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A Comparative Study of Affixation Processes in Akan and Dangme

Regina Oforiwah Caesar

Senior Lecturer, Department of Ga-Dangme Education,
University of Education, Winneba, Ghana

Nicholas Obeng Agyekum

Lecturer, Department of Akan-Nzema Education
University of Education, Winneba, Ghana

Abstract:

This paper examines affixation processes in Akan and Dangme, languages that belong to the Kwa family of the Niger-Congo group of languages. The study aimed at presenting a comparative study of the positional affixes in Akan and Dangme in the area of derivation and inflection. The current study also sets out to discuss the functions that the affixes play in connection to the roots they have been attached to in both languages. Data for the study were collected from both the primary and the secondary sources. Findings were analysed using categorization and coding. The study revealed that affixation in Akan and Dangme results in the formation of new words (class changing or non-class changing) whereas others indicate tense, aspect, gender, diminutive and augmentative. The data showed that Dangme has a non-classical infix identified in the formation of some negative words that is contrary to what pertains in Akan. On positional affixes, it was observed that, whereas Akan (Twi) has six vowels / e, ɔ, ε, o, a, æ/ that can function as prefixes, Dangme has only three /a, o, e/. Both Akan and Dangme have affixes that mark diminutive, gender and augmentation. Findings from this study will contribute greatly to the study of Akan and Dangme morphology and add to the available studies on universals of language.

Keywords: Akan, dangme, morphology, affixation processes, Kwa

1. Introduction

This paper examines the morphological processes of affixation in Akan and Dangme. The study presents a comparative study of the positional affixes in Akan and Dangme in the area of derivation and inflection. The current study also discusses the functions that the affixes play in connection to the roots/bases they have been attached to in both languages.

Akan and Dangme are languages that belong to the Kwa family of the Niger-Congo group of languages. Though Akan and Dangme form part of the same family group, both languages are mutually unintelligible and the geographical settings of the natives are entirely distinct. Agyekum (2006) has posited that, the Akans are the largest ethnic group in Ghana and they are located in the southern part of Ghana. The sub-dialects that form the Akan language include Akwamu, Akyem, Assin, Bono, Denkyira, Kwahu, Wassa, Agona, Fante, Asante and Akuapem. Among these dialects, the latter three are documented and have received a lot of scholarly analysis. These languages are studied from basic schools to the University level (Abakah, 2016). The Akan language is arguably the most prominent among the local languages in Ghana. Anyidoho & Dakubu (2008) state that, "it is the prominent indigenous language, with almost half of the population of the country using it as an L1 and a lot more using it as a Lingua Franca in various social, cultural, religious and economic contexts". Where not specified, all the Akan examples are from the Asante form.

Dangme on the other hand is one of the languages in Ghana that has received a lot of scholarly attention and it is studied from the basic school to the University level. The Dangme people are located in some parts of the Greater Accra and Eastern Regions of Ghana mainly. Patches of the speakers are also found in the Volta Region at Wenguan in Agortime Kportoe and in Togoland; Nortsi and Gatsi. Dangme has seven dialects. These include the Ada, Gbugblaa/Prampam, Nugo/Ningo, Se/Shai, Osudoku, Yilɔ and Many Krobo (Ameka & Dakubu 2008, Caesar 2011, 2012). Since natives of the Akan and the Dangme languages are located at the southern part of Ghana, language contact has become plausible and as such many Dangme people are able to speak one or more of the Akan forms and the vice versa, though these languages are mutually unintelligible. On these basics, it has become important to study and analyse linguistic forms and structures to aid in presenting the commonalities and differences in these two languages and that is what this paper seeks to achieve. This study is important because Akan and Dangme belong to the same language group (Kwa) and there must be some systematic patterns that exist in both languages but there is no study in this line to discuss where they converge and where diverge. Findings from this study will contribute greatly to the study of Akan and Dangme morphology and scholars who study universals of language will find the work useful.

The aim of this paper is to presents a comparative analysis of the phenomenon of affixation in Akan and Dangme. The paper discusses the types of affixes per position and function in both languages. Patterns of commonalities and differences in the process of inflection and derivation are discussed in both languages.

The rest of the paper is structured in the following way: section 2 discusses affixation as a morphological process, section 3 focuses on the methodology; data collection and its strategies and data analysis procedures. Section 4 discusses inflectional and derivational affixes in Akan and Dangme with the focus on positional and functional affixes and section 5 presents the findings and 6, the conclusion.

2. Affixation as a Morphological Process

Morphology refers to the part of the grammar that is concerned with word formation and word structure. In short, morphology can be defined as the branch of linguistics that deals with the study of how words are formed (O'Grady et-al, 2000). Mathew (1991:125) explains that morphological process is the means of changing a stem to adjust its meaning to fit its syntactic and communicational context. The term 'word' is part of everyone's vocabulary and it is the most important in language than anything. The words of a language are the fundamental building blocks of that particular language. A word can be seen as simple (mono-morphemic) which has only one meaningful unit or complex word which has two or more meaningful units. For example, *sɔre* (Akan) 'worship' or *sɔlemi* (Dangme) " which means 'church' represents a simple word whiles *asɔre-ba/ sɔlemi-no* 'a church member' is a complex word with two meaningful components; *asɔre* 'church' and *ba* 'member' or *sɔlemi* 'church' and *no* 'member'.

In the composition of a complex word, we can have a compound word (two or more free forms) or an affixed form (a free form and affix(es)). In the affixed forms, the part that is able to make meaning on itself is the free morpheme whiles the other is bound morpheme and only makes meaning when it is attached to a free morpheme (Katamba 1993). The morphological process of attaching bound morphemes to free morphemes is termed as affixation and the bound morpheme is called an affix. Crystal (2008:15) explains that, "affix is the collective term for the types of formative that can be used only when added to another morpheme". These affixes can be attached to the root at the beginning or at the end. The bound affixes are basically classified into two; per position and per function (Igaab & Kareem, 2018). Positionally, the affix can be a prefix, suffix, infix and circumfix/ambifix. The affixes attached to the root word at the beginning are called prefixes and the process is termed as prefixation and those added at the end of the root or base are called suffixes and the process is called suffixation. Whiles infixes are placed inside or within the root, circumfix or ambifix, which is seen as a less common term include a combination of prefix and suffix. In this case, the root will have an affix at the beginning and the end. It is to be noted that, this affix (circumfix) though superficially may be seen as a prefix and a suffix, it is a single unit with a consistent meaning.

As to their functions, affixes are grouped as either inflectional or derivational. Inflectional affixes are added to the root to create a different grammatical form of the same word. Inflectional affixes communicate tense, aspect, number, gender, etc. Unlike inflectional affixes, derivational affixes are added to bases to derive entirely new words. Derivational affixes are of two types; class changing and non-class changing (Matthew 1991). Class-changing derivational affixes change the word class of the root to which they are added to whereas class-maintaining do not change the word class of the root but may change the meaning. In a case where a root word is attached with more than one affix, it can have both inflectional and derivational affixes in that word formation. In this case, the derivational affixes are realized at the inner which is closer to the stem, and the inflectional affixes at the outer, furthest from the stem.

The number of affixes in a word has been suggested as one of the criteria for classifying languages into types. Languages which express grammatical relationships primarily through the use of affixes are known as affixing languages (Crystal, 2008). Languages differ in their word arrangement processes which imply that a language's morphological system needs to be uniquely identified and established from the other (Weinreich, 1953). These suggest that, if languages can be grouped together as a common language family, their form of affixes and affixation processes must be considered.

Matthew (1991) in the study on affixation discussed it in connection to their functions (inflectional and derivational). He noted that, whiles roots convey lexical meaning, affixes provide additional specification. Functionally, derivational devices can change word class (be category changing) or be word-class-specific whereas inflectional define characteristic of a word class. In his book "language", Bloomfield noted that; the distinction between affixes and roots is usually justified by the fact that affixes can generally be exhaustively listed while roots constitute an open class (Bloomfield, 1933:240). This means that, comparing roots in a particular language to affixes will reveal that, the latter is restricted and exhaustive and the former, innumerable. Whiles these scholars have discussed the concept generally, some studies like Dakubu (1987), Adi (2003) and Caesar (2016) have discuss some concepts of affixation in Dangme and others like Dolphyne (2006), Agyekum (2010) and Adomako (2012) for Akan. Amidst these studies, we have identified that, there is no comparative study of affixation processes on Akan and other languages as well as Dangme and other languages. It is out of this that this study has been born out to analyse and compared the affixation processes in the two languages. For the purpose of this study, the affixation processes are discussed, analysed and compared in Akan and Dangme to arrive at the similarities and differences in the two languages.

3. Methodology

This study is a qualitative one which presents a comparative descriptive analysis of affixation as a morphological process in Akan and Dangme. Data for the study were collected from both primary and secondary sources. The secondary data were from Dolphyne (2006), Agyekum (2010) for Akan and Dakubu (1987), Adi (2003) and Caesar (2016) for Dangme were useful for the study. On the primary data, spontaneous speeches of native speakers of Akan and Dangme

were recorded and analysed to ascertain how speakers use the affixes. The data collected from primary sources were cross-checked with other native speakers of Akan and Dangme for verification purposes. As native speakers, we also provided some of the data for the analysis. The collated data were analyzed using categorization and coding. The findings were compared in both languages to glean the areas of commonalities and diversities.

4. Analysis

In this section, we provide a discussion of the affixation processes as surfaced in the Akan and Dangme.

4.1. Positional affixes in Akan and Dangme

By position, we refer to where the bound morphemes (affixes) are placed in connection to the roots they are attached. They are classified into prefixes, infixes, suffixes and circumfixes (Igaab & Kareem, 2018, Adomako 2012). It is evidenced from the available data that; Prefixes and suffixes are the major positional affixes in Akan and Dangme. As discussed earlier, there are languages that have circumfixes which is place at the edges of the root. We realized that, though both languages have evidences of root words with both a prefix and suffix at the same time, there is no outstanding single morpheme with such a quality (circumfix) where part is placed at the beginning and part at the end of the root which can be accepted as circumfixes.

4.1.1. Prefixes

According to Crystal (2008) prefix is "a term used in morphology referring to an affix which is added initially to a root or stem". This means that, prefixes are added at the beginning of the word or root of which they are attached. These affixes always precede the root and though meaningless in isolation, they have grammatical meaning when attached to the roots. It is evidenced in our study that, Akan has basically ten vowels {a, e, ε, æ, i, o, ɪ, ɔ, u, ʊ} in the Akuapem and the Asante dialect whereas the Fante has nine {a, e, ε, i, o, ɪ, ɔ, u, ʊ} (Dolphyne 2006, Agyekum 2010). Among the ten vowels generally identified, six (6) of them {a, e, ε, æ, o, ɔ} function as prefixes in the Asante and Akuapem and eight (8) {a, e, ε, æ, i, o, ɪ, ɔ} can function as prefixes in Fante. Beside these vowels, a syllabic nasal consonant that has the same place of articulation as the initial sound of the root word is also used as a prefix in Akan. These segments are attached to the roots/ bases at the beginning as depicted in the table 1 below:

Affix	Root	Affixed Form	Gloss
i. i-	Tsir	itsir (F)	'head'
ii. ɪ-	tsɪw	ɪtsɪw (F)	'a local food'
iii. e-	Kuo	ekuo	'group'
iv. ε-	dɔm	ɛdɔm	'multitude'
v. a-	Dan	adan	'rooms'
vi. æ-	Fuom	æfuom	'farm'
vii. o-	Nua	ɔnua	'brethren'
viii. ɔ-	kɔmfɔɔ	ɔkɔmfɔɔ	'priest'
ix. m-	Poma	mpoma	'rods'
x. n-	Kwan	nkwan	'soup'

Table 1: Prefixes in Akan

All the affixes presented in table 1 are prefixes that are attached to their respective roots. There are other pronouns and tense markers in Akan that are also used as prefixes. As noted by Dolphyne, (2006), there are seven subject concords prefixes corresponding to the seven personal pronouns in Akuapem and Asante and six in Fante. These prefixes are: *re-*, *bɛ-*, *wo-*, *me-*, *yɛ(n)-*, *mo-*, *ɛ(no)-/ɔ(no)-*, *wɔ(n)-*. These prefixes are attached to roots as presented in table 2 below:

Affix	Root	Affixed Form	Gloss
i. re-	di	redi	'is eating'
ii. bɛ-	di	bɛdi	'will eat'
iii. wo-	di	wodi	'you (sg) eat'
iv. me-	di	medi	'I eat'
v. yɛ(n)-	di	yɛdi	'we eat'
vi. mo-	di	modi	'you (pl) eat'
vii. ɛ(no)-	di	ɛdi	'it eats'
viii. ɔ(no)-	di	ɔdi	'he/she eats'
ix. wɔ(n)-	di	wɔdi	'they eat'

Table 2: Concord Prefixes in Akan

From the data in table 2, the prefixes (i) and (ii) are aspectual markers and the rest function as pronouns. The former shows the time of the action and the later denotes the doer of the action as expressed by the verb.

Unlike in Akan that has (10) vowels in Akuapem and Asante and nine (9) in Fante, Dangme has Seven (7) oral vowels (a, ε, e, i, ɔ, o, u). Among the seven (7) oral vowels in Dangme, the available data reveals that, three {a, e, o} of them are used as

prefixes in the language (Dakubu 1987, Adi 2003). These vowels are placed at the initial of the root/ baseas exemplified in table 3.

Affix	Base	Gloss	Affixed Form	Gloss
i. e-	ku	'male'	e-ku	'male/male one'
ii. e-	yo	'female'	e-yo	'female/ female one'
iii. a-	kpas	'lean against'	a-kpas	'a lazy chair'
iv. o-	hia	'need'	o-hia	'poverty'

Table 3: Prefixes in Dangme

We observe from the data in table 3 that, the affixes {e-, a-, o-} are attached to the free morpheme at the beginning. The example (i) of table 3 changes an adjective into a noun through nominalization while affixes a- and o- in (ii) and (iii) change verbs to nouns.

4.1.2 Suffixes

Besides prefixes, the study reveals that both languages have suffixes. As noted earlier, suffixes are attached to the right side of the root word. They are placed at the end of the words they are attached to. Crystal (2008:464) posits that, suffixes are affixes which are added following a root or stem. The process is called suffixation or suffixing and it denotes adding affixes to the right or the end of a free morpheme. We identified in the available data that; it is one of the productive affixation types in both languages. The following affixes -foɔ, -nom, -ni, -eɛ, -iɛ, -wa, -o, -ɔ, -e were identified in the Akan data as suffixes which are added at the end of the root as exemplified in the data in table 4 below:

Affix	Root	Affixed Form	Gloss
i. -foɔ	Asante	Asante-foɔ	'Asantes'
ii. -nom	agya	agya-nom	'fathers'
iii. -ni	sukuu	sukuu-ni	'student'
iv. -eɛ	pra	pra-eɛ	'broom'
v. -iɛ	su	su-iɛ	'cried'
vi. -wa	kete	kete-wa	'small/ smallish'
vii. -o	wu	o-wu-o	'death'
viii. -ɔ	wo	ɛ-wo-ɔ	'honey'
ix. -e	fi	e-fi-e	'house'

Table 4: Suffixes in Akan

As shown in table 4, the position of the affixes in relation to the root is at the end. The examples of suffixes as shown in examples (vii-ix) are productive only in the Asante dialect. While the Fante and the Akuapem will omit the suffixes, the Asante will maintain it. Dolphyne (2006) refers to these as the Asante nominal suffix and postulate that, "in the Asante dialect, a mid vowel suffix "e", or "ɛ", or "ɔ", or "o" occurs if the nominal stem ends in an oral high vowel". The vowel suffix agrees in both tongue root and lip position with the vowel of the stem.

In Dangme, 8 affixes are identified as suffixes. These affixes {-i, -ɛ, -we, -hi, -wi, -mɛ, -li, -bi}, are placed at the end of the roots they are attached to as shown in table 5 below:

Affix	Root	Gloss	Affixed Form	Gloss
-i	ku	'break'	ku-i	'not broken'
-i	po	'cut'	pu-i	'not cut'
-ɛ	pɔ	'wet'	pɔ-ɛ	'not wet'
-ɔ	do	'dance'	do-ɔ	'dances'
-we	kane	'read'	kane-we	'did not read/not read'
-hi	tɛ	'stone'	tɛ-hi	'stones'
-wi	hayo	'a twin'	ha-wi	'twins'
-mɛ	tɛ	'father'	tɛ-mɛ	'fathers'
-li	Dangme-no	'a Dangme person'	Dangme-li	'Dangme people'
-bi	sukuu-no	'a pupil/student'	sukuu-bi	'pupils/students'

Table 5: Suffixes in Dangme

From the data in table 5 above, all the 8 affixes identified (-i, -ε, -we, -hi, -wi, -mε, -li, -bi) are attached to the right of the root. Positionally, they are all classified as suffixes as they are realized at the right side of their respective free forms. The Dangme data also reveals classical affixes {-i-} and {-ε-} that are inserted in the root. The corpus reveals that, this identified infixes denote a sense of negation thus changing a verb in the affirmative to the negative as presented in table 6 below:

Affix	Root	Gloss	Affixed Form	Gloss
-ε-	sɔle	'pray'	sɔ-ε-le	'did not pray'
-ε-	bɔle	'to go around'	bɔ-ε-le	did not go around'
-i-	tsukɔ	'smoked'	tsu-i-kɔε	'did not smoke'
-i-	dungɔ	'leak'	du-i-ngɔε	'did not leak'

Table 6: Infixes in Dangme

As seen in table 6, the {-ε-} and the {-i-} are inserted in the roots to derive a negative form of the root. In examples (iii-iv), it is realised that, after the insertion of the infix, there is an addition of a suffix -ε to the end of the root. This is however, not applicable to the examples with the {-ε-} infixes.

The process of infixation as evidenced in Dangme is not productive in Akan. In the Akan data, we realized that, there is no identifiable infix and if a word with a suffix is used as a first component in a compound formation, most often, the suffix is maintained and for that, it is realized at the middle of the compound. In this note, the bound morpheme that occurs within the word is not an infix but a suffix for the first stem. For example, in words like "*Manso-foɔ-kurom*" and "*ade-ε-mmra*", the morphemes highlighted are the suffixes for the first stems in the compound words. It is worthy to note that, examples like that do not depict a process of infixation.

In the corpus from Akan, we also observed that, like beads, some words are arranged in chains, where a root word will have both a prefix and suffix. These affixes are termed as circumfixes. A circumfix can be defined as an affix that has two parts. The first part is placed before the root whereas the second is added after the root of a word. It is usually called a discontinuous morpheme (Igaab & Kareem 2018, Adeniyi, 2010:115), and the process is termed as circumfixation. It is seen in the Akan data that, words like; *o-sua-ni*'disciple', *a-sua-foɔ*'disciples' may be superficially classified as circumfixes. In these examples, we realize that the root "sua" (learn) has been attached with the nominal suffix "-ni" and the prefix "-o". In the plural form, we have the prefix "a-" and the suffix "-foɔ". Though the root is surrendered by a prefix and a suffix, the process cannot be termed as circumfixation because the two affixes do not co-occur always with an actual meaning and do not have a static function.

As asserts by Lieber (2009:78) "circumfix consists of two parts – a prefix and a suffix that together create a new lexeme from a base". We do not consider the prefix and suffix to be separate, because neither by itself creates that type of lexeme or perhaps anything at all. This kind of affixation is a form of parasynthesis, a phenomenon in which a particular morphological category is signalled by the simultaneous presence of two morphemes". In this case, we can conclude that, both languages (Akan and Dangme) do not have circumfixes because in the corpus, we can consider the prefix and the suffix as separate entities and in some cases, either of them can be changed depending on the root word.

4.2. Functional Affixes in Akan and Dangme

The affixes discussed so far can also be classified according to functions on the basis of what they do to the morphemes they are attached. When an affix in Akan or Dangme is added to the root, it may either add a grammatical category to the root or change the meaning or class of the root outright. If it happens like the former, it is called inflectional affix and the latter is also known as derivational. This means that, according to functions, affixes are of two types; inflectional affixes and derivational affixes. In the available data for Akan and Dangme, we realized that both inflectional and derivational affixes are surfaced in the languages under review.

4.2.1. Inflectional Affixes

Buben (2003:52), explain inflection as a change in form of a word to express its relation to other words in the sentence and derivation on the other hand as the various processes whereby new words are formed from an existing word or base. In this note, inflectional affixes are added to the free morpheme to give additional information or produce another form of the same word but derivational affixes are added to change the word form or create an entire new word out of it. According to Crystal (2008:243), inflectional affixes signal grammatical relationships, such as plural, past tense, possession, superlative and comparative and do not change the grammatical class of the stems to which they are attached. In Akan, Inflectional affixes can be a prefix or a suffix. It is identified that, the inflectional affixes give grammatical information such as tense/aspect, number and gender about the words they are attached to. When inflectional affixes are added to a root word, a different grammatical form of the same word is produced as seen in data 7.

	Affix	Root	Gloss	Affixed Form	Gloss
i.	re-	su	'cry/ weep'	<u>re</u> -su	'is weeping'
ii.	be-	kɔ	'go'	<u>be</u> -kɔ	'will go'
iii.	a-	di	'eat'	<u>a</u> -di	'has eaten'
iv.	re-+be-	kɔ	'go'	<u>rebe</u> -kɔ	'about to go'
v.	re- +kɔ-	fa	'take'	<u>re</u> kɔ-fa	'is going to take'
vi.	a+be	fa	'take'	<u>abe</u> -fa	'came and took it'
vii.	-i(ɛ)	su	'cry/ weep'	sui- <u>(ɛ)</u>	'wept'
viii.	-i(ɛ)	du	'reach'	dui- <u>(ɛ)</u>	'reached'
ix.	-e'(ɛ)	kɔ	'go'	kɔe- <u>(ɛ)</u>	'went'
x.	-e(ɛ)	fa	'take'	fae- <u>(ɛ)</u>	'took'

Table 7: Inflectional Affixes on Aspect and Tense in Akan

Table 7 above, presents the affixes in Akan that mark tense and aspect. It is evidence from the above table that, all the tense and aspect markers in the language are affixes. Whiles examples (i-vi) take the prefix position, (vii-x) are suffixes. The function of the prefixes in (i, ii, and iii) are that, they change the verb from the present to the progressive, future and perfect aspect respectively. As the affixes in (iv and v) mark direction or motion, the affix in (vi) changed the verb from the simple present tense to the past perfect. The affixes (vii-x) are all past tense markers. These affixes as were added produced a different form of the same word. Besides these tense markers, the language mark plural by the addition of inflectional affixes as presented in table 8 below.

	Affix	Root	Gloss	Affixed Form	Gloss
i.	n-	krataa	'paper'	<u>n</u> krataa	'papers'
ii.	n-	akokɔ	'fowl'	<u>n</u> kokɔ	'fowls'
iii.	m-	aboba	'stone'	<u>m</u> boba(F)/ <u>m</u> moba(T)	'stones'
iv.	m-	apataa	'fish'	<u>m</u> pataa	'fishes'
v.	n-	odwan	'sheep'(sg)	<u>n</u> nwan	'sheep' (pl)
vi.	a-	ɔbɔfo(ɔ)	'messenger'	<u>a</u> bɔfo(ɔ)	'messengers'
vii.	a-	efie	'house'	<u>a</u> fie	'houses'
viii.	a-	ɛboɔ	'stone'	<u>a</u> boɔ	'stones'
ix.	-foɔ	osugyani	'bachelor'	asu <u>gyafo</u> ɔ	'bachelors'
x.	-foɔ	panin	'elderly'	mpanim <u>fo</u> ɔ	'elders'
xi.	-nom	agya	'father'	agya <u>nom</u>	'fathers'

Table 8: Inflectional Affixes on Number In Akan

All the affixes presented in table 8, are inflectional affixes that functions as plural markers. The study reveals that, singular nouns in Akan are mostly marked by the prefixes (ɔ, o, e, ε, a) and though there are some few exceptions as in example v, most of the times their plural forms are marked by the prefix "a-" as seen in the table. Also, roots with "a-" as prefix in the singular form, normally takes a syllabic nasal consonant "m" or "n" (depending on the first segment in the root word) as a prefix. When the initial sound of the root is marked +Coronal, the preferred prefix is 'n-' whereas bilabials and labio-dental sounds take 'm-' as a prefix. The affixes "-foɔ" and "-nom" in Akan also function as plural markers. When a singular noun is marked by the suffix "-ni" as in example ix, the plural form is marked by "-foɔ". The suffix "-nom" in Akan has a unique function of marking plural for kingship nouns. For example, kinship nouns like *ɛna*'mother', *kunu*'husband', *yere*'wife', *nua*'brother/sister' are pluralized by inflecting the *-nom* to it and forming *ɛnanom* 'mothers', *kununom* 'husbands', *yerenom* 'wives', *nuanom* 'brethren' respectively. The following sentences have been provided to reveal how these formations are done:

1a. Metɔ akokɔ fitaa.

1SG.buy.PST fowl white

'I bought a white fowl.'

b.Metɔ n-kokɔ mfitaa.

1SGbuyPST PL-fowl white

'I bought white fowls.'

2a.Mewɔ aboba ketewa bi.

1SGhave stone small DEF

'I have a small stone.'

b.Mewɔ m-moban-ketewa bi.

1SGhave PL-stone PL-small DEF

'I have some small stones.'

3a.Kofi agya ba-a ha.

Kofi father come-PST here

'Kofi's father came here'

b.Kofi agya-nom ba-a ha.

Kofi father-PL come-PST here

'Kofi's fathers came here.'

It is observable from the examples that the singular forms of the nouns in bold print have occurred in (1a), (2a), and (3a) construction. In the 'b' sentences, where the plural affixes are attached to the nouns as in (1b), (2b), and (3b), it changed the nouns from singular to plural. It is also evidenced from the examples that, when the nouns were changed to plural, the adjectives too were changed to collocate with the noun.

In Dangme, the available data reveals that, tense and aspect are marked through the use of suffixes such as: -ɔ, -a, -e, as presented in the table 9 below:

Affix	Root	Gloss	Affixed Form	Gloss
i. -ɔ	bɛɛ	'sweep'	bɛɛɔ	'sweeps'
ii. -a	la	'sing'	laa	'sings'
iii. -e	do	'dance'	doe	'is dancing'
iv. Ø	ye	'eat'	ye	'danced'
v. Ø	do	'dance'	do	'danced'

Table 9: Inflectional Affixes on Tense and Aspect in Dangme

Table 9 gives samples of tense affixes in Dangme. The corpus reveals that, there is not any identifiable affix that marks past tense in the language. In that, the bare root form can mark for the simple present tense as well as the past. To dichotomize, the two tenses are not marked morphologically but by the context. The future time is marked syntactically by preceding the verb with "ma" or "maa". The following sentences exemplify how these are marked in sentences:

4a. Jokue ɔ bɛɛØ we ɔ mi.

Child DEF sweep.PST house DEF inside
'The child swept the house.'

b. Jokue ɔ bɛɛ-ɔ we ɔ mi.

Child DEF sweep-HAB house DEF inside
'The child sweeps the house.'

c. Nyumuyo ɔ nge la-e.

Boy DEF is sing-PROG
'The boy is singing.'

In example (4a), though the verb in the sentence is in the past, has retained the verb stem form since tense is not morphologically marked in Dangme. In (4b), the suffix {-ɔ} is attached to the verb root to mark the habitual aspect. The suffix {-e} in example (4c), marks the progressive aspect. These affixes were attached to the verbs to denote tense and aspects in Dangme.

As seen in table 8 for Akan plural affixes, the same process is achieved in Dangme by the use of suffixes {-hi, -wi, -mɛ, -li, -bi, -yo}. The study reveals that, these affixes mark plural in the language. Table 10 below presents the data on the Dangme inflectional affixes on number.

Affix	Root	Gloss	Affixed Form	Gloss
vi. -hi	womi	'book'	womi-hi	'books'
vii. -wi	jokue	'child'	jokue-wi	'children'
viii. -mɛ	matse	'chief/king'	matse-mɛ	'chiefs/kings'
ix. -li	Nugo-no	'a native of Nugo'	Nugo-li	'the people of Nugo'
x. -bi	sɔlemi-no	'a church member'	sɔlemi-bi	'church members'
xi. -yo	nɔmo-yo	'an old man'	nimo-wi	'old men'

Table 10: Inflectional Affixes on Number in Dangme

As seen in the Table 10, all the affixes are inflected to mark plural. In addition, the -li in example (iv) communicate a sense of membership. All these affixes do not create a new word out of the existing one but modifies the root word to inflect for number. Dangme has its plural markers signifying specific groups of entities. The suffix {-hi} is used to mark plural in common nouns, {-wi} marks plurals in the generational groups. {-bi} is used as a suffix to mark plurals of entities within a bigger group and {-mɛ} marks plural in kingship terms and traditional rulers. Some of these forms are presented in the examples below:

5a. E nge womi kake.

3SG has book one
'He/She has a book.'

b. E nge womi-hi.

3SG has book-PL
'He/She has books.'

6a. Zangmayo ɔ nge hɔ.

Young lady DEF take pregnancy
'The young lady is pregnant.'

b. Zangma-wipɔɔ hɔ nge mi ligbi.

Young lady-PLADV pregnancy taking day
'Young ladies are getting pregnant.'

7a. Tsaatɛ ba.

Father come.PERF
'Father has come.'

b. Tsaatɛ-mɛba.

Father-PL come PERF

'Our Fathers have come.'

8a. Dangme-noji Kisεε.

Dangme native COP Kisεε

'Kisεε is a Dangme'

b. Dangme-li ji mε.

Dangme-PL COP 3PL.OBJ

'They are Dangme people.'

In the above examples, we see that the nouns in examples (5a), (6a), (7a) and (8a) are in their singular forms and are not marked by affixes. In examples (5b), (6b), (7b) and (8b) the affixes *-hi*, *-wi*, and *-mε* were inflected on the nouns to denote plurality. The *-li* in example (8b) denotes membership of an origin.

4.2.2. Derivational Affixes

As already explained, derivational affixes are added to roots to create new words. Crystal (2008:138) states that, derivational affixes change the grammatical class of morphemes to which they are attached. Derivational affixes may be class changing affix or class maintaining with regards to the root that they are attached to. It is worthy noticing that, a single stem can have both inflectional and derivational affixes at the same time. In such cases, the derivational affix is realized closer to the stem than the inflectional affix (Booij, 2007). We identified the following affixes a-, ε-, n-, m-, -ni, -foɔ, -i(ε), -e(ε), as derivational affixes in Akan as shown in table 11.

	Affix	Root	Gloss	Affixed Form	Gloss
i.	a-	kɔm	'incantate'	akɔm	'incantation'
ii.	ε-	dɔm	'join'	ɛdɔm	'multitude'
iii.	n-	hyira	'bless'	nhyira	'blessings'
iv.	n-	kya	'greet'	nkya	'greetings'
v.	n-	tɔn	'sell'	ntɔn	'do not sell'
vi.	m-	pɔn	'close'	mpɔn	'do not close'
vii.	m-	bɔ	'play'	mbɔ	'do not play'
viii.	-ni	sika	'money'	sikani	'rich person'
ix.	-ni	sugya	'bachelorhood'	sugyani	'bachelor'
x.	-ni	Ghana	'proper noun'	Ghanani	'Ghanaian'
xi.	-foɔ	kua	'farming'	kuafoɔ	'farmer'
xii.	-foɔ	kora	'rivalry'	korafɔɔ	'rival'
xiii.	-ie	su	'weep'	a-su-ie	'weeping place'
xiv.	-eε	sie	'barry'	a-sie-eε	'cemetery'
xv.	-eε	wie	'finish'	a-wie-eε	'end point'

Table 11: Derivational Affixes in Akan

Table 11 presents an analysis of some derivational affixes in Akan. From the table, it is observed that, the root word and the affixed forms are not the same. There is a change in meaning and/or the class of the root word in the affixed form. From the table, while affixes (v-xii) are class maintaining, the rest are class changing derivational affixes. It is evident from the table that, the affixed forms shared a different meaning from the root word. The class maintaining derivational affixes in (v-vii), changed the polarity of the root from positive to negative resulting in a change in the meaning. In this case, though the word class was maintained, the meaning changed. In the other way, the affixes in xiii-xv changed the word class of the root from a verb to a noun and their meanings also were changed. Examples of these are presented in sentential forms below:

9a. Kofi hyiraa me.

Kofi bless-PST 1SG

'Kofi blessed me.'

b. Kofi hwehwε n-hyira.

Kofi seek-PST blessings

'Kofi sought for blessings.'

10a. kya abɔfra no ma me.

Greet child DEF give me

'Greet the child for me.'

b. nkya abɔfra no m-ma me.

NEG-great child DEF NEG-give me

'Do not great the child for me.'

11a. Sie efunu no.

Bury corpse DEF

'Bury the corpse.'

b. Mekɔɔ a-sie-eε hɔ.

1SG-go-PST cemetery there

'I went to the cemetery.'

In examples (9b), (10b) and (11b), the affixes changed the roots they are attached to from a verb to a noun. The affix in (10b) is a negation marker and changes the affirmative form of the verb to the negative. In Dangme too, both class maintaining and class changing derivational affixes were identified and the process as surfaced in Akan, occurs the same in Dangme as presented in table 12.

	Affix	Root	Gloss	Affixed Form	Gloss
i.	a-	kpasá	'to lean against'	a-kpasá	'lazy chair'
ii.	o-	kadí	'to mark'	o-kadí	'symbol'
iii.	e-	yó	'female'	e-yó	'female/female one'
iv.	-lɔ	tsɔɔ	'teach'	tsɔɔ-li	'teacher'
v.	-li	hɛ	'fish'	hɛ-li	'fishermen'
vi.	-mi	gbe	'beat'	gbe-mi	'bathing'
vii.	-i	tu	'jump'	tu-i	'did not jump'
viii.	-ɛ	pɔ	'wet'	pɔ-ɛ	'not wet'
ix.	-we	bɛɛ	'sweep'	bɛɛ-we	'not sweep'

Table 12: Derivational Affixes in Dangme

Table 12 presents a data on Dangme affixes which are classified as derivational affixes. The function of the first six derivational affixes (i-vi) isto change the class of the base. For instance, the affixes *a-*, *o-*, *e-*, *-lɔ*, and *-li* indicate verb to noun derivation. In a similar vein, the suffix, *-mi* when attached to the verbs, resulted in the formation of gerunds. The latter are class maintaining derivational affixes. Though the affixed forms of (vii-ix) did not change the word class of the derived words, there is a meaning change from the affirmative to the negative. Consider how some of these affixes occur in Dangme sentences:

12a. Mo kpasagli ɔ.

2SG lean against wall DEF

'You lean against the wall.'

b. O a-kpasá a ku.

Your lazy chair DEF break.PERF

'Your lazy chair is broken.'

13a. E kadiwomi ɔ.

He/she mark.PST book DEF

'He/ She made a mark on the book.'

b. Nyɛ o-kadiɔ nge fɛ.

2PL symbol DEF is beautiful

'You symbol is nice/ beautiful.'

14a. Kofi tsɔɔ ni.

Kofi teach things

'Kofi teaches.'

b. Tsɔɔ -lɔ ji Kofi.

Teach-er COP Kofi

'Kofi is a teacher.'

15a. Bo ɔ pɔ.

Cloth DEF wet

'The cloth is wet.'

b. Bo ɔ pɔ-ɛ.

Cloth DEF wet-NEG

'The cloth is not wet.'

As presented in Table 12, the derivational affixes can change the word class or maintain the word class. In the example (12b), (13b), and (14b) the affixes {*a-*}, {*o-*} and {*-lɔ*} change the meanings of the words they are attached to. The affix {*-ɛ*} in example (15b) changed the sentence from affirmative to negative.

It is also evidence in the Dangme data that, adjectives are derived from some verbs and these are formed through the addition of derivational affixes. What makes this process different from what has been discussed earlier is that, the affixes are added to the root after they have been reduplicated. It is identified in the study that the affixes are attached to the base after the reduplication process as seen in table 13 below.

Affix	Root	Gloss	RED	Affixed Form	Gloss
-i	fu	'ripe'	fufu	fufu-i	'ripped...'
-i	ku	'break'	kuku	kuku-i	'broken...'
-e	gbo	'die'	gbogbo	gbogbo-e	'dead...'
-e	ko	'pound'	koko	koko-e	'pounded...'
-ɛ	bɔ	'flourish'	bɔbɔ	bɔbɔ-ɛ	'flourished'
-ɛ	pɔ	'wet'	pɔpɔ	pɔpɔ-ɛ	'wet...'

Table 13: Reduplicated Verbs in Dangme

It is observable from the data in Table 13 that there are two processes involved in verb noun derivation. First, the verb root is reduplicated before a prefix {-i} or {-e} or {{-ε}} is attached to the base word to form an adjective. Consider the pair of examples below where the bare verb root and the derived adjective occur in sentences in Dangme in examples (16) and (17).

16a. Mangoo ɔ fu.

Mango DEF ripe

'The mango is ripped.'

b. Mangoo **fufu-i** ɔ ngɔɔ.

Mango ripped DEF sweet

'The ripped mango taste nicely.'

17a. Lajɛ **ko** kokote ɔ.

Lajɛ pound dry.PST cassava DEF

'Lajɛ pounded the dried cassava.'

b. Kokote **koko-e** ngɛ tsu ɔ mi.

Dried cassava pound-PST DEF is room DEF inside

'The pounded dried cassava is in the room.'

4.3. Diminutive and Feminine Affixes in Akan and Dangme

The corpus from Akan reveals the suffix *-wa* which is referred to as a diminutive and feminine marker in the language. The affix *-wa* can be realized as *-ba/ -waa* depending on the root it is affixed to. (see Dolphyne 2006, Braun 2009, Appah & Amfo 2011, Adomako 2017 among others). When this affix is attached to the root, it function by changing the root either from a masculine to feminine or denoting a sense of diminutive as presented table 14 below:

	Affix	Root	Gloss	Affixed Form	Gloss
i.	-wa	kuro	'town'	kurowa	'small town'
ii.	-wa	teatea	'slender'	teateawa	'very slender'
iii.	-wa	kete	'small'	ketewa	'very small'
iv.	-wa	dade(ε)	'iron'	dadewa	'nail'
v.	-wa	se(ε)	'father'	sewa(a)	'paternal aunt'
vi.	-wa	ɔbaa	'female'	abaawa	'female servant'
vii.	-wa	Agyei	'male name'	Agyeiwaa	'Female name'

Table 14: Diminutive Affixes in Akan

From data 14 above, the roots in (i-iii) were inflected with *-wa* to signal a grammatical relation. Whiles there is no meaning change, a superlative form of the adjectives in (ii) and (iii) are seen in the affixed forms. But in the examples (iv-vi), completely new words are derived in the affixed forms. Though there is no change in the word form, the meaning of the root words were changed in the affixed forms. It can be deduced from the above that the suffix *-wa* in Akan can function as an inflectional or derivational affix depending on the root it is attached to.

As noted in Akan, Dangme also has affixes that mark diminutive and feminine. Unlike Akan where the diminutive affixes are few, Dangme has *-yo, -bi, -ki, -wa, -kuɔ, -mle* which perform this role. Examples are presented in table 15.

	Affix	Root	Gloss	Affixed Form	Gloss
	-yo	jokue	'a child'	jokue-yo	'a little/small child'
	-yo	zangma	'woman'	zangma-yo	'a young woman'
	-yo	nihe	'man'	nihe-yo	'a young man'
	-bi	womi	'a book'	womi-bi	'a small book'
	-bi	sukuu	'school'	sukuu-bi	'school children'
	-nyafii	tsesi	'sauce pan'	tsesi-nyafi	'a small sauce pan'
	-wayoo	yoyo	'girl'	yoyo-wayoo	'a little/small girl'

Table 15: Diminutive Affixes in Dangme

In table 15 above, the affixes featured are those that carry diminutive meaning. In the affixed forms, we witness that, the nouns were changed to their diminutive forms. This denotes that, the affixes perform an adjectival role by qualifying the various nouns. It is to be noted *bi*'child', *nyafii* and *wayoo* 'very small/little' are lexical items that have been grammaticalized into diminutive morphemes: *-bi, -nyafii* and *-wayoo*. In the same vain, Dangme has affixes that denote gender. These affixes change the nouns they are attached to from the masculine to feminine or from neutral to either masculine or feminine as exemplified in table 16 below.

Affix	Root	Gloss	Affixed Form	Gloss
-ki	Padi	'a male name'	Padi-ki	'a female name'
-wa	Ofori	'a male name'	Ofori-wa	'a female name'
-kuɔ	Dugba	'a male name'	Dugba-kuɔ	'a female name'
-mle	Tɛɛ	'a male name'	Tɛɛ-mle	'a female name'
-yo	bi	'a child'	bi-yo	'a daughter'
-yo	kungwɔ	'a fowl'	kungwɔ-yo	'a hen'
-ku	kungwɔ	'a fowl'	kungwɔ-ku	'a cock/rooster'

Table 16: Gender Markers in Dangme

From data 16, we realize that, the affixes in example (i-iv) are affixes that denoted gender. The feminine forms of the root noun were derived by the addition of the feminine affixes *-ki*, *-wa*, *-kuɔ* and *-mle*. In examples (v-ix), although the feminine and masculine markers *-yo*, and *-ku* can occur as free morphemes, they have been grammaticalised to function as gender marking affixes. The *-yo* marks feminine while *-ku* marks masculine. It is worthy noticing that, all the affixes of this quality are suffixes.

4.4. Augmentative Affixes in Akan

It is realized in the available data that, Akan has affixes that mark augmentation. Augmentative according to Crystal (2008:44) is a term used in morphology to refer to an affix with the general meaning of 'large', used literally or metaphorically. Agyekum (2010) posits that, Augmentative nouns are nouns that show the value, greatness or the supremacy of someone or something. It is identified in the study that, augmentative affixes in Akan perform adjectival roles and communicate a sense of greatness, hugeness, higher in ranks and the like. Table 17 below presents augmentative affixes in Akan.

Affix	Root	Gloss	Affixed Form	Gloss
-pɔn	ɔhene	'king/ chief'	ɔhemɔn	'great king'
-pɔn	sukuu	'school'	sukuupɔn	'University'
-tam	bayere	'yam'	bayetam	'big yam'
-nini	yare(ɛ)	'sickness'	yarenini	'severe illness'
-krɔnn	akonwa	'stool'	akonwakronn	'pure/great stool'

Table 17: Augmentative Affixes In Akan

It is seen from the data above that, the affixes that are represented in the affixed forms serve augmentative purposes. We identified also that all the augmentative affixes are suffixes and are always attached to the root at the right. The corpus from Dangme also reveals that, there is an affix, *-ngua* 'big' that also performs augmentative function as in Akan. *Ngua* is a lexical item that has been grammaticalised into an affix. This affix also communicates a sense of greatness or hugeness as presented in table 18 below:

Affix	Root	Gloss	Affixed Form	Gloss
-ngua	matse	'chief'	matsengua	'paramount chief'
-ngua	asafoatse	'commander'	asafoatsengua	'traditional commander-in-chief'
-ngua	yo	'wife'	yongua	'wife's elder sister'
-ngua	nye	'mother'	nyengua	'mother's elder sister'
-ngua	tse	'father'	tsengua	'father's elder brother'
-ngua	otsiame	'linguist'	otsiamengua	'senior most linguist'

Table 18: Augmentative Affixes in Dangme

From table 18, the *-ngua* performs an augmentative role and it is evidenced that, in the affixed forms, a sense of greatness or seniority is identified.

5. Summary of Findings

From this study, it is evidence that, the affixation process is a productive morphological process in Akan and Dangme. We have identified that; the two languages share so many similarities in the affixation processes. These similarities are summarized below:

- The data have shown that both languages have affixes that can be classified by position and by function. By position, we identified that, both languages have affixes that are attached to the root at the initial position (prefixes), *i-*, *ɪ-*, *e-*, *a-*, *ɛ-*, *o-*, *m-*, *n-*, *ɔ-*, *æ-*, *ie-*, *ee-*, *ni-*, *re-*, *bɛ-*, *wo-*, *me-*, *mo-*, *ye(n)-*, *wɔ(n)-*, *ɔ(no)-*, *ɛ(no)-* for Akan and *e-*, *a-* and *o-* for Dangme.
- We also identified suffixes in both languages, *-foɔ*, *-ni-*, *ie-*, *ee-*, *ɔ-*, *o-*, *-nom*, *-wa*, *e-*, *krɔnn*, *-nini*, *-tam*, *-pɔn*, for Akan and *-i*, *-ɛ*, *-we*, *-hi*, *-wi*, *-mɛ*, *-li*, *-bi*, *-mi*, *-li*, *-lɔ*, *-ki*, *-wa*, *-kuɔ*, *-mle*, *-yo*, *-ku*, *-ngua*, *-wayoo*, *-nyafii* for Dangme.
- The analysis revealed that both languages (Akan and Dangme) do not have circumfixes.

- The corpus also revealed that, functional affixes in the two languages can be inflectional or derivational. Whereas the derivational affixes can be class changing or class maintaining with regard to the root that they are attached to, inflectional affixes mark aspect, number, gender, diminutive and augmentative.
- The available datashowed that circumfixes are not functional in both languages.
- Both Akan and Dangme have affixes that mark diminutive, *-wa(a)*, *-ba* in Akan and *-yo*, *-bi*, *-nyafii*, *-wayoo* in Dangme.
- It is to be noted that, while Dangme has affixes that mark gender-*ki*, *- wa*, *-ku*, *-mle*, *-yo*, *-ku*, Akan has only feminine markers-*wa(a)*, *-ba*.Also, the augmentative affixes found in both languages were those identified for performing an adjectival role and denoting a sense of greatness or superiority.
- Beside these similarities, we also identified many differences that exist in the affixation processes in Akan and Dangme. The data showed that;
- Dangme has non-classical infixes-*ε* and *-i* identified in the formation of some negative words like *so-ε-le* "did not pray", *bo-ε-le* "did not go around", *tsu-i-kεε* "did not smoke" which on the contrary does not exist in Akan.
- On positional affixes, it was observed that whereas eight (8) among the Akan vowels / i, ɪ, e, ɔ, ε, o, a, æ/ can function as prefixes, only three /a, o, e/ of the Dangme vowel function as prefixes.
- The corpus revealed that, derivational affixes in Dangme are only prefixes *o-*, *e-*, *a-* but derivational affixes in Akan, can be prefix *a-*, *ε-*, *n-*, *m-* or suffixes *-ni*, *-fɔ*, *-i(ε)*, *-e(ε)*.
- It was also identified in the study that, there are affixes in Akan and Dangme that mark augmentation but while Akan has four affixes *-pɔn*, *-tam*, *-nini*, and *-krɔnn* that mark augmentation, Dangme has only one *-ngua*.

6. Conclusion

Findings from this study have proven that Akan and Dangme share some commonalities as well as differences in their affixation processes. The commonalities and divergences in languages serve as the major basics for the classification of languages into language groups. This has affirmed the general of language universals. The study thus, has shown that, although the two Kwa languages have many similarities as far as affixation processes are concerned, there are also differences which help to dichotomize one from the other. The findings of this study, will add to the findings on comparative studies on morphology in the field of linguistics in general.

7. Abbreviations Used

ADV	Adverb
COP	Copular
DEF	Definite Article
HAB	Habitual
NEG	Negative Morpheme
PERF	Perfect
PL	Plural
PROG	Progressive
PST	Past
1SG	First Person Singular
2SG	Second Person Singular
3PL.OBJ	Third Person Plural Object

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