African Studies

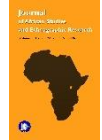# Towards identification of argument structures of verb classes: A question of syntactic alternations and verb semantic classes

Research article

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Abstract
There is the general consensus among linguists today that verbs, to a large extent, are used in virtually all sentences in all languages. This study aimed to identify the argument structures of the verbs of cutting, verbs of contact by impact, verbs of change of state and verbs of perception. The sources of data for the study included written texts, conversations and my own introspection as a native speaker of Asante Twi. The study revealed that the patient argument which undergoes the change of state can only be expressed as theme. This study serves as a useful resource in classifying Akan verbs of cutting, contact, change of state and perception into their respective units. This will help learners and the language users in identifying various semantic characterisations of the various categorisations of verbs in the Akan language.

Keywords: Akan language, argument structures, verbs of cutting, verbs of perception, semantic characterisations

Public Interest Statement

Previous studies of the Akan language show that though a few works have been done on the verb phrase in the language, very little effort has been done on the verbs of Akan and their argument structures. Linguists of Akan have concentrated largely only on branches of sociolinguistics, phonology, syntax, pragmatics, morphology, phonetics (Boadi, 1963 2008; Danso, 1983; Boakye, 1990; Clarks, 1992; Dolphyne, 1996; Yanka, 1998; Agyekum, 2006; Osam, 2008; and Kusmer, 2011). Christaller (1875), studied phrasal verbs and he focused on preposition and postpositions (appositions elements) in Akan. and specifically in the discussion of verb and apposition combinations. Sekyi-Baidoo (2003) also studied the syntactic manifestation of the phrasal verbs in respect of the principles of transitivity, complementation or collocation by which they are different. It is against this backdrop that this work seeks to analyse those units of verbs the selected and their argument structures.

Introduction

There is the general consensus among linguists today that verbs, to a large extent, are used in virtually all sentences in all languages (Marshall, 2008). Obviously, verbs contribute significantly to the meaning of an utterance as well as the sentences which they are part of (Dölling and Heyde-Zybatow, 2007). The meaning of a sentence is determined by the meaning of its parts of speech and their syntactic combination in the sentence. In this work I present the syntax and semantic analysis of some Akan verbs. Verbs are certainly the most complex words, from a semantic viewpoint. They do not only incorporate semantic features such as tense, aspect, mood, agreement, but also select the arguments of any number, from zero to at least four or even five. For example

(1) *Creba*

c-   re   ba

JSG   Pre. Cont. come

'S/he is coming'.

(2) *Adwoa   abj   duru*

Adwoa   has   arrive- PAST

'Adwoa has arrived'.

(3) *Kofi hunu-* u   Bamfo

Kofi see- PAST   Bamfo

(4) *Kwabena ma- a   Afia sika*

Kwabena give- PAST   Afia money

'Kwabena gave Afia some money'.

(5) *Maame   no   tcn-n ntoma maa   Yaa Mansa   sidi   du*

Woman DEF sell-PAST cloth give- PAST Yaa Mansa cedis ten

'The woman sold a piece of cloth to Yaa Mansah at the cost of Ten Cedis'.

In example (l), the verb 'reba' (is coming), selects only one argument and illustrates a kind of action called activity. It involves an agent Cno's/he', doing something. The action is observed as durative (which goes on for a period of time). The action produced no results. This shows that the action is non- conclusive. In example (2), there is only one argument with the verb 'abj duru' (has arrived), it also shows an achievement. A person undertakes an action and produced a result or achievement. In example (3), there is no agent instigating the event. The event simply occurs without an agent instigating the activity. This example is an event and shows a major distinguishing feature between events and actions when compared with examples (l) which has an agent instigating an activity. Actions occur by human or another animate agent or actor. Sentence (4) shows that 'Kwabena', the subject, is the agent who instigated the action ma 'give', as the main verb of the sentence. The example with the verbs tcn 'sell', and ma'give', in example(5), illustrate a type of action called activity, which produces a result and shows an accomplishment: a person undertakes an action with a result or achievement. It is conclusive. It also has three arguments which are 'the woman', 'a piece of cloth', and'Yaa Mansah'.

Verbs are very important in language, because they play essential roles in sentences. The meaning of a verb determines the range of situations in the world that it can be used to describe. Bozic and Marslen-Wilson (2010), also argue that "single words are further combined into phrases and sentences, following the rules of syntax. Syntactic processing has been associated with a broad, mainly left-lateralised network of fronto-temporal regions". In their assertion, they also suggest that smaller units are combined to make up a phrase, clause and sentences of which verbs are not left out in the processing mechanisms.

2. Literature Review
2.1 A Descriptive Analysis of Argument Structures in Akan
This section looks into four types of transitive and intransitive verbs in Akan: **cut, contact by impact, change of state and perception.** The main goal of this section is to represent argument structures of the four types of Akan verbs which are all different from one another. The Akan verb twa 'cut' simply means to penetrate or divide with a sharp- edge instrument or object. It again, implies a detached with a sharp- edge instrument. separate from the main body, lop off. Twa 'clip' involving (single or double) sharp- edged instruments such as a knife, scissors or axe are described using the verb twa'cut' by at least two out of three Akan speakers irrespective of whether the theme object is extended along one dimension (wool, rope) or two dimensions (cloth), and whether it is flexible (hair, rope) or rigid (branch, carrot). One speaker also uses twa 'cut' for twa 'clips' involving the use of a chisel point. Akan speakers also use expressions other than twa 'cut' for the cutting domain, but these are typically semantically more general than the verb twa 'cut' these include; sene 'carve', twa 'cut', ti 'scratch', twitwa 'slice', twitwa (no basabasa) 'hack', ka 'bite', pae 'cleave' and other.

Change of state verbs show the act or physical process where a matter moves from one state to another. For example; *noa, bu, kye,* and others. Verbs under this category can be grouped into two main classes: internally and externally cause change of state. Internally cause change of state verbs means bringing about the change of state event is conceptualised as residing in the entity undergoing the change. For example: *Abcfra no anyini*. (The child has grown). The child has grown because of something internal to the child. An external caused change of state is conceptualised as coming about because of something external to the entity that undergoes the change of state. For example: *Kofi abc ahwehwjno*. (Kofi broke the mirror). The responsibility for the mirror breaking lies not with the mirror itself rather with some external force from the agent using an instrument.

Again, contact by impact verb refers to an act of striking of one entity or object to another. According to Levin (1993), contact by impact verb is describe as verbs that describe the action of moving an entity to bring it into contact with another entity, without necessarily entailing that this contact has any effect on the second entity. Some of these examples include; pem 'bash', boro 'beat', bc'hit', wc'pound', sc'peck '(with beak) and others. Contact by impact verbs semantically encode a component of contact, motion, force, body part, sound, and instrument as their attributes.

The Akan language shows that the field of perception is represented by the key verb denoting visual perception, namely the verb hunu 'see', te 'hear', and hua 'smell', The verb of perception also shows that the first argument of the verb initiating the activity will take an agentive and the second argument will take the theme (undergoer) in the sentence construction. Argument structure consists of two major fields: syntax and semantics. In the area of syntax, argument structure represents the minimal information which is required to characterise the syntactic dependents of an argument-taking head. On the field 01 semantics argument structure represents the core participants in events designated by a single predicator (Bresnan, 1995:1).

Argument structure encodes lexical information about the number of arguments. their syntactic type, and their hierarchical organisation necessary for the mapping to syntactic structure (Bresnan, 1990; Hovav and Levin 1995; Bresnan, 1995). According to JongBok and Peter (2007), this realisation is obligatory in English. Jackendoff R, S. (1990) states that the lexical semantics information entails the notion of theta roles (i.e thematic roles: agent, theme, goal, source, and many others) and argument structure (a set of elements referring to the lexical representation of grammatical information about a predicate). In this thesis, we use the term argument structure to describe the semantics about the predicate.

I examined the different semantic roles that verbs assign to their arguments. Chafe (1970: 95- 96) asserts that a sentence is built around a predicative element, usually the verb. The nature of the verb predicts the kind of nouns that will co-occur with it, what the relation of these nouns to it will be and how these nouns will be semantically specified. The argument structures of the four types of transitive and intransitive verbs of Akan presented in this section will cast light on

the semantic and syntactic aspects of those constructions. To this end, I utilise the operations like argument suppression, argument deletion, and externalisation, and the notions like event argument (Davidson. 1967; Kratzer 1989), external argument and internal argument (Williams, 1981; Marantz, 1984). Liina (2008) asserts that verbs describe events of the world in sentence construction and verbal arguments, and name individuals that stand in some relevant relation to these events.

2.2 *The Verb and its Importance*

Chafe considers the verb as central, and the noun peripheral. This necessarily means that it is the verb which determines what noun or nouns may or must co- occurs, and not the reverse. The centrality of the verb within a sentence brings about the verb- noun relations of the following types: patience, agent, experiencer, beneficiary, instrument, complement, and location unless a verb is specified as ambient, which indicates that the state is an all- encompassing state with no reference to a thing within the environment. Every sentence must have a patient, an agent, or both.

One of the most prominent approaches to verbs is that of Levin (1993) who proposes a theory of the verb lexicon. Verbs are used to refer to relations between entities and are thus the core of encoding events (Majid, Van- Staden, and Boster, 2007). Verbs also express action or a state of being and tell (in active voice) what the subject of the clause is or does. A verb is necessary to make a complete statement (Dayne el al., 2010). The syntactic structure of words in a language are based upon to categorise their syntactic distribution and semantic interpretation (Carnie 2013: 47). According to traditional grammar, verbs are action words or doing words. Rauh (2010: 17) cited Davidson (1874) as explaining a verb as "an indeclinable word indicating time, person, and number and showing action or event". Matthew (2007: 427) posits that a verb is: "one of a class of lexical units whose characteristic syntactic role is as a predicate or predicator and which is characteristically that of words denoting actions or processes". He also adds that verbs normally take arguments such as noun phrases and other phrases from any of the syntactic categories. The arguments are required by the verbs for the meaning to be complete or clear.

In this work, there are four sub- classes of verbs which are treated in the Akan language: Cutting, Contact, Change of state, and Perception verbs. Linguistic research has shown that verbs fall into classes distinctive in terms of their syntactic and semantic properties (Jackendoff, 1990, Hale and Keyser, 1993; Levin, 1993; Pinker, 1989 cited in Korhonen, 2014. For instance, verbs which share the meaning component of motion (e, g. fly and walk) tend to behave similarly also in terms of sub -categorisation and can thus be grouped to a linguistically coherent class. She adds that such classifications are particularly useful from a practical NLP point of view. They can be used as a means of reducing redundancy in the lexicon and for filling gaps in lexical knowledge. To a certain extent, they enable inferring the semantics of a word on the basis of its syntactic behaviour, and the syntax of a word on the basis of its semantic behaviour. I considered the

transitivity of these selected verbs. Hopper and Thompson (1980), argue that mass evidence suggests the significance of the notion of transitivity in the grammars of the world's languages, Transitivity is a crucial relationship in language, having a number of universality predictable consequences in grammar. Two approaches which focus on the argument selection role of the verb include Construction Grammar (Goldberg 1996) and the Verb Class approach (Levin 1993, Levin and Rappaport Hovav 1991). The VP centred approach of Construction Grammar is essentially a 'top-down' approach, which proposes that a syntactic construction provides an integral degree of semantic meaning to a phrase or utterance. A verb can participate in the construction if it is semantically underspecified or semantically compatible. In contrast, the Verb model class suggests that semantic meaning comes from the 'bottom-up' of a structure, with the meaning of the verb determining into which syntactic constructions it can fall. In linguistics transitivity is a property of verbs that relate to whether a verb can take direct objects and how of many such objects a verb can have (www, wikipedia.com on 08/08/2014). This can be deduced from Chang (2005) that 'a verb is either transitive or intransitive, there is no murky area'. Traditionally, transitivity is defined as, an event, if it involves a transfer of energy from one participant to another (Kittila, 2002). Transitive verb, for instance, requires two objects that are traditionally known as Direct Object (DO) and Indirect Object (10) (Basaria, 2014). Aside from Kittila (2002), Hopper and Thompson (2006) confirmed that transitivity is traditionally understood as a global property of an entire clause such that an activity is "carried-over" or transferred from an agent to a patient. They add that transitivity comprises at least two participants and an action which causes effect in some way. This suggests that the verb (which represents the action) illicit a subject and an object in a sentence or clause in which it works (Croft, 1990; Dowty, 1991; Kemmer, 1993). This indicates that the action is transferred from one entity to another. For instance:

3) *Kofi bu-   u   dua no*
Kofi break- PAST tree DEF.
"Kofi broke the tree"

The example (3) shows a typical transitive event because it typically involves a transfer of energy from the subject (Kofi) to the object (the tree). Some of these verbs selected may be idiomatically transitive, while technically, intransitive. Hopper and Thompson (1980) call "The degree of transitivity" of the event is evaluated as an aggregate of a cluster of properties or perimeters, each of which contribute in some fashion to the transitivity relationship. According to Næss, (2003), it is best described as a type of grammatical relationship encoding the distinctness of participants in a situation described by the clause, In the selected verbs, we discuss their semantic manifestations within the sentence structures.

In functional grammar, transitivity is considered to be a continuum rather than a binary category as in traditional grammar. The "continuum" view takes a more semantic approach. This is done by taking into consideration the degree to which an action affects its object. The semantic level of the selected verbs in this work is organised into three groups: l) the prototypical transitive construction (I did not break the door). where the object is directly affected by the action, 2) the resultative construction (He broke the cup on the floor), where the object arises as the result of the action of the verb. and 3) the relational construction (e.g. Paul might have broken the pot), where the object simply specifies the scope of the action (Mendoza, 2005: Mendoza and Mairal, 2006). Transitivity in Systematic Functional Grammar (SFG) does not refer to syntactic property of verbs but represents the clauses configuration of process (material, cognitive, relational, and others), participants (e.g. extent, location, manner, cause and others) Costetchi, 2004. It is determined by the semantic function and expresses a doable activity and someone or something receives the action of the verb (Dixon and Aikhenvald 2000, Robin 2014). Foley and Valin (1984) say that there may be an instance of verbal behaviour which is non- communicative. But this in no way undermines the fundamental functionalist tenet that an understanding of a language structure requires an understanding of the functions language can serve, communication being the primary focus. They add that the functionalist view of communication is not limited to the narrow sense of conveying prepositional information, but concerns itself with the entirety of speech events which take place in human settings and maintenance of social relations, so that informal conversation engaged in mainly for the purposes of phatic communion is considered to be communicative.

Levin (1993), presented that a special group of verbs are those with "alternating transitivity", which can be used with either the agent or the theme in the subject position. Quirk, Greenbaum, Leech and Svartvik, (1985) and Cobuild (1990: 137- 8) explain transitivity as:

> If an action or event involves only one person or thing, you mention only the performer of the action (the subject) and the action (the verb). Clauses (sentences) of this kind can be called transitive verbs. If the action or event involves another person or thing which the action affects, relates to, or produces, you put a noun group referring to them after the verb group. This is called the object of the verb or clause. The verbs which have direct objects are called transitive clause, and the verbs which occur in transitive clauses are called transitive verbs.… A small number of transitive verbs also allow you to mention who benefits from an action or receive something as a result …Verbs which can take an indirect object as well as a direct object are called bi- transitive verbs.

> Transitivity is thus used here in the sense of the capability or necessity of verb to take an object, which according to Quirk, Greenbaum, Leechand Svartvik, (1985) cited in Sekyi- Baidoo 2003: 157 is "the sufferer" or the recipient of the verb.

Any verb with an external argument counts as transitive under the definition in Hale and Keyser (1993) cited in Woolford (2014). Transitivity is central to the definition of an ergative pattern in typology (Comrie 1978: Dixon 1979) transitive subjects are marked in a way that is distinct from intransitive subjects and transitive objects. Transitive verbs are characterised by the obligatory presence of two non-prepositional arguments: a subject and a direct object.

3. Methodology

3.1 Participants

Ten monolingual, Asante Twi – speaking adults were consulted for the data. I provided some examples of 'twa' cut, 'ka' contact by impact, sesa' change of state, and 'susu' perception verbs and asked them to provide sentences out of those verbs. Again, I asked them to give some examples of verbs in the categories of those verbs. These subjects were selected to participate in the study. These subjects were six males and four females, who matched for age (29 -58 years). Four teachers of Asante Twi were also contacted to produce sentences involving "twa" cut verbs, 'ka' contact by impact verbs, 'sesa' change of state verbs, and 'susu' perception verbs. Two of these teach Asante Twi at the Wesley College of Education, Kumasi. The other two are my colleague teachers at the T. I. Ahmadiyya Senior High School also in Kumasi. All of them have taught in their respective places in at least five years and beyond. I also had face to face interaction with four interns; Dominic Agyei, Abigail Owusu Ansah, Akuama Abraham, and Kofi Agyemang Prempeh. The research asked them to provide sentences involving "cut", "contact by impact", change of state", and "perception" verbs, where they readily provided several of those expressions containing those verbs. Again, as a native speaker of the Asante Twi language, I intuitively recorded some ofthe expressions on those verbs as and when they occurred to me. I also collected some from social gatherings such as naming ceremonies, marriages, funerals and others.

3.2 Data Collection

This research adopted a descriptive and qualitative study. The method applied in the data analysis is distribution method (Sedaryanto, 1993; Mahsun, 2011; Basaria, 2014). Data were collected from two major sources. The first one is the primary source. Due to my introspective knowledge as a native speaker of the Asante Twi, I constructed some of the examples myself as and when they occurred to me. The second is the secondary source.

3.2.1 Primary Data

Significant amount of primary data was collected for this study. The primary data used in this analysis were collected from social gatherings such as naming ceremonies, marriages, funeral rites and conversations with friends, colleague teachers as well as relatives. These were done in the natural settings exhibiting how the native speakers use words in their natural contexts. I wrote some of the data down and assigned some of my colleague teachers to identify and also come out with the meanings of the verbs of "cut contact by impact", and "change of state" and "perception" all in sentences of Akan. I told the teachers that the exercises required were meant for my thesis, which they willingly gave responses without any hesitations. Below are some of the Samples they provided after I had briefed them.

Data on 'twa'cut verb
Kofi twaa dua no too fam no, ɔtwitwaa mu asmiasmi na ɔsensenee ho. paepae mu nketenkete. Afei, ɔbobɔɔ mu ntokuro de yec kodoc a wɔdidi mu [When Kofi cut down the tree, he hacked it into pieces and cut it into shapes. Later he perforated it into semi porous earthenware from which food is eaten].

Data on "ka" (contact by impact) verb
Adwoa sii abɔfra no koto sjnea ɔreka twene sane bcc n'asom maa abɔfra no bo fuuij de abaa bobcc nhwehwj a jwo dan no mu nyinaa. [Adwoa knocked the child like drumming a drum and slapped him. This infuriated the child to strike all the plate glasses in the room with a stick].

Data on 'sesa' change of state verb
Nsuo a jwc fam no awewe ama dua no nwura apepa asesa dua no ahosuo ama nnomaa a wɔda dua no so no atu kc dua foforc so. [The river beneath the ground dried up and the leaves of the tree has wilted, which has changed the colour of the tree and all the birds have moved their nest to another tree].

Data on "susu'(perception) verb
Maame Durowaa tee nkwan panpan pj na ɔsusuu sj, nkwan no so abue, ɔtwee ne kcn hwjj egyaare hc hwjj dej asi, jflri na wanya atenka bi sjckraman no aka ne nkwan no agu. Mpofirim hc ara na ckraman no pue firii egyaare hc de ne ho nkwan bjtwii Maame Durowaa ataadej mu. Jna Maame Durowaa hunuu pefee sjckraman no de n'ano aka ne nkwan no. [Maame Durowaa smelled an aroma of soup. She sensed that the lid of her soup was opened. She stretched her neck to look inside the kitchen because she sensed that the dog had caused the soup to fall down. Suddenly, the dog came out of the kitchen rubbed itself against the cloth of Maame Durowaa. She realised that the dog had licked her soup.

3.2.2 Secondary Data

Information was obtained from written materials (published and unpublished) in the Asante Twi language. Some of these include textbooks, story books, Twi – English dictionary, journals, a grammar book in Akan by Akrofi (1964), some of the "cut" verbs were also collected from the Asante Twi Holy Bible (I Samuel, Matthew, Luke John, and Revelation).

In this paper data obtained from any of the written materials in citing examples were duly acknowledged. The various wordlists cited were thoroughly studied and all relevant verb forms were identified and analysed into verb classes which were in relation to their syntactic and semantic behaviours.

3.3 Data Analysis

The functionalist approach to grammar guided the analysis of the data used in this work. The two main sources of data were explained: the primary and the secondary sources. After collecting the data, all analysis would be thoroughly conducted. I tried to put the verbs in sentences and examined them to identify the varying forms of the verbs. I categorised the information after acquiring and knowing my data. After the categorisation, I described the similarities and then looked at the various themes emerging from the data. encoded them and put them into conceptual categories in order to describe the happenings. To make the conceptual models meaningful to the reader, I finally translated them into a story line.

4. Results and Discussion

4.1 Verbal Predicate

In Akan a basic clause consists of a predicate and containing one or more arguments. There are some sentences with no verbal predicates which turn to be exceptional and are mostly not found in some languages, sentences that contain verbal predicates can be found with high frequency in all languages (Dryer, 2007). There are types of clauses with verbal predicates whose property vary considerably across languages, Predicates occur as a significant element of a clause.

4.2 Twa 'Cut' Verbs

The Twa "Cut" verb expresses performance of an event when it takes a constituent which indicates eventuality (Lakoff, 1987; Langacker, 2008; Talmy, 2000). In Akan "cut" is a main verb which expresses division of an entity. For example: la. *Adwoa twaa brodo no mu*. This sentence expresses separation of the object "*brodo*"(bread) into two different halves or parts. According to Guerssel *et al.* (1985), the verb "*twa*"(cut) does not undergo the inchoative alternation but participates in the conative alternation. For example: the man cuts strings. They state that the verb "cut" does not employ any specific morphology in its alternations. This view is no different in Akan, because in Akan the verb "*twa*" "*cut*" does not provide any morphology in its alternations. For instance;

1a. *Papa no twadua no.*

Man DEF cut- HAB. tree the

"The man cuts the tree".

Table 1 Twa 'cut' Verbs

Asante Twi	English
twa (fa a apasoc twa ahoma no)	clip
twitwa (twitwa no basabasa	hack
twa (fa scc twa dua no)	saw
ti (biribi ati ne nan ho)	scratch
twa	slash
twa	hew
twa	snip
wrj	scrape
twa	cut
twa	chip
pae	cleave
sene adeyc	**carve verbs**
tu	bore
pira	bruise
sene	carve
twa	chip
twitwa	chop
mia	crush
pae	cube
bubu (so)	crop
moa	dent
twitwa	dice
twa	nick
twa	notch
bc	perforate
bobc	Pulverize
bc	Punch
bcne	Shed
twitwa	slice
tu (tokuro)	gash
tu	drill

tua	fill
yiyi	fillet
twi	grate
yam	grind
sje	mangle
hono	mash
yam	mince
dc	Mow
sene	Slit
wc	Pierce
mia	Squash
kyim	Squish

The conative alternation indicates both contact and motion. Goldberg (1996) suggests that the different "at" frames are a single construction that can appear both transitively, in the conative, and intransitively. The action of a conative may be understood as verb not achieving the intended end, contact not being achieved with the internal argument, or a change to the bounding of the event. This is an alternation of transitivity, in which the object of the transitive verbal predicate turns to be the constituent of a prepositional phrase started by the preposition "at" in an intransitive variant (Grado, 2015). According to Levin (1993), conative alternation defines an "attempted" goal without making clear whether it was achieved or not. For example:

1b. *Papa no twa   dua no ho*
Man DEF cut- HAB. tree the side
'The man cuts at the tree'

In the sentences above, conative alternation is clearly shown because the object of the verb "*twa*" (cut) in the transitive form in (a) becomes the object of the preposition "*ho*" (at) in the prepositional phrase of the intransitive form in (b). Also, in sentence (a) "*Papa*" (the man), completes the action of cutting the tree, whereas in (b) it is not clear whether the action has been completed or not. The object of a verb in the transitive variant is realised as the object of a prepositional phrase headed by the preposition at in the "conative" variant (Levin, 1993: 42). The verb "*twa*" (cut) is also used to mean "to injure" when it is used to refer to body parts. Akan native speakers use "*twa honam*" (cut flesh) to refer to the action of cutting any part of the body such as finger, leg or a hand. For example:

1c. *Kofi de blade twa- a ne nsasoaa*
 Kofi take blade to cut-PAST his finger

"Kofi cut his fingers with blade".

In (1d), Kofi is the subject who used the blade which is the instrument to cut his fingers which is also the part of his body where he applied the action. This is different from (1a), which does not specify the exact part of the body where the action was applied. Again, (la) has only the subject and object of the action, and a "cut" verb also seems to be responsible for the interpretation of separation, whereas (I b) and (I c) have additional NPs "*ho*" (at) and "*bcwerj*" (finger). In the analyses of lexical representation Faber and Marial (1999) group "cut" verbs in the lexical domain of ACTION. They listed the superordinate or more generic verbs of "*twa*(cut) as "*twa*" (hew), "*twitwa*" (prune)(to cut or remove excess), "*twitwa*" (shave), "*tu*" (gash) (to cut deep), "*twitwa*" (lop) (to cut part off),"*twitwa*" (slice), "*twa*""(nick), "*twitwa*" (chop), "*twitwa*"(hack) (to cut in rough manner), "*sene*" (carve) (to cut in order to shape), "*twa*"(clip) (to cut with a pair of scissors or shears), "*twa*"(shear) (to cut with a blade or sword), "*twa*"(saw) (to cut with a saw), "*bcne*" (chisel) (to use a chisel), and "*twa so*"(mow)(to cut grass or crop).

These verbs form a specific class because they are closely related in meaning; they describe the creation of separation of an entity. Again, they exhibit similar syntactic behaviour with respect to a number of syntactic alternations. We can also add that the verbs which are cross- listed above indicate the meaning of cut or separation, because it is, rather, more of generic meaning, and the one that the rest of the hyponyms of "cut" share. Though their meanings are closely related, they differ slightly in meanings due to the distinguishing features each of them exhibits, which include instrument. manner and others. These differences will be discussed later in this thesis. Levin (1993) groups the various alternations shared by the elements which fall under the sub-category as:

2. Subject Instrument Alternation:
a. *Kwabena de sekan twa- a   ntoma no mu*
Kwabena take knife cut- PAST cloth the inside
"Kwabena cut the a piece of cloth with a knife"
b. *Sekan no twa- a   no ntoma mu*
Knife the cut- PAST the cloth inside
"The knife cut the cloth".

3. Unintentional interpretation available (some verbs)
a. Reflexive object;
Kofi de yiwan twa- a ne ho
Kofi take blade cut -PAST his (side)
"Kofi cut himself".

b. **Body Part object**
Kofi twa- a ne nsa bcwerj
Kofi cut-PAST his fingernails
"Kofi cut his fingernails"

4. Conative alternation

a. Kofi *twa* dua no
Kofi cut – HABtree the
"Kofi cuts the tree"
b. *Kofi twa dua no ho*
Kofi cut-HAB tree the side
"Kofi cuts at the tree"

In the (4b) the elements combined of the verbs and the productive conative rule result in an interpretation of missed contact. Thus, the intended target was to contact y, but as it moves along the path, it does not make such contact with the y. I his was emphasised by Levin (1993) as motion and contact. Dixon (1991) gives a distinction between contact being made with the direct object and the aim of the event being achieved. For example: in (4b) contact is still likely to have been made between the instrument of the agent and the tree. An inclusion of "at" requires specifically that an aim was not achieved. In this case the subject might have tried to separate the tree with an action, but it did not fall. In view of this it is seen clearly that "cut" verbs cannot appear in inchoative expression because they specify only a generic result. For example; a cut can vary from mere incision in the theme's surface all the way to separation of the theme into two parts.

Goldberg (1996) assigns the conative construction the meaning of "Direct-action- at" which implies a lack of contact being made with the internalargument. It is observed that the conative form also occurs in the Akan language. Goldberg (1996) again, gives the construction grammar frame forconative as:

Sem   DIRECT- ACTION- AT   <   agt   theme >
                          | R | |
R: Intended   PRED   <   >
Result   +motion | |
                          +contact | |
Syn.   ↓   ↓   ↓
                          V   SUBJ. OBL. "at"

Kofi twaa dua no ho. (Kofi cut at the tree).

When we look at the syntactic representation above, Kofi is the agent of the action of the verb "twa" (cut) while the object of the verb (the tree) in the transitive variant is realised as the object of a prepositional phrase headed by the preposition "ho" (at) in the conative variant.

5. Middle alternation;
a. *Ama twitwa Jnam no   nyinaa*
   Ama cut   meat   the all
"Ama cut the whole meat"
b. *Jnam no nyinaa twi/waa   kama*
   Meat the all   cut-PAST nicely
"The whole meat cuts nicely".

In linguistics this feature appears and utilizes the patient as its subject and the agent is implicit: that is, it is not explicitly expressed. Middle alternation also goes with an adverbial element and a transitive verb and it occurs only with affected objects (Levin, 1993). In sentence (5a) the verb refers to an agent intending and executing a particular action, however, in (5b), the verb does not refer to any agent who intentionally executes an activity.

6. Body part Possessor ascension alternation (some verbs)
a. *Akwasi twa- a ne nan ho sekan*
Akwasi cut-PAST his leg side (cutlass)
"Akwasi cut himself on the leg".
b. *Akwasi twa- a   ne nan*
Akwasi cut- PAST his leg
"Akwasi cut himself"

   7.   Path Phrase (some verbs)
Maame no twa ntoma no mu firi etiri kcpemtire
Woman the cut cloth the inside from one end to one end.
"The woman cut the cloth from one end to the other".
"The woman cut the cloth from one end to the other". X produces a cut in y by a sharp edge coming into contact with y. To produce the conative alternation. a productive rule applies to the phrasal argument structure (PAS) of a verb and, in doing so, modifies the LCS to form a purposive clause consisting of: and causes an ENTITY to move along a path toward y. (Guerssel et al.: p.58). This gives a combined conative LCS, for "cut" verb x causes sharp edge to move along path toward y, in order to produce CUT in y.(Guerssel et al. p.59).

8.   **Resultative Phrase;**

a. Maame no twa- a   ankaa no mu   mmienu.

Woman the cut-PAST orange the inside halves.

"The woman cut the orange into two"

In (8a), the resultative construction is observed in the clause as a secondary predicate of the object or the subject of a transitive change of state (CUT). The verb also denotes an event that leads to the indicated result. It can be applied to non- subcategorised object.

For example: "Kofi twaa dua no so tia". (Kofi cut the tree short).

9. Instrument characteristic property of alternation (some verbs)

*a. Dua no twa- a   kama*

Tree the cut-PAST well.

"The tree cut very well."

b Sekan no twa   adej yie

Knife the cut-HAB.   thing well

"The knife cuts well"

According to Hoffman (1991), "cut" verbs have more complex lexical syntactic structures, representing different semantic and thematic aspects of the predicate. "Cut" might have a structure such as shown in the diagram below (1), where we can think of the structure intuitively as corresponding to a semantics along the lines of "Cause N to become not- whole". He adds that the phonological and semantic material is associated with the head of the lower projection and incorporates into the verb.

(1) VP

V

CUT

V   AP

N   A

A
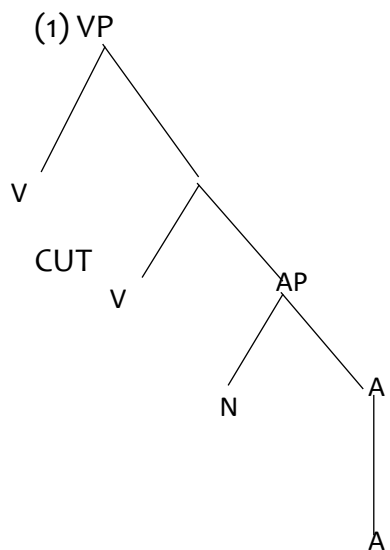
It is clear that "cut" occur in the phrasal argument structure which indicates that it should participate in the conative alternative form. I introduce lexical "*twa*" (cut) verbs and how they function to express conative alternation,argument, and transitivity.

"*Twa*" (cut)

10. a. *Kofi twa dua no*

Kofi cut tree the

"Kofi cuts the tree"

   b.   "Kofi twa   dua no ho

Kofi cut-HAB tree the side

"Kofi cuts at the tree."

   c.   *Kwaku twa- a ne nan*

   Kwaku cut-PAST his leg

"Kwaku cut his leg".

d. *Kwabena de sekan twa akonwa no mu*

Kwabenatake knife cut chair DEF inside

"Kwabena cut the chair"

These constructions indicate that the agents made an opening, wound, and mark in somebody or something with a sharp-edged tool.

11. Resultative Phrase

Levin (1993) asserts that the resultative construction describes the state obtained as a result of the action specied by the verb. This is clearly exhibited in the examples below:

a. ***"Twa"* (clip)**-C-   *de   apasoc no twa krataa no mu nketenkete*

            S/ he take- HAB. scissors the cut paper the inside pieces

            "S/ he clips the paper in pieces with a pair of scissors"

b. ***"Twitwa"* (cut)** -C-   *de   sekanmoa twitwa ankaa no mu.*

                S/ he 3SG take small- knife cut orange the inside

                "She cuts the orange in halves with a knife"

c. ***"twa"*(hew)**-*Kofi atwitwa dua no mu asiniasini*

                Kofi cut tree the inside (in) bits

                "Kofi hewed the tree in pieces".

d.***"Twa"* (saw)**- *Cnwenfoo no twa- a   dua no mu mmienu*

                Carpenter the cut-PAST tree the inside (in) two

                "The carpenter sawed the tree in two"

e. ***"twa"*(prune)**- *twa dua no mman so kc fam*

                Cut tree the branch top go down

                "Prune the branches of the tree"

From (1 la- e), the objects "paper", "orange","tree" and "the branch", all have been cut into separate halves. This indicates the outcome of the actions: "cut""hew", "saw", "clip", and "prune" exhibited on the various objects which in the end result in different entities.

12. Instrument Subject Alternation

Under this expression the tools used as instruments operate as the subject of the sentence. Levin (1993) says that it depends on the combination of both verb and the type of instrument that the latter can function as subject. In the instance (i) below the instrument cannot function as subject of the verb.

(i) *Atre no twa aduane

Spoon the cut food

  * "The spoon cut food"

"twa" (clip)- 13 a.*Yiwan no twa- a   ntoma no   mu*

                  Blade the cut-PAST cloth inside the (to) two

                  "The blade clipped the piece of cloth into two"

  "twa"(cut)- b. *Apasoc no a- twa ntoma no mu*

Scissors the cut- PERF. cloth the inside

                      "The pair of scissors cut the piece of cloth into two"

"twa" (hack)-c. *Sekanmoa no a- twa krataa no mu*

              Knife the cut-PERF. paper the inside

              The knife hacked the paper into two"

  "twa" (saw)- d. *Asradaa no twa- a   dua no*

             Saw   the cut- PAST tree the

             "The saw cut the tree"

Thus, in the examples above, the blade, scissors, knife, and saw function as subjects in the sentences, act as the actors which caused the events. Sentences (13a- d) indicate how the prepositional phrases give us information about the outcome of the actions, which in this case is that the nouns have been cut in two separate entities. The instances above also show how the alternation is shared by all members of the sub-domain of "cut" verbs.

14 Middle Alternation

Middle alternation has its meaning not directly expressed; that is the agent is implicit. The doer of the action is not clear, but the existence of the adverb makes it impossible for the action to be done without an active participant. The adverb is obligatory in the middle alternation and it uses patient as its subject, For example:

14.a *Dua no twa*   *kama*

     Tree the cut-PRST TEN. Nicely

     "The wood cuts nicely".

And lastly, although the verbs compatible with the "middle alternation" are essentially transitive, this alternation occurs only in verbs with affected objects (Levin, 1993'Taniguchi, 1994), all cited in Grado (2015.). Again, the adverb, 'kama nice is said to be obligatory attached to the verb 'twa' cut.

b. **"twa" (cut)-** *To*a*no bce kama bers a*   *c- de dadej no bcc so no.*

          Bottle the break nicely at the time 3-SG metal the hit on it.

          "The bottle chipped nicely when he strukit with the metal".

c. **"twa" (cut)-**_Wawa dua no anim twa_   _kama_

          Wawa tree the face cut- PERF. Nicely

          "The surface of the wawa tree cuts nicely"

          'The wawa cuts nicely'

d. **"twa" (cut)-**_sjmena no twa_   _kama_

          Soap the cut-PERF. Nicely

          "The soap cuts nicely"

e. "*twa*" (cut) :*dua no twaa*   *kama*

        Tree the cut-PAST nicely.

        "The tree cuts nicely"

It is simply shown in the text examples (14a-e) above, that; the glass, the surface of the wawa, the soap, and the tree operate as subjects. Also the patients of the sentences are the elements that receive the actions of cutting nicely and indicate the affected objects. Intransitively, the verb "cut" can occur in Akan language. For example:

14f. *Nsuo*   *no atwa.*

     Water the cut- Perf.

     OBJECT DEF.VERB

     "The water cuts".

The 'twa' (cut) verb denotes an action that is achieved by an agent and the effect of the action is reflected on an object. The verb can be both transitive and intransitive. On the transitive, the verb requires both of its arguments, the subject and the object Semantically, when the object undergoes the action, it can be changed into a smaller state. The above examples show that the sentences are the semantic representations of the verb "cut" in Akan.

4.3. Sesa "Change of State" Verbs

"Change of state" verbs have long been known to exhibit distinctive argument realisation properties (Fillmore, 1970, 1977; Levin, 1993) and with these classes of verbs. the argument- thus the entity undergoing the change of state must be expressed and can only be said as a direct object. It is also a class of verbs which determines alternation of change. A lexical "change of state" verb occurs when the lexical semantic structure of the verb represents the portion of the verbs that is relevant to the determination of the syntactic structures in which the verb can appear, and it lays out the verb-s arguments and the relations among them (Mckoon, 2000). "Change of state" verbs display a wide variety of selection possibilities, which represents a crucial factor for exploring and tracking the behaviour of verbs and their semantics. According to Levin (1989), these verbs are divided into "Break", "Bend", "Cooking", other alternating, Entity-Specific, and Calibratable according to their meaning. Akan verbs that have "bu" (break) meaning are: "bu" (break), "pae" (chip), "bone" (crack), "moa" (crush), "afrikyi" (fracture), "te" (rip), "bc" (shatter), "bubu" (smash), "bc" (snap), "wae" (splinter), "pae" (split), "suan" (tear). The verb "koa" (bend) in Akan are: "bobc" (crease), "to so" (crinkle), "moamoa" (crumple), "bobc" (fold), "tugu so" (rumple), "ponpono" (wrinkle), "scne" (percolate) (water), "kata so" (plank), "pete" (poach), "kye" sauté (meat). The verb "noa" (cooking) in Akan are: "tõ" (bake), "ho" (grill), "huru" (boil), noa" (braise) (meat), "ka biribi hye" (broil), "noa" (cook), "noa" (coddle) (egg), "kye" (fry), "toto" (roast), (meat or fish), "ka hye" (heat), "toto" (roast), (crops), 'ho"(smoked), "ho" (dry), ,"fra" to (mix L "num" (stir), "wc" (pound), "kye" (steam)

4.3.1 The Verb "Nnanemu Nsjm AJkyere Sesa"(other Alternating Verbs ofChange of State) in Akan.

These group of verbs include: "hwan so" (abate), "kankc" (advance), "nyini" (age), "nsesa" (alter), "hi" (atrophy), "nnae" (awake), "pae" (blast), "hye' (burn), tue"(burst), "abutu" (capsize), "sesa" (change), 'si" (clog) (opening), "tum' (close), "twa hwe" (collapse), "home/ mia so" (compress), "nsesa" (condense), "awewe" (corrode), "bubu nketenkete" (crumble), "porc" (decompose), "reyj biribi ketewa" (decrease),"dwo" (deflate), "nane" (defrost), "rehwan dibrj so" (degrade), "reyera" (diminish),"nu nsuom" (dissolve), "bae mu" (distend), "kyem" (divide), "bc ho" (double), "we" (drain), "mere yc" (ease), "bue mu" (enlarge), 'trj mu" (expand), "apae" (explode), "apa" (fade), "hyj ma" (fill), "ayiri" (flood), 'awewe" (fray), "ka bom" (fuse), "kjseyc" (grow), "tim faako" (halt), "jyj hye" (heat), "sa yare" (heal), "reyj din' (hush), "sc kanea" (ignite), "retu mpcn" (improve), redccso" (increase), "hyj ma" (inflate) (air), "sc" (kindle), 'tu tokuro"(loop), "nyini" (mature), "nane" (melt), "bc ho" (multiply), "ka butu" (overturn), "reyj dede" (pop), "rebc biribi ho nan" (quadruple), "resc" (rekindle), "rebue" (reopen), "rebc" (reproduce), retete" (rupture), "hye ani" (scorch), "hye" (sear) (intense heat), "repoa" (shrink), "rehi' (shrivel), "mem" (sink), "hye nsuom" (soak), "bae nsam" (splay), "reflfl" (sprout), "nu nsuom (steep), "tene mu" (stretch), "reyj nwunu" (chill), "pia hyj nsuom" (submerge), "dc asukc"

(subside), "sene ho" (taper), "nane" (thaw), "sene" (tilt), "berj" (tire), "te hwe" (topple), "bue mu" (unfold), "nnanemu" (vary), "nwene" (warp)

4.3.2 The Verb "Sesa Nsjm A Esi Ade Titire Bi So Dua" (Entity- Specific Change of State) in Akan.

Verbs which express the process of entity— specific change of state are the following: "rehono" (blister), "apae nhyerjne" (bloom), "agu nhyerjne" (blossom), "hye" (burn), "rehi" (corrode), "porc" (decay), "resje" (deteriorate), "rehi" (erode) (rock), "aburu" (ferment), "afa mma" (flower), "aflfiri" (germinate), "nwendej" (moulder), "retutu" (molt) (fur/ feathers), "porc" (rot), "naakye" (rust), "hono" (swell), tae faako"(stagnate), "apa" (tarnish), "atwontwom" (wither), "apore agu" (wilt).

4-3.3 The Verb "Mponponsoc" (Calibratable Change of State) in Akan,

"reda anisc" (appreciate), "rehu mframa" (balloon), "'foro" (climb), "repo biribi" (decline), "rehwan biribi so" (decrease), "rete so" (depreciate), "bc abira" (differ), reyera" (diminish), "to twene" (drop), "nya" (gain), "nyini" (grow), "hwiri" (jump), redccso" (increase), "gyae to mu" (plummet), "to" (plunge), 'tu kc soro" (rocket), "scre" (rise), "tu fa soro' (soar), "munimuni" (tumble).

5. Conclusion

It could be concluded to a great extent that from the data that the patient argument which undergoes the change of state can only be expressed as theme. Comparatively, other verbs are found in any of a number of frames without expressing their arguments, but "change of state" verbs cannot be expressed in any frame without their patients. "Change of state" verbs have the availability of transitive use and can collocate with instrument. In an intransitive sentence with a "change of state" verb we observed that it is the subject of the sentence that denotes the entity undergoing the change of state. For example: "Ahwehwj no bcej" meaning (The mirror broke). In a transitive sentence it is the entity in direct object position that is undergoing the change, as in "Kofi bcc ahwehwj no" which means (Kofi broke the mirror). Again, in the intransitive variant the semantic role of the subject is the same as the role of the object in the transitive use. A "change of state" verb is observed to be a result verb. However, a "hit" verb in contrast does not entail a result. This means that "change of state" verbs can have at least two or three arguments in its clause structure.

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