



Research Article



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Analysis of Akan compounding through the lens of autosegmental theory

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Abstract

Compounding has gotten a lot of attention in Akan Phonology. Asante, Fante, Akuapem, Bono, Wassa, Buem, Assin, and many other dialects make up the Akan spoken language. This demonstrates that Akan has 10 varieties spoken in six of Ghana's ten regions, mostly as a mother tongue, according to Dolphyne (2006: ix) (L1). Three of the 10 dialects can be categorized as significant dialects. Akuapem Twi, Asante Twi, and Fante are the three tribes. These three dialects are regarded as major dialects because they have primarily garnered significant study attention over the years and are taught in some schools in various sections of the country, and they have had educational success. The words are reduplicated, compounded, and affixes are introduced, all of which result in variations in Twi words. This research focused on compounding in words using autosegmental theory. As we compounded the words, the autosegmental was exposed to some vowels and consonants to be removed. The information was gathered in a document. Using autosegmental theory, the researchers discovered that there is compounding in Akan (Twi).

Keywords: Akan, autosegmental, compounding, phonology, phonological processes



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Public Interest Statement

As a tonal language, Akan takes into account not just the vowels and consonants that make up a word but also the relative pitch with which each syllable is uttered. As a result, tone affects the meaning of words in Akan. Tone replacement is the process of replacing a morpheme's phonological tone with a grammatical tone (Abakah 2005). Tone replacement is defined as when a tone loses its default tone and is replaced by another tone as a result of grammatical or phonological processes. Tone substitution occurs in Akan in two situations: when a compound word's initial element is a noun and the second element belongs to any word class, major or minor, and when a verb root is transformed into a deverbal noun. According to the author, the autosegmental theory is the best theory for analyzing and explaining all phonological processes that occur in a language. In Germanic languages like English, compounding has attracted a lot of attention. In terms of Ghanaian languages, Akan has also gotten a lot of attention. There hasn't been a comprehensive study of compounding in Akan yet. The structure and synthesis of compounds in the language will be discussed in this article.

1.0 Introduction

Akan words are formed by compounding, derivational and inflectional affixation to stem and reduplication processes (Dolphyne, 2006, p. 79). The structure of Akan words consists of affixes (prefix and suffix) and stem or root word. This help us to denote that Akan (Twi) words are not only stems but some words are joined together as one word. Akan (Twi) have been compounding some of their words through phonological processes such as vowel harmony, homorganic nasal assimilation, loss of final vowel or final syllable, loss of vowel or nasal prefix, nasalisation of voiced plosives and change in the basic tones of stem (Dolphyne, 2006). The paper is cushion us to the change in basic tone of stem or word class using autosegmental theory. The detail of this topic will cohesion that the tone deleted from one sound in a word is not lost but attach to the next tone in the word in compounding of the words. Compounds are very common in languages because of their semantic transparency and versatility. According to Libben (2014), Compounding is a universal language. In other words, no known language does not contain compounds. Compounding is found in languages of any type but is dominant in isolating languages Libben (2014). However, according to (Štekauer, 2012), some languages do not contain compounds, such as West Greenlandic (Eskimo-Aleut, North America/Greenland) and Diola Fogny (Niger-Congo).

The Akan Language

The Akan Language is spoken in eight regions in Ghana namely Asante, Bono, Ahafo, Central, Eastern, Western, Western North and Oti as mother tongue. People speak the Language in almost all the sixteen regions in Ghana as either L1. Akan now serves as Lingua Franca in all the regions which reinforces Boadi's Cahill's (1985) observation. It is made up of Mfantse, Asante and Akuapem. Other dialects include Assin, Akyem, Bono, Wasa, Kwahu, Denkyira, Akwamu

Compound Classification

The classification of compounds has long been a topic of debate in linguistics. Almost every scholar working on the subject of compounding has put forward their point of view. According to Appah (2013), one straightforward approach to classify compounds is to use the constituents' form-class, which yields N-N, N-A, N-V, and so on, or the compound's output category, which yields verbal, go to v, adjectival, and so on. The presence and position of a head element, according to Appah (2013), distinguishes between compounds

that are hyponyms of their heads and those that are not, generating endocentric vs exocentric compounds, respectively. The grammatical and semantic relationship between the elements is used in a final approach. (Appah 2013). In reality, most classifications involve more than one of the above parameters, so terms like endocentric N+N coordinates and V+V endocentric compounds are not uncommon (Libben, 2014).

Problem Statement

Some works have discussed compounds in Akan Christaller(1875), Balmer and Grant (1929), Boadi (1966), Dolphyne (1988), Marfo (2004&2005), Abekah (2004&2006), Appah (2015). They have discussed various aspect of the features of compounds and compounding in Akan, focussing mainly on the phonology of the identified types. They classified compound usually based on; i) the putative category membership of the constituents as N + N, N+ Adj; ii) class membership plus phrase functions like object + verb. Again, they have also discussed Akan compounds are generally right- headed but there are some left - headed as well as doubly headed. Analysis of Akan compounding using autosegmental theory is what this paper focuses on to fill the gap since no attention has been drawn on Akan compounding.

Research objectives

The goals are;

- a). to reveal that compounding of Akan (Twi) words are done through vowel harmony, homorganic nasal assimilation, loss of final vowel or final syllable, loss of vowel or nasal prefix, nasalisation of voiced plosives and change in the basic tone of stems.
- b). to be abreast with tone deletion that tone deleted is not lost but detached to the next tone in the word.
- c). to derive the concept that the tone bearing unit of a word mark its tone.

Literature review

Compounding

According to Thakur (2009) compounding is when two or more words are joined to make a longer word. A compound word can be a noun, a pronoun, an adjective, a verb, an adverb a preposition, conjunction and interjection.

Example;

- 2.1.1. blueprint = blue + print
- goldfish = gold + fish
- toothache = tooth + ache
- myself = my + self

He also said, in English article cannot occur in compound.

Bruce (2009: 706) said compounding is the formation of a word by compounding two or more words. A compound word thus will have more than one root, where as ordinary words have just one. As in example 2 below;

- 2.1.2. Blackbird = black + bird
- Pancake = pan + cake
- Intake = in + take
- Bedroom = bed + room

Dolphyne (2006: 117) also said compounds are made up of two or more stems. As in

2.1.3. Ahemfie = ɔhene + efie

Palace = chief+house

Didipono = didi + εpono

Diningtable = dinning +table

The example aboved show that some Akan words have been combined together under the noun, adjective, verb, adverb.

Agyekum (2010, p. 44) had made emphasis that some Akan words have joined together under these categories of part of speech. Here are examples

2.1.4. Noun and verb

Ase + da = aseda

Thanks

Nkonim + di = nkonimdie

Victory

Ayie + yɔ = ayiyɔ

Funeral

Ani + gye = anigye

Happiness

2.1.5. Verb and verb - meaning the two words are from the same verb class. Eg

Gye + di = gyedie

Belief

Sɔ+ hwε = nsɔhwε

Exams

Ka + hwε = nkahwε

Taste

Apart from the examples above, Akan has other words that have been compounded, Dolphyne (2006:128). These include;

2.1.6. Noun and noun

Efunu + adaka = funudaka

Coffin

ɔhene + efie = ahemfie

Palace

Sukuu + εdan = sukuudan

School building

Abusua + efie = abusuafie

Family house

Abusua + ɔpanin = abusuapanin

ClanElder

2.1.7. noun and adjective; here the words combined are noun and adjective

Nsuo + pa = nsupa

good water

Nkwana + pa = nkwapa

goodsoup

ɔbra + pa = ɔbrapa

good life

Nsuo + nwunu = nsunwunu
coldwater

Nsuo + hyeɛ = nsuhyeɛ
warm water

2.1.8. noun and adjective

Here are both noun and adjective words

Asem + kɛsɛɛ = akɛsesɛm

Asem + fɛɛfɛ = afɛɛfɛsɛm

Abakah (2004:298) “compounds are formed by merging two or more free forms”. According to Appah(2005) “compounding is formation of words by joining two or more bases. Since the term base is a cover term for both stems and roots(Katamba1993). We avoid committing ourselves to whether or not the element involved in compounding are roots or stems but we also make room for both roots and stems as constituent of compounds in Akan.

2.2. Phonological process

Compounding words in Akan are done under the phonological processes(Dolphyne, 2006). Namely: vowel harmony, homorganic nasal assimilation, final syllable, loss of vowel or nasal prefix, nasalization of voiced plosives (Dolphyne 2006, p. 117).

- Phonology is a branch aspect of linguistics that deals with speech sound. In compounding words in Akan concerned the segment in words. Because the compounding words happened due to vowel harmony.
- In compounding words in Akan segment the words are accounted for because they occurred to vowel harmony homorganic nasal assimilative, loss of final syllable, loss of vowel or nasal prefix, nasalization of voiced plosive (Dolphyne 2006, p. 117) vowel harmony is reflection to Advanced Tongue Root [+ATR], [-ATR] and Rounding harmony and unrounding harmony.

In Akan [+ATR] sounds are [æ e, i, o, u ə] and [-ATR] sounds calls includes [a, ɛ, ɪ, ʊ, ɔ] rounding harmony and unrounding harmony also deals with spreading of the lips whiles mentioning some of the words, compounding of words in Akan happened occurs under (+ATR), (-ATR) means that the segments in the words must all fall in Advanced or Unadvanced sounds. Examples:

2.2.1. etire + bɔ = abotiri [æbotiri]

Crown

Sɔ + hwɛ = nsɔhwɛ [nsɔhwɛ]

Temptation

Ase + da = asɪda [asɪda]

thanks

Odwan + nini = Odwenini [odwenini]

ram

In these examples, [æbotiri] crow, [odwenini] sheep are Advanced whiles [asɪda] thanks and [nsɔhwɛ] exams are non-advanced. Another aspect for compounding in Akan is homorganic nasal assimilation. This apt about place and manner of articulation as nasal sounds such as [m, n, ɱ, ŋ] assimilated with all the oral consonant. Furthermore [m, ɱ] takes [b, f, p] and [n, ŋ] go with the rest of oral sounds. Let see these examples

2.2.2.

Asem + hunu = asemhunu [asɛnhunu]
ɔhene + efie = ahɛmfie [ahɛmfie]
Asem + kɛsɛɛ = asɛnkɛsɛɛ
Ntam + ka = ntanka

Aforementioned examples, [asɛm] and [ntam] had [m] sounds at the end but changed to [n] as combined with [hunu, kɛsɛɛ, ka] due to the sounds that begin the words.

Again, [n] sound in [ɔhɛnɛ] change to [m] as it has assimilated with [f] sound in [efie]. Loss of final syllable is also phonological processes in Akan and considered in compounding. In some words as they are joined together as one, their final syllable is lost. As in

2.2.3. ɔhene + kɛsɛɛ = ɔhɛnkɛsɛɛ [ɔhɛnkɛsɛɛ]

Efunu + adaka = efunudaka [ɛfundaka]

Awareɛ + bɔne = awarebɔne [a hiwarebɔne]

In Akan, phonological process for compounding is loss of vowel or nasal prefix. Example

2.2.4. abusua + efie = abusuafie [æbusuafie]

Family +house =family house

Sukuu + ɛdan = sukuudan[sukuudan]. These two words as they lose their prefix especially vowel sounds in the second words.

The Autosegmental theory

The autosegmental idea was proposed by John Goldsmith in 1976. Linguists employed linear generative phonology before the development of the autosegmental theory. Linguists realized in the 1970s that linear generative phonology couldn't capture key generalizations connected with specific phonological processes. There have been suprasegments, according to Goldsmith (1976), which are segments that are above classification. As a result, Goldsmith proposed the autosegmental phonology theory to address the flaws in Linear Generative phonology and to aid in the classification of suprasegments. It offers a formal description of ideas that had been outlined in earlier works by numerous linguists, but had not been taken seriously up to that point (Goldsmith 1976). Although the autosegmental theory was originally designed to analyze tonology, linguists have expanded it to include vowel harmony and nasalization. G. N. Clement (1981), for example, was the first to apply autosegmental theory to the study of vowel harmony.

Tone in Akan

Akan is determined not just by the vowels and consonants used in the word but also by the relative pitch used to pronounce each syllable (Dolphyne, 1988). The tone is a phonetic property that refers to the rate at which the vocal cords vibrate. Voiced consonants and vowels are affected. In Akan, there are two basic tones: high tone and low tone. The character [/] denotes a high tone, while the symbol [\] denotes a low tone (Abakah, 2005; Dolphyne, 1988; Owu-Ewie, 2001; Boadi, 2010). A high tone has an allotone known as downstepped high tone, or downstep for short, according to Abakah (2005). Whether linked or floating, the downstep H happens in the context after an intervening L. Tone is a suprasegment, and it should be associated with a place higher than segment, according to Akanlig-Pare (2005). As a result, a tone bearing unit could be a word or a more sonorous sound. Each syllable has only one tone, which corresponds to the syllable's more sonorous sound (syllable).

Methodology

This paper surveyed compounding in Akan (Twi) as diluted to analysis Asante's words which had been compounded. The secondary data was used in collection of the data. The

paper immerse to the use of qualitative method to analysis the data.

Findings

This work has been framed with autosegmental theory under tone. Compounding is an aspect of words formation and tone plays important role in words since words comes in gradual sequence which some have low tone and others in high tone. Tone is one of the areas of Akan phonology that has been extensively researched and it has already been established in the literature that tone function in Akan at the lexical and grammatical levels (Abakah, 2010). Akan words depend not only on the vowels and consonants of which the word is made, but also on the relative pitch on which each syllable of the word is pronounced. Dolphyne(2006: 53). She continued said on page 55 that Akan is a register tone language in which the two basic tones, high tone ['] and low tone [ˊ] are pronounced in relatively level pitch. However, syllable of a word been pronounced is the tone bearing unit of a tone in Akan.

4.1. Ohene (chief) o: he : ne (chief)
etire = (head) e: ti : re(head)
nsa (drink) = n :sa

In the literature three main syllable structures are distinguishable in Akan. These are C, V, and CV. Syllable structure means nasal consonants begin a tone bearing unit of tone at the initial and final position of a word. Examples;

4.2 mpa (bed) = m : pa
nsa (hand) = n: sa
pam (sew) = pa: m

Syllable structure V is also vowel which marks peak of prominence of a syllable also determined the tone bearing unit of a tone. As in

4.3.afe (year) = a:fe
εpo (sea) = po
ako (war) = æ:ko

The CV is a last syllable structure to give tone. CV is combination of consonant and vowel. Then, the two determine the tone bearing unit of tone in a word being at initial, medial and final position. As in

4.4. bisa (ask) = bi :sa
soma (send) = so: ma
didi (eat) di: di

This verify that compounding as one of the word formation cannot exception from tone According to Dolphyne (2006: 120) the tone patters of compound are two. Namely Compound in which all the syllables of the first stem are saidon low tone and compounds in which the first stem is not said on low tone. Let see examples on compounds which the first stem is based on low tone

Noun and noun

èfùnù + àdáká = fùndákà

corpse box coffin

ɔhene + èfié = àhèmfíé

chief house palace

àsáfó + ɔhéné = àsafohéné

war chief warrior

àsɔ + bàyéré = àsɔbàyéré

name yamyam name

àfé + dá = àfédá

year day next year

Noun and verb

Ádée sùá = ádesùá

Thing learn learning

Nkonim di = nkónimdié

Victory + eat = victory

Verb and verb

Sɔ + hwɛ = nsɔhwɛ

Try look = examination

Fó + tù = àfótùó

Advice

Hwé + hwɛ = àhwéhwe

Mirror

Noun and adjective

Àsem + kesée = àsemkesèè

Trouble big big trouble

ɔhéné + kesée = ɔhènekèsèè

chief mighty paramount chief

nsù + nwùnù = nsùnwunu

water cold cold water

Those compounds in Akan that the first stem are slot said on low tone.

Noun and noun

ekɔn + pɔ = kɔmpɔ

neck knot

sùkùù + dàn = sùkùùdàn

school building classroom

àbósóm + éfiè = àbósómfié

gods house shine

Noun and verb

àbé + twà = àbétwà

àhá + yɔ = àhayɔ

nsá + dwém = nsádwém

drinks drink drunkard

The last thing I will talk about under this topic is autosegmental theory

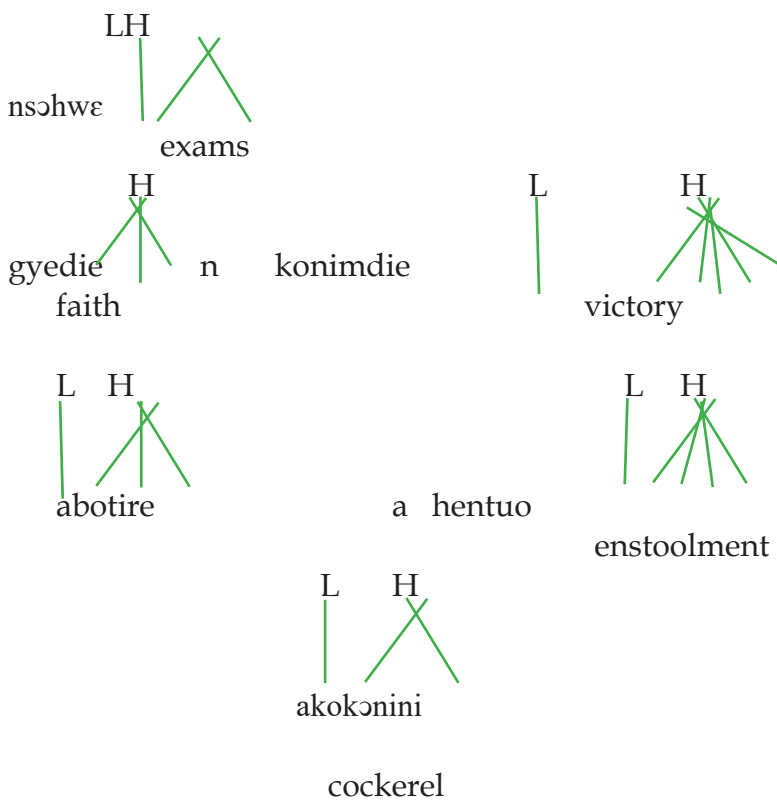
- In the 1970s linguists saw that linear generative phonology was incapable of capturing generalizations with certain phonological processes.
- Linear generative phonology was usual to represent utterance in linear and they saw

that it was incapable around 1970's. Therefore, Goldsmith (1976) propounded autosegmental theory of phonology to develop tonology but other linguists extended the study to vowel harmony (VH) nasalization. In 1976, autosegmental theory which association line used tonal and segmental tiers to represent sound segment differently was propounded.

In Akan, they apply pre-linking to associate tonal and segment tiers. Under autosegmental theory, there is underlying level presentation on tone stability used by the lexicon. On this presentation, either the first vowel or second vowel in the words are said to set deleted out the zone carried by the deleted vowel does not delete but survives to the surviving next vowel. This made Goldsmith (1979:30) said in tone language we find that when a vowel dissyllabified or is deleted by some phonological rule, the tone said to be there. Then, compounding in Akan rank could be useful presented on tone stability. When two words combined together, there is loss of vowel but the tone it's carried does not deleted and stable transferred to next vowel. As in

àsáfó + ɔhéné = àsáfóhéné
 warrior king warrior king
 kua + edwuma = kuadwuma
 farm work farming
 ɔbàà + ɔpàní = ɔbaapàní
 female ɔbaapaní

OCP – The Obligatory contour principles is used in compounding in Akan. The Obligatory Contour means that similar melodies are disfavoured as constituent siblings of some Akan words which are compounded. These words are together but they are having adjacent identical tones. Here are the examples in compounding

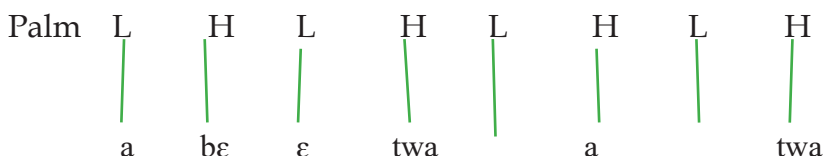


Another aspect of autosegmental in Akan compounding is down step. Downstep refers to post L - H receives a lower pitch than the pre L - H

Some compounding in Akan receivedownstep. When two words are put together, the tone bearing segment deletes and the tone it bears does not delete along with it but rather float to adjacent tones for toneal perturbations.

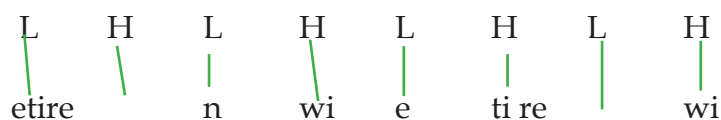
As in

Àbɛ + ɛtwá = àbɛltwá



ètiré + nwi = ètire! wi

head hair



Conclusion

This study is a contribution to the Akan compounding. It is easy for a non -native speakers of a language to base their analysis on data that may not reflect the true phonological fact of compounding of the Language. There are some consonantal segment of Akan in compounding according to Schachter (1962), Schachter & Fromkin (1968) Christaller (1875), Balmer and Grant (1929), Boadi (1966), Dolphyne (1988), Marfo (2004 & 2005), Abekah (2004 & 2006), Appah (2015). Tharkur (n.d.61) says compounding is when two or more words are joined to make a longer word. Akan words are formed by compounding derivational and inflectional affixation to stem and reduplication of processes (Dolyphyne, 2006: 79) The structure of Akan word consists of affixes (prefix and suffix) and stem or root word.

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