)

Under a semantic/lexical approach to reflexives, the presence of the *statue*-reading in (18) and (19) cannot be readily accounted for. This is mainly because the semantic/lexical identity of the anaphor is not the same as that of the antecedent. This is less of an issue under the usual syntactic approach to binding, since the semantics of the antecedent nominal and the anaphor nominal need not be identical.[4] Hence, the *statue*-reading (proxy) reading is accounted for if we assume that anaphor binding is achieved syntactically. In order to satisfy Condition A, argument structure needs to be established where an antecedent c-commands its anaphor in a local environment. In the case of (19), *Penda* is the EA that binds its reflexive anaphor.

The reflexive marker *i* can be realized inside Oshiwambo subject nominalizations. Quite notably, the *statue*-reading is available in this domain, as shown in (20).

(20)   o-mwi-**i**-dheng-i
        AUG-1-REFL-hit-I
        'one who hits himself/herself' or 'one who hits a statue of himself/herself'

(20) suggests that a syntactic antecedent is present in the derivation. We argue that PRO is introduced as the EA that locally binds the anaphor in (20). Note that this is in line with Baker & Vinokurova's assumption that PRO is introduced in Gĩkũyũ subject nominalizations, as shown in (6).

The Oshiwambo reciprocal marker *than* refers to a plural entity introduced in the sentence. (21) shows that *than* refers to the subject, *Penda* and *Ndapewa*.

(21)   Penda na   Ndapewa o-ya-hokana-**than**-a.
        Penda and Ndapewa AFF-3PL.PST-marry-RECP-A
        'Penda and Ndapewa married each other.'

The realization of the reciprocal marker *than* is possible inside subject nominalizations. Note that noun class 2 instead of noun class 1 is used in (22) because the reciprocal marker refers to a plural entity instead of a singular entity.

(22)   a.   a-a-hokanna-**than**-i
              AUG-2-marry-RECP-I
              'those who marry each other (spouses)'
        b.   *o-mu-hokanna-**than**-i
              AUG-1-marry-RECP-I
              Intended: 'those who marry each other (spouses)'

Now that we have seen that (22) is possible, we come to the conclusion that CARP, which is observed in the clausal domain, is attested in the nominal domain. Once again, parallels can be drawn between the two domains.

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[4] Also note that the theta-roles assigned to the antecedent and the anaphor are not the same.

3.4 Tense

Oshiwambo subject nominalizations associated with passivization can denote a past tense reading. (23) is repeated from (7). Unlike (23a), (23b) allows the temporal adverb *hela* 'yesterday' to modify the content internal to its subject nominalization. Note that a different temporal adverb, namely *nena* 'today,' modifies the entire sentence, suggesting that subject nominalizations can independently bear tense. Recall that this is only possible when the suffix -*a* is realized inside the derived nominal.

(23) a. O-mu-dheng-w-**i** (*gwo-**hela**)   (ku-Penda) o-ta-alukwa   **nena**.
          AUG-1-hit-PASS-I ASSOC-yesterday by-Penda   AFF-IMPERF-sick today
          'One who is hit (by Penda) is sick today.'
      b. O-mu-dheng-w-**a** gwo-**hela**   (ku-Penda) o-ta-alukwa   **nena**.
          AUG-1-hit-PASS-A ASSOC-yesterday by-Penda   AFF-IMPERF-sick today
          'One who was hit (by Penda) yesterday is sick today.'

Tense-associated subject nominalizations are observed even when the passive suffix is realized with causative and applicative markers, as shown in (24).

(24) a. o-mu-nhuki-**th**-**w**-a   gwo-hela   (ku-Penda)
          AUG-1-jump-CAUS-PASS-A ASSOC-yesterday by-Penda
          'one who was made to jump (by Penda) yesterday'
      b. o-mu-telek-**el**-**w**-a   gwo-hela   (ku-Penda)
          AUG-1-cook-APPL-PASS-A ASSOC-yesterday by-Penda
          'one who was cooked for (by Penda) yesterday'

A remote past tense-associated perfect marker (R.PFV) can be realized in subject nominalizations, which is expected under our current analysis:

(25) o-mu-dheng-**elel**-w-a   ku-Mary
      AUG-1-hit-R.PFV-PASS-A by-Mary
      'one who had been hit by Mary'

The empirical picture for Oshiwambo cannot be readily reconciled with the structure presented in (6). The reduced syntactic size of (6) provides no room for temporal adverbs to be realized in the derivation. Hence, we argue that Oshiwambo subject nominalizations are more articulated in syntactic size than what has been assumed in the literature.

  In addition to temporal adverbs, we note in passing that low adverbs, such as *nayi* 'badly,' can be realized inside Oshiwambo subject nominalizations. (26) patterns together with the Gĩkũyũ subject nominalization given in (5).[5]

(26) a-a-dhipag-i-i-kombo **nayi**
      AUG-2-kill-I-8-goat   badly
      'those who slaughter goats badly'

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[5] It is also worth mentioning that nominal elements such as numerals can be showcased inside subject nominalizations, as shown in (i). This is because subject nominalizations are derived nominals. Hence, Kiparsky's (2017) way of handling gerunds, which involves a TP/IP without a nominalizer (N of NP), cannot be applied to the Oshiwambo data.

(i)   a-a-hole-w-a   **ya-tatu**
      AUG-2-love-PASS-A 2-three
      'three of those who were loved'

Before concluding this section, it is worth mentioning that the tense-associated reading in subject nominalizations is induced only when the passive suffix is realized in the derivation. While it is not entirely clear why this is the case, one may posit that the finite T inside subject nominalizations only selects for PassP (a passivized verbal structure). While future research remains to be done on this issue, our initial effort to develop an analysis that encompasses the empirical facts laid out so far is outlined in the following section.
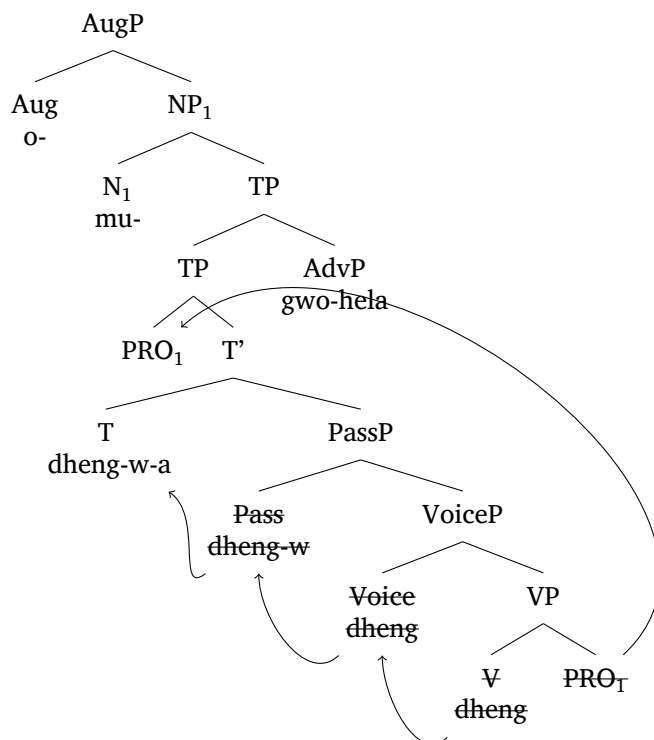
4   An analysis

We adopt Alexiadou & Schäfer's (2010) phrasal layering analysis in order to account for the data in Oshiwambo. (27) and (28) provide our analysis of how subject nominalizations in (23a) and (23b) are derived, respectively. V-to-T movement derives *dheng-w-i* in (23a) and *dheng-w-a* in (23b) based on Baker's (1985) Mirror Principle. The suffixes *-i* and *-a* are spelled out in T depending on T's status. We further assume that the subject argument realized inside the derived nominal is PRO that gets promoted to Spec,TP due to passivization, as shown in both (27) and (28).[6]

(27)   The derivation for the subject nominalization in (23a)

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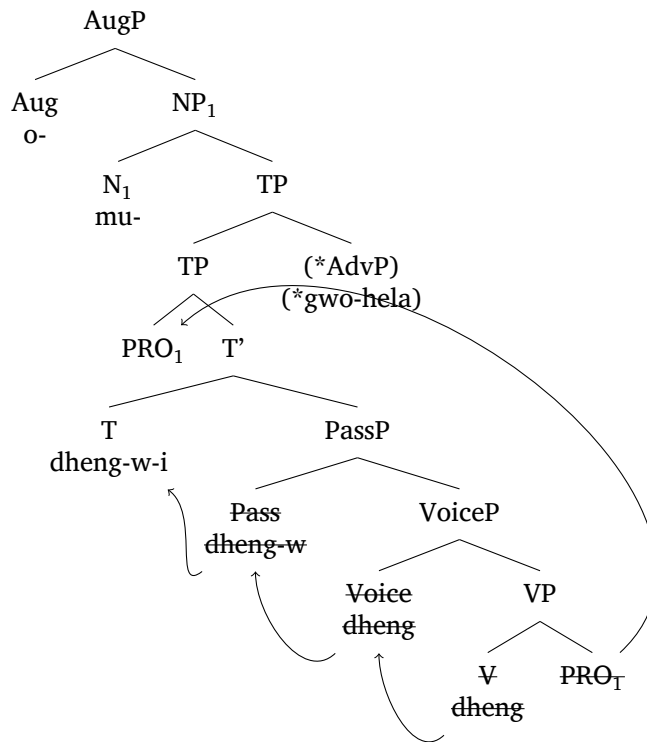
[6] It is not clear whether finite Ts assign Case to nominal arguments in Bantu languages and whether Bantu nominal arguments require Case (Diercks 2012). For present purposes, we assume that PRO (or an implicit DP) is compatible with finite T in Oshiwambo.

(28)　　The derivation for the subject nominalization in (23b)

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                    AugP
                   /    \
                 Aug     NP₁
                 o-     /   \
                      N₁     TP
                      mu-   /  \
                          TP    AdvP
                         /  \   gwo-hela
                      PRO₁   T'
                            /    \
                           T      PassP
                        dheng-w-a /    \
                               Pass    VoiceP
                              dheng-w  /    \
                                    Voice    VP
                                    dheng   /  \
                                           V    PRO_T
                                         dheng
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As mentioned in Section 3.4, we posit that finite T selects a passivized structure (PassP) under subject nominalizations. Non-finite T, on the other hand, is more flexible in terms of what it can select. A question arises as to why the selectional restriction holds for finite Ts but not for non-finite Ts inside Oshiwambo subject nominalizations. We assume that finite T inside Oshiwambo subject nominalizations is defective in that it only selects PassP and that it only induces a past tense reading. The notion of defective finite Ts has also been posited for Turkish nominalizations (Kornfilt & Whitman 2011). Kornfilt & Whitman (2011) point out that the lack of agreement also signals the defectiveness of Ts. This is exactly what we see in Oshiwambo subject nominalizations. At the very least, however, we know that past tense-denoting T is present inside Oshiwambo subject nominalizations in cases where a past tense temporal adverb such as *hela* 'yesterday' participates in the derivation, as in (28).

Based on the discussion so far, we argue that the analysis put forward by Baker & Vinokurova (2009) does not straightforwardly carry over to Oshiwambo. Evidenced by the fact that Oshiwambo subject nominalizations embed tense, in addition to CARP, subject nominalizations can be more extensive in size than (6). Wood (2023) convincingly argues that a deprived verbal structure that lacks phrasal projections such as VoiceP is associated with Icelandic agent nominalizations. In Oshiwambo subject nominalizations, the presence of the reflexive marker, applied arguments, *by*-phrases, low adverbs, and temporal adverbs calls for a more articulated structure that involves phrasal projections, including VoiceP. Overall, the facts in Oshiwambo can be effectively captured under an extended version of Alexiadou & Schäfer's (2010) phrasal layering analysis, in which verbal functional projections, including TP, can be established inside the nominal domain.

	Subject nominalizations	Reduced RCs	Headless RCs
Overt relativizer	✗	✗	✓
Overt DP	✗	✓	✗

Table 1: Subject nominalizations, reduced RCs, and headless RCs in Oshiwambo

5 Reduced and headless relative clauses

Subject nominalizations are different from relative clauses (RCs). RCs in Oshiwambo are postnominal, and the relativizer is overtly realized, as shown in (29). Note that none of the previous examples showcasing Oshiwambo subject nominalizations contain a relativizer.

(29) o-mu-ntu [**ngu** a-nhuk-a]
       AUG-1-person REL 3SG-jump-A
       'a person who jumped'

Subject nominalizations are not reduced RCs. Reduced RCs do not require a relativizer. Although Oshiwambo RCs can be realized without a relativizer (e.g., *ngu*), similar to plain RCs, reduced RCs (if there is one in Oshiwambo) require an overt DP as their head noun, as shown in (30). This is not the case for subject nominalizations as we have seen in the previous sections.

(30) **o-mu-ntu** [(ngu) ta-li o-shi-kuki]
       AUG-1-person REL   PROG-eat AUG-7-cake
       'a person (who is) eating the cake'

Further, subject nominalizations cannot be assimilated to headless RCs. Although the two nominals do not allow an overt DP as their head, they exhibit syntactic differences. Headless RCs require an overt relativizer, whereas subject nominalizations do not. (31) presents an example of a headless RC in Oshiwambo.

(31) Penda o-ku-hole **ngu o-mu-wanawa**.
       Penda AFF-3SG-like REL AUG-1-beautiful
       'Penda likes who is beautiful.'

Table 1 summarizes the syntactic properties of subject nominalizations, reduced RCs, and headless RCs in Oshiwambo. Based on the empirical data provided above, we conclude that subject nominalizations cannot be treated on a par with reduced or headless RCs.

6 Conclusion

An implication of this work is that the syntactic size of subject nominalizations can be more articulated than previously assumed in the literature. Specifically, we have argued that TP can be showcased inside Oshiwambo subject nominalizations. This calls for a closer look at other (Bantu) languages, including Gĩkũyũ, to see if the findings from Oshiwambo can be replicated. Hopefully, this will shed light on a broader typology of subject nominalizations. One aspect of Oshiwambo subject nominalizations that is worth further investigating is the past tense reading that is only available with passivization. Future research remains to be done on why this should be the case.

Abbreviations

3 = third person, AFF = affirmative, APPL = applicative, ASSOC = associative, AUG = augment, CAUS = causative, IPFV = imperfective, PASS = passive, PL = plural, POSS = possessive, RECP = reciprocal, REFL = reflexive, REL = relative, SG = singular

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The author(s) has/have no competing interests to declare.

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