Chapter 21

Serial verb nominalization in Akan: The question of intervening elements

Ọbádélé Bakari Kambon
University of Ghana, Legon

Reginald Akuoko Duah
University of Ghana, Legon

Clement Kwamina Insaidoo Appah
University of Ghana, Legon

In this paper, we hope to disambiguate the nature of look-alike intervening elements that appear between verbs in Serial Verb Constructions (SVCs) and Serial Verb Construction Nominalizations (SVCNs). To do so, we will first show that these intervening elements share the same phonological form. We will then show that although the intervening elements look the same on the surface, they can be differentiated by appealing to semantics and the construction from which the SVCN is derived. In doing so, we find that some of the intervening elements should, indeed, be regarded as TAMP markers, while others are nominalizers (NMLZ). In conclusion, we identify abstract schemata/templates that account for, and predict the positioning of, intervening elements found in Akan SVCNs.

1 Background

In this paper, we address the question of intervening elements in nominalized Serial Verb Constructions (SVCs).[1] Tense, aspect, mood and polarity (TAMP) markers

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[1]This project originated from a question from Clement Appah at the PhD defense of Ọbádélé Bakari Kambon in which it was asked how do we know that the intervening elements between nominalized verbs from Serial Verb Constructions (SVCs) are actually tense, aspect, mood, polarity (TAMP) markers and not simply nominal markers. The video of the PhD defense can be viewed here: https://youtu.be/QXDFwLV0Atc.

surface with the same phonological form as nominalizing affixes (NMLZ) in Akan. We hope to show, with evidence, times in which such intervening elements are grammatical elements derived from the original serial verb construction – such as TAMP markers, etc. – and when they are actually nominal elements (NMLZ). To do so, we will first substantiate that nominalized verbs in Akan are made with /a-/ and /-N-/, which are the same affixes that can be found as TAMP markers in SVCs. While this identity of form could potentially lead to ambiguity in terms of analysis, there are some clear cues in terms of form, function and semantics that can help us to disambiguate and clearly identify intervening elements. What makes the investigation special with regard to SVCs relates to the intervening element available, depending on what type of SVC instantiated. In SVCs, the intervening elements may be either NMLZ or TAMP. We do not, however, find TAMP markers on single verbs; only nominalizers. The observation that TAMP can occur in the case of SVCs makes this investigation intriguing and it brings out a phenomenon that could not be observed if we were dealing with single verbs alone.

Pioneering work on SVC nominalization has been done in the last few decades (Bodomo & van Oostendorp 1994; Bodomo 2004; 2006; Hiraiwa & Adams 2008; Aboh & Dyakonova 2009; Kambon 2012). Following Bodomo & van Oostendorp (1994), much of this literature has followed the terminology of "Serial Verb Nominalization." However, given that other constituents, when they appear in the SVC, also must surface in the nominal form, we prefer the term Serial Verb Construction Nominalization (SVCN). We feel that this terminology better accounts for all constituents of the construction and its nominalized form, whether or not these elements happen to be verbs or not.[2]

There are several potential ways of categorizing or typologizing SVCs. Such ways include on the basis of transitivity of included verbs, whether or not argument sharing exists, and/or based on the degree of idiomaticity, semantic integration and lexicalization. Following Osam (1994) categorization of SVCs based on degree of semantic integration (and associated degrees of lexicalization) Kambon (2012) showed that there are progressively greater degrees of integration ranging from the non-integrated Chaining Serial Constructions (CSCs) to Partial Lexicalized-Integrated Serial Verb Constructions (PL-ISVCs) to the most integrated Full Lexicalized-Integrated Serial Verb Constructions (FL-ISVCs).

The relationship between Semantic Integration and Lexicalization can be captured in Figure 1, which shows that as there is less conceptual distance between events, this is manifested in terms of progressively more lexicalization as expressed in the language.

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[2] See Kambon (2012) and Kambon et al. (2015) for a discussion on revising some criteria and definitions of SVCs.

Separate sentences → Coordination → CSC → PL-ISVC → FL-ISVC → Single Verb

Figure 1: Scale of lessening conceptual distance (Kambon 2012: 95)

Using Semantic Integration and Lexicalization as a means of categorization, Kambon (2012) showed that 98.63% (144 out of 146) of all FL-ISVCs identified have nominal counterparts while only 2.46% (17 out of 690) of all PL-ISVCs identified have nominal counterparts. CSCs, on the other hand seem to nominalize haphazardly as designata and denotata in the form of apparently random frozen proverbs, idioms/figures of speech and sentences.

While it is not our intention to rehash the entire means for identifying the FL-ISVCs to distinguish them from PL-ISVCs, it was decided that an independent means (other than nominalization itself, which would lead to circular argumentation) should be employed in order to categorize each one. Part of this came from Osam's (1994) initial discussion of FL-ISVCs, in which he writes, "Ranking high on the scale of integration are those verbal combinations that have become fully lexicalised into verb compounds and which are used as *lexicalised idioms*." (Osam 1994: 238, emphasis added). In recognizing that there was a link between semantic integration and idiomaticity, we employed Barkema's (1996) schema, which deals with defining characteristics of idioms on the basis of collocability, familiarity, flexibility and compositionality to test the idiomaticity and/or semantic integration of different types of SVCs identified for Akan. **Flexibility** deals with the degree to which a given idiom may take on various grammatical forms (i.e. number, specification, other types of morphological marking) without "breaking" the idiom and forcing a literal interpretation. Compositionality can be understood as the "degree to which the sum total meaning of the entire construction is readily derived from the parts contained therein" Kambon (2012: 47). Collocability may be thought of as the "degree to which synonym or antonym alternatives can be freely switched in and out" Kambon (2012: 46). Familiarity involves the currency of the idiom whereby it has become institutionalized to the point that the idiom, rather than the literal counterfeit form, is assumed by native speakers (Kambon 2012).

Using Barkema's (1996) schema, FL-ISVCs were identified on the basis of the following characteristics:

- Usually non-compositional

- Usually collocationally closed

- Usually inflexible

- Usually familiar (institutionalized)

In §3, we will argue that a key to understanding the nature of intervening elements in SVCNs is identifying the type of SVC source construction from which the SVCN is derived. Below, we illustrate with examples the various types of SVCs and their nominalized counterparts. We begin with examples of FL-ISVCs and nominalized counterparts.[3]

(1) a. Yɛ̀-à-ká   yèn   hó   á-bɔ̀   mú.
        1PL-PRF-touch 1PL.POSS body PRF-strike inside
        'We have united ourselves.'

    b. Ǹ-ká-bó-m(ú)
        ?NMLZ/?NEG-touch-strike-inside
        'Unity'

    c. Ǹkábóḿ hìá yéń.
        unity need 1PL
        'Unity is important to us.'

(2) a. Ɔ̀-ǹ-tú   nè   hó   ǹ-kyɛ́.
        3SG.SBJ-NEG-uproot 3SG.POSS body NEG-give.as.gift
        'He doesn't volunteer.'

    b. À-tù-hó-á-kyɛ́
        ?NMLZ/?PRF-uproot-body-?NMLZ/?PRF-give.as.gift
        'Volunteerism'

    c. Ɔ̀-wɔ̀   àhùmɔ́bórɔ́ né àtùhóákyɛ́.
        3SG.SBJ-possess mercy   and volunteerism
        'He is merciful and has a volunteering spirit.' (lit. he has mercy and volunteerism)

Examples of FL-ISVCs with nominalized counterparts that have potentially ambiguous intervening elements:

(3) a. Mè-ǹ-gyé   ásɛ́ḿ nó ń-tò   mú.
        1SG.SBJ-NEG-receive word DET NEG-throw inside
        'I don't accept the story.'

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[3]For consistency of presentation, examples come from Asante Twi unless otherwise indicated.

    b. Ǹ-gyé-ń-tó-ḿ(ú)
      $^?$NMLZ/$^?$NEG-receive-$^?$NMLZ/$^?$NEG-throw-inside
      'Acceptance'

    c. Ǹnyéńtóḿ(ú) á-m̀-mà   só wɔ̀ hɔ́.
      acceptance   PST-NEG-come top at there
      'There was no acceptance there (between two or more people).'

(4) a. Ɔ̀-à-twá   àsɛ́ḿ á-tò   mè   só.
      3SG.SBJ-PRF-cut matter PRF-throw 1SG.POSS top
      'He has falsely accused me.'

    b. Ǹ-twá-ń-tó-só
      $^?$NMLZ/$^?$NEG-cut-$^?$NMLZ/$^?$NEG-throw-top
      'False accusation'

    c. Dèɛ̀ wó-á-ká   yí   nyìnáá yɛ̀ ǹtwáńtósó.
      thing 2SG.SBJ-PRF-speak DEM all   be false accusation
      'All that you are saying is a false.accusation.'

A point that will be returned to later that should be noted here is that the prefix /a-/ in (1a) and (4a) is functioning as a perfect marker (PRF). Meanwhile /a-/ occurs in the nominalized SVC in (2b) and can be analyzed as functioning as a nominalizing prefix (NMLZ). Likewise, the prefix /N-/ in (1b), (3b) and (4b) seems to serve as a nominalizing prefix (NMLZ), while /N-/ in (2a) and (3a), a superficially similar /N-/, is NEG. Thus, the same phonological forms are serving different functions in the language. The disambiguation of these surface similarities of form is the basis of the primary research agenda of this paper.

PL-ISVCs were also identified as being generally on the other end of the scale as they are:

- Usually fully compositional

- Usually collocationally limited

- Usually semi-flexible (productive)

- Usually partially familiar (somewhat institutionalized)

(5) a. Ò̀-à-tɔ́   àdùàné á-dì.
        3SG.SBJ-PRF-buy food   PRF-eat
        'He has bought food to eat.'

     b. Ǹ-tɔ́-dí-(ɛ́)
        NMLZ-buy-eat-NMLZ
        'Things bought and eaten.'

     c. Ò̀-tàá   dí ǹtódíɛ́.
        3SG.SBJ-often eat buying-and-eating
        'He often buys what he eats.'

(6) a. Mógyá nà   nànánóm hwìè gù-ì.
        blood   PRT ancestors pour spill-PST
        'It is blood that our ancestors shed.'

     b. Hwìè   -gú-(ó)
        pour-spill-NMLZ
        'Pouring away'

     c. Hwìègúó   kwà   níé.
        Pouring-away worthless be.this
        'It is worthless pouring away.'

The examples in (7–8) show nominalized PL-ISVCs with potentially ambiguous intervening elements. Again, as noted in the case of FL-ISVCs (3–4), nominalizing affixes (NMLZ) may appear on the noun, e.g. (7b) and (8b), in which case they mimic the appearance of the perfect (PRF) /a-/ and negative (NEG) /N-/ prefixes, but without the semantic connotations that these carry once they appear as part of the nominal form.

(7) a. Yɛ̀-à-fúá   nó   á-hwè   nò.
        1pl.SBJ-PRF-hold 3SG.OBJ PRF-beat 3SG.OBJ
        'We have held and beat him.'

     b. M̀-fùà-ǹ-hwé
        ?NMLZ/?NEG-hold-?NMLZ/?NEG-beat
        'Holding and beating'

     c. Sɛ́dèɛ̀ wɔ̀-dí-ì   nò   m̀fùàǹhwé   nó ń-yɛ́
        manner 3PL-eat-PST 3SG.OBJ holding-and-beating CD NEG-be
        'The manner in which they held him and beat him up is not good.'

(8) a. Mé   wɔ̀fà   á-wú á-gyà mè   àdéɛ́.
         1SG.SBJ maternal-uncle PRF-die PRF-leave 1SG.OBJ thing
         'My uncle has died and bequeathed me with something.'

     b. À-wú-ń-gyá-dé(ɛ́)
         ?NMLZ/?PRF-die-?NMLZ/?NEG-leave-thing
         'Inheritance'

     c. N'àwúńnyádéɛ́   ǹ-kɔ̀-sí   àhé   ḿpó.
         3SG.POSS.inheritance NEG-EGR-stand how-much even
         'His/her inheritance did not even amount to much.'

Finally, CSCs were identified as having the following characteristics:

- Fully compositional or wholly non-compositional

- Flexible or inflexible

- Collocationally open or closed

- Familiar or non-familiar

(9) a. Kà   hyɛ́ń kɔ́-dú   ɛ̀-m̀-má   èsúḿ   ń-tó
         drive car   EGR-arrive 3SG.SBJ-NEG.imp-let darkness NEG-encounter
         wò   kwáń mú.
         2SG.OBJ road   inside.

         'May darkness not catch up with you!'[4] (Obeng 2001: 61)

     b. Kà-hyɛ́ń-kɔ́-dú(rú)
         drive-vehicle-EGR-arrive
         'May darkness not catch up with you!' (Obeng 2001: 61)

     c. Yɛ̀-à-tò   nò   dín Kàhyɛ́nkɔ́dú
         1pl.SBJ-PRF-throw 3SG.OBJ name Kahyɛnkɔdu.
         'He/she was given the name Kahyɛnkɔdu.'

(10) a. Ò̀-kó   fórò bóɔ́.
         3SG.SBJ-fight climb rock
         'He/she fights then climbs a stone.'

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[4]With the connotation of 'May a bad omen befall my enemy for his action towards me'.

b. Ò-kó-fórò-bóɔ́
   NMLZ-fight-climb-rock
   'One who fights on rocky terrain' (Obeng 2001: 79)

c. Òkófóròbóɔ́ yὲ ɔ̀héné bí   díń.
   Òkófóròbóɔ́ be king   INDF name
   'Ɔkoforoboɔ is the name of a king.'

Now, in (11–12), we see examples of CSCs that also have potentially ambiguous intervening elements.

(11)   a. Wó-á-tò   àbáń   nó á-pὲm̀.
         2SG-PRF-encounter fortress DET PRF-knock.against
         'You have encountered the fortress and knocked against it.'

       b. À-tó-à-pὲm̀
          [?]NMLZ/[?]PRF-encounter-[?]NMLZ/[?]PRF-knock.against
          'The unsurpassable one'

       c. Nὲ   m̀mráné   nὲ Àtóàpὲm̀.
          3SG.POSS praise.name be Atoapem
          'His praise name is Atoapem.'

(12)   a. Ǹ-té   m'àmánèhúnú   nyìnáá ǹ-sèré   mé.
         NEG-hear 1SG.POSS.catastrophe all   NEG-laugh 1SG.OBJ
         'Don't laugh when you hear of all my misfortunes.'

       b. Ǹ-té-ǹ-sèré.
          [?]NMLZ/[?]NEG-hear-[?]NMLZ/[?]NEG-laugh
          'Do not hear and laugh' (personal name).

       c. Yὲ-frέ   nò   Ǹténsèré.
          1PL.SBJ-call 3SG.OBJ Ntensere
          'We call him Ntensere.'

It is worth noting that while /a-/ and /N-/ may function as TAMP markers in clauses, they occur throughout the language as nominalizers (NMLZ), and not exclusively in the context of SVCNs.[5] The following examples demonstrate this:

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[5]For more discussion on nominal derivation in Akan, see Appah (2003).

(13)   /a-/ as nominalizer (NMLZ)

    a. *dwo* 'to be cool' ⟹ *adwo* 'coolness' (i.e. *Mema wo adwo.* 'I give you coolness/good evening.')

    b. *dwene* 'to think' ⟹ *adwene* 'thought/brain' (i.e. *M'adwene ne sɛ menkɔ.* 'My thought is that I should go.')

    c. *didi* 'to eat' ⟹ *adidi(e)* 'eating' (i.e. *M'adidie asesa.* 'My (manner of) eating has changed.')

    d. *dom* 'to show grace towards' ⟹ *adom* 'grace' (i.e. *Adom bi nti, ɛbɛyɛ yie.* 'Because of a certain (show of) grace, it will be well.')

(14)   /N-/ as nominalizer (NMLZ)

    a. *da* 'to sleep' ⟹ *nna* 'sleep' (i.e. *Nnansa yi nna koraa abɔ me.* 'Recently sleep has been difficult for me.')

    b. *kyea* 'to greet' ⟹ *nkyea* 'greetings' (i.e. *Nkyea kyerɛ ɔdɔ.* 'Greetings show love.')

    c. *kra* 'to bid farewell' ⟹ *nkra* 'message' (i.e. *Nkra a ɔde maa me nie.* 'This is the message he/she left for me.')

    d. *kae* 'remember' ⟹ *nkae(ɛ)* 'remembrance' (i.e. *Nkaeɛ da m'akoma soɔ.* 'Remembrance lays on my heart.')

In this section, we have provided a discussion of SVCs, including definitions, descriptions and illustrations of various types. In exemplifying SVCs, we have given an overview of characteristics prototypically associated with different categories into which SVCs may be grouped. We have also shown that SVCs can be nominalized and that similar looking elements, specifically /a-/ and /N-/, may appear in SVCs and SVCNs and in general as nominalizers in the language. When they appear in SVCNs, intervening elements /-a-/ and /-N-/ may potentially serve the same or different roles in the language including functioning as nominalization markers (NMLZ) as well as serving the grammatical function of TAMP marking. While this identity of form seems to present a level of difficulty in terms of disambiguation, in this paper, we intend to account for these intervening elements that appear between verbs in Serial Verb Construction Nominalization (SVCN). As such, we will show that for certain SVCs, upon nominalization, various finite characteristics such as tense, aspect, mood and polarity (TAMP) may be carried over into the noun form but they may perform other functions than TAMP. In §2, we will outline the methodology followed in this study. In §3, we will examine different types of SVCNs and show how intervening elements which are

carried over from the SVC into the SVCN may be analyzed. In §4, we will propose two broad schemata or templates to account for Akan SVCNs. We argue these base template forms are the basic morphological schemas that native speakers know and utilize to develop new forms. Significantly, these schemata can be used to predict the nature of the intervening elements in an SVCN. §5 will present our conclusion.

2 Methodology

Examples of SVCNs were extracted from Osam (1994) and Agyeman (2002) as these were the two major works on semantic integration of SVCs in Akan. Using semantic integration as the basis of categorizing SVCs, each of these seminal works provided examples of FL-ISVCs, PL-ISVCs and CSCs. Given that each of these authors provided some of the most unambiguous and exemplary cases of each type of SVC, questionnaires were then developed based on such cases to get native speaker judgments on whether or not these SVCs could be nominalized. Additionally, using the aforementioned idiomaticity criteria, similar SVCs were identified from *The Dictionary of the Asante and Fante Language called Tshi* (Twi) (Christaller 1933), *Twi Nsɛm Nkorɛnkorɛ Kyerɛwbea* wordlist (Department of Education 1971) Boadi (2005), *Twi Kasa Mmara ne Kasɛsoɔ* and *Mfantse Nkasafua na Kasambirenyi Nkyerɛase: Dictionary of Mfantse Words and Idioms* (Bannerman et al. 2011) . These texts were chosen due to their comprehensiveness, representativeness of various literary dialects of Akan and for the diachronic range of the language represented by them as a whole.

The study used purposeful sampling (Patton 2002: 230), primarily based on dialect of spoken Akan. In the first phase (P1), questionnaires were primarily administered at Accra (University of Ghana-Legon 48.1%), Cape Coast (University of Cape Coast 37.3%), and Winneba (University of Education-Winneba 17.9%). For P1, 75 participants mainly ranging from ages 21-40 were consulted, with most of them being literate speakers. For the second phase (P2), the bulk of participants were over 60 years old and were mostly non-literate. Taking advantage of the fact that most of the P1 participants were literate, questionnaires were distributed individually and respondents returned the forms filled out. Because P2 comprised mostly non-literate speakers, a different method of focus groups was employed wherein explanations of the nature of the study were provided and speakers gave their intuitions about nominalization and decomposition processes. For each phase, speakers of the main literary dialects of Akan, namely Asante Twi, Fante and Akuapem were consulted. For each SVC, speakers

were asked to provide the corresponding nominal when one existed. Conversely, speakers were also given SVCNs and were asked to provide the SVC from which the nominalized form was derived so that both composition and decomposition processes would be adequately represented. Data was analyzed in order to ascertain whether or not there were similarities or differences in the kinds of SVCs (i.e. on the basis of transitivity, on the basis of argument sharing or on the basis of semantic integration/lexicalization) that could be nominalized. While there were no significant behaviors on the basis of other aspects of SVC typology, it was found that lexicalization represented a salient feature effectively predicting nominalization behavior or lack thereof.

3 Analysis of intervening elements

In this section, we will exemplify SVCs and examine those for which derived SVCNs have intervening elements. As we showed in the background section, there are two major affixes: /a-/ and /N-/, which may serve as nominalizers. When /-N-/ occurs within a nominalized verb, the first inclination might be to simply analyze it as a nominalizer, however one should be circumspect due to the fact that, in terms of function, the nasal affix in the language may serve as a (i) negation marker, e.g. (2a), (3a), (9a) and (12a); (ii) (singular or plural) nominal marker/nominalizer, e.g. (13a–d) or (iii) mood marker, eg. (9a). It must be noted that /a-/ also has distinct manifestations as (i) past/perfect marker, eg. (1a), (3a), (4a), (4c), (5a), (7a) and (8a); (ii) (singular or plural) nominal marker or a nominalizer, e.g. (13a–d); (iii) as a conditional marker (with a falling tone). In the following, we examine the status of intervening elements in different types of Serial Verb Construction Nominalization (SVCNs).

3.1 CSC Nominalization with Intervening elements

In this section, we consider the status of intervening elements in Chaining Serial Construction Nominalization (CSCNs). CSCs in Akan appear to retain TAMP markers when they are nominalized. This is not out of the ordinary as it has been attested by Koptjevskaja-Tamm (1993: 18) that cross-linguistically, "nominalizations may contain tenses, auxiliaries and adverbs." This phenomenon can be seen in other instances of nominalization which are even more clear-cut, in which the intervening element is not phonologically (or semantically) ambiguous as it may be in the case of /-a-/ and /-N-/. In such cases, we are clearly dealing with aspectual markers. For example, in (15a–b), we find cases of the egressive (EGR) and

ingressive (INGR) aspects in a nominal, which can only be interpreted as such as there are no phonologically similar phenomena that could occur in such positions in Akan. Thus, we find a language-internal justification of the notion that nominals may contain aspectual elements more prototypically associated with verbs.

(15)   a.   Kɔ̀-tɔ́-bɛ́-tɔ́ń
          EGR-buy-INGR-sell
          'Retail selling' (lit. go (and) buy (and) sell)

       b.   Kɔ̀-dwàré-bɛ́-dí-wó-dèɛ́
          EGR-bath-INGR-eat-2SG.POSS-thing
          'Leprosy' (lit. go bathe (and) come (and) eat yours)

Table 1 shows more examples nominalized CSCs that have intervening elements.

Thus, in the case of *ntensere* (12, replicated here as 16), for example, because the source construction has negation and the resulting nominalized form also maintains the same semantic sense of negation, we argue that /-N-/ should be understood as negation (NEG) that has been transferred from the CSC to the CSCN.

(16)   a.   Ǹ-té   m'àmánèhúnú   ǹ-sèré   mé.
          NEG-hear 1SG.POSS.catastrophe NEG-laugh 1SG.OBJ
          'Don't laugh when you hear of all my misfortunes.'

       b.   Ǹ-té-ń-sèré.
          NEG-hear-NEG-laugh
          'Do not hear and laugh' (personal name)

       c.   Yɛ̀-frɛ́   nò   Ǹténsèré.
          1PL.SBJ-call 3SG.OBJ Ntensere
          'We call him Ntensere.'

Another clear example is Amfaamfiri (17a–c), which has TAMP markers indicating PST and NEG, again in both the source CSC and the resulting CSCN.

(17)   a.   Ɔ̀-à-m̀-fá   nè   bɔ́né   á-m̀-fìrí   nó.
          3SG.SBJ-PST-NEG-take 3SG.POSS badness PST-NEG-lend 3SG.OBJ
          'He/she didn't forgive him/her for his/her badness.'

       b.   À-m̀-fá-á-m̀-fìrí
          PST-NEG-take-PST-NEG-lend
          'Unforgiving one.'

Table 1: CSC Nominalizations with intervening elements

SVN	Christaller (1933)	EDG (1971)	Obeng (2001)	Boadi (2005)	Bannerman et al. (2011)
1. a-bisa-nsu-a-ma-nsa COND-ask-water-COND-give-alcohol 'liberal, generous'	✓	✓	✗	✓	✗
2. a-di-a-boro-wo-kora PRF-eat-PRF-surpass-2SG-calabash 'fungus'	✓	✗	✗	✗	✗
3. a-hu-a-bɔ-birim PRF-see-PRF-strike-tremble 'one who inspires fear'	✗	✗	✓	✗	✗
4. a-ko-a-ma PRF-fight-PRF-give 'doubling'	✓	✗	✗	✗	✗
5. pɛ-wo-a-yɛ-dɛn look-2SG-PRF-do-what 'why should I look for you? (name)'	✗	✗	✓	✗	✗
6. n-te-n-sere NEG-hear-NEG-laugh 'do not hear and laugh (name)'	✗	✗	✓	✗	✗
7. a-to-a-pem PRF-encounter-PRF-collide 'unsurmountable point'	✗	✗	✓	✗	✓
8. a-wu-a-kyɛ PRF-hear-PRF-laugh 'one who dies for others'	✗	✗	✓	✗	✗
9. a-hunu-ani-a-n-ka-nsa PRF-see-eye-PRF-NEG-touch-hand 'lattice window'	✓	✓	✗	✗	✗

c. Àṁfááṁfìrí bà-à há.
unforgiving one come-PST here
'The Unforgiving One came here.'

It is also worth noting that in each of the above constructions, in a manner consistent with how SVCs operate in the language, the same TAMP is found on each verb of the SVC as well as on each verb in the SVCN that is derived from it. Thus in (17a–b), the only logical choice for the identity of the affixes on V1 and the V2 is the past tense (PST). The primary factor that leads to this analysis is the marking of negation on both verbs as retained in the nominal. In Akan, the negation of the past tense calls for /a-/ on each verb before the negative prefix. Again, this is understood as compelling evidence that, particularly for CSCs, elements from the finite construction are carried over into the nominal form showing that some nominals are more verb-like.

It can be noted that because nominalized CSCs are primarily used as *designata* and *denotata* or names of persons, places, things, etc., this is typically the sentential context in which such nouns can be found. While Table 1 shows examples of nominalized CSCs with intervening elements, it should be kept in mind that there are innumerable sentences that have the potential to be frozen and applied as *designata* and *denotata* to any person, place or thing either as a proper name or nickname. We have shown above that there are some SVCNs whose intervening elements may be ambiguous, yet when we examine the SVC source construction, we find that for Akan CSCs, it is possible to transfer the TAMP marker from the SVC to the SVCN. Given that this is possible, it then follows that intervening forms should be manifested by the same phonological form that they had in the CSC in the CSCN.

3.2 PL-ISVC nominalization with intervening elements

As shown in Figure 1 above, we see that the micro-events expressed in the verb series in PL-ISVCs are closer together than CSCs in terms of conceptual distance. In other words, CSCs are closer to being like clauses separated by coordination or even more like separate sentences than PL-ISVCs (see Osam 2004). Another way of looking at it from the complementary side of the continuum is to say that PL-ISVCs are closer to being like Single Verbs than CSCs. Thus, in this section, we will look at how PL-ISVCs behave with regard to nominalization. The first thing that becomes imminently clear is that there are comparatively less attested PL-ISVC nominals with intervening elements than CSC nominals (see Table 2). Although this appears to be the case, it should be noted that PL-ISVC

nominalization is still a productive process as in the last few years, a very promi-
nent case of *dumsɔ* (*dumsɔ*) 'intermittent blackouts' has been coined by Akan
speakers in Ghana to describe the situation of the erratic power supply issues
that plagued the country at the time. Thus, while we see that the main function
of CSC nominalization is to designate and denote persons, places or things, PL-
ISVCs can also be created on the fly, so to speak, to refer to a situation. Below,
we will turn our attention to those PL-ISVCs with intervening elements.

Table 2: PL-ISVNs with intervening elements

	SVN	Christaller (1933)	EDG (1971)	Boadi (2005)	Bannerman et al. (2011)
1.	m-fua-n-hwe NMLZ-hold-NMLZ-beat 'holding and beating'	✓	✗	✗	✗
2.	tɔ-nko-a-da fall-nod-NMLZ-sleep 'nodding off to sleep'	✗	✗	✓	✗
3.	a-wu-n-nya-de(ɛ) NMLZ-die-NMLZ-leave-thing 'inheritance'	✓	✓	✓	✓

(18) a. Yɛ̀-à-fúá   nó   á-hwè   nò.
          1pl.SBJ-PRF-hold 3SG.OBJ PRF-beat 3SG.OBJ
          'We have held and beat him.'

     b. M̀-fùà-ǹ-hwé
          NMLZ-hold-NMLZ-beat
          'Holding and beating'

     c. Sɛ́dèè̀ wɔ̀-dí-ì   nò   m̀fùàǹhwé   nó ń-yɛ́.
          manner 3PL-eat-PST 3SG.OBJ holding-and-beating CD NEG-be
          'The manner in which they held him and beat him up is not good.'

According to Barkema (1996), we find that compositionality (or lack thereof) is one of several criteria used to identify an SVC. In the case of *mfuanhwe* (18a–b), we see that the fully compositional meaning is transferred directly from the SVC (18a) to the SVCN (18b). In other words, *fua* means 'to hold' and *hwe* means 'to beat' in both the SVC and SVCN. While this may not seem remarkable, it is a salient feature in terms of differentiating PL-ISVCs from FL-ISVCs, each of which nominalizes to vastly different degrees, with PL-ISVCs rarely nominalizing while FL-ISVCs almost always have nominal counterparts recognizable by native speakers.

In (18a), note that while the source SVC has the perfect (PRF) /a-/, this TAMP marking is not carried over to the SVCN (18b). Rather, what we find is /-N-/ on both verbal elements. It may be recalled that in the Akan language /N-/ can function as a marker of negation, plurality, nominalization or mood. In the case of (18b), we see clearly that the nominal has not retained any type of TAMP marking from the SVC form as there is no semantic connotation of negation as we saw in the instance of nominalized CSC *ntensere*, for example (see 16a–b). Further, there is no indication of plurality or mood marking in the SVCN form (18b). This leaves the only possible option for /-N-/ as being the marker of nominalization. Thus, again, by way of a method for identifying intervening elements, we can look to the source SVC construction for guidance in understanding which, if any, intervening elements have been retained and transferred over to the derived SVCN. It is worth noting here that in our analysis of SVCNs, both verbs are marked with the same phonological form of /-N-/ at α-place of articulation. These types appear to follow a concordance marking type of system of finite SVCs similar to what is seen in Bantu and other noun class languages (Aikhenvald & Dixon 2006).[6]

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[6]When there are two markers of nominalization in the same SVN, typically they have the same phonological form. Although presented as unlikely, Kambon (2012: 211) entertained the remote possibility that /-N-/ comes from an elided conjunction *na*, which in Akan joins two clauses or sentences, as shown below:

> (i) Fua na   hwe → fua n'hwe
>   hold conj beat
>   'hold and beat'

In such an analysis, the initial /N/ would then still be interpreted as a nominalization marker. What makes this analysis unappealing is the fact that cross-dialectally, the intervening /-N-/ is not obligatory. Interestingly enough, Boadi (2005) has *mfuahweɛ* without the intervening /-N-/. Boadi's version of the PL-ISVC patterns after the base template form typical of FL-ISVCs, which typically do not include any intervening elements.

Example (19) is also compositional as expected for a PL-ISVC[7] both in terms of the SVC form and the SVCN form as *wu* 'to die' and *gya* 'leave' still essentially retain their meanings upon nominalization. Unlike in the case of nominalized CSCs, wherein TAMP marking was retained, for (19), we see clearly that there is no semantic connotation of negation in the SVCN. Nor is there any mood marking or plurality evident in the SVCN. Thus, out of the options possible for /-N-/, the only likely one left is that of a nominalization marker. This is to be expected due to the fact that PL-ISVCs are less sentential than CSCs, thus, those intervening elements when they do appear are less likely to be TAMP markers and more likely to be nominalization markers.

(19) a. Mé   wɔfà   á-wú á-gyà mè   àdéɛ́.
          1SG.SBJ maternal-uncle PRF-die PRF-leave 1SG.OBJ thing

          'My uncle has died and bequeathed me with something.'

      b. À-wú-ń-gyá-dé(ɛ́)
          ?NMLZ/?PRF-die-?NMLZ/?NEG-leave-thing

          'Inheritance'

      c. N'àwúńnyádéɛ́   ǹ-kɔ̀-sí   àhé   ḿpó.
          3SG.POSS.inheritance NEG-EGR-stand how-much even

          'His/her inheritance did not even amount to much.'

3.3 FL-ISVC nominalization with intervening elements

We now turn our attention to FL-ISVNs that have intervening elements as attested in dictionaries/wordlists or as produced by native speakers during the course of our research. Table 3 exemplifies those that were identified.

(20) a. Ɔ̀-ǹ-tú   nè   hó   ǹ-kyɛ́   kóráá.
          3SG.SBJ-NEG-uproot 3SG.POSS body NEG-give.as.gift at all

          'He doesn't volunteer at all.'

      b. À-tù-hó-á-kyɛ́
          NMLZ-uproot-body-NMLZ-give.as.gift

          'Volunteerism'

---

[7]A case could be made for this form being an FL-ISVC due to the idea of inheritance being different from the sum total of its parts. We are of the opinion, however, that the concept is transparent enough for the compositional meanings of the individual verbs from which the SVCN is derived to shine through. In any case, it is typical for FL-ISVCs as lexicalized idioms to retain "literal counterfeit forms" just as in English, for example, "having cold feet" could either mean to be afraid or simply for one's feet to be cold temperature-wise.

Table 3: FL-ISVNs with intervening elements

SVN	Christaller (1933)	EDG (1971)	Boadi (2005)	Bannerman et al. (2011)
1. m-bɔ-n-to-hɔ NMLZ-hit-NMLZ-throw-there 'procrastination'	✓	✓	✓	✓
2. m-fa-(n)-to-ho NMLZ-take-NMLZ-throw-body 'comparison, example'	✓	✓	✓	✓
3. a-firi-n-hyia NMLZ-leave-NMLZ-meet 'meeting of an annual date'	✓	✓	✗	✓
4. n-nye-n-to-m(u) NMLZ-receive-NMLZ-put-inside 'acceptance, admission'	✓	✗	✓	✓
5. m-mɔ-to-so NMLZ-hit-throw-top 'accusation'	✓	✗	✗	✓
6. a-tu-ho-a-kyɛ NMLZ-uproot-body-NMLZ-give	✓	✓	✗	✓
7. a-kɔ-a-ba NMLZ-go-NMLZ-come 'welcome' (greeting)	✓	✓	✓	✗

c. Ɔ̀-bɛ́-kyèrɛ   àhùmmɔ́bórɔ́ né   àtùhóákyɛ́.
   3.sg.SBJ-fut-show mercy   and volunteerism

   'He/she will show mercy and volunteerism.' (lit. he will exhibit
   (characteristics of) mercy and volunteerism)

As shown in (20), FL-ISVCNs do not retain TAMP markers from their source constructions. For instance, the negation in (20a) is not carried over into the noun in (20b). While we find /-a-/ as intervening element in (20b), we are reminded that there are three potential instantiations of /-a-/ whereby it can occur as a perfective marker, a singular or plural nominal marker or a marker of nominalization. However, in (20b), there is no active sense of the perfective in use here that would relegate the noun volunteerism to the perfect. This can be seen in (20c) in which the future tense is used with the TAMP-neutral *atuhoakyɛ*. Thus, the intervening element /-a-/ in *a-tu-ho-a-kyɛ* is properly analyzed as a nominalizer (NMLZ) (20b). Again, while it is evident that the same phonological form of /-a-/ can be used for different purposes in the language, it is also clear that by assessing TAMP marking in the source SVC and determining if any of these TAMP markers are/can be realized in the SVCN, we are able to disambiguate and see which /-a-/ we are dealing with in a given construction. Because FL-ISVCs as lexicalized idioms are consistently expected to express abstract concepts, we expect that TAMP marking will not occur regardless of whether the intervening elements are /-a-/ or /-N-/. As mentioned in §1, FL-ISVCs are prototypically expected to be non-compositional, collocationally closed, inflexible, and highly familiar due to their high degree of idiomaticity and concomitant lexicalization. Thus, similarly in (21a–b), we find that even when there is negation in a given SVC, TAMP marking is not carried over into the SVCN as we found with CSC ntensere.

(21) a. Mè-ǹ-gyé   w'ásɛ́ḿ   nó ń-tò   mú.
   1SG.SBJ-NEG-receive 2SG.POSS.word DET NEG-throw inside
   'I don't accept your word.'

   b. Ǹ-gyé-ń-tó-ḿ(ú)
   NMLZ-receive-NMLZ-throw-inside
   'Acceptance'

   c. Ǹnyéńtóḿ(ú) bíárá á-m̀-mà   só wɔ̀ yɛ̀ǹ   ǹtáḿ(ú).
   acceptance any PST-NEG-come top at 1pl.POSS between
   'No acceptance came about between us.'

In light of the above discussion, for all intents and purposes, we seem to have a continuum where, as posited by Vendler (1967), with regard to verbs in general, SVCNs derived from CSCs retain more verb-like features upon nominalization while others derived from ISVCs are more prototypically nominal with such verbal elements such as TAMP marking stripped away. According to Vendler (1967: 131) there are imperfect nominals and perfect nominals, "one in which the verb

is still alive as a verb, and the other in which the verb is dead as a verb, having become a noun." It is important to note that rather than a sharp dividing line that would come with a "necessary and sufficient conditions" type of approach, here, we appear to be dealing with a continuum among nouns where some may be more on the noun-like side of the continuum (eg. ISVCs) while others may be more verb-like (eg. CSCs).

What we learn from the different SVCNs is that although there is potentially an instance of surface ambiguity with regard to the nature of intervening elements, once the source construction and resulting SVCN are examined, it becomes clear in each case that only one of the potential options is viable in any given case. For instance, we observe that *ntwantoso* 'false accusation' and other FL-ISVCNs with intervening elements are more "noun-like" i.e. stripped of TAMP morphology. Additionally, its meaning is non-compositional, it is highly idiomatic and highly lexicalized. It is also highly familiar, as is expected for a more prototypical FL-ISVC. In his 2012 study, Kambon reports that when given the individual elements of the FL-ISVC *twa…to…so*, 100% of his respondents produced the SVCN and 93% of respondents gave 'false accusation' as the meaning of the noun. Thus, Kambon (2012) concludes that *ntwantoso* is probably one of the most recognizable, current and institutionalized cases of FL-ISVC nominalization. It then becomes increasingly clear that once we are able to identify the source construction in terms of semantic integration, lexicalization and idiomaticity, we may reasonably come to expect certain patterned behavior (or lack thereof) with regard to whether or not TAMP marking will be actualized upon nominalization.

Here, it is also worth noting that intervening elements in SVCNs in general and ISVCNs in particular are the exception rather than the rule with less than ten identified out of just short of 150 attested cases of FL-ISVC nominalization. Further, for the SVCNs with intervening elements, not all speakers produced forms with intervening elements. In fact, it was oftentimes more likely that speakers of Asante and Akuapem (dialects of Akan spoken in different regions of Ghana) would produce forms without intervening elements than that they would produce variants containing them. This begs the question of the motivation for the intervening elements when they do appear. One explanation could be wholly phonological, where the nasal /-N-/ may actually be phonologically conditioned and semantically null. This pattern was typical of Fante speakers interviewed in Phase Two study groups, in which they regularly produced forms such as *ngyentom* from *gye…to…mu*, *ntwantodo* from *twa…to…so*, *mbɔntohɔ* from *bɔ…to…hɔ* etc. Supplementing this analysis is the idea that, originally, FL-ISVCs were derived from CSCs and ultimately from separate clauses and/or sentences. This progression is illustrated in Figure 2 below.

Events in perceived world: Event1 ==========> Event2

CSC: [V1 (Meaning 1)] _____ [V2 (Meaning 2)]

PL-ISVC: [V1 (Meaning 1) _____ V2 (Meaning 2)]

FL-ISVC: [V1 ___ V2 (Meaning 3)]

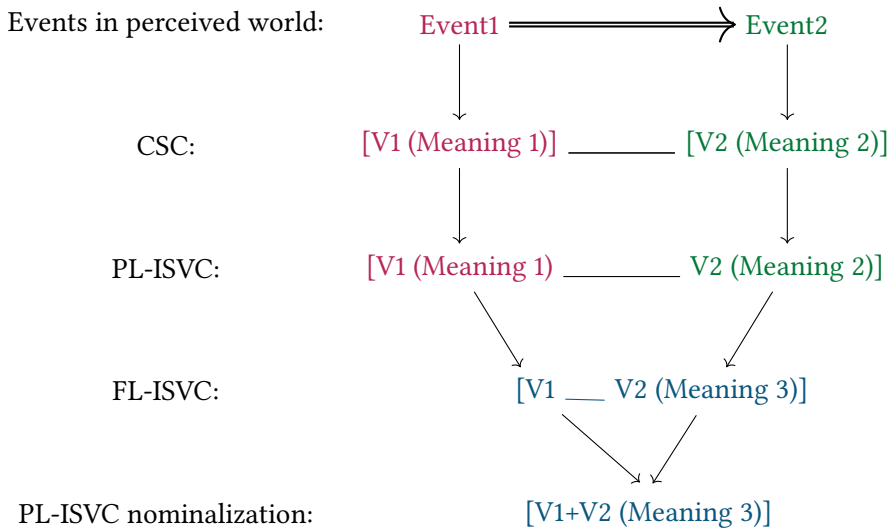PL-ISVC nominalization: [V1+V2 (Meaning 3)]

Figure 2: Iconicity from perceived world to nominalization (Kambon 2012: 41)

It should be noted that although this is given as the putative route by which FL-ISVCs came to exist in the language, it is not thought that each and every FL-ISVC currently in the language had to necessarily take this same route. Rather, we argue that once these SVCs with different levels of semantic integration and concomitant lexicalization, appeared as classes of ISVCs, they provided a base template by which other similar SVCs could be created and nominalized on analogy with prototypical instantiations. We will look at these base template forms in §4 below.

4 SVCN schemata and the nature of intervening elements

In this paper, we have illustrated that Akan SVCs have been shown to be of two main types, namely Integrated Serial Verb Constructions (ISVCs) and Chaining Serial Constructions (CSCs) (Osam 1994; Agyeman 2002; Kambon 2012; Kambon et al. 2015). We have also shown that tracing the SVCN back to its SVC source is indispensable as a method of determining the precise nature of intervening elements. We have argued that because CSCs are more verb-like, they retain more verbal elements like TAMP marking, while ISVCs are more noun-like and therefore, they are more likely to strip off this marking. In this section, we derive abstract schemata from the forms of the distinct types of nominals found in Akan

and discussed in this study. We suggest that these schemata provide a way to pre-dictably account for the internal structure of the various types of SVCNs found in Akan, paying particular attention to intervening elements (or lack thereof) between the erstwhile verb series in the SVCN complex. These schemata should enable us to reliably determine what type(s) of elements will occur in specific po-sitions within SVCNs that are derived from different types of SVCs. To this end, we posit two (2) broad categorizations for all Akan SVCNs based on the level of semantic integration and lexicalization of the SVC from which the SVCN is ultimately derived.

The schemata proposed for SVCNs are based on the classification of SVCs based on semantic integration and lexicalization. Schema 1 (22) involves SVCNs (4) derived from ISVCs and Schema 2 (23) involves SVCNs that are derived from the CSC type.

(22) Schema 1: [([NMLZ]) V_1 ([NMLZ]) V_2 ([NMLZ]) ([OBJ])/([RELN])]$_{ISVCN}$
- likely FL-ISVC or PL-ISVC (formally)
- meaning derived non-compositionally (FL-ISVCs) or compositionally (PL-ISVCs)
- likely not to retain verbal inflection

(21') Ǹ-twá-ń-tó-só
NMLZ-cut-NMLZ-throw-top
'false accusation'

(23)
- likely CSC
- meaning derived haphazardly and functioning as denotata and designata
- likely to retain verbal inflections

(22') Ǹ-té-ń-sèré
NEG-hear-NEG-laugh
'Do not hear and laugh' (personal name).

Thus, even though the SVCN in (4) and (4) appear to have the same interven-ing element /-N-/, with the same phonological form and tone, the intervening element /-N-/ does not have the same status, meaning or function in the two nominals. /-N-/ in the nominalized FL-ISVC (4) should be understood as a nom-inalization marker (NMLZ) while /-N-/ in the nominalized CSC (4), it should be

understood as a negation marker that is retained in the SVCN as is evident in the semantics of the nominal. In other words, because *ntensere* is a Chaining Serial Construction Nominal (CSCN) it retains ᴛᴀᴍᴘ markers upon nominalization and its meaning is also compositional. Thus, unlike in FL-ISVC nominalization, in the CSC, each verb is still active and, therefore, ᴛᴀᴍᴘ is still in play all the way through to the point of nominalization. These two possibilities of nominalization and schemata for disambiguating the two are helpful in terms of providing a featural approach to predict what type of intervening elements should be expected to occur, when they do appear within the SVCN. Thus, when we have a CSCN, we can anticipate that ᴛᴀᴍᴘ markers will appear in specific positions vis-à-vis the verb-derived elements in the SVCN. In ISVCNs, we are more likely, on the other hand, to be dealing with nominalization markers where such elements appear.

Further, in the case of Schema 1, we posit that ɴᴍʟᴢ markers may be viewed as instantiations of recycled morphology (Booij 2007). In other words, it may be argued that preexisting morphological markers have been reanalyzed and re-deployed with a different function over the course of time. Such an analysis would be consistent with a redeployment of markers of the defunct noun class system proposed by Osam (1993) as singular and/or plural nominal markers synchronically. In other words, the affixes found on nouns from the vestigial noun class system have also been reanalyzed as nominalizing markers for the primary function of consolidating two erstwhile disparate verbs into a single unit.

With specific reference to intervening elements, we argue that degree of lexicalization (and attendant semantic integration) may have a predictive power with regard to whether ᴛᴀᴍᴘ information will be retained or it will be stripped. Thus we can begin to form certain expectations with regard to nominalization behavior and the types of affixes that will be found in SVCNs based on the degree of lexicalization of the SVC source.

4.1 Counterfeit

In §1, we briefly alluded to the fact that /a/ can also serve as a conditional marker in the language, although when it is found as a conditional marker, it rules out the source construction as an SVC. Also, although orthographically the conditional marker /a/ is written the same as the other types outlined in §3, there is also a difference tonally where /a/ cliticizes on the preceding word (particularly when that word ends with an open syllable) and it also tends to be pronounced with a falling tone in careful speech, unlike other surface look-alikes. All the same, because conditionals can be nominalized, it is worth briefly outlining a third schema to account for what we term "counterfeit SVCNs." Again, in order to dif-

ferentiate this nominalized conditional construction from other superficially similar constructions, it is imperative that we take a look at the source construction from which it is derived. In pursuing this line of thinking, we find that in Akan, there are some nominals that may have the appearance of an SVCN but that may involve a more complex structure than that which we find in an SVCN. These counterfeit SVCNs that masquerade as proper SVCNs can actually be traced back to conditional constructions marked with an inter-sentential conditional marker /a/. Consider the structure of the nominals in (24) and (25).

(24)   a. Wó-tàǹ   mé   á,   wú!
             2SG.SBJ-hate 1SG.OBJ cond, die.imp
             'If you hate me, die.'

        b. Tàǹ-mé-á-wù
             Hate-1.sg-cond-die
             'If you hate me, you can (go ahead and) die.' (a personal name)

        c. Ɔ̀krámáń nó díń   dè   Tàǹ-mé-á-wú.
             dog   DET name take Tanmeawu
             'The dog's name is If-you-hate-me-then-die.'

(25)   a. Wó-dɔ̀   mé   á,   brà!
             2SG.SBJ-love 1SG.OBJ cond, come.imp
             'If you love me, come!'

        b. Dɔ̀-mé-á-brà
             love-1.sg-cond-come
             'A distant place' (lit. if you love me, come)

        c. Mè-fìrì   Dɔmeabra
             1SG.SBJ-come-from Dɔmeabra.
             'I come from Dɔmeabra.' (name of a town)

In examples (24) and (25), although we can see /-a-/ as an intervening element, it should be noted that this is an entirely different phenomenon from that which we have been addressing throughout this paper with regard to SVCNs. First, the source construction is not an SVC in the first place as each sentence in (24a) and (25a) has a matrix clause and an embedded clause. It is also important to note that clauses in Akan must have a subject whether overt or not (Osam 1994: 262; Saah 1994: 120, see Duah 2013: 164-168 for an exceptional case). In the examples

above, the covert subject of the subordinate clause is you and the clause is understood as being expressed in the imperative. With regard to the embedded clause, the imperative reading negates other readings. In (25a) no reading other than the conditional reading is available as the very morphological form is one that only surfaces in the imperative *bra* 'come' specific to a 2SG addressee and is in complementary distribution with *ba* 'come' in all other contexts. Thus, although the intervening /-a-/ makes these nominals appear similar to true SVCNs on the surface, a close analysis of the underlying morphosyntactic and semantic features reveal them to be reflective of entirely different linguistic phenomena.

Thus, we propose that multi-clausal nominalization (MCN) is formulated based on an entirely different schema from those delineated in (22–23) as shown below:

(26)   Schema 3:

$[s1 \ ([\text{SBJ}]) \ ([\text{TAMP}]) \ [V_1] \ ([\text{cond}]) \ [s2([\text{SBJ}]) \ ([\text{TAMP}]) \ [V_2.] \ ([\text{TAMP}]) \ ([\text{OBJ}])] \ ]_{\text{MCN}}$

- two separate clauses (either of which may or may not happen to include a SVC)
- compositional in finite form
- usually traceable back to source utterance in nominalized form

The discussion so far has revealed that SVCNs which are derived from FL-ISVCs tend to pattern more on the side of pure nominal with less finite verbal features/characteristics carried over. SVCNs with a PL-ISVC source seem to be in-between often structurally patterning after FL-ISVCs, while semantically patterning after CSCs in terms of retention of individual verbal semantics. Chaining Serial Constructions (CSC) tend to have most of their verbal features carried over into the nominal as exemplified in the retention of TAMP markers. Meanwhile, on the far-left end of the spectrum are the counterfeit SVCNs, which are more sentence-like and retain their semantic and morphosyntactic features, even upon nominalization. Thus, while all of these possibilities may look the same on the surface, in truth they are not. Figure 3 illustrates these possibilities via a tripartite continuum.

5 Conclusion

In conclusion, we find that in each case, whether CSC, ISVC or conditional sentence, using the source construction as a litmus test, we are consistently able to disambiguate superficially similar intervening elements in the nominalized constriction. Further, it has been demonstrated that there is a continuum whereby there are more verb-like SVCNs that co-exist in the language with more nounlike
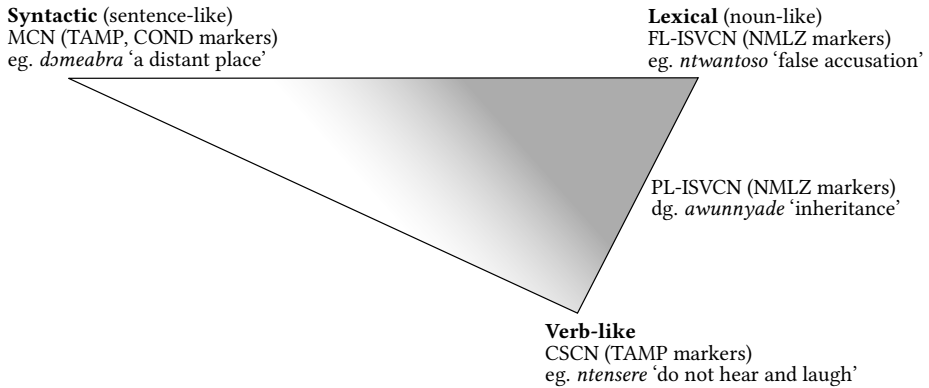
Figure 3: Nominalization tripartite continuum

SVCNs. The more verb-like SVCNs are those which are derived from Chaining Serial Constructions (CSCs), which retain TAMP markers when they are present in the source SVC. The more noun-like SVCNs are those which are derived from PL-ISVCs and FL-ISVCs. In the case of SVCNs, their recycled morphosyntactic elements point to preexisting morphological and/or syntactic items redeployed in a different (typically more or less grammatical) function over the course of time (Booij 2007).

Abbreviations

1/2/3	first/second/third person	NEG	negative
CD	clausal determiner	NMLZ	nominalizer
COND	conditional marker	OBJ	object
CONJ	conjunction	PL	plural
DEM	demonstrative	POSS	possessive
DET	determiner	PRF	perfect
EGR	egressive	PRT	particle
INGR	ingressive	PST	past tense
INDF	indefinite	RELN	relator noun
N	any nasal at αplace of articulation	SBJ	subject
		SG	singular

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