

Nominalization in Nkami

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Abstract

Using synchronic natural data, this paper provides a systematic descriptive account of nominalizations in Nkami, a less studied Guang (Kwa, Niger-Congo) language of Ghana. The data for the study were extracted from a large corpus collected from a documentation project on the language and people. I discuss the types of nominalizations, the strategies for forming them, and some linguistic properties, including semantics, morphology and syntax, of the derived nominals. Among others, it is shown that nouns, but not only verbs, can serve as the base word for nominalization in Nkami. Nkami shows evidence of two major types of nominalizations, action and participant. Whereas participant nominalization is derived through suffixation only, action nominalization may be derived through prefixation, reduplication or compounding. However, whereas action nominals derived through compounding express only actions/processes, those derived through prefixation or reduplication may additionally express situations, states or results. Further, while participant nominals may easily collocate with their cognate verbs as core arguments in simplex sentences, action nominals may only do so in relative clause constructions. Unlike languages such as English and Yagua, agent nominalizations in Nkami may refer to characteristic/habitual or uncharacteristic/specific activities. Aside from telling Nkami's own nominalization story, this study provides valuable data and analyses that will go a long way in contributing to our cross-linguistic typological understanding of nominalization.

Keywords: *nominalization strategies, action nominals, participant nominals, linguistic properties of derived nominals, Nkami*

Introduction¹

The aim of this paper is to offer a comprehensive descriptive account of some aspects of nominalization in Nkami², an endangered Guang (Kwa, Niger-Congo) language of Ghana

¹ This article is a thoroughly revised version of an aspect of a doctoral dissertation on the grammar of Nkami. The database for this study comprises spontaneous spoken and elicited texts gathered from about a hundred speakers of diverse backgrounds in a period of one year in Amankwa, the language community. The annotation and verification of data were carried out in collaboration with a team of two adult Nkami speakers, Kwadwo Akuamoah and Kwaku Ketewa, and several other language consultants.

² Nkami is a Guang language spoken by about 400 people in a resettlement community, Amankwa, in the Afram Plains of Ghana. It bears most of the linguistic features of regional languages. It is a tongue root (ATR)

(cf. Williamson & Blench, 2000). Nominalization is a process that turns a linguistic form/expression into a noun/nominal (cf. Chomsky, 1970; Comrie & Thompson, 1985; Crystal, 1991; Payne, 1997; Akanlig-Pare, 1999; Haspelmath, 2002; Appah, 2003; Koptjevskaja-Tamm, 2005, 2006). The linguistic expression from which the nominal is derived may be a word, a phrase or even a clause, as illustrated in (1), (2) and (3) respectively.

(1) Deriving a nominal from a word (dance → dancing)

- a. Kofi can **dance** Azonto. Verb
- b. **Dancing** is a form of an exercise. Noun

(2) Deriving nominals from a phrase (Akan: Appah 2003, pp. 108)

- a. **asem papa** → **asempa**
matter good 'a good matter' 'Gospel'
- b. **adze dɔkɔdɔkɔ** **adɔkɔdɔkɔdze**
thing sweet 'a sweet thing' 'sweets'
- c. **aboa funu** → **aboafun**
animal dead 'a dead animal' 'carcass'

(3) Deriving a nominal from a clause

- sɛ m-a-n-hyia** → **Semanhyia**
if 1SG-PRF-NEG-meet 'if I had not met' 'a place name'

Though verbs are known to be the commonest and most viable source for nominalizations, they may also be formed from other word classes such as adjectives and nouns, as (4) and (5) illustrate respectively.³

harmonic language, it exhibits both lexical and grammatical functions of tone, it is an SVO language, it portrays prototypical features of serial verb constructions (SVCs), its morphological processes are prominently expressed through affixation, compounding and reduplication, and its verbal properties are represented by prefixes and verbal particles (cf. Asante, 2016, 2017).

³ I use the following abbreviations: 1 = first person; 2 = second person; 3 = third person; Ag.N = agent nominal; AN = action nominal; ATR = advanced tongue root; DEF = definite article; DEM = demonstrative; FOC = focus marker; FUT = future; HAB = habitual; ICV = inherent complement verb; IDENT = identity; INANM = inanimate; NEG = negation; NOM = nominal marker/nominalizer; OBJ = object; PAT = patient; PL = plural; POSS = possessive; PRF = perfect; PROG = progressive; PST = past; REAS = reason; RED = reduplicated; REL = relative marker; SG = singular; SUBJ = subject.

- (4) Deriving nominals from adjectives
Fante (Appah, 2003, pp. 79)
- a. **prətse no yε teter** Adjective
plate DEF be flat ‘The plate is flat.’
- b. **teter no wɔ ha** Noun
flat DEF be here ‘The flat one is here.’
- (5) Deriving nominals from nouns
Akan
- a. **kua** ‘farm’ → **kuani** ‘farmer’
b. **dadeɛ** ‘metal’ **dadewa** ‘nail’
c. **sika** ‘money’ **sikani** ‘rich person’
f. **China** ‘China’ **Chinani** ‘Chinese’

Generally, there are four major strategies that languages employ to form nominals from verbs: lexical, morphological, phonological/prosodic and analytical. English employs the first two strategies, as illustrated in (6).

- (6)a. Kofi can **dance** Azonto.
b. Kofi had a good **dance** yesterday.
c. **Dancing** is a form of an exercise.

As we observe in (6), it is generally agreed that in English the nouns *dance* and *dancing* in (6b) and (6c) respectively derive from the verb *dance* in (6a). The strategy for the formation of the noun *dance* in (6b) is lexical because it employs ‘zero’ marking (conversion); that is, the change from verb to noun is not signalled by any structural change. As a result, the two forms are identical. There is structural change signalled by the *-ing* suffix in the derivation of *dancing* in (6c); so, the derivation of the noun *dancing* from the verb *dance* employs a morphological strategy. Fante, a dialect of Akan, also employs the third strategy (i.e. prosodic/phonological) in (7), where the formation of the nominal **nántéw** ‘walking’ (7b) from the verb **nántéw** ‘walk’ (7a) is based on how the two forms are produced: while the former is produced with a LH tonal pattern, the latter is produced with a HH pattern.

- (7) Fante (Appah, 2003, pp. 84)
- a. **Kofi nántéw ntɛ.ntɛm** Verb
Kofi walk RED.quickly ‘Kofi walks very fast.’
- b. **Kofi nántéw yε ntɛntɛm** Noun
Kofi walking be RED.quickly ‘Kofi’s (manner of) walking is very fast.’

Nominalizations may also be analytic in languages which employ periphrastic means to form nominals. Mandarin Chinese is known to be rich in this regard (cf. Li & Thompson, 1981). It uses the particle *de* to form various types of nominalizations, as (8) exemplifies (Payne, 1997, p. 225).

- (8) wǒmen hézuò de wèntí hěn jiǎndān
 we cooperate NOM problem very simple
 ‘The problem concerning our cooperation is very simple.’

In (8) the action nominal *cooperation* is formed from the verb, **hézuò** ‘cooperate’, through the use of the analytic nominalizer **de**.

A derived nominal may relate to its cognate verb in several different ways. First, it may refer to an action denoted by its cognate verb, in which case we have an action nominal, as exemplified in (6c, 7b, and 8) above. Secondly, a derived nominal may be related to a participant/argument described by its cognate verb, in which case we could have sub-categories such as agent, patient and result or product nominals. Last but not least, it may also relate to various circumstances that happen at the same time with the situation expressed by the cognate verb, in which case we could have nominalization types such as locative, instrumental, manner, and reason (cf. Payne, 1997; Koptjevskaja-Tamm, 2006).

Another important aspect about discussions of nominalizations is about the function of the derived nominal. How ‘nominal’ is the derived noun in terms of its meaning, structural (morphological) make-up and distributional (syntactic) capacities? Thus, our discussion of nominalization in Nkami aims to answer the following questions posed by Koptjevskaja-Tamm (2006, p. 653) as necessary for any nominalization study of cross-linguistic typological interest:

- i. What expression types are turned into a noun?
- ii. What are the meanings of the resulting expressions?
- iii. What does turning into a noun really mean, i.e., in what sense is the resulting expression a noun?
- iv. How regular is this process, e.g., is it derivational or inflectional?
- v. Do the resulting expressions show mixed properties (partly nominal, partly stemming from the base expression type)?
- vi. What are the functions of the resulting expressions?

On the basis of these and other questions, we will find the following to be true about nominalization in Nkami:

- Though nominalization in Nkami is largely verb-based, there are also noun-based ones.
- Nominalization is achieved in Nkami mainly through affixation, reduplication, compounding.

- Nkami shows evidence of two major types of nominalizations, participant and action, which are mainly derived through suffixation and prefixation (or compounding or reduplication) respectively.
- Whereas participant nominals may easily collocate with their cognate verbs as core arguments in simplex clauses, action nominals generally cannot, except in relative clause constructions.
- Unlike languages such as English and Yagua, a language spoken primarily in northeastern Peru (Payne, 1997)), agent nominalizations in Nkami may refer to characteristic/habitual or uncharacteristic/specific activities.

The discussion has two main parts: The first part, Section 2, looks at action nominalizations, while the second, Section 3, concentrates on participant (agent and patient) nominalization types. For both types, issues related to the semantics, morphology and syntax of the derived nominals are discussed in detail. Before that, let us take a brief look at the profile of Nkami nouns in order to put the discussion into perspective.

Profile of Nkami Nouns⁴

Nkami has a large quantity of nouns belonging to semantic types such as HUMAN, NON-HUMAN ANIMATE, FLORA, ARTEFACTS, BODY PARTS, KIN TERMS, etc. Synchronically, there is no clearly distinct noun class system in Nkami; one can, at best, talk about its relics (Asante 2016, 2017). Like other South-Guang languages, most nouns have a nominal prefix, which is a vowel or a homorganic nasal consonant prefix /N-/. Generally, the following vowel prefixes, **e-**, **ɛ-**, **o-**, **ɔ-**, are used to mark singular nominals, while **a-** and the homorganic nasal prefixes **m-**, **ɱ-**, **ŋ-**, **ɲ-**, **n-**, are used for plural nominals (cf. Asante & Akanlig-Pare, 2015; Asante, 2016, 2017). Typically, nominal prefixes in Nkami bear a low tone.⁵ Further, most of the prefixes are used in the citation form of nouns; as a result, they may be omitted, or alternate in value depending on the phonological environment they find themselves.⁶ Human nominals take only **ɔ-/o-**, non-human nouns

⁴ The claims in this section are based mainly on the findings of a PhD thesis on the grammar of the language (Asante, 2016) and other relevant published materials such as Asante & Akanlig-Pare (2015), Akanlig-Pare & Asante (2016), Asante & Ma (2016), and Asante (2017).

⁵ Nkami showcases two contrastive tonal levels: high (´) and Low tone (`), as (1) illustrates.

(1)	mì	‘I’	mí	‘me/my’
	kɔ̀	‘defecate’	kɔ́	‘fight’
	kplɔ̀	‘grind’	kplɔ́	‘be rotten’

⁶ For example, nominal prefixes typically share the ATR feature of their nominal stems, as (2) illustrates (cf. Asante & Akanlig-Pare, 2015).

(2)	+ATR		-ATR	
	o-bi	‘child’	ɔ-fɔ	‘visitor’
	o-kisi	‘god’	ɔ-ɲmɪ	‘man’

may take any of the singular nominal prefixes, **ɔ-**, **o-**, **e-**, **ɛ-**, **a-**, while non-animate nouns may take only **e-**, **ɛ-**, **a-**, as singular prefixes (cf. Asante & Akanlig-Pare, 2015; Asante, 2016, 2017). The noun in Nkami may be made up of a cluster of elements consisting of a root, a prefix and a suffix in order of obligatoriness. Thus, membership of the nominal cluster is hierarchical: the nominal root is the ‘most obligatory’, followed by the prefix which is the ‘more obligatory’, and then the suffix which is the ‘least obligatory’ (cf. Asante, 2016).

At the syntactic level, prototypical nouns in Nkami take on modifiers including determiners, question words, adjectives and numerals. Like in most Kwa languages, the prototypical position of most nominal modifiers, both word-level and clause-level, is post-nominal (i.e. occurs after the noun).⁷ Additionally, just like nouns in most other languages, Nkami nouns can serve as heads of noun phrases and can occupy the following syntactic slots: subject, object, indirect object, copula complement, possessive complement, etc. Lastly, Nkami nouns may also be focussed, topicalized and relativized (cf. Asante, 2016; Asante & Ma, 2016).

Action Nominalization

Action nominalization is the process of deriving action nominals usually, but not always, from non-stative/action verbs. They include nouns such as *singing*, *dancing*, and *running*. As amply demonstrated by some linguists (cf. Comrie & Thompson, 1985; Payne, 1997; Koptjevskaja-Tamm, 2005, 2006; Appah, unpublished), the derived action nominals do not always index actions as the name ‘action’ nominal may connote: some may index situations. For instance, the action nominal *conquest* does not refer to an action/activity of ‘conquering’ in the same way as the action nominal *dancing* refers to the action of ‘dancing’. There are three major strategies for forming action nominals in Nkami: affixation (prefixation), reduplication and noun-verb compounding. The rest of the section looks at nouns formed through these three strategies by expounding their semantics and morphosyntactic properties.

Action nominalization through affixation in Nkami

The derivation of action nominals through affixation is productive and predictable in Nkami since they can be derived from almost every non-stative/action verb in the language.

e-wei	‘house’	ɛ-meri	‘horn/antenna’
e-muo	‘clay’	ɛ-fuo	‘a monkey-like animal’

Thus, as a result of the ATR harmony phenomenon, vowels in the language belong to two sets, [+ATR] [**i**, **e**, **o**, **u**] and [-ATR] [**ɪ**, **ɛ**, **ɔ**, **ʊ**], based on tongue root position. Typically, only vowels of a set pattern together in a phonological word, as (2) exemplifies.

⁷ A few exceptions exist. For instance, question words and the demonstrative/reference particle **ɔlo** ‘that’ may occur prenominaly.

Characteristically, the non-human nominal prefixes, *é-/é-*, are attached to the verb stem, as (9) illustrates.

(9)	kò ‘defecate’		é-kò ‘defecating’
	dì ‘sleep’		é-dì ‘sleeping’
	dzi ‘eat’		é-dzi ‘eating’
	sù ‘cry’		é-sù ‘crying’
	nàni ‘walk’	→	é-náni ‘walking’
	lààdzi ‘sweep’		é-lààdzi ‘sweeping’
	firi ‘swim’		é-firi ‘swimming’
	kilà ‘read’		é-kilà ‘reading’
	twòrò ‘write’		é-twòrò ‘writing’
	fògà ‘greet’		é-fògà ‘greeting’

As we glean from the tonal pattern of the data in (9), the tonal value of the nominal prefixes is invariable; that is, they always bear a high tone *é-/é-*. Secondly, the nominal prefix typically spreads its high tone feature to the following syllable(s) such that if the verb stem is monosyllabic, it is realized as a falling tone (HL), as in **kò** → **é-kò** ‘defecate → defecating’; and if it is disyllabic (LL), it is realized as a high followed by a falling tone (HHL), as in **nàni** → **é-náni** ‘walk→walking’.⁸

Morphologically, in congruence with the general tendency, action nominals in Nkami can be distinguished from prototypical nouns in the language. For instance, they cannot pluralize and hence cannot be attached with either of the plural nominal prefixes, **a-** or **N-** (homorganic nasal), in the language to indicate number difference, as (10-11) illustrate.

(10)a. Some prototypical nouns that inflect for the plural prefix **a-**

SG	PL	Gloss
o-bi	a-bi	‘child’
o-kisi	a-kisi	‘deity’
ɔ-sa	a-sa	‘human being’
ɔ-fɔ	a-fɔ	‘visitor’
ɔ-ka	a-ka	‘wife’
ɔ-sia	a-sia	‘in-law’
ɔ-kɔa	a-kɔa	‘co-wife’

⁸ These generalizations on tones apply to all action nominals in Nkami and so I do not repeat myself by marking them on every single action nominal in this paper.

- b. Some prototypical nouns that inflect for the plural prefix N-⁹

SG	PL	Gloss
o-boobi	m-boobi	‘bird’
ɔ-kletɪ	ŋ-kletɪ	‘cat’
ɔ-bɔɪ	m-mɔɪ	‘animal’
e-moli	m-moli	‘termite’
e-lu	n-lu	‘bush goat’
a-bɪbɛ	m-bɪbɛ	‘grasshopper’
a-hwɪa	n-hwɪa	‘a game’

(Asante & Akanlig-Pare, pp. 2015)

- (11) Action nominal cannot take the plural prefixes a-/N-

SG	PL	Gloss
é-bie	*a-bie/ *m-bie	‘bath’
é-kɪla	*a-kɪla/*ŋ-kɪla	‘reading’
é-su	*a-su/ *n-su	‘crying’
é-dʒɪ	*a-dʒɪ/*n-dʒɪ	‘eating’
é-nani	*a-nani/*n-nani	‘walking’

Therefore, when **é-** and **é-** are prefixed to verbs to derive action nominals, they merely function as nominal markers and do not indicate that the derived nominals are singular because if they were, then, it should be possible to replace them with either of the plural prefixes **a-** or **N-**.

Next, as indicated in the introductory section, semantically, action nominals in Nkami do not only refer to ‘actions’ or ‘processes’, as the examples in (9) seem to connote. Consider the following action nominals, for instance.

(12)a.	dɔ	‘weed/farm’	ɛdɔ	‘weeding/farming’
b.	tʃa	‘dance’	ɛtʃa	‘dancing/dance’
c.	mɔsɪ	‘laugh →	ɛmɔsɪ	‘laughing/laughter’
d.	kpladʒɪ	‘vomit’	ɛkpladʒɪ	‘vomiting/vomit’
e.	bie	‘bathe’	ɛbie	‘bath/bathing’
f.	kɔdʒɪ	‘bear child’	ɛkɔdʒɪ	‘childbearing/children’

As the disjunctive glossing of the data suggests, the action nominals in (12) may either index real ‘actions’ or names of abstract nouns relating to their cognate verbs. For instance, **ɛdɔ** ‘weeding/farming’ in (12a) may have an ‘action’ indexation in (13a), and an abstract

⁹ Generally, whereas human nouns take the **a-** plural prefix, non-human nouns take the **N-** plural prefix in Nkami (cf. Asante & Akanlig-Pare, 2015).

indexation in (3b).

(13)a. **ɛɔ** as an action nominal

Kofi ɔɔ-kpa ɛɔ
 Kofi 3SG.HAB-like weeding ‘Kofi likes weeding/farming.’

b. **ɛɔ** as an abstract noun

ɛɔ amɔ bɔ mi ɔfɛ
 weeding DET have me beauty
 ‘The ‘weeding’ has me beauty (I’m satisfied with the weeding).’

Thus, unlike (13a), the usage of **ɛɔ** ‘weeding’ in (13b) does not connote the ‘act of weeding/farming’. It may be uttered by a speaker after inspecting a plot of land that was given to a labourer to clear. In such a situation, the labourer may not even be around at the time the statement is made, and so the speaker/owner cannot be said to be talking about the ‘act of weeding’. It could only refer to the physical outcome of the activity performed by the labourer. The derived nominal, **ɛɔ** ‘weeding’, in this instance may therefore be said to be used as a result nominal since it names an abstract thing that results from the activity of ‘weeding’. Similarly, an individual who makes the statement in (14) with **ɛkɔɔɔɔ** ‘childbearing/children’ is certainly not referring to the enduring processes of carrying a foetus in the womb and giving birth to it. Rather, Nkami speakers infer that the speaker of (14) is referring to the output of the process of childbearing, i.e. ‘children/human beings’ - and by extension, the benefits/joy children bring to their parents and society.

(14) **ɛkɔɔɔɔ baale**
 childbearing be.good ‘Children/human beings are good/important (*childbearing is good).’

More instructively, unlike the examples in (9, 12), there is another class of action nominals that do not even connote ‘actions’ at all; rather, they only name states and situations, as (15) illustrates.

(15)a. **pira** ‘injure’ → **e-pira** ‘injury (*injuring)’
 b. **ɲɛni** ‘impregnate’ **ɛ-ɲɛni** ‘pregnancy (*impregnating)’
 c. **fiɛ** ‘fart’ **e-fiɛ** ‘flatulence (*farting)’
 d. **ɔ** ‘be.ill’ **ɛ-ɔ** ‘illness (*falling/becoming ill)’

Observe in (16) below the use of the derived noun, **ɛɲɛni** ‘pregnancy’, and its cognate verb, **ɲɛni** ‘impregnate/get pregnant’, in contexts.

- (16)a. **Kofi bɛ-ɲɛɪ Ama**
 Kofi FUT-impregnate Ama ‘Kofi will impregnate Ama.’
- b. **ɛɲɛɪ dʒi atɔyire**
 pregnancy be good-thing ‘Pregnancy is a good thing (*Impregnating is a good thing).’

Similar to the explanations given above, the use of **ɛɲɛɪ** in (16b) indicates ‘pregnancy’; that is, the outcome of impregnating or getting pregnant rather than the act itself. So, the second reading in (16b) ‘Impregnating/getting pregnant is a good thing’ is anomalous. This observation about Nkami supports the position of some linguists (cf. Comrie & Thompson, 1985; Koptjevskaja-Tamm, 1993, 2005, 2006; Payne, 1997), as exemplified in the language of Koptjevskaja-Tamm (2006, p. 652) that “Broadly speaking, they [action nominals] refer to situations and not only to actions, as the name might imply”.

At the level of syntax, the action nominals may function as subject and object arguments of clauses. For instance, **ɛmɔsi** ‘laughing/laughter’, **ɛnanɪ** ‘walking’, **edʒi** ‘eating’ and **ɛlaadʒɪ** ‘sweeping’ function as subjects of the following clauses.

- (17) ANs as subjects
- a. **ɛmɔsi baale sa ɔkoadzɛ**
 laughing be.good give everyone ‘Laughing/laughter is good for everyone.’
- b. **ɛnanɪ ɔɔ-sa ɔyɔkwa**
 walking 3SG.HAB-give strength ‘Walking gives strength.’
- c. **edʒi bebiree m-maale sa ɔkpaotubu**
 eating many NEG-be.good give traveller
 ‘Eating too much (too much of food) is not good for a traveller.’
- d. **ɛlaadʒɪ ɔɔ-sana ewei ti**
 sweeping 3SG.HAB-let home clear ‘Sweeping makes the home clean.’

Moreover, **ɛmɔsi/edʒi** ‘laughing/eating’ and **ɛfɔga/ɛnanɪ** ‘greeting/walking’ function as the object arguments of the clauses in (18a) and (18b) respectively.

- (18) ANs as objects
- a. **Kofi ɔɔ-kpa ɛmɔsi/edʒi**
 Kofi 3SG.HAB-like laughing/eating ‘Kofi likes laughing/eating (food).’
- b. **Kofi ma-kpa ɛfɔga/ɛnanɪ**
 Kofi NEG-like greeting/walking ‘Kofi does not like greeting/walking.’

Furthermore, an action nominal may function as a possessed nominal (possessum) in possessive phrases, as (19) illustrates.

- (19) ANs as Possessum
- a. **mɔ** **ɛkɔdʒɪ** **mɔm-ba** **ntɛ**
 3SG.POSS childbearing NEG-come early
 ‘Her childbearing did not come early (i.e. She gave birth late in life).’
- b. **mɔ** **ɛpira** **amɔ** **dʒi** **kɔ**
 3SG.POSS injury DET be big
 ‘Her injury is big (She’s got a big injury).’
- c. **mɔ** **ɛdʒi** **dʒi** **blɛɛw**
 3SG.POSS eating be slow
 ‘Her/His (manner of) eating is slow (She/He eats slowly).’

Thus, **ɛkɔdʒɪ** ‘childbearing’, **ɛpira** ‘injury’ and **ɛdʒi** ‘eating’ serve as possessed nominals possessed by the possessive pronoun **mɔ** ‘her/his’ in (19). A derived AN may also take modifiers including determiners and quantifiers, as (20) and (21) illustrate accordingly.

- (20) ANs can take determiners
- a. **ɛkɪla** **ɲa** **bɔ** **ɔdɛ**
 reading DEM have sweetness ‘This reading has sweetness (is pleasing to the ear).’
- b. **ɛdɔ** **amɔ** **bɔ** **ɔfɛ**
 weeding DET have beauty ‘That/the (outcome of the) weeding is nice.’
- (21) ANs take quantifiers
- a. **ɛkɔdʒɪ** **bɛbiree** **m-maale**
 childbearing many NEG-be.good
 ‘Too much of childbirth is not good (too many children are not good).’
- b. **ɛdɔ** **kpa,** **ɛkɪla** **kpa** **baale**
 weeding small reading small be.good ‘Little farming, little reading is good.’

Thus, whereas the determiners, **ɲa** ‘this’ and **amɔ** ‘the/that’, modify the ANs, **ɛkɪla** ‘reading’ and **ɛdɔ** ‘weeding’ in (20a-b), the quantifiers, **bɛbiree** ‘many’ and **kpa** ‘small/little’, modify the ANs, **ɛkɔdʒɪ** ‘childbirth/children’ and **ɛdɔ/ɛkɪla** ‘weeding/reading’, in (21a-b) accordingly.

Even more interestingly, an AN may function as a focused NP in an ex-situ focus

clause construction, and as a head noun modified by a relative clause. For example, notice in (22) that **ɛmɔsi** ‘laughing/laughter’ functions as the focused NP in (22a), and the head noun modified by the relative clause, **mɪkpa** ‘I like (laughing)’, in (22b).

(22)a. AN as focused NP

ɛmɔsi **ni** **ɔɔ-kpa**
 laughter FOC 3SG.HAB-like ‘It is laughter that she likes (She is friendly, not that...).’

b. AN as head noun of relative clause

ɛmɔsi **ni** [**mɪ-kpa**] **amɔ** **nsɔ̃** **ɔ-dwin** **bɛɛ mɪ-kpa** **mɔ**
 laughter REL 1SG-like REL REAS 3SG-think that1SG-like him
 ‘Laughing/smiling that I like, he thinks I love him (Because I am friendly (towards him), he thinks that I’m in love with him.’

The AN versus cognate verb

One domain that has received tremendous interest in discussions of the morphosyntactic properties of action nominals is the behaviour of action nominals in relation to their cognate verbs. Thus, can a derived action nominal collocate with its cognate verb such that the former functions as a core argument (subject or object) of the latter? Like some languages such as English and Akan (cf. Appah, unpublished), in Nkami ANs generally do not occur in core argument slots of their cognate verbs in simplex clauses, as (23) and (24) illustrate.

(23) ANs in subject slots of cognate verbs

- a. ***ɛɔ** **lɛ-lɔ**
 illness PRF-be.ill ‘Illness has fallen ill’
- b. ***ɛmɔsi** **bebiree** **mɔsi** **Ama**
 laughter many laugh Ama ‘Too much laughter/laughing laughed at Ama.’

(24) ANs in object slots of cognate verbs

- a. ***Kofi** **dʒi** **edʒi**
 Kofi eat eating ‘Kofi ate eating.’
- b. ***Ama** **bɛ-kodʒi** **ɛkodʒi**
 Ama FUT-give.birth childbearing ‘Ama will give birth childbearing.’
- c. ***Kofi** **lɛ-lɔ** **ɛɔ**
 Kofi PRF-be.ill illness ‘Kofi has fallen sickness/illness.’

In (23) the ANs, **ɛɔ** ‘illness’ and **ɛmɔsi** ‘laughter/laughing’, fail to function as subject

arguments of their individual cognate verbs, **lɔ** ‘be.ill/fall ill’ and **mɔsɪ** ‘laugh’, respectively. Likewise, the clauses in (24) are anomalous because the ANs, **edʒi** ‘eating’, **ɛkɔdʒɪ** ‘childbearing’ and **ɛlɔ** ‘illness’, function as the object arguments of their cognate verbs. However, though ANs generally do not occur with their cognate verbs in simplex clauses, it may be possible for them to collocate in relative clause constructions, as (25) exemplifies.

- (25) **Kofi lɛ-lɔ ɛlɔ ni [ɛ-bɔ ɔkwa]**
 Kofi PRF-fall.sick sickness REL 3SG-have hardness
 ‘Kofi has fallen illness that has hardness (i.e. Kofi is suffering from a serious illness).’

In (25) because the AN, **ɛlɔ** ‘illness’, is modified by a relative clause, **ɛbɔ ɔkwa** ‘it is hard (serious)’, it can function as the object argument of its cognate verb **lɔ** ‘be.sick/fall.sick’. Thus, an AN in Nkami may serve as the argument of its cognate verb when it, at the same time, functions as the head noun of a relative clause. In (26) are two more examples where **ɛdɔ** ‘farming/farm’ and **ɛkpladʒɪ** ‘vomiting/vomit’ function as the head nouns of their respective relative clauses.

- (26)a. **ofi ja mɛ-ɛ-dɔ ɛdɔ ni wɔ-nɪ-ŋu kɔ pɛn**
 year this 1SG-FUT-farm farming REL2SG-PRF.NEG-see one before
 ‘This year, I will farm (a type of) farm that you have not seen one before (i.e., I will farm on a very large scale).’

- b. **Kofi lɛ-lɔ paa. ɔ-l-kpladʒɪ ɛkpladʒɪ ni**
 Kofi PRF-be.sick really 3SG-PRF-vomit vomit REL
mɪ-nɪ-ŋu kɔ pɛn
 1SG-PRF.NEG-see one before
 ‘Kofi is really ill. He has vomited (a type of) vomit that I have not seen one before (probably because of its large quantity and/or its strange appearance).’

ANs formed from reduplicated ANs

Thus far, we have looked at ANs that are derived from simple verb stems. In Nkami, it is possible for ANs to be derived from other ANs through reduplication, as (27) illustrates.

- | | | | | | |
|------|----------------|------------|---|----------------------|------------|
| (27) | ɛlaadʒɪ | ‘sweeping’ | → | ɛlaadʒɪlaadʒɪ | ‘sweeping’ |
| | ɛfirɪ | ‘swimming’ | | ɛfirɪfirɪ | ‘swimming’ |
| | ɛdɪ | ‘sleeping’ | | ɛdɪdɪ | ‘sleeping’ |
| | ɛdʒɪ | ‘eating’ | | ɛdʒɪdʒɪ | ‘eating’ |
| | ɛkɪlɔ | ‘reading’ | | ɛkɪlɔkɪlɔ | ‘reading’ |
| | ɛtwɔɔ | ‘writing’ | | ɛtwɔɔtwɔɔ | ‘writing’ |
| | ɛsu | ‘crying’ | | ɛsuesu | ‘crying’ |
| | ɛfɔgɔ | ‘greeting’ | | ɛfɔgɔfɔgɔ | ‘greeting’ |

Generally, the derived nominals have meanings that are identical to their simple forms, as the examples in (27) indicate. For instance, both **ɛlaadzɪ** and **ɛlaadzɪlaadzɪ** index ‘sweeping’ except that the reduplicated nominal expresses repetition/frequency of the action ‘sweeping’. Nonetheless, there are cases where the reduplicated ANs convey meanings that are quite distinct from their base forms. Compare the use of **ɛmɔsɪ** and **ɛmɔsimɔsɪ** in object slots in sentences (28a) and (28b) respectively.

- (28)a. **Kofi ɔɔ-kpa ɛmɔsɪ**
 Kofi 3SG.HAB-like laughing/laughter ‘Kofi likes laughing/smiling(i.e. Kofi is cheerful/friendly).’
- b. **Kofi ɔɔ-kpa ɛmɔsimɔsɪ**
 Kofi 3SG.HAB-like teasing ‘Kofi likes teasing/mocking.’

As the English translations of the two sentences indicate, while **ɛmɔsɪ** in (28a) conveys a relatively positive/pleasant meaning related to ‘friendliness’, ‘cheerfulness’ or ‘welcoming’, **ɛmɔsimɔsɪ** in (28b) conveys a relatively negative meaning that is related to ‘derisiveness’, ‘mockery’ or ‘ridicule’. More strikingly, a reduplicated AN may refer to a sub-type (hyponym) of its base form. Compare the use of **ɛnanɪ** and **ɛnanɪmanɪ** in object position in (29a) and (29b) below.

- (29)a. **Kofi ɔɔ-kpa ɛnanɪ**
 Kofi 3SG.HAB-like walking ‘Kofi likes walking.’
- b. **Kofi ɔɔ-kpa ɛnanɪmanɪ**
 Kofi 3SG.HAB-like wandering ‘Kofi likes wandering/traipsing/roaming.’

Thus, while **ɛnanɪ** conveys the general meaning of ‘walking’, **ɛnanɪmanɪ** indexes something that is related to ‘wandering’, ‘traipsing’ or ‘roaming’; that is, a specified type of walking which is done aimlessly and repeatedly without destination. The meaning of **ɛnanɪmanɪ** becomes even clearer when used in sentence-initial position, as (30) illustrates:

- (30) **ɛnanɪmanɪ nsõ oyebi ɲa ma-dã**
 wandering REAS child this NEG-grow
 ‘Because of (too much of) wandering/traipsing/roaming, this child does not grow.’

Besides functioning as arguments of predicates in simplex clauses, e.g. as an object in (29b) and in sentence-initial position in (30), reduplicated ANs may also function as possessed nominals in possessive phrases, as (31) illustrates, where **edziedzi** ‘eating’ is possessed by the possessive pronoun **mɔ** ‘his/her’.

- (31) *mɔ* *edziedzi* *nsõ* *ɔ-lɔ-bɔ* *bɛɛ blodo*
 3SG.POSS eating REAS 3SG-PRF-do like bread
 ‘Because she dotes on food (i.e. fond of eating everything she lays hands on), she has become like bread (she is overweight).’

However, compared with their base ANs, reduplicated ANs are highly restricted in terms of their morphosyntactic properties. For instance, although their base forms can serve as focused NPs and head nouns of relative clauses, as observed in Section 2.1., reduplicated ANs cannot. For instance, replacing *ɛmɔsi* ‘laughing/laughter’ in (17) with *ɛmɔsimɔsi* ‘mockery/derisiveness’ in (32) here results in constructions that are generally considered by speakers to be anomalous.

- (32)a. Reduplicated AN as focused NP
?ɛmɔsimɔsi *nɪ* *ɔɔ-kpa*
 mockery FOC 3SG.HAB.like ‘It is mockery that she likes (not that...).’
- b. Reduplicated AN as head noun of relative clause
?ɛmɔsimɔsi *nɪ* *mɪ-pa* *amɔ* *nsõ* *ɔ-dwin* *bɛɛ ma-a-kpa* *mɔ*
 mockery REL 1SG-like REL REAS 3SG-think that 1SG-NEG-like him
 ‘Mockery that I like, he thinks that I don’t like him (Because I like teasing/mocking he thinks that I don’t love him).’

They are also generally considered infelicitous when they are modified by determiners and quantifiers, as (33) indicate.

- (33)a. Reduplicated AN cannot take determiners
**ɛkɪlakɪla* *ɲa* *bɔ* *ɔdɛ*
 reading DEM have sweetness
 ‘This reading has sweetness (is pleasing to the ear).’
- b. Reduplicated AN cannot take quantifiers
**ɛkodzɪkodzɪ* *bebiree* *m-maale*
 childbearing many NEG-be.good
 ‘Too much of childbirth is not good (too many children are not good).’
- c. **ɛdɔɛdɔ kpa,* *ɛkɪlakɪla* *kpa* *baale*
 weeding small reading small be.good
 ‘Little farming, little reading is good.’

Thus far, we have looked at action nominals formed through affixation (prefixation) and reduplication in Nkami. In the ensuing section, we look at another set of ANs in Nkami

that is derived from inherent complement verbs (ICVs) through compounding.

Action Nominalization from ICVs through compounding

In many languages, particularly among other sister Kwa languages such as Igbo (Nwachukwu, 1985), Akan (Osam, 1996), Nkonya (Asante, 2009), Gbe (Essegbey, 2010), and Ga (Korsah, 2011), there are several verbal concepts that are best or only expressed through inherent complement verbs. Thus, the only way of expressing the concepts *work*, *sing*, *eat* and *respect* in Nkami is through the following ICVs:

(34)a. bɔ asumi	do work	‘work’
b. tɪ ɛlɔ	call song	‘sing’
c. dʒi adʒuro	eat food	‘eat’
d. bu atɔ	break thing	‘respect’

Except for a few inherent complement verbs such as **bu atɔ** ‘respect’ in (29d), the composition of most ICVs consists of a general verb and a nominal complement that relates to the meaning designated by the whole ICV. For instance, in (34b) the semantic content of the complement, **ɛlɔ** ‘song’, relates to the combined meaning of the ICV **tɪ ɛlɔ** ‘sing’ (cf. Asante, 2016). Since all the ICVs in (34) are non-stative, they could be turned into action nominals by inverting their linear order such that the complements precede the verbs in a compound, as in:

(35)	ICVs	Gloss	→	ANs	Gloss
	tɪ ɛlɔ	call song (sing)		ɛlɔtɪ	‘singing’
	bu atɔ	break thing (respect)		atɔbu	‘respecting’
	bɔ asumi	do work (work)		asumibɔ	‘working’
	kpa atʃi	like women (womanize)		atʃikpa	‘womanizing’
	yi obu	stand house (build)		obuyi	‘building’
	tu ɔkpa	throw path (travel)		ɔkpatu	‘travelling’
	dʒi adʒuro	eat food (eat)		adʒurodʒi	‘eating’
	tʃa ɛlɔ	heal illness (heal)		ɛlɔtʃa	‘healing’
	suna atɔ	show thing (teach)		atɔsuna	‘teaching’
	suā atɔ	learn thing (learn)		atɔsuā	‘learning’
	tʃie atɔ	give thing (give)		atɔtʃie	‘giving’
	fala atɔ	lend thing (lend)		atɔfala	‘lending’

Thus, the ICVs in (35) are turned into ANs by simply converting them into noun-verb compounds. As the ANs in (35) indicate, it appears that, unlike action nominals formed from simple verbs (through prefixation) and ‘simple’ ANs (through reduplication), the nominals derived from ICVs generally express only actions/processes, not situations, states

or results.

Like all other derived nominals expressing ‘real’ actions/processes in the language, ANs formed from ICVs can function as arguments/constituents of simple and complex sentences, as (36) shows.

(36)a. ICV ANs as subject

ɔkpatu/atɔsuã *ɔɔ-sana* *apɛsɪ* *oo-bie*
 travelling/learning 3SG.HAB-let eye 3SG.HAB-open
 ‘Travelling/learning opens eyes (enlightens people).’

b. ICV ANs as object

Kofi *ɔɔ-kpa* *ɔkpatu/atɔsuna*
 Kofi 3SG.HAB-like travelling/teaching ‘Kofi likes travelling/teaching.’

Whereas the derived action nominal, *ɔkpatu/atɔsuã* ‘travelling/learning’, functions as the subject argument in (36a), they function as the object in (36b). At the phrasal level, ANs formed from ICVs can be possessed in possessive phrases, as exemplified with *obuyi* ‘house-stand/building’ and *atfikpa* ‘women-liking/womanizing’ in the following sentences.

(37) ICV ANs as possessum

a. *Kofi* *mɔ* *obuyi* *bɔ* *ɔfɛ*

Kofi POSS building have beauty

‘Kofi’s building is beautiful (i.e. the way Kofi builds is beautiful).’

b. *Kofi* *mɔ* *atfikpa* *m-maale*

Kofi POSS womanizing NEG-be.good

‘Kofi’s womanizing is not good (i.e. the way Kofi womanizes is not good).’

Moreover, ANs formed from ICVs may also be modified by determiners and quantifiers, as (38a) and (38b) illustrate accordingly.

(38) ICV ANs can take determiners

a. *atfikpa/ɛlɔfa* *ɲa* *kɛ* *mɪ-ntɪ-ŋu* *kɔ* *pɛn*

womanizing/healing this as.for 1SG-PRF.NEG-see one before

‘As for this (type of) womanizing/healing, I have not seen one before.’

b. ICV ANs can take quantifiers

atfikpa/ɛdalɔkpa *bebiree* *m-maale*

womanizing/money-loving many NEG-be.good

‘Too much of womanizing/money-loving (love for money) is not good.’

Regarding complex constructions, ANs derived from ICVs can also function as focused NPs and head nouns of relative clauses, as (39a) and (39b) exemplify.

(39)a. ICV ANs as focused NP

atosuna/elotɪɪ/ɔkpatu **ni** **ɔɔ-kpa**
 teaching/ singing/ travelling FOC 3SG.HAB-like ‘It is teaching/singing/travelling that she likes.’

b. ICV ANs as head noun of relative clause

atɔsuã **ni** **ɔɔ-kpa** **amɔ** **nsõ** **mi-kpa** **mɔ** **asõ**
 learning REL 3SG.HAB-like REL REAS 1SG-like3SG.POSS matter
 ‘Because he likes learning, I like him.’

Last but not least, like action nominals derived through prefixation and reduplication that express ‘real’ actions/processes, ANs formed from ICVs (through compounding) cannot function in argument slots of the verbal component of the ICVs from which they derive from. This is exemplified in (40) below.

(40)a. ICV ANs cannot function as subject of their verbal component

atɔsuã suã* **ɔwɪɪ
 learning learn skin/book ‘Learning learn book.’

b. ICV ANs cannot function as object of their verbal component

***Kofi** **tu** **ɔkpatu**
 Kofi throw/travel travelling ‘Kofi travelled travelling.’

The construction in (40a) is infelicitous because the verb **suã** ‘learn’ has **atɔsuã** ‘learning’ as its subject argument, and (39b) is ill-formed because **tu** ‘throw’ selects **ɔkpatu** ‘travelling’ as its object argument. Put differently, verbs in Nkami do not select ANs as their core arguments if the former contributes to the formation of the latter.

Thus far, we have looked at action nominals formed through prefixation (of simple verbs), reduplication (of ‘simple’ ANs) and compounding (of ICVs) in Nkami. Among others things, it has been observed that:

- i. ANs may index situations/states that describe the outcomes/results of actions coded by a cognate verb, rather than the actions in themselves (see Sections 2.1 – 2.2)
- ii. Whereas ANs derived through compounding (of ICVs) express only actions/processes, those derived through prefixation (of simple verbs) and reduplication (of ‘simple’ ANs) may additionally express situations, states and results (see Section 2)
- iii. though the majority of reduplicated ANs convey meanings that are similar to their base ANs, some ANs of the former category convey (slightly) distinct or more specific meanings from/than their counterparts of the latter category (see Section 2.2)
- iv. reduplicated ANs have more limited distributional properties than their base forms and ANs

formed through compounding

- v. though ANs formed through prefixation, like those formed through reduplication and compounding, generally do not function as core arguments of their cognate verbs in simple clauses, they may do so if they simultaneously function as head nouns of relative clauses (see Section 2.1.1).

In the ensuing section, we turn our attention to participant nominalization.

Participant Nominalization

Payne (1997, p. 225) characterizes participant nominalization as a “verb-based nominalization strategy that results in a noun that refers to one of the participants of a verb root”. This may be schematized as:

$$(41) \quad V \rightarrow N_{\text{PARTICIPANT OF } V}$$

However, as we observe shortly, patient nominalization is not only a verb-based strategy as some agent nominals in Nkami are noun-based. Nkami displays evidence of both AGENT and PATIENT nominalizations. Both participant nominalization types employ suffixation for their derivation; while agent nominals are derived through the use of suffixes **-ni/-bo**, patient nominals are derived through the use of the suffix **-sɛ**. In what follows is a discussion of the two processes in detail.

Agent Nominalization

Agent nominalization is a process that derives a nominal that refers to an agent of a verb. In Nkami agent nominals are formed through the use of the suffixes **-ni** and **-bo**. The stem upon which the agentive suffixes, **-ni** and **-bo**, are attached could either be a verb or an action nominal derived from an inherent complement verb through compounding, as we observed in Section 2.3. In (42) are some examples of verb-based agent nominals.

(42)a.	o-suna-ni	NOM-teach-AGENT	‘sender/teacher’
b.	o-suna-bo	NOM-teach-AGENT	‘sender/teacher’
c.	o-dʒi-bo	NOM-eat-AGENT	‘glutton’
d.	ɔ-kpla-bo	NOM-worship-AGENT	‘traditional priest’
e.	ɔ-pɛni-bo	NOM-be.pregnant-AGENT	‘pregnant woman’
f.	ɔ-kodʒi-bo	NOM-bear child-AGENT	‘someone who has given birth’
g.	ɔ-fia-bo	NOM-scrounge-AGENT	‘scrounger/parasite’
h.	ɔ-bo-bo	NOM-create-AGENT	‘creator/ God’
i.	ɔ-tāi-bo	NOM-hate-AGENT	‘hater/enemy’

Note that because the derived forms are nominals, they must have a nominal prefix; however, since they are agentive nouns referring to human beings, they can only take the human nominal prefixes, **ɔ-/o-**, not the non-human prefixes **ɛ-/e-**. Another thing worth mentioning is that whereas **-ni** only marks singular agentive nominals, **-bo** may mark both singular and plural nominals. For instance, as examples (42-43) illustrate, the plural form

of **o-suna-*ni*** ‘sender/teacher’ (42a), **a-suna-*bo*** ‘senders/teachers’ (43a), is derived by replacing the singular prefix **o-** with **a-**, and then **-*ni*** with **-*bo***.¹⁰

- | | | | |
|--------|--------------------------------|------------------------------|------------------------|
| (43)a. | a-suna-<i>bo</i> | (* a-suna-<i>ni</i>) | ‘senders/teachers’ |
| b. | a-<i>dʒi</i>-<i>bo</i> | | ‘gluttons’ |
| c. | a-<i>kpla</i>-<i>bo</i> | | ‘fetish priests’ |
| d. | a-<i>ɲɛni</i>-<i>bo</i> | | ‘pregnant women’ |
| e. | a-<i>fia</i>-<i>bo</i> | | ‘parasites/scroungers’ |

As noted above (Section 3.1), the stem upon which agent nominals are derived may also be an action nominal, which is formed by compounding the components of inherent complement verbs (see Section 2.3). Consider the following examples.

- | | | | |
|------|---------------------------------|----------------------|-----------------------------|
| (44) | asumibɔ-<i>ni</i> | working-AGENT | ‘worker’ |
| | bɔɔɔ-<i>bo-<i>ni</i></i> | playing ball-AGENT | ‘footballer’ |
| | bɔɔɔɔda-<i>bo</i> | playing ball-AGENT | ‘footballers’ |
| | ɛdalɔdʒi-<i>bo</i> | spending money-AGENT | ‘someone who overspends’ |
| | asɔdʒi-<i>bo</i> | judging-AGENT | ‘judge/mediator/interceder’ |
| | ɛɔtʃa-<i>bo</i> | healing-AGENT | ‘healer’ |

Payne (1997, p. 226) makes some interesting observations regarding the reference of agent nominalizations in English and Yagua that are worthy to note. He observes that whereas agent nominalizations in English “generally refer to things with reference to characteristic activities, rather than specific events...”, in Yagua they refer to specific activities or events. For example, he observes that in English “the nominalization *builder* normally refers to someone who builds things for a living, not to someone who happens to be building something, perhaps for the first time”. On the other hand, in Yagua the nominalization **dapúúwu** ‘hunter/one who is hunting’ refers to “anyone who is hunting at the moment, and not necessarily to one who characteristically hunts”.

- (45) Yagua Payne (1997, p. 226)

dapúú-wu

hunt-NOM

‘hunter/one who is hunting’

Nkami, however, shows evidence of both phenomena as some of its agent nominals

¹⁰ Akan also has the form **-*ni*/*ni*** for agentive/identity marking. Looking at its limited usage in Nkami, it appears that it, together with another form **-*fuo***, was borrowed from Akan. Unlike **-*bo***, both **-*ni*/*ni*** and **-*fuo*** are unproductive in Nkami; however, while **-*ni*** may be attached to both verbs and nouns, **-*fuo*** is only used on a few identity nominals such as **Nkamifuo** ‘Nkamis/people of Nkami’.

refer to characteristic/habitual activities while others refer to uncharacteristic or specific activities. For instance, the agent nominals **o-sunapi** ‘teacher’ refers to someone who is characteristically engaged in teaching as a job for a living, not to anyone, for instance, a parent who sometimes helps her kids with their school assignment. A similar interpretation can be given for other agent nominals like **ɛlɔɔfɔbɔ** ‘healer’, **odzibɔ** ‘glutton’, **ɔkplabɔ** ‘traditional priest’, and **bɔɔbɔpi** ‘footballer’. On the other hand, others like **ɔpɛnibɔ** ‘pregnant woman’, **ɔkodzibɔ** ‘someone who has given birth/mother’, **ɔfiabɔ** ‘scrounger/parasite’ may refer to people who partake in uncharacteristic activities. For instance, **ɔpɛnibɔ** ‘pregnant woman’ can only refer to someone who is presently pregnant irrespective of whether or not this is the first time, not someone who habitually gets pregnant. Likewise, **ɔkodzibɔ** is characteristically used to refer to a woman who has presently given birth to a new baby; not someone who is fond of giving births and probably has about a dozen children.

Regarding the distributional properties of agent nominalizations in Nkami, they can function as subject and object arguments, as (46a) and (46b) illustrate respectively.

(46)a. Subject

ɔkplabɔ/osunabɔ	amɔ	ba	mi	
traditional priest/teacher	DET	come	here	‘The traditional priest/teacher came here.’

b. Object

ɔpɛni	amɔ	dzi	ɔkplabɔ/osunabɔ	
man	DET	be	traditional priest/teacher	‘The man is a traditional priest/teacher.’

Moreover, unlike action nominalizations, generally agent nominals may easily collocate with their cognate verbs in the same simple clause, as (47) illustrates.

(47)a. **inie** **ɔkplabɔ** **amɔ** **kpla** **ɔloa**
yesterday traditional priest DET be.possessed long.time
‘Yesterday, the fetish priest became possessed by the spirits/gods for a long that.’

b. **osunabɔlé-suna p-pɛbi** **amɔ** **atɔ**
teacher PROG-teach PL-childDET thing
‘The teacher is teaching the children.’

c. **Nei** **lé-suna osunabɔ** **amɔ** **atɔ**
mum PROG-teach teacher DET thing
‘Mother is teaching the teacher (Mother is showing the teacher something).’

At the phrasal level, they could function as a possessed nominal, as in (48a), and be modified by determiners, numerals/quantifiers and descriptive adjectives, as in (48b), (48c)

and (48d) respectively.

(48)a. Ag.N as possessum

Kofi mo ɔtāibo amo ni
 Kofi 3SG.POSS hater/enemy DET this.is 'This is Kofi's enemy.'

b. Ag.N can take determiners

ɔkplabɔ ja/amo le-bɪni¹¹
 fetish.priest this/that PRF-cooked 'This/that fetish priest is powerful.'

c. Ag.N can take numerals/quantifiers

apɛnibɔ asa/bebiree bɔ kuro ja lɔ
 pregnant women three/many be.LOC town this inside
 'There are three/many pregnant women in this town.'

d. Ag.N can take descriptive adjectives

ɔkplabɔ timi.timi kɔ ba ali amo asɪ
 fetish priest RED.short some come funeral DET under
 'A very short fetish priest came to the funeral ground.'

With respect to complex constructions, agent nominals could function as focused NPs and head nouns in focus and relative clause constructions, as (49a) and (49b) illustrate accordingly.

(49)a. Ag.N as focused NP

ɔkplabɔ ja ni ɔ-lɔ-bɪni
 traditional priest DEM FOC 3SG-PRF-be.cooked
 'THIS TRADITIONAL PRIEST is powerful (not that one, for instance).'

b. Ag.N as head noun of relative clause

ɔkplabɔ ni ɔ-lɔ-bɪni amo ni
 traditional priest REL 3SG-PRF-be.cooked REL this.is
 'The fetish priest who is powerful is this.'

Lastly, in many languages agent nominalizations are formally identical to instrumental nominalizations in the sense that they both have the same nominalizer or identical

¹¹ **Bɪni** 'be.cooked' is used metaphorically to refer to several related meanings such as 'be intelligent', 'be powerful', 'be well versed in a field' and 'to fortify'.

nominalization strategy (cf. Payne, 1997; Bresnan & Mugane, 2006; Koptjevskaja-Tamm, 2006). For instance, in English the *-er* suffix is used for both AGENT and INSTRUMENT nominalizations, as (50) exemplifies.

(50)	Agent	Instrument
	employer	opener
	singer	grinder
	writer	sharpener

Nkami is, however, different since the suffix **-bɔ** is not used for forming INSTRUMENT nominals. For instance, when **-bɔ** is suffixed to semantically similar verbs in (50), it results in anomalous expressions, as (51) shows.

(51)	*fipi-bɔ	open- bɔ	‘opener’
	*ya-bɔ	sharpen- bɔ	‘sharpener’
	*kplɔ-bɔ	grind- bɔ	‘grinder’

On the other hand, the suffixes, **-ɲi** and **-bɔ**, are isomorphic with forms that are used for identity nominalizations, as (52) illustrates.

(52)	ɔŋwei-ɲi	Ewe-IDENT	‘an Ewe’
	Ghana-ɲi	Ghana-IDENT	‘a Ghanaian’
	okurasi-ɲi	village-IDENT	‘a villager’
	ɛbia-bɔ	Akan-IDENT	‘Akans’
	Alata-bɔ	Nigeria-IDENT	‘Nigerians’
	China-bɔ	China-IDENT	‘Chinese’

In other words, in Nkami **-ɲi** and **-bɔ** are used for both AGENT and IDENTITY nominalizations. Typically, such identity nominals represent a political, social, geographical, ethnic or linguistic group. A similar phenomenon happens in some regional languages such as Akan (cf. Appah, 2003, 1988) and Nkonya (Asante, 2009).

In sum, we have observed in this section, among others, that:

- i. agent nominals in Nkami are formed through suffixation of the morphological nominalizers, **-ɲi** or **-bɔ**, to action verbs or nominals
- ii. unlike some languages such as English and Yagua, agent nominals in Nkami may refer to people who engage in both characteristic and uncharacteristic activities
- iii. in addition to AGENT nominalization, the suffixes, **-ɲi** and **-bɔ**, are also used for IDENTITY nominalizations, unlike English and many languages where AGENT and INSTRUMENTAL nominalizations employ identical strategies/nominalizers
- iv. agent nominals may enjoy all the morphosyntactic properties of prototypical nouns in Nkami; that is, they may take nominal prefixes and make number distinction; take modifiers including descriptive adjectives, quantifiers, numerals, determiners, relative clauses; can function as

possessed NPs in possessive phrases; and also serve as focused NPs in focus clause constructions.

Patient Nominalization

Patient nominalization refers to an operation that derives a nominal that refers to a patient of a verb. In Nkami patient nominals are realized through the suffix *-sɛ*. Unlike agent nominalization, patient nominalization is strictly verb-based in Nkami. See in (53) some examples of patient nominals based on simple verb stems.

- (53)
- | | | |
|----------------------|-----------------|---|
| (ɛ)-wɪlɪ-sɛ | NOM-be.dry-PAT | ‘something that can be dried/ is dried’ |
| (ɛ)-tɪ-sɛ | NOM-cut-PAT | ‘something that can be cut’ |
| (ɛ)-fɔ-sɛ | NOM-take-PAT | ‘something that can be taken’ |
| (e)-ɲa-sɛ | NOM-spoil-PAT | ‘something that can go bad (food)’ |
| (e)-ya-sɛ | NOM-sharpen-PAT | ‘something that can be sharpened’ |
| (e)-duidui-sɛ | NOM-burn PAT | ‘something that can be charred’ |
| (ɛ)-bɔ-sɛ | NOM-do-PAT | ‘something creatable’ |
| (ɛ)-wɪ-sɛ | NOM-chew-PAT | ‘something chewable’ |

There are a couple of things worth noting here. First, a patient nominal may optionally be prefixed with the non-human prefixes, *ɛ-/e-*¹², as indicated by the brackets on the nominal prefixes in (53). In fact, some patient nominals may not take the prefixes, *ɛ-/e-*, at all, as (54) exemplifies.

- (54)
- | | | |
|----------------------------|------------|---|
| waa-sɛ | wear-PAT | ‘something wearable/a dress’ |
| wii-sɛ | steal-PAT | ‘something that can be stolen/ a stolen item’ |
| nu-sɛ | drink-PAT | ‘something drinkable’ |
| bia-sɛ | break-PAT | ‘something breakable’ |
| klaga-sɛ | break-PAT | ‘something breakable’ |
| tʃu-sɛ | fasten-PAT | ‘something bendable/can be fastened’ |
| fɛ-sɛ | buy-PAT | ‘something that can be bought’ |
| fii-sɛ | winnow-PAT | ‘something that can be winnowed’ |
| tira-sɛ | rear-PAT | ‘something that can be reared’ |
| tora-sɛ | carry-PAT | ‘something that can be carried on the head’ |
| tʃu-sɛ | carry-PAT | ‘something that can be carried’ |
| fɛ-sɛ ¹³ | ripen-PAT | ‘something that can be ripened/is ripened’ |

¹² The selection of either *ɛ-* or *e-* is dependent on the ATR vowel quality of the stems they attach to. Thus, *ɛ-* co-occurs with [-ATR] vowels [ɪ, ɛ, ɔ, ʊ, a], while *e-* co-occurs with [+ATR] vowels [i, e, o, u] (cf. Akanlig-Pare & Asante, 2016; Asante, 2016).

¹³ There appears to be a few cases where the suffix, *-sɛ*, derives agent nominals. For instance, *tʃuse* and *kpalise* index someone who ‘catches e.g. police/soldier’ and ‘pilfers/does petty stealing’ respectively, not

However, the fact that these patient nominals may or not take nominal prefixes is not surprising since they are non-human (impersonal) nouns. For instance, Asante & Akanlig-Pare (2015) show that one of the resources that speakers of Nkami use to distinguish humans from non-humans is that whereas non-human nouns are susceptible to loss of nominal prefixes, human nouns are not. Thus, the fact that most patient nominals (referring to impersonal entities) do not take nominal prefixes, but agent nominals (referring to persons) obligatory do in (42-43), just supports the stance that non-human nouns are more likely to undergo prefix deletion than human nouns (cf. Asante & Akanlig-Pare, 2015; Asante, 2016)

Next, observe that the meaning conveyed by the suffix, **-sɛ**, is similar to the English suffix *-able*. Thus, typically nouns formed from the suffix, **-sɛ**, convey the meaning of things that are ‘capable of’, ‘able to’, or ‘fit for’ undergoing the activity designated by the verb. It appears that those that are used more frequently have developed more concrete/specified meanings than those that are used less frequently. Thus, whereas some like **trɔsɛ** and **tfusɛ** have no concrete reference, referring to anything that can be ‘reared’ and ‘carried’ accordingly, others that are used more frequently like **waasɛ** and **kããsɛ** refer to ‘dress/clothing’ and ‘vehicle’ respectively. The latter are less easily thought of by speakers as referring to anything that can be ‘worn’ and ‘driven’ respectively. Syntactically, patient nominals may function in both subject and object/complement argument slots, as (55) illustrates.

(55)a. Subject

waa-sɛ waa oyebi amɔ?

wear-PAT wear child DET ‘Is the child wearing a dress (lit. a dress is wearing the child?)?’

b. Object/Subject Complement

e-dzi (e)-duidui-sɛ

3SG.INANM.SUBJ-be (NOM)-burn-PAT ‘It is something that is burnable (can be charred)’

c. **Kofi bɛ-dɛ kãã kãã-sɛ**

Kofi FUT-be.able drive drive-PAT

someone/something who/that ‘can be caught’ and ‘can be pilfered’. This is aptly illustrated in the following Nkami expressions:

(2)a. **kpalise mun-dzi oyu**

pilferer NEG-be thief

‘A pilferer is not a thief.’

b. **tfɔsɛ le-ba kuro ɲa lo**

catcher PRF-come town this inside

‘Policemen have come to this town’

‘Kofi can drive.’

Note that, unlike action but like agent nominals, a patient nominal may function as a core argument of its cognate verb, as (55a, 55c) illustrate. For instance, in (55a) **waaɛ** ‘a dress (something that can be worn)’ serves as the subject argument of its cognate verb **waa** ‘wear’, and in (55c) **kāāɛ** ‘a vehicle (something that can be driven)’ serves as the object argument of its cognate verb **kāā** ‘drive’. At the domain of the phrase, a patient nominal may function as a possessum in a possessive phrase, as in (56a), and may take all nominal modifiers, as (56b) shows.

(56)a. Possessed NP

mɪ waa-sɛ/kāā-sɛ amɔ bɔ bile?
 1SG.POSS wear-PAT /drive-PAT DET be.LOC where ‘Where is my dress/vehicle?’

b. Taking of numerals/quantifiers, adjectives and determiners

waa-sɛ asa/bebiree n-kikibi na dʒi amɔ kɛ?
 wear-PAT three/many PL-small DEM be who POSS
 ‘Who are these three/many small-sized dresses for?’

Lastly, with respect to complex sentences, a patient nominal may function as a focused NP and a relativized head noun, as (52a) and (52b) exemplify.

(57)a Focused NP

ɔlo waa-sɛ/kāā-sɛ amɔ ni mi-kpa
 DEM wear-PAT /drive-PAT DET FOC 1SG-like
 ‘THAT PARTICULAR DRESS/VEHICLE I like (and not that one, for instance).’

b. Head noun of relative clause

waa-sɛ/kāā-sɛ ni mi-kpa amɔ no
 wear-PAT /drive-PAT REL 1SG-like REL that.is ‘The dress/vehicle I like is that.’

Summary and Conclusion

An attempt has been made in this paper to provide a comprehensive discussion of some nominalization processes in Nkami, a less studied Guang (Kwa, Niger-Congo) language of Ghana, using synchronic natural data. We discussed the types of nominalizations, the strategies for forming them, and some linguistic properties, including semantics, morphology and syntax, of the derived nominals. Among other things, it was shown that nouns, but not only verbs, can serve as the base concept for nominalizations in Nkami. Nkami shows evidence of two major types of nominalizations, action and participant. Whereas participant (including agent and patient) nominalization is derived through suffixation only, action nominalization may be derived through prefixation, reduplication

or compounding. However, whereas action nominals derived through compounding (of inherent complement verbs) express only actions/processes, those derived through prefixation (of simple verbs) or reduplication (of simple action nominals) may additionally express situations, states and results. Generally, the derived nominals, both action and participant, in Nkami may enjoy most or all the morphosyntactic properties of prototypical nouns in Nkami; that is, they may take nominal prefixes and make number distinction; take modifiers including descriptive adjectives, quantifiers, numerals, determiners, relative clauses; can function as possessed NPs in possessive phrases; and also serve as focused NPs in ex-situ focused clause constructions. Moreover, whiles participant (including agent and patient) nominals may easily collocate with their cognate verbs as core arguments in simplex clauses, action nominals may only do so in relative clause constructions. Further, unlike languages such as English and Yagua (cf. Payne, 1997), agent nominalizations in Nkami may refer to characteristic/habitual or uncharacteristic/specific activities. Lastly, in addition to AGENT nominalization, the suffixes, **-ji** and **-bo**, are also used for IDENTITY nominalizations, unlike English and many other languages where AGENT and INSTRUMENT nominalizations employ identical strategies/nominalizers (cf. Payne, 1997; Bresnan & Mugane, 2006; Koptjevskaja-Tamm, 2006).

Apart from bringing to the fore these remarkable properties of Nkami, an endangered less studied language, this study makes available valuable data and analyses and hence has the potential to immensely contribute to the typological discussions on nominalization cross-linguistically. For instance, Nkami provides remarkable evidence to support the position (cf. Comrie & Thompson, 1985; Koptjevskaja-Tamm, 1993, 2005, 2006; Payne, 1997) that “Broadly speaking, they [action nominals] refer to situations and not only to actions, as the name might imply” (Koptjevskaja-Tamm, 2006, p. 652). The ability of action nominals in Nkami to collocate with their cognate verb in relative clause constructions, but not in simplex sentences, is also a major contribution to the cross-linguistic literature on nominalization, which may serve as a motivation for other researchers to look beyond simplex sentences in their discussion of morphosyntactic properties of action nominals.

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