Compounding in Dangme

Regina Oforiwah Caesar

Department of Ga-Dangme Education, College of Languages Education, University of Education, Winneba, Ghana.

Email: reginacaesar13@gmail.com

Abstract

The paper investigates the phenomenon of compounding in Dangme, a language that belongs to the Kwa family of languages. It explores the formation of endocentric compounds in Dangme. This study discusses specifically the types of compounds in Dangme, and examines the syntactic and semantic properties and functions of constituents in a compound in Dangme. The study looks at two to three words compounds and also clause compounds. As in other Ghanaian languages, compounding is very productive in Dangme. It was observed that Dangme has both headed (endocentric) and headless (exocentric) compounding strategies. Headless compounding is however, not of the classical type in the language. This paper demonstrates that endocentric compounding in Dangme is formed from the concatenation of base nouns and verbs with suffixes, base nouns, base nouns with base adjectives, base nouns with base verbs, base nouns with postpositions and the agglutination of words to form clause compounds among others. Some Dangme compound words undergo certain phonological processes such as the deletion of mid or final vowel of final syllable and syllables among others. Compounding types identified in Dangme includes N-N, N-A, V-N, N-Postp and clausal compounds reduced to personal and town names. The data further demonstrates that Dangme has both the left and the right headed compounds. The left headed compound occurs in a noun-noun combination of a human and a non-human noun, noun-adjective and noun-postposition combinations whilst the right headed compounds occur in other noun-noun combinations in Dangme.

Key Words: Compounds, endocentric, morphology, syntax, semantic

Introduction

Dangme is a three-level tone language and it belongs to the Kwa group of Niger-Congo family of languages. It is spoken in two regions of Ghana, Eastern and Greater Accra mainly in South-Eastern Ghana. The people inhabit the coastal area of the Greater Accra Region, east of Accra, and part of the Eastern Region of Ghana. Its closest linguistic neighbours are Ga, Akan and Ewe. Dangme has seven dialects: Ada, Nugo/Ningo, Gbugblaa/Prampram, Osudoku, Se/Shai, and Krobo (Yilo and Manya).

There are several small communities east of the Volta Region that trace their origins to Dangmeland; most of these have shifted to Ewe as the language of daily life, but others have not (Dakubu 1966; Sprigge 1969 cited in Ameaka and Dakubu 2008:215). Patches of speakers are also found in Afegame Wenguam in the Volta Region of Ghana and also at Nyetoe and Gatsi in Togoland.

Every language has a way of adding on to its lexicon. One way of forming words in Dangme, is through compounding. Compounding is used in a great variety of languages to create new words out of old. It is a word formation process which involves the combination of at least two potential free forms belonging to open word classes (Aikhenvald 2007:24, Booij 2007:3, Fabb 2001:66, Aziza 2007b: 302 and Ndimele 1999:71). According
Compounding in Dangme

to Appah (2013:1), "Compounding is the process by which a word is formed by concatenating two or more bases each of which potentially occurs alone elsewhere in the grammar as a syntactic atom". Katamba (1993:66) opines that compounding involves the use of different processes some of which are so general that they can be used to cover many lexical items. He classified such processes as being productive but cautions that no processes may affect a small fraction of negligible importance but might apply more widely when new items enter the language. Bauer (2001:695) opines that a compound as a lexical unit is made up of two or more elements, each of which can function as a lexeme independent of the other(s) in other contexts, and which shows some phonological and/or grammatical isolation from normal syntactic usage.

Scalise & Vogel (2010:2&6) assert that compounds are interesting, intriguing and controversial linguistic constructions in terms of their analysis. They argue that compounds do not take a clear determined position within grammar, since they connect several important linguistic and non-linguistic areas: syntagmatic and paradigmatic relations. They explain further that compounds are syntactic-semantic islands, perceived as conceptual units within a specific accent. (see also Pyles 1964:276 & Milojevic 2000:41). The syntactic and semantic interpretation of compounds is an issue worth investigating in Dangme.

Katamba & Stonham (2006:56) opine that ‘a compound word contains at least two bases that are both words, or at any rate, root morphemes’. According to them, a compound may sometimes be roots that are combined in compounds. Another instance, they gave is that there may be an input base which contains an affixed form as exemplified below:

a) [tea] N [pot] N [teapot] N
b) [week] N [end] N [weekend] N
c) [hair] N [dress] V [-er] [hairdresser] N
Katamba & Stonham (2006:56)

There are roots in (a) and (b), however, in (c), the compound consists of two bare roots and the second root is suffixed with the agentive marker -er. This is what Booij (2007:4) refers to as compounding and affixation in languages.

Compounds can be analysed essentially based on the notion of head, which is identified by looking at the syntactic and semantic properties of the left or right-hand constituents in the compound. Thus, the right-headed compound is a compound word in which the head element occurs on the right; whereas left-headed compound refers to a compound whose lexical head is located on the left-hand side of a given compound word (Scalise and Fabregas 2010:1).

Generally, endocentric compounding involves a combination of two or more free words where one word is the head and the other modifies the head. Fabb (2001:67) argues that there are languages where the position of the head is to the left instead. He explains that compounds are subject to phonological as well as morphological processes which may be language specific or specific to compounds. He explains further that assimilation, vowel elision and suprasegmental features like stress, tone and intonation may play very significant roles in identifying and distinguishing compounds from noun phrases in some languages. Booij (2007:3) argues further that there are languages with the possibility of having both left and right head positions. Dangme compounds have both the right and the left headed positions. This is contrary to Williams (1981) claim that right hand heads are universal.

Payne (1997) proposed that the criterion for calling something a compound falls into two groups, namely formal and semantic criteria. He explains that a compound may exhibit any of the following formal properties. A stress pattern characteristic of a single word as opposed to the pattern for two words for instance, blackbird which refers to the species, has a different stress pattern from black bird (any bird that is black). The second way of calling something a compound under the formal property is compounding. According to him, there are some
Caesar

compounds that consist of a noun plus a verb where the noun represents the object rather than the subject of the verb. For example, housekeeper.

There are many types of compounding in a language. These include noun + noun, verb + noun, noun + adjective, adjective + noun, preposition + noun, adjective + adjective, preposition + adjective and preposition + verb (Akamajian 1984:70-71). Some personal and place names are also formed through the concatenation of words in a phrase or a clause. Among these, Dangme has noun-noun, verb-noun, noun-adjective and compound clauses reduced to personal names and place names.

The Aim of the Paper
The aim of this paper is to examine the phenomenon of endocentric compounding in Dangme. The paper identifies the forms and types of compounds in Dangme. It also seeks to discuss the formation of compounds in two or more words in Dangme compounds. It further looks at the syntactic factors and the semantic motivation in determining headedness of endocentric compound words in Dangme.

Research Questions
1. What are the forms of compounds in Dangme?
2. Which categories of compound formation exist in Dangme?
3. Is Dangme likely to have both left and right headed compounds as in some other languages?
4. What are the syntactic factors and the semantic motivation that determine headedness in Dangme endocentric compound words?

Significance of the study
The findings of the study will add to the relatively limited literature on Dangme and serve as a basis for further research into other areas of the morphology, syntax and the semantics of Dangme. It is also hoped that the findings of this study will add to the literature on the typology of compounds formation universal.

Methodology and Research Design
Data were drawn from native speaker’s competence and from community consultants from twenty (20) speakers of Dangme; four (4) teachers of Dangme, four (4) students studying Dangme at the University of Education, Winneba and two (2) consultants through unstructured interview and auditing of two grammar lessons at the College of Languages Education, Ajumako, of the University of Education, Winneba. Additional data were collected from ten (10) native speakers through daily spontaneous speech. The data collected were confirmed with other native speakers of Dangme.

The descriptive approach is used in the analysis of data. The descriptive method according to Mitchell & Jolly (1988) is a research design that progresses from describing a single variable to describing relationships among variables. They explain that the use of this design involves determining how variables co-vary or how variables relate to another. I have also adopted tree diagrams as presented by Haegeman (1994) and Radford (1988; 1981) to enhance the understanding of the concept of compounding in Dangme.

Organization of the Paper
Beyond the introduction, the paper is organized into four sections. The second section examines the classification of compounds based on the three main forms of compounding; open, close and hyphenated in Dangme. It also discusses the classification of compounds based on syntactic and semantic criteria. Section three discusses some types of endocentric compound formation processes in Dangme. The last section concludes with the findings of the study.

Classification of Compounds
This section classifies Dangme compounds into form, syntax (headedness) and semantics.
Classification of compounds based on form

There are three forms of compound: closed/solid form, hyphenated form and the open/spaced form. The closed/solid is the form of compound which the individual words are welded together. Most Dangme compounds have these combinations: yò ‘female’ + tsɛ́ ‘father/lord’ and mà ‘town’ + tsɛ́ ‘father/lord’ are combined as yòtsɛ́ ‘a husband’ and màtsɛ́ ‘chief/king’.

Hyphenated compounds are normally written with a hyphen between the words that form the compounds. This type of compounding is common in some Dangme personal names. These hyphenated names are usually made up of a noun and an adjective which may be an adjective of colour, size, height and ordinal numbers. For instance, Tɛ́tɛ́ ‘a second male born name’ + tsùtsù ‘red’ are combined as Tɛ́tɛ́-tsù, a syllable of the colour adjective, tsùtsù ‘red’ is deleted in the compounded name Tɛ́tɛ́-tsù which means ‘Tɛ́tɛ́ who is fair in complexion’. Also, Nā ‘a fourth male born name’ + wàyó ‘small/little/younger’ are combined as Nā-wàyó to mean ‘Nā who is younger or smaller in size’. Tɛ́ ‘a third male born name’ and kpìtí ‘short’ are combined to form the name Tɛ́-kpìtí to point at ‘Tɛ́ who is not tall’. Tɛ́ and ényo ‘two/second’ can also be combined to form the hyphenated name, Tɛ́-Ényo ‘a second Tɛ́’.

Spaced compounds are made up of two or three words which are not usually longer words but when read together, a new meaning is found. Example in Dangme: pù ‘sun’ sitè ‘rise’ hé ‘place’ becomes pù sitè hé ‘east’ and pù ‘sun’ sinó ‘down’ hé ‘place’ becomes pù sinó hé ‘west’.

Classification of compounds based on syntactic and semantic criteria

Compounds have been classified in a number of ways by linguists (Gavranović 2015:59). Gavranović (Op.cit.) notes that they have been classified based on the following: semantic and syntactic criteria, parts of speech of elements of the compound and the compound as a whole, grammatical relation between its constituents, and headedness. Headedness in compounds, have been classified into two main types: headed and headless. This could be based on the position of the head constituent giving left-headed, right-headed and co-ordinate compounds (Appah 2013:54). Headed compounds are referred to as endocentric compound and headless as exocentric compounds (O’Grady, Dobrovolsky and Katamba 1996:156, Spencer 2003:310, Haspelmath 2002:139, Aronoff and Fudeman 2005, Bauer 2010:168, Ralli and Andreeou 2011:49-50, Ralli, 2011:3 and Taiwo 2009:31). The endocentric compound has one of its components as head that contains the basic meaning of the whole compound and a modifier which restricts the meaning of the head compound. In exocentric compounds, however, the constituents do not have head modifier semantic relations (see Caesar, 2005:121; Ajiboye, 2014:14).

Endocentric compounds are hyponyms of their head elements (Bauer 2010:167). For example, the compound blackboard denotes a board which has the colour black. Black is the modifier to the head board. In the same vein, the compound warehouse points to a house where wares are kept. House is the head, and ware is the modifier. On the contrary, exocentric compounds are headless compounds (Katamba and Stonham 2006, Bauer 2010:168 and Ralli 2013) for instance, white elephant can be analysed into white and elephant but white elephant does not contain the meaning of white neither does it refers to an elephant which is white in colour, but the dis-functioning nature of an entity. Booij (2007:3) argues that headlessness of a compound is not only relevant as part of its formal properties but very necessary for its semantic interpretations.

The paper discusses the endocentric type of compounding in Dangme. Endocentric compounds have heads with the heads mostly on the right in some languages of the world. This is partially applicable in Dangme as in certain cases, the head may occur first. For instance, in Dangme, là tɛ́ ‘earthen stove’, is a typical example of endocentric type of compound.

1. là tɛ́
   fire stone
   ‘earthen stove’
In example (1), là and té are concrete nouns. The concrete noun, té ‘stone’ represents the three legged molded cooking stove used mostly in traditional homes in Ghana. It is the head of the compound indicating a subcategory within the class of entities, ‘stones’ that the word is denoting. Té, ‘stone’ is therefore a special kind of stone, and là ‘fire,’ functions as a modifier of the head té.

Formation of Endocentric Compounds in Dangme
There are a number of morpho-phonological processes involved in the formation of endocentric compounding in Dangme. This section discusses the types of compounds and their formation in Dangme.

Combination (N-V) with an Affix
One way of forming a compound in Dangme is a combination of N-V with suffixes such as -lɔ, -mì. The suffix -lɔ stands for the agentive -er in English, while -mì translates as the gerund -ing in English. The affixation of parts of compound words is what is referred to in languages as noun incorporation by Spencer (2003:96) and Katamba (1993). A combination that comes with an affix is most of the times made up of three words in Dangme. The first word is usually a noun which is followed by a verb and then an affix which can be a gerund marking suffix or an agentive marker as exemplified in (2a-e) and (3a-e) below:

2a. dã-dē-lɔ
N-V-AGENT suffix
alcoholic drink-intoxicate-er
‘A drunkard’

b. jé-jùá-lɔ
N-V-AGENT suffix
world-sell-er
‘A trader’

c. wò-hè-lɔ
N-V-AGENT suffix
sea-search-er
‘A fisherman’

d. tsū-mā-lɔ
N-V-AGENT suffix
room-build-er
‘A mason’

e. nǐ-tsɔ̀-lɔ
N-V-AGENT suffix
knowledge-teach-er
‘A teacher’

3a. blòdò-sã-mì
N-V-GER suffix
bread-bake-ing
‘The act of baking bread.’

b. dè-yã-mì
N-V-GER suffix
hunt-go-ing
‘The act of hunting’
c. sā-lō-mi
N-V-GER suffix
mat-weave-ing
‘The act of weaving mat.’

d. ngò-jē-mì
N-V-GER suffix
salt-win-ing
‘The act of winning salt.’

e. wò-hē-mì
N-V-GER suffix
sea-search-ing
‘The act of fishing.’

The noun-verb with a suffix combination, results in the formation of agentive nouns and gerunds as exemplified in (2a-3e). Examples (2a) and (3a) are illustrated in tree diagrams (i) and (ii) below:

(i) NP
   N
   dà
   alcoholic drink V
   suffix dē
   intoxicate -lɔ doer

(ii) NP
   N
   blòdò
   bread V
   suffix sā
   bake -mì -ing

There are many boundaries such as word, clause, sentence among others, but I want to use # for word boundary. When a compound is formed, the word boundary between the two or more words is removed. Below are examples of the categories of compounding in Dangme.

**Noun-Noun Compounding**

According to Séaghdha (2008:9), compound nouns in particular have received a great deal of attention in recent years due to the challenges they pose for natural language processing systems. He explains that the semantic relation between the constituents of a compound is not explicitly expressed and must be retrieved from other sources of linguistic and world knowledge. I have identified five types of N-N compounds in this study in Dangme. These are: (i) non-animate and human nouns (ii) human (titles and personal names) and non-human nouns (iii) non-human and human or non-human nouns (iv) non-animate and non-human nouns and (v) human...
Caesar

and non-human nouns combinations. The data available to me indicate that there are no phonological changes in noun-noun compounds in Dangme. Each of these is discussed below.

In each of the five types of N-N compound formation, two nouns merge to form a single noun. In the first group of N-N compound, the first noun, the modifier, is generally an inanimate noun, while the second, the head of the endocentric noun compound is a human noun. The result of the merging of two nouns to form a compound may denote a place or an entity. The referent of the place name in the first noun is said to indicate the location of the jurisdiction of the human noun. When a human noun is formed, noun one overtly possesses and controls noun two. The semantic interpretation of the human noun head shifts in many cases. This may be generalized in the following schema:

\[
\begin{array}{c}
\text{N} \\
\text{[- ANIMATE]} \\
\text{[+ HUMAN]}
\end{array}
\]

where \(N_1\) is [+ Human] and controls \(N_2\).

5. a. jùá + nyè \(\rightarrow\) jùányè
   market + mother   A female lord of a market
   ‘A female controller of a market.’

   b. mà + nyè \(\rightarrow\) mànyè
   town + mother   queen or queen mother
   ‘A female controller of a town.’

   c. wè + tsε̄ \(\rightarrow\) wètsε̄
   house + owner   landlord
   ‘A controller of a house.’

   d. tsōpà + tsε̄ \(\rightarrow\) tsōpàtsε̄
   medicine owner   a herbalist
   ‘A controller of preparation of drugs.’

\(N_2\) in (5a-d) denotes inanimate names of \(N_1\). The referent of \(N_1\) in 5(a-d), stands in a certain relationship of parent, leader or a controller of the unity in \(N_2\). I use the term controller as a cover term to include a parent, a leader, owner, master, etc. The head’s association with the \(N_2\) is one of a controller. In the examples above, the noun nyè in 5(b) acts as the head of the compound indicating a sub-category within the class of female controllers. Nyè is therefore a kind of parent, a mother, and jùá ‘market’ and mà ‘town’ function as modifiers of the head nyè to indicate the settings where the head compound operates. In 5(c), tsε̄ is the head of the compound expressing a sub category within the classes of entities, controller that the word is denoting. Tsε̄ is then human, a kind of controller and the preceding noun, wè functions as a modifier of the head tsε̄ to point out the leadership setting of the head. Similarly, tsε̄ in (5d) denotes a controller of the preparation of herbal medicines.

Another set of noun-noun compounds identified in Dangme is habitation or place names. These compounds are formed by the combinations of personal names and kọpé meaning ‘village’. \(N_1\), kọpé ‘village’, is the head of the compound and \(N_2\), the personal name, has two functions; the possessor and the modifier of the head compound.

6. \[
\begin{array}{c}
\text{N} \\
\text{[+ HUMAN]} \\
\text{[- HUMAN]}
\end{array}
\]

where \(N_1\) is [- Human] and indicates the habitat of \(N_2\). \(N_2\) is either a title of a person or a personal name.

58
Compounding in Dangme

7a. Mātsɛ + kāpɛ
   chief.POSS village
   ‘A village called Mātsɛkāpɛ.’

7b. Òkújɛ + kāpɛ
    Òkújɛ..POSS village
    ‘A village called Okujokāpɛ.’

7c. Òkààsɛ + kāpɛ
    Òkààsɛ..POSS village
    ‘A village called Ocanseykāpɛ.’

7d. Sísā + kāpɛ
    Caesar.POSS village
    ‘A village called Caesarkāpɛ.’

7e. Tōtímɛ + kāpɛ
    Tōtímɛ..POSS village
    ‘A village called Totimekāpɛ.’

7f. Dētsɛ + kāpɛ
    hunter.POSS village
    ‘A village called Detskāpɛ.’

7g. Nākōm + kāpɛ
    Nākōm.POSS village
    ‘A village called Nakomkāpɛ.’

In contrast to example (5), the N₂ of (6-7) is a human noun. The referent to N₂ in (7a-g) stands in a certain relationship as the first settler of N₁ on a said parcel of land. This means that in (7a-g), Mātsɛ ‘chief’ is the first settler of Mātsɛkāpɛ, Òkújɛtɔ ‘first settler of Òkújokāpɛ’, Òkààsɛ ‘first settler at Òkààsɛkāpɛ, Sísā ‘Caesar’ is the first settler at Sisakāpɛ, Tōtímɛ ‘a hunter’ is the first inhabitant of Tōtimekāpɛ and Nākōm is the first settler at Nākōmkāpɛ. The nouns formed are place names in the Ada East and Ada West districts of Dangme.

In the third type of noun-noun compounds, two nouns merge to form a single noun as in (5-7). The modifier can be animate or an inanimate noun [-HUMAN] whilst the head of the endocentric compound can be either a human or a non-human noun [±HUMAN]. These kinds of nouns are also referred to as descriptive compounds.

8. [# N # N #] → [# N N #] → [N₂ + N₁]
   N               [-HUMAN]          [± HUMAN]

where N₂ is [-Human] and indicates the place of birth of N₁.
Caesar

9.a. Àblòtsí + yò → àblòtsíyò
   Abroad female → a personal name
   ‘A female born abroad and bears the name of the place of birth’.

b. Bàtśò + yò → Bàtśòyò
   Bàtśò female → a personal name
   ‘A female born at Bator and bears the name of the place of birth’.

c. Hò + yò → Hòyò
   Saturday female → a female personal name
   ‘The name of a female born on Saturday’.

d. Hògbà + yò → Hògbàyò
   Sunday female → a female personal name
   ‘The name of a female born on Sunday’.

e. Wò + yò → wòyò
   Idol female → a personal name
   ‘A female controller of an idol’.

f. Nà + lò → nàlò
   Cow meat → beef
   ‘A meat from a cow’.

g. Wò + lò → wòlò
   Sea fish → sea fish
   ‘A fish from the sea’.

The human nouns, N₁, are the heads of the N-N compounds as in (9a) - (9e). It is interesting to note that such personal names as in (9a-e) are associated only with females in Dangme. Thus in (9a-e), yò ‘female’ is the head of the compounds and àblòtsí, Bàtśò, Hò, Hògbà and wò are the modifiers of yò. The referent of N₂ in (9a-b) relates to places of birth, àblòtsí and Bàtśò where the N₁, yò were born. Hò and Hògbà in (9c-d) refer to the days of the week of birth. In (9e), wò however, represents an entity, a deity. Examples (9f) and (9g) are however, non-human compounds.

The fourth type of N-N compound is a combination of two nouns which can be non-animate and non-human nouns as exemplified in (10) and (11).

10. [# N # N #] → [# N N #] → [N₂ + N₁]]
    N [- ANIMATE] [- HUMAN]

where N₂ is [-Animate] and  is the attribute of N₁.
11a. Ðàdè + pèè \(\rightarrow\) Ðàdè pèè
Metal + hat \(\rightarrow\) a metal hat
‘A hat made from a metal’.

b. Tsò + lòlè \(\rightarrow\) Tsò lòlè
Wood + lorry \(\rightarrow\) a wooden truck
‘A truck made from wood’.

c. Zu + tsù \(\rightarrow\) Zu tsù
Soil + house \(\rightarrow\) a mud house
‘A house made from soil’.

d. Hlósòbà + gògà \(\rightarrow\) Hlósòbà gògà
Plastic + bucket \(\rightarrow\) a plastic bucket
‘A bucket made from plastic materials’.

It is observed in (11a-d) that the N\(_1\) and N\(_2\) are both inanimate. The N\(_1\): pèè ‘hat’, lòlè ‘lorry’, tsù ‘house’ and gògà ‘bucket’ are the heads of the compounds and Ðàdè ‘iron/metal’, Tsò ‘tree’, Zu ‘soil’ and Hlósòbà ‘plastic’ are the modifiers that indicate the type of materials used in producing the N\(_1\) or its associate. Compounds discussed in (1-11) are right headed because; the N\(_2\) are the modifiers of the N\(_1\).

The fifth N-N compound is made up of a human and a non-human noun as demonstrated in examples (12) and (13).

12. [# N # N #] \(\rightarrow\) [# N N #] \(\rightarrow\) [N\(_2\) + N\(_1\)]
N [+ HUMAN] [- HUMAN]

where N\(_1\) is [ -Human] and is the attribute of N\(_2\).

13a. Tèè + dòkù \(\rightarrow\) Tèè dòkù
A third male born + emptiness \(\rightarrow\) a personal name
‘A third male born’s name’.

b. Tèè + ógbètèè \(\rightarrow\) Tèè ógbètèè
Second male born name + hyena \(\rightarrow\) a personal name
‘The name of a second male born considered having the attributes of a hyena’.

c. Tèè + kpàdè \(\rightarrow\) Tèè kpàdè
A third male born + ghost \(\rightarrow\) a personal name
‘A reincarnation name for a third male born’.
Caesar

d. Nā + káyó → Nākáyó
A fourth male born hawk → a personal name
‘A fourth male born who has an attribute of a hawk’.

In (13a-d) however, the N₁ and N₂ are typical examples of left headed noun-noun compounds. In these examples, the N₂ Tèč, Tèté, Tèče and Nā, are the heads of the individual compounds. The N₁ dòkù, ṣọgbètèé, kpàdé and káyó modify the N₂ Tèč, Tèté, Tèče and Nā respectively.

The head noun of the Dangme noun-noun compounds can inflect for number. The head noun selects any of the plural markers {-hi, -mɛ, -wi, -bi} as exemplified in the following constructions:

14. a. Tsō + lılę-hù → tsō lılěhù
Wood lorry-PL → wooden trucks
‘Trucks made from wood’.

b. Tèče + dòkúm-ɛ → Tèčédòkúmɛ
A third male born emptiness-PL → a personal name
‘Tedoku and others’.

c. Sùkùú + jókùɛ-wí → sùkùú jókùɛwí
School child-PL → school children
‘Children who attend school’.

d. Sómänyà + sóləmì bí → Sómänyà sóləmì bí
Somanya church member.PL → Somanya church members
‘Church members from Somanya’.

Vowel change is another strategy by which the head noun in a noun-noun combination can be pluralized. Consider the examples below:

15. a. Àkúkúmànyà + jùlì-i → Àkúkúmànyà jùlì
Àkúkúmànyà thief-PL → Àkúkúmànyà thieves
‘Thieves from Àkúkúmànyà’.

b. Bàtɔ́ + yò-i → Bàtɔ́ yí
Bator female-PL → Bator females
‘Females from Bator’.

We observe in examples (14) that the plural affixes, -hi, -mɛ,-wi and bi were attached to the heads of the compound, lılę, dòkù, jókùɛ and sóləmì respectively without any morphological or phonological change in the form of the compound nouns. On the contrary, the {-i} of the head noun, jùlì ‘thief’ and the {-o} of the singular noun yò ‘female’ were elided before the plural suffix {-i} is attached as exemplified in (15a-b) above. This means that jùlì ‘thief’ has become jùlì ‘thieves’ and yò ‘female’ has become yì ‘females’.
The Dangme noun-noun compounds, as in other languages, function as prototypical Dangme nouns, and may function in a clause as subject and object (direct and indirect), a complement of a verb, an object of a postposition and also as noun appositives among others in Dangme. They can be modified by adjectives and other nouns. Consider the compound words in bold print in the following sentences:

16 a. **Téédòkú** hé áplétsí kò.

   Téédòkú buy.PAST goat INDEF

   ‘Téédòkú bought a goat’. (As a subject of the clause)

b. Tsáátsè tsé Hígábápò.

   Father call.PAST Hígábápò

   ‘Father called Hígábápò’. (As an object of the clause)

c. Ákú fiá wétsé ó tɛ.

   Ákú throw landlord DEF stone

   ‘Ákú threw a stone at the landlord’. (As an indirect object of the clause)

d. Álọgbé bá pèé màtsé píó.

   Álọgbé come make chief ADV

   ‘Álọgbé is now a chief’. (As a subject complement of the clause)

e. À pèé lè màtsé.

   3PL make 3SG.OBJ chief

   ‘They have made him a chief’. (As an object complement of the clause)

f. Kōffí, tsōpātsé ó ngě hí ó.

   Kōffí herbalist DEF COP ADV

   ‘Kōffí, the herbalist is here’. (As a noun in apposition)

**Noun-Adjective Compounding**

In the noun-adjective compound in Dangme, the noun becomes the head of the compound. The noun-adjective compound dwells on head noun, colour, number, taste, physical property and size. The adjectival component of the compound acts as modifier of the head noun. That is the noun’s association with the adjective is that of colour, size, number, taste and physical property.

17. [# N # ADJ #] → [# N ADJ #]

   Semantic interpretation: the attribute of N.

   Below are examples of noun adjective compounds.

18. a. **nyè** + **ngùá** → **nyèngùá**

   mother big → a mother’s elder sister (an aunt)

   ‘A female parent’s elder sister.’

b. **tsē** + **wàyó** → **tsěwàyó**

   father small → a father’s younger brother (an uncle)

   ‘A male parent’s younger brother.’
In 18.(a-b), the second components of the compounds that contain ngùá and wàyó, are idiomatic since they have both literal and idiomatic interpretations. Ngùá literally means ‘big’, but its other meaning as regards this compound, is ‘elder’. While wàyó is ‘small’ but idiomatically, it may refer to ‘young(er)’. The reference to colour in 18.(c), (d) and (e), also have other meanings that read, ‘fair’, ‘dark’ and ‘white’ in complexion or colour. It is also observed that a syllable of tsùtsù ‘red’ is elided in the personal name, Kofi-tsù. In 18(f) and 18(g) éywì ᐄ four ‘four’ and ény ᐄ two ‘two’ make reference to cardinal number. Ény ᐄ ‘two’ in 18(g), has another meaning ‘second’. The referent to ngáná ‘sweet’ and múá ‘soft/clean’ expresses the physical property of the head nouns dã ‘drink’ and nyù ‘water’ in examples 18(h) and 18(i). It is realized in 18(f) that the mid-high front vowel of the numeral, éywì ᐄ has assimilated the rounded feature of the vowel of the head noun, yò. Therefore, to compensate for the elided mid-high front vowel, the mid-high back vowel in the head noun, yò, has been lengthened to make Yòéywì ᐄ become Yòóywì ᐄ .

In 18.(a), the noun nyè becomes the head of the compound, and ngùá ‘big/elder’ as an adjective to indicate the type of nyè ‘mother’ being discussed. In 18.(b), the diminutive morpheme, wàyó is the adjective that is qualifying the head compound tsù to indicate the kind of father being expressed among the entities of fathers by the head tsù. In 18.(c), Kofi is the head of the compound and tsù functions as a qualifer to the head Kofi. In 18.(d), Kùsí is also the head of the compound which is being qualified by the adjective yúmù. Also, yò, Tété, dã and nyù in 18(f-i), are the heads of the compounds that are being qualified by éywì, ény, ngáná and múá respectively to express serialization in terms of the order of birth and the physical properties of the head nouns. The noun-adjective combination, results in the formation of nouns.
Noun-Postposition

In this kind of compound, a noun and a postposition are combined to form a noun. The noun is either a name of a river, a stream, a lagoon, a valley or a tree and the postpositional particle indicates a position or a point of the noun. The noun is the head of the compound. The merging of a noun and a postposition, results in the formation of a place name.

19. \([#N \ # \ POSTP \ #] \rightarrow \ [#N \ POSTP \ #]\)

Semantic interpretation: at a location or a point of N.

Below are examples of noun plus postposition compound.

20 a. Lóló + nyà \rightarrow Lólónyà
   A name of a river edge a place name
   ‘At the bank of river Lóló.’

b. Sôngò + nyà \rightarrow Sôngònyà
   Songor lagoon edge a place name
   ‘At the bank of the Songor Lagoon’

c. Hùhù + nyà \rightarrow Hùhùnyà
   A name of a river edge a place name
   ‘At the bank of river Hùhù.’

d. Pɔ̀pɔ̀ + nyà \rightarrow Pɔ̀pɔ̀nyà
   A name of a river edge a place name
   ‘At the bank of river Pɔ̀pɔ̀.’

g. Lénóbí + nyà \rightarrow Lénóbínyà
   A baobab tree.DIM edge a place name
   ‘At the place of the baobab tree.’

h. Lùhùć + sè \rightarrow Lùhùćèsè
   A name of a river behind a place name
   ‘At the back of Lùhùć.’

i. Tã + kpè \rightarrow Tãkpè
   Palm tree middle a place name
   ‘In the middle of a palm plantation.’

j. Dò + mì \rightarrow Dòmì
   Valley inside a place name
   ‘(A town) in a valley’

The location for the place names in (19a-h), is indicated by the postpositional elements of N; nyà ‘edge of /bank of’, sè ‘behind’, kpè ‘in the middle’ and mì ‘in’. The association of N to the noun-postpositional compound is that of the position of the river, the stream, the valley, the lagoon and the palm tree to the named
Caesar
town or village. It is to be noted that the noun-postpositional compound words can take other modifiers as in any prototypical noun as demonstrated in (21a) and (21b) below:

21. a. Padi yà ngɔ yò ngé Lólónyà mó mó mì.
   Padi go marry woman at Lólónyà old DEF inside

   ‘Padi has married from the old township of Lólónyà.’

   b. Sakì pó wè àgbò ngé Tãkpè nyáffí mì.
   Sakì build house big at Tãkpè small DEF inside

   ‘Saki built a mansion in the small township at Tãkpè.’

It is observed in (21a-b) that the compounds are formed from the combination of nouns and postpositions, i.e. Lólónyà and Tãkpè, both place names, have taken other modifier, mó mó ‘old’ and nyáffí ‘small’ to express age and size of the towns respectively.

Verb-Noun Compounding
A verb-noun compound is formed by merging an action verb and a locative noun hé ‘place’. In verb-noun compounding, the noun functions as the head of the compound and the verb acts as a qualifier of the noun. The head noun (N) association with the verb (V) is that of a place for an activity designated by the verb and a path to, or from a location. This process might be stated as below:

22. [# V # N #] → [# V N #]

   N [+ACTION]

   Semantic interpretation:
   1. A place where the activity of V takes place.
   2. A path that leads to, or away from a location.

Below are some more examples of verb + noun compound.

23. a. mù + hé → mù hé
   Laugh + place → a place of laughter
   ‘A place where the activity of V (laughing) is said to take place.’

   b. jè + hé → jè hé
   leave + place → a place of origin
   ‘A path that leads from a place of origin.’

   c. yà + hé → yà hé
   go + place → a place worth going to.
   ‘A place that leads to a place worth going to.’

   d. nù + hé → nù hé
   drink + place → a drinking place.
   ‘A place where the activity of V (drinking) is said to take place.’

   e. hì + hè → hì hè
   stay + place → a place worth staying.
   ‘A place worth staying at.’

66
Compounding in Dangme

f. gbè + hé → gbè hé
   kill                slaughter house/killing place.
   ‘A place where the activity of V (killing) is said to take place.’

g. ngmà + hé → ngmà hé
   write                a writing place
   ‘A place where the activity of V (writing) is said to take place.’

(iii).

\[
\begin{array}{c}
\text{NP} \\
\text{V stem} \\
\text{mù} \\
\text{hé} \\
\text{laugh} \\
\text{place}
\end{array}
\]

In the above example, hé ‘place’ is the head of the compound. In addition to he that signifies place, there are other nouns that co-occur with verbs in a verb-noun combination. These nouns function as complements of the verb. Consider the examples below:

24. a. Tsɔ́ɔ + ní → tsɔ́ɔ ní
   Teach                teaching
   ‘The acts of making someone acquire knowledge.’

b. Dù + bà → dù bà
   bathe                leaf
   → purification
   ‘The process of purifying someone’.

c. Kùá + gbà → kùá gbà
   refuse                marriage
   → divorce
   ‘The act of walking out of a marriage.’

d. Fì + dò → fì dò
   play                dance
   → drumming and dancing
   ‘The act of drumming and dancing.’

e. Ngò + ᕣó → ngò ᕣó
   take                pregnancy
   → pregnancy
   ‘Being pregnant.’

f. Tsùá + àgbèlì → tsùá àgbèlì
   dig                cassava
   → uproot cassava
   ‘The act of uprooting cassava.’
Caesar

68

g. Ngmè + blò \rightarrow ngmè blò

give way \rightarrow allow/permit

'The act of granting or giving permission.'

As in (13), examples (24a-g) are also samples of left headed V-N compounds. The verb-noun combinations in (24) are examples of transitive verb complementation in Dangme. According to Quirk & Greenbaum (1973:358) mono transitive verbs require a direct object, which may be a noun phrase, a finite clause and a non-finite clause. The verbs are the heads of the compounds and the NPs function as complements of the VP: The verb-noun combination, results in the formation of nouns in Dangme.

The Clause as Compound

In Dangme, there are certain nouns whose meanings enable us to relate them to an underlying structure of a main clause. These nouns refer to humans, locations and events. These compounds are formed as a result of experiences or events that one might have gone through in life. This process may be described as agglutination. These are special simple and compound sentences, and I cannot at the moment provide a systematic analysis since all have subjects, verbs, objects, conjunctions, negation, adjectives, postpositions, etc. The merging of words of this kind to form a compound is that the compound may denote a place or a personal name. Below are some examples of such clauses:

25. Clause + Phonetic Form

| a. | Á plé né á hyè. \rightarrow [áплéːnáʝ] |
| 3PL. VP CONJ 3PL.OBJ VP |
| They turn and they look |
| ‘They should turn and look.’ |
| b. | À nyà né é nù mè. \rightarrow [àɲàːnùmè] |
| 3PL.POSS NP CONJ 3SG VP 3PL.OBJ |
| Their mouth and it catch them |
| ‘They should be paid back in their own coins.’ |
| c. | Ò dé ó péè:ž. \rightarrow [óðéːpèːʒ] |
| 2SG VP 2SG VP |
| You say you do it. |
| ‘He who never fails.’ |
| d. | Á dé né é bé. \rightarrow [àdènèbè] |
| 3PL. VP CONJ 3SG VP |
| They say and it pass |
| ‘Let them say it, it will soon be over.’ |
| e. | Ékòme sù. \rightarrow [kòmjɛːsù] |
| ADJ VP |
| Some like it |
| ‘One man’s poison is another man’s meat.’ |
Compounding in Dangme

f. Wà hè bê nà. → [wàhèbênà]
2PL.POSS VP NEG POSTP (a personal name)
Our expectant NEG on
‘An unexpected (event).’

g. È ngè jè mì jà. → [èŋèdʒèmdʒà]
3SG AUX NP POSTP PRT (a personal name)
It is world inside that
‘So it is in the world.’

h. À pēè wù gù. → [àpè:wùgù]
3PL VP NP ADV (a personal name)
They do us nothing
‘Let them treat us as they wish.’

i. À sè nè wà ngé. → [àsènèwàngé]
3PL.POSS. PostP CONJ 1PL AUX (a personal name)
Their behind and we are
‘We are behind them.’

j. Ò jè múnó. → [òdʒèmùnó]
2SG VP ADJ (a personal name)
You be different
‘You are different.’

k. Ò tlò kpè. → [òtlòkpè]
2SG VP POSTP (a place name)
You stack middle
‘You are stacked in the middle.’

l. Ò bùá nè ò bà. → [òbùábà]
2SG VP CONJ 2SG VP (a personal name)
You pretend and you come
‘You have pretended to have come back.’

m. Máwú jí ngùá. → [máwúdʒíŋùá]
NP COP ADJ (a personal name)
God is big
‘God is great.’

n. Ò bê nyêmí. → [òbênyêmí]
2SG NEG NP (a personal/place name)
You not relative
‘You do not have a relative.’
In the examples above, it is to be noted that the clauses have passed through the process of agglutination to become words without any change in tone of the combined words. In this process, there are phonological changes; elision of segments at either word initial, medial or final positions. The resultant words are place names or personal names in Dangme.

In 25.(a), the clausal name Á plé né á hyék, a compound sentence and a place name in Ada, which means ‘they should turn and look’ is pronounced as áplénayék. The /h/ becomes silent in this process and the /t/ is also elided. Á nyà né è mú mí in 25(b), is pronounced as [ànyà:nùmí] also a clause with the semantic reading, ‘they should be paid back in their own coin’. This indicates that two syllables, ne è have been deleted in the process of pronunciation. The elision of the phrase, ne è ‘that he/she/it’ is compensated for with the lengthening of the low back vowel /a/ of nyà. In 25.(c), the clausal appellation for God Ò dé ô péé ì [ódépèé] translates as ‘He who never fails.’

In 25.(d), the clause, Á dé né è bé which is pronounced as [àdènèbè] means, ‘let them say it, it will be over,’ is a personal name. In 25(e), Èkòmè sù́ ‘one man’s poison is another man’s meat,’ is a name of a person pronounced as [kómèsù́], the initial vowel /e/ of the original word has been deleted in the phonetic form. Wà hé bé nó ‘unexpected event’ in 25(f) is also a clause used as a personal name [wàhèbèn̂]. In 25.(g) È ngè jè mú mí jà [èqèdèmèdjà] which reads, ‘so it is in the world’, is another clausal name in Dangme. In the articulation process of the name È ngè jè mú jà, the /i/ is elided. In 25.(h) À péè wò gù [àpèé:wògù] is also a clausal name of a person with the meaning, ‘Let them treat us as they wish’. In 25.(i), the phrase À sè nè wà ngè [àsènèwàngè] is also a name of a person which translates as ‘we are behind them’. In 25.(j), the clause, Ò jè mú nù [òdžèmünù] ‘you are different’ is also a personal name.

In 25.(k), the clause, Ò tò kpè ‘you are stacked in the middle’ is a place name in Dangme land which has not gone through any phonological changes, [òtlìkpè]. The personal clausal name in 25.(i), Ò bùá nè ô bà meaning ‘you have pretended to come back’, is a reincarnation name. In the articulation process of Ò bùá nè ô bà, two syllables nè and ô are deleted. This process reduces the form of the name to Ò bùá bà, [òbùábà]. In 25.(m-p), are personal clausal names used in Dangme; Máwú jí ngúá [màwùjíngúá] ‘God is great’, Ò bè nỳ̄ mì [òbènỳ̄mì] ‘you do not have a relative’, à bè nù sùmì [àbènèsùmì] ‘love is not begged for’ and kòó dì nè [kòódìnè] ‘do not consider their deeds’. Example 25.(n) Ò bè nỳ̄ mì [òbènỳ̄mì] can also be used as a place name. This type of compound formation, results in the formation of nouns.

**Conclusion**

The paper explored the phenomenon of compounding in Dangme, specifically, endocentric compounds in Dangme. It indicated that compounding is the concatenative operation which results in the morphological unification of the members of word class elements such as noun-noun, verb-noun, noun-postposition, noun-adjective and the agglutination of word to form clause compound.

The paper discussed three forms of compound in Dangme; open, close and the hyphenated, and examined the formation of endocentric compounds in Dangme. The data have shown that as in other languages, Dangme has
headed (endocentric) compounds which heads occur mostly on the right and in some few cases on the left. The right headed compounds occur in the formation of N-N compound type one to four in Dangme. For example, \textit{b\ddot{a}d\dot{e} ts\textcircled{o} ‘neem tree’} is a typical example of an endocentric N-N compound where the \textit{N}_1, ts\textcircled{o} ‘tree’ is the head of the compound and \textit{b\ddot{a}d\dot{e} ‘neem’} is a specific type of tree modifying the head noun ts\textcircled{o} in a right headed N-N compound. The left headed compound is identified in the N-N compound type five which is a combination of a human noun and a non-human noun. In addition, the noun-adjective and the noun-postposition compounds are also typical examples of left headed compounds in Dangme. For instance, in \textit{T\textcircled{\textepsilon}-\textepsilon\textcircled{\texteta}-\textepsilon\textcircled{\texteta} ‘Tettey-Two’ which means ‘the second Tettey’ is an example of a left headed compound where the adjective, \textepsilon\textcircled{\texteta} ‘two’ is modifying the number of \textepsilon\textcircled{\textepsilon}.

The paper revealed that in Dangme as in other languages, it is possible to have a noun-verb combination with an agentive affix, -\textit{l\textcircled{o}} or a gerund marking affix, -\textit{mi}. The data have shown that when -\textit{l\textcircled{o}} is attached to a noun-verb compound, it points to the doer of the action designated by the verb in the combination. On the contrary, when -\textit{mi} is suffixed to noun-verb combination, the compound expresses ‘the act of doing the action expressed by the verb’.

The paper identified five ways by which N-N compounds could be grouped in Dangme. These are: (i) non-animate and human nouns (ii) human (titles and personal possessive names) and non-human nouns (iii) non-human and human or non-human nouns (iv) non-animate and non-human nouns and (v) human and non-human nouns combinations. In the N-N compound, it was observed that \textit{N}_1 can be a human noun as in (5a-9g) and two non-human nouns can form a compound as in (11a-11d) or two animates (human and non-human) could be combined to form a compound as in (13a-13d).

The data demonstrated that Noun-adjective compounds dwell mostly on human noun, colour, size, number, taste and physical property. It was observed that a verb-noun compound is composed of an action verb and a locative noun which indicates the place of an activity or a path leading to or away from a location. In dealing with noun-postposition compounds, the data have shown that the noun in the combination either refers to a river, a lagoon, a valley or a tree and the postpositional particle indicates the point of a noun. The noun-postposition combination results in the creation of a place name.

Compounding in Dangme can also take the form of main clauses (simple and compound) which have noun and verb base, and are used as names of persons (allusive names), places and events. The data demonstrated also that some Dangme clause compound words undergo certain phonological processes such as loss of mid or final vowel of final syllable and syllables among others. It is to be noted that the tone assigned to the individual words/morphemes that form a compound in Dangme, do not change in the compounded forms. It is interesting to note that all the compound words formed through a noun and a verb with an affix, noun-noun combination, noun-adjective combination, noun-postposition, verb-noun combination and reduced main clauses to personal and place names, are all nouns in Dangme. These nouns function as prototypical Dangme nouns and may function in a clause as subject and object (direct and indirect), a complement of a verb, an object of a postposition and also as noun appositives among others in Dangme. These can be modified by adjectives and other nouns.

In conclusion, the study has shown that endocentric compounding is very productive in Dangme as in other languages. The analysis on headedness of compounds, has also demonstrated that Dangme obeys both the right and left headed rule in endocentric compounding as proposed by Bauer (2001) and Booij (2007) as against the right headed rule which Williams (1981) claims is universal. The findings of this paper will add to the typological study of compounding universal.
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/ADJ</td>
<td>Adjective</td>
</tr>
<tr>
<td>AGENT</td>
<td>Agentive</td>
</tr>
<tr>
<td>AUX</td>
<td>Auxiliary Verb</td>
</tr>
<tr>
<td>CONJ</td>
<td>Conjunction</td>
</tr>
<tr>
<td>COP</td>
<td>Copular</td>
</tr>
<tr>
<td>GER</td>
<td>Gerund</td>
</tr>
<tr>
<td>N</td>
<td>Noun</td>
</tr>
<tr>
<td>N1</td>
<td>First Noun from the right</td>
</tr>
<tr>
<td>N2</td>
<td>Second Noun from the left</td>
</tr>
<tr>
<td>NEG</td>
<td>Negation</td>
</tr>
<tr>
<td>NP</td>
<td>Noun Phrase</td>
</tr>
<tr>
<td>POSS</td>
<td>Possessive</td>
</tr>
<tr>
<td>POSTP</td>
<td>Postposition</td>
</tr>
<tr>
<td>PRO</td>
<td>Pronoun</td>
</tr>
<tr>
<td>PRT</td>
<td>Particle</td>
</tr>
<tr>
<td>V</td>
<td>Verb</td>
</tr>
<tr>
<td>VP</td>
<td>Verb Phrase</td>
</tr>
<tr>
<td>1PL</td>
<td>First Person Plural</td>
</tr>
<tr>
<td>2PL</td>
<td>Second Person Plural</td>
</tr>
<tr>
<td>3PL</td>
<td>Third Person Plural</td>
</tr>
<tr>
<td>3PL.OBJ</td>
<td>Third Person Plural Object</td>
</tr>
<tr>
<td>2SG</td>
<td>Second Person Singular</td>
</tr>
<tr>
<td>3SG</td>
<td>Third Person Singular</td>
</tr>
<tr>
<td>#</td>
<td>Word Boundary</td>
</tr>
</tbody>
</table>

### References


