A SURVEY OF PROPERTY ENCODING EXPRESSIONS IN NKAMI

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Abstract

This contribution extracts from a large corpus of elicited and naturalistic data to comprehensively discuss the resources that speakers of Nkami (Kwa, Niger-Congo) use to express property concepts. It reveals that the language employs eight distinct resources namely (underived) adjectives, verbs, nouns, nominal adjectives, verbal adjectives, possessive constructions, relative clauses, and metaphtonymic expressions to express both attributive and predicative property, with the most pervasive being the verbs, possessive constructions and relative clauses. Only three of them are used to express both attributive and predicative property concepts, while the rest are used for one property function only. While physical property constitutes the most dominant concept expressed by these resources, only four of them permit serialization. Nkami belongs to the type 2 of Dixon's (2010) classification of languages, since its adjectives share common grammatical features with nouns. Though the majority of these strategies are common in other regional languages, Nkami is distinct from many of them, for example, Akan, in using possessive and verbal adjectives to code predicative and attributive property concepts respectively. Apart from telling Nkami's own story about how it signals property concepts, this study provides extraordinary data and analyses, which will go a long way in contributing to our cross-linguistic typological understanding of property encoding expressions.

Keywords: Nkami, Kwa language family, Property encoding expressions, Predicative property, Attributive property.

1. Introduction[1]

This paper[2] discusses the resources that speakers of Nkami (Guan-Kwa, Niger-Congo) use to encode property concepts. Many people normally associate property concepts with the adjective class largely because dominant languages, like English, mainly employ adjectives to express them. However, adjectives are just one of the lexical categories for expressing property in human languages. In fact, there is no consensus as to whether all human languages have adjectives, although all languages have ways of expressing property concepts (cf. Welmers 1973: 274, Dixon 1977, 1982, 2010, Ameka 1991). Even for those that have adjectives, there are some that have very limited numbers. For instance, Tutrugbu (Kwa) has only one non-ideophonic adjective **kpá** 'bad' (Essegbey 2010: 158), while Tafi (Kwa) possesses only three basic adjectives **bhuli** 'small', **gunu** 'short' and **kpa** 'bad' (Bobuafor 2013).

Property encoding expressions are linguistic resources (e.g. words, phrases, clauses, etc.) that specify the reference of nouns and/or state their qualities, attributes and characteristics (cf. Madugu 1976, Omoruyi 1986, Ameka 1991, Dixon 2004, 2006, 2010, Thompson 1988, Sergio & Gildea 2005, Palancar 2006, etc.). They may

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[1] Nkami is a Guan language (Kwa, Niger-Congo) with about 400 speakers, who reside in a resettlement community in the Eastern Region of Ghana called Amankwa. Nkami shares with regional languages most of the areal-typological linguistic features. For instance, it is tonal, exhibits tongue root (ATR) harmony (cf. Akanlig-Pare & Asante 2016), has dominant AVO and SV clause types, its verb features are expressed by prefixes and verbal particles, and it is mainly isolating. Besides transitive, intransitive, copula and other simple clauses, it also exhibits rich and prototypical examples of constructions involving multi-verbs and clause combinations such as serial verb, relative clause, complement clause, adverbial clause and coordinate clause constructions (cf. Asante & Akanlig-Pare 2015, Asante 2016, 2017, 2018).

[2] This paper is a thoroughly revised version of excerpts from a PhD dissertation which is part of a larger documentation project on Nkami, sponsored by the Endangered Languages Documentation Programme (ELDP), SOAS (grant: IGS0228). The database includes spontaneous spoken and elicited texts gathered from about a hundred speakers of diverse backgrounds in a period of one year in Amankwa, the spoken community. The data were annotated and verified in conjunction with a team of two adult Nkami speakers, Akuamoah and Ketewa, and several other language consultants.

express such concepts as (Dixon 2004, 2010: 73-74):
(1) a. DIMENSION: big, small, tall, long, wide, deep, etc.
     b. AGE: new, old, young, modern, etc.
     c. COLOUR: red, black, white, green, yellow, etc.
     d. VALUE: bad, good, perfect, pretty, lovely, etc.
     e. SPEED: quick, fast, rapid, slow, etc.
     f. PHYSICAL PROPERTY: soft, hard, rough, strong, heavy, wet, sweet, clean, sour, cheap, corporeal properties such as well, tired, sick, dead, etc.
     g. HUMAN PROPENSITY: angry, happy, sad, ashamed, jealous, clever, kind, generous, etc.
     h. DIFFICULTY: simple, easy, tough, hard/difficult, etc.
     i. SIMILARITY: similar, alike, unlike, different, equal (to), analogous (to), etc.
     j. QUANTIFICATION: all, whole, some, many, few, only, enough, etc.
     k. QUALIFICATION: definite, true, possible, probable, likely, usual, normal, correct, common, appropriate, sensible, etc.
     l. POSITION: high, low, far, distant, distal, near, proximal, left, etc.
     m. CARDINAL NUMBERS – one, two, first, second, last, etc.

Property encoding expressions (PEEs) perform two main communicative functions: attributive and predicative. In attributive function, the PEE modifies the head noun within the same noun phrase, as in (2):

(2)   PEE in Attributive function[3]
     a. The *tall* man
     b. **nuu**   *kakadaŋŋ*   **lɛ**   Ga
         man   tall   DET
         'the tall man' (Laryea p.c.)
     c. **n-dem**   *ngwe* [*de*   *ci*   ]   Mupun
         1SG-like   man   REL   different
         'I like a different man.' (Frajzyngier 1993: 69, Dixon 2010: 82)

In predicative function, however, the PEE may either serve as the complement of a copula verb or as the predicate (main verb) of a (an intransitive) clause, as in (3) and (4), respectively.

(3)   PEE in Predicative function
     a. Akan: b. Ga:
         Nyame   **yɛ** *kɛseɛ*   **Nyɔŋmɔ**   **ji**   *agbo/ofe*
         God   be big   God   be   big
         'God is great.'   'God is great.'

(4)   PEE in Predicative function
     a. Akan   b. Ga
         Nyame *so*   **Nyɔŋmɔ**   *da*
         God   be.big   God   be.big
         'God is great.'   'God is great.'
     c. Fijian (Dixon 2010: 71)
         E   *balavu* **a**   **tuuraga**
         3SG   tall   INDEF   chief
         'A tall chief'

Following Dixon's (1982) seminal works "Where have all the adjectives gone?…", many research works on property encoding expressions, including those on languages of Ghana (e.g. Osam 1999, 2003, Pokua 2003 on Akan; Akrofi Ansah

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3 The following abbreviations are used: ADJV = adjectivizer, COMP = complementizer, CONJ = conjunction, DEF = definite article, DEM = demonstrative, DET = determiner, HAB = habitual, INANM = inanimate, INDEF = indefinite, LOC = locative, NEG = negation, NOML = nominalizer, NP = noun phrase, OBJ = object, PEE = property encoding expression, PEN = property encoding noun, PEV = property encoding verb, PL = plural, POSS = possessive, PRF = perfect, PROG = progressive, RED = reduplication, REL = relative marker, SG = singular.

2005 on Lete; Otoo 2005 on Ga; Adjei 2007 on Siyase (Avatime); Amfo et al. 2007 on Akan, Ga and Ewe; Dzameshie 2007 on Ewe and Akan; Dorvlo 2009 on Logba) have, to a large extent, concentrated on finding out whether or not adjectives exist in their languages of study. Thus, most of these studies have sought to justify the presence and nature (e.g. derivation, types, number/size, sequencing, morphosyntax) of the adjective class in their individual languages, without paying much (or comparable) attention to other expressions that are used by these languages to express property. A few of them too (e.g. Akrofi Ansah 2013, Otoo 2013) that look beyond adjectives, have mainly focused on lexical items. This work, therefore, comprehensively surveys the Nkami language with the aim of providing a relatively more adequate characterization of the resources/strategies that speakers of the language use to express property concepts. Apart from identifying the strategies and their morphosyntactic properties, it also tries to categorize them based on their semantics.

Among others, the discussion will show the following to be valid about property encoding constructions in Nkami:
- Nkami has at least eight distinct resources/strategies to express both attributive and predicative property.
- Whereas seven of these strategies are used to express predicative property, five are used for attributive property.
- Only three of the strategies are used to express both attributive and predicative property and the rest are used to expressive one property function only (i.e. either attributive or predicative).
- The commonest strategies for expressing property concepts in Nkami are: possession, verbal predication and relativization.
- Though the majority of these strategies are common in other regional languages, Nkami is distinct from many of them, for example, Akan, in using possessive constructions and verbal adjectives to code predicative and attributive properties respectively.
- Four of the strategies accept serialization, while the other four do not.
- The most dominant property concept expressed by the eight strategies is physical property.

The rest of the discussion is organized along the eight property encoding strategies, as follows: Section 2 – descriptive (underived) adjectives; Section 3 – property encoding nouns (PENs); Section 4 – property encoding verbs (PEVs); Section 5 – nominal adjectives; Section 6 – verbal adjectives; Section 7 – possessive constructions; Section 8 – relative clauses; Section 9 – metaphtonymic expressions and Section 10 – summary and conclusion.

2. Descriptive adjectives

Identifying adjectives as a distinct class of words is often more difficult than doing so for verbs and nouns cross-linguistically (cf. Dixon, 2010). While some linguists (cf. Welmers 1973: 274, Dixon 1977/ 1982) deny and/or are skeptical about the availability of a distinct class of adjectives in all languages, others (cf. Dixon 2004, 2010) posit that an adjective class can be found in all languages. These sentiments are expressed by Dixon (2010: 62) in the following paragraph:

> For a greater number of languages, it has been suggested that it is impossible or inappropriate to identify an adjective class. (Indeed, I was one of those who promulgated this view …). But detailed examination (over the past thirty years) of languages for which this claim had been made suggests that, once again, when all relevant facts are taken into account an adjective class can be (and should be) recognized for every language, distinct from noun and verb classes.

Though I argue that Nkami has a distinct class of adjectives, the selection of the words that belong to this class is not plain sailing. This is particularly so since

property assignment, which is the most distinct semantic feature of adjectives, may also be performed by other lexical words, phrases or clauses. This, notwithstanding, the following rule of thumb is instructive for identifying an adjective in Nkami. An adjective in Nkami is a property assigning word that shares the following features:

i. specifies or assigns property to the reference of a noun
ii. functions as an endocentric nominal modifier or a copula complement or both
iii. does not have an inherent prefix but may take one to agree with the noun that it modifies in number
iv. may agree with a plural copula subject through reduplication rather than taking a plural nominal prefix **a-** or **N-**
v. may take a nominal prefix only when the noun it modifies is omitted
vi. may be reduplicated to indicate intensity
vii. may function as an adverbial modifying a verb (or a whole clause)
viii. may be in a contiguous relationship with other adjectives

Moreover, the discussion will show that Nkami belongs to type 2 of Dixon's (2010) classification of languages, including Latin, Spanish, Finnish, Hungarian, Igbo, Quechua, and Dyirbai, since its adjectives share common grammatical features with nouns. This is because adjectives in Nkami may inflect for nominal prefix, number prefix, may be possessed and also function as the head noun of an elliptical noun phrase. Also, Dixon (2010) observes that in some languages such as Finnish, Hungarian, Russian, and Papantla Totonac (Levy 2004, Dixon 2010: 88), "only an adjective can occur as the parameter of comparison in a comparative construction, and this serves to distinguish adjectives from nouns". Unlike these languages, however, as shall be observed in the ensuing sections, in Nkami a noun as well as a verb can also perform an identical function. Serving as a parameter of comparison in comparative constructions is, therefore, not a relevant criterion for drawing a firm line between adjectives and other word classes in Nkami.There are about 40 adjectives in Nkami belonging to 9 different semantic types: dimension, age, value, colour, physical property, shape, speed, similarity, and quantification. The rest of the discussion in this section is divided into two broad sub-sections. While section 2.1 examines the morphosyntactic properties of Nkami adjectives, section 2.2 looks at their semantic types.

2.1 Morphosyntax of Nkami adjectives

Adjectives in Nkami can be used in both attributive and predicative functions, as (5) and (7), respectively, illustrate.

(5)   Attributive
   a. **m-bʊ**   **otʃebi**   *go*   **bʊ mɪ**
      1SG-have   cloth   ragged   be.LOC   here
      'I have a ragged/tattered cloth here.'
   b. **ɔkplabʊ**   *kʊgɔ/timi*   **kʊ**   **lɛ-ba**   **mɪ**
      traditional priest red/short   INDEF PRF-come   here
      'A fair-skinned/short traditional priest has come here.'

Thus, **otʃebi** 'cloth' in (5a) and **ɔkplabʊ** 'traditional priest' in (5b) are specified by the adjectives **go** 'ragged/tattered' and **kʊgɔ/timi** 'red/short', respectively. Like other modifiers in Nkami, adjectives are post-nominal. The number of modifying adjectives could be more than one without an intervening conjunction, as in (6).

(6) a. **ɔkplabʊ**   *kʊgɔ*   *timi*   **kʊ**   **lɛ̀-ba**   **mɪ**
      traditional priest   red   short   INDEF PRF-come   here
      'A short and fair-skinned traditional priest has come here.'
   b. **ɔkplabʊ**   *timi*   *kʊgɔ*   **kʊ**   **lɛ̀-ba**   **mɪ**
      traditional priest   short   red   INDEF PRF-come   here
      'A short and fair-skinned traditional priest has come here.'

    c.   **wo-ò̀-ŋu**   **ɔtʃɪ**   *kʋrʋkʋrʋwa*   *kʋgɔ*   *timi*   **amʋ**?
        2SG-PRF-see woman   small-sized   red   short   DET
        'Have you seen the short, small-sized fair-skinned lady?'

While (6a-b) have two contiguous adjectives following the noun **ɔkplabʋ** 'traditional priest', there are three contiguous adjectives, **kʋrʋkʋrʋwa** 'small-sized', **kʋgɔ** 'red', and **timi** 'short', modifying **ɔtʃɪ** 'woman' in (6c). Also, note that while the colour adjective, **kʋgɔ** 'red', precedes the dimension adjective, **timi** 'short', in (6a), the reverse is in (6b). Thus, just as Ameka (1991) and Adjei (2007) note for Ewe and Siyase (Avatime), respectively, it appears that which adjective that occurs first or last in a series depends on the priority the speaker puts on the adjectives involved in terms of their characterization of their referent. For instance, if an Nkami speaker deems the colour adjective, **kʋgɔ** 'red', to be a more salient feature of the referent (traditional priest) than the dimensional adjective, **timi** 'short', then, **kʋgɔ** 'red' will immediately follow the noun, as (6a) indicates. However, if **timi** 'short' is seen by the speaker to be more salient than **kʋgɔ** 'red', then, **timi** 'short', will precede **kʋgɔ** 'red' in the sequence, as in (6b).

    Adjectives in Nkami may also function as a copula complement (predicative function), as (7) illustrates.

(7) Copula complement
    a.   **ɔkplɪ**   **ɲa**   **dʒi**   **kpʋ/timi**
        dog   DEM   be   big/short
        'This dog is big (fat)/short.'
    b.   **ɔtʃɪ**   **amʋ**   **dʒi**   *kʋrʋkʋrʋwa*
        woman DET   be   small-sized
        'The woman is a small-sized person.'

In (7) the adjectives, **kpʋ/timi** 'big/short' and **kʋrʋkʋrʋwa** 'small-sized', respectively specify the reference of the copula subjects, **ɔkplɪ** 'dog' and **ɔtʃɪ** 'girl', by functioning as the complement of the copula verb **dʒi** 'be'. Nkami's situation is quite significant, because in some languages like Chinese (Xu 1988) an adjective can occur as a copular complement only when in nominalized form. In others like Mupun (Frajzyngier 1993) only an NP, not an adjective, can function as a copula complement (Dixon 2010). Moreover, like other languages of Ghana such as Akan, Ga (Otoo 2013), and Siyase (Adjei 2007) an adjective in Nkami may be reduplicated to indicate intensity, as illustrated with (5b) and (7a) here as (8a) and (8b).

(8)a.   **ɔkplabʋ**   *kʋgɔ.kʋgɔ*   **kʋ**   **lɛ́-ba**   **mɪ**
        traditional priest RED.red   INDEF PROG-come   here
        'A *vividly* fair-skinned traditional priest is coming here.'
    b.   **ɔkplɪ**   **ɲa**   **dʒi**   *timi.timi*
        dog   DEM   be   RED.short
        'This dog is *very* short.'
    c.   **ɔkplɪ**   **ɲa**   **dʒi**   **timi.timi.timi.timi…**
        dog   DEM   be   RED.short
        'This dog is very (very very) short.'

The use of the reduplicated adjectives shows that the properties assigned to the referents, **ɔkplabʋ** 'traditional priest' and **ɔkplɪ** 'dog', are more intense in (8a) and (8b) than those assigned in (5b) and (7a), respectively. Thus, the use of **timi.timi** and **kʋgɔ.kʋgɔ** in (8) shows that their referents are not just short and red (fair-coloured), but that they are 'very/vividly' short and red (fair-coloured). Note also that, technically, the reduplicated adjectives in (8) may be further reduplicated to signal higher degrees of intensity, as (8c) exemplifies. For some other adjectives, intensity may be signaled by internal vowel lengthening, as (9) illustrates.[4]

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[4] It is not immediately known why intensity is signalled by some adjectives using reduplication while others use internal vowel lengthening.

(9)a.   **mɪ**   **fɩɔ**   *kikibi*   **nɪ́**
        1SG.POSS   sibling young   this.is
        'This is my young sibling.'
    b.   **mɪ**   **fɩɔ**   *kikiibi*   **nɪ́**
             1SG.POSS   sibling young   this.is
             'This is my youngest sibling.'

Furthermore, an adjective in Nkami may also be prefixed with a plural marker, **a-** or **N-**, to co-reference the noun it modifies in number, as (10) illustrates.

(10)a.   *m-kplɪ*   **ɲa**   **be-dʒi**   *a-kpʊ.a-kpʊ/n-timi.n-timi*   (*a-kpʊ/n-timi)
        PL-dog   DEM   3PL-be   PL-RED.PL-big/ PL-RED.PL-short
        'These dogs are big (fat)/short.'
    b.   **m-bʊ**   *n-tʃebi*   *a-go.a-go (*a-go)*   **asa**   **bʊ**   **mɪ**
            1SG-have   PL-cloth   PL-RED.PL-ragged   three   be.LOC   here
            'I have three ragged/tattered clothes here.'

In (10a) the adjectives, **akpʊakpʊ/ntimintimi** 'big/short', take the plural markers, **a-/n-**, because the copula subject, **mkplɪ** 'dogs', is a plural noun; while **agoago** 'ragged' in (10b) also takes **a-** because its modified NP, **ntʃebi** 'clothes', is plural.[5] Observe that, as the examples in (10) show, the plural prefixes can only be attached to the reduplicated forms of adjectives. Thus, replacing the reduplicated adjectives **akpʊakpʊ/ntimintimi** 'big/short' in (10a) and **agoago** 'ragged' in (10b) with their simple counterparts, **a-kpʊ/n-timi** and **a-go** (in brackets), results in infelicitous sentences. Moreover, for each of the reduplicated adjectives in (10), plurality is concordially marked on both the adjectival stem and its reduplicant. For instance, in the case of **akpõakpõ** 'very big', both the base **kpõ** 'big' and its reduplicant **kpõ** indepedently inflect for the plural nomnal prefix **a-,** as in **[a-kpõ.a-kpõ]**.

Furthermore, besides performing attributive and predicative functions, an adjective in Nkami may function as an adverb which modifies a verb or a whole clause, as (11) illustrates.[6]

(11)a.   **Basaa** as an adjective
        mʊ   **bɔsɛ**   **amʊ**   **dʒi** *basaa*
        3SG.POSS   character/acts   DET   be   unorganized
        'His/her character/acts is/are unorganized (S/he is unorganized).'
    b.   **Basaa** as an adverb
        Kofi   **bɔ**   **asumi**   **amʊ**   *basaa*
        Kofi   do   work   DET   carelessly
        'Kofi did the work in an unorganized manner/carelessly.'

While **basaa** 'unorganized' in (11a) functions as an adjective in a copula complement role, assigning property to the NP, **mʊ bɔsɛ** 'his character/acts', in (10b) it functions as an adverb to indicate how the subject carried out the activity designated by the predicate **bɔ asumi** '(do) work'.

Sometimes when the head noun is already 'known' or 'understood', it may be omitted so that the attributive adjective stands in as the head of the remaining noun phrase. This is illustrated below, where (12b) derives from (12a).

(12)a.   **ɔtʃɪ**   *kʊgɔ/timi*   **amʊ**   **lɛ̀-ba**
        woman red/short   DET   PRF-come
        'That fair-skinned/short woman has come.'
    b.   *ɔ-kʊgɔ/o-timi*   **amʊ**   **lɛ̀-ba**
        NOML-red/NOML-short   DET   PRF-come
        'That fair-skinned/short (one) has come.'

Observe also that because the remaining nominalised adjective, **ɔkʊgɔ/otimi**, refers

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[5] It is presently not clear why some adjectives take *a-* and others take *N-* to agree with their head nouns in number.
[6] See (22) (27), (34) and (38), for instance, for more examples.

back to a human being, **ɔtʃɪ** 'woman', it can only take the human nominal prefix **ɔ-/o-**. The use of the non-human singular nominal prefixes **ɛ-/e-** would be inappropriate (cf. Asante & Akanlig-Pare 2015).

Moreover, in Nkami both an adjective and a noun can be modified by the degree word **paa** 'really/real'. However, the meaning that **paa** takes varies depending on the class of the word it collocates with; it encodes *intensity* when it collocates with adjectives but *reality* with nouns, as (13a) and (13b) illustrate accordingly:

(13) a. **o-dʒi** *kʊgɔ/timi* **paa**   Intensity
3SG-be   red/short   DEG
'He is *very/really/vividly* fair/short'

   b. **o-dʒi**   **mɪ**   **nei**   **paa**   Reality
3SG-be   1SG.POSS   mother   DEG
'She is my *real /true* mother.'

Moreso, although an adjective cannot serve as a possessor in Nkami, like nouns, they may be possessed in a possessive NP, as (14) shows.

(14) a. **mʊ**   *kpʊ/tuntu*   **bʊ**   **ɛfɛ**
3SG.POSS   short/black   have   beauty
'His/her fat/black has beauty (His fatness/dark-skin is beautiful).'

2.2 Semantic types of adjectives

Adjectives in Nkami may be classified into 9 semantic categories including the four commonest cross-linguistic semantic types: dimension, value, colour and age, and five less common ones: shape, physical property, speed, similarity, and quantification (Dixon 2010). In what follows is a look at each one of them in some detail.

2.2.1 Dimension adjectives

Four adjectives in Nkami convey dimensional characterization to their referents. They are **kpɔ̃** 'big (in size)', **tɪntɪn** 'tall', **timi** 'short', and **kʊrʊkʊrʊwa** 'small-sized'. **tɪntɪn** 'tall' and **timi** 'short' are the most pervasive as they both can be used for animate and non-animate entities. **kpɔ̃** 'big (in size)', for instance, cannot be used to assign property to non-animate entities in copula complement (predicative) function, as (15b) shows.

(15) a. *ɔtʃɪ/ɔkplɪ*   **amʊ**   **dʒi**   **kpɔ̃**
woman/dog   DET   be   big
'The woman/dog is big (fat).'

   b. **bɔɔlʊ/afu*   **amʊ**   **dʒi**   **kpɔ̃**
ball/wind   DET   be   big
'The ball/wind is big.'

   c. **bɔɔlʊ**   **amʊ**   *tʃɔ*
ball   DET   be.big
'The ball is big.'

Whereas (15a) is felicitous because **kpɔ̃** 'big' assigns property to animate nouns, **ɔtʃɪ/ɔkplɪ** 'woman/dog', (15b) is infelicitous because **bɔɔlʊ/afu** 'ball' is non-animate. Instead of the predicative copula clause in (15b), an intransitive clause predicated by the property encoding verb, **tʃɔ** 'be big', as (15c) illustrates, is employed to assign the dimensional property of 'bigness' to non-animate entities in predicative function. However, when **kpɔ̃** 'big' occurs in an attributive slot, as (16) shows, then, it may modify a non-animate referent.

(16)   **afu**   **kpɔ̃**   **lɛ́-da**
wind   big   PROG-hit
'There is a storm.'

Thus, although afu 'air/wind' is non-animate, it is modified by the adjective **kpɔ̃** 'big'

because they both occur in the same endocentric NP.

Furthermore, whereas all the other three members may be used for both animates and non-animates, **kʊrʊkʊrʊwa** 'small-sized' can only assign property to human referents. This is illustrated in (17).

(17)   **ɔtʃɪ**   (*ɔkplɪ/bɔɔlʊ)   **amʊ**   **dʒi**   *kʊrʊkʊrʊwa*
        woman   (dog/ball)   DET   be   small-sized
        'The woman (*dog/ball) is a small-sized (person).'

That is, whereas the use of **kʊrʊkʊrʊwa** 'small-sized' is acceptable when the modified noun is human, **ɔtʃɪ** 'woman', it is unacceptable when it (**ɔkplɪ** 'dog'/ **bɔɔlʊ** 'ball') is a non-human noun. Moreover, all four adjectives of dimension can occur either immediately after their head noun attributively or as a copula complement. Whereas **kpõ** 'big' and **tɪntɪn** 'tall' take **a-**, the other two take the **N-** plural prefix to agree with the head noun they modify in number. Lastly, they all can be reduplicated to mark intensity, as illustrated with **timi.timi** in (8b-c) above.

2.2.2   Age adjectives

Four adjectives are identified in this category: **dɪda** 'old', **fʊfɔ** 'new/different', **go** 'old/ragged' and **kikibi** 'young/little'. The first three, **dɪda** 'old', **fʊfɔ** 'new/different' and **go** 'old/ragged', can only be used to qualify non-animate referents, as (18) illustrates.

(18)   *otʃebi*   (*ɔtʃɪ/ɔkplɪ)   **amʊ**   **dʒi**   **dɪda/go/fʊfɔ**
        cloth   (woman/dog)   DET   be   old/ragged/new
        'The cloth (*woman/dog) is ragged/old/new.'

On the other hand, **kikibi** 'young/little' can be used for both animate and non-animate referents, as (19a) shows.

(19) a.   *ɔtʃɪ/ɔkplɪ/adʒuro*   **amʊ**   **dʒi**   **kikibi**
           woman/dog/food   DET   be   young /little
           'The woman/dog/food is young/little.'

    b.   **m-bʊ**   *otʃebi*   *dɪda/go/fʊfɔ*   **kʊ**   **bʊ**   **mʊ**
          1SG-have   cloth   old/ragged/new   INDEF   be.LOC   there
          'I have an (a certain) old/ragged cloth (there).'

All four adjectives can immediately follow their modified nouns or function as a copula complement. For instance, whereas **dɪda/go/fʊfɔ** 'old/ragged' functions as a copula complement in (18), it occurs immediately after the modified noun, **otʃebi** 'cloth', in (19b). Moreover, they may either be internally lengthened or reduplicated to mark intensity, as we saw with **kikiibi** 'very young (youngest)' in (9b) and **agoago** 'very old' in (10b) above. They may also take a plural nominal prefix to harmonize with the nouns they modify in number, as (10b) illustrates with **go** 'ragged'.

2.2.3   Value adjectives

There are four value adjectives in Nkami: **tantã** 'unattractive', **bɔ̃ĩ** 'bad', **yire** 'good (quality)', and **basaa** 'unorganized/careless'. All four can be in contiguous relationship with their referent nouns. When **basaa** 'unorganized' functions as a copula complement, it typically provides value judgment on human behaviour, as (11a) illustrates. Similarly, the other three adjectives, **tantã** 'unattractive/ugly', **bɔ̃ĩ** 'bad' and **yire** 'good (quality)', cannot function as a copula complement when the copula subject is an animate referent. For instance, while (20a) is acceptable because the copula subject, **abɪa** 'chair', is non-animate, (20b) is unacceptable because the copula subject **ɔɲɪnɪ/ɔkplɪ** 'man/dog' is animate.

(20) a.   *abɪa*   **ɲa**   **dʒi**   *tantã*
           chair   DEM   be   unattractive
           'This chair is unattractive.'

   b. *ɔɲɪnɪ/ɔkplɪ   ɲa   dʒi   yire/tantã/bɔ̃ĩ
       man/dog   DEM   be   good/unattractive/bad
       'This man/dog is good/ugly/bad.'

   c. ɔɲɪnɪ/ɔkplɪ ɲa   dʒi   ɔsa/ɔbʊɪ   yire/tantã/bɔ̃ĩ
       man/dog   DEM   be   human being/animal   good/unattractive/bad
       'This man/dog is a good/ugly/bad human being (person)/ animal.'

In order to make (20b) acceptable, superordinate terms (hypernyms) of **ɔɲɪnɪ** 'a man/male' and **ɔkplɪ** 'dog', **ɔsa** 'human being' and **ɔbʊɪ** 'animal', respectively, must appear before the adjective, as (20c) shows. A similar observation is made for Yoruba by Dixon (2010: 169). Like Nkami, in Yoruba one can only say something like *Olu is a good girl*, but not *Olu is good*. That is, the adjective must be headed by a noun in the copula complement slot. However, commoner or better ways of expressing the properties in (20) are through the use of the property encoding verb, **baalɛ** 'be.good' (see section 3.2), and a possessive construction involving the defective property coding noun, **ɛtã** 'ugliness' (section 6), as (21a) and (21b), respectively, exemplify.

(21)a. **ɔɲɪnɪ**   **ɲa**   **baalɛ**   b. **ɔɲɪnɪ**   **ɲa**   **bʊ**   **ɛtã**
       man   DEM   be.good   man   DEM   have   ugliness
       'This man is good.'   'This man has ugliness (this man is ugly).'

It appears that the adjective, **tantã** 'unattractive/ugly', is derived from the noun, **ɛtã** 'ugliness', through reduplication. Whereas **basaa** 'unorganized' may further be reduplicated to mark intensity, **tantã** 'unattractive/ugly', **bɔ̃ĩ** 'bad', and **yire** 'good (quality)' cannot be reduplicated while still functioning as adjectives. Generally, the value adjectives may also be used as adverbs either in their simple or reduplicated forms, as (22) illustrates.

(22)   **ɔɲɪnɪ** **amʊ** **bɔ** **asumi** **amʊ** **yire/basaa (yeyire/basabasa)**
       man   DET   do   work   DET   well/carelessly
       'The man did the work well/carelessly (in an unorganized manner).'

2.2.4   Colour adjectives

There are four colour adjectives in Nkami. They are **tuntu** 'black', **kʊgɔ** 'red', **fitaa** 'white', and **klɛbɪmfɔ** 'yellow/chicken fat', which is a compound word made up of **klɛbɪ** 'chicken' and **mfɔ** 'fat'. With the exception of **klɛbɪmfɔ** 'yellow'[7], all three other colour adjectives may be reduplicated to mark intensity, can modify a head noun, can function as a copula complement, and may also make up a whole NP - in which case, they acquire a nominal prefix, as we saw with **kʊgɔ** 'red/fair-skinned' and **ɔkʊgɔ** 'red/fair-skinned one' in example (12) above.

    Here, it may be necessary to mention that the senses of the colour adjectives in Nkami do not match exactly those of their English counterparts. **Kʊgɔ** incorporates English colours such as red (e.g. the colour of blood), wine, pink, orange, etc. It also covers the colour of fair-skinned people including Europeans and Asians, ripe fruits such as mango and pawpaw, muddy water and discoloured white dresses/cloths, as (23) illustrates.

(23)a. **mangʊ/waasɛ** **amʊ** **dʒi** **kʊgɔ.kʊgɔ**
       mango/cloth   DET   be   RED.red
       'The mango/cloth is vividly red.'

   b. **o-dʒi**   **obroni**   **kʊgɔ.kʊgɔ**
       3SG-be   white man   RED.red
       'He is a vividly white man (light-skinned).'

    Fitaa characteristically denotes any colour that has resemblance with the colour of the sky in bright day. It may be used to characterize the colour of entities such as white wash, cream coloured buildings, and clean water, as (24) illustrates.

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[7] **Klɛbɪmfɔ** 'yellow' may be better considered as a noun, not an adjective, as corroborated by a reviewer.

(24)a. **Afram (ntʃu) aɲɛsɪ dʒi fitaa**
    Afram   water   face   be   white
    'River Afram is clean/pure.'

    b. **ɔwɪlɪ ɲa mʊn-dʒi fitaa**
    skin/book   DEM   NEG-be   white
    'The (leaves of this) book is not white-coloured.'

    Prototypically, **tuntu** 'black' indexes any colour that resembles the colour of charcoal. It may also be used to refer to the colour of a dark-skinned person, and the sky when it is about to rain, as (25) exemplifies.

(25)a. **wʊ aɲɛsɪ tuntu dʒi bɛɛ dʒanunum**
    2SG.POSS   face   black   be   like   charcoal
    'Your face is like charcoal (your face is vividly black).'

    b. **kããsɛ ɲa dʒi tuntu**
    car   DEM   be   black
    'This car is black.'

As in many languages, generally **fitaa** 'white' has a more positive connotation than **tuntu** 'black' and **kʊgɔ** 'red'. For instance, since the Nkami deity, **Afram**, is assumed and revered as a good god, a god of purity and an abhorrer of evil, **fitaa** is usually used to describe him, as (26a) shows.

(26)a. **Afram dʒi fitaa, a-ma-kpa edʒa**
    Afram   be   white   3SG-NEG-like   blood
    'Afram (deity) is white (pure), it does not like blood (evil).'

    b. **Kofi mʊ adwɪn lɔ dʒi tuntu/tuun**
    Kofi   POSS   brain   inside   be   black
    'Kofi's mind is black (Kofi has bad thoughts/Kofi is wicked).'

Tuntu 'black', on the other hand, may be used to refer to bad thoughts, negativity or wickedness, as (26b) illustrates.

    Lastly, like the value adjectives, the colour adjectives may be used as adverbs to modify the state of affairs expressed by the predicate in the clause, as the following exemplify.

(27)a. **mangʊ amʊ lɛ̀-fɛ kʊgɔ.kʊgɔ.kʊgɔ…**
    mango   DET   PRF-be.ripen   RED.red
    'The mango is vividly ripened.'

    b. **ɔma-lɔ lɛ̀-bɔ fitaa**
    sky-inside   PRF-do   white
    'The sky has become white (The sky is bright).'

    c. **tʃɪ bɛɛ ɔma-lɔ lɛ̀-bɔ tuntu, ɛnɛ kɛ**
    watch   COMP   sky-inside   PRF-do   black   today   as.for
    ɲaw amʊ bɛ-ba
    rain   DET   FUT-come
    'See that the sky has become dark (is cloudy), as for today the rains will come.'

2.2.5 Physical property adjectives

This class does not only have the largest number, but it is also the most unsettled of all the 9 semantic classes. It is made up of at least ten members, namely, **bʊbɔ** 'fresh', **trʊntrʊm** 'smooth', **muhumuhu** 'fine (e.g. sand)', **pɛtɛɛ/pɛtɛpɛtɛ** 'soggy/soft', **duduudu** 'very heavy', **kwakwaakwa** 'very hard', **sasaasa** 'very light', **yiliyili** 'very cold', **dʒadʒaadʒa** 'very hot/spicy', **sĩsĩĩsĩ** 'very painful'. As can be seen from their morphological make-up, all ten are reduplicated forms. **Bʊbɔ** 'fresh' appears to be the only non-derived member in the group. While **trʊntrʊm** 'smooth', **muhumuhu** 'fine

(e.g. sand)', **pɛtɛɛ/pɛtɛpɛtɛ** 'soggy/soft' have cognates in Akan and are likely to be loans from it, **duduudu** 'very heavy', **kwakwaakwa** 'very hard', **sasaasa** 'very light', **yiliyili** 'very cold', **dʒadʒaadʒa** 'very hot/spicy' and **sɩ̃sɩ̃ɩ̃sɩ̃** 'very painful' probably derived from some defective property encoding nouns through reduplication, as (28) shows.

(28)   Nouns   Derived Adjectives

odu	'heaviness'	→	**duduudu**	'(very) heavy'
ɔkwa	'hardiness'		**kwakwaakwa**	'(very) hard'
ɔsa	'fastness'		**sasaasa**	'(very) fast'
oyili	'coldness'		**yiliyili**	'(very) cold'
ɔsɩ̃	'pain'		**sɩ̃sɩ̃ɩ̃sɩ̃**	'(very) painful'
odʒa	'hotness/strength'		**dʒadʒaadʒa**	'(very) hot/strong'

Looking at the peculiar linguistic features of the adjectives in (28); that is, their vivid appearance, inherently reduplicated nature, longer forms than ordinary Nkami words, and expressive semantics, they may be considered as ideophonic adjectives, rather than as 'simple/pure' adjectives, in the language. If this sub-categorization is right, then, it may also be possible to argue that it is rather the property coding nouns that derived from the ideophonic adjectives through syllable(s) deletion and nominal prefix marking, but not the reverse.

Furthermore, while intensity is marked for **bʊbɔ** 'fresh', **trʊntrʊm** 'smooth' and **muhumuhu** 'fine (e.g. sand)' through reduplication, that of the others can be done through internal vowel lengthening, as (29a) and (29b) illustrate, respectively.

(29) a.   Intensity through reduplication

okpomi	amʊ	yʊ	dʒi	trʊntrʊm/trʊntrʊntrʊm
pot	DET	body	be	RED.smooth

'The pot is very (very) smooth.'

b.   Intensity through internal vowel lengthening

ntʃu	amʊ	dʒi	dʒadʒaadʒa/dʒadʒaaadʒa
water	DET	be	hot

'The water is very (very) hot.'

All the physical property adjectives may adjoin to their head nouns or function as copula complements. Some of the adjectives in this class like **bʊbɔ** 'fresh' may take a nominal prefix and, in the absence of an already 'known' nominal referent, can constitute the head of an NP, as (30) indicates.

(30) a.   *eye   bʊbɔ   amʊ   bʊ   bile?*

meat	fresh	DET	be.LOC	where

'Where is the new/fresh meat?'

b.   *ɛ-bʊbɔ   amʊ   bʊ   bile?*

NOM-fresh	DET	be.LOC	where

'Where is the fresh one (meat)?'

Observe that because meat is an inanimate (non-living) entity, when **ɛbʊbɔ** 'fresh' is used elliptically as the head noun in (30b), it takes the inanimate nominal prefix **ɛ-**.

2.2.6   Shape adjectives

Five adjectives are identified in Nkami that speakers use to talk about the shape of entities. They are **hwɩ̃ã** 'slim', **fɩ̃ã** 'pointed', **kurukuruwa** 'spherical', **traa** 'flat', and **tɛtɪrɛtɛ/tɛtɪrɛtɛɛ/tɛtɪrɛɛ** 'broad'. All five have cognates in Akan and are likely to have been borrowed from it. Typically, **hwɩ̃ã** 'slim' assigns attribute to only animates, as (31) illustrates.

(31) a.   ɔtʃɪ   amʊ   dʒi   hwɩ̃ã   b.   *oyi   amʊ   dʒi   hwɩ̃ã

woman	DET	be	slim		tree	DET	be	slim

'The woman is slim.'   'The tree is slim.'

Whereas the use of **hwɩ̃ã** 'slim' is acceptable in (31a) because the copula subject, **ɔtʃɪ**

'woman', is animate, (30b) is infelicitous because the copula subject, **oyi** 'tree', is inanimate. In contrast, the other four adjectives, **fĩã** 'pointed', **kurukuruwa** 'spherical', **traa** 'flat', and **tɛtɪrɛtɛ/tɛtɪrɛtɛɛ/tɛtɪrɛɛ** 'broad', code properties of non-animate objects. This is illustrated in (32).

(32) a. **bɔɔlʊ amʊ dʒi kurukuruwa**
  ball DET be spherical
  'The ball is spherical.'

 b. ***ɔtʃɪ amʊ dʒi kurukuruwa**
  woman DET be spherical
  'The woman is spherical.'

The use of **kurukuruwa** 'spherical' in (32a) is felicitous because the copula subject, **bɔɔlʊ** 'ball', is non-animate, but (32b) is unacceptable because the copula subject, **ɔtʃɪ** 'woman', is animate. None of the adjectives in this category may take a nominal prefix, although in the absence of an already 'known' referent, they may stand in for their head noun, as (33) indicates.

(33) a. **fʊ obuwɪrɛdɛ tɛtɪrɛtɛ amʊ sa mɪ**
  take spatula broad DET give 1SG.OBJ
  'Give me the broad spatula.'

 b. **fʊ ø-tɛtɪrɛtɛ amʊ sa mɪ**
  take 3SG.INANM-broad DET give 1SG.OBJ
  'Give me the broad (one).'

Thus, though **tɛtɪrɛtɛ** 'broad (one)' functions as the head noun in (32b), it does not take a nominal prefix.

2.2.7   Speed adjectives

There are only two speed adjectives in Nkami, **ntɛ** 'fast/quick' and **blɛɛw** 'slow', both of which have cognates in Akan. Like in many other languages, the speed adjectives in Nkami can also function very well as adverbs. This is illustrated below where **ntɛ** 'fast' and **blɛɛw** 'slow' function as adjectives in (34a) and as adverbs in (34b).

(34) a. **naaɲɪnɪ (ɛ)klɔlɪ dʒi blɛɛw/ntɛ**   Adjective
  grandpa talking/speech be slow/quick
  'Grandpa's speech (way of talking) is slow/quick.'

 b. **naaɲɪnɪ klɔlɪ blɛɛw/ntɛ**   Adverb
  grandpa speak slowly/quickly
  'Grandpa speaks slowly/quickly.'

Apart from using **ntɛ** 'fast' and **blɛɛw** 'slow' in copula complement slot (34a), they do not perform any of the morphosyntactic properties associated with adjectives in the language. For instance, they cannot modify a head noun in a noun phrase, as (35) shows.

(35) ***kããsɛ ntɛ**   b. ***gate blɛɛw**
  'a fast car'   'a slow miller'

Moreover, neither can **ntɛ** 'fast' and **blɛɛw** 'slow' take a nominal prefix nor stand in for their referent nouns when omitted. Also, it appears that anytime **ntɛ** 'fast/quick' and **blɛɛw** 'slow' function as adjectives in a copula complement slot, the copula subject is a possessive phrase having an action nominal (derived from an action verb) as its possessum. In (34a), for instance, the possessum, **(ɛ)klɔlɪ** 'talking/speech', of the possessive phrase, **naaɲɪnɪ (ɛ)klɔlɪ** 'grandpa's speech', is an action nominal derived from the verb **klɔlɪ** 'speak/talk'. Thus, it appears that copula clauses having the speed adjectives in copula complement function, as in (34a), are derived from intransitive clauses which have **ntɛ/blɛɛw** in adverbial function, as in (34b). The point here is that it may look more appropriate to primarily treat **ntɛ** and **blɛɛw** as adverbs and secondary as adjectives.

2.2.8   Similarity adjectives

Two similarity adjectives are identified in Nkami: **sʊnʊnkʊ** 'different' and **pɛ** 'same'. Like many of the adjectives examined before, both have cognates in Akan. Whereas both can occur in copula complement (CC) position, as shown in (36a, 37a), only **sʊnʊnkʊ** 'different' may occur as a post nominal modifier, as (36b and 37b) show.

(36)   CC position   Modifier
     a.   **kã̃ãsɛ   ɲa   dʒi   sʊnʊnkʊ**   b.   **kã̃ãsɛ   sʊnʊnkʊ**
         car   DEM   be   different   car   different
         'This car is different.'   'a different car'

(37) a.   **ɔɲa   nɪ   mʊ dʒi   pɛ**   b. * **kã̃ãsɛ   pɛ**
         this   CONJ   that be   same   car   same
         'This and that are same/alike.'   'same car'

Pɛ may also be used as an adverb in a simple or reduplicated form, as (38) shows.

(38)   **bɔ   mʊ   pɛ/pɛpɛɛpɛ**
         do   it   same
         'Do it the same way.'

2.2.9   Quantification adjectives

The adjectives in this class include **bebiree** 'many', **kpa** 'little/small', **nkʊnɪ** 'only', and **fɛɛfɛ** 'all'. They can modify their head nouns in an endocentric NP or function as a copula complement of a copula clause, as (39) and (40) show.

(39)   Attributive function
         n-dʒi   ɔmʊ   kpa/bebiree/nkʊnɪ   bʊ   China
         1SG-eat   rice   little/many/only   be.LOC   China
         'I ate a little/a lot of/only rice in China.'

(40)   Predicative function
         adʒuro amʊ   dʒi   kpa/bebiree
         food   DET   be   little/many
         'The food is little/a lot.'

Moreover, they cannot be reduplicated to mark intensity. Also, none of the adjectives in this category may take a nominal prefix, although in the absence of an already 'known' referent, they may make up a whole NP. For instance, (41) is an acceptable elliptical sentence which derives from (39).

(41)   **n-dʒi   ø   kpa/bebiree/fɛɛfɛ**
         1SG-eat   little/many/all
         'I ate a little/ a lot/ all (the food).'

     Thus far, we have looked at the morphosyntax and semantics of adjectives. In the ensuing sections, we examine the other seven strategies for expressing property concepts in Nkami.

3.   Property encoding nouns (PENs)

Another strategy that Nkami speakers employ to express property concepts is through the use of some property encoding nouns (PENs). These nouns typically express the identity of their referent nouns. They include such nouns as:

(42)   **oyu**   'thief'   **ɔkpɛ**   'witch'
         ɛdalɔɲi   'rich person'   **owurobie**   'lazy person'
         ɔlɔbʊ   'sick person'   **ohiaɲi**   'poor person'
         ŋulotʃiɲi   'wicked person'   **oɲansaɲi**   'wise person'

aɲɛsɪkwaɲi 'brave person'   **okristoɲi**   'Christian'

Like adjectives, they can be used attributively to express identity to their referents, as (43) illustrates.

(43)   Attributive

   a. **oyebi** *owurobie*   **amʊ**   **nʊ**
      child   lazy person   DET   that.is
      'That is the lazy child.'

   b. **ɔtʃɪbi** *oyu*   **amʊ**   **ba**   **mɪ**
      girl   thief   DET   come   here
      'This girl, who is a thief, came here (lit. the thief girl came here).'

Similarly, they may also be used predicatively in a copula complement slot to assign property to nouns, as (44) shows.

(44)a. **oyebi** **amʊ**   **dʒi**   *owurobie*
      child   DET   be   thief
      'The child is lazy.'

   b. **ɔkɪlɛtɪ** **amʊ**   **dʒi**   *oyu*
      cat   DET   be   thief
      'The cat is a thief.'

In spite of their seemingly adjectival semantics and functions, they are better considered as nouns for the following reasons. First, they typically have an inherent nominal prefix, **o-, -ɔ, e-, -ɛ,** and they can be pluralized, as in:

(45)   SG   PL

   o-yu   **a-yu**   'thief/thieves'
   ɔ-kpɛ   **a-kpɛ**   'witch/witches'
   o-wurobie   **a-wurobie**   'lazy person/lazy persons'
   ɛ-dalɔ-ɲi   **ɛ-dalɔ-bʊ**   'rich person/rich persons'
   o-hiaɲi   **a-hia-bʊ**   'poor person/poor persons'
   o-ɲansa-ɲi   **a-ɲansa-bʊ**   'wise person/wise persons'
   o-kristo-ɲi   **a-kristo-bʊ**   'Christian/Christians'
   (e)-ŋulotʃi-ɲi **(e)-ŋulotʃi-bʊ** 'wicked person/ wicked persons'
   aɲɛɪkwa-ɲi   **aɲɛɪkwa-bʊ**   'brave person/bad persons'

Unlike adjectives, they cannot be reduplicated or undergo vowel lengthening to mark intensity, and they never function as adverbs. They can also perform all the syntactic functions of prototypical nouns: intransitive and transitive subject, object, copula subject, copula complement, head of an NP, topic or focussed constituent, etc. Still, like prototypical nouns in Nkami, these property encoding nouns may take modifiers including determiners, adjectives, numerals, quantifiers, possessors, and relative clauses, as (46) illustrates accordingly.

(46)a. Determiners
   ɔkpɛ amʊ   'the/that witch'   **oyu ɲa**   'this thief'
  b. Descriptive adjectives
   ɔkpɛ kikibi   'young witch'   **oyu timi**   'short thief'
  c. Numerals
   akpɛ asa   'three witches'   **ayu ana**   'four thieves'
  d. Quantifiers
   ayu bebiree   'many witches'   **ayu kikibi** 'few thieves'
  e. Relative clause
   oyu   **ńí**   **ɔ-ba**   **mɪ**   **amʊ**
   thief   REL   3SG-come   here   REL
   'The thief who came here…'

Apart from these PENs, other nouns that may also function as modifiers can only do so in compounds where they occur before (not after) the head word, as in:

(47) a. **ɲɲi**   **obu**   'wooden house'
        wood   house
    b. **tweni**   **adʒuro**   'breakfast
        morning   food
    c. **odʒo**   **ndɔ**   'yam farm'
        yam   farm
    d. **bantʃɪ**   **oyi**   'cassava stick'
        cassava   tree
    e. **klɛbɪ**   **eye**   'chicken (meat)'
        chicken   meat

That is, one major way of showing the difference between nominal modifiers in phrases and compound words has to do with the position that they occur: while the former occurs to the right of the head of the phrase (43), the latter occurs before the compound head (47).

In terms of sequencing, it may be possible for more than one PENs to occur in contiguity, where one directly follows the other in the same NP, as (48) illustrates.

(48) a. **oyebi** *oyu*   *owurobie*   **amʊ**   **nʊ**
        child   thief   lazy person   DET   that.is
        'That is the thief lazy child (that is the lazy child who is a thief).'
    b. **oyebi** *owurobie*   *oyu*   **amʊ**   **nʊ**
        child   lazy person   thief   DET   that.is
        'That is the thief lazy child (that is the lazy child who is a thief).'

Like the descriptive adjectives (section 2), observe in (48) that the order of the identity nouns may be reversed without changing the grammaticality of the sentence.

4.   Property encoding verbs (PEVs)

One of the most significant ways of signalling property concepts in Nkami is through lexical verbs. Like many regional languages, many property concepts that are typically expressed by adjectives in some languages such as English are only or best expressed by verbs in Nkami. They include such verbs as:

(49)   **lɔ**   'be ill'   **tʃɔ**   'be big/be many'
       kpɪnɪ   'be tired'   **ʃɪrɛn**   'be bright'
       wɪlɪ   'become dry'   **sĩa**   'be pliable'
       fu   'be weedy'   **kplɔ**   'be rotten'
       fɪ   'be soft'   **bɪnɪ**   'be intelligent/skilful'
       sɔ   'be pliable'   **gʊ**   'be sagged'
       twintwam   'be shriveled'   **sĩ**   'be enough'
       talu   'be lean'   **dã**   'grow'
       baalɛ   'be good'   **wu**   'be dead/die'
       fɛ   'be ripen'

As verbs, they can be used predicatively to express property, as (50) shows.

(50) a. **oyebi**   **amʊ**   **bɛ-talu**   b. **nɔlɪ**   **amʊ**   **ma-sɔ**
        Child   DET   FUT-be.lean   soil   DET   NEG-be.pliable
        'The child will grow lean.'   'The soil is not malleable.'
    c. **mɪ-ɛ̀-kpɪnɪ**   d. **ɲamileku**   **tʃɔ**
        1SG-PRF-be.tired   God   be.big
        'I am tired.'   'God is great.'
    e. **ɔtʃɪbi**   **amʊ**   **lɛ̀-*dã***   f. **ɔɲɪnɪ**   **ɲa**   *baalɛ*
        girl   DET   PRF-grow   man   DEM   be.good
        'The girl is old (of age).'   'This man is good.'

Note that like prototypical Nkami verbs, these property verbs take almost all verbal operatives. For instance, the property verbs in (50a), (50b) and (50c), respectively,

inflect for the future, negation, and perfect prefixes. Moreover, they may be reduplicated to agree with the subject in number, as (51) shows.

(51) a. **ɲ-ɲebi amʊ lɛ̀-*talu.talu*** b. **ɲ-tʃɩbi amʊ lɛ̀-*dã.da***
    PL-child DET PRF-RED.be.lean   PL-girl DET PRF-RED.grow
    'The children have grown lean.'   'The girls are old (of age).'

   c. **anɪ-lɛ̀-*kpɪnɪ.kpɪnɪ*** d. **a-ɲɪnɪ amʊ *tʃɔ.tʃɔ***
    1PL-PRF-RED.be.tired   PL-man DET RED.be.big
    'We are tired.'   'The men are fat.'

Unlike the descriptive adjectives (derived and underived) and property encoding nouns, Nkami's property encoding verbs cannot specify their referents attributively, unless they occur as the main verb in a relative clause, as in:

(52) a. **ɔɲɪnɪ ní́ ɔ-tʃɔ amʊ** *b. **ɔɲɪnɪ tʃɔ amʊ**
    man REL 3SG-be.big REL   man fat DET
    'The man who is fat (the fat man)'   'The fat man'

   As we shall see in Section 8, the use of relative clauses is perhaps the commonest means of expressing attributive property in Nkami. Further, it appears that in cases where both adjectives and verbs can state the property of a noun in subject position, there is a definite preference for employing the latter function. For example, the dimensional concept 'bigness/fatness' may be expressed by either the adjective, **kpõ** 'big', or the verb, **tʃɔ** 'be big', as (53) exemplifies.

(53) a. **ɔɲɪnɪ ɲa dʒi kpõ**
    dog DEM be big
    'This man is big/fat.'

   b. **ɔɲɪnɪ ɲa tʃɔ**
    man DEM be.big
    'This man is big/fat.'

The argument is that although both expressions are admissible in expressing the same proposition *this man is big/fat,* the hunch of native speakers is that (53b) is a more natural and common way of expressing it than (53a).

   In terms of the semantic types of property that are encoded by the property verbs, it appears that they are predominantly used to express physical (including corporeal) property. For instance, a critical look at the list of the property encoding verbs in (51) reveals that apart from **dã** 'grow', **baalɛ** 'be good', **tʃɔ** 'be big/be many' and **sɪ̃** 'be enough', which respectively code age, value, dimension, and quantification, all the others code physical property.

   In terms of sequencing, it is possible for more than one property encoding verbs to occur in a sentence, ascribing property to the subject, without any intervening word/conjunction, as in:

(54) a. **ɔɲɪnɪ amʊ lɛ̀-dã talu**
    man DET PRF-grow be.lean
    'The man has grown to the extent that he has become lean.'

   b. **ekutu amʊ lɛ̀-dã kplɔ**
    orange DET PRF-grow be.rotten
    'The orange has ripened to the extent that it has become rotten.'

   c. **ntʊmfa amʊ lɛ̀-dã wɪlɪ**
    okra DET PRF-grow be.dried
    'The okra has grown to the extent that it has become dried/shriveled.'

Unlike the adjectives and nouns, however, it appears that the occurrence of the property verbs in a sentence is ordered. So, in all the sentences in (54) **dã** 'grow' must occur before the second verb, but not vice versa.

5. Nominal adjectives

One other way through which speakers of Nkami express property concepts is the use of some nominal adjectives. These are derived adjectives that are formed through the reduplication of some concrete nouns, as (55) showcases.

(55)		Base Noun				Derived adjective	
	a.	ɲtʃu	'water'	→		ɲtʃuɲtʃu	'watery'
	b.	oyi	'stick'			oyioyi	'woody'
	c.	oyebi	'child'			ɲɲebiɲɲebi	'children'
	d.	abi	'stones/gravels'			abiabi	'stony/rocky'
	e.	akpɔ	'knots'			akpɔakpɔ	'knotty'
	f.	abow	'thorns/bone'			abowabow	'thorny/bony'
	g.	ɔfɛ	'thread/rope'			ɔfɛɔfɛ	'stringy'
	h.	mfʊlɔ	'salt'			mfʊlɔmfʊlɔ	'salty'
	i.	nɔlɪ	'sand'			nɔlɪnɔlɪ	'sandy'
	j.	atɛtʃɛ	'mud'			atɛtʃɛatɛtʃɛ	'muddy'
	k.	abi	'seeds/stones'			abiabi	'lumpy'
	l.	otʃeli	'sponge'			otʃeliotʃeli	'spongy'

As observed in (55), these adjectives are formed by going through the morphological process of total reduplication of the base noun, and the meaning of the derived adjective can be schematised as 'having a lot of the base noun' or 'having the property of the base noun', as (55) and the following example illustrates:

(56)	a.	bantʃɪ	oyioyi	'woody cassava'
	b.	oputʃu	ɲtʃuɲtʃu	'watery soup'
	c.	afra	abiabi	'lumpy fufu'
	d.	ahwɪdɪ	mfʊlɔmfʊlɔ	'salty sugar cane'
	e.	eye	abowabow	'bony meat'
	f.	ɔkpa	atɛtʃɛatɛtʃɛ	'muddy road'
	g.	odʒo	ɔfɛɔfɛ	'stringy yam'
	h.	ofutsu	nɔlɪnɔlɪ	'sandy soup'
	i.	ɔkpa	abiabi	'rocky/stony path'

For instance, in (56a) **bantʃɪ oyioyi** would be used to refer to a type of cassava that is full of wood. It thus appears apt then to consider these adjectives as belonging to the physical property class (Dixon, 2010), since they describe the physical property of their referents.

This process of deriving adjectives from concrete nouns through reduplication is not limited to Nkami; it also occurs in some other regional languages such as Akan (Dolphyne 1988, Osam 1999, 2003) and Ga (Dakubu 2002, Otoo 2013). Standing on the backs of Dakubu (2002: 44) and Osam (1999, 2003), Otoo (2013: 44) makes the following observation about Ga and Akan, which is worth commenting:

> In …. the nouns are first pluralized by suffixing the nouns with the plural affix -i. The plural forms of the nouns are then reduplicated to derive the adjectives. The process can be summarized and said to be (Noun + plural suffix) + noun   plural → Adjective and it is similar to Akan reduplication process (Osam 1999, 2003).

Thus, for nouns that can be pluralized in both Akan and Ga, it is only the plural noun that can serve as the input for adjectivization through reduplication. For instance, whereas (57b) is acceptable, (57a) is not because the base form is singular in Akan.

(57)　　Akan
　　a.　**(e)-dua**　　　　　　　→　　***(e)dua(e)dua**　'woody'
　　　　SG-tree
　　　　'a small tree/wood (a stick)'
　　b.　**n-nua**　　　　　　　→　　**nnuannua**　'woody'
　　　　PL-tree-small
(58)　　Nkami
　　a.　**o-yi**　　　　　　　→　　**oyioyi**　'woody'
　　　　SG-tree
　　　　'a small tree/wood (a stick)'
　　b.　**ɲ-ɲi**　　　　　　　→　　***ɲɲiɲɲi**　'woody'
　　　　PL-tree-small

On the contrary, in Nkami, it appears that a singular noun can serve as the input for reduplication even if it can be pluralized. For instance, unlike Akan, though the plural form of **oyi** 'tree/wood' (58a) is **ɲɲi** 'trees/wood' (58b), it is the singular form, not the plural form, that serves as the input for the reduplication in (58).

　　Apart from using them attributively, as in (56), they may also be employed in predicative functions, as (59) exemplifies.

(59) a.　**ahwɪdɪ**　　**amʊ**　　**dʒi**　　**mfʊlɔmfʊlɔ**
　　　　sugar cane　DET　　be　　salty
　　　　'The sugar cane is salty.'
　　b.　**afra**　　**amʊ**　　**dʒi**　　**abiabi**
　　　　fufu　　DET　　be　　lumpy
　　　　'The fufu is lumpy.'
　　c.　**owei**　　**amʊ**　　**lɔ**　　**dʒi**　　**abiabi**
　　　　house　　DET　　inside　be　　stony
　　　　'The inside of the house is stony/rocky.'

Unlike the descriptive adjectives, property encoding nouns and verbs, the sequencing of this type of adjectives is inadmissible, as (60) exemplifies:

(60) a.　***ofutʃu**　　**amʊ**　　**dʒi**　　**mfɔlʊmfɔlɔ**　　**ɲtʃuɲtʃu**
　　　　soup　　DET　　be　　salty　　　　watery
　　　　'The soup is salty and watery.'
　　b.　***afra**　　**amʊ**　　**dʒi**　　**abiabi**　　**ɲtʃuɲtʃu**
　　　　fufu　　DET　　be　　lumpy　　watery
　　　　'The fufu is lumpy and watery.'
　　c.　***bantʃɪ**　　**amʊ**　　**dʒi**　　**oyioyi**　**ɲtʃuɲtʃu**
　　　　fufu　　DET　　be　　woody　watery
　　　　'The cassava is woody and watery.'
　　c.　***ahwɪdɪ**　　**amʊ**　　**dʒi**　　**oyioyi**　**mfɔlʊmfɔlɔ**
　　　　sugar cane　DET　　be　　woody　salty
　　　　'The sugar cane is woody and salty.'

For the expressions in (60) to be acceptable, the derived nominal adjectives would have to be connected by the phrasal coordinate conjunction **na**, as (61) shows.

(61) a.　**ofutʃu**　**amʊ**　　**dʒi**　　**mfɔlʊmfɔlɔ**　　**na**　　**ɲtʃuɲtʃu**
　　　　soup　DET　　be　　salty　　　　and　　watery
　　　　'The soup is salty and watery.'
　　b.　**afra**　　**amʊ**　　**dʒi**　　**abiabi**　　**na**　　**ɲtʃuɲtʃu**
　　　　fufu　　DET　　be　　lumpy　　and　　watery
　　　　'The fufu is lumpy and watery.'

Nkami's observation is quite distinct from some regional languages such as Akan, which permit such adjectives to be in contagious relation without any intervening conjunction, as (62) illustrates.

(62)   Akan
  a. **nkwan   no   yɛ   nkyenkyen   nsuonsuo**
      soup   DET   be   salty   watery
      'The soup is salty and watery.'
  b. **fufuo   no   yɛ   abaaba   nsuonsuo**
      fufu   DET   be   lumpy   watery
      'The fufu is lumpy and watery.'

6.   Verbal adjectives

Yet another way of characterizing property concepts in Nkami is through the use of verbal adjectives. To derive them, two morphological processes are required: reduplication and **-sɛ** suffixation. And unlike the nominal adjectives (Section 5), the input category for the reduplication of this process is a verb, not a noun. Thus, typically, an action verb gets reduplicated and after that the reduplicated form is suffixed with **-sɛ** to derive the adjective. The derived adjective generally conveys the sense of 'that HAS UNDERGONE a change of the verb', as (63) exemplifies:

(63) a. **tɪtɪ-sɛ**   'that is torn'
        RED.tear-ADJV
     b. **bɪabɪa-sɛ**   'that is broken'
        RED.break-ADJV
     c. **firifiri-sɛ**   'that is worn out/tattered'
        RED.wear out-ADJV
     d. **waadʒɪwaadʒɪ-sɛ**   'that has burst/split'
        RED.burst-ADJV
     e. **wɪlɪwɪlɪ-sɛ**   'that has dried'
        RED.dry-ADJV
     f. **siesie-sɛ**   'that has shriveled'
        RED.be shriveled-ADJV

Like prototypical adjectives, they may be used attributively or predicatively to express physical property to their referents, as (64) and (65), respectively, illustrate.

(64)   Attributive
  a. **kaasɛ   firifiri-sɛ   ɲa   dʒi   naaɲɪnɪ   kɛ**
      vehicle   RED.wear out-ADJV   DEM   be   grandpa   POSS
      'This vehicle that is worn out is for grandpa (this rickety vehicle is for grandpa).'
  b. **ma-a-kpa   waasɛ   tɪtɪ-sɛ   ɲa**
      1SG-NEG-like   dress   RED.tear-ADJV   DEM
      'I don't like this dress that is torn (I don't like this tattered dress).'

(65)   Predicative
  a. **kaasɛ   ɲa   dʒi   firifiri-sɛ**
      vehicle   DEM   be   RED.wear out-ADJV
      'This vehicle is something that is worn out (this vehicle is worn out/rickety).'
  b. **waasɛ   ɲa   dʒi   tɪtɪsɛ**
      vehicle   DEM   be   RED.tear-ADJV
      'This dress is something that is torn (this dress is tattered).'

Like the nominal adjectives, the sequencing of this type of adjectives is inadmissible, as (66) exemplifies:

(66) a. ***kaasɛ   ɲa   dʒi   bɪabɪa-sɛ   firifiri-sɛ**
        vehicle   DEM   be   RED.break-ADJV   RED.wear out-ADJV
        'This vehicle is something that is broken and worn out (this vehicle is broken and rickety).'

   b. ***ntumfa   amʊ   dʒi   wɪlɪwɪlɪ-sɛ   siesie-sɛ**
      okra   DET   be   RED.dry-ADJV   RED.be shriveled-ADJV
      'This okra is something that is dry and shriveled.'

7. Possessive constructions predicated by the possessive/locative verb *bʊ* 'have/be located'

One of the most dominant strategies that Nkami speakers utilize to assign predicative property is through the use of possessive constructions. Such possessive constructions consist of a referent in subject position, the possessive verb, **bʊ** 'have', and one of the handful of about 20 defective property encoding nominals including:

(67)   **osĩɛ̃**   'itchiness'   **oyire**   'coldness',
      ɔdɛ   'sweetness/delicious'   **ɔwɔlɪ**   'appetite/craving'
      ɔya   'sharpness'   **ɔfɛ**   'beauty'
      ɔkwa   'hardness/strength'   **odu**   'heaviness'
      ɔfɪrɪ   'slipperiness'   **ɛtã**   'ugliness'
      ɔsɪ   'pain'   **ɛsĩ**   'tallness/longness'
      odʒa   'hotness'   **efũ**   'ugliness/unattractiveness'
      ɔkɪra   'bitterness'   **ɔsa**   'fastness/swiftness/lightness'

In (68) are examples of some property concepts that are best expressed using this type of strategy.

(68)   Predicative Property
   a.   **oyebi   amʊ   bʊ   *ɔkwa***
      child   DET   have   hardness
      'The child is strong (lit. the child has hardness).'
   b.   **ɔkplɪ   ɲa   bʊ   *ɛtã***
      dog   DEM   have   ugliness
      'This dog is ugly (lit. this dog has ugliness).'
   c.   **ntʃu   amʊ   bʊ   *oyire***
      water   DET   have   coldness
      'The water is cold (lit. the water has coldness).'
   d.   **ɔwɪlɪ   amʊ   lɔ   bʊ   *ɔsa***
      paper   DET   inside   have   lightness
      'The paper is light (weight) (lit. the paper has lightness).'

Though they are inherently property coding vocalizations, I consider them as nouns, not as adjectives, because of the following three reasons. Firstly, as we observe from their morphological structure in (67), unlike adjectives, they all take nominal prefixes **ɔ-/o-** or **e-/ɛ-** just like prototypical nouns in Nkami. Secondly, unlike adjectives, they all can occur as possessive complements in possessive clause constructions to ascribe predicative property, just like nouns. This is illustrated in (69).

(69)   Possessive complement
   a.   **oyebi   amʊ   bʊ   *ɛdalɔ***
      child   DET   have   money
      'The child has money.'
   c.   ***oyebi   amʊ   bʊ   timi/tɪntɪ/tuntu**
      child   DET   have   short/tall/black
      'The child is short/tall/dark-skinned.'

Thus, whereas (69a), like (68a-d), is acceptable because the lexical item in possessive complement position, **ɛdalɔ** 'money', is a noun, (69b) is unacceptable because the lexical items in possessive complement slot, **timi/tɪntɪ/tuntu** 'short/tall/black', belong to the class of adjectives. Lastly, whereas adjectives can occur in a copula complement (predicative) slot or immediately after their head nouns in attributive function, these property encoding words cannot, as (70-71) exemplify.

(70)   Copula complement
   a. **Kofi   dʒi   tɪntɪ/tuntu**
       Kofi   be   tall/black
       'Kofi is tall/dark-skinned.'
   b. ***okpubi   amʊ   dʒi   odu**
       pestle   DET   be   heaviness
       'The pestle is heavy.'
(71)a.   Attributive function
       ɔɲɪnɪ   kikibi
       man   small
       'young man'
   b. ***okpubi   odu**
       pestle   heaviness
       'heavy pestle'

However, these defective property encoding nouns are distinguished from other nouns because they do not pluralize; cannot take nominal modifiers such as adjectives, determiners, quantifiers, etc.; cannot occur in any other syntactic slots open to nouns apart from occurring in the complement slot of a possessive clause.

With regard to semantic types of property that are encoded by these possessive constructions involving these property encoding nominals, it appears that, like the property encoding verbs, they are predominantly used to express physical property. For instance, a critical look at the list in (68) reveals that apart from *ɛsĩ* 'tallness/longness', **ɔsa** 'fastness/swiftness' and perhaps **ɔfɛ** 'beauty', which, respectively, code dimension, speed and value, all the others code physical property.

8.   Relative clauses

One other means of coding property concepts in Nkami is through the use of relative clauses. This appears to be the commonest way of expressing attributive property in the language. A relative clause in Nkami is a clause that is embedded in another independent clause with the primary function of providing attributive property to a head noun in the main clause/independent clause. It is marked by two enclosing relative markers **nɪ** at the beginning and **amʊ** at the end. Just like descriptive modifiers (e.g. descriptive adjectives, numerals and determiners), in Nkami the head noun always precedes its modifying relative clause[8], as (72) illustrates (Asante & Ma 2016: 53):

(72)a.   **ma-a-kpa   *ɔkplɪ*   nɪ́ [ɔ-tʃɔ   ]   amʊ**
       1SG-HAB.NEG-like   dog   REL   3SG-be.big   REL
       'I don't like that huge dog.'
   b. **oyebi   amʊ   lɛ̀-tɪ   *tunkum*   nɪ́   [ɛ-lɛ̀-fɛ]   *amʊ***
       child   DET   PRF-pluck   apple   REL   [3SG-PRF-be ripen]   REL
       'The child has plucked the ripped/ripened apple.'
   c. ***adu   nɪ́   [ɛ-bʊ   odʒa]   amʊ   ɛkʊ   nɪ́***
       medicine   REL   3SG.INANM-have   hotness   REL   some   PPD
       'This is a sample of the potent medicine (lit. the medicine that has hotness, some this).'

---

[8] Interested persons may consult Asante and Ma (2016) for a detailed discussion. However, among the extraordinarily typological features of relativization in Nkami include the fact that in Nkami both the head noun and its referent within the relative clause (RC) are obligatorily and explicitly stated, save when the referent within the RC is an inanimate in non-subject function. Thus, Nkami is among the very few languages that employ the pronoun retention strategy to obligatorily state relativized NPs functioning as subject within the RC (Asante & Ma 2016: 56).

d. **ɔsɪkã** **nı́** **[ɛ-bʊ** **ɔya]** **amʊ** **bʊ** **bile?**
knife REL 3SG.INANM-have sharpness REL be.LOC where
'Where is the sharp-cutting knife (lit. where is the knife that has sharpness)?'

e. **Kofi** **ɔɔ-kp** *kã̃asɛ* **nı́** **[e-dʒi** **untu]** **amʊ**
K. 3SG.HAB-like car REL 3SG.INAM.SUBJ-be black REL
'Kofi likes black cars (lit. Kofi likes cars that are black).'

The head nouns in all four sentences appear before their relative clauses. So, in (72b), for instance, the head noun, **tunkum** 'apple', appears to the left of the RC **ɛlɛfɛ** 'it has ripened'. Sequencing of relative clauses may be permissible provided that there is strong semantic integration between the constituent parts, as in (Asante & Ma 2016: 49):

(73) **Kofi** **nı́** **[ɔɔ-yɔ** **sukuu]** **nı́** **[ɔ-m-bʊ** **ɛdalɔ]**
K. REL 3SG.SUBJ.HAB-go school REL 3SG.SUBJ-HAB.NEG-have money
amʊ **nı́** **wʊ-kpa?**
REL CONJ/FOC 2SG.SUBJ-like
'Kofi who goes to school, who does not have money, and you love?'

The fact that relativization is probably the most eminent strategy for coding attributive property is supported, for instance, in cases where both a descriptive adjective and a relative clause can specify the reference of a head noun in an NP. In such cases, there is a definite preference by Nkami speakers for employing the latter function to the former. Let us consider examples (74-75), for instance:

(74) a. **ɔkplɪ** **tanta** **amʊ** **ba** **mɪ**
dog ugly DET come here
'The ugly dog came here.'

b. **ɔkplɪ** **nı́** **[o-dʒi** **tanta]** **amʊ** **ba** **mɪ**
woman REL 3SG-be ugly DET come here
'The ugly dog came here (lit. the dog that is ugly came here).'

(75) a. **oyebi** **timi** **amʊ** **ba** **mɪ**
child short DET come here
'The short child came here.'

b. **oyebi** **nı́** **[o-dʒi** **timi]** **amʊ** **ba** **mɪ**
child REL 3SG-be short DET come here
'The short child came here (lit. the child who is short came here).'

As can be observed in (74-75), though the property concepts of *ugliness* and *shortness*, as in 'ugly dog' and 'short child', respectively, can be expressed using both descriptive adjectives (74a, 75a) and relative clauses (74b, 75b), the intuition of native Nkami speakers is that the latter strategy is definitely preferable to the former. Additionally, there are several attributive property concepts that are best or can only be expressed using relative clauses. For example, all the four property concepts *bigness/fatness, ripeness, hotness/potency, and sharpness* in (72a-d) can only be attributively realized using relative clauses, but not descriptive adjectives.[9]

Regarding the semantic types of property that are encoded by relative clauses, it appears that since the relative clause in Nkami can be predicated by predicates from varied semantic domains, there is no limitation to the semantic domains that they can be used to express. Thus, the relative clause could express the property concepts of dimension, age, colour, value, speed, physical property, speed, human propensity, difficulty, similarity, quantification, qualification, position, among other. For instance, it is used to express the property concepts of dimension in (72a, 75b), physical property in (72b-d), colour in (72e), and value in (74b).

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[9] These may be a reason to argue that the use of descriptive adjectives to code property is a recent phenomenon and is probably due to diffusion from some regional languages like Akan.

9. Metaphtonymic constructions

Yet another significant way of signalling property concepts in Nkami is through the use of metaphtonymic constructions. A metaphtonymic construction is one that showcases the two cognitive projections, metaphor and metenonymy, within the same construction (Lakoff & Johnson 1980, Goosens 1990, Evans & Green 2006: 211-212, Asante & Ma 2015). Let us consider the following examples:

(76) a. **mʊ   ɔnɔ   lὲ-wɪlɪ**
3SG.POSS   mouth   PRF-dry
'She/he is eloquent (lit. his/her mouth has dried).'

   b. **mʊ   odĩ   lὲ-fu**
3SG.POSS   heart   PRF-be.bushy/grow
'She/ he is angry (lit. his/her heart is bushy/ his/her heart has grown)'.

   c. **mʊ   aɲɛsɪ   lὲ-wu**
1SG.POSS   eye   PRF-die
'She/he is ashamed (lit. his/her eye has died).'

   d. **mʊ   atɪlɛ   bʊ   ɛsĩ**
3SG.POSS   hand   have   tallness
'She/he is a thief (lit. his/her hand has tallness).'

In (76) are four paradigmatic examples of property encoding metaphtonymic constructions in Nkami. As can be observed in (76), typically a metaphonymic construction in Nkami is an intransitive clause having a possessive phrase in subject position and an intransitive verb in predication. For instance, in (76a) the possessive phrase **mʊ ɔnɔ** 'his mouth' serves as the subject while the intransitive verb **wɪlɪ** 'dry/be dry' serves as the predicate. Some others, however, may be predicated by the possessive verb, as in (76d). Also, the possessum (possessed noun) in the possessive phrase, as can be gleaned from (76a-d, 77a-e), is characteristically a body part noun including the heart/chest, mouth, eye, hand, etc. What makes the clauses in (76) metaphonymic is that they exhibit the features of both metonymy and metaphor. Taking (76c) as an example, it is metonymic in the sense that the body part *aɲɛsɪ* 'eye' serves as the vehicle to *pinpoint* the concept *human being* to talk about it. In different words, the one who is ashamed in (76c) is not the body part *eye*, but rather the *human being*. The **aɲɛsɪ** 'eye' is PART FOR WHOLE metonymy (part of the human body for the whole human being), as well as CONCRETE OVER ABSRACT. Further on, (76c) is metaphorical because a more abstract concept, SHAME, is understood in terms of a more concrete concept, DEATH. This makes the underlying metaphor SHAME (A MENTAL STATE OF A HUMAN BEING) IS DEATH (A PHYSICAL STATE OF THE HUMAN BEING). The underlying principle is that, just as the dead is alienated, people who are ashamed are usually unable to 'face' people; they often isolate themselves from other people and are always seen alone. In (77) are some more examples:

(77) a. **mʊ   odĩ   ɔɔ-ha   mʊ**
3SG.POSS   heart   HAB-disturb   him/her
'She/he is impatient (lit. his/her heart disturbs him/her).'

   b. **mʊ   odĩ   bʊ   ɔkwa**
3SG.POSS   heart   have   hardness
'She/ he is brave (lit. his/her heart has hardness'.

   c. **mʊ   aɲɛsɪ   lὲ-budʒi**
3SG.POSS   eye   PRF-open
'She/he is mature (lit. his/her eye has opened).'

   d. **mʊ   aɲɛsɪ   lὲ-dʒi**
3SG.POSS   eye   PRF-eat
'She/he is happy (lit. his/her eye has eaten).'

e. **mʊ   ɔnɔ   bʊ   odu**
   3SG.POSS   mouth   have   heaviness
   'She/he is secretive (lit. his/her mouth has heaviness).'

With respect to the semantic types of property concepts that are encoded by these metaphtonymic constructions, it appears that they are predominantly used to express human propensity property concepts relating to emotions and human characteristics such as ELOQUENCE (76a), FLATTERY, ANGER (76b), SHAME (76c), FEAR, FORGEFULNESS, HAPPYNESS (77d), SANDNESS, COURAGE, IMPATIENCE (77a), MATURITY (77c), POLITNESS, CIVLILITY, PRUDENCE, WISDOM, SECRECY (77e), GOSSIP, LYING, THIEVERY (76d), SKILLFULNESS, and BRAVERY(77b) (see Author forthcoming). The fact that Nkami employs metaphtonymic constructions to primarily code human propensity concepts appears to be at variance with the observation by Dixon (2004: 4, 2010) that "… HUMAN PROPENSITY items, if not in the adjective class may be either in the noun class or the verb class".

10. Summary/Conclusion

An attempt has been made in this paper to provide a survey of the property encoding expressions in Nkami, a lesser described Guang (Kwa, Niger-Congo) language in Ghana. Among others, the study set forth to identify the strategies/resources that speakers employ to code property concepts, provide an adequate description of the morphosyntactic features as well as the semantic properties of these resources. The data for the study were extracted from a large corpus of elicited and naturalistic data. In (78) is a summation of the major findings of this paper:

(78) A summary of the major findings

Strategy/ Resource	Semantic properties	Sequencing	Predicative property	Attributive Property
Underived adjectives	Dimension, age, value, colour, physical property, shape, speed, similarity, and and quantification	Yes	Yes	Yes
Property encoding nouns (PENs)	Human propensity	Yes	Yes	Yes
Property encoding verbs (PEVs)	Mainly physical (including corporeal)	Yes	Yes	No
Nominal adjectives	Mainly physical property	No	Yes	Yes
Verbal adjectives	Mainly physical property	No	Yes	Yes
Possessive constructions	Mainly physical property	No	Yes	No
Relative clause constructions	Dimension, age, value, colour, physical property, shape, speed, etc.	Yes	No	Yes
Metaphtonymic constructions	Mainly human propensity	No	Yes	No

The study has revealed that the Nkami language makes use of at least eight distinct resources namely underived adjectives, property encoding verbs (PEVs), property encoding nouns (PENs), nominal adjectives, verbal adjectives, possessive constructions, relative clauses, and metaphtonymic expressions to express both attributive and predicative property. Whereas seven of these strategies are used to express predicative property, five are used for attributive property. Only four of the

strategies (underived adjective, PENs, nominal adjectives and verbal adjectives) are used to express both attributive and predicative property and the rest are used to express one property function only (i.e. either attributive or predicative). Whereas four of the strategies accept serialization/sequencing, the other four do not. The most dominant property concept expressed by the eight strategies is physical property. Indeed, four of the strategies (i.e. PEVs, nominal adjectives, verbal adjectives, possessive constructions) are mainly used to code physical property only.

Moreover, it was observed that the commonest strategies for expressing property in Nkami are: possession, PEVs and relativization. For instance, speakers have preference for relativization in cases where both relativization and descriptive adjectives could be used to code attributive property. It was also established that though the majority of these strategies are common in other regional languages, Nkami is different from many of them, for example, Akan, in using possessive constructions and verbal adjectives to code predicative and attributive properties respectively. It is suggested that the slew usage of relative clauses, PENs, PEVs, nominal adjectives, verbal adjectives, PEVs, metaphonymic constructions and possessive constructions to code predicative and attributive properties is as a result of the dearth of adequate adjectives to perform analogous functions in adjective rich languages like English.

Apart from bringing to the fore these remarkable properties of Nkami, this study presents valuable data and analyses and hence has the potential to immensely contribute to the cross-linguistic typological discussions on adjectives and property encoding expressions in general. For instance, Nkami can be classified under the type 2 (including Latin, Spanish, Finnish, Hungarian, Igbo, Quechua, and Dyirbal) of Dixon's (2010) classification of languages, since its adjectives share common grammatical features with nouns. Significantly, adjectives in Nkami may inflect for nominal and number prefixes, may be possessed as well as function as the head noun of an elliptical noun phrase. The use of metaphtonymic constructions, but not adjectives, nouns or verbs (Dixon 2004: 4), to primarily index human propensity concepts in Nkami is also a major contribution to the cross-linguistic literature on property encoding expressions. This may serve as a motivation for other researchers to look beyond lexical categories in their discussion of property encoding expressions.

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