Aspects of Akan Verbal Semantics

Edited by

E. Kweku Osam
Ọbádélé Bakari Kambon

Linguistics Association of Ghana

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Linguistics Association of Ghana
Mailing address: P.O. Box LG 1149, Legon, Accra, Ghana.
Email: gjl@laghana.org

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Preface

Among the languages in Ghana, Akan has benefitted from intensive research. Historical records indicate that the earliest documented study of the language goes as far back as the fifteenth century, and it is associated with the work of the Flemish explorer, Eustache de la Fosse. Over the past six and half centuries, more studies on Akan have been carried out. Research on the Akan language accelerated from the latter part of the nineteenth century with the publication of the works of Johannes G. Christaller and increased even more in the twentieth century with the involvement of native speakers. Over those years, so much has been done on the phonetics, phonology, syntax, and ethnography, but with not enough done on the semantics of the language.

Since the start of the twenty first century, work on the semantics of Akan has received some credible attention. I have had the opportunity to supervise doctoral theses on semantics of Akan verbs. This is what has motivated this book project. I have had the privilege of supervising the doctoral research of each of the contributors to this volume. At the start of 2020, I proposed that we put together a collection of papers on various aspects of the semantics of Akan verbs. This book is the outcome of that proposal.

Contributors have focused on their area of interest, but each one has worked on some aspect of the semantics of Akan verbs. Each paper went through three anonymous peer reviews. As much as possible, all examples in every paper have been tone marked according to the specific dialect the data is from. This is meant to provide as much detail as possible on how these example sentences are rendered in those dialects.

The paper by Eshun is on the Mfantse dialect. This label has been adopted instead of the well-known term ‘Fanti’. The fact is that the speakers of that dialect refer to their version of Akan as *Mfantse*. That is the autonym. The people refer to themselves as *Mfantsefo* (singular: *Mfantsenyi*). Works published in the dialect, for example, stories and poetry, use these autonyms. However, works on the dialect published in English have tended to use the label Fanti. In my view, the time has come for this to be corrected.

It is my expectation that the papers in this volume will be used as teaching materials in Akan courses in higher education in Ghana and elsewhere. I also hope that more research will be done on exploring further the semantics of Akan so as to expand our knowledge of the structure of the language.

E. Kweku Osam
University of Ghana
Legon, Ghana
August 2023

Notes on Contributors

Esther Serwaah Afreh is a Senior Lecturer in the Department of English at the Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. She holds a PhD from the University of Ghana, Legon. Her research has been in syntax, semantics and in cognitive semantics. She has been pursuing her interest in Akan conceptual metaphors.

Dorothy Pokua Agyepong is a Senior Lecturer in the Department of Linguistics, University of Ghana. She holds a PhD from the University of Cape Town, South Africa. Her research interests include semantics and pragmatics of lexical items in African languages, syntax, gestures, and the sociolinguistics of urban youth (contact) languages.

Reginald Akuoko Duah is a Senior Lecturer in the Department of Linguistics, University of Ghana, Legon. His research focuses on comparative-typological syntax of causative constructions, semantic modelling of event structure of serial verb constructions, information structure phenomena such as focus, and the syntax and semantics of definiteness in African languages.

Emma Sarah Eshun is a Senior lecturer in the Department of Basic Education at the University of Education, Winneba, Ghana. Her research interests include language teaching and learning (both L1 and L2), language policy and planning, as well as a focus on syntax, cognitive semantics, and sociolinguistics. She has special interest in the structure of Mfantse. She holds a PhD from the University of Ghana, Legon.

Ọbádélé Bakari Kambon is an Associate Professor and Head of the Language, Literature and Drama Section of the Institute of African Studies at the University of Ghana. His research interests include Serial Verb Construction Nominalization (SVCN), body part expressions, historical and comparative linguistics, onomastics/anthroponymy, sbAyt nt Kmtyw (Studies of Black People), and wsTnw Kmtyw (Black Liberation).

E. Kweku Osam is a Professor in the Department of Linguistics, University of Ghana, Legon. His research has focused on the syntax and semantics of Akan and other Kwa languages in Ghana. Crucial among his research is his work on serial verb constructions, grammatical relations, and the semantics and argument structure of Akan verbs.

CHAPTER 1

Introduction

E. Kweku Osam and Ọbádélé B. Kambon

The papers in this volume focus on aspects of the semantics of verbs in Akan. The subject matter reflects some of the changing trends in Akan linguistic research.

1. Akan Linguistics—History of Research

Among Ghanaian languages, Akan is one of those which have received extensive research output. This is very clear from the extensive bibliographic work on the language carried out by Warren (1976). Since the publication of Warren's work, much more research has been done. As indicated in Warren (1976), initial efforts towards work on the language came in the form of word lists collected by European travellers to what became known as the Gold Coast during the colonial period. According to historical records, the first very limited wordlist in Akan (based obviously on the Mfantse dialect on the coast) was put together by Eustache de la Fosse (1479-1480). According to Konadu and Campbell (2016), de la Fosse was a Flemish-speaking merchant and sailor who travelled to the West African Coast with Spanish sailors.

Konadu and Campbell (2016:87) state that: "de la Fosse's account of 1479–80 provides early evidence, possibly the earliest, for the Akan language as spoken in the late fifteenth century and something about the indigenous peoples he observed and the commerce in which he participated." In an excerpt of de la Fosse's narrative translated by Konadu and Campbell (2016), the following is captured:

> In this land "merchants" are called *berenbues*, "gold" *chocqua*; "water" *enchou*; for "you are welcome" you say *berre bene*, and for "love-play" *chocque chocque*; *barbero* means "a child," *baa*, "white," *barbero baa*, "a white child"; "cloth" is *fouffe*, *concque roncq* means "a chicken," *concque ronconcq agnio* "eggs," *bora* a ring to wear on the arm made of brass, *dede* "good," *fanionna* "bad," etc.
> (de la Fosse 1479-80; translated by Konadu (2016:87-88))

Other early vocabulary collections from the seventeenth and eighteenth centuries, as captured in Warren (1976), include Marees (1602), Muller (1673), Barbot (1732), Oldendorp (1777), Isert (1788). Warren points out that:

> The number of books containing Akan vocabularies proliferated in the first half of the nineteenth century and include Labarthe (1803), Robertson (1819), Bowdich (1819), Hutton (1821), Kilham (1827-1828), Beecham (1841), Norris (1841), Chapman (1944-45), Clarke (1848), Wilson (1849), and Koelle (1854). In addition to general vocabularies, there are early specialized word lists such as names of herbs (Petiver 1697, Tedlie 1819) and names of plants in general (Schumacher 1828).
> (Warren 1976:xvi)

In chapter 6 of Bowdich (Bowdich 1819:344-512), titled *Language*, he provides a description of what he sees as features of Fante and Asante and Ga and provides a wordlist as well. In describing plurality in Fante, this is what he says:

> In the Fantee the plural number is distinguished by the prefix en, though generally, if they can, (in a glance whilst speaking (discover the number of objects, they use a numeral with the noun singular; or, if they cannot be so precise in the instant, they substitute many to mark an indefinite number. (Bowdich 1819:351)

As part of his basic grammatical sketch of the language, Bowdich also provides a list of about 254 words. Examples are given below:

English	Ashantee/Fantee				
afraid	osooroh	ear	assoor	man	binin
alike	oninnise	eat	edee	many	peenarra
all	nenarra	face	wynim	mend	pam
alone	waunkoo	fear	sooroo	neck	ekkone
another	ebissoo	fight	orrokoo	nest	animaboo
back	wakee	go	kaw	new	fofoor
bad	omoo	gold	sikka	oil	engoo
bead	aoonee	hang	osesan	open	boi

beard	aboidwee	heavy	oiadoor	play	agoor
catch	makin	iron	dadee	poison	otoowadoo
change	wahseesun	kill	coom	rain	osooriba
child	ebbah	king	ohennie	ring	inkaa
cold	oiwoo	knot	eppo	salt	inkkim
dance	saw	learn	akirren	sea	eppo
dark	oiheesoom	long	ohwar	tail	dooah
daughter	mebaba	look	fway	thief	krumfoe

By far, the work that marked the departure from primarily vocabulary listings to some level of linguistic analysis is Koelle's (1854) *Polyglotta Africana*. Preceding Koelle (1854), is Protten's (1764) grammar of Ga and the Fante dialect of Akan (*En nyttig Grammaticalsk Indledelse til Tvende hidintil gandske ubekiendte Sprog, Fanteisk og Acraisk* [A Useful Grammatical Introduction to the Ga and Fante languages]). The excerpt below is from Protten's translation of the Ten Commandments from Exodus 12:1-17. The excerpt cover Exodus 20:4-7. The Mfantse text is in the original Protten orthography:

> *Maenjae o fonini, anna maensua bribiso ajae vo Njamemu vosoro hormu, anna vo asase ha, anna vo ensumu assasi ne asse; maensorevaen, maensomovaen.*
> Thou shalt not make unto thee any graven image, or any likeness of any thing that is in heaven above, or that is in the earth beneath, or that is in the water under the earth. (Exodus 20:4)
>
> *Na minde aurude, o Njiankompong anninkunufoa otua nanna num addeboni vere vo vaenni mbaso, vo aa aprensa na aprenang mu, vo vaenna vae tang min; na non o uhu vaen mbobre vo aa appim mu, opae no na ojae na No asem (ote ne a No asaem).*
> Thou shalt not bow down thyself to them, nor serve them: for I the LORD thy God am a jealous God, visiting the iniquity of the fathers upon the children unto the third and fourth generation of them that hate me; And shewing mercy unto thousands of them that love me, and keep my commandments. (Exodus 20:5&6)

> *Maenka aurade o Niankompong ding Gianggiang, Na auurade baemma adinsoeni nu oka nidding Gianggiang.*
> Thou shalt not take the name of the LORD thy God in vain; for the LORD will not hold him guiltless that taketh his name in vain. (Exodus 20:7)

The nineteenth century brought with it an acceleration of analytical works on Akan. As pointed out by Osam (1994a):

> The acceleration in scholarly work on Akan came with the work of the Basel Mission, and the Wesleyan Methodist Missionary Society. While the former concentrated on the Akuapem dialect in the interior, the latter limited their work among the Fante speaking population of the coast. The work of the missionary organisations led to the establishment of literacy programmes and literacy materials as early as the 1840's. The production of literacy materials went alongside serious linguistic work. By the middle of the nineteenth century, the first result of scholarly grammatical description of the language started coming out. Notable among these were Riis (1854), Carr and Brown (1868). In 1875, Christaller came out with the first most comprehensive grammar of Akan (based on the Akuapem dialect) which is currently the only such work available about the language. The first dictionary of the language was also published by Christaller (1881). (Osam 1994a:38-39)

The works on Akan in the nineteenth century included oral literature and ethnographic work. According to Warren (1976):

> The scope of interests of the Basel Mission was wide. In addition to their religious texts, primers, and linguistic works, the Mission published the first Akan oral history collected in Ghana (Christaller, 1884) and the first oral literature in the form of proverbs (268 proverbs were included in Riis' [1854] grammar) and folktales (Christaller, 1887). The first accurate ethnographic account of Akan religion was published in 1862 by the Basel Missionary, Mader; this was followed by the comprehensive ethnographic studies of the Asante (1899-1906) by the Reverend Edmund Perregaux. The first Akan agricultural texts came out at the beginning of the twentieth century under the auspices of the Basel Mission. (Warren 1976:xvii)

Following the upsurge in Akan linguistic and literacy works from the second half of the nineteenth century, the twentieth century brought with it an explosion in the research and publications on Akan linguistic analysis. In the first half of the twentieth century, there were remarkable works such as the detailed descriptive grammar of the Fante dialect by Balmer and Grant (1929), *A Grammar of the Fante-Akan Language*, as well as Welmers (1946). Welmers' *A Descriptive Grammar of Fanti*, his PhD dissertation, was published as a supplement to *Language*, the journal of the Linguistics Society of America. In 1937, Akrofi (1937) had published his *Twi Kasa Mmara* (Twi Grammar). Akrofi's *Twi Kasa Mmara* was based on the Akuapem dialect and written wholly in Twi. In 1946, another Fante grammar book, *Mfantse Nkasafua Dwumadzi* (*Fante Grammar of Function*) was published by Bartels and Annobil (1946). In 1962, the publisher of this work, Methodist Book Depot, Cape Coast, published the Asante Twi equivalent titled: *Asante Twi Nsem Dwumadie* (*An Asante Twi Grammar of Function*).

An event that caused an upsurge in the works dealing with the linguistic analysis of the language was the establishment of the Department of Linguistics and Ghanaian Languages at the University of Ghana in 1964. Two people in the department who were crucial in pushing research on Akan forward were Prof. Lawrence A. Boadi and Prof. Florence A. Dolphyne. Boadi's works (1965, 1966, 1968, 1971a, 1971b, 1972, 1974b, 1974a, 1975a, 1975b, 1976, 1990a, 1990b) focused on the syntax of Akan, and Dolphyne (1965, 1967, 1971, 1976, 1979, 1982, 1984, 1986a, 1986b, 1988a, 1988b) dealt with the phonetics and phonology of the language. In the 1960s and 70s, pertinent publications on the language included works by Stewart (1962, 1963, 1964a, 1964b, 1966a, 1966b, 1966c, 1967, 1976, 1983a, 1983b), Schachter (1961, 1969, 1974), and Schachter and Fromkin (1968).

The establishment of linguistics as an academic discipline at the University of Ghana and research into Akan done by other linguists around the world resulted in an incredible number of publications and student research work on the language. As research on Akan phonetics, phonology, and syntax continued, major breakouts in ethnographic works were coming on board, following earlier works by scholars like Nketia (1955, 1958, 1963, 1964). Notable among such works were Kwesi Yankah's (1989) *The Proverb in the Context of Akan Rhetoric: A Theory of Proverb Praxis*.

2. Classification of Akan and its Dialects

While the term “Akan” has gained currency as an umbrella term to classify mutually intelligible dialects and culturally related people, this was not always the case. According to Kambon (2021) “while non-Blacks came to the area now known as Ghana back in 1471 CE, the first known use of the term Akan was in 1694 CE—well over two hundred (200) years later—and it did not gain currency as a supposed ethnonym until the 1950s when linguists decided to use it as ‘an umbrella term for the language to delineate mutually intelligible dialects of the people’” (Dolphyne 1988a:xi, Kambon 2002:4, Kambon 2021:60). Nonetheless, we will address the classification and placement of these mutually intelligible dialects of the Akan language as it has come to be known.

The currently dominant model of the Akan language’s genealogy places it in Tano, Central, Potou-Tano, Nyo, Kwa, Volta-Congo, Niger-Congo and, ultimately, Niger-Kordofanian. Important works on the Akan linguistic family tree include Williamson and Blench (2000), Stewart (1989), Dakubu (2020).

According to Greenberg (1963), the Akan language is classified as a member of the Kwa group, which is part of the larger Niger-Congo language family. Over time, the composition of the Kwa group has undergone significant changes, as documented by Stewart (1989) and Williamson (1989), who provide the most recent analysis of Kwa's position within the Niger-Congo family. For our current purpose, it suffices to mention that Greenberg's (1963) original Kwa group has been extensively modified. Greenberg's (ibid.) Eastern Kwa, along with Kru, Ijo, and the Togo Remnant languages, have been removed from his original Kwa group and reclassified as part of his original Benue-Congo group. Based on this proposal, what is now referred to as "new-fangled" Kwa essentially corresponds to Greenberg's Western Kwa.

It should be noted, however, that Niger-Kordofanian is not the ultimate node, but is subsumed under the mother tongue from which other related language phyla are also descended. Scholars, such as Obenga (1993), subsume Niger-Kordofanian ultimately inside of Negro-Egyptian with sister languages to Niger-Kordofanian including Chadic, Kushitic, Nilo-Saharan and Egyptian (Obenga 1993: 350-354). Below is the currently accepted model of where Akan fits up to the Niger-Kordofanian language phylum (Kambon 2002).

Currently Dominant Model of the Akan Language's Genealogy

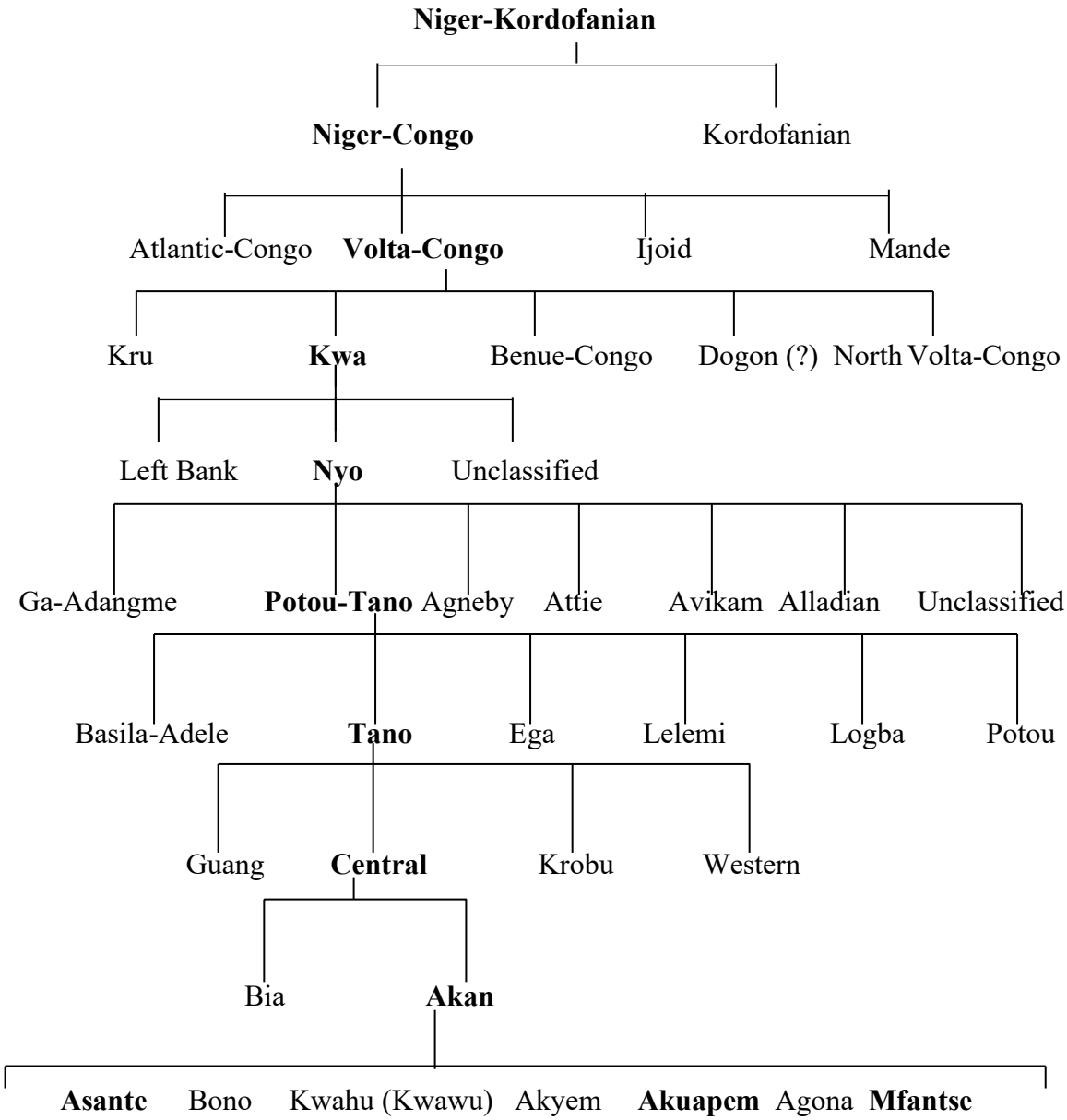

Figure 1: Linguistic Tree of Akan Dialects (Kambon 2002)

As reflected in the linguistic tree above, dialects include the three literary dialects in **bold**: Asante Twi, Akuapem Twi, and Mfantse (which in and of itself includes sub-dialects like Gomua, Anomabo Mfantse and Abura Mfantse). Apart from these, there is also Agona, Akyem, Asen, Dankyira, Kwawu (Kwahu), Akwamu, and Ahafo among others. As mentioned, all dialects, including Mfantse and the Twi dialects, are mutually intelligible to varying degrees (Dolphyne 1986a, Dolphyne 1988b).

Per available statistics from the Ghana Statistical Service (GSS), the total number of Akan speakers in Ghana amounts to 12,781,424 comprising 47.5% of a population of 26,908,262, while Ethnologue places the population of Ghana at the much higher 31,073,000 (Ethnologue 2023b, GSS 2023). According to Ethnologue (2023), this includes 8,100,000 L1 users in Ghana. Broken down by dialect, this speaker population includes:

Dialect	Number of Speakers
Agona	111,000
Ahafo	85,900
Akuapem	626,000
Asante	3,820,000
Asen	142,000
Dankyira	124,000
Kwawu	443,000
Mfantse	2,730,000
All other dialects	15,400

Again, per statistics available from Ethnologue, the number of users of Akan in all countries totals 9,329,800 with 8,329,800 L1 speakers and upwards of 1,000,000 L2 speakers.

Akan is considered a language of wider communication as evinced by television and radio broadcasts and it serves as the de facto national working language (Ethnologue 2023b).

In terms of typology, Akan is an SVO. It has what may be referred to as postpositions or relator nouns that, like modifiers, appear after the initial noun head (Osam et al. 2011). In

Akan, verb affixes mark person and number, with tense, aspect, mood, and polarity markers typically attaching to the verb. Causatives in Akan can be made syntactically or through duplication of the verb (Duah 2013, Duah and Kambon 2020).

There are 21 consonant and 10 vowel phonemes (with some variation dependent on the dialect in question). Akan is also tonal with two basic tones and a restricted downstep high tone. Vowel harmony (ATR) also plays a major role in the realization of sounds in Akan at the word and sentential levels (Dolphyne 1988a).

Akan has an estimated literacy rate as an L1 ranging from 30%–60%. Its literacy rate as an L2 ranges from just 5%–10%. Nonetheless, Akan is taught in primary and secondary schools through grade 3 and as subject thereafter. The aforementioned literary dialects have a wide array of literature, dictionaries, grammars and other scholarship in the language and about the language (Ethnologue 2023a).

From the map below, it is clear that much of central and southern Ghana are populated by Akan speakers. It is thus possible to speak of Akan as the dominant indigenous language of Ghana and in international language in that a dialect of Bono spills over into La Côte D'Ivoire. Beyond this, in the diaspora, there are vestigial elements of Akan as spoken in Suriname, Jamaica, Antigua and other places in the Caribbean (Konadu 2010).

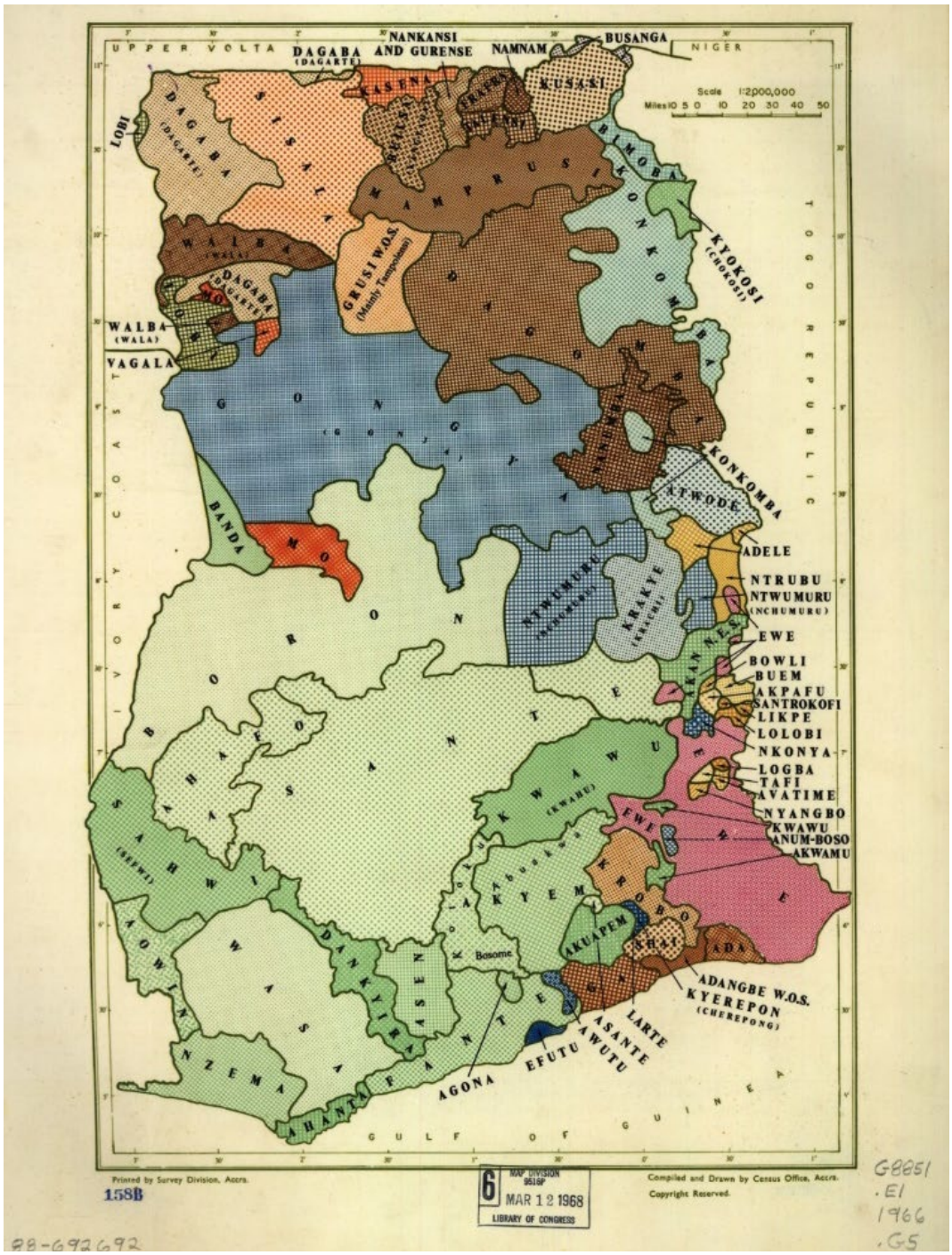

Figure 2: A map of Ghana's ethno-linguistic areas. Akan areas (light green) extend west about halfway into Ivory Coast. (GCO 1966)

Above is a language map of Ghana with Akan represented in various shades of green

We will now turn our attention to recent research trends into Akan linguistics with a particular focus on the semantics of the Akan language across a broad range of categories.

3. New Research Trends

In recent years, there have been major new research trends in the semantics of Akan verbs that can be categorized broadly in terms of studies in three primary categories. These are:

1. Formal semantics: logical aspects of meaning
2. Lexical semantics: word meanings and their relations[1]
3. Conceptual semantics: cognitive structure of meaning

We will look briefly at each of these categories in turn below. In terms of formal semantics, studies of that may be grouped in terms of formal semantics in Akan include studies on Focus, exhaustivity and existence (Grubic et al. 2019). Other recent studies include Pfeil et al. (2015) dealing, once again, with topics of focus and exhaustivity in Akan. Amfo (2007, 2010) also deals with information structure in Akan. Akan language formal semantics has also been dealt with by Duah et al. (2021) with regard to causation and indirectness. Owusu's (2022) doctoral dissertation is also noteworthy in terms of applying formal semantics to Akan.

This volume primarily falls more under the purview of the second category of semantic inquiry—namely lexical semantics dealing with polyvalent word meanings and relationships between words. Examples of recent scholarship in this regard include event semantics studies such as those of Agyepong (2017, 2022) and Agyepong and Osam (2020) dealing with cutting and breaking events in Akan. Other studies have delved into the semantics of modal markers such as *anka* 'would' (Amfo 2005) while, yet others deal with verbs and content words like *di* 'eat' (Ansah et al. 2021). Also, other papers have used Akan data of polysemic terms like *di* 'eat' and *bu* 'break' advance theories

[1] For our purposes, we will subsume analyses of morphemes in this broader category.

pertaining to The Homonymic Chain Model (HCM) as a tool for multiple sense analysis (Oppong-Asare et al. 2017).

Other studies have looked into the polysemy of verbs like *hunu* 'see' (Agyekum 2005), and nouns like *ohia* 'poverty' (Agyekum 2017), *yam* 'stomach' (Agyekum 2015a) and *ho* 'body' (Agyekum 2016). Studies such as these delve into semantic extensions, metaphor and the semantics/pragmatics interface.

Studies on the semantics of lexemes are complemented by studies analysing morphemes such as diminutive *-ba/-wa* (Appah and Amfo 2011, Adomako 2017, Amfo and Appah 2019), *bi* (indefinite article) and *no* (definite article) (Arkoh et al. 2011, Arkoh and Matthewson 2013) and focus markers such as *na* (Marfo and Bodomo 2005, Ofori 2011, Duah 2015, Pfeil et al. 2015).

In terms of conceptual semantics, notable research has emerged in recent years dealing with a Natural Semantic Metalanguage of Akan (2022). Other studies that draw from a conceptual semantics framework include Thompson (2019a) and (2019b). Other noteworthy studies deal more broadly with metaphors and conceptual matters more broadly in terms of conceptual metaphors as encoded in body part expressions and beyond including Afreh (2011), Agyekum (2013), Ansah 2013, Ansah 2014, Agyekum (2015a, 2015b, 2016), Owiredu 2020, Kambon and Songsore 2021). Recent studies on modality and evidentiality are also worthy of note (Sakyi 2019).

While the above is merely a cursory glance at recent research, the depth and breadth of research on Akan strictly dealing with semantics and/or the semantics/pragmatics interface is increasing yearly. This volume is set to contribute to this burgeoning body of literature with a wide diversity of topics that fall under the purview of the semantics of Akan verbs. As such, in the next section, we will present a brief overview of the chapters within this volume.

Outside of semantics, notable works have also been done on Akan syntax, morphology, and phonology over the last few decades. Notable among these in the area of syntax are Saah (1989, 1994, 2004, 2010), Saah and Goodluck (1995), Osam (1994a, 1994b, 1996, 1997, 1998, 2003, 2004, 2008), and Marfo (2003, 2005a, 2005b) to name just a few. At the forefront of works on Akan morphology are multiple works by Appah and various co-authors (2005a, 2005b, 2009, 2010, 2011, 2013, 2017a, 2017b, 2020) and Appah et al.

(2017) are worthy of note. In terms of Akan phonology, noteworthy works include Eshun (1993) Abakah (1993, 2004, 2005a, 2005b, 2005c, 2013, 2015), Adomako (2008, 2012, 2015a, 2015b, 2018a, 2018b) as well as recent works by Amoako (2020, 2020, 2022a, 2022b). While necessarily non-exhaustive, it is our fervent hope that this brief overview of trends in Akan linguistics in general and Akan semantics in particular will direct the reader to the burgeoning body of works in these and related fields of inquiry.

4. Overview of Papers

The paper by Duah examines various ways in which pain sensations are expressed in Akan. It argues that pain expressions in the language follow patterns known about the expressions of tastes, visions, and other instantiations of perception. He establishes that pain expressions behave structurally like causative constructions.

Agyepong's paper focuses on analysing Akan (Asante-Twi dialect) verbs that deal with the removal of the external coverings of various items. It examines the semantic characteristics and the argument alternation possibilities that such verbs participate in. She further explores the factors that determine the interpretation of such verbs in Akan.

In Afreh's paper, she explores the syntax and semantics of posture verbs in Akan in what has become known as the Basic Locative Constructions (BLC), using data from the Asante dialect. Situated in the cognitive semantics framework of Talmy (2000), her paper shows that the predication of the location of the Figure entity in constructions involving posture verbs is crucial.

The paper by Eshun centres on the verbs of perception in Akan: *hú* 'see' and *hwɛ́* 'look'. Using data from the Mfantse dialect and adopting a cognitive linguistics approach in her analysis, she demonstrates that these two verbs have overlapping usage determined by the context of use and argument selection criteria.

In the final paper in the volume, even though Kambon does not deal with the direct semantics of a set of verbs in Akan, he takes an angle that merges the syntax and semantics of verbs in serial verb constructions in the language. Based on the concept of emergence in the natural sciences, and using data from three dialects of the language, he explores the notion of semantic integration in Akan serial verb nominalizations.

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CHAPTER 2

Expressions of Pain in Akan

Reginald Akuoko Duah
Department of Linguistics
University of Ghana, Legon
raduah@ug.edu.gh

Abstract

This study explores the semantics of expressions of pain sensations in Akan. It identifies two main types of pain constructions based on whether the predicates involved express pain as their primary meaning or not. The paper presents evidence to show that Akan predicates of pain involve a metaphorical extension of concepts of BURNING, DEFORMATION/DESTRUCTION, and MOTION. The study proposes that pain expressions involve a dyadic event that includes a causer, conceptualized as a body part or external entity, and a causee, which represents the self or a sentient entity. We argue that when either the causer or the causee argument is left out of the construction, it may be due to foregrounding of different 'phases' of the pain event.

Keywords: pain sensation, primary and secondary pain predicates, semantics, causatives, event structure, Akan

1. Introduction

This paper discusses expressions of pain sensations in Akan. It re-examines the typology of pain predicates and shows that existing typology has been based on a limited set of languages and represents a less complete characterization and/or description of pain predicates crosslinguistically. The study argues that the formal types of pain predicates and/or expressions that may occur in each language depend on the morphosyntactic properties of the language in question. For instance, what constitutes a primary pain predicate cannot be defined on morphological grounds alone, since there is morphological diversity among such predicates across languages. It is shown that, in the main, expressions of pain sensations are similar to expressions of taste, vision, emotions, etc. In Akan, expressions of pain sensations also structurally pattern similar to causative constructions.

Although pain is a universal phenomenon, it is a highly subjective, culture-specific concept whose quantification, description and acknowledgement can be distinguished from its ontology. As Wierzbicka (2014:156) notes, "not all languages have a word that corresponds to English *pain*" although most languages have an expression "feeling something bad in one's body." In her Natural Semantic Metalanguage (NSM) framework, Wierzbicka (2014) explicates the English predicate *pain* as in (1) below.

(1) *She feels pain*
She feels something bad,
like someone can feel when it is like this:
something bad is happening in part of this someone's body
this someone feels something bad in this part of the body because of this
this someone can't not think like this at this time: "I don't want this"
(Wierzbicka 2014:157).

However, as a universal phenomenon, the International Association for the Study of Pain (IASP) defines pain as "[a]n unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage" (Meskey 1979). Thus, where pain is expressed, it typically involves alterations or a perceived damage or change in state of a sentient host. It must be noted, however, that not all expressions of pain are attributable to actual tissue damage but may result from changes in emotional and/or psychological states. In other words, pain expressions may be used

even when there is no actual pain, emotional or otherwise.[1] Of course, the boundary between emotional and physical pain is not always clear-cut and it is not the aim of this study to provide diagnostics for separating these distinct domains of pain. Rather, the study focuses on what is typically considered expressions of pain sensations resulting from "actual or potential tissue damage" of a body part by a person.

This study was guided by Bonch-Osmolovskaya et al.'s (2007) frame questionnaire on contexts for describing pain sensations. The full questionnaire was originally written in Russian, but it was translated with the help of Microsoft Translator® and checked by a Russian language instructor at the University of Ghana. The data were elicited with five native Akan speakers, aged between 20 and 26 years, at the University of Ghana, Legon, from 2018-2019. Each speaker was presented with a frame context of pain expression, e.g., *soap in your eyes*, and asked how they would express the resulting sensation. The participants were all native Asante speakers who grew up in Kumase. Some sentences were also taken from Asɛm Boadi's (2005) *Twi Kasa Mmara ne Kasɛsoɔ*, which is primarily written in the Asante dialect.

The paper is organized as follows: Section 2 provides a background discussion of expressions of pain across languages. Section 3 introduces various predicates of pain and their distribution, and a description of the pain sensation they encode. Section 4 analyses the semantics of pain expressions by isolating their event structure. Section 5 concludes the paper.

2. Studies on Expressions of Pain

The language of pain has been of interest to clinicians who rely on patients' descriptions of pain as part of a composite diagnostic criteria in the treatment of ailments.[2] In the mid 1970's, Ronald Melzack developed what has become known as the The McGill Pain Questionnaire which consisted of a system of rating/scoring for 102 words used to

[1] For proposals on redefinitions of pain, see Cohen et al. (2018).

[2] In many indigenous communities, effective communication between health providers and patients is hampered by the inability of health professionals to speak and/or understand the patients' local language. In Akan, efforts have been made to produce a glossary of medical terms, such as the Twi Medical Glossary by the Medical Education Partnership Initiative (MEPI) aimed at helping health professionals to understand patients' expressions of pain and other illnesses.

describe different categories of pain including sensory and affective qualities of pain and evaluative words for describing pain (Melzack 1975). Gathering data on expressions of pain in a linguistic study, however, is far more complicated since the saying *he who feels it knows it* very much applies. In some studies, researchers observe someone who is experiencing pain talk about it, e.g., during a doctor-patient interaction, and such data could form the basis of a corpus which is used in a linguistic study (Lascaratou and Hatzidaki 2002; Lascaratou 2007). Another approach involves the use of questionnaire and audio/visual stimuli to elicit expressions of pain with informants who may not be experiencing pain at that moment (Reznikova et al. 2012). This study adopted the latter approach in collecting data on pain expressions in Akan.

Pain sensations are expressed by different word categories and constructions, depending on the resources available in a language and language-internal developments. However, across languages words and constructions that express only pain sensations (with the explication in 1) tend to be few. For instance, in a study of over twenty (20) languages, Reznikova et al. (2012:422) reported that there are only "one to four pain-specific verbs" found in their sample. On the other hand, there are many predicates that may be used to express pain sensations along with other non-pain meanings. For instance, while the English verb *hurt* is a pain-specific predicate that describes various kinds of pain (including emotional pain) triggered by different stimuli located in different body parts, the verb *burn* may be used to express pain sensations, but it has other non-pain meanings as well. Pain-specific predicates have sometimes been categorized as primary pain terms, which are not semantically derived from other predicates (Reznikova et al. 2012). However, as we demonstrate in the next section, some primary pain predicates are morphologically and semantically derived from other lexical verbs in Akan.

Syntactically, pain predicates have the structure of experiencer predicates. In some languages like English (2), the pain predicate may occur with only a subject argument which may function as the experiencer, source, or location of the pain sensation. In Èʋe (3) when the location of the pain sensation is expressed by a body part, the experiencer is encoded by an object (3a) or a (resumptive) pronoun (3b). In Koromu (4), the experiencer and location of the pain is encoded by a body part that occupies the subject position (4a); however, where the subject is not a body part, the experiencer is expressed by an object (4b).

(2) My head aches/hurts.

(3) Ewe [Èʋe] (Ameka 1991: 165)

a. Ta vé Kofí.
head pain Kofi
'Kofi had a headache (lit. Head pained Kofi).'

b. Kofí ɸé ta vé-é.
K. POSS head pain-3SG
'Kofi's head ached him.'

(4) Koromu (Priestley 2014: 264-265)

a. Mete kaho-se-r-a.
skin ache-O1S-PRES-3S
'(My) body is aching.'

b. Were=te mete kaho-se-r-a.
sun=PNP skin ache-O1S-pres-3S
'The sun is hurting/aching my skin.'

Thus, whether the experiencer in the pain construction is a subject or object depends on the argument and selectional properties of the pain predicate. In some languages, a body part may be in complementary distribution with other experiencer objects, e.g., English and Koromu, while in other languages experiencers of pain sensations are (overtly) expressed with pronouns or lexical nouns, e.g., Èʋe. In the former type, the stimulus for the pain sensation is a non-body part (external agent) but in the latter, the body part is the stimulus of the pain sensation (see Seržant 2013). This study shows that Akan pain predicates generally follow the pattern in (3), but there are instances where the non-body part experiencer may be gapped in the construction, resulting in the pattern in (2) and (4a).

In Akan, pain expressions typically involve an agent or stimulus, which may be a body part, or an external entity/event and it is encoded as subject, but the experiencer may be expressed by a pronominal object coreferential with the host or possessor of the body

part (31a-b). However, there are instances where the non-body part experiencer may be gapped in the construction, resulting in the pattern in (2). In section 4, we propose that pain constructions in which there is no overt experiencer other than a body part still involve a dyadic event where the body part acts as a stimulus, or causee, with a formal resemblance to unaccusative constructions.

(5) a. Kofi$_i$ tí dwá/pàé nó$_i$.
Kofi head split 3SG.OBJ
'Kofi has a headache.'

b. Ègyá nó hyèhyé-è mè ǹsá.
fire DEF burn.RED-PST 1SG hand
'The fire burned my hand.'

c. Eno sḗ á-fèm̀.
Eno teeth PRF-feel.dull.pain
'Eno's teeth are set on edge (i.e., Eno's teeth have become sensitive).'

3. Types of Pain Expressions

3.1. *yɛ̀ yá* 'be painful'

The form *yɛ̀ yá* is used to talk about general pain as is experienced by a person. This construction is made up of a copular verb *yɛ̀* and an adjective *yá* 'pain/painful'. As shown in (6), the subject of *yɛ̀ yá* is a possessive NP (a possessor noun and a body part) that encodes the location or source of pain. The object is a pronoun that functions as the experiencer of the pain sensation, which is coreferential with the possessor noun in the subject position.

Unlike in English (2) and Koromu (4a) where the object may be left out, in Akan the pronoun in the object position must be overtly expressed whenever the subject is a possessive NP involving a body part.

(6) a. Ama$_i$ tí yɛ́ nò$_{i/*j}$ yá. [3]
Ama head COP 3SG.OBJ painful
'Ama has a headache.'

b. M$_i$'àsó yɛ́ mè$_{i/*j}$ yá.
1SG.POSS.ear COP 1SG painful
'My ear hurts.'

yè yá is non-specific regarding the nature of pain experienced by an entity. This predicate may be used to describe several different kinds of pain ranging from skin and bodily pain, weakness resulting from muscle strain, pain as a result of sickness, or pain characterized by anomaly in function of a body organ, as in (7) and (8).

(7) [context: effects of strenuous work, sickness]

Mè hó(náḿ) yɛ́ mè yá.
1SG body COP 1SG painful
'My body aches.'

(8) [context: effects of stomach bug, (food) poisoning, diarrhoea]

Akwasi yáḿ á-yè nò yá ànàdwó yí sàá árá.
Akwasi stomach PRF-COP 3SG.OBJ painful night this same INT
'Akwasi had stomach pains/diarrhoea throughout the night.'

[3] In the Fante and Akuapem dialects, the adjective has a final labial segment *yáẃ*. In Asante, the adjective has a different form when it is used in attributive function (1a) and as a noun (1b). Like many adjectives in Akan, *yá* may be derived from a noun (see Appah 2013 for a discussion on the source of adjectives in Akan).

(1) a. Àsɛ́ḿ yéá/*ya bɛ́ń níé?
issue painful what this
'What a painful issue, i.e., what painful issue is this?'

b. Yéá/*ya dà só wɔ̀ nè mú.
pain sleep top be.in 3SG.POSS inside
'He still carries pain within himself.'

yè yá may also express emotional and/or psychological pain. As example ((9) shows, the stimulus of emotional pain may be an event (state, process, or activity) rather than a physical entity, e.g., a body part. The experiencer is a pronoun or a body part, e.g., heart or soul, which represents an emotional or psychological state rather than a physical sensation, although physical sensations may follow from changes in emotional or psychological states. Thus in (9), the body part that encodes the location of pain is used metaphorically and may not represent physical pain. In other words, the 'heart' does not necessarily refer to the material physical organ but an emotional or psychological state.

(9) [context: emotional or psychological stress]

Àsɛ́ḿ nó yɛ́ mè krá/kómà yá.
matter DEF COP 1SG soul/heart painful
'This matter pains my soul/heart.'

The *yè yá* predicate may also be used to express physical deformity rather than actual pain. The body parts that are typically used in expressing deformity with *yè yá* include 'hands/arm', 'legs', and 'eyes'.[4] As shown in (10), sentences that express deformity with *yè yá* have a formal resemblance to those that involve physical pain sensation (cf. (6). Thus, in Akan, some deformities or permanent injuries are conceptualised as a continuous pain condition and are, therefore, expressed as if one is perpetually undergoing the pain sensation.[5]

[4] The 'head' may sometimes be used in the *yè yá* construction to express poor judgment, mental illness, or unexpected behavior on the part of someone, rather than physical pain. The sentence in (1) can uttered in the context where someone gives a terrible suggestion or answer to a question.

(1) Wò tí yɛ́ wò yá, wó á-hù?
2SG head COP 2SG painful 2SG PRF-see
'You must be crazy, right?'

[5] Agyekum (2002, 2004) note that expressions of physical deformities may constitute a verbal taboo in the context of invectives or insults in Akan.

(10) [context: deformity, permanent injury]

a. Nè ǹsá yɛ́ nò yá.
3SG.POSS hand COP 3SG.OBJ painful
'He has a deformity in his hand/arm.'

b. Kofi náń yɛ́ nò yá.
Kofi leg COP 3SG.OBJ painful
'Kofi has a deformity in his leg.'

c. Pàpá nó ání yɛ́ nò yá.
man DEF eyes COP 3SG.OBJ painful
'The man has a deformity in his eyes.'

yè yá may also be used to describe things or events which are perceived as painful. As shown in (11), in this construction there is no experiencer overtly encoded, either a body part or a pronoun, but only the source of the pain sensation is expressed as a subject in the sentence. The source of pain may be a physical object such as 'pepper' (10a), or an event, such as 'false accusation' (11), and 'death' (11). In section 4, we offer a proposal on sentences like (11) where there is no overt experiencer object as involving a similar dyadic event as in (6).

(11) a. Màkó yɛ̀ yá.
pepper COP painful
'Pepper is painful.'

b. Ǹtwátósóó yɛ̀ yá páá.
false accusation COP painful INT
'False accusation is painful.'

c. Òwúó yɛ̀ yá.
death COP painful
'Death is painful.'

3.2 *hyé/hyèhyé* 'burn'

hyé primarily encodes various concepts of burning an object by fire or the results of application of elevated temperature and it may also be used to express bodily pain sensations that may result from contact with fire, a hot surface, or internal body processes, conditions, and states. When referring to bodily sensations *hyé* tends to be reduplicated (12-14) (see LA Boadi 2005 and Duah 2021 for a discussion on the function of reduplication in predicates of pain). In this use, the location or source of the pain sensation may be expressed by the subject, which may be a body part, as in (12a), (13a-b), or an external entity, as in (12b) and (14). The experiencer is expressed as an object, usually a pronoun, e.g., (12a), (13a-b), and (14) , or a body part, as in (12b).

(12) [context: effects of soap, chlorine, sea water getting into one's eyes]

a. M'àní só hyèhyé mé.
1SG.POSS.eyes top RED.burn 1SG
'I feel a burning sensation in my eyes.'

b. Sàmíná nó hyèhyé m'àní.
soap DEF RED.burn 1SG.POSS.eyes
'The soap is burning my eyes.'

(13) [context: effects of exposure to elevated temperature; sickness; ingesting something hot]

a. Mè hó hyèhyé mé.
1SG body RED.burn 1SG
'I feel a burning sensation in my body.'

b. M'ànóḿ hyèhyé mé.
1SG.POSS.mouth.inside RED.burn 1SG
'I feel a burning sensation in my mouth.'

(14) [context: effects of injection from syringe]

Pánéɛ́ nó hyèhyé mé.
injection DEF RED.burn 1SG
'I feel a burning sensation from the injection.' (Duah 2021: 126)

hyé/hyèhyé may be used to express emotional and/or psychological states which may have physical reflexes of what may be experienced as a pain/painful sensation. There are two ways of expressing such events: (i) an internal body part, e.g., stomach, intestines, is expressed as the location of a sensation by an experiencer who is the possessor of the body part; (ii) an external event is expressed as a source of pain sensation experienced by someone or a body part. These are shown in (15) below.

(15) [context: feelings of stress, fear, anxiety, apprehension, regret]

a. Àféí dèɛ̀, nè yáḿ hyèhyé nó.
now top 3SG.POSS stomach RED.burn 3SG.OBJ
'Now, he is scared/anxious.'

b. Àsɛ́ḿ nó á-hyè mè.
issue DEF PRF-burn 1SG
'The issue is painful to me.'

c. Énó wúó yí á-hyè mè ǹsónòḿ.[6]
Eno death this PRF-burn 1SG intestines
'Eno's death is painful to me.'

Expressions of emotional/psychological feelings of anxiety, fear, and apprehension are further metaphorical extensions of the expression of actual bodily pain sensations with *hyé/hyèhyé* (see Agyekum 2015a, b). In this use, as shown in (15), although there is overt expression of the location of a sensation, this may not be taken as literal because body

[6] Another expression that can be used to indicate aggravated anxiety, grief, and distress is *ǹsónò gù gyáḿ* 'lit. intestines in fire', which employs a source metaphor of BURN/FIRE.

parts in general may be associated with various emotional states and conditions, hence, any change in the relative emotional state or condition invariably picks out the respective body part as the location of the event (see Kambon and Songsore 2021). Thus, expressions of emotional/psychological pain sensations rely on the basic frame of actual bodily pain expressions with little or no variation.

3.3. *tú/tùtú* 'uproot'

tú encodes several related meanings such as 'uproot', 'fly', 'move out', and 'dig (out)'. It may also be used to describe various bodily sensations and pain resulting from anomalies in the function of a body organ such as the eyes, autoimmune diseases like rheumatoid arthritis, and upset stomach. In expressing pain sensations, *tú* is reduplicated into *tùtú* (see LA Boadi 2005).

As shown in (16) and (17), the location of the pain sensation is expressed with a body part, the subject, while the experiencer is expressed by an object pronoun that is the possessor of the body part. There can be a difference in meaning in terms of the pain sensation expressed between the stem and the reduplicated form. As (17) shows, in describing stomach aches/pain the reduplicated stem typically does not involve diarrhoea (17a), while the non-reduplicated stem does (17b). Also, when the non-reduplicated stem *tú* is used it occurs with a subject argument but without an experiencer object. We will return to such constructions later in section 4.

(16) [context: effects of sickness, rheumatism, sore, wound, tooth decay]

a. Mè té sɛ̀ mè hónáḿ tùtú mé.
   1SG feel that 1SG body RED.proot 1SG
   'I feel throbbing pain in my body.' (Asɛm Boadi 2005: 564)

b. Mé kúró nó tùtú mé.
   1SG sore DEF RED.uproot 1SG
   'I feel throbbing pain in my sore.' (Asɛm Boadi 2005: 577)

(17) [context: effects of upset stomach]

a. Nè yáḿ tùtú nó.
3SG.POSS stomach RED.uproot 3SG.OBJ
'He has stomach aches/pain.'

b. Nè yáḿ-m̀ tú (??nó).
3SG.POSS stomach-PROG uproot 3SG.OBJ
'He has diarrhoea.'

3.4. *wɔ́/wòwɔ́* 'pierce, prick'

A sharp, pricking pain sensation may be expressed by the predicate *wɔ́* or its reduplicated form *wòwɔ́*. The basic meaning of this verb describes the piercing of an object with a sharp, pointy edge, e.g., piercing of a ball with a pointy-edged knife, resulting in the disintegration or deformation of an entity. *wɔ́/wòwɔ́* can be used to express bodily pain sensations resulting from exposure of the eyes to bright light and anomalies in body function like stomach aches.

In a *wɔ́/wòwɔ́* pain construction, the subject may either encode the location of the pain sensation, as in (18a), (19a-b), or the stimulus triggering the sensation (18b). The experiencer may be expressed as a pronominal object or a body part. Although it is also possible to use the stem *wɔ́* or the reduplicated form *wòwɔ́* to express pain sensations, the two forms correspond to a semantic difference: the non-reduplicated stem expresses isolated, point episodes of pain sensations while the reduplicated stem expresses extended, prolonged pain sensations.[7] Thus, where applicable, reduplicated predicates of pain may express a 'quantity increase' in the kind of pain sensation they encode, relative to the stem (Duah 2021).

[7] It is possible for isolated or point episodes to extend over a period if the causer-stimulus continues to act on the causee. However, in such cases, barring any discourse-pragmatic effects, the reduplicated form is preferred.

(18) [context: effects of exposure to bright light]

a. M'àní só wòwɔ́ mé.
1SG.POSS.eyes top RED.pierce 1SG
'I feel piercing pain in my eyes.'

b. Kànéá nó (wò)wɔ́ mé/m'àní.
light DEF RED.pierce 1SG/1SG.POSS.eyes
'I feel piercing pain in my eyes because of the light.'

(19) [context: effects of menstruation, abdominal pain]

a. M'àyáásé (wò)wɔ́ mé.
1SG.POSS.lower abdomen RED.pierce 1SG
'I feel piercing pain in my lower abdomen.'

b. Mè m̀fé (wò)wɔ́ mé.
1SG ribs RED.pierce 1SG
'I feel piercing pain in my ribs.'

3.5. *ká/kèká* 'bite'

Another way of expressing pain sensations is by means of the dynamic verb *ká* 'bite', which may also be reduplicated into *kèká* 'bite (repeatedly)'. *ká/kèká* 'bite' may be used to express various pain sensations including bodily sensations resulting from anomalies in bodily function, including internal organs, such as the abdomen. The examples in (20a-c) show the use of the non-reduplicated stem *ká* to express biting pain sensations in various body parts. The experiencer of the pain sensation is expressed as the object in the sentence (20a-c).

(20) [context: effects of tooth decay, stomach upset, sore]

a. Nè káká mú á-ká nó.
3SG.POSS tooth decay inside PRF-bite 3SG.OBJ
'He feels biting pain as a result of tooth decay.'

b. Mé yáḿ ká mè.
1SG stomach bite 1SG
'I feel biting pain in my stomach.'

c. Mé kúró nó mú ká mè.
1SG sore DEF inside bite 1SG
'I feel biting pain in my stomach.'

The reduplicated verb *kèká* is used to express a specific kind of sensation, namely, 'itching'.[8] Consider these examples below. As (21a-c) show, itching sensation is expressed by the reduplicated form *kèká* but not with only the stem. The location of the sensation is a body part subject that can be reached and scratched by the experiencer object to bring relief.

(21) [context: itching in various parts of the body]

a. Mè hó kèká/*ká mè.
1SG body RED.bite 1SG
'My body itches.'

b. M'àsóḿ kèká/*ká mè.
1SG.POSS.ear RED.bite 1SG
'My ear itches.'

c. Mè tɛ́krɛ̀má só kèká/*ká mé.
1SG tongue top RED.bite 1SG
'My tongue itches.'

[8] Another predicate that expresses itching sensations in the language is *yè hènè* 'be itchy,' as in (1) below. Thus, *yè hènè* and *kèká* may be used interchangeably to express the sensation of itching.

(1) Mè hó yɛ́ mè hènè.
1SG body COP 1SG itchy
'My body itches.'

On the other hand, internal sensations such as upset stomach appear to involve a different kind of pain sensation other than itching. Thus, the sentences in (22) are more consistent with extended biting pain sensations instead of itching sensations (see Duah 2021 for more discussion).

(22) [context: effects of tooth decay, stomach upset, sore]

a. Nè káká mú kèká nó.
3SG.POSS tooth decay inside RED.bite 3SG.OBJ
'He feels repeated biting pain as a result of tooth decay.'

b. Mé yáḿ kèká mè.
1SG stomach RED.bite 1SG
'I feel repeated biting pain in my stomach.'

3.6. *fém̀/fèm̀fèm̀* 'feel dull pain'

fém̀/fèm̀fèm̀ is a pain-specific predicate that is used to described a particular kind of dull pain located in the teeth or general bodily sensation. The sensation described by *fém̀/fèm̀fèm̀* may be triggered by sickness or acidic foods. As shown in (23a), the location of the pain sensation may be expressed by a body part subject while the experiencer is the pronominal object. In (23b), a stimulus (represented by the inanimate pronoun *ɛ-*) triggers a sensation in the body part. (23c) also shows that *fém̀* may be used with just a body part subject that is the location of the sensation.

(23) [context: bodily sensation, effects of citrus on teeth]

a. Mè hó fèm̀fém̀ mè.
1SG body feel.dull.pain 1SG
'I feel dull pain in my body.' (LA Boadi 2005: 286)

b. Ɛ̀-bɛ́-fém̀ wò sɛ́̀.
3SG.SBJ.INA-FUT-feel.dull.pain 2SG teeth
'It will set your teeth on edge.' (LA Boadi 2005: 286)

c. Wò sɛ́́ bɛ́-féḿ.[9]
2SG teeth 3SG.SBJ-FUT-feel.dull.pain
'Your teeth will be set on edge.'

3.7. *dwá* 'split' and *pàè* 'burst'

The predicates *dwá* 'split' and *pàè* 'burst' are used to express internal pain sensations related to the head. They are used to describe elevated forms of headaches experienced by a person as a result of sickness, abuse of alcohol or an injury. As shown in (24), both *dwá* and *pàè* may be used to describe the same basic pain sensation in the head, although it may be more common to use (24b) to describe a non-aggravated headache.

(24) [context: effects of sickness on head]

a. Mè tí dwá mè.
1SG head split 1SG
'My head hurts (I have a headache).'

b. Mè tí pàé mè.
1SG head burst 1SG
'My head hurts (I have a headache).'

We can summarize the discussion on predicates of pain by isolating two main types of expressions: (i) primary pain predicates, and (ii) secondary pain predicates, as shown in Table 1.

[9] This expression may also refer to feelings of disgust, regret or profound sadness about something or someone.

Table 1: Types of pain predicates in Akan

Primary		**Secondary**	
yè yá	'be painful'	*hyé/hyèhyè*	'burn'
kèká	'itch'	*tú/tùtù*	'uproot'
fém/fèmfèm	'feel dull pain'	*ká/kèkà*	'bite'
		pàé	'burst'
		dwá	'split'

Primary pain predicates involve expressions that underlyingly express PAIN sensations as their basic meaning. Secondary pain predicates, on the other hand, express pain via metaphorical transfer of notions of BURNING, e.g., *hyé/hyèhyè*, DESTRUCTION/DEFORMATION, e.g., *ká/kèkà*, *pàé*, *dwá*, and MOTION, e.g., *tú/tùtù* (cf. Reznikova et al. 2012). Thus, since primary pain predicates do not encode meanings in any in other semantic domain except PAIN, they express pain sensations directly without metaphorical transfer from another domain. This is true even in the case of the morphologically derived primary pain predicate *kèká* 'itch': although it is morphologically related to the stem *ká* 'bite' (which can also be reduplicated), it does not encode the notion of BITING but only ITCHING sensation (see Duah 2021 for more discussion).

4. Semantics of Pain Predicates

Pain predicates underlyingly involve a dyadic event[10] structure where one entity is expressed as acting on another in a manner described by the pain predicate. The components of expressions of a pain event are given in (25).

(25) Components of a pain event

a. Causer-stimulus
b. Causee
c. Interaction between causer and cause
d. Resultant state

[10] The term 'event' as used in this paper is a generalization over processes, states, situations, and activities.

The entity expressed as causer in the pain construction may be a body part (26a), an external entity (26b), or an event (26c). The causee may be expressed as a sentient entity (26a-b) or a body part (26c), animated by a sentient host.

(26) a. Ama tí yɛ́ nó yá.
Ama head COP 3SG.OBJ painful
'Ama has a headache.'

b. Pánéɛ́ nó hyèhyé mé.
injection DEF RED.burn 1SG
'I feel a burning sensation from the injection.' (Duah 2021: 126)

c. Àsɛ́ḿ nó yɛ́ mè krá/kómá yá.
matter DEF COP 1SG soul heart painful
'This matter pains me/my soul/heart.'

In the pain construction, the causer and the causee may be parts of a divided self with distinct states or tendencies (cf. Talmy 2000). Thus, in (26a) both the causer and the causee exist as parts of the same person, Ama, but they represent distinct states over a period. The causee direct object represents, in the manner of Talmy (2000: 432), "the self's desires, reflecting an inner psychological state." Consequently, in expressing pain sensation, the state of the causee, the direct object, is typically foregrounded as directly impacted by the causer, the subject.

As shown in (26c), sometimes a body part may occur as the causee direct object instead of a pronoun. In this case, the causer and causee are not coreferential and so do not occur in a divided self, but the causer and the causee may be separate entities. In Akan, although a body part may occur as the direct object, i.e., the causee, it is usually possible to substitute the body part with a pronoun. For instance, in (27a-b) the same pain event may be expressed with either a body part or a pronoun as a causee object.

(27) a. Kànéá nó (wò)wɔ́ m'àní.
light DEF RED.pierce 1SG.POSS.eyes
'I feel piercing pain in my eyes because of the light.'

b. Kànéá nó (wò)wɔ́ mé.
light DEF RED.pierce 1SG
'I feel piercing pain in my eyes because of the light.'

It was noted also that in some expressions of pain, there appears to be no direct object, either a body part or a pronoun. For instance, the English predicates *ache* and *hurt* may occur with only a subject. In Akan, some pain expressions appear to have no overt causee as a direct object. The sentence in (28a) shows that it is possible to leave out a causee that undergoes the pain sensation described by the predicate *yɛ̀ yá*. However, it is not possible to deduce a pain sensation without a causee in this sentence, since pain does not reside in the injection itself and the sensation must be interpreted by an entity capable of experiencing sensations. Thus, as (28b) shows, the causee direct object may be expressed in the sentence. The choice between (28a) and (28b) may be due to pragmatic factors related to the 'phase' of the pain event that is foregrounded in the sentence (cf. Talmy 2000). If prominence is given to the causing event, i.e., injection, then (28a) is likely to be used, but if the caused event, i.e., sensation of pain, is foregrounded, then (28b) is used.

(28) [context: a doctor gives a patient an injection, the doctor asks the patient the next day "how does the injection feel now"? The patient responds:]

a. Ɛ̀-yɛ́ yá áńkásá.
3SG.SBJ.INA-COP painful indeed
'It is painful indeed.'

b. Ɛ̀-yɛ́ mè yá áńkásá.
3SG.SBJ.INA-COP 1SG painful indeed
'It is painful indeed.'

(29) a. Mè sɛ̃́ á-fèm̀.
1SG teeth PRF-feel.dull.pain
'My teeth are set on edge.'

b. Àǹkàá nó á-fèm̀ mè sɛ̃́.
orange DEF PRF-feel.dull.pain 1SG teeth
'The orange set my teeth on edge.'

A similar analysis may be extended to unaccusative predicates, which alternate between a direct object in their argument structure and only a subject (29). *fḗḿ* and *yɛ̀ yá*, however, differ in that while in (28a) it is the causee that is dropped, in (29a) it is the causer entity that is not expressed. We propose that in dyadic events where there are typically two arguments, phasal partitioning may result in the dropping of one of the arguments in the sentence (see Osam 2008; Levin and Rappaport 1995). The suppression of the causee direct object is usually found in adjectival predicates with the copular *yɛ́* 'be', which are used to express sensory-perceptive experiences, such as taste, beauty, and other evaluative concepts (compare (30) and (31)).

Duah et al. (2021) propose that sentences such as in (30) and (31) involve a macro-event where a person perceives a stimulus, which triggers an involuntary reaction resulting in a change of sensory-perceptive state of the experiencer, that is, the causee argument. Thus, beauty, deliciousness, or bitterness are the result of sensory-perceptive change of state of the causee, rather than a change in the inherent properties of the stimuli (cf. Stefanowitsch 2001).

(30) a. Frema hó yɛ́ fɛ̀.
Frema body COP beautiful
'Frema is beautiful.'

b. Àdùàné nó yɛ́ dɛ̀.
food DEF COP sweet
'The food is delicious.'

c. Ǹsúó nó yɛ́ nwònò.
water DEF COP bitter
'The water is bitter.'

(31) a. Frema hó yɛ́ mè fɛ̀.
Frema body COP 1SG beautiful
'Frema is beautiful.'

b. Àdùàné nó yɛ́ mè dɛ̀.
food DEF COP 1SG sweet
'The food is delicious.'

c. Ǹsúó nó yɛ́ mè nwònò.
water DEF COP 1SG bitter
'The water is bitter.'

The pain predicate *yɛ̀ yá* involves a similar configuration as in (30) and (31). In this construction, a causer-stimulus (typically body part) is PERCEIVED by a causee (a sentient (part of) self), then the causee EVALUATES the event associated with the causer-stimulus, and the causee undergoes a change of sensory-perceptive state. Thus, although pain may be localised in a body part, it is usually expressed as affecting the whole self. As we have already noted, in Akan, even where it is possible to have just a body part as the causee, it can always be substituted with a pronoun representing the whole person rather than just a body part.

We can see a physical causal relation in some of the pain predicates. For example, *fém, hyè/hyèhyè* and *kèká* may involve a physical or chemical contact with an external entity. The pain expression, however, appears to be stated only in terms of how the sentient (part of) self PERCEIVES, EVALUATES and undergoes a change of state, and the latter resultant state is interpreted as pain by the sentient entity.

5. Conclusion

This paper aimed at analysing pain expressions in Akan by showing their distribution and semantics. The study proposed that Akan displays two main types of pain predicates namely, primary pain predicates and secondary pain predicates. The data from Akan show that it is better to classify an expression of pain based on their primary meaning(s) rather than their morphological makeup because it should be expected that the forms of pain predicates across languages will be determined by the morphological properties of the particular language. Thus, the criterion that primary pain predicates are morphologically underived, simple lexical items is not only untenable crosslinguistically but it is unnecessary. The study shows that although pain constructions typically involve a dyadic event structure with a transitive verb, they may occur without a direct object similar to unaccusatives due to foregrounding of different phases of the macro-event; when only the caused event, i.e., the pain sensation, is foregrounded the experiencer

entity occurs as a single argument of the predicate in subject position. Thus, pain expressions involve a similar configuration found in some lexical causatives with cognitive-perceptive verbs – a TRIGGER event type of causation where a causer acts as a stimulus on a sentient causee (see Duah et al. 2021). The analysis of pain expressions as a causative expression has not been significantly investigated in the literature on causative constructions, and it is to this end that the current paper hopes to make a contribution.

Abbreviations

1	first person
2	second person
3	third person
COP	copular
DEF	definite
FUT	future
INA	inanimate
INT	intensifier
OBJ	object
PL	plural
POSS	possessive
PRF	perfect
PST	past
RED	reduplicated
SG	singular

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CHAPTER 3

Expressing Peeling in Asante-Twi: A Lexico-Grammatical Analysis

Dorothy Pokua Agyepong
Department of Linguistics, University of Ghana
dpagyepong@ug.edu.gh

Abstract

This paper investigates the lexical encoding of everyday events that describe the removal of outer coverings of entities in Asante-Twi. First, it explores the semantic characteristics and distinctive features associated with each of the verbs under this category. Second, the paper discusses the argument alternation possibilities of the verbs and shows that, for instance, whereas *sènsènè* 'to peel (with knife)' and *dwé* 'to peel (with hands)' behave typically like CUT verbs, by not participating in the causative/inchoative alternation, *hwànè* 'to peel off (dehusk)', *yì(yì)* 'to remove' participate in this alternation, except for a few restricted contexts. I adopt the Natural Semantic Metalanguage approach (Goddard and Wierzbicka 2016) and provide explications of the meanings of the verbs. I further demonstrate that overall, a given interpretation of a specific verb is generated in combination with i) the lexical semantics of the verb, ii) the type of objects with which the verb collocates, iii) the type of grammatical constructions in which the verb occurs (whether causative or inchoative) and (iv) cultural practices/activities associated with the verbs. Data for this study was gathered using a multi-method approach: (i) video-stimuli description ii) picture stimuli description, iii) spontaneous narratives and procedural discourses and iv) introspection based on native speaker intuitions. This study provides fresh data (supported with analysis) which illustrate the existence of crosslinguistic diversity in the conceptualization of verbs within the PEELING category.

Keywords: separation events, PEEL verbs, causative/inchoative alternation, Natural Semantic Metalanguage approach, Asante-Twi.

1. Introduction

Separation events are universal. That is, cross-culturally people separate various types of entities as part of their everyday activities. Though universal on the abstract level, there are crosslinguistic diversities in the ways in which these events are encoded or expressed. Languages vary in the number of lexical items used in the description of separation events (Majid et al. 2007). This semantic domain has been broadly characterized into two, based on the type of result they produce on the affected objects. The first category shows "minimal material destruction of affected object, often a reversible condition with no change in object integrity, as with OPEN and PEEL events" and the second causes "more significant material destruction with nonreversible change in object integrity, CUT and BREAK events being prototypical" (Schaeffer and Egbokhare 2012:257). The latter include "at least the kinds of events known in English as cutting, breaking, slicing, chopping, hacking, tearing, ripping, smashing, shattering, snapping, and so on" (Majid et al. 2007:134). The latter also includes peeling and opening events. Even though both peeling and opening events result in minimal material destruction, they differ in the sense that actions that involve peeling are typically irreversible whereas opening events can be reversed. For instance, a fruit that is peeled cannot be 'unpeeled'; however, a book that is opened can be closed. The aim of this study is to examine the lexical encoding of peeling events in Asante-Twi. Table 1 presents a list of verbs in Asante-Twi that describe the removal of outer coverings of objects.

Table 1: Asante-Twi PEEL verbs

Verbs	English Gloss
1. *dwá*	'to cut up'
2. *dwé*	'to peel (with hands)'
3. *hwànè*	'to dehusk'
4. *sèǹsènè*	'to peel (with knife)'
5. *wàè*	'to peel (off) / to rip'
6. *wèrɛ̀*	'to scrape'
7. *yì(yì)*	'to remove'

In this paper, I discuss the semantic characteristics and distinctive features associated with each of the verbs presented in Table 1. To explain the meanings of the verbs, the

study adopts the Natural Semantic Metalanguage (here after NSM) approach, developed by Ana Wierzbicka and her colleagues, and provides explications of a selected number of the verbs (Wierzbicka 1996; Goddard and Wierzbicka 2002; Goddard and Wierzbicka 2016). This methodology represents meaning in minimal English. It structures the meaning of words using semantic templates for action verbs (Ameka and Hill 2020). The study further examines the syntactic behavior of the verbs by showing the various types of argument structure constructions in which each of the verbs occurs (Goldberg 1995, 2003).

The chapter is organized as follows: Section 2 presents a brief discussion on studies that have been conducted on separation events in general. In section 3 I discuss the data collection protocols; and section 4 provides an overview of the NSM approach. Section 5 presents the lexico-semantic typology of the PEEL verbs. This is followed by a detailed discussion of the semantic and syntactic behavior of each of the verbs in Section 6. Section 7 provides an NSM explication of two of the verbs— *hwànè* 'to peel off (dehusk)' and *sènsènè* 'to peel'. Section 8 summarizes and concludes the chapter.

2. Previous Studies on Separation Events

The majority of the studies conducted on separation events have focused on verbs that describe maximal destruction of material integrity, i.e., CUT and BREAK verbs (henceforth C&B verbs) (Guerssel et al. 1985; Hale and Keyser 1987; Levin 1993). Fillmore (1970:125) argues that for C&B events: "the object identified by the X element is understood as undergoing some kind of change of state. That is, the X element is understood as essentially different after the event symbolized by the verb has happened to it". The verbs under this category have been described as "change of state verbs" (henceforth COS verbs) because[1] once an entity undergoes the activity described by the verb, there is a change in the original state of the entity (Hale and Keyser 1987; Levin 1993). For example, a carrot that is chopped changes state from being whole to becoming small in parts.

Table 2 compares C&B verbs in four languages—English, Garifuna (Arawakwan-Central American language), Mandarin and Akan.

[1] Note that separation verbs (C&B) are a subset of change of state (COS) verbs

Table 2: Verbs of object disintegration in English, Garifuna, Mandarin and Akan[2]

	Cloth	Bubble	Plate	Stick
English	*tear/rip*	*pop*	*break*	*break*
Garifuna	*tistiriguana*	*bowguana*	*bowguana*	*halaguana*
Mandarin	*noŋ4-puo4*	*noŋ4-puo4*	*noŋ4-puo4*	*noŋ4-duan4*
Akan	*té/sùànè*	*pàè*	*pàè/bɔ́*	*bú*

In Table 2, we observe that Garifuna, Mandarin, and Akan do not distinguish between the verbs used to describe the separation of bubble and plate. All three languages use a single verb to describe both types of object separation. Note that Mandarin, however, uses the same verb for the separation of cloth, bubble, and plate. Indeed, a few studies have shown the existence of cross-linguistic variation in the description of C&B events by arguing that languages do not categorize them in the same way. For instance, languages differ in the number of lexical categories that exist for the description of separation events (cf. Guerssel et al. 1985 (English, Berber, Hocak and Walpiri), Levin and Rappaport Hovav 1995, Levin 1993, Majid et al. 2007, Ameka and Essegbey 2007 (Ewe), Essegbey 2007 (Sranan), Taylor 2007; Brown 2007 (Tzeltal); Naess 2012 (Aiwoo); Schaefer and Egbokhare 2012 (Emai); Bobuafor 2013, 2018 (Tafi); Atintono 2019 (Gurene); Agyepong 2017; Agyepong and Osam 2020; Agyepong 2021a (Akan)).

Prominent among these discussions have been those that focus on the universals of verb semantics and syntax, especially with regard to their underlying semantic structure-types (Majid et al. 2007). It has been argued that the underlying structure of cutting-type verbs is distinct from that of the breaking-type and that this distinction in the semantic structure is associated with distinct argument structure and syntactic privileges (Guerssel et al. 1985; Levin and Rappaport 1995; Bohnemeyer 2007). Bohnemeyer (2007:157) proposes the following Lexical Conceptual Semantics (LCS) for the English verbs CUT and BREAK.

(1) *Break* LCS: Y comes to be BROKEN
Cut LCS: X produces 'Cut' on Y by sharp edge coming into contact with Y

[2] This Table is adapted from Pye et al. (1994) in Majid et al. 2007:135). The Akan examples were included by the author for the purposes of the comparison. The Table provides the verbs used in these languages to describe actions of "separation in the material integrity" of different objects.

In terms of semantic properties, CUT verbs describe actions that require the presence of an instrument (+agent). Note that, the agent of CUT constructions may be gapped, since instruments by themselves cannot initiate the event encoded by the CUT verb. BREAK verbs, on the other hand, express separations that occur without an instrument (-agent). For this reason, the English verb *break* specifies only a theme in its LCS. This is represented with the variable Y in (1). The sole argument for *break* is described as entering a state of being broken. For *Cut*, because it specifies two participants (an agent (X) and a theme (Y)) in its LCS, the separation event is described as being caused by an entity X, who uses a sharp instrument on the entity Y. This semantic property associated with both groups in turn affects their syntax. BREAK verbs, but not CUT verbs, are able to participate in the causative/inchoative alternation. Consider the following examples:

(2)	a.	Mary cut the carrot.	(causative)
	b.	*The carrot cut.	(inchoative)
(3)	a.	Mary broke the chair.	(causative)
	b.	The chair broke.	(inchoative)

In example (2a), the causative construction *Mary cut the carrot* is an acceptable sentence in English. Its inchoative variant *The carrot cut* (2b) is, however, unacceptable. In example (3), both the causative construction *Mary broke the chair* and its inchoative variant *The chair broke* are grammatical constructions in English. The ungrammaticality of (2b) is due to the fact that the verb *cut* has cause as part of its LCS, as noted by Bohnemeyer (2007). For this reason, an agent (who uses an instrument to effect the cutting) is required in order to make the sentence grammatical.

From the above, we observe that the bulk of studies conducted on separation events have focused on the two broad classes—CUT and BREAK. The area of peeling has, however, not received much attention (but see Schaefer and Egbokhare 2012). For this reason, the present study seeks to explore the ways in which this everyday cultural practice is lexically encoded in Asante-Twi, while paying attention to the implications on the verbs' syntactic behavior. The study will also show that syntactically, PEEL verbs in Asante-Twi are more of Agentive or Manner verbs and, therefore, behave like CUT verbs (see Agyepong and Osam 2020). That means similar to CUT verbs, PEEL verbs largely reject the causative/inchoative alternation. However, in restricted contexts, some of the verbs fully participate in this alternation. The main difference has to do with their semantics.

Whereas CUT verbs describe object separations with an instrument in general, PEEL verbs focus on the removal of outer coverings of objects.

3. Data

This study is part of a larger project on Akan separation events (Agyepong 2017). The first set of data, collected in 2015, were elicited using two sets of stimuli— videos (two sets) and pictures depicting various forms of peeling activities. The first set of videos "Cut and Break Videos" compiled by Bohnemeyer et al. (2001) consisted of 61-video clips showing different forms of material disintegration and object separation. In some of the clips, the separation was carried out by agents, while others depicted scenes of spontaneous separations. The objects that underwent separation included stick, rope, cloth, plate, pot, watermelon, hair, fish, and so on. Various instruments were used for the separations (e.g., hammer, cutlass, axe, scissors, knife). The manner in which the objects were separated was also varied. There were those actions that were carried out once and those that were repeated. The videos also showed actions that were conducted in a calm manner as well as those that were furiously done (Majid et al. 2007:137). The second set of videos, which served as a supplement to Bohnemeyer et al. (2001), was created by Agyepong (2015). In these videos, objects that are culturally relevant to the Ghanaian context (e.g., yam, cassava, plantain, palm fruit) underwent separation.

For this study, a separate set of data was collected in December 2020. This set consisted of still images and videos showing different objects undergoing peeling. Each participant was shown a video and picture two to three times, after which the following questions were asked in Asante-Twi: i) What do you see in the picture/video ii) What is X doing?[3] iii) What did the man/woman do to the thing? iv) What happened to the thing? Apart from eliciting the set of verbs for describing peeling events in Asante-Twi, the stimuli interviews also elicited illustrative sentences involving the verbs. As a native speaker of Asante-Twi, I rely on my intuition dialect of Akan to generate some of the examples.[4]

[3] Where X is the agent who carries out the separation

[4] All examples labelled as PEEL-122020-BKI are responses from the video and picture stimuli interviews conducted in December 2020. Examples labeled as Agyepong (2017:…) were taken from the author's unpublished doctoral dissertation. Data without references represent those generated based on my knowledge as a native speaker of Asante-Twi.

4. Natural Semantic Metalanguage (NSM) approach to word meaning

Goddard (2008:1) describes the Natural Semantic Metalanguage (NSM) as "a decompositional system of meaning representation based on empirically established universal semantic primes, i.e., simple indefinable meanings which appear to be present as identifiable word-meanings in all languages". Semantic primes consist of a small set of core, universal meanings, comprising words or word-like components present in all natural languages. They are simple and self-explanatory in the sense that they can be translated into any natural language and intuitively understood by all language users (Otomo and Torii 2006). Semantic primes are helpful for linguistic and cultural analysis and can be used to explain the meanings of complex and culture specific words as well as grammatical constructions across languages (Goddard 2006; Wierzbicka 2015). Goddard (2008) identifies about 63 semantic primes some of which include I, YOU, SOMEONE, SOMETHING/THING, PEOPLE, BODY.

The NSM approach to semantic analysis allows us to explain language-specific concepts in a clear and precise manner, while at the same time remaining free of any form of ethno-cultural and/or linguistic bias (Otomo and Torii 2006). Again, this methodology identifies the "language of thought" as well as that aspect of the lexicon and grammar shared by all natural languages (Wierzbicka 2015). As argued by Ameka and Hill (2020:34) "… the power of NSM semantic representations is the way in which it helps the analyst to allow the language to speak. Moreover, the semantic explications of signs in different languages can be easily compared and the similarities and differences become transparent even to the casual reader."

Another important aspect of the NSM approach is semantic explications. These consist of reductive explanatory paraphrases formulated in the metalanguage which capture the basic semantics of lexical items. They are basically texts composed in ordinary language (Wierzbicka 2015; Goddard and Wierzbicka 2016). The use of explications in discussing word meanings allows us to capture subtle meaning differences across and within languages (Goddard 2010:465).

In the representation of explications, the theory adopts structures or semantic templates that describe the semantic content of words. A semantic template has been defined by Goddard (2010:469) as "a structured set of component types shared by words of a particular semantic class –often applicable across many languages". Semantic templates

provide explanations for any given verb as used in context (Goddard and Wierzbicka 2016). According to Goddard (2010:469), the descriptive components in the template capture "what is psychologically real and linguistically relevant". The template consists of four-parts. These are lexico-syntactic frame, Scenario or Prototypical Scenario, Manner or Process, and Outcome or Potential Outcome. I discuss each of these parts following Goddard and Wierzbicka (2016:215):

1. The LEXICO-SYNTACTIC FRAME (top-level components): largely accounts for the morphosyntactic properties of a given verb. This frame consists of "semantically basic grammatical context such as the aspectual temporal frame", and refers to actions that are perceived to have occurred before the time of speech (Ameka 2017:234).
2. PROTOTYPICAL MOTIVATIONAL SCENARIO: This involves the motivation of a prototypical actor as well as the qualities/properties associated with the entity that acts as the object.
3. MANNER OR PROCESS: It depicts the way in which the activity is carried out or how the activity progressed.
4. OUTCOME OR POTENTIAL OUTCOME: This is the level where final results of the action are achieved.

Example (4) below illustrates an explication of the English verb **CUT**. The explications make use of semantic primes such as SOMEONE, SOMETHING, I, and so on.
(4) Explicating the English verb **CUT** as illustrated in Goddard and Wierzbicka (2016:224)

Someone is **cutting** something (e.g. bread, paper) (at this time). **LEXICO-SYNTACTIC FRAME**
Someone is doing something to something for some time (at this time)
because of this, something is happening to this something during this time as this someone wants
this someone is doing it with something else
often when someone does this to something, it is like this: **PROTOTYPICAL SCENARIO**

- a short time before, this someone thought like this about this something:
- "I don't want this thing to be one thing anymore, I want it to be two things

because of this, I want to do something to it for some time, after this
when I do this, I want something to happen to it all the time as I want"

when someone does this to something, it happens like this: **MANNER + EFFECT**

- this someone holds [m] one part of something else with one hand [m] all the time
- this part of this other something is not sharp [m], another part of it is sharp [m]
- this someone moves his/her hand [m] for sometime
- because of this, the sharp [m] part of this other thing touches this thing in some places as this someone wants
- because of this, something happens to this thing in these places as this someone wants
- because of this, after this, this thing is not like it was before in these places

if someone does this to something for some time, after this, **POTENTIAL OUTCOME**
this thing can be two things

From the above explication, we observe the following: that CUT is a transitive verb and includes the presence of an agent, who carries out the event described by the verb, as part of its basic semantics. This feature is captured in the lexico-syntactic frame as *someone is cutting something*. The Prototypical scenario is that before the action described by the verb is carried out, the object is whole, i.e., one thing. In terms of manner, the explication shows that the separation is done with an instrument. This instrument makes contact with the object of separation. The object then ends up separated or comes to be in two parts. This is the Potential outcome of the event described by the English verb *cut*. According to Goddard (2010:471), the details outlined in the frame "determine the mapping from lexical semantics to morphosyntactic expressions by defining the core argument structure, inherent aspect, causal notions, and the controlled nature of activities".

In section 7, I use the NSM model to fully explicate the semantics of two of the Asante-Twi PEEL verbs— *hwànè* 'to peel off (dehusk)' and *sèǹsènè* 'to peel'. As argued by Goddard (2010:466), "this format of explication enables subtle meaning differences to be modeled across language and within a single language". Moreover, the NSM approach allows for the formulation of clear, precise, cross-translatable, and non-Anglocentric analyses of the verbs. Most importantly, the use of reduced/simple paraphrases make the semantics intelligible to people who have no form of linguistic training (Wierzbicka 2015).

5. The Lexico-Semantic Typology of PEEL Verbs

In this section, I provide the lexico-semantic typology of the PEEL verbs. These verbs describe activities involving the removal of the outer coverings of entities. A prerequisite for the verbs in this category is that the objects they describe must possess an outer covering and an inner part. The following are important for the semantic characterization of the verbs: object type, instrument and causation. I demonstrate that the Asante-Twi PEEL verbs can be categorized into two main groups based on the nature of the object that undergoes the event described by the verbs. There are those verbs that describe the removal of objects with loose-fitting outer coverings (banana, orange, maize, etc.) and those that involve the removal of objects with tight-fitting outer coverings (yam, pineapple, cocoyam etc.). I illustrate these categories in Tables 3 and 4.

Table 3: Lexico-semantic typology of PEEL verbs (adapted from Ameka 2020)

	Object	Verb	Gloss
Remove loose-fitting outer covering	Banana	*hwànè*	'to dehusk'
	*orange, tangerine	*dwé*[5]	'to peel'
	Maize	*hwànè*	'to dehusk'
	(roasted) peanuts	*hwànè/ yì(yì)*	'to peel/remove'
	Onions	*hwànè/ yì(yì)*	'to peel/remove'
	Shrimp	*hwànè/ yì(yì)*	'to peel/remove'
	egg (shells)	*hwànè/ yì(yì)*	'to peel/remove'

From Table 3, we observe that even though all the objects, with the exception of orange, possess loose-fitting outer coverings, different verbs are used in describing the ways in which they are peeled. For instance *hwànè* 'to dehusk' is used extensively to describe the peeling of objects such as bananas, maize/corn, peanut, onion, shrimp and egg shells; *dwé* 'to peel' describes the peeling of oranges and tangerines. The verb *yì* 'to peel/remove' and its reduplicated variant *yìyì* 'to peel/remove' are used to describe the peeling of onions, shrimp and egg shells. The noun orange is starred in both Tables 3 and 4 because there are two ways in which the outer and inner parts may be attached. For some types of oranges, the outer part is loosely attached thus, can be easily removed with the hands. For others, the outer part is firmly attached to the inner part. One cannot easily remove it and would have to rely on an instrument.

[5] Also used to describe the process of cutting off palm fruits from the stalk

Table 4: Lexico-semantic typology of PEEL verbs (adapted from Ameka 2020)

	Object	Verb	Gloss
Remove tight-fitting outer covering	*orange	*sènsènè*	'to peel'
	plantain	*dwá*	'to peel'
	cassava	*dwá*	'to cut up'
	yam	*sènsènè*	'to peel'
	pineapple	*sènsènè*	'to peel'
	cocoyam	*sènsènè*	'to peel'
	Fish (scales)	*wèrɛ̀*	'to scrape'

In Table 4, the entities undergoing peeling are characterized as having tight-fitting outer coverings. The peeling of objects such as plantain and cassava are described with the verb *dwá* 'to cut up'. *Sènsènè* 'to peel' describes the outer covering removal of things like yam, pineapple, cocoyam, as well as orange. *Wèrɛ̀* 'to scrape' is used to describe the process of scaling raw fish.

The nature of the object, that is, whether the object has a loose fitting outer covering or tight fitting outer covering, has implications for the manner in which it is peeled. The event described by the verb can be carried out with the hands or with an instrument depending on the physical features of the object. We can think of this as a cline:

Firm Attachment –	Firm/Loose Attachment –	Loose Fit
Yam ----------	orange	banana
	Plantain	groundnut

In Table 5, I categorize the verbs into those that involve the use of the hands and those that require (bladed) instruments:

Table 5: Mode of peeling

+hands	Object	+(bladed) instrument	Objects
hwànè 'to dehusk'	maize, banana, onion, eggs (boiled)	*sèǹsènè* 'to peel'	pineapple, yam, orange
yì(yì) 'to remove'	hair, shrimp, eggs	*dwá* 'to cut up'	cassava, plantain
dwé 'to peel'	orange, tangerine	*wèrɛ̀* 'to scrape'	fresh fish
wàè to peel (off)'	tree bark		

In Table 5, actions like *hwànè* 'to dehusk', *yì(yì)* 'to remove', and *dwé* 'to peel', which describe the peeling of objects with loose-fitting outer coverings are primarily carried out with the hands. For example, the hands are used in dehusking corn, peeling roasted peanuts, peeling tangerine as well as removing shells from boiled eggs or shrimp. In contrast, *sèǹsènè* 'to peel', *dwá* 'to cut up' and *wèrɛ̀* 'to scrape' are actions that necessitate the use of some form of (bladed) instrument. For this reason, they describe the peeling of objects with tight-fitting outer coverings (yam, plantain, pineapple, fresh fish). An object like an orange can be peeled in two ways: either with the hands, in which case the verb *dwé* 'to peel' is used, or with a bladed instrument, i.e., *sèǹsènè* 'to peel'. This is where the speaker construal comes in: if the attachment is firm then an instrument is used. If it is loose, then the hands are used. Notice also that when one talks of the rind of an orange, it is by nature firmly attached. It is the outer part of the covering and, therefore, cannot easily be removed hence one uses an instrument.

6. The Semantics and Argument Alternation Possibilities of PEEL Verbs

Generally, verbs of peeling describe the removal of the outer coverings of objects using the hands or bladed objects or, in certain cases, both. Levin (1993), with reference to English, posits that the meanings of the verbs under this category involve the notions of contact and effect. That is, an entity X makes contact with an entity Y to produce a certain effect or result Z. As explicated in Section 5, the end-result is that the entity undergoing the event described by the verb ends up with its outer covering removed; thus, allowing one to see its internal content. Again, the explications also make evident the fact that some of the members of this semantic group lexicalise an instrument or a means or a specification of the nature of the result. Their meanings can, therefore, be paraphrased as "remove X from (something) Where X represents an inalienably possessed part of an animal or plant" (Levin 1993:130).

In terms of agentivity as a semantic property, the PEEL verbs can be categorized into three groups, following Ameka and Essegbey's (2007) agentivity classification. These are highly agentive, agentive, and non-agentive. While the highly-agentive verbs lexicalize instrument and manner or purpose, the verbs in the agentive category describe separations that are primarily carried out with instruments (the hands in this case act as the default instrument). The non-agentive verbs simply describe types of separations without specifying any instrument. These associated semantics play a crucial role in the syntactic behavior of the verbs. As will be demonstrated in this paper, the highly agentive verbs like *sèǹsènè* 'to peel', *dwé* 'to peel', *dwá* 'to cut up' and *wèrɛ̀* 'to scrape' do not participate in the causative/inchoative alternations. The agentive verbs like *hwànè* 'to dehusk' and *yì(yì)* 'to remove' participate in the causative/inchoative alternation, except for a few cases. The non-agentive verb *wàè* 'to peel off/ split' participates in the alternation albeit with some restrictions. The PEEL verbs and their agentivity categorisation are summarised in Table 6.

Table 6: Agentivity categorization of PEEL verbs in Asante-Twi

Highly agentive	Agentive	Non-agentive
dwá 'cut.up'	*hwànè* 'dehusk'	*wàè* 'peel (off) / split'
dwé 'peel'	*yì(yì)* 'remove'	
sèǹsènè 'peel'		
wèrɛ̀ 'scrape'		

In the sub-sections that follow, I discuss each of the verbs outlined in Table 6, highlighting their associated semantics. The section will also demonstrate how the semantics affects the syntactic behavior of the verbs, in terms of their argument alternation possibilities. The discussion of the verbs comes in the order in which they are categorised in Table 6.

6.1 *dwá* ‘to cut up (into pieces)’

This is a highly agentive verb because it lexicalizes a/an (bladed) instrument. *Dwá* ‘to cut up’ describes the process of using a bladed instrument to cut up objects like cassava, plantain and slaughtered animals. Christaller (1933:131), for instance, defines the verb as “to carve, cut up, cut into pieces”. Figure 1 illustrates the cutting up of cassava into portions.

Fig. 1: cutting up peeled cassava (into portions)

The video depicting the scene in Figure 1 was described as follows:

(5) a. Wò-ò dwá bàǹkyè nó mú ǹkétéwá
2SG.SUBJ-PROG cut.up cassava DEF inside small
‘You are cutting up the cassava into small pieces.’ (Agyepong 2017:119)

In (5b), *dwá* describes the cutting up of an elephant (for consumption) using an axe.

b. Ɔ̀bàákófó nà è-kúm̀ ɛ̀sónó
one person FOC 3INAN-kill elephant
má àmàǹsáń twé ǹ-kúmá kɔ́-dwá díé
give citizen pull PL-axe go-cut.up eat
‘A single person kills an elephant to enable his fellow-citizens to collect axes to chop it up to eat.’ (The well-being of the state may depend on a single individual) (Appiah et al. 2007:19)

The verb is also used to describe the removal of outer coverings of objects that are hard in nature, for example, cassava, plantain, and slaughtered animals. Usually, four processes are involved in the preparation of these food items for consumption. The first is the removal of outer covering. For instance, the peeling of plantain involves using a bladed instrument (knife, cutlass) to create a line (from top to bottom) on the cover of the plantain (Figure 3). For cassava, a knife is used to strike its outer part, creating an opening. The second stage (for both plantain and cassava) involves using a knife to gently pry the outer coverings away from the food. After this stage, a knife or the hands can be used to remove or pull apart the covering completely from the object (Figure 4). The final stage involves using a bladed object to cut up the object into portions or pieces (Figure 1). The following are some examples of the responses provided by the consultants when they were shown the videos (represented here as still images) and asked about what the agent was doing:

Fig.2: peeling cassava

Fig.3: peeling plantain (with knife)

Fig.4: peeling plantain (with hands)

Fig.5: peeled plantain

(6) a. Maame nó-ò[6] dwá bàǹkyé nó
woman DEF-PROG cut.up cassava DEF
'The woman is peeling the cassava.' [PEEL-122020-BKI]

b. Ɔ̀-kùtà bòrɔ̀déɛ́, ɛ́nà ɔ̀-dé sékáń nò-ò dwá
3SG.SUBJ-hold plantain and 3SG.SUBJ-use knife DEF-PROG cut.up
' The person is holding plantain, and s/he is using a knife to cut it up.'
[PEEL-122020-BKI]

[6] In spoken Asante-Twi, the progressive is realised as a vowel. This vowel is the same as the vowel of the preceding syllable (Osam 2004:14).

c. Maame nó-ò dwá bòrɔ̀déɛ́ nó
woman DEF-PROG cut.up plantain DEF
'The woman is peeling the plantain.' [PEEL-122020-BKI]

For Figures (2) and (3), the instrument is visible thus, the use of the verb *dwá* 'to cut up' comes as no surprise. The more interesting ones are Figures (4) and (5), which show no instrument, yet elicited *dwá* 'to cut up'. Clearly, the consultants used *dwá* 'to cut up' because even though the instruments were not visible, the cultural knowledge they have about such peeling events is that one will need to use a bladed instrument to cut some part of the outer covering in order to be able to peel the object (either with the hands or a knife). The question "what happened to the plantain" (in Figure 5), therefore, elicited the following response:

(7) Yɛ̀-à-dwá bòrɔ̀déɛ́ nó
3PL.IMPERS-PERF-cut up plantain DEF
'The plantain has been peeled (by someone).' [PEEL-122020-BKI]

Example (8) illustrates the use of *gùá*, which is the variant of *dwá* 'to cut up' in Akuapem-Twi, to describe the process of skinning an animal, i.e. the removal of the outer covering of animals such as sheep, cows and goats. Typically, a (sharp) bladed instrument is also employed in this activity.

(8) W-á-gùà nàǹtwí-ǹhómá á-tɔ̀ǹ (Ak.) (Christaller 1933:147)
3PL.OBJ-PERF-skin cow-skin PERF-sell
'They have skinned the cow and sold it (the skin).'

To summarise, critical for the semantics of *dwá* 'to cut up', is the involvement of an instrument. It yields a peeling interpretation when the process involves object outer covering removal. A cut up interpretation is derived when the process results in the object separating into portions. In addition, the properties associated with the entities undergoing separation also contribute to the semantics of the verb; *dwá* 'to cut up', therefore, describes separations carried out on objects that are hard or bony in nature (cassava, plantain, slaughtered animals).

This has consequences for the verb's behavior syntactically. As previously mentioned, the highly agentive verbs fail to participate in the causative/inchoative alternation. For this reason, example (9) cannot be used to describe the state of the cassava that has undergone the process illustrated in Fig 2.

(9) a. *Bàǹkyé nó á-dwà
cassava DEF PERF-cut.up
'The cassava has been peeled/ cut up.'

In the same vein, the state of the plantain illustrated in Fig 5 cannot be described with (9b):

b. *Bòrɔ̀déɛ́ nó á-dwà
plantain DEF PERF-cut.up
'The plantain has been peeled.'

To describe the state of the plantain in Figure (5), the language employs an impersonal construction which involves the use of the impersonal subject pronoun *yé(n).* There is also the introduction of the focus *ná* which precedes the impersonal pronoun. Consider (9c):

c. Bòrɔ̀déɛ́ nà y'á-dwá
plantain FOC 3PL-PERF-peel
'A plantain that has been peeled (by someone).'

6.2 *dwé* 'to peel (orange, tangerine) with hands'

Dwé 'to peel' describes the process of removing the rind, which is the tough outer skin of citrus fruits, with the hands. In this process, the thumbnail is used to create a puncture on the skin near the top or bottom part of the orange or tangerine. This allows one to have a good grip on the skin. The thumb is then gently used to remove the skin, thereby allowing access to the content behind the skin i.e., the fruit. Fig 6 illustrates this:

Fig. 6: Peeling an orange (with hands)

The following is how consultants described Fig 6.

(10) a. Màámé nó-ò dwé àkùtúó nó
woman DEF-PROG peel orange DEF
'The woman is peeling the orange.' [PEEL-122020-BKI]

b. Òbí kùrà àkùtúó nà ɔ́-ɔ́-dwé
someone hold orange and 3SG.SUBJ-PROG-peel
'Someone is holding an orange and is peeling it.' [PEEL-122020-BKI]

As a highly-agentive verb, the hands serve as the default instrument of removal. Thus, in examples (10a-b), an agent is described as effecting the peeling. The highly agentive nature of this verb prevents it from participating in the causative/ inchoative alternation. Because of this, an orange that has already been peeled cannot be described with example (11):

(11) * Àkùtúó nó á-dwè
orange DEF PERF-peel
'The orange is peeled.'

Again, an impersonal construction is employed when one wants to describe the state of an orange that has been peeled. Consider example (12):

(12) Àkùtúó nà yɛ-á-dwé
orange FOC 3PL.IMPERS -PERF-peel
'An orange that has been peeled (by someone).'

This construction can typically be used in a context where the speaker has no prior knowledge of the one who peeled the orange. Or even if s/he does, the construction can be used to purposely hide the identity of the causal agent.

6.3 *sènsènè* 'to peel'

This highly-agentive verb describes the use of a bladed instrument to remove the outer covering of food items such as pineapples, oranges, yams, potatoes etc. These items are characterized by tight-fitting outer coverings; in many cases, a sharp bladed object is required in order to achieve the end result. Figures (7), (8), (9) depict the peeling of pineapple and orange. Note that, Figures (8) and (9) show two different manners of peeling an orange. In Figure (8), the cutting is done by rotating the orange in the hand while using the bladed instrument to remove the rind in a single continuous circular motion. This results in the orange rind coming off in a single continuous spiraled piece, in the form of a chain. The cutting in Figure (9) is done by using the knife to remove the rind in thin single strands/strips. At the end of the process, the rind ends up in multiple individuated strips.

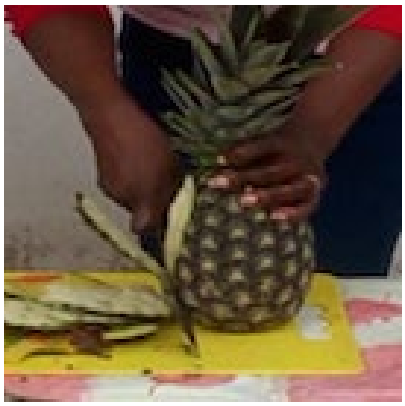
Fig.7: peeling pineapple (with knife)

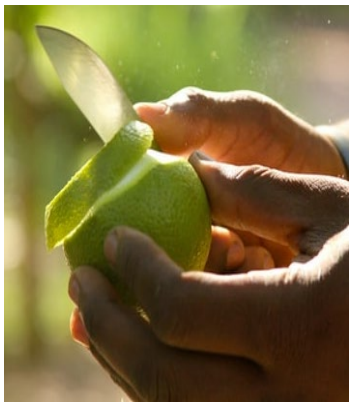
Fig.8: peeling orange (with knife)


Fig.9: peeling orange (with knife)

The video depicting these object peelings were described as follows:

(13) a. Wó-ó sèǹsénè àbòrɔ̀bɛ́ nó
2SG-PROG peel pineapple DEF
'You are peeling the pineapple.' (Agyepong 2017:135)

b. Ɔ̀-ɔ̀-sèǹsénè àkùtúó
3SG-SUBJ-PROG-peel orange
'S/he is peeling an orange.' [PEEL-122020-BKI]

Example (13b) was used to describe both Figures (8) and (9). The process of using a bladed instrument to sharpen a pencil, which also involves cutting small/thin strips of wood (outer covering) from the pencil is also described with *sèǹsènè* 'to peel'. Consider (14):

(14) Àbòfrá nó á-sénsénè pɛ́nsèrè nó á-wíé
child DEF PERF-peel pencil DEF PERF-finish
'The child has finished sharpening the pencil.' (Agyepong 2017:135)

As expected, the highly agentive nature of *sèǹsènè* 'to peel' prevents it from participating in the causative/inchoative alternation. For this reason, a pineapple that has been peeled cannot be described with example (15) below:

(15) * Àbòrɔ̀bɛ́ nó á-sènsèné
pineapple DEF PERF-peel
'The pineapple is peeled.'

The ungrammaticality of (15) is due to the fact that, as a highly agentive verb, *sèǹsènè* 'to peel' requires the presence of an agent, who uses a bladed instrument to bring about the separation. This agent is missing from example (15).

6.4 *wèrɛ̀* [7] 'to scrape'

This is also a highly agentive verb, which describes the process of pulling or dragging an instrument across the surface of an object, with the aim of removing an unwanted part of the object as shown in Figures (10) and (11) below:

Fig.10: scaling fish

Fig. 11: scraping a wooden spoon

Consultants produced example (16a-c) when showed Figures (10) and (11) and asked (i) what is the person doing? and (ii) what did the person do?

(16) a. Ɔ̀-ɔ-wèrɛ́-wèrɛ̀ ɛ̀náḿ nó hó[8]
3SG.SUBJ-PROG-RED-scrape fish DEF body
'S/he is scraping/scaling the fish.' [PEEL-122020-BKI]

b. Ɔ̀-wèrɛ́-wèrɛ̀-ɛ̀ ɛ̀nám nó hó
3SG.SUBJ-RED-scrape-COMPL fish DEF body
'S/he scraped/scaled the fish.' [PEEL-122020-BKI]

c. Ɔ̀-ɔ-wèrɛ́-wèrɛ̀ dùá àtèré nó mú
3SG.SUBJ-PROG-RED-scrape tree spoon DEF containing.region
'S/he is scraping the inner region of the wooden spoon'. [PEEL-122020-BKI]

[7] This verb is also rendered as *twerɛ (twerɛ)*
[8] *ɛnam* is a generic term for meat/animal protein and fish.

It is instructive to mention that the range of instrument involved in this activity varies. It is not restricted to only bladed instruments. For this reason, the event can be carried out with even the fingernails, depending on the type of object undergoing the separation. The critical thing is that there is an involvement of some form of instrument.

In the Ghanaian culture, it is a common practice to scrape food items such as plantain and cassava after they have been peeled in order to prepare them for cooking. In describing the preparation of cassava, a consultant produced example (17):

(17) Mè-dwá bàǹkyé wìé â mè-wèrɛ́-wèrɛ̀ hó
1SG.SUBJ-peel cassava finish.HAB COND 1SG.SUBJ-RED-scrape self
'After peeling cassava, I scrape it (body of the cassava).' (Agyepong 2017:138)

In all four examples, we observe that the verb *wèrɛ̀* 'to scrape' occurs in its reduplicated form. One of the functions of reduplication in Akan is to mark an event as pluractional, that is, the scraping is done in a repeated manner.

This verb can be extended to describe the complete removal of hair from the body. Note, however, that its usage is specific in the sense that it is only used in contexts where all the hair is completely removed (e.g. skin cut hair style), thus revealing the skin. This is common cultural practice among executioners and other workers in Asante palaces. Consider example (18):

(18) Ɔ̀bráfóɔ́ nó á- wèrɛ́ nè tí hó
executioner DEF PERF-scrape 3POSS head self
'The executioner has shaved all the hair on his head.' (Agyepong 2017:139)

Note that, it is possible to use the verb *yí* 'to remove' to describe the removal of hair. The difference, however, is that *yí* is very generic and describes all forms of hair removals, including the skin cut types.

The critical thing about all five examples is that there is an introduction of the postposition *hó* 'body' (16a, 16b, 17 and 18) and *mú* 'containing region' into the construction. The role of the postposition is to show the active zone (part of the object) undergoing the change of state.

Again, because the verb lexicalizes an instrument, it does not participate in the causative/inchoative alternation. This explains the ungrammaticality of examples (19a) and (19b):

(19) a. * Ɛ̀náḿ nó hó á-wèrɛ́-wèrɛ̀
fish DEF body PERF-RED-scrape
'The body of the fish has been scaled.'

b. * Dùá àtèré nó mú á-wèrɛ́-wèrɛ̀
wood spoon DEF containing.region PERF-RED-scrape
'The wooden spoon (inside) has been scrapped.'

Similar to the other highly agentive verbs, an impersonal construction is used in contexts where one needs to describe objects that have been scrapped.

6.5 *hwànè* 'peel'

This agentive verb lexicalises manner rather than instrument. It describes outer covering removals primarily done with the hands. The entities that undergo the action described by this verb are characterized by loose-fit outer covering. For this reason, the hand acts as the default instrument. The verb describes the peeling of food items such as corn (Figure 12), banana (Figure 13), onions (Figure 14)[9], boiled eggs (Figure 15), etc. In all instances, the hand is used in pulling or removing the outer covering from the entities.

[9] Even though in the preparation of onion (for cooking), a knife is used to cut off certain parts (such as head and bottom), when it comes to the removal of the outer covering (as depicted in Figure 14), it is the hands that are used.

Fig.12: dehusking corn

Fig.13: peeling banana

Fig.14: peeling an onion

Fig.15: peeling an egg

Consultants described the events depicted by the images as follows (20):

(20) a. Pokua-a hwànέ àbùró nó
Pokua-PROG peel maize DEF
'Pokua is peeling the maize.' (Agyepong 2017:136)

b. Pokua á-hwànέ kwàdú nó
Pokua PERF-peel banana DEF
'Pokua has peeled the banana.' [PEEL-122020-BKI]

c. Màámé nó-ò hwànέ gyèénέ nó hó
woman DEF-PROG peel onion DEF body
'The woman is peeling the onion.' [PEEL-122020-BKI]

d. Màámé nó-ò hwànέ ǹkòsùá nó
woman DEF-PROG peel egg DEF
'The woman is peeling the egg.' [PEEL-122020-BKI]

In addition to the food items discussed above, *hwànè* 'peel' also describes the outer covering removal of nuts, such as roasted peanuts. Example (21) was produced by a consultant when she was asked the question 'What did the person do to the peanut on the left side to get the one on the right side?'

Fig.16: unpeeled and peeled roasted peanuts

(21) Ǹkátéɛ́, yɛ̀-à-hwáné bí gù bowl mú,
peanut 3PL.SBJ.IMPERS-PERF-peel some be.on bowl inside
ɛ́nà dèɛ̀ yɛ̀-ǹ-hwáné-è ńsó gù ǹkyɛ́n
and one 3PL-NEG-peel-COMPL also be.on side
'Peanut, some have been peeled into a bowl, beside it are those that have not been peeled.' [PEEL-122020-BKI]

All the peeling events described in this section occur with the hands as the primary or default instrument. For this reason, the verb *hwànè* is not expected to participate in the causative/inchoative alternation. In certain restricted contexts, however, *hwànè* occurs intransitively. In such contexts (egg hatching) both the causative and inchoative constructions can be used. Consider examples (22a-b):

(22) a. Àkókɔ́ nó á-hwàné kòsùá nó
hen DEF PERF-peel egg DEF
'The hen has peeled (hatched) the egg.'

b. Ǹkòsùá nó á-hwàné
egg DEF PERF-peel
'The egg has peeled (hatched on its own).'

These sentences were elicited during an event narration. Consultants watched a 2-minutes wordless Tom and Jerry cartoon and were asked to narrate what they saw to an interlocutor. A scene which depicted a mother hen sitting on its eggs elicited example (22a). Another scene which showed the egg spontaneously hatching after rolling out of its nest elicited example (22b). When the hatching occurs spontaneously, without the

involvement of an external force, the inchoative construction is used as a way of describing the state of the egg. In some cases, the inchoative can also be used to hide the causal agent i.e., the person may have seen the egg being hatched by the mother, but may decide to leave that part of the description and rather focus on the end state of the entity that has undergone the separation.

6.6 *yì(yì)* 'remove'

The verb *yí* (remove) in certain contexts occurs in the reduplicated form, as in *yìyì* . In such contexts, the verb presents an action as either pluractional or as being effected on more than one entity. Generally, *yì(yì)* 'remove' is an agentive verb which describes the process of taking away, removing, taking off or taking out entities from a location. It lexicalises manner rather than instrument and, therefore, describes removals done primarily with the hands, for example, removing cloths from drying lines, removing objects from a location etc. Consider examples (23):

(23) Kwame à-yí-yí ǹ-tààdéé nó à-fírí àhòmá nó só
Kwame PERF-REDP-remove PL-dress DEF PERF-from line DEF top
'Kwame has removed the clothes from the (drying) line.'

Yì(yì) 'remove' also has a peel interpretation when it takes food items such as herrings, dried fish, onions, shrimp, etc. in combination with the postposition *hó* (body) as direct objects. It describes the removal of the outer coverings of the entities undergoing the event. Figures (17) and (18) illustrate two of such contexts.

Fig.17: peeling raw shrimp

Fig.18: peeling onion

The images in Figures (17) and (18) were described as in (24a) and (24b), respectively.

(24) a. Màámé nó-ò yì-yí mɔ́ńkɔ́ nó hó
woman DEF-PROG RED-remove shrimp DEF body
'The woman is peeling the shrimp.' [PEEL-122020-BKI]

b. Menhyira-á yì-yí gyèéné nó hó
Menhyira-PROG RED-remove onion DEF body
'Menhyira is peeling the onion.' [PEEL-122020-BKI]

In both examples, we notice that the verb occurs in the reduplicated form. This is to mark the events as pluractional. For instance, in (23), the reduplicated form indicates that the action described by the verb is carried out on more than one dress. In (24a) and (24b) the removal process, though carried out on a single entity, is done in a repeated manner. Note that it is possible to also use the verb *hwànè* 'to peel' to describe Figures (17) and (18).

The verb can also be interpreted as 'to shave' when it occurs with the noun *nwíǹ* 'hair'. *Yì(yì)* 'remove' can be used to describe the process of removing hair from parts of the body such as head, legs, underarm, etc. Recall that in example (17), it was argued that the verb *yi* is the generic verb for describing all forms of hair removals from the body.

(25) Nana-á kɔ̀-yí nè tí
Nana-PROG go-remove 3POSS head
'Nana is going to shave his hair'. (Lit: Nana is going to remove his head)

Even though in example (25) the object of the verb *yí* 'remove' is *nè tí* 'his/her head', in reality, it is not the head that is actually going to be removed. The noun *tí* 'head' metonymically represents the hair.

In terms of argument alternation, because of the agentive nature of *yí* 'remove', it is unable to participate fully in the causative/inchoative alternation. There are, however, restrictions where the verb occurs intransitively. For instance, consultants explained that it was possible to describe the states of the entities depicted in Figures (17) and (18) with the intransitive constructions in (26).

(26) a. Mɔ́nkɔ́ nó hó á-yì-yí
shrimp DEF body PERF-RED-remove
'The (body of the) shrimp has peeled off.'

b. Gyèéne nó hó á-yì-yí
onion DEF body PERF-RED-remove
'The (body of the onion) has peeled off.'

It is also possible to use an impersonal construction (27) in both cases:

(27) a. Yɛ̀-à- yí-yí mɔ́ǹkɔ́ nó hó
3PL.IMPERS-PERF-RED-remove shrimp DEF body
'The shrimp has been peeled (by someone).' [PEEL-122020-BKI]

b. Yɛ̀-à- yí-yí gyèéné nó hó
3PL.IMPERS-PERF- RED-remove onion DEF body
'The onion has been peeled (by someone).' [PEEL-122020-BKI]

The 'to shave' interpretation is, however, unable to participate in the alternation. This is because, the event lexicalizes a bladed instrument. While it is possible for the skin of shrimp and onions to peel off spontaneously, the same cannot occur with shaving hair. An instrument is required in order to remove hair from the body. It is this requirement that prevents this interpretation from being expressed intransitively, as shown in example (28). In (28), the original Asante-Twi sentence cannot have the English as its accurate translation.

(28) Nana tí hó á-yì-yí
Nana head body PERF-RED-remove
*'Nana's hair has been shaved.'

6.7 *wàè* 'to peel (off) / to split'

According to Christaller (1933:557), *wàè* 'to peel (off)/to split', which can be reduplicated as *wàá-wàè* or *wàèwàè* can be defined as to "take off, strip, draw, tear, or pull off, peel". As a non-agentive verb, *wàè* does not lexicalize an instrument. For this reason, peeling events described by *wàè* can primarily occur spontaneously, without the

involvement of an external agent. For example, the verb can be used to describe the peeling of a paper that is not firmly stuck to a wall. An intransitive construction such as (29) would be appropriate in capturing the state of a paper that has been peeled (off a wall) as in:

(29) Krátàá nó á-wáé
paper DEF PERF-peel
'The paper has peeled (off something).'

The verb can also describe removals done with the hands or an instrument. Whether an instrument will be involved or not is dependent on the nature of the object. Typically, objects with very hard outer coverings will require an instrument, whereas those with flexible or soft outer coverings are often able to peel off on their own. Figures (19) and (20) depict peeling events that are done with the hands as well as a spontaneously occurring peeling, respectively:


Fig.19: peeling a tree bark (with hands)


Fig.20: tree bark peeling off

Consultants described the images as follows:

(30) a. Ɔ̀-ɔ-wàá-wàè dùá nó hó
3SG SUBJ-PROG-RED-pull (off) tree DEF body
'S/he is peeling (off) the bark of the tree'. [PEEL-122020-BKI]

b. Dùá nó hó á-wàé
tree DEF body PERF-pull off
'The bark of the tree has peeled off.' [PEEL-122020-BKI]

c. Yɛ̀-à- wàá-wàè dùá nó hó
3PL.IMPERS-PERF- RED-pull (off) tree DEF body
'The tree bark has been peeled (by someone).' [PEEL-122020-BKI]

When an instrument is involved in the peeling as shown in Figure (19), an intransitive construction cannot be used to describe the state of the peeled object. Rather, an impersonal construction is used in such contexts (30c). In all three examples, we see the use of the postposition *hó* (body). The role of the postposition is to show the active zone of the entity that is affected by the event described by the verb. In this case, it is the body of the tree that is peeled.

In sum, this section has presented the semantics and argument structure alternation possibilities of the PEEL verbs in Asante-Twi. Following Ameka and Essegbey's (2007) 'agentivity' property, the verbs were categorized into four— highly agentive, agentive, non-agentive and highly-non agentive. So far, I have shown that the verbs describe events that involve a person using an instrument or hands to remove the outer coverings of entities with the aim of exposing the inner regions/contents of the entity undergoing the event described the verbs. I have also shown that some of objects with which the verbs combine in some cases occur with postpositions (*hó, só, mú*) which show the active zone that is affected by the peeling. In section 7, I explicate this semantics within the NSM model.

7. NSM Explication for *hwànè* 'to dehusk' and *sènsènè* 'to peel'

Based on the discussion so far, I propose the following semantic explications for the verbs *hwànè* 'to dehusk' (+hands) and *sènsènè* 'to peel' (+bladed instrument), respectively. The verbs are selected from the two categories— peeling with hands and

peeling with a bladed instrument, mainly for the purposes of illustrating the distinction between the two manners of peeling. [10]

Table 7: Explicating the verb *hwànè* 'to dehusk'

[**Someone** *hwànè* **'to dehusk' something**]

a. Someone (X) did something to something (Y) (e.g. banana) (at a time before now) b. because of this, something happened to this something (Y) during this time as this someone (X) wanted it	**LEXICOSYNTACTIC FRAME**
c. often, when someone does this to something, it is like this: this something (Y) is near this someone's (X) body a short time before, this someone (X) thought like this about this something (Y): - It is (like) one thing, it has parts - One part is on the inside - The other part is on the outside - Someone can see the outside part (if it is not firmly touching the inside part) - "I don't want this thing to be one thing anymore, I want it to be two things	**PROTOTYPICAL SCENARIO**

[10] Selecting the verbs *hwànè* 'to dehusk' (+hands) and *sèǹsènè* 'to peel' (+instrument) to illustrate the NSM does not imply that their explications are the same as the other verbs in each category. The two verbs are selected just for the purposes of distinguishing between actions of peeling done with the hands versus those that require bladed instruments.

- because of this, I want to do something to it for some time, after this - when I do this, I want something to happen to it all the time as I want"	
d. when someone (X) does this to something (Y), it happens like this: - this someone (X) does something with the hands to the outer part of the something (Y) - because of this, this someone's hand (X) moves for a short time as this someone (Y) wants - because of this, the outer part of this something moves as this someone wants - because of this, after this, this thing is no longer one thing	**MANNER + EFFECT**
e. Because of this, after this, one can see the part of this thing (Y) that was inside One can do whatever one wants with the parts of this something (Y).	**POTENTIAL OUTCOME**

This model illustrates the transitive use of the verb *hwànè* 'to dehusk'. In the explication, a typical peeling event described with *hwànè* 'to dehusk' requires an agent (X) to act upon an entity (Y), resulting in a change in state. The event described by the verb is brought about by using the hands to pull the outer covering off the entity (Y). This action results in the entity (Y) having two separate parts i.e. an outer (the peel) and an inner part (the fruit).

Table 8: Explicating the verb *sènsènè* 'to peel']

[**Someone** *sènsènè* 'to peel' **something**]

a. Someone (X) did something to something (Y) (e.g. pineapple, yam) (at a time before now) b. because of this, something happened to this something (Y) during this time as this someone (X) wanted it	**LEXICOSYNTACTIC FRAME**
c. often, when someone does this to something, it is like this: - this something (Y) is near this someone's (X) body a short time before, this someone (X) thought like this about this something (Y): - It is (like) one thing, it has parts - One part is on the inside - The other part is on the outside - Someone can see the outside part (if it	**PROTOTYPICAL SCENARIO**

is not firmly touching the inside part) - "I don't want this thing to be one thing anymore, I want it to be two things - because of this, I want to do something to it for some time after this - when I do this, I want something to happen to it all the time as I want"	
d. when someone (X) does this to something (Y), it happens like this: - this someone (X) holds one part of something else with one hand - this part of this other something is not sharp, another part of it is sharp - this someone moves his/her hand for sometime - because of this, the sharp [m] part of this other thing touches the outer part of this thing (Y) - because of this, the outer part of this something moves as this someone wants - because of this, after this, this thing is no longer one thing	**MANNER + EFFECT**
e. Because of this, after this, one can see the part of this thing (Y) that was inside One can do whatever one wants with the parts of this something (Y).	**POTENTIAL OUTCOME**

This explication also depicts the transitive use of the verb *sèǹsènè* 'to peel'. It, therefore, follows the same logic as discussed for *hwànè* 'to dehusk' in section 7.1. The difference, however, is in the manner + effect frame i.e., how the peeling is done. To peel, for instance, a pineapple, the agent (X) holds one part of another object (in this case the bladed instrument). This instrument has both a sharp side and a blunt sharp. The agent (X) holds the blunt part and moves it to bring the sharp (bladed) part into contact with the outer part of the object (Y, in this case, the pineapple). The agent (X) then continues to move his/her hand for some time. After some time, the object (Y) is no longer one thing. It is separated into two parts. The potential outcome is that after some time, the inner content is visible and one can do whatever s/he wants with both parts.
The difference between the two explications has to do with the fact that for *hwànè* 'to dehusk', there is no bladed instrument, but for *sèǹsènè* 'to peel', the event requires the use of a bladed instrument.

8. Summary and Conclusion

This paper has discussed the lexico-grammatical encoding of every day separation events, specifically, those that describe the removal of outer coverings of entities for food preparation, among others. These events are primarily carried out with either a (bladed) instrument or the hands. The verbs under this category have been referred to as PEEL verbs by Levin (1993) in her discussion of the English verbs. It has been shown that the verbs can be grouped into three — highly agentive (*dwá* 'to cut up', *dwé* 'to peel (with hands), *sèǹsènè* 'to peel (with instrument), *wèrɛ̀* 'to scrape'), agentive (*hwànè* and *yì*) and non-agentive (*wàè*) depending on their level of agentivity (Ameka and Essebgey 2007). Syntactically, it is only the verbs under the non-agentive class that participate extensively in the causative/inchoative alternation. Those under the highly agentive and agentive classes, to a large extent, do not participate in this type of alternation. The paper has, however, provided restricted contexts wherein the agentive verbs *hwànè* and *yì*, occur intransitively. While this observation may not necessarily be unique to Asante-Twi, it is quite interesting to note that a different thing happens in a language like Emai. According to Schaeffer and Egbokhare (2012), PEEL verbs in Emai do not occur in intransitive frames, making the verbs more highly agentive.

Crucially, the paper has demonstrated that a given interpretation of a specific verb is generated in combination with i) the lexical semantics of the verb, ii) the type of objects with which the verb collocates, iii) the type of grammatical constructions in which the verb occurs (whether causative or inchoative) and (iv) cultural practices/activities associated with the verbs (e.g. how to peel X). For instance, we get a shave interpretation of the verb *yi(yi)* 'remove' when it takes *tí* 'head' or *nwíǹ* 'hair' as object. Culturally, the hair is shaved using a bladed instrument. Due to this semantics, this particular interpretation cannot be expressed using an intransitive construction.

Critical for the semantics of the verbs, this paper has provided two explications illustrating the two different manners in which objects are peeled, i.e. with the hands and with (a bladed) instrument. These explications follow the Natural Semantic Metalanguage (NSM) model proposed by (Goddard and Wierzbicka 2016) and describe the meanings of the verbs using Minimal or basic English.

Abbreviations

1	First person
2	Second person
3	Third person
COND	Conditional
CVEP	Cut and break verbs elicitation pictures
DEF	Definite article
INAN	Inanimate
IMPER	Impersonal
LCS	Lexical Conceptual Semantic
NEG	Negation
NSM	Natural Semantic Metalanguage
OBJ	Object
PERF	Perfect
PL	Plural
POSS	Possessive
PROG	Progressive
REDP	Reduplicant
REL	Relativizer
SG	Singular
SUBJ	Subject
V	Verb

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Image Sources

1. Figure 1: cutting up cassava into portions (Agyepong 2021b: CBVEP-4)
2. Figure 2: peeling cassava with knife (Agyepong 2021b: CBVEP-3)
3. Figure 3: peeling plantain with knife (Agyepong 2021b: CBVEP-5)
4. Figure 4: peeling plantain with hands (Agyepong 2021b: CBVEP-6)
5. Figure 7: peeling pineapple with knife (Agyepong 2021b: CBVEP-7)
6. Figure 12: peeling corn (Agyepong 2021b: CBVEP.11)
7. Figure 13: peeling banana (Agyepong 2021b: CBVEP-9)
8. Figure 14: peeling onion (Agyepong 2021b: CBVEP-1)
9. Figure 15: peeling egg (Agyepong 2021b: CBVEP-10)
10. Figure 16: unpeeled and peeled roasted peanuts (Agyepong 2021b: CBVEP-11)
11. Figure 19: peeling shrimp (Agyepong 2021b: CBVEP-8)
12. Figure 20: peeling onion (Agyepong 2021b: CBVEP-2)
13. https://www.dreamstime.com/woman-s-hands-peeling-fresh-large-orange-wrinkled-textured-skin-black-cutting-board-woman-s-hands-peeling-fresh-image209726464 (Accessed March 24 2021, 9:50am)-FIGURE 6
14. https://unsplash.com/s/photos/peeling-orange-with-knife (Accessed March 17 2021 9:23am)-(Accessed March 24, 2021)-FIGURE 8
15. https://www.youtube.com/watch?v=ERV8_vomUhA (Accessed March 17 2021 9:23am)-FIGURE 9
16. https://www.dreamstime.com/man-cleans-fish-knife-man-market-cleans-fish-scales-entrails-image196476213 (Accessed March 24, 2021) -FIGURE 10

CHAPTER 4

The Basic Locative Construction (BLC) in Akan and the Semantics of Akan Posture Verbs

Esther Serwaah Afreh
Department of English
Kwame Nkrumah University of Science and Technology
esafreh.cass@knust.edu.gh

Abstract

Following Levinson (2003), Levinson and Wilkins (2006), and Ameka and Levinson (2007), this paper discusses the basic locative construction (BLC) in Akan. It also describes the grammar, semantics and uses of posture verbs in Akan. The data were gathered from three adult Akan native speakers using the Topological Relations Picture Series (TRPS) developed by Bowerman and Pederson (1992). Some were also collected from textbooks published in Asante Twi and from radio discussions in Asante Twi. The analysis reveals that Akan is a Type III or a multi-verb language with some postpositions, and that in the Akan BLC, the expressions representing the Figure, the verb and the postpositions cannot be omitted. However, the reference object can be left out. The locative predication in Akan is concerned with the configuration of the Figure-Ground relations and the verbs that are used in the BLC classify the actual configurations. Again, it has been shown that some verbs are restricted in their use to animate and others to inanimate entities. As a multi-verb language, Akan shows a strong preference for how the Figure is spatially dispositioned in locative constructions. That is, the focus of the verbs used in locative predications is on the properties of the Figure.

Keywords: Akan, locative construction, posture verbs, topological relations, Figure, Ground

1. Introduction

The purpose of this paper is to describe the basic locative construction (BLC) in Akan. It concentrates on the grammar, semantics and uses of posture verbs in Akan. What makes the Akan data interesting is the fact that it shows a strong preference for how the Figure is spatially dispositioned in locative constructions. The focus of the meanings of the posture verbs is on the properties of the Figure or of the Ground. A better understanding of the semantics of locative constructions in Akan is of primary importance for cross-linguistic research on motion event descriptions in general, and for research investigating the effects that the semantic patterns may have on non-linguistic cognition.

In the next section, I present the syntax of the Basic Locative Construction (BLC) in Akan. This is followed by a discussion of the 'where-question' in Akan. The grammar, semantics and uses of the three types of verbs identified – postural, distribution and adhesive verbs are presented in the sections that follow. I then present a summary of the findings.

2. The Basic Locative Construction (BLC)

According to Talmy (2000), the components of a spatial description are the *Figure* (i.e., the entity that is located) and the *Ground* (i.e., the entity with respect to which the Figure is located). In addition to these, Ameka (1999) and Levinson (1992) include what they have described as the *Search Domain* (i.e., the space anchored to the Ground where the Figure is located) and the spatial topological Relation between the Figure and the Ground. As noted by Essegbey (2010:95), the BLC is the "most neutral answer to where-questions (e.g., where is the cup?)". This neutral answer localizes a Figure in relation to a Ground. The BLC in Akan is made up of an NP which is the Figure and the subject of the clause, followed by a verb selected from the contrasting locative verbs and an obligatory locative adjunct phrase. The locative adjunct phrase may be an NP or a postpositional phrase headed by the postposition which codes the space, location or landmark of the reference object relevant for the localization of the Figure.

In the Akan BLC, as already noted by Kambon et al. (2015), the expressions representing the Figure, the verb and the postpositions cannot be omitted. Example (1a) illustrates a BLC in Akan. Here, *da* 'lie' is the main verb that predicates the location of the Figure *maame no* 'the woman'. The locative verb is followed by the postpositional phrase *mpa*

no so ‘on the bed’, with *mpa no* ‘the bed’ as the reference object NP and *so* ‘top’ as the postposition. Since the postposition cannot be left out, (1b) is unacceptable. However, in the Akan BLC, the reference object can be left out as shown in (1c).

(1) a. Màámé nó dà m̀pá nó só
Woman DEF lie/CONT bed DEF top
‘The woman is lying on the bed.’

b. *Màámé nó dà m̀pá nó
Woman DEF lie/CONT bed DEF
*‘The woman is lying the bed.’

c. Màámé nó dà só
Woman DEF lie/CONT top
‘The woman is lying on it.’

The postpositions in Akan have been described by Osam et al. (2011:109)[1] as “free morphemes which are used to code the space, location or landmark of one entity in relation to another.” As shown in Table 1 below, adapted from Osam et al. (2011:110), the postpositions are derived from body parts and object part nouns. Again, they are sometimes used to express temporal relations.

[1] Although Osam et al. (2011) have suggested this be referred to as relator nouns, in this paper, they will be referred to as postpositions.

Table 1 – Postpositions in Akan

Type	Space/Location	Time	Landmark/ Distance	Gloss
Body Part	**hó**			'body, side, about'
	àní (ènyíwá)			'eyes'
	tí (tsír)			'head'
	àpàm̀pàḿ			'crown of the head'
	àyààsé, (àyérádzé)			'lower abdomen'
	ɛ̀tóɔ́ (tùǹ)			'buttocks, bottom'
	ànó			'lips, mouth'
	ànímḿ, (ènyímḿ)	**ànímḿ**		'face, front, outside'
	àkyí, (èkyír)	**àkyí́, àkyíríkyírí**	**àkyí, àkyíríkyírí**	'back, behind, far, very far'
Object Part	**ǹkyɛ́ǹ**			'side'
	èmú			'inside, inner part,
	m̀fínímfíní			'middle'
	só, (dó)		**ɛ̀sóró, sórósóró**	'top, heaven, higher up,'
	àsé			'under, beneath
	ǹtáḿ			'between'
			àgyá	'beyond, over'
			ǹtèǹtèǹsòɔ́	'over'

Abakah (2005) has noted that the postpositions have the same vocalic nominal prefixes and tonal melody as nouns in the Akan language. Osam et al. (2011) have also shown that these postpositions demonstrate morphosyntactic properties associated with nouns in

Akan. The most prominent morphological feature they discuss is duplication.[2] The postpositions in Akan have been found to display syntactic properties similar to nouns (de Bruin and Scha 1998 and Osam et al. 2011). As shown in (1), the postpositions in Akan occur with NPs (1a), or they occur alone (1c). The examples in (2) illustrate that postpositions in Akan are sometimes post modified by adjectives. In (2), *fi* -'dirty' and *kɔkɔɔ* - 'red' are the adjectives modifying the postpositions *hõ* 'side' and *mu* 'inside'.

(2) a. Ɔ̀krámáń nó hõ fi
dog DEF side dirty
'The dog is dirty.'

b. Tòá nó mú kɔ̀kɔ́ɔ́
bottle DEF inside red
'The inside of the bottle is red.'

3. Data

The data were gathered from three adult Akan native speakers using the Topological Relations Picture Series (TRPS) developed by Bowerman and Pederson (1992). The pictures represent various topological relations. I did a convenience sampling of native speakers of Akan who I knew could answer the questions well. Two of the respondents are lecturers at the Kwame Nkrumah University of Science and Technology, while the other was my teaching assistant. The discussions about the pictures took place in the Asante dialect of Akan. Some of the data were also collected from textbooks published in Asante Twi. Again, twenty-one native speakers of Akan who are first year students of English were asked to frame the 'where question' in Asante Twi. This was done in order to ascertain which of the two constructions often used is basic.

4. The Verbs that occur in the Akan BLC

The verbs that occur in the Akan BLC are twenty-five (25) and have been classified semantically as follows:

[2] See Osam et al. (2011) for a detailed discussion.

A. The existential verb: *wɔ* - 'be located at'
B. Those that have postural semantics: *bata* - 'cling/attach', *bea* - 'lie across', *bu ntwerɛ/ bu nkotodwe* - 'kneel', *butu* - 'be turned/overturn', *da* - 'lie', *gyina* - 'stand', *koto* - 'kneel/squat/stoop', *sɛn* - 'hang/be hanged', *sɛn* - 'squat', *si* - 'stand/sit/perch', *te/tena* -'sit' *twere* - 'lean/be leaned' and *yan* - 'lie in'.
C. Distribution Verbs: *gu* - 'scattered about', *sum* - 'be heaped', *sam* - 'lie about in a disorderly manner', *sɛm* - 'lie or lay close together'
D. Adhesive verbs: *bɔ* - 'be pasted', *fam* - 'to adhere/stick/cling' , *hyɛ* - 'to be put', 'set', 'fixed' and 'inserted' ; *kata* - 'be covered', *tare* - 'stick/be stuck', *tim* - 'be stuck/strongly fixed, *tua*, - 'to stick/ be stuck'

All these verbs are semantically stative and are marked as such by a supra-segmental morpheme realised at the level of phonology as low tone [`] on the final syllable. Each of them has a non-stative counterpart expressing motion, process or one of the dynamic situations. The non-stative counterparts are marked as such by a supra-segmental morpheme reflected as a high tone [´] at the phonological level. Osam (2008:81) has noted thus:

> The Continuative aspect is restricted to stative verbs. It is used in place of the progressive. Some writers have referred to it as the stative aspect. However, since the term "stative" describes a category of verbs, it is more appropriate to use the term "continuative" to describe this aspectual distinction associated with stative verbs. The continuative aspect indicates a persisting state coded by a stative verb. In Akan, the continuative has no segmental manifestation. It is realised as tonal changes in the verb stem. The tonal change manifests itself as a low tone on all the tone bearing units of the verb word.

Examples (3a, 4a & 5a) and (3b, 4b, & 5b) illustrate the stative and dynamic pairs, respectively, of the verbs *da* -'lie', *gyina* -'stand' and *te/tena* - 'sit'. Observe the tone on the final syllable.

(3) a. Ɔ̀-dà hɔ́
3SG SUBJ-lie/CONT there
'S/he is lying there.'

b. Ɔ̀-dá hɔ́
3SG SUBJ-lie/HAB there
'S/he sleeps there.'

(4) a. Kofi gyìnà hɔ́
Kofi stand/CONT there
'Kofi is standing there.'

b. Kofi gyíná hɔ́
Kofi stand/HAB there
'Kofi stands there.'

(5) a. Ama tè hɔ́
Ama sit/CONT there
'Ama is sitting there.'

b. Ama tèná hɔ́
Ama sit/HAB there
'Ama sits there.'

5. The "where-search" question

In an Akan "where-search" question, the obligatory interrogative word *ɛhefa/hefa/ɛhe* - 'where' normally occurs initially, followed by the focus marker '*na*' and the expression representing the Figure whose location is in question. This is then followed by either the existential verb *wɔ* - 'exist' or 'be located at', or any of the relevant locative verbs distinguished above. These have been illustrated in (6a) and (7a). Sometimes the Figure whose location is being questioned occurs initially followed by the existential locative verb *wɔ* - 'exist' or 'be located at' or any of the relevant locative verbs, followed by the interrogative word *ɛhe/he*- 'where' as illustrated in (6b) and (7b). The "where-search" question 'Where is the cup'? can be framed as in (6) and (7). In order to ascertain which of the two is basic in the language, twenty-one native speakers of Akan who are first year

students of English were asked to frame the 'where question' in Asante Twi using *wɔ* - 'exist' or 'be located at' or *si* 'sit'. Fourteen (14) of them (67%) used the 'b' constructions whereas seven (7) of them (33%) used the 'a' constructions. This shows that the 'b' constructions could be considered more basic than the 'a' constructions, though both can be used.

(6) a. Ɛ̀hé nà kúrúwá nó wɔ́?
where FOC cup DEF be located
'Where is the cup?'

b. Kúrúwá nó wɔ̀ hé?
cup DEF be located where
'Where is the cup?'

(7) a. Ɛ̀hé nà kúrúwá nó sí?
where FOC cup DEF sit
'Where is the cup?'

b. Kúrúwá nó sì hé?
cup DEF stand where
'Where is the cup?'

6. The Existential Construction (EC) in Akan

The existential construction (EC) in Akan indicates the existence of a Figure entity. In the construction, the expression representing the Figure whose existence is talked about occurs initially followed by the existential verb *wɔ* - 'exist' or 'be located at', followed by an obligatory locative phrase as shown in (8). Here, if the Figure is animate, such as *maame no* 'the woman' in (8a), the construction would mean that the entity exists or is alive. If the Figure is an inanimate entity, such as *ɛhyɛn no* 'the car', the construction would mean that the entity is present.

(8) a. Màámé nó wɔ̀ hɔ́
Woman DEF exist there
'The woman is alive (lit. 'The woman is there.')

b. Ɛ̀hyɛ́ń nó wɔ̀ hɔ́
where DEF exist there
'The car is there.' (Lit. 'The car is there'.)

It has already been noted that the verb *wɔ* - 'exist' or 'be located at' can also be used in locative constructions as shown in (9).

(9) a. Màámé nó wɔ̀ há
Woman DEF be located here
'The woman is here.'

b. Màámé nó wɔ̀ fíé
Woman DEF be located home
'The woman is at home.'

It is worthy of note that the verb *wɔ* - 'exist' or 'be located at' obligatorily requires a locative NP in both the locative and existential expressions. However, the nature of the NP differs in the two different constructions. For the locative interpretation, the locative NP may either be a noun phrase such as *fíe* - 'house' (10a) or a postpositional phrase such as *dan no mu* -'in the room' or *ebuo no mu* - 'in the pen' (10c) all of which indicate specific locations.

(10) a. Màámé nó wɔ̀ fíé.
Woman DEF be located at/CONT house
'The woman is at home'

b. Màámé nó wɔ̀ dáń nó mú
Woman DEF be at room DEF inside
'The woman is in the room.'

c. Àkókɔ́ nó wɔ̀ èbúó nó mú
chicken DEF be at/CONT pen DEF inside
'The fowl is in the pen.'

For the existential interpretation, the locative NP is very often *hɔ* - 'there', the existential there, which has no locative meaning (11a), or other abstract NPs such as *tiri mu* 'in the head' and *adwene mu* - 'in the mind' (11b).

(11) a. Nyàmé wɔ̀ hɔ́
God exist there.
'God exists.' (Lit. 'God is there').

b. Àsɛ́m nó wɔ̀ m'ádwéné mú
matter DEF be at my mind inside
'The matter is in my mind.'

7. The Possessive and the External Possessor Constructions in Akan

The possessive construction in the language involves the use of the verb *wɔ* - 'exist', 'be in possession of' or 'have'. The construction may occur in two forms. In one (12a), the grammatical subject and the possessor occurs in subject position followed by the verb *wɔ* - 'exist', 'be in possession of' or 'have' and the nominal indicating the possessum. In the other, (12b), the construction indicating the possessum occurs in subject position followed by the verb *wɔ̀* - 'exist', 'be in possession of' or 'have', and the grammatical object, which is followed by an obligatory locative adjunct, which is a possessive phrase introduced by the possessive marker '*ne*' whose complement is the body part term. This is often the word *ho* - 'body' or the phrase '*nsa mu*' -'in the hands'.

(12) a. Màámé nó wɔ̀ siká pìì
Woman DEF have money much
'The woman is rich.' (Lit. 'The woman has much money.')

b. Sìká wɔ̀ màámé nó *hó*
Money exist woman DEF body
'The woman is rich.' (Lit. 'The woman has much money.')

c. Sìka wɔ̀ màámé nó *nsà* *mú*
Money exist woman DEF hands inside
'The woman is rich.' (Lit. 'The woman has much money.')

Whereas the examples in (12) can be uttered by any participant in a discourse context, the one in (13) can be used by the first person speaker where *me* "me" is the speaker.

(13) Sìká nó wɔ́ mè
Money DEF belong me
'The money belongs to me.'

The external possessor construction is a variation on the Basic Locative Construction in Akan. Just as in Likpe (Ameka 2007:1076), in Akan the construction is used to localise entities on parts of the body such as adornments and clothing. The constructions can be in two forms. In one, as illustrated in (14a), the possessor of the part where the Figure can be located is the grammatical subject and the Figure is the object. The object may be followed by an optional locative adjunct, which is a possessive phrase introduced by the possessive marker '*ne*' whose complement is the body part term which represents the search domain of the localization. The possessive phrase here is optional. In the other, (14b), the Figure is the grammatical subject, and the object is either the possessor of the part where the Figure can be located (14b), or a possessive locative adjunct phrase introduced by the possessive marker '*ne*' whose complement is the body part term which represents the search domain of the localization (14c).

(14) a. Màámé nó hyɛ̀ kàwá/pɛ̀tèá (wɔ̀[3] nè nsá)
Woman DEF be located at/CONT ring POSS hand
'The woman has a ring on her finger'. (Lit. 'A ring is on the woman').

b. Kàwá/pɛ̀tèá hyɛ̀ màámé nó
ring be located at/CONT Woman DEF
'The woman has a ring on her finger'. (Lit. 'A ring is on the woman').

[3] *Wɔ̀* often serves merely to introduce an adjunct of place. Consequently, it is not translated at all. See Christaller (1933: 560).

c. Kàwá/pɛ̀tèá hyɛ̀ nè ǹsá
ring be located at/CONT POSS hand/finger
'S/he has a ring on her/his finger'. (Lit. 'A ring is on him/her').

8. The Meanings and Uses of the Verbs

In Section 4 above, the verbs that occur in the Akan BLC have been classified semantically as the existential verb, those that have postural semantics, distribution verbs and adhesive verbs. The meanings and uses of these verbs are presented in this section.

8.1 Posture verbs

The verbs here include *bata* - 'cling /attach', *bea* -'lie across', *bu ntwere* / *bu nkotodwe* - 'kneel', *butu* - 'be turned /overturn', *da* - 'lie', *gyina* - 'stand' , *koto / sɛn* - 'to stoop /squat', *sɛn* - 'hang /be hanged', *si* - 'sit'/'be positioned in an upright position'/'perch', *te /tena* -'sit', *twere* - 'lean /be leaned' and *yan* -'lie in'.

8.1.1 The verb bata 'cling/attach/lean against/to be close to/adjoin'

The verb *bata* - 'cling/attach/lean against/to be close to/adjoin' is used to characterise a leaning or an adjoining locative situation. Here, the relation between the Figure and the Ground is one in which Figure has the whole body in contact with the reference object without actually being supported by it. In Akan, the Figure is often an animate entity as the examples in (15) illustrate.

(15) a. Àbɔ̀frá nó bàtà ɛ̀pónó nó hó
child DEF attach/CONT door DEF side
The child clings himself/herself to the door.

b. Àbóá nó bàtà dùá nó
animal DEF attach/CONT tree DEF
'The animal clings itself to the tree.'

Since the verb codes the attachment or the clinging of some part of the body to something else, sometimes that part of the body is explicitly indicated in the expression. In such cases, the language resorts to "*de* serial constructions", and the nominal representing the body occurs in a possessive construction, as *ne ho* - 'his/her body' in (16a) or *n'akyi* - 'his back' in (16b).

(16) a. Àbɔ̀fɾ́a nó dè nè hó á-bátá ɛ̀pónó nó
child DEF take POSS body PERF-attach door DEF
'The child has attached him/herself to the door.'

b. Àbɔ̀fɾ́a nó dè n'àkyí á-bátá ɛ̀pónó nó
child DEF take POSS back PERF-attach door DEF
'The child has attached his back to the door.'

Attaching oneself to something entails that one gets close to the thing in question. In Akan, the verb *bata* 'cling/attach' is used to describe the closeness of people in relationships. A child who is very close to the mother, for example, can be described with the expression in (17).

(17) Àbɔ̀fɾ́a nó bàtà né màámé páá árá
Child DEF attach POSS/CONT mother good very
'The child is very close to the mother.'

It is also very common to hear Christians, especially priests and pastors, admonish people to draw closer to God using this verb. The relevant passage from one of the texts is presented in (18):

(18) ... dɛ̀ɛ̀ ɔ̀sɔ'!fó nó kǎ- árá né sɛ́ , ... ɔ́-m̀fá nè
... what priest DEF say-COMPL be that ... 3SG SUBJ take POSS

hó m̀mátá Ònyàmé hó ... (Ɔsene Ankomah 1968:51)
body attach/CONT God body
'What the priest said was that he should draw closer to God...'

8.1.2 The verb bea 'lie across'

This verb is used to localise a Figure entity, with its whole body lying across the Ground. In Akan, the Figure may be animate. Though it may be important that the Figure be rigid, what is essential is that it must be long enough to cover the distance across the breadth of the Ground object. The Figure must have both a vertical and a horizontal orientation.

(19) a. Ɔ̀-bèà m̀pá nó só.
3SG SUBJ-lie across/CONT bed DEF top
'S/he is lying across the bed.'

b. Ɔ̀wɔ́ bí bèà ɛ̀kwáń nó mú
Snake INDEF lie across-CONT road DEF inside
'A snake is lying across the road.'

8.1.3 The verbs bu ntwerɛ/bu nkotodwe -'kneel down'

These verbs are used with human Figures that go on the knees in such a way that the legs are bent backwards and the knees touch the ground. It is a position in which the Figure's body is supported on the knees.

(20) a. Àbɔ̀fŕa nó á-bù ǹtwéréɛ́
child DEF PERF-kneel
'The child has knelt down.'

b. Màámé nó á-mà àbɔ̀fŕa nó à-bú ǹtwéréɛ́
Woman DEF PERF-make child DEF PERF-kneel
'The woman made the child knelt down.'

8.1.4 The verb butu - 'be turned over/overturn'

This verb has a number of senses. In one, it could mean 'to overturn' as in (21a) where *ahina no* - 'the pot' is the Figure and the subject NP is the agent. In another sense, it could mean 'to cover up' with one's body. A very common expression in the language is

(21b) where the hen is understood to be covering up its eggs with its body. In this usage, the hen is the Figure. In another sense, the verb codes a situation in which the Figure object goes down on the knees, with the head touching the floor, and the whole part of the upper body in an arched position. The construction may also take the form of a serial construction with the initial verb being the defective verb *de* 'take'. Serial constructions of this nature profile the nominal naming the part of the body, most often the noun *anim* - 'face/front part' as in (21d).

(21) a. Ɔ̀-bùtú-ú àhìná nó fáḿ
3SG SUBJ-overturn/COMPL pot DEF ground
'S/he overturned the pot.'

b. Àkòkɔ nó bùtù ǹkòsùá nó só
hen DEF cover-up/CONT eggs DEF top
'The hen is brooding.'

c. Ɔ̀-bùtù fáḿ
3SG SUBJ-overturn/CONT ground
'S/he has fallen with her/his face to the ground.'

d. Ɔ̀-dè n'ànímḿ bùtú-ù fáḿ
3SG-SUBJ-take POSS face overturn/COMPL ground
'S/he fell with her/his face to the ground.'

8.1.5 The verb da - 'lie'

This verb *da* - 'lie' is used to describe the locative configuration where the whole body of the Figure is in contact with and supported by a surface. The surface can be a smooth one such as the top of a table (TRPS 59). The surface could also be less smooth such as any floor or ground. Like the verb *təkə* -'be.on.surface' in Likpe (Ameka 2007:1083), the verb *da* - 'lie' can also be used with a surface created by liquid such as the upper surface of a river or even the sea. According to Ameka (2007:1083), in Likpe, *təkə* - 'be.on.surface' is therefore used to talk about the location of a boat on a river (TRPS11) or a leaf on the surface of a water. In Akan, *da* - 'lie' can also be used to talk about a leaf on the surface of water, but not about the location of a boat. This clearly shows that in the context of this use, as discussed below, the features of the Figure are important.

The verb *da* - 'lie' is used with both animate and inanimate Figures. Some of the scenarios involving inanimate Figures for which the verb is used are 'pen on table' (TRPS 59), 'ball under chair' (TRPS 16). The examples in (22) are common expressions involving animate Figures. It is worthy of note that with the animate Figures, the verb has an added sense of 'sleep'. Because of this extended sense, the verb is used in good night expressions in Akan. At night, one can wish sound sleep to another person by saying: *da yie* - 'lie well', *i.e.*, sleep soundly!

(22) a. Màámé nó dà m̀pá nó só
Woman DEF lie/CONT bed DEF top
'The woman is lying on the bed.'

b. Ɔ̀krámáń bí dà ɛ̀pónó nó só
dog INDEF lie/CONT table DEF top
'A dog is lying on the table.'

The verb is also used with inanimate Figures. The choice here is based on some inherent features of those Figures. The entities lack the quality to support a vertically elevated position. Such entities include paper (23a), pens (23b), and fallen trees (23c).

(23) a. Krátàá bí dà ɛ̀pónó nó só
paper INDEF lie/CONT table DEF top
'A piece of paper is lying on the table.'

b. Twèrɛ́dúá nó dà ɛ̀pónó nó só
pen DEF lie/CONT table DEF top
'The pen is lying on the table.'

c. Dùá bí dà ɛ̀kwáń nó mú
stick INDEF lie/CONT road DEF inside
'A tree is lying across the road.'

The Figure in an Akan BLC involving *da* - 'lie' cannot be a mass noun, except if the mass noun is constrained in a container, as in a bag of rice. Therefore, the example in (24) is not acceptable.

(24) *Ànwèa nó dà èpónó nó só
sand DEF lie/CONT table DEF top
*‘The sand is lying on the table.’

The verb *da* - ‘lie’ characterises entities that exist at some places. It is thus used to describe entities such as roads and paths (25a & 25b). This also applies to regions and pieces of land (25c) and rivers (25d).

(25) a. Ɛ̀kwáń kɛ̀séɛ́ bí dà àkyíré há
Road big INDEF lie/exist/CONT back here
‘There is a big path/road at the back.’

b. Ɛ̀séré kɛ̀séɛ́ dà hɔ́ tùù ...
Grass big lie/exist/CONT there vast
‘There lies vast grassland...’ (Boateng Amanfo 1998: 78)

c. Ɔ̀héné nó wɔ̀ àsààsé kɛ̀séɛ́ dà hɔ́
Chief DEF have/CONT land big lie/exist/CONT there
‘The chief has a big plot of land.’

d. Ǹsúó kɛ̀séɛ́ bí dà Gumbe
Water big INDEF lie/exist/CONT Gumbe
‘There lies a big river at Gúmbé.’ (Boateng Amanfo 1998: 17)

The verb *da* ‘lie’ is also used to localise some Figure entities in containers. One scenario involving an animate Figure for which the verb is used is ‘fish in water’ (TRPS 32). Common expressions include the ones in (26a, b &c). The concept of *containment* also underlies Akan speakers’ choice of *da* - ‘lie’ in their description of prisoners who are confined to the cells (26d). When one is in prison, one’s movement is restricted. Therefore, the locative phrase *àfiásé* - ‘prison’ in (26d) is conceptualised as a container in which prisoners are kept.

(26) a. Àpàtàá nó dà nsúó nó mú
Fish DEF lie/CONT water DEF inside
‘The fish is in the water.’

b. Ɔ̀dɛ́ńkyɛ́ḿ dà ǹsúó mú (Christaller 1933:56)
Crocodile live/CONT water inside
'The crocodile lives in water.'

c. Ɔ̀máḿpàḿ dà wúrá mú
guana live/CONT bush inside
'The guana lives in the bush.'

d. Ɔ̀kròǹfóɔ́ nó dà àfiásé
Thief DEF live/CONT prison
'The thief is in prison.'

In my view, it is the same notion of containment that underlies Akan speakers' construal of monies we keep in our pockets or at home, and for which reason we describe them with the verb *da* - 'lie' as the examples in (27) illustrate. In expressions such as those in (27), our pockets, purses, and bags are conceptualised as containers in which the monies are kept, and which thus constrain the 'movement' of the monies.

(27) a. Nè síká kàkrá à è-dá nè hó ...
POSS money little CM 3SG SUBJ-lie POSS body
'The little money that he had on him...'
(Boateng Amanfo 1998:60)

b. Péséwá bàákó pɛ́ ḿpó n-ná[4] hɔ́
pesewa one only even NEG-lie/CONT there
'There is not even a pesewa lying there' (*i.e.* I don't even have a pesewa') (Boateng Amanfo 1998:60)

The verb *da* 'lie' is also used to talk about the location of abstract Figures such as issues, cases, trouble, misery or misfortune. What is interesting about this usage is that there is a metaphorical meaning underlying it. To have something "lying" on you is to say that you have a burden on you and that is exactly what the expression in (28) means. In Akan,

[4] This involves a phonological process of assimilation. In Asante, 'nd' becomes 'nn'. In (27b) the negative marker 'n' + 'da' becomes 'nna', not 'nda'.

abstract noun phrases that are often used in the expression include those that have negative connotations such as *asém*, - 'problem', *amanèɛ́*, 'trouble or misfortune' and *àwèrèhóɔ́* - 'grief or sorrow'.

(28) Àsɛ́m dà nò só
matter lie/CONT 3SG OBJ top
'S/he has a problem.' (Lit. s/he has a matter lying on him/her).

The verb *da* 'lie' is also used to localise printed images and spaces in dilapidated or tattered clothes. The printed images may be on such surfaces as paper, ceramics and in cloths. The scenarios represented by image of a 'woman on a stamp' (TRPS 28) and 'writing on shirt' (TRPS 68) were described as such. The scenario represented the image of a 'hole in a towel' (TRPS 18) was also described with *da* - 'lie'. The Akan expressions for these include those in (29) below. In (29b), the verb *gu* - 'to be spread over some space' was used because the speakers considered the writing to be a mass noun. One of the three informants rightly pointed out that if it had been just one letter, the verb *da* - 'lie' would have been appropriate in that context.

(29) a. Màámé bí tí dà stamp nó só
woman INDEF head lie/print CONT stamp DEF top
'The head of a woman has been printed on the stamp.'

b. Ǹtwèrèɛ́ bí gù àtàádéɛ́ nó ánímˊ
Writing INDEF to be spread/CONT dress DEF front
'There is some writing in the front part of the dress.'

c. Tókúró dà àtàádéɛ́ nó mú
hole lie/CONT dress DEF inside
'The dress is torn.' (Literally, there is a hole in the dress).

In Akan, *da* - 'lie' is used in the localisation of Figures attached to their reference objects. The scene represented by 'pendant on chain' (TRPS 57) was described with *da* - 'lie' (30b). Other such situations are locks and padlocks on doors (30c) and doors to rooms and even gates to houses (30d). In expressions involving locks, doors and gates, the verb is interpreted as *to lock* or *to secure*. This use is similar to the case in Likpe (Ameka

2007). As Ameka has noted for Likpe, in Akan, this situation calls for the use of the verb and various postpositions that are relevant for the context (30).

(30) a. Àdéɛ́ dà ànó
thing lie/CONT mouth
'There is a something on it.'

b. Àdéɛ́ dà kɔ̀nmùàdéɛ́ nó ánó (TRPS 57)
thing lie/CONT necklace DEF mouth
'There is a pendant on the necklace.'

c. Krádó dà ɛ̀pónó nó ánó
Lock lie/CONT door DEF mouth
'There is a lock to the door.'

d. Ɛ̀pónó dà ɛ̀dáń nó ánó
door lock/CONT room DEF mouth
'There is a door to the room.'

According to Ameka (2007:1081), in Likpe other scenes such as 'handle on door' (TRPS 61) and 'handle on purse' (TRPS 66) are also viewed as containment and are talked about with the verb *kpé* 'be.in'. In all these cases, the appropriate postpositions are required for the meaning of containment to be expressed. In Akan, the scenarios in 'handle on door' (TRPS 61), 'handle on purse' (TRPS 66), and 'cigarette in mouth' are not described using *da* 'lie' but with another verb *tua* - 'be stuck into' which is another posture verb. Although the verb *da* - 'lie' and the verb *tua* - 'be stuck into' are both used to express an attachment configuration between the Figure and Ground, I think that the difference in their choice in this context is in whether the attachment is strong or solid or not. The verb *tua* - 'be stuck into 'is used when the configuration is construed as one that cannot be easily detached.

In Akan, another type of attachment scene, adornment, such as 'necklace around the neck' (TRPS 51) expressed as (31), is described using the verb *da* 'lie'. When *da* - 'lie' is used in this context, the necklace, which is the Figure, is considered to be in contact with the Ground, which is the neck. Speakers also use the verb *yan* - 'to lie' to describe a necklace around the neck (31b).

(31) a. Kɔ̀nmùàdéɛ́ nó dà nè kɔ́ń mú
necklace DEF lie/CONT 3SG POSS neck inside
'She has the necklace around her neck.'

b. Kɔ̀nmùàdéɛ́ nó yàǹ nè kɔ́ń mú
necklace DEF hang around/CONT 3SGPOSS neck inside
'She has the necklace around her neck.'

Whereas in Likpe (Ameka 2007:1081) other types of attachment scenes such as 'shoe on foot' (TRPS 21), 'cigarette in mouth' (TRPS 39) and 'ring on finger' (TRPS 10) are all described using the verb *kpé* - 'be.in', Akan uses a different verb *hyɛ̀* - 'be.in/on' for these scenes.

8.1.6 The verb gyina - 'stand'

This verb *gyina* - 'stand' is used mostly for living animate Figures when they are in an upright position with respect to horizontal plane. It is used to localise humans, e.g., 'man on roof' (TRPS 34) and, animals, especially quadrupeds (32b).

(32) a. Pàpá nó gyìnà hɔ́.
Man DEF stand/CONT there
'The man is standing over there.'

b. Ɔ̀krá bí gyìnà ɛ̀pónó nó àkyí
cat INDEF stand/CONT door DEF back
'A cat is standing outside the door.'

In Akan, motor vehicles, by virtue of their makeup and their ability to rest on their four tyres, are also coded with *gyìnà* - 'stand':

(33) Ɛ̀hyɛ́ń noʹ gyìnà dùaʹ kɛ̀seɛ́ʹ noʹ aśeʹ
Lorry DEF stand/CONT tree big DEF bottom
'The lorry is parked under the big tree.' (Lit. 'The lorry is standing under the big tree.')

Atintono (2012) has observed that in Gurenɛ, for someone to be described as standing requires the location to be the earth or at the floor level. This is not the case in Akan. What is important in Akan is that for the verb *gyìnà* - 'stand', the Figure should be located on a Ground in an upright position. A man standing on a roof, TRPS 34, is described with the verb *gyìnà* - 'stand'.

In Akan, inanimate Figures are often described with another verb *sì* - 'to be located on base', not *gyìnà* - 'stand'. For example, cup on a table' (TRPS1), 'tree in front of a church' (TRPS 49) and a house on a hill are all localised with *sì* - 'to be located on base' as the examples in (34) illustrate. These objects are often placed. When the agents are introduced, Akan employs the strategy of serialisation involving the use of *de* - 'take' (35).

(34) a. *Kɔ́pu nó si pónó nó só*
Cup DEF be.on.base table DEF top
'The cup is (sitting) on the table.' (Essegbey 2010:96-97)[5]

b. Dùá bí sì ɛ̀dáń nó ákyí
tree INDEF be located house DEF back
'A tree stands at the back of the house.'

c. Ɛ̀dáń nó sì bépɔ́ nó só
house DEF be located hill DEF top
'The house is on a hill.'

(35) Pàpá nó dè ɛdán nó á-sì bépɔ́ nó só
Man DEF take house DEF PERF-place hill DEF top
'The man has placed the house on the hill.'

The verb *gyina* - 'stand' is sometimes used in certain contexts to mean 'live'. In this usage, it describes people, especially babies or children who survive and do not succumb to childhood diseases, which lead to death. This view is expressed in the following:

[5] This example is a direct quotation from Essegbey (2010).

(36) ...wɔ̀-mà-à wɔ̀ǹ àní kù-ù Kwadwo hó
3PLSUBJ-make-COMPL POSS eyes bent on-COMPL Kwadwo body

sɛ́dèɛ̀... ɔ̀-bé-gyíní ná dà bí w-àbɛ̀-hwɛ́
so that 3SG SUBJ-FUT-live so day INDEF 3SG SUBJ-FUT-look

wɔ́ń
3PL OBJ
'They took very good care of Kwadwo so that he will **live** and grow up to become a responsible person who will, in turn, take care of them.'

Arising out of the survival meaning of *gyina,* in Akan, when a child grows beyond the early childhood years, it is referred to as *bagyina* - 'a child that has come to stay', that is, a child that has survived all childhood diseases.

The verb is also used to describe abstract entities such as marriages (37a) and ideas or decisions (37b).

(37) a. Ɔ̀sɔ̀fò Màkó bɔ̀-ɔ̀ m̀páɛ́ɛ́ srɛ́-ɛ̀ Ò nyàǹkópɔ́ń hɔ́
Ɔsɔfo Mako pray-COMPL plead-COMPL God there

ǹhyìrá gù-ù àwàdɛ́ɛ́ nó só sɛ́
blessings pour-COMPL marriage DEF top that

ɛ́-ń-gyíná.
3SGSUBJ-PROG-last
'The priest prayed and pleaded with God to shower his blessings upon the marriage so that it will last.'

b. Ɔ̀-rè-bɛ̀-hwɛ́ sɛ́ n'ádwéné á-sésá
3SG SUBJ-PROG-come-see that POSS mind PERF-change

ànáásɛ́	ɔ̀-gyìnà	nè	dádáà	mú.
or	3SG SUBJ-stand	POSS	old	inside

'He is coming to find out whether he has changed his mind or not.'
(Boateng Amanfo 1998: 81)

The verb *gyina* - 'stand' is also used to localise liquid substances in containers. Containers are generally stable and can constrain substances or entities as the examples in (38) illustrate.

(38) a.

Ǹsúó	gyìnà	tòá	nó	mú
Water	stand/CONT	bottle	DEF	inside

'There is water in the bottle.'

b.

Ǹsúó	gyìnà	bókìtì	nó	mú
Water	stand/CONT	bucket	DEF	inside

'There is water in the bucket.'

The verb *gyina* - 'stand' is also used to describe water soaked in fabrics. Here, the fabrics are perceived as the containers. Some common expressions include those in (39) below.

(39) a.

Ǹsúó	gyìnà	ǹtòmá	nó	mú	.
water	stand/CONT	cloth	DEF	inside	

'The cloth has been absorbed with water.'

b.

Ǹsúó	gyìnà	ǹtàádɛ́ɛ́	nó	mú
Water	stand/CONT	clothes	DEF	inside

'The clothes have been absorbed with *water.'*

8.1.7 The verb koto / sɛn - 'to stoop' or 'to bow'

The verb is used to describe a situation in which the Figure entity either goes down by bending the legs and knees in such a way that the knees are drawn up under or close to the body, or bends the head and shoulders downwards. The examples in (40) illustrate this. Animals crouch with the body close to the ground.

(40) a. Pàpá nó kòtò hɔ́.
Man DEF stoop/CONT there
'The man is stooping.'

b. Ɔ̀-sɛ́ɲ́ hɔ́ rè-dí-dí
3SG SUBJ-squat/CONT there PROG- eat-eat
'S/he eats squatting on his heels.' (Christaller 1933:440)

8.1.8 The verb sɛn - 'hang /be hanged'

This verb describes a situation in which the Figure object, animate or inanimate, is attached to the Ground object by "point suspension" (Ameka 2007:1091). It is used in localizing 'coat on hook' (TRPS 9), 'apple on branch' (TRPS 27) or 'apples on tree' (TRPS 45), 'lamp from ceiling' (TRPS 63) and 'clothes on line' (TRPS 45).

(41) Mè ǹtáàdɛ́ɛ̀ sɛ̀ǹsɛ̀ǹ àhòmá nó só
1SG POSS clothes hang-hang/CONT rope DEF top
'My clothes are hanging on the line.'

8.1.9 Si - 'sit'/ 'be fixed in an upright position'/'perch'

This verb is often used to characterize Figures that are placed or those that place themselves in an upright position. It is used for both animate and inanimate entities. It participates in the causative/inchoative alternation. The causative type takes the form of a *de*-serial construction as shown in (42c).

(42) a. Dùá bí sì ɛ̀dáɲ́ nó ákyí
tree INDEF be located house DEF back
'A tree stands at the back of the house.'

b. Ɛ̀dáɲ́ nó sì bépɔ́ nó só
house DEF be located hill DEF top
'The house is on a hill.'

c. Pàpá nó dè dùá bí á-sì bépɔ́ nó só
Man DEF take tree INDEF PERF-place hill DEF top
'The man has placed a tree on the hill.'

8.1.10 The verb te/tena 'be seated'

This verb *te/tena* - 'be seated'' is used to characterise the state of an animate entity on its base and supported from below by a surface. The verb *te/tena* - 'to sit' or 'be seated' mostly codes a situation where the bottom part of the body (buttocks for humans) is in contact with the supporting base such as the one represented by 'a man sitting by the side of the fire' (TRPS 38) expressed as (43a) below. In Akan, the Figure could have the legs stretched out, bent or crossed and the upper part of the body in a vertical position. Although the verb is often used to localise humans, it is also used in relation to animal Figures as well, such as a 'cat (on its hind) under the table' (TRPS31) or a dog in basket', 'a cat (on its hind) on a mat' (TRPS 40) expressed as (43b) and 'a dog in a basket' (TRPS 47).

(43) a. Pàpá nó tè èɡyá nó hó
Man DEF sit/CONT fire DEF side
'The man is seated by the fire.'

b. Ɔ̀krá nó tè kɛ̀tɛ́ nó só
cat DEF sit/CONT mat DEF top
'The cat is sitting on the mat.'

Apart from the *te/tena* - 'to sit' or 'to be seated', speakers also localise animate Figures with another posture verb *sì* - 'to be seated', 'to be located on' or 'to be placed in an upright direction'.

(44) a. Màámé nó sì hɔ́
Woman DEF sit/CONT there
'The woman is sitting there.'

b. Ɔ̀kràmáń nó sì èdáń nó ńkyɛ́ń (TRPS 06)
cat DEF sit/CONT house DEF side
'The dog is sitting beside the house.'

c. Ɔ̀krá nó sì kɛ̀tɛ́ nó só (TRPS 40)
cat DEF sit/CONT mat DEF top
'The cat is sitting on the mat.'

d. Ɔ̀kràmán nó sì kɛ̀ǹtɛ́ǹ nó mú (TRPS 47)
cat DEF sit/CONT basket DEF side
'The dog is sitting in the basket.'

In Akan the verb te*/tena* - 'be seated' is also used to localise human entities in a place irrespective of their posture. In this usage, it is interpreted as "living" or "being settled in a place". The expressions in (45) illustrate *te/tena* - 'sit' or 'be seated' as "stay" or "live".

(45) a. Mè tè Appiadu
1SG SUBJ stay/CONT Appiadu
'I live at Appiadu.'

b. Sàá nà Bràyíé yɔ́-èɛ́ dé bóá- à Kwame
That FM Brayie do-COMPL take help/COMPL Kwame

má-à wɔ́-túmí téná-à àkùráà
make-COMPL 3PL SUBJ- be able stay-COMPL village

nó ásé. (Bamfi-Adomako 1997: 45)
DEF down
'That was what Brayie did to help Kwame, and which helped them to be able to stay in the village.'

The verb te*/tena* - 'be seated' and sometimes the adverbial *sàá árá* -'like that' is also used to describe human Figures who are idle. Common examples include those in (46).

(46) a. Ɔ̀-sɔ̀ré à ná ɔ́-**tè** hɔ́
3SG SUBJ-wake up CM then 3SG SUBJ-sit/CONT there
'When s/he wakes up, s/he always sits there.' (i.e. S/he is always idle.)

b. Ɔ̀-sɔ̀ré à ná ɔ̀-**tè** hɔ́
3SG SUBJ-wake up CM then 3SG SUBJ-sit/CONT there

sàá árá.
like that
'When s/he wakes up, s/he always sits there.' (i.e. S/he is always idle.)

In Akan te*/tena* - 'be seated' is used to localise abstract entities in containers. The containers are the Ground objects. In this usage, the verb could have existential meaning or a meaning of dwelling or staying. The container in such metaphoric expressions may be the human body. Some expressions include those in (47).

(47) a. Àbùfúó á èté nó mú dèɛ̀
anger RM 3SG SUBJ-exist/CONT 3SG OBJ inside that

mé-ń-tùmí ǹ-ká
1SG SUBJ NEG- NEG-say
'I cannot talk about how quick-tempered he/she is.'

b. Ɔ̀háẃ bɛ́ǹ nà á-bɛ́-téná yɛ̀ǹ só yí?
problem what FM PERF-come-sit 1PL OBJ top this
'What is this problem that has come upon us?'

The container or the reference object in question may also be a company, a group, a party or a society.

(48) Wàténá èkúó nó mú á kyɛ̀rè yíé
3SG SUBJ-PERF-stay group DEF inside long well
'S/he has been in the group for a very long time'

Sometimes the containers are abstract entities as *nkwa* - 'life' *ahokyerɛ* - 'distress' and *anigyeɛ* - 'happiness'.

(49) a. Yɛ̀ té ǹkwɑ̃́ mú yí dèɛ,
1PL SUBJ live/CONT life inside this CM

yɛ̀ bɛ́-dí ǹkòǹíḿ
1PL SUBJ- FUT-win victory
(i.e, 'Since we are still alive, we will be victorious (Lit. Since we are still sitting in life, we will win victory.')

b. Mààmé nó tè àhókyérɛ́ mú páá árá
woman DEF live/CONT distress inside good very
'The woman is really in distress.' (Lit. 'The woman is sitting in distress)

All these uses of the verb can be considered as non-postural in the sense that they do not actually indicate the positions occupied by the respective Figure entities. They only express the idea that the respective Figure entities are 'present' or are 'in' those states or conditions.

8.1.11 The verb twere -'lean/be leaned'

The verb is used to characterise leaning locative situations. As Ameka (2007: 1093) explains, in these situations, "the Figure is in contact with the reference object at one point and it is supported at another point external to the reference object but not orthogonal to it." The Figure has to be at an angle in relation to the reference object and the Figure has to be rigid and solid. This verb was used in localising 'ladder against a wall' (TRPS 58).

(50) Àtwèdéɛ́ nó twèrè báń nó hó
Ladder DEF lean/CONT wall DEF body
'The ladder is against the wall.'

8.2 Distribution Verbs

The verbs here include *gu* - 'scattered about', *sum* - 'be heaped', *sam* - 'lie about in a disorderly manner', *sɛm* - 'lie or lay close together'. Each of them has been discussed below.

8.1.12 The verbs gu - 'scattered about' and sum 'be heaped'

These verbs are used to characterise Figure entities that cannot be easily individuated. They are thus used with respect to a mass of entities that are both countable and uncountable that are in a heap (51). Interestingly, the verbs can also be used to describe individuated items such as tubers of yam, plantain and even human beings.

(51) Ànwèá nó sùm̀ ɛ̀kwáń nó mú
sand DEF be heaped/CONT road DEF inside
'The sand is heaped on the road.'

8.1.13 The verb sam - 'lie about in a disorderly manner'

This verb is used to describe both singular and plural Figures that may be either animate or inanimate. When the Figure is plural, it refers to situations in which the plural entities are either lying about in a disorderly manner or are scattered as the examples in (52) imply. It also means the plural Figure entities are "crowded" (Department of Linguistics 2006:63). When the Figure is singular as *abɔfra no* - 'the child' in (53), it refers to a situation where that singular entity is "lying about weak and languid" (Christaller 1933:422).

(52) a. Nnòɔmà pii sàm̀ hó.
Things many lie about/CONT there
'There are a lot of things lying about over there.'

b. Nnipá pii sàm̀ hó .
People many lie about/CONT there
'There are a lot of people crowded over there.'

(53) Àbɔ̀frá nó sàm̀ hó.
Child DEF lie about/CONT there
'The child is lying about there.'

8.1.14 Sɛm -'lie or lay close together'

This verb codes a situation in which the Figure entities, usually plural, are arranged close to one another in a horizontal position. The Figure entities must have a horizontal orientation and must be relatively long and rigid (54).

(54) Pàpá nó dè ǹtáàbòɔ́ nó á-sɛ́m̀ hó
Man DEF take slabs DEF PERF-lay close there
'The man has laid the slabs there.'

8.3 Adhesive verbs

They are the verbs *bɔ* - 'stick', *fam* - 'to adhere/stick/cling', *hyɛ* - 'to be put', 'set', 'fixed' and 'inserted', *kata* - 'be covered', *tare* - 'stick/ be stuck', *tim* - 'be stuck/strongly fixed and *tua*, - 'to stick/ be stuck'.

8.3.1 The verbs bɔ - 'be pasted'/ be glued to', fam - 'to adhere/stick/cling', and tare - 'to stick/ be pasted'

These verbs are used to characterise situations in which the Figure is firmly attached to the reference object. This is a kind of attachment of a Figure to Ground in such a way that some part of the Figure is concealed as a result. Moreover, one cannot easily detach the attached Figure from the Ground. Often, the process involves the use of some adhesives or other items such as nails and clips. In Akan, the verb *bɔ* is usually used to describe inanimate Figure objects that are relatively heavy. The verbs *tare* 'to stick/ be pasted' is often used to describe Figure objects that are light.

(55) a. Ɔ̀ -dè dùá á-bó-bɔ́ dán nó hó
3SG SUBJ-take wood PERF-stick-stick house DEF side
'S/he stuck pieces of wood around the walls of the house.'

b. Ɔ̀ -dè kràtáá nó á-fám̀ bán nó hó
3SG SUBJ-take paper DEF PERF-stick wall DEF side
'S/he stuck the paper on the wall.'

c. Ɔ̀kótéré́ bí tàrè báń nó hó
lizard INDEF stick-CONT wall DEF side
'There is a lizard stuck on the wall'.

8.3.2 The verb hyɛ - 'to be put', 'set', 'fixed' and 'inserted'

The verb *hyɛ* - 'to be put', 'set', 'fixed' and 'inserted' is often used in the external possessor construction in Akan. As it is in Likpe (Ameka 2007: 1076), in Akan the construction is used to localise entities on parts of the body such as adornments and clothing. As I have already discussed above, the constructions can be written in two forms. In one, (15a), repeated here as (56a), the possessor of the part where the Figure can be located is the grammatical subject and the Figure is the object. The subject here is singular. The object may be followed by an optional locative adjunct, which is a possessive phrase introduced by the possessive marker 'ne' whose complement is the body part term which represents the search domain of the localization. The possessive phrase here is optional. In the other, (15b), repeated here as (56b), the Figure is the grammatical subject, and the object is either the possessor of the part where the Figure can be located, or a possessive locative adjunct phrase introduced by the possessive marker '*ne*' whose complement is the body part term which represents the search domain of the localization (56c).

(56) a. Màámé nó hyɛ̀ kàwá/pɛ̀téá wɔ̀ nè nsá
Woman DEF wear ring be at 3SG POSS hand
'The woman has a ring on her finger'. (Lit. 'A ring is on the woman').

b. Kàwá/ pɛ̀téá hyɛ̀ màámé nó
ring wear woman DEF
'The woman has a ring on her finger'. (Lit. 'A ring is on the woman').

c. Kàwá/ pɛ̀téá hyɛ̀ nè ǹsá
ring wear 3SG POSS hand/finger
'S/he has a ring on her/his finger'. (Lit. 'A ring is on him/her').

8.3.3 The verb kata - 'be covered'

This verb is used in localising inanimate Figures. Here, the Figure is attached to the reference object. A very common scenario is when a cork covers a bottle or when a lid covers a saucepan. A common expression in Akan is the example in (57) below.

(57)	Tòá	nó	tírí	kàtà	só
	Bottle	DEF	head	cover/CONT	top
	The cork covers the bottle.'				

8.3.4 The verbs tim - 'be stuck/strongly fixed and tua, 'to stick into/be stuck into'

These verbs are used in localising Figures that are firmly fixed in a position. With the verb *tim* - 'be stuck/strongly fixed, the reference object may either be the ground or a hard and solid surface.

(58)	a.	Ɛ̀bòɔ́	bí	tìm̀	kwáń	nó	ḿfĭńfíǹí
		stone	INDEF	stick-CONT	road	DEF	middle
		'There is a stone stuck in the middle of the road.'					

	b.	Dàdèɛ́	bí	tùà	àfídíé	né	ńkyɛ́n
		metal	INDEF	stuck-CONT	machine	POSS	side
		'There is a metal stuck on the side of the machine.'					

9. Summary

This paper has discussed the grammar, uses and meanings of twenty-five verbs used in the Basic Locative Construction (BLC) in Akan. It has been shown that the BLC in Akan is made up of an NP, which is the Figure and the subject of the clause, followed by a verb selected from the contrasting locative verbs and an obligatory locative adjunct phrase. The locative adjunct phrase may be an NP or a postpositional phrase headed by the postposition which codes the space, location or landmark of the reference object relevant for the localization of the Figure. In Akan BLC, the expressions representing the Figure, the verb and the postpositions cannot be omitted.

It has also been shown that the basic Akan "where-search" question is when the Figure whose location is being questioned occurs initially followed by the existential locative verb *wɔ* - 'exist' or 'be located at' or any of the relevant locative verbs distinguished, followed by the interrogative word *ɛhe/he/ɛhefa/hefa* - 'where'.

Again, it has been shown that in an Existential Construction (EC) in Akan, the expression representing the Figure whose existence is talked about occurs initially followed by the existential verb *wɔ* - 'exist' or 'be located at', followed by an obligatory locative phrase. It is worthy of note that the *wɔ* - 'exist' or 'be located at' obligatorily requires a locative NP in both the locative and existential expressions. However, the nature of the NP differs in the two constructions. For the locative interpretation, the locative NP may either be a noun phrase such as *fie* - 'house' or a postpositional phrase such as *dan no mu* - 'in the room', all of which indicate specific locations. For the existential interpretation, the locative NP is very often the existential there, *hɔ* - 'there', which has no locative meaning or other abstract NPs such as a*dwene* - 'mind'. Apart from the existential verb: *wɔ* - 'exist' or 'be located at', we distinguished the verbs that have postural semantics, distribution verbs and adhesive verbs.

It has also been shown that Akan has both the Possessive Construction (PC) and the External Possessor Construction (EPC). The PC in Akan involves the use of the verb *wɔ* - 'exist', 'be in possession of' or 'have' and that the construction may occur in two forms. In one, the grammatical subject and the possessor occurs initially followed by the verb *wɔ* - 'exist', 'be in possession of' or 'have' and the nominal indicating the possessum. In the other, the construction indicating the possessum occurs initially and this is followed by the verb *wɔ* -'exist', 'be in possession of' or 'have', and the grammatical object which is followed by an obligatory locative adjunct, which is a possessive phrase introduced by the possessive marker 'ne' whose complement is the body part term. This is often the word *ho* - 'body' or the phrase '*nsa mu*' - 'in the hands'. The EPC in Akan has been shown to be a variation on the Basic Locative Construction in Akan because it is used to localise entities on parts of the body such as adornments and clothing.

In the foregoing, it has been shown Akan is a multi-verb language with some postpositions, and that in Akan BLC, the expressions representing the Figure, the verb and the postpositions cannot be omitted. However, the reference object can be left out. The locative predication in Akan is concerned with the configuration of the Figure-Ground relations and the verbs that are used in the BLC classify the actual

configurations. Again, it has been shown that some verbs are restricted in their use to animate and others to inanimate entities. As a multi-verb language, Akan shows a strong preference for how the Figure is spatially dispositioned in locative constructions. That is, the focus of the verbs used in locative predications is on the properties of the Figure.

Abbreviations

1	First person,
3	Third person
SG	Singular
PL	Plural
SUBJ	Subject
OBJ	Object
CONT	Continuative
DEF	Definite article
INDEF	Indefinite article
NEG	Negation
FOC	Focus marker
COMPL	Completive
PERF	Perfective
POSS	Possessive
PROG	Progressive
FUT	Future
RM	Relative marker
HAB	Habitual
CM	Complementizer

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CHAPTER 5

Akan Verbs of Perception: *Hu* & *Hwɛ*

Emma Sarah Eshun
Department of Basic Education
University of Education, Winneba
eseshun@uew.edu.gh

Abstract

This paper examines verbs of perception (VPs), focusing on visual perception in Akan from a cognitive linguistics perspective. It also explores the various usages of VPs in the language. Vision is one of the sensory-perception signals in animate objects. It regulates the activities of sight and shapes how physical perceptions are mapped onto abstract and metaphorical experiences. This study uses data from multiple approaches such as semi-structured interviews and observations from natural discourses. A significant conclusion is that the meaning of *hwɛ́* 'look' and *hú* 'see', the main VPs in Akan, overlap in usage depending on the argument they select and the context in which they occur. The study further reveals that *hwɛ́* and *hú* select [+animate; +/-human] as the percipient that controls sight, but the target could be both animate and inanimate entities. In the basic clause structure of the VPs, there is always an experiencer and a stimulus forming simple transitive constructions. Also, these two visual verbs can exhibit other extended meanings which sometimes connect directly to metaphors. These extended meanings are described as secondary elements to the core meanings of the visual verbs in Akan.

Keywords: Mfantse, Akan, perception, cognitive linguistics, vision, sensory perception signals

1. Introduction

In this paper, I discuss the perception verbs; *hwɛ́* 'look'/'watch' and *hú* 'see' in Akan focusing on the Mfantse dialect from the cognitive linguistics point of view (Evans and Green 2006; Fauconnier 2006; Croft & Cruse 2004; Talmy 2000; Lakoff 2003; & Langacker 1987). The study further explores the extended meanings (metaphorical) of these verbs of perception in the language.

Extensive studies have been conducted relating to visual perception across languages (Viberg 1984; Sweester 1990; Ibarretxe-Antuñano 1999; Klemfuss et al. 2002; Dresner 2005; Agyekum 2005; Aikhenvald & Storch 2013; Brenzinger & Fehn 2013; Kambon and Songsore 2021). These studies indicate that in the process of visual perception, the activities of sight reveal an understanding of things in the world. According to Kubota (2016), visual perception is the process of using the visual lens to get information about things in the environment, both from the external-physical and the internal-mental ecosphere. That is, in the exploration of the information, percipients do not only obtain knowledge from the environment, but they also express their conceptual understanding of what they have seen. This means that in the visual process, the perceiver should be able to demonstrate that they have adequate information about the environment to convey clarity in the process of conceptualisation (Roque et al. 2018; Abu-Jarad 2008). This would allow the perceiver to vividly interpret the varying forms of seeing, such as physical evidence, conceptual evidence and seeing through other senses of the body, like sense of touch (Winter 2019; Aikhenvald & Storch 2013).

The paper is organized in five sections: Section 1, is the introduction. Section 2 examines the data while section 3 discusses both the basic and extended meaning (intra and social psychological domains) of the verbs of perception *hwɛ́* and *hú*. Section 4 looks at the metaphorical extensions of the verbs of perception in the language; Section 5 summarises and concludes the paper.

2. Data

Data was elicited from 40 native speakers of the dialect in Mfantse-speaking communities in some Municipalities and Districts in the Central Region of Ghana. In the elicitation process, both planned and spontaneous methods of elicitation were used. The spontaneous method of elicitation enabled participants to speak freely about concepts

related to visual perception in Akan (Mfantse); the planned elicitation was done using a semi-structured interview procedure. This line of conversation was guided by the researcher. Observations from natural discourses were done to collect as well as confirm some of the data. The recorded data was transcribed using the Leipzig Glossing Rules, which has three levels of representation: the phonemic transcription of the utterances, interlinear morphemic glossing and the free translation in English. The sentences in the interview schedule were also confirmed with native speaker consultants in the communities and other Mfantse language researchers. This was done to establish initial validity of the questions before being used. The content validity of the instrument was also cross-checked with language experts such as academics, elderly native speakers and linguists. Their comments were carefully considered before the questions were administered. Data analysis was grounded in a cognitive linguistics approach which focuses on the relationship between language use and the human mind, as well as the relationship between socio-physical experiences and the world (Evans and Green 2006).

3. The Meaning of the Verbs of Perception *hwɛ́* and *hú*

The meaning of verbs of perception is associated with the activities of sight and the organ of sight is the eye. Seeing is a natural activity which every human who has the ability to see physically is endowed with. However, persons with visual impairment, though they cannot physically see with their eyes, can experience visual sensations in the brain as well as the use of their other senses (Kärnekull 2018). The activity of seeing is what Mfantse (and other dialects of Akan) uses these two verbs - *hwɛ́* 'look'/watch' and *hú* 'see' - to describe. The activities related to the sense of sight come in two major varying ways: the basic role and the extended role.

3.1 The basic function of *hwɛ́/hú*

The process of seeing involves two semantic participants: the percipient (the one with the sight) and the perceived object or the target. As the percipient carries out the physical activity of vision, the sensory organ, the eye, is activated to connect to perceived objects in the environment. Here, the activity of the verbs *hwɛ́* and *hú* demonstrates that there is a direct physical contact between the perceiver and the perceived object (Kubota 2016; Jakobi and El- Guzuuli 2013; Agyekum 2005; Lien 2005; Eshun 2020). This means that verbs of perception can be described primarily as transitive, where an obligatory object is required. Accordingly, it can be said that in the basic clause structure, there is always an

Experiencer (who functions as the percipient and grammatical subject) and a stimulus (the grammatical object).

1a. Esi hú-ù Kwodwo
Esi see-COMPL Kwodwo
'Esi saw Kwodwo.'

1b. Esi hú-ù ǹ-gúáń kúẃ nó
Esi see-COMPL PL-sheep group DET
'Esi saw the band of sheep.'

1c. Esi hwɛ́- ɛ̀ Kwodwo
Esi look-COMPL Kwodwo
'Esi looked at Kwodwo.'

1d. Esi hwɛ́- ɛ̀ mà[6] m̀bòfírá nó yɛ́-ɛ̀
Esi look-COMPL COMP PL-child DEF do-COMPL

èdwúmá nó
work DEF
'Esi ensured that the children did the work.'

In example (1) the grammatical subject, *Esi* (the perceiver) and the object NP, *Kwodwo* and *nguan kuw* (target objects) are overt. Example (1a) and (1b) describe instances of the general ability to see or the natural occurrence of seeing. Thus, *hú* 'see', is construed as a natural and instantaneous occurrence whereby in the process of the visual activity, objects are captured on the spot. The visual activity is a physical action carried out by the grammatical subject who is the percipient/the experiencer (an animate +human entity) of the action. However, in (1b), the visual activity could have different interpretive meanings as follows: (i) that the experienced/perceived (target objects), *nguan kuw* 'band of sheep', were lost but found by the grammatical subject, or (ii) the grammatical subject

[1] The behaviour of *ma* in Mfantse functions the same way as complementizer that introduces subordinate clauses in complement constructions. *Ma* in (1d) is an example of a complementizer.

just spotted the target objects. In example (1c), there is a deliberate action going on where the perceiver, the grammatical subject, consciously makes effort to make visual contact with *Kwodwo*, the object NP. In (1d), the subject NP (Esi) takes supervisory role to ensure that the object (children) perform the work. In the constructions in (1), *Esi* is the grammatical subject and the experiencer who identifies and specifies the direct object (the stimulus) in the visual activity. This is what Lehrer (1990:223) refers to as 'active experiencer subject' whose attention is focused on the direct object. These constructions are examples of transitive constructions where the overt animate subject NPs control the visual experience. The percipients (the subjects) demonstrate an experience where objects (the stimulus) in the real world are visibly perceived through the conscious activity of seeing. Apart from the basic function, the VPs also have extended meanings.

3.2 Extended meanings of *hwɛ́ /hú*

Verbs of perception may reveal intellectual occurrences such as understanding, recognition, judgment, and clarifications (Ibarretxe-Antuñano 1999; Agyekum 2005; Aikhenvald and Storch 2013). This section explores the various extended domains in which the verbs of perception *hwɛ́* and *hú* occur. The extended meanings for discussion are classified under two sub-domains: intra psychological domain (one entity) and social psychological domain (involving two or more entities).

3.2.1. Intra-psychological meanings of hwɛ́ /hú

Even though VPs normally co-occur with objects in an environment, they can also be used to describe intra-psychological experiences to communicate one's perceptual ideas without engaging any other entity. In such situations, percipients' visual perception is directed towards their internal thoughts, opinions, beliefs (self-philosophies) or ideas. These thoughts normally describe the percipients' curiosity about finding something, encouraging themselves about a condition, expressing one's beliefs and opinions about something, and expressing their convictions about a notion. Consider examples (2a-d).

2a.	Mè-é-hù	àsɛ́m	nó	nó	mú
	1SG.SUBJ-PERF-see	issue	3SG.POSS	DEF	inside
	'I have found the truth in the matter.'				

2b.	Mansa	é-hù	èdwúmá	nó	ényí	dó
	Mansa	PERF-see	job	DEF	eye	on

'Mansa has become skilled enough on the job.'

2c.	Mò hú	dɛ̂	dzíń	pá	yé
	1SG.SUBJ-see/HAB	COMP	name	good	well

'I have come to appreciate that having a good name is good.'

2d.	Mó	hwɛ̀	mó	hó	yíê
	1SG.SUBJ	look/HAB	1SG.POSS	self	well

'I take good care of myself.'

In examples (2a-d) the percipients' visual line is directed to satisfying their understanding about something. In (2a), the verb describes a quest for truth that was elusive to the percipient. However, the percipient has been able to discover the truth. In (2b), the event described by the verb reveals how experienced the percipient has been in acquiring knowledge, ability, skills, or training to perform a certain activity or task well. With this, the percipient shares her internal beliefs or opinions about those inner abilities. The visual capabilities of the percipient are directed to the issue of self-confidence. The verb as used in the context of example (2c) reveals the insight the percipient has gained in understanding that integrity matters in life. In (2d), the percipient's - visual line is directed to an expression of conviction. In this context, the percipient is expressing a conviction that he/she takes good care of himself/herself. Here, the construction points out that the one looking after himself/herself is the perceiver and his/her own body is that which is being perceived, a type of reflexive event. The argument established here shows that extended meanings may be linked to basic meanings.

Another intra-psychological function relates to how percipients make a prognosis of what will be the outcome of an event as illustrated in example (3).

3.	Mó	hwɛ̀	wímù	â[7],	ǹsú	bɔ́-tɔ́
	1SG.SUBJ	see/HAB	atmosphere	CCM	water	FUT-fall
	'A look at the weather indicates imminent rainfall.'				[Eshun 2020:131]	

In example (3), the verb conveys a forecast of the likely outcome of a situation. Here, signs like the darkening of the sky with clouds are predictive of rainfall. The percipient uses his/her visual acuity to assess the nature of the weather as indicative of rainfall.

3.2.2 Social-psychological meanings of hwɛ́ /hú

With social psychological experience, the verbs of perception can be used to describe interpersonal relationships or face-to-face interactions between two or more entities. It builds social ties where associations among people are used to share information, knowledge, feelings, and experiences. The primary intention of this visual event is 'to meet', and the form of meeting may mean paying someone visits, having an appointment, or going for consultation etc. This finding has also been proven cross-linguistically in earlier works (see Roque et al. 2018; Aikhenvald and Storch 2013; Evans and Wilkins 2000, Ibarretxe-Antuñano 1999). The social relationship generally selects [+human] argument for both the grammatical subject and objects.

4.	Adoma	kɔ̀-hwɛ́-ɛ̀	né	pàpá	wɔ̀
	Adoma	go-look-COMPL	3SG.POSS	father	at
	àyàr̀sábéá	hɔ́			
	hospital	there			
	'Adoma paid her father a visit at the hospital.'				

In Akan, there is a specific word that means to visit – *srà* 'to visit'; however, in the context of (4) the concept of *hwɛ́* 'look' is associated with the idea of visitation. In (4), *hwɛ́* 'look'- to visit a sick person - can also be rendered in the language as *hwɛ ɔyarefo*

[7] This particle *â* in example (3) appears to be performing a different function from the relative clause maker and the interrogative particle. The role of this *â* appears in conditional sentences. In Akan the conditional clause is marked by two discontinuous elements: *Sɛ ..... â*. The *sɛ* is optional but the *â* is obligatory. Thus, there cannot be a conditional clause without *â*. So, I gloss this as conditional clausal marker (CCM). Sentences like (3) with or without *sɛ* are common in Akan.

(lit. going to see someone or finding out how someone is faring regarding his/her health and general life activities). Again, the construction does not only have the underlying meaning of visually perceiving the object (perceived) with one's eyes physically, but also engaging in personal interaction as well as demonstrating signs of care, showing concerns and love. These meanings in example (4) can be inferred when the perceived object is conscious and has the ability to interact with the grammatical subject. Conversely, where the direct object is unconscious, though there is a spatial connection of nearness in terms of *hwɛ́* 'look'- to visit, the notion of engagement in relation to personal interaction may be missing.

There is another context of social dimension that has to do with *hu obi* "consulting" (lit.: see someone). This concept can apply in various situations and not just in the context of visiting someone. An example of such sentences that depict this situation is illustrated in (5).

5. Kwansema	kò-hú-ù	òbí	mà	ɔ̀-bóà-à
Kwansema	go-see-COMPL	someone	COMP	3SG-help-COMPL

nò
3SG.OBJ
'Kwansema consulted someone for help.'

The concept of consulting is related to *hú* in Akan as shown in (5). The phrase *hu óbí* translates to 'request assistance/help' from the person going to be seen (the perceived object). The concept is usually associated with a superior or an experienced or a 'powerful' person who can offer assistance or support for the grammatical subject. The concept of *hu óbí* may come in varying forms depending on the kind of consultation, the needs and demands of the grammatical subject. This activity normally occurs with human entities where the perception of power is moderated such that the superior-subordinate relationship is repressed. Situations where we have entities that have been assigned anthropomorphic nature (thus are assigned human features) engaging in consultation, the power of superior-subordinate relationship is activated as in *Yɛ bɔkɔ e-ko-hu bosom panyin no a ne dzin dze Akyin no* 'we shall go and consult the chief deity called Akyin'. This expression shows that *bosom* has been anthropomorphized. That is, it is perceived as having human-like characteristics in terms of its activities.

According to Lien (2005), in social relationships, some of the associations may involve forms like: client to lawyer, student to teacher, and patient to doctor. There is generally a mutual understanding or already known establishment of contact experiences between the subject (the percipient) and the direct object who can help. Let's consider example (6):

6. Dátsèr̀ nó hwɛ́-ɛ̀ Ama yíê
   Doctor DEF look-COMPL Ama well
   'The doctor took good care of Ama.'

Example (6) depicts a type of consultation where the direct object is provided with assistance by the grammatical subject. The relationship that exists between the subject and object is that of a doctor and a patient. where the direct object seeks specific help in the form of healthcare from a provider (the subject). In the language, the construction in (6) can also be rendered as *ɔko hu-u datser no ma ɔboa no* 'he/she sought help from the doctor'.

Another social context that the verb of perception *hwɛ́* 'look' manifests in relates to the notion of caring and monitoring. In such constructions, the visual activity takes the form of events such as watching over, monitoring, caring, looking after and nurturing. The perceiver exercises authority over the perceived entity. Here, the relationship is that of dependability, trustworthiness, show of love and concern. The visual event is performed in a conscious manner. The verb of perception can select features like [+/- animate] entities. Instances of this construction are shown in (7).

7a. Hwɛ̀ àbòfŕá nó dò yíê
    look/IMP child DEF on well
    'Take good care of the child.'

7b. Hwɛ̀ fíé hɔ́ yíê
    look/IMP household there well
    'Take good care of the household.'

8. Èkúẃ pìì só hwɛ̀ à-bɔ̀bɔ̀fó/è-hìà-fó
   Groups many also see/HAB PL-needy/ NOM-need-PL
   Many groups also take care of the needy.'

In (7a and b), the context envisages that the speakers are entrusting the child and the house into the care of a reliable person[8] thereby empowering the percipients to exercise responsibility in taking care of the baby and keeping the house well. The percipients are not overtly expressed because the statements are commands to the addressees. The percipients are associated with the location (house) where their visual line is to be directed. In (8), *èkúẃ* 'groups' (of different associations) take responsibility and much concern in monitoring and taking care of the poor in the society. Here, the perceived targets (the poor) are seen to be vulnerable and unable to take care of themselves.

Furthermore, with social psychological domain, vision can be used to measure duration of time where a particular event can be celebrated. This is normally associated with traditional and some religious festivals. With this type of communication, the percipients use the visual perception to check for impending events. The distance between that event and another is derived from knowledge gained through vision. This is illustrated in (9).

9. Yɛ́-hwɛ́ ǹ-dá nó nà yɛ́-dzé hyɛ̀
1PL.SUBJ-see/HAB PL-day DEF CONJ 1PL.SUBJ-take fix

àfáhyɛ́ dá nó
festival day DEF
'We use days to calculate the date for the festival.' [Eshun 2020: 148]

In example (9), the visual information the percipients have in relation to the occasion to be celebrated is very significant. The percipients are simply saying that they are checking days with or without the benefit of a calendar. The sensory visual experience then becomes an indicator or a decision-making tool in the confirmation of a perceived events.

[8] People who are seen to be trusted are those something valuable can be assigned to their care. This is because they are seen as reliable, responsible, and can be completely trusted. They are trustworthy and level-headed leaders.

Sometimes, in social psychological context, the verb of perception can be used to express the idea of contemplation and taking a critical look at something as indicated in (10).

10a. Hwɛ́ ná hù dɛ̂ ɔ̀-ré-ǹ-gyìná
look/HAB CONJ see/HAB COMP 3SG.SUBJ-PROG-NEG-stand
'Note that it will not stand.'

10b. Í-hù àdzé â hwɛ̀
2SG.SUBJ-see something CCM see/HAB

nò yíê
3SG.OBJ well
'Be careful about things/take a good look about things.'

In example (10), the verbs of perception *hwɛ́* and *hú* are connected to the issue of circumspection. Here, the speaker is entreating the addressee to take note of a situation. In example (10b), the verbs of perception are used to sound caution to the percipient.

4. Metaphors of *hwɛ́ /hú*

Winter (2019:28) mentions that metaphors are one of the "versatile strategies for conveying perceptual meaning as well as enriching sensory vocabularies". He further explains that speakers normally use their knowledge in perception to describe other conceptual meanings. Some examples of metaphors of *hwɛ́* and *hú* in the language are illustrated in (11).

11a. É-dzé bɔ́-hwɛ́ òbí né bá dzé
2SG.SUBJ-take/HAB FUT-look someone 3SG.POSS child CM

nó fá tɔ̀ àkókɔ́ nyɛ̀ǹ nò
DCM pick/HAB buy/HAB chicken rear/HAB 3SG.OBJ
'It is better to rear a hen than to nurture someone else's child.'

11b. Hwɛ̀ dó mà mè ǹ-yɛ́ dɛ̂ wó-árá
look/IMP on give 1SG.OBJ NEG-be COMP 2SG.REFL
'It is better to take good care of your own things than allow someone to do so.'

11c. Hwɛ̀ pété né ǹ-tɛ̀kyèrɛ́ mú
look/IMP vulture 3SG.POSS PL-feather inside
'To use ways and means to uncover the truth.' (Lit.: Look inside the feathers of the vulture).

11d. Èhùbìdà ńtsí nà àbówá ásɛ̀rwá
Experience [lit. to see some before] that CONJ animal sunbird

gyè né bá ágór â, ó-yì
collect/HAB 3SG.POSS child play CCM 3SG.SUBJ-pick/HAB

n'-énýí tò ǹkyɛ́ń
3SG.POSS-eye put/HAB side
'It is out of caution that when the sunbird plays with the child it looks elsewhere.'

In example (11a), the concept of *hwɛ́* 'look' is mapped onto the idea of making investment through nurturing someone (somebody's child). In Akan culture, it is normal for a person (a benefactor-- whether a couple, a single parent or benevolent person in the community) to nurture someone's child (beneficiary). It is expected that this investment would yield good outcomes and, in turn, the beneficiaries would be appreciative of this kind gesture (*hwɛ́* - nurture) shown them. However, if it turns out that these beneficiaries demonstrate discourteous behaviours towards their benefactors who have taken care of them in such a way that there is then a feeling of resentment on the part of the benefactors, this statement (in 11a) is uttered. The implication is that it is not worth it to look after (*hwɛ́*) someone's child; instead, it would be more beneficial to use the resources to rear a chicken because in the end you will gain more profit from your efforts. This concept of *hwɛ́* 'look' is not based on the literal sense of *hwɛ́,* meaning 'look', but it is based on how the verb of perception has been used metaphorically. In this usage, the collocation of the phrases *'hwɛ́ óbí né bá dzé'* in relation to '*fá tɔ̀ àkókɔ́ nyɛ̀ǹ nò'* brings out the meaning of this context in Akan culture.

In example (11b), though the sense of *hwɛ́* in the sentence is the physical act of looking, the idea of *hwɛ́* 'look' is conceptualised in relation to not taking good care of something that belongs to someone in their absence as the owner would do. The conceptualisation in

(11b) can be linked to some factors that might account for that attitude, such as being wasteful, careless, or even having evil intentions.

In (11c), the sense of *hwɛ́* in the sentence is not based on the physical act of looking. Metaphorically, it refers to a behaviour that is perceived to connote a good attitude in looking for the truth about something. The activity of being a good investigator is conceptualised as looking.

The verb as used in example (11d) is in a nominalized construction and it is not a perception verb on its own. Appah (2005:1) mentions that "action nominals are derived from nouns as well as verbs and their internal arguments". Example (11d) is a nominalized construction because the verbal clause *hu bí dá* 'to see some before' has been marked with a nominalizer, the nominal prefix 'e' to mark off the sentence *èhùbìdá* to derive the action nominal construction. According to Osam (1993; 1994), nominal prefixes in Akan have been accepted as relics of a defunct noun class system. These prefixes are usually vowels, though there are homorganic nasal nominal prefixes as well.

Again, in example (11d), though the sense of *hu* in *hu bí dá* (action nominal construction) is the physical act of looking; literally, the concept of *hu bí dá* means 'having seen something before'. The concept of 'seeing something before' is then aligned to the extended meaning of 'vigilance'. Also, the thoughtfulness in the visual event *hú* is teased out from the context in relation to some occurrences that might have happened previously- *bí dá* 'some before'. The example in (11d) is also conceptualised to mean that the sunbird is extremely vigilant and alert. This is because it is assumed that it has experienced some visual dangers previously and, consequently, it has become very observant even when it plays with its child so that no such danger befalls it again. This means that the concept of seeing, which is the source domain, is mapped onto the target domain, vigilance.

The VPs also express the metaphorical notion of 'vigilance' and taking precautions. In this expression the perceived object is cautioned to use the eye to watch critically the events around them. Also, the percipient takes precautions due to experiences they have encountered in the past. Example (12) illustrates such a metaphorical expression.

12.	Mè-dzè	m'-ényíwá	bɔ́-tó	fámù	à-hwɛ́
	1SG.SUBJ-take	1SG.POSS-eye	FUT-put	down	CONS-look
	'I will monitor things closely.'				

The notion of *hwɛ́* 'look' in (12) is not based on physically pulling the eye to the ground but has the extended concept of expressing 'overseeing' where a careful watch (being very observant in watching, checking all possible risks that might arise) is done. The percipient embarks on security responsibilities that demand long hours of vigilance such as monitoring and observing. This means that the activity of becoming vigilant can be conceptualised as *hwɛ́* 'to look'. In the conceptualisation process, the percipient does intensive observation over a period to achieve the target event. Thus, the percipient performs the visual event (looking) with a specific purpose in mind.

Another example that illustrates the metaphorical notion of taking precautions or becoming cautious is shown in (13).

13.	Ò̀nyíḿpá	bɔ́-hwɛ́	yíé	nó[9]	ńnà	òfìr̀
	man	FUT-see	well	DCM	CONJ	emanate/HAB
	dzà	ó-é-hú.				
	thing	3SG.SUBJ-PERF-see				
	'People become cautious due to experiences they have encountered.'					

Example (13) has the two verbs of perception occurring in the construction. The visual activity of *hwɛ́* 'watch'/'look' is conceptualised as being careful or becoming cautious (the cautiousness idea arises because the verb co-occurs with the adverb *yíé* 'well') in daily life. The VP – *hú* 'see' is conceptualised as experiences one has encountered before.

[9] The *no* in example (13) marks the end of a dependent clause; that is why it is better to call it the Dependent Clause Marker (DCM). Also, Fretheim and Amfo (2008:360) argues that "a dependent clause followed by *no* [has three functions]; it can (a) impose a temporal constraint on the main clause proposition. (b) mark a relative clause in a syntactic construction where the overt head noun is outside the scope of *no*, [and can] (c) mark one of the propositions in a substitutive ('instead of ') constructions where the future tense prefix *b*ɛ indicates that the state of affairs described in the *no*-marked clause is unfulfilled".

These experiences relating to the visual sense might have been bitter events or certain happenstances that have made them (the percipients) become cautious in life. The conceptualised information experiences are mapped unto the visual activity of *hú.* This experience is what the percipient focuses on to exhibit the event of taking precaution. In effect, the event of taking precautions is aligned to the visual activity of *hwé* 'watch'/'look'.

5. Summary and Conclusion

The purpose of this paper has been to analyse the diverse interpretations of the two verbs of perception: *hwé* and *hú* in Akan, focusing on the Mfantse dialect. It also looked at the domains where diverse usages of these verbs of perception occur. *Hwé* displays an achievement role of the visual activity. On the other hand, *hú* is seen as a natural and instantaneous occurrence; a visual activity described as 'on the spot'. In some situations. *hwé* is done in a conscious manner while *hú* can display both conscious and unconscious roles. These two verbs were classified under two domains, intra and social psychological experiences. The intra psychological experiences captured visual notions connected to self-philosophies such as personal opinions/beliefs, principles, and values while social psychological visual experience describes the notions involving purpose, assurance, examining, and interdependency.

The verbs also exhibit polysemous notions, as summarised below:

Hwé - to check or monitor, to observe, to focus, to expect someone, to be a caretaker, to be careful, to be wary of, to nurture, to discover, to accompany, to admire, to interpret, to make sure, to depend, to consult, to love and show concern, friendship, indicates time perception, reflections, preference, critical look, and become vigilant.

Hú – to consult, to check on, to experience, to be enlightened, to be abreast with time, to get to know the truth, to identify, to understand, to know, to ascertain, to assess, to realise, to identify, to imagine, to discover, to discern, to learn, to notice, to familiarise, to distinguish, to know the secret, to be clever, and to empathise.

Finally, it has been shown that the activity of *hwé* can sometimes be a response to the visual activity of *hú.* That is, *hwé* discusses more of the visual activities that do more probing, while *hú* performs the activity of providing results of some of the activities of *hwé*. For instance, in a visual activity where the verb of perception *hwé* exhibits the notion of 'looking critically', the resulting activity will lead to identifying (finding out) a particular phenomenon. It can be concluded that the activities of verbs of perception *hwé* and *hú* are interrelated in terms of usage.

Abbreviations

1	First person
2	Second person
3	Third person
CCM	Conditional Clausal Marker
COMP	Complementizer
COMPL	Completive
CONJ	Conjunction
CONS	Consecutive
DCM	Dependent Clause Marker
DET	Determiner
DEF	Definite
FUT	Future
HAB	Habitual
IMP	Imperative
NEG	Negative
NOM	Nominalizer
NP	Noun phrase
OBJ	Object
PERF	Perfect
PL	Plural
POSS	Possessive
PROG	Progressive
REFL	Reflexive
SG	Singular
SUBJ	Subject
VPs	Verbs of perception

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CHAPTER 6

Semantic Integration as Emergence in Akan Serial Verb Constructions (SVCs) and Serial Verb Construction Nominalisation (SVCN)

Ọbádélé Bakari Kambon
Institute of African Studies, University of Ghana
obkambon@staff.ug.edu.gh

Abstract

This chapter aims to draw a conceptual and theoretical link between semantic integration in Akan Serial Verb Construction Nominalization and the concept of emergence as articulated in chemistry, physics, biology, neuroscience, philosophy, art and systems theory among others. I argue that the degree to which semantic integration/emergence pertains at the (serial) verb construction level may correlate to nominalisation for that class of serial verb construction or lack thereof. Therefore, in the case of Akan SVCNs, three categories of SVCs are analysed on the basis of how they are nominalised, the degree to which nominalisation occurs and whether nominalisation can occur at all. Various sources were consulted in three major literary dialects of Akan: Asante Twi, Fante and Akuapem Twi. Further, native speakers of each of these dialects were consulted to ascertain the veracity of various attested serial verb construction nominals (SVCNs) in Akan.

Keywords: Akan; emergence serial verb construction nominalisation; semantic integration; lexicalisation

1. Introduction

Lexicalisation of Akan SVCs occurs as a result of semantic integration (Osam 1994, Agyeman 2002, Hellan, Beermann and Andenes 2003, Appah 2009). Semantic integration can be understood as the degree to which an action or multiple individual actions are conceptualised as a unitary event in the mind of speakers. As such, what pertains with regard to linguistic study may be thought of more broadly as a type of emergence.

Emergence is a concept that refers to the way complex systems and phenomena, such as idioms, for example, can arise from the interaction and organization of simpler components or elements, such as SVCs in this instance. In other words, emergence describes the way that new properties, patterns, or behaviours can emerge at higher levels of organization that are not perceptibly present in the individual parts themselves. When emergence happens in Linguistics, specifically semantics, this emergence may be termed Semantic Integration.

One of the key ideas behind emergence is that complex systems can be greater than and different from the sum of their parts, and that the behaviour and properties of the system cannot be fully understood simply by analysing the individual components in isolation. Instead, emergent properties are the result of the interactions and relationships between these components, which can give rise to new patterns and structures that are not entirely present at the lower levels of organization, although, when it comes to serial verb constructions specifically, there may be degrees to be taken into account. As such, while emergence is typically thought of as being the opposite of reductionist theories of analysis and explanation, the gradient-like nature of Akan semantic integration concomitant lexicalisation may have theoretical implications with regard to ongoing debates (Stoeckler 1991, Chibbaro, Rondoni and Vulpiani 2014, Gibb, Hendry and Lancaster 2019).

To further explicate, when verbs become integrated semantically, a process of lexicalisation occurs whereby verbs in the SVC collocate to the extent that they become idiomatic in their use. Lexicalisation is generally defined as "1: the realization of a meaning in a single word or morpheme rather than in a grammatical construction. 2: the treatment of a formerly freely composed, grammatically regular, and semantically transparent phrase or inflected form as a formally or semantically

idiomatic expression" (Merriam-Webster 2022). Lexicalisation, in this context, refers to the process whereby previously disparate words increasingly come to be understood as a single lexeme semantically whereby the overall meaning is greater than/different from the individual words taken alone (although here, too, there may be degrees with regard to how traceable the semantics of the overall lexicalised expression is from its component parts).

Lexicalisation, therefore, provides a view into which semantic integration as an exemplification of the concept of emergence in the context of linguistics may be understood for the delineation of three types of SVCs along a continuum in the Akan language as introduced by Osam (1994). Degree of semantic integration is observable through lexicalisation of erstwhile disparate components and is expected to be the independent variable that effectively predicts nominalisation behaviour. The three types of SVC categories are the Clause Chaining Serial Construction (CCSC) type, the Partially Lexicalised-Integrated Serial Verb Construction (PL-ISVC) type and the Full Lexicalised-Integrated Serial Verb Construction (FL-ISVC) type. We will introduce each type of SVC and its corresponding nominal form as exemplified in (1-3):

1. Clause Chaining Serial Construction (CCSC)

   a. M-à-dá nò àsé á-brɛ̀́
      1SG.SBJ-PRF-lay 3SG under PRF-tire
      'I have thanked him/her to the point of exhaustion.'
   b. ø dà àsè brɛ́
      +NMLZ lay under tire
      SVCN: dààsébrɛ́ 'ever generous' (Obeng 2001: 81)

2. Partially Lexicalised-Integrated Serial Verb Construction (PL-ISVC)

   a. M-à-dí-dí á-mɛ́́ɛ́́
      1SG.SBJ-PRF-eat-DUP PRF-full
      'I have eaten and have become full.'

b. Ɔ̀-bɛ́-dí-dí á-mɛ́́ɛ́́
3SG.SBJ-FUT-eat-DUP CONS-full
'He/She will eat and become full.'
ø/à dìdì mɛ́́ɛ́́
+NMLZ eat to be full
SVCN: (à)dìdìméé 'the act of eating and becoming full'

3. Full Lexicalised-Integrated Serial Verb Construction (FL-ISVC)
a. Mè-gyè nó dí
1SG.SBJ-receive 3SG.OBJ eat
'I believe him/her.'
SVCN: gyédí(é) 'belief'

The foregoing begs the question of what the basis for the three-way classification is. According to Osam:

> The point has been made in the cross-linguistic literature on serialisation that such constructions are characterised by two or more verbs used to describe a single event. ***This structural phenomenon has a semantic basis. The semantic foundation of serialisation has to do with the integration of the subatomic events that are conceived as representing a single event.*** In other words, the reason why multiple verbs in a construction are treated as conceptually coding a single event is that even though those verbs originally code separate events, these events, through the process of cognitivisation, come to be integrated as a single event. …, ***the degree of semantic integration is reflected in the syntax of such constructions and it enables us to identify different levels of integration***. The more tightly the original subatomic parts are integrated into a unitary whole, the more cohesive are the syntactic coding mechanisms (Osam 1994:193). (emphasis added)

It should be noted that there is no strict compartmentalisation (Clause Chaining, Partially Lexicalised, and Fully Lexicalised) of SVCs in Akan or in general. Such a view would be consistent with the Classical Theory (CT) of categorisation which

goes back to Aristotle, by which entities are classified according to necessary and sufficient conditions (Lakoff 1987, Osam 1994, Taylor 2003).

Interestingly, Aristotle is also credited with an early formulation of emergence as "... the totality is not, as it were, a mere heap, but the whole is something besides the parts..." (Cohen and Reeve 2000). While it is known that the Greeks studied in classical  *Kmt* 'Land of Black people' and thus the formulation may derive from teachings acquired from there, we will return to this point with regard to the oldest formulation of emergence in the form of creation stories dated to 1550 BCE—long before Aristotle or even Greece itself, for that matter (James 2013).

The Aristotelian conception of CT, I argue, stymies the concept of emergence by pitting it at odds with resultants by his intellectual descendants who follow in this line of thinking that could easily be resolved within a PT framework. In other words, in CT a category is characterised by a set of specific features each of which is considered necessary for the definition of that category in question. Thus, for an entity to be accepted as belonging to that category it must have all the features of that category which are deemed defining, otherwise it cannot be in the class (Osam 1994:10).

Under CT, categories are conceptualised as having very rigid boundaries (in this case resultants vs. emergent). The CT perspective on the matter may best be summed up by the phrase "nothing should be called an emergent unless it can be shown not to be a resultant" (Britannica 2023). In other words, an item is either a member of the category or it is not.

This *a priori* approach has implications for early distinctions made between resultants and emergent in their conceptualization as "phenomena that are predictable from their constituent parts and those that are not (e.g., a physical mixture of sand and talcum powder as contrasted with a chemical compound such as salt, which looks nothing like sodium or chlorine)" (Britannica 2023). While salt (an emergent of sodium and chloride) may not perceptibly look to a human with finite abilities of perception like sodium or chloride, emergents are not entirely independent of their inputs in the sense that both sodium and chloride, specifically, are necessary to end up with salt (NaCL) and every atom, every electron present before their merger is also present after—they have only undergone transformation

(what I term existential emergence). This is due to the law of conservation of matter, also known as the law of conservation of mass, which observes that matter cannot be created or destroyed in an isolated system, but it can change forms or be rearranged. According to the law of conservation of matter, the total mass of a closed system remains constant over time, regardless of any physical or chemical transformations that may occur within the system. The law of conservation of matter is derived from the broader law of conservation of energy, which states that the total energy in an isolated system remains constant. The law of conservation of matter applies specifically to the mass component of the system and emphasizes that matter is neither created nor destroyed during ordinary physical or chemical processes (Lin 1995). This means that there may be degrees of compositionality irrespective of one's ability to perceive it. While George Henry Lewes, noted for coining the concept of emergence in English, distinguished between emergents and resultants, emergents are, nonetheless, the specific result of specific inputs whether or not the observer has the capacity to discern the erstwhile disparate components upon merger (Lewes 1875). One simply cannot take magnesium and mercury and end up with emergent salt. The Akan SVCN, *nkogu* 'defeat' can be thought of as the idiomatic, semantically integrated and lexicalised emergent of *ko* 'fight' and *gu* 'pour, spill' where the composite meaning is not entirely compositional as would be the typical case for, say, PL-ISVCs. However, the semantically emergent 'defeat' meaning cannot be accomplished by any other serial verbs in the language. Thus, while the idiomatic meaning is not compositional per se, it can only be accomplished by means of specific inputs. This means that there are specific properties of the original verbs and there are degrees to which, even when there is emergence, the idiomatic, semantically integrated meaning only emerged from the specific SVC in question as opposed to any other SVC. I am of the view that there is a gradient of decomposability and decompositionality whereby the degree to which one has the ability to decompose the emergent idiomatic, semantically integrated and lexicalised whole back to constituent parts may similarly be viewed along a continuum.

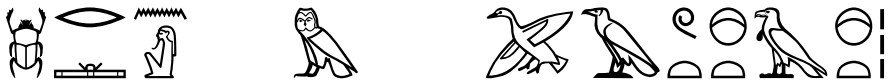
In other words, it makes sense that even though the emergent has different properties than its constituents and supposedly is not predictable on the basis of the inputs, there must be some degree of predictability if we can see that those inputs only gave rise to what they actually gave rise to in reality and not an alternate thing. This is particularly the case for existential emergence and may also follow for behavioural emergence. Through it all, the current discussion speaks to the centrality and

primacy of transformation whereby emergents may be thought of as inscrutable resultants.

The oldest known such concept of transformation is that of  *ḫpr* ‘Kheper’ from the  *Kmtyw* (Black People) of classical  *Kmt* ‘Land of Black people’ in describing all the transformations of  *Rʿ* (Faulkner 1933, Obenga 2004:63).  *ḫpr* ‘Kheper’ “the intransitive verb means: to come into being, to change, to take effect, to exist, to be.” According to (Obenga 2002:33):

> Egyptian mythology is radically different. There the creative demiurge emerges from within Nwn, and only after that begins the work of creation. There is no independent Creator, no Demiurge standing over and apart from Creation, born already before the birth of the universe. In ancient Egyptian mythology, it may be asserted, **Idea emerges, and endowed with power, from raw Matter**….Every style and form of life arises from that primeval, uncreated water. That is the very origin all subsequent development. **(bold emphasis added)**

In other words, all that exists is a transformation (or transformations) of the primeval uncreated water:  Nwn ‘primeval waters’ by means of  *ḫpr* ‘Kheper’. The relevant text in question is:



ḫpr n.i̯ *m* *pꜣwtı̯w*
transform CPL.1SG in primeval matter
‘I transformed in the primeval matter

ḫpr *ʿšꜣt* *ḫpr.w* *m* *dp-ʿ*
transform multitude form.PL in top-arm
(I) transform as the Multitudes of Forms, from the beginning. (Budge 1904:315, Montgomery 2007:23)

Thus, from its earliest conceptualisations, emergence is a concept that describes the phenomenon of new and complex properties, patterns, or behaviours arising from the interaction and organization of simpler components or elements. It refers to the idea that a system can exhibit characteristics and behaviours that are not always directly or predictably derived from its individual parts, although, as mentioned, even here there are degrees. In emergent systems, the whole possesses properties or features that are qualitatively different from and cannot be reduced to the properties of its constituent parts although they are demonstrably derived from them.

In sum, the resultant vs. emergent distinction with regard to categorisation is derived from the CT type of conceptualisation. Rather I view SVCs as existing along a continuum from the most semantically integrated and lexicalised (FL-ISVCs) to the least semantically integrated (CCSCs). See Figure 1. Between the two ends of the continuum are items of varying degrees of semantic integration including some that may still qualify as FL-ISVCs, through cases of PL-ISVCs to CCSCs with fuzzy boundaries between them. Thus, of the three categories, FL-ISVCs represent the most lexicalised, institutionalised and idiomatised types (*ε.n.* those that best exemplify the concept of semantic emergence[22]) which exist on a continuum extending through PL-ISVCs (as a middle ground) to CCSCs, which represent ad hoc nonce creations.

FL-ISVCs PL-ISVCs CCSCs

Figure 3: SVC continuum based on lexicalisation

My view of the relation between the three types of SVCs, as represented in Figure 1, is consistent with the Prototype Theory (PT) framework which incorporates the idea of scalarity whereby we may deal with the fuzzy boundaries and elements contained therein (Rosch and Mervis 1975, Rosch 1978, Rosch 1983).

[22] The first attestation of the term semantic emergence appears to be Wheelwright, Philip. 1958. "The Intellectual Light." *The Sewanee Review* 66(3):397-412. “To the mind that attunes itself to them they display the always stimulating phenomenon of semantic emergence: new meanings are created by a new way of arranging and emphasizing the semantic elements” (Wheelwright 1958:401).

In this study, therefore, I adopt a PT approach to account for the SVCs as a particular type of SVC may show more of a prototype effect than those at the fuzzy boundaries. To apply this gradient to the concept of emergence is to address the liminal state whereupon we no longer have sodium and chloride, however the two have not yet formed salt. In other words, there is an in-between state that, for whatever reason, may be neglected in other disciplines, but which comes to the fore in linguistics whereby such intermediary stages within the continuum are more readily perceptible. Such a liminal state may best be exemplified in the Bakôngo concept of *Kalunga* "as the threshold" (Desch-Obi 2008:39, Kambon 2018:351). The theoretical implication here is that it is not simply a matter of emergents vs. resultants, but there may be a threshold between the two and fuzzy boundaries that may shift based on ability to perceive, among other potential factors.

Substantiation of the aforementioned continuum of lexicalisation may be found in the form of various tests (morphological, syntactic, semantic, *n.a.*). One method for testing the degree of integration reveals the relationship between the semantic and the syntactic. By inserting conjunctions in between clauses, we can evaluate the potential of the sentence to be interrupted by conjunctions. Insertion of conjunctions can be done in the CCSC type with little or no change of meaning of the sentence. In the case of Partial Lexicalised ISVCs, when conjunctions are inserted, it leads to varying degrees of distortion of the original meaning. When this is done in the case of FL-ISVCs, however, it results in an entirely ungrammatical construction, as shown below in example (4). We call this the Conjunction Insertion Test (CIT).

In the case of FL-ISVCs, insertion of conjunctions almost invariably leads to ungrammatical constructions or constructions that mean something totally different from what is meant by the more idiomatic FL-ISVC structure. In other words, emergents may not be readily separated back into their constituent parts. This is because, unlike in Clause Chaining Serial Constructions (CCSCs) where each verb encodes a separate event, in FL-ISVCs, the multi-verbs in such constructions are used to describe a single event—an emergent property. The basis of the realised structure is semantic. As Osam observes, "[t]he semantic foundation of serialisation has to do with the integration of the subatomic events that are conceived as representing a single event." (1994:193)

An example of the CIT at work is illustrated in the coordinating version of the SVC *Araba tɔ-ɔ nam kyew-ee tɔn-ee* 'Araba bought fish, fried and sold it.' shown in (4a-b) with the insertion of the conjunction *na* which, in Akan, combines clauses and sentences (see Kambon 2012). This type of insertion is not possible as a coordinating structure in the case of the integrated type of SVC such as *Akosua yɛ-ɛ asɔr ma-a Yaw* 'Akosua prayed for Yaw' (benefactive) and results in an ungrammatical construction as shown in (5). In FL-ISVC (6a) *Kofi gye-e me di-iɛ* 'Kofi believed me' attempting to employ the CIT results in an utterance that has been 'de-idiomatised' and, as such, results in a gross distortion of the meaning of the utterance. According to Osam, the difference between the CCSC, which has a corresponding coordinating structure, and the ISVC, which does not, "reflects the degree of tightness in the semantic integration of the verbs involved" (Osam 1994:195).

While tones will be marked on examples throughout the rest of the paper, direct quotes will appear as in the original text without tones:

CCSC

4. a. Araba tɔ́-ɔ̀ náḿ Ø-kyéw-èé Ø
Araba buy-COMPL fish 3SG.SBJ-fry-COMPL 3SG OBJ
tɔ́n-èè Ø
sell-COMPL 3SG OBJ
'Araba bought fish, fried and sold it.'

b. Araba tɔ́-ɔ̀ náḿ nà ɔ́-kyéw-èé
Araba buy-COMPL fish CONJ 3SG.SBJ-fry-COMPL
Ø nà ɔ́-tɔ́ń-èé Ø
3SG.OBJ CONJ 3SG SBJ-sell-COMPL 3SG OBJ
'Araba bought fish and fried it and sold it.' (Osam 1994:194)

PL-ISVC

5. a. Akosua yɛ́-è̀ àsɔ́ŕ má-à Yaw
Akosua do-COMPL prayer give-COMPL Yaw
'Akosua prayed for Yaw' (benefactive)

b. *Akosua yɛ́-ɛ̀ àsɔ́ɾ́ nà ɔ́-má-à
Akosua do-COMPL prayer CONJ 3SG.SBJ-give-COMPL Yaw
Yaw
'Akosua prayed and gave Yaw.' (Osam 1994:195)

FL-ISVC

6.

a. Kofí gyè-è mé dì-ìɛ̀
Kofi receive-COMPL 1SG-OBJ eat-COMPL
'Kofi believed me.'

b. *Kofí gyè-è mé ná dí-ìɛ́
Kofi receive-COMPL 1SG-OBJ CONJ eat-COMPL
'Kofi took me and copulated with me.'

We find that in (6a), the meaning is as a result of the idiomatic combination of the two verbal elements together, while in (6b), the insertion of the conjunction breaks this idiomatic interpretation and forces the reading whereby *gye* 'receive' must be interpreted literally. This causes *di* 'eat' to take on an entirely different idiomatic meaning collocating with a human/animate object. Another test characterizing serial verb expressions on this continuum is the Tense/Aspect/Mood/Polarity (TAMP) retention test (Kambon, Duah and Appah 2018). Examples 7-10 show that while CCSVC nominalisations retain TAMP marking, ISVC nominalisations do not. Although in these examples, the TAMP categories for the CCSVC nominalisation sentences are negation and the completive while for the ISVC nominalisations sentences, the perfect is retained. It should be noted that regardless of the particular TAMP marker in question—whether perfect, negation, completive aspect *n.a.*— the constraint that bars TAMP in SVCN lies with the ISVC and not a particular TAMP category.

CCSC

7. SVC sentential construction :

a. Ɔ̀-à-ǹ-té m'àmánèhúnú nyìnáá
3SG-COMPL-NEG-hear 1SG.POSS'troubles all
à-ǹ-sèré mè
COMPL-NEG-laugh 1SG.OBJ
'She/he didn't listen to my problems and laugh.'

Serial Verb Construction Nominalisation (SVCN):

b. Ǹ- té Ǹ- sèré
NEG hear NEG laugh
SVCN: ǹtéńsèré 'don't hear [my story] and laugh'

In sentential context as grammatical subject:

c. Ǹténsèré sṵ̃-ṵ̃ìɛ̀.
Ntensere cry-COMPL
'Ntensere cried.'

In sentential context as grammatical object:

d. Ɔ̀-sé nè díń dè Ǹténsèré
3SG.SBJ-say-COMPL 3SG.POSS name take Ntensere
'He said his name is Ntensere.'

8. SVC sentential construction:

a. Ɔ̀-à-m̀fá nè bɔ́né
3SG.SBJ-COMPL-NEG-take 3SG.POSS badness

à-m̀-fìrí nó
COMPL-NEG-from 3SG.OBJ
'He/she did not forgive his/her badness.'

Serial Verb Construction Nominalisation (SVCN):

b. à- m̀- fá à- m̀- fìrí
COMPL NEG take COMPL NEG loan
SVCN: Àm̀fáàm̀fírí 'the unforgiving one'

In sentential context as grammatical subject:

c. Àm̀fáàm̀fîrí bà-à há.
Amfaamfiri come-COMPL here
'Amfaamfiri came here.'
(Kambon, Duah and Appah 2018: 408)

In sentential context as grammatical object:

d. Yɛ̀-hùnù-ù Àm̀fáàm̀fîrí
1PL.SBJ-see-COMPL Amfaamfiri
We saw Amfaamfiri.

PL-ISVC

9. SVC sentential construction:

a. Ɔ̀-à-ǹ-wú à-ǹ-sɔ́ré
3SG.SBJ-COMPL-NEG-die COMPL-NEG-rise
'He/she did not resurrect.'

Serial Verb Construction Nominalisation (SVCN):

b. ò wú sɔ́ré
+NMLZ die rise
SVCN: òwúsɔ́ré 'resurrection' FL-ISVC

In sentential context as grammatical possessee:

c. Wsir wúsɔ́ré áfáhyɛ́ níé.
Osiris resurrection festival DEM
'This is Osiris' resurrection festival.'

In sentential context as direct object:

d. Wó-gyè òwúsɔ́ré dí ànáá?
2SG-SBJ-receive resurrection eat Q
'Do you believe in resurrection?'

10. SVC sentential construction:

a. Yɛ̀-à-ǹ-kɑ́ yɛ̀ǹ hɔ́
1PL.SBJ-COMPL-NEG-touch 1PL.POSS body
à-m̀-mó-ḿ
COMPL-NEG-strike-in
'We did not unite ourselves.'

Serial Verb Construction Nominalisation (SVCN):

b. Ǹ kɑ́ bɔ́ ḿ(u)
+NMLZ touch strike inside
SVCN: ǹkɑ́bɔ́ḿ(u) 'unity'

In sentential context as grammatical subject:

c. Ǹkɑ́bɔ́ḿ nà ɛ̀-hĩ̀ɑ́.
Unity FOC 3SG.SBJ.INAN-needed
'It is unity that is necessary.'

In sentential context as grammatical object:

d. Pràèɛ́ gyìnà hɔ́ mà ǹkɑ́bɔ́ḿ.
broom stand there give unity
'The broom stands for (symbolises) unity.'

Thus, we find that morphological, syntactic, and semantic tests are useful in substantiating the basis for our continuum-based view of SVCs in Akan. The primary takeaway from these tests is that some ISVC constructions—prior to and after nominalisation—are more prototypically noun-like (stripping TAMP information) while others are more verb-like, retaining it. On the other side of the continuum are CCSCs which retain various finite characteristics upon nominalisation, and which may or may not retain TAMP marking dependent on whether or not such marking was present in the construction upon which the CCSCN is based. The correlation between these criteria is that each of them reflects the functional, cognitive and semantic bases for phenomena that manifest emergent properties semantically, lexically, morphologically and syntactically.

Serial Verb Constructions can and have been categorised in a variety of ways in the literature. Serial verbs can be categorised based on semantic categories (Li and

Thompson 1973, Jansen and Muysken 1978: 7-8), based on transitivity (Osam 1994: 196-197), argument sharing (Foley and Olson 1985: 38, Crowley 1987, Osam 1994: 197, Hiraiwa and Bodomo 2008a) or along a variety of other lines. Along these lines, Akan serial verb constructions of various kinds are exemplified below.

1.1 Serial Verb Constructions of Various Kinds

It has been attested in the literature that cross-linguistically, and in Akan, specifically, there are various kinds of SVCs. The relationship between each of the verbs and the nominal arguments associated with them in terms of argument sharing provides another parameter demonstrated to be useful for sub-categorisation (see Foley and Olson 1985, Crowley 1987:38, Osam 1994:197, Hiraiwa and Bodomo 2008a).

Same-Subject Serialisation
The first type is the Same-Subject serialisation. This means that the subject of the construction is the same for both the first and the second verbs in the SVC. The next examples from the Fante dialect of the Akan language come from Osam (1994:198):

11. a. Kofi tɔ́-ɔ̀ èdzìbàń má-à àbòfrá nó
Kofi buy-COMPL food give-COMPL child DEF
'Kofi bought food for the child.'

b. Kofi yí-ì sékáń nó bré-è Araba
Kofi take-COMPL knife DEF bring-COMPL Araba
'Kofi took the knife and brought it to Araba.'
(Osam 1994:198)

Switch-Subject Serialisation
The next type is switch-subject serialisation (Foley and Olson 1985:25, Crowley 1987:39) which corresponds to causative SVCs wherein "the object of the first verb and the subject of the second verb are co-referential" (Osam 1994:198).

12. a. Esi má-à Kofi dzí-ì èdzìbàń nó.
Esi make-COMPL Kofi eat-COMPL food DEF
'Esi made Kofi eat the food.'

b. Kofi má-à Esi bɔ́-ɔ̀ fámú
Kofi make-COMPL Esi fall-COMPL ground
'Kofi made Esi fall down.' (Osam 1994:198)

Combined-Subject Serialisation

The next type is combined-subject serialisation. In this type, "the subject and direct object of the first verb are both subject of the second verb" (Osam 1994:201, Osam 2004:43). This type of associative NP also occurs in Akan as exemplified below:

13. a. Kofi nyé Ama bá-à fíé
Kofi accompany Ama come-COMPL home
Ama accompanied Kofi home/ Kofi came home with Ama.

b. Kofi nyé bányín nó twì-twá-à ǹdùá nó
Kofi accompany man DEF cut-DUP-COMPL trees DEF
Kofi cut the trees together with the man.
(Osam 1994:201, Osam 2004:43)

Nyé is likely analysed by Osam as a verb rather than a coordinator due to grammatical relations whereby *nyé* appears with subject pronoun forms that are known to only occur with verbs (*ɛ.n. ɔnye no bɔkɔ* 'He/she will accompany him/her to go.' The final type posited by Osam based on argument sharing parameters is the multiple-object type of serial verb construction:

Multiple Object Serialisation:

14. a. Kofi tóẃ-ẁ ɔ̀sóń nó kú-ù nò
Kofi shoot-COMPL elephant DEF kill-COMPL 3SG.OBJ
'Kofi shot and killed the elephant.'

b. Kofi bɔ́-ɔ̀ àbòfŕá nó pírà-à nò
Kofi hit-COMPL child DEF hurt-COMPL 3SG OBJ
'Kofi hit and hurt the child.' (Osam 1994:196)

In the final analysis, or any system of categorisation to be valid in the sense of telling us what native speakers know about their language, there must be independent evidence from within the language that substantiates any given method of categorisation. In other words, an independent variable is required that shows divergent behaviour for prototypical members of each category proposed in contrast to the behaviour of prototypical members of another category. In this study, we categorise serial verbs along the lines of degrees of semantic integration and lexicalisation. This begs the question of exactly how one tests SVCs to see if categorisation based on semantic integration and lexicalisation is valid or not.

In this context, nominalisation serves as a sort of extended test wherein we would expect for nominalisation behaviour to be different for each type of category proposed (based on degree of emergent semantic integration and concomitant lexicalisation) in that nominalisation SVCs are expected to demonstrate evidence of a continuum from fully lexicalised (FL-ISVC) to ad hoc clause chaining (CCSC) nonce forms through different nominalisation behaviour for each type. If so, it is expected that the most highly lexicalised serial verb constructions would be the ones that can be nominalised most easily and extensively. This means that it is expected and borne out by the data that nearly all FL-ISVCs will be able to be nominalised while almost no PL-ISVCs will be nominalised with room for variations along the fuzzy boundaries of the gradient. Nevertheless, the SVC nominalisations are functionally equivalent in terms of performing functions that nominals do and demonstrating grammatical relations consistent with those expected for nominals.

Hypothetically speaking, the more lexicalised a Serial Verb Construction is (*ɛ.n.*, lexicalised to the point where it functions as a de facto single verb) the more likely it is to share the behaviour of single verbs. Therefore, it is expected that the degree to which a single verb can be nominalised in a language should be, more or less, the degree to which SVCs that are highly lexicalised and therefore act as a single verb (in the minds of native speakers) should be able to be nominalised. Therefore, our hypothesis is that in Akan, more lexicalised SVCs should show a greater degree of nominalisation than less lexicalised ones. Serial verb constructions with lesser degrees of semantic integration and, therefore, lexicalisation would be expected not to be able to be nominalised to the same degree if at all. Degrees of semantic integration, like degrees of lexicalisation, may be understood in terms of a scale of progressively less and less conceptual distance as illustrated below:

Separate sentences → Coordination → CCSC → PL-ISVC → FL-ISVC

Figure 4: Emergence of progressively greater degrees of lexicalisation (SVCs in red)

In this study, each type of SVC is analysed on the basis of how it is nominalised, the degree to which nominalisation occurs and whether nominalisation can occur at all. In the course of the study, various sources were consulted in the three major literary varieties of Akan: Asante Twi, Fante and Akuapem Twi. Further, native speakers of each of these varieties were consulted to ascertain the goodness of various attested serial verb nominals (SVCNs) in Akan.

In terms of identification of types of SVCs, we follow Osam (1994: 238) in that Full Lexicalised-Integrated Serial Verb Constructions (FL-ISVCs) can be analysed as lexicalised idioms and, thus, we argue that criteria used to characterise idioms may be used to successfully identify FL-ISVCs. Idioms are characterised here as emergents of components lexically and semantically in that the whole idiom is greater than and different from its component parts.

In reference to idioms in general, Barkema (1996) states that "[p]ractically all such expressions are more or less limited in their morpho-syntactic freedom, that generally substitution of lexical items in these expressions is limited to some extent and that there are many with idiosyncratic semantic characteristics" (Barkema 1996: 125). There are several distinct characteristics outlined by Barkema (1996) that are useful in analysing degree of idiomaticity and, thereby, assisting in the identification of FL-ISVCs. These are:

- Flexibility - Prototypical idioms are expected to be largely inflexible in terms of morphological marking.
- Collocability - Prototypical idioms are expected to have components that co-occur consistently and with a particular ordering.
- Compositionality - Prototypical idioms are expected to be non-compositional *ε.n.*, the semantics of the whole are greater than and different from the meaning of individual components. This is probably the most important characteristic with regard to idiomaticity.

- Familiarity - Prototypical idioms are expected to be institutionalised and highly recognised in their non-compositional form in the context of the speech community in which they occur.

As may be readily evident, the characteristic most relevant to our introduced concept of semantic emergence (SE) is that of compositionality, though the others, while seemingly tangential, may also be relevant to discussions of emergence within the scope of semantics and beyond. In other words, idioms may be thought of as emergents as they occur within the context of language, while emergents may be thought of as idioms as they occur outside of this context. Salt, as it were, is an idiom.

Each FL-ISVC was, therefore, evaluated, identified, and categorised with these idiomaticity criteria in mind. In this line of thinking, one of the fundamental theoretical assumptions utilised in the study is that the more salient an event type becomes within a speech community, the more idiomatic and less compositional it becomes.

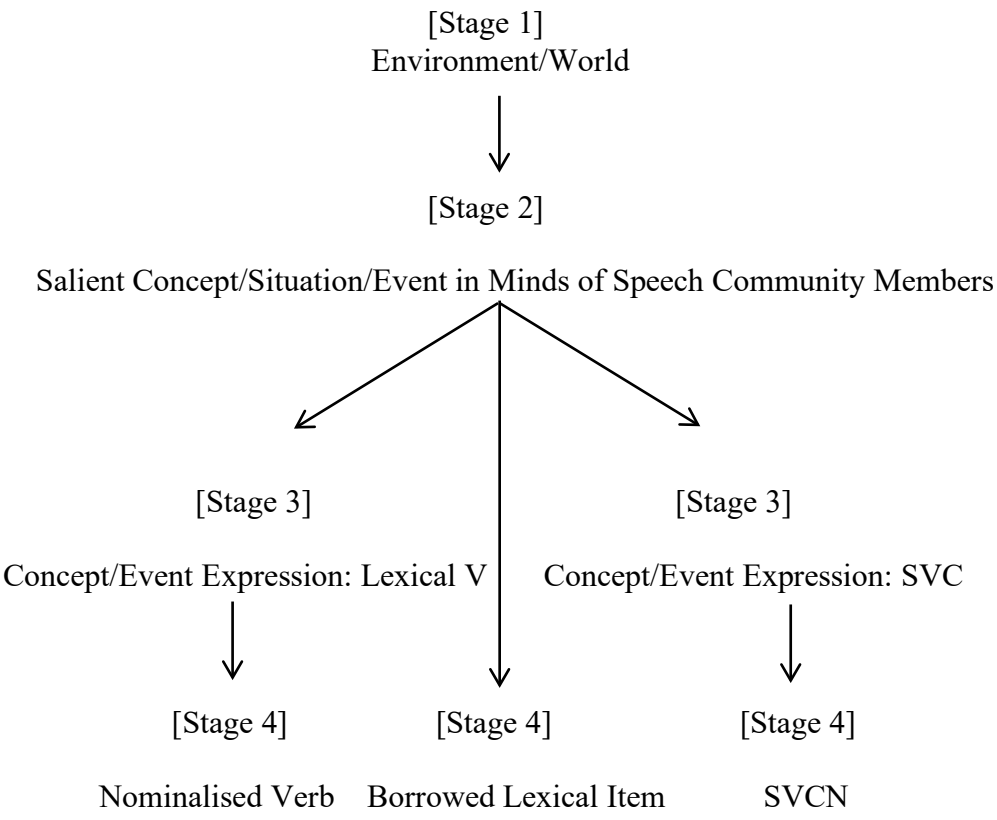


Figure 5: Route to SVCN (Kambon 2012:38)

The process outlined in Figure 3 shows a progressive movement towards greater emergent semantic integration and the subsequent reflection of this semantic integration through lexicalisation in serializing languages such as Akan. In other words, over time certain events come to occur more and more regularly, typically in a particular sequence, in the perceived world in a given culture. In serializing languages, these events may be expressed in two or more verbs that typically co-occur in a particular order. According to Rosch (1983), this leads to greater levels of salience (physiological salience, social salience, salience in formal systems, etc.) (Rosch 1983:77-78). Eventually these separate verbs co-occur to the point of

forming a collocational unit, in that they must, for native speakers, necessarily occur together to get the meaning specified or, at times, any meaning at all. At such a stage, individual verbal elements cannot be removed without leading to what is judged by native speakers as an irregular, ungrammatical or even an impossible utterance. For Akan, this is the consistent pattern for FL-ISVCs. Rosch sheds light on the fact that "the tendency to refer back to particular events that have been experienced can be seen as a stubborn empiricism. It is as though subjects were always slightly doubtful of abstract or theoretical information when it contradicts what they have seen or heard" (Rosch 1983:76). This notion is directly applicable to SVCs and SVCNs that "should" be good formally but are judged by native speakers as being ungrammatical because they lack the "culturally relevant empiricism" whereby the native speaker does not see the event as a salient distinct event type. According to Durie (1997:321):

> If a non-serializing language has available a single lexical verb to represent a particular situation, then this reflects the codification of that situation by the speech community as a salient distinct event type. We will expect on the one hand that different languages will have many verbs which are quite similar in meaning, because of universal similarities in human environment and experience […] My main point here is that the verbal system of a language evolves as a categorisation of the event-types that are salient, or communicatively in demand for the speech community. Sub-communities develop their own sub-inventories of verbs, to distinguish salient event-types of significance to them (e.g. θ-mark and c-command).

The key points to be highlighted here are 1) the idea of salient event-types and 2) the degree to which the verbs of various languages are mitigated by human environment and experience. The former notion of salient event-types is one of the components of what is referred to in this article as SVCs with a high degree of idiomaticity (as familiarity or institutionalisation is one of four useful means for identification of FL-ISVCs and other highly idiomatic constructions). This salience itself may also be thought of as an emergent property. Idiomaticity and lexicalisation expressed in morphosyntactic structures follow naturally from progressively greater degrees of semantic integration. It is indeed argued here that the familiarity of use of the

idiomatic SVC concretises it as an institutionalised, culturally salient form. Several stages are postulated in the development of a highly idiomatic ISVC:

> 1) Emergence of salience of an event or multi-stage event in the perceived world. This event becomes verbalised in the serializing language. As the language in question is a serializing one, it expresses these multi-stage events in Chaining Serial Constructions (CSCs), but with each event still essentially being viewed as conceptually separate and separable (the fact of which, in Akan, can be tested by means of the Conjunction Insertion Test) (Agyeman 2002, Kambon 2012).
>
> 2) The frequency of co-occurrence of these multi-stage events expressed through two or more verbs then becomes more and more common, on par with the salience of the event in the perceived world. This multi-stage series of sub-events develop the emergent property of greater collocationality, *ε.n.*, necessarily occurring together. This collocationality is accompanied by the linguistic phenomenon of Partial Lexicalisation.
>
> 3) Eventually, these co-occurring events cease being viewed as distinct events. At this point, the construction is no longer compositional; *ε.n.*, no longer simply the sum of its constituent parts. It exemplifies the concept of emergence in the context of language—specifically with regard to semantics. This is the point at which the SVC is thought of as belonging to the more idiomatic portion of the semantic integration continuum in the sense that the term is being used in this study. Non-compositionality is contemporaneous with the linguistic phenomenon of Full Lexicalisation whereby two formerly disparate lexemes come to behave as one in a variety of linguistic contexts, particularly as evinced through grammatical relations. The central point that is being argued here is that the formal and semantic phenomena that take place in the development of SVCs along the gradient of CSC to PL-ISVC to FL-ISVC are as a result of functional processes. (Kambon 2012)

In relation to the development of SVCs, Durie proposes that "A concomitant feature of serialisation is that high frequency serialised verbs typically develop meanings distinct from their non-serialised use" (Durie 1997: 321). These distinct meanings tend to be idiomatic and exhibit a lesser degree of compositionality whereby the meaning of the whole is different from the simple addition together of the meanings of a given construction's constituent parts: semantic emergence (SE). It is important to note here, however, that not each and every individual SVC in a given category of lexicalisation must, necessarily, follow a route of unilineal evolution from lesser to greater lexicalisation.[23] Indeed, once certain base template forms or schemata are available in the language's repository, new SVCs of whatever degree of lexicalisation can be created on the basis of these templates according to the needs of the language community as new concepts and phenomena are encountered or introduced.

1.2 Nominalisation in Akan

An overview of nominalisation in Akan is given below on a typological basis categorised by transitivity. The tabular data below comes from Adomako's (2013:49-50) study on verbal nominalisation as a derivational process. In this study, nominalisation is addressed in terms of types of prefixes in correlation with transitivity:

Transitive verbs with vowels as nominal prefix

15.	Stem	Gloss	Nominalised	Reduplicated	Gloss
a.	kó	'fight'	ɔ/àkó	*ɔkoko/akoko	'battle/war'
b.	hìà	'need/want'	òhìá	*ohiahia/ʔahiehia	'poverty'
c.	táń	'hate'	ɔtáń	*ɔtitan	'hatred'

[23] It is worth noting here that in the current discussion of lexicalisation, we assume a diachronic perspective. Given the dearth of sufficient historical data to trace the development of constructions discussed herein, discussions of the development of idiomatised forms are speculative in nature based on analogy with largely synchronic phenomena.

Transitive verb stems with nasal nominal prefixes.

16.	Stem	Gloss	Nominalised	Reduplicated[24]	Gloss
a.	pàtà	'compensate'	m̀pátá	*m.pata-pata	'compensation'
b.	bòà	'help'	m̀mòá	*m.boa-boa	'help'
c.	hyìrà	'bless'	ǹhyìrá	*n.nhyira-hyira	'blessing'

Intransitive verb stems with vowel nominal prefixes.

17.	Stem	Gloss	Nominalised	Reduplicated	Gloss
a.	sá	'dance'	àsá	*a.sa-sa	'dancing'
b.	nyíní	'grow'	ènyíní	*e.nyini-nyini	'growth'
c.	mùnà	'frown'	èmùná	*e.muna-muna	'a frown'

Irregular verb stems with nominal prefix and suffix

18.	Stem	Gloss	Nominalised	Gloss
a.	bó/bóró	'beat (intrans)	ɛ̀bóróɔ́	'beating'
b.	bó/bóró	'get drunk'	ɛ̀bóróɔ́	'drunkenness'
c.	sòrò	'to be naughty'	ɛ̀sòròɔ́	'naughtiness'

As can be seen from the data above, verb phrases can be nominalised in Akan. The significance and implication of this data is the entailment that lexicalised verb phrases—those verb phrases that come to be treated as a single lexeme—should also be able to be nominalised similarly. In section 3.3 we will further show that clauses can also be nominalised wholesale. While a thorough treatment of nominalisation in general in Akan is beyond the scope of the current work the categorisation above is useful in providing background information on how the process works in general for a deeper understanding of SVCN.[25]

[24] It should be noted here that the examples the author gives here technically constitute duplication rather than reduplication, which, by definition should be iterative to a degree more than two (2) since having one copy is implied in the term duplication already.

[25] For further reading on nominalization in Akan in general, see Adomako, Kwasi. 2013. "Verbal Nominalization as a Derivational Process: The Case of Akan." *Ghana Journal of Linguistics* 1(2):43-

2. Methods

The major specific open research question addressed in this study is whether degrees of Semantic Integration and associated Lexicalisation functioning as independent variables will display differences in nominalisation behaviour among the three (3) lexicalisation-based categories of SVCs proposed for Akan. Thus, SVCs were categorised on the basis of degrees of lexicalisation with the anticipation that when the degree of lexicalisation changes, nominalisation behaviour would also change. As such, nominalisation serves as the dependent measure. Consequently, a questionnaire was designed to study whether or not native speakers nominalise Full Lexicalised-Integrated Serial Verb Constructions (FL-ISVCs) to the same degree as Partial Lexicalised-Integrated Serial Verb Constructions and/or Chaining Serial Constructions. If and when there are clear differences with regard to patterns of nominalisation across categories, a direct correlation can be made linking lexicalisation (derived from cognitive semantic integration as an emergent property) to nominalisation behaviour and lexicalisation can be properly identified as the major determining factor in a given SVC's ability to nominalise in Akan. Hence, the study will substantiate the current categorisation based on lexicalisation as a valid one and, at the same time, demonstrate the cognitive basis for the linguistic phenomenon of nominalisation.

There are two major works on semantic integration and lexicalisation of SVCs in Akan from which examples of Akan SVCs of different degrees of lexicalisation were initially extracted: Osam (1994) and Agyeman (2002). Both of these seminal works gave relevant examples of the three levels of lexicalisation of Akan SVCs; FL-ISVCs, PL-ISVCs and CCSCs which show prototypical patterns with regard to nominalisation in each case. Questionnaires were then developed using these more prototypical examples and several others identified using idiomaticity criteria as outlined above with the aim of ascertaining native speaker judgments of the most unambiguous instantiations of each lexicalisation-based category according to the two aforementioned authors. Using these examples, similar SVCs were identified from within four of the most exhaustive sources available in Akan which also span

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64., Appah, Clement K. I. 2005. "Action Nominalization in Akan." Paper presented at the Annual Colloquium of the Legon-Trondheim Linguistics Project, 18-20 January 2005., and Obeng Gyasi, S. 1981. "Nouns and Nominalization in Akan with Special Reference to the Twi Dialects." BA Long Essay. University of Ghana.

over 80 years of the development of the language: namely, *The Dictionary of the Asante and Fante Language called Tshi (Twi)* (Christaller 1933), *Twi Nsɛm Nkorɛnkorɛ Kyerɛwbea* wordlist (Education Department of Ghana 1971), Boadi (2005) *Twi Kasa Mmara ne Kasɛsoɔ* and Bannerman *et al.* (2011) *Mfantse Nkasafua na Kasambirenyi Nkyerɛase: Dictionary of Mfantse Words and Idioms*. These sources were selected on the basis of their comprehensiveness and the diversity of time periods in which they were produced. They were also selected due to representation of the three major literary dialects of Akan. Once nominalisation behaviour from the most prototypical examples of lexicalised and non-lexicalised SVCs was clearly identified from Osam (1994) and Agyeman (2002), these additional sources added breadth and depth by providing many other SVC/SVCN examples identified on the basis of Barkema's (1996) idiomaticity criteria. Within these new examples, a comparative minority was identified in each case (FL-ISVCN, PL-ISVCN, and CCSCN) which did not conform to the prototypical examples given by Osam and Agyeman. From the attested sources, therefore, we were able to successfully identify SVC/SVCN combinations that displayed the most salient prototype effects for the category in question as well as those few which may occur at the fuzzy boundaries as exemplified through nominalisation behaviour.

Once identification of several hundred SVCs was complete, native speaker data collection was undertaken occurring in two phases: Phase One (P1) and Phase Two (P2) totalling one hundred (100) participants. P1 Akan FL-ISVC data are based on seventy-five (75) usable questionnaires out of over 500 questionnaires distributed representing speakers of Asante Twi, Fante and Akuapem Twi. Other questionnaires returned were not usable due to incompleteness. The questionnaires were designed to study whether or not nominalisation occurs for the three types of SVCs. The independent variables were the serial verb constructions of each degree of lexicalisation set out in tabular format as inputs. The dependent measures were the form of the nominalisation output data provided by speakers. As such, a correlation was established with regard to the degree of lexicalisation which effectively served as a predictor of nominalisation behaviour in Akan SVCs substantiating the category as a valid one.

Phase One (P1) of the study focused primarily on literate (at least) bilingual youth representing speakers of Asante Twi, Fante and Akuapem Twi. For Phase Two (P2), the total number of participants was twenty-five (25). In P2 field work, 25 elders, the

majority of whom were non-literate, were consulted also representing the three major literary dialects of Akan. Twenty-two of the participants were over the age of 60, while 2 were in the range of 50-60 and 1 was in the range of 40-50. Eleven of the 25 had never been to school. Others who had been to school attained various levels of completion. While the focus of P2 was on non-literate speakers, because the research was carried out organically in varied settings, at times, elders were included who were, indeed, literate to some degree due to them fitting the age range and/or dialectal prerequisites. With the exception of 4 Kumasi Asante Twi speakers and 1 Akropong Akuapem Twi/Asante Twi speaker, P2 interviews were conducted orally in focus groups based on shared dialect. In the other 5 cases mentioned, oral interviews were done individually.

Participants were selected using purposeful sampling (Patton 2002:230) with the intent of gaining a greater amount of insight into issues of central importance to the study, namely nominalisation behaviour. Participants were selected on the basis of various criteria collected in the bio data: primarily dialect of Akan spoken, literacy (or lack thereof) and age. The rationales for selection on the basis of these factors were inclusivity (major literary dialects), broadness of educational backgrounds (no formal education to higher education) and for diachronic/synchronic representativeness (age). While purposeful sampling allowed us to select information-rich cases for in-depth study, basing the selection on the aforementioned criteria was an intentional effort to mitigate bias and narrowness in the study.

3. Results

The results from the study show that over 98% of all FL-ISVCs (144 of 146) identified have nominal counterparts while less than 3% (17 of 690) of all PL-ISVCs identified have nominal counterparts. These results were not surprising due to the anticipated role of lexicalisation in making erstwhile disparate verbs function as one subsequent to semantic integration in the perceived world as reflected in the language. CCSCs, however, seemed to nominalise haphazardly as frozen sentences, proverbs, idioms, and figures of speech which primarily function as denotata and designata within the language. While there was some degree of interdialectal variability with regard to individual SVCNs, the pattern of nominalisation behaviour on the basis of degrees of semantic integration and lexicalisation remained consistent across dialects.

This chapter engages several philosophical and theoretical issues related to the nature of categorisation along a Prototype Theory (PT) framework. Prototype Theory proved useful due to its utilisation of concepts of scalarity, gradients and continua to account for the 2-3% of otherwise anomalous cases found at the fuzzy boundaries between delineated categories. Major findings will be discussed below on the basis of lexicalisation-based categorisation. The relevance of these findings with regard to ongoing debates about the nature of emergents and resultants will be discussed in the conclusion.

3.1 Discussion: Full Lexicalised-Integrated Serial Verb Construction Nominalisations as Emergents

A major aim of my questionnaire was to determine whether nominalisation behaviour showed a correlation with lexicalisation. Secondarily, to evaluate the categorisation of SVCs, Barkema's (1996) idiomaticity criteria were appealed to in order to determine flexibility, collocability, compositionality and familiarity with the expectation that FL-ISVCs would be largely inflexible, demonstrate a high degree of collocability, be non-compositional and highly familiar. These measures of identification will be appealed to below in the course of our discussion of major findings and as the primary way upon which identification of an SVC as the highly idiomatic Full-Lexicalised type was made.

A notable finding about FL-ISVC nominalisation was that Relator Nouns, Postpositions, Demonstratives and Direct Objects (all non-verbal elements) tended to be evaluated by native speakers as semantically integrated parts of the SVCN (cf. Kambon, Osam and Amfo 2015). It is possible that this is because one verb in the SVC was considered as an inherent complement verb (ICV). While this may be dismissed as a fluke, a clear pattern emerged when we look at other Full Lexicalised SVCNs wherein respondents consistently did the same thing yet did not do so in the case of Partial Lexicalised SVCNs which are highly collocational, yet which remain semantically compositional. This indicates that in the case of FL-ISVCs, lexicalisation occurs not only between the verbs in the SVC but is rather extended to other elements of the complex as expected. This is why it is important to use the term SVCN as introduced by Kambon, Osam and Amfo (2015) rather than simply SVN. This observation has serious implications for many widely accepted

definitions of SVCs such as Aikhenvald's (2006: 1) definition of SVCs as "a sequence of verbs which act together as a single predicate, without any overt marker of coordination, subordination, or syntactic dependency of any other sort" or Durie's (1997: 289-290) definition of archetypal SVCs as consisting "of a sequence of two or more verbs which in various (rather strong) senses, together act like a single verb." These are very verb-centric definitions which fail to capture a linguistically significant generalisation with regard to Serial Verb Construction nominalisation in Akan. In these definitions and in the literature in general, we find that time and time again no mention is made of arguments of the verbs except in the more restricted context of argument sharing (Baker 1989, Aikhenvald and Dixon 2006, Hiraiwa and Bodomo 2008b). Generally speaking, these discussions do not extend to the degree of lexicalisation. Lexicalisation, however, was found to be quite pertinent for native speakers of Akan.

15.	o	di	ma
	+NOM	eat	give
	SVCN: odima 'intercession'		

It should also be noted that in glosses, such as *di* 'eat' and *ma* 'give', the most prototypical meanings are given, with due note that *di* alone has over 100 senses and connotations ranging from consumption of food to copulation to engaging in any specific activity which is the direct object of *di*. Typically, the prototypical meaning is the one that is first thought of by the native speaker due to prototype effects. It is also, typically, the first sense of the word listed in dictionaries and glossaries and other sources consulted within this study. *Di...ma* was given to P2 participants to ascertain familiarity. Fante speakers chose the form *dzima* without prefix for a total of 18.2% of the respondent totals. Asante speakers produced the form *odima* for a total of 27.3% who found this form to be acceptable. As was the case for most of the data, the Akuapem speakers were by far the most conservative with all those interviewed stating that *di...ma* cannot be nominalized, although the Akuapem speaker who also identified as an Asante[26] produced both *odima* and *dima*. Additionally, some of the Asante and Fante speakers had a problem with it for a total of 31.8% of respondents who stated that there is no nominal form for *di...ma.* In

[26] One Akuapem speaker, while born at Akropong, self-identified as an Asante due to matrilineal descent and his mother being an Asante.

retrospect and in future research, it may be beneficial to present speakers with *odimafo* 'advocate'. However, because *–fo* can be added to most of the SVCNs to derive a noun meaning roughly 'one who engages in X activity habitually/professionally', for the current study, it would have been unwieldy to test this suffix against all SVCNs since this, in and of itself, can form a study.

The next set of SVCNs is grouped due to the fact that each SVCN is derived from the same verbal elements; *ka* and *kyerɛ*. As is the overwhelming pattern for derived Serial Verb Construction Nominals, typically, derivational morphology in Akan is heavily prefixing. According to The World Atlas of Language Structures Online, Akan is listed as "strong prefixing" in reference to the category "Prefixing vs. Suffixing in Inflectional Morphology" (Dryer and Haspelmath 2012). While derivational morphology is missing from the list of linguistic characteristics of Akan, the current study shows that Akan is also strongly prefixing in this area as well. This is why *nkakyerɛe* is relatively unique in the scheme of derivational morphology as it pertains specifically to serial verb construction nominalization.[27] *Ɔkakyerɛ* is also derived from SVC *ka...kyerɛ*, however as we see, the changing of the initial prefix changes the meaning of the resulting SVCN. In both cases, the aspects of familiarity, collocability, compositionality and flexibility show both to be typical of FL-ISVCs as lexicalized idioms and their nominalized counterparts.

16. a.

N	ka	kyerɛ	e
+NOM	speak	show	+NOM

SVCN: nkakyerɛe 'repeated telling'

[27] It should be noted that certain instances of derivational morphology are prototypically prefixing and suffixing in Akan such as that which pertains to human beings with *ɔ-...-ni* or *ɔ-...-fo* as prototypical for the singular and *a-...-fo* or *N-...-fo* for the plural. Here, we are focusing on abstract nouns as derived from Serial Verb Constructions rather than on the latter (which indeed may be more productive, but this is beyond the scope of this thesis). An example par excellence of dialectal variation in regard to suffixing in abstract nouns is *nnɔbaeɛ* (Asante), *nnɔbae* (Akuapem) and *ndɔbaa* (Fante). While Akuapem and Fante are not typically known for their nominal suffixes, we see here that, in this case, each dialect does have nominal suffixing options available to it.

b.	ɔ/ø	ka	kyerɛ
	+NOM	speak	show
	SVCN: ɔkakyerɛ ‘information, knowledge, wisdom’		

Ɔkakyerɛ was also one of the questionnaire items for both P1 and P2. When given the verbal elements *ka* and *kyerɛ*, the majority, 47% of P1 respondents, selected *ɔkakyerɛ* as the appropriate form. An interesting inclusion was *tekakyerɛ* which is most known in the proverb *Tekakyerɛ bɔ kuro* ‘gossip ruins a town’. Although the verb *te* was not included in the questionnaire, apparently the mind of the respondent went to the form that had *kakyerɛ* in it that was most familiar. While no particular definition stuck out as a majority in the meanings attributed to *ɔkakyerɛ*, most of those given are relatively synonymous or, at the very least, pertain to the multifaceted meanings of *ɔkakyerɛ* as ‘telling’. Forty-five percent of the total number of P2 respondents produced the form *kakyerɛ*, 22.7% of the total number of P2 respondents produced *ɔkakyerɛ*, and 18.2% produced *nkae*, while 4.5% percent produced *nkakyerɛ. Nkae* was produced solely by Fante speakers. There was some discussion of some variation of *ɔkakyerɛ* as a noun, but the end result was that *nkae* is the best way to express the concept in Fante. Koforidua Asante Twi speakers were split between *kakyerɛ* (4 speakers) and *ɔkakyerɛ* (3 speakers). Four (4) Akuapem respondents surveyed chose *kakyerɛ* while one, also a speaker of Asante, produced *ɔkakyerɛ*. Variation was found in Kumasi respondent answers with 2 for *kakyerɛ* and 1 for *ɔkakyerɛ*. The most variation was found amongst Fante speakers who produced *nkae, nkakyerɛ, ɔkakyerɛ* and *kakyerɛ*.

In giving the meaning of *ɔkakyerɛ*, the largest majority of P1 respondents abstained from the questionnaire item with 49.3% skipping the item entirely. The next highest percentage was ‘not sure’ with 36.8%. Even though the majority agreed on the same SVCN form, comparatively few knew the actual meaning of *ɔkakyerɛ* with only 21.1% giving the meaning as ‘telling’ or some variation thereof. An additional 13.2% incorrectly gave the answer as ‘dictation’ which is the correct answer for the near-homonym FL-ISVC *ka...kyerɛw*, but not *ka...kyerɛ*. For both P1 and P2 speakers, there seems to be variation in the correct prefix that this form should have and whether there should be a prefix at all. This may be a side effect of the loss of the pre-existing noun class system argued for by Osam (1993) with an after effect being that prefixes that once served as noun class markers have been reanalyzed

and/or lost synchronically. In terms of the actual understanding of what the SVCN means, P2 speakers seemed to have a better command of *(ɔ)kakyerɛ*.

In terms of the verbs from which *ɔkakyerɛ* is derived, almost universally, P1 respondents were able to determine *ka...kyerɛ* as the source at 92.6%. Indeed, this was the only answer given by those who gave any answer to this item.

P1 respondents were equally clear on the meaning of the two verbs with *ka*'s meaning given as 'say/speak/tell' at an even higher 96.2% and *kyerɛ* translated as 'show/teach' at 85%. The remaining 5% of those who gave an answer gave 'report' as their answer. It should be noted that some answers, such as 'say, speak, tell' were grouped together because they are synonyms in English. Throughout the study, respondents who gave answers that were synonymous were grouped together based on the best judgment of the researcher as a native speaker of English.

Another FL-ISVC, *hùrù(w)/hùrì...sí* is in line with other FL-ISVCs as it has both a literal interpretation as well as a figurative, metaphorical interpretation (an emergent property). On a literal level, *àhùrùsí/àhùrìsíé* is simply jumping up and down, but on a non-literal level, it carries the meaning of rejoicing in general. Its non-compositional nature places *àhùrùsí/àhùrìsíé* firmly in the realm of prototypical FL-ISVCs but with a view into its etymological origins. This is part of why, when it comes to emergence, I argue that there may be a gradient of varying degrees to which the components may be discerned lexically and semantically from the individual parts of which they are composed. In other words, it is not simply always a matter of either/or dichotomisation between resultants vs. emergents. Per the idiomaticity criteria delineated above, *àhùrùsí/àhùrìsíé* is also inflexible and collocationally closed.

19.	à	hùrù(ẁ)/hùrì	sí
	+NMLZ	jump	alight
	SVCN: *àhùrùsí/àhùrìsíé* 'rejoicing'		

The next FL-ISVC, *fòrò...siàn(è)* 'circulating (of blood)' also has a PL-ISVC counterpart which is not idiomatic, but which simply means 'climbing and descending'. To get the idiomatic reading, the nominalised SVC must appear collocationally as *mógyá…dí…àfòròsíáné* 'blood engages in climbing-descending.'

Thus, we have a case of both a literal meaning (PL-ISVC as semantic resultant) and idiomatic meaning (FL-ISVC as semantic emergent) co-existing in the language. In the idiomatic extension, *fòrò...siàn(è)* can be interpreted as good blood circulation through the body as a marker of good health. In the PL-ISVC instantiation, however, we are dealing with what is referred to as the literal 'counterfeit form' by Barkema (1996: 140) in his conceptualisation of idiomaticity. According to Barkema:

> Many idiomatic expressions have equivalents in the form of a 'counterfeit form'. Such a form has the same syntactic form and contains the same lexical expression, but, because of the way in which it is used, has a meaning that is the combinatorial result of the meanings of the lexical items in the construction (1996: 140).

These counterfeit forms are the equivalent of resultants for the purpose of the current discussion. ISVCs typically contain 2 verbal elements in contrast with CCSCs, which can contain 2 or more verbs with no upward bound. Like other types of idioms, *hùrì...sí*, *fòrò...siàn(è)* as well as other FL-ISVCs have both literal and idiomatic interpretations available. In the case of *hùrì...sí* the meaning can be simply 'jumping up and down in place' or the idiomatic 'rejoicing' in the context of nominalisation as in *dí àhùrìsíé* 'engage in rejoicing'. Here, even though the idiomatic meaning exhibits semantic emergence, there is still a perceptible degree of traceability back to the individual components from which the idiom is derived. Similarly, FL-ISVC, *dí…fòrò...siàn(è)* 'to circulate' after nominalisation and co-occurring in the sequence of *mógyá…dí…àfòròsíáné* 'blood engaged in climbing and descending' seems to have two meanings: one, a literal compositional meaning of 'climbing and descending' another, a non-compositional meaning of 'to circulate' as in how blood in the body circulates. Similarly, in English, the idiom 'he kicked the bucket' can refer to someone literally kicking a bucket or the idiomatic usage in the sense of a glib manner of referring to someone's death.

In its PL-ISVC configuration, Boadi gives partially duplicated forms of *fòrò* as *fòfòrò* (Boadi 2005: 608) and *sìànè* as *sìànèsìànè* (Boadi 2005: 617). When each of these is partially duplicated, each one is expected to hold in the PL-ISVC structure without any significant change of meaning apart from denoting repetition of each or both actions.

The lessons we can glean from such forms are that Akan FL-ISVCs, which are treated here as lexicalised idioms, like idioms elsewhere in the language and cross-linguistically, may co-exist alongside the literal non-idiomatic forms from which they may have initially arisen. While not all idioms are derived from regular grammatical expressions, these are examples of those that are and whose literal counterparts can still be found in the language. Thus, there is a modicum of semantic divergence wherein, although they retain the same syntactic form, the semantic meaning of one is shown to be compositional while the other is idiomatic and non-compositional.

Another significant finding distinct for Akan FL-ISVCs is that due to high levels of semantic integration, respondents are able to agree on the definition of the whole more than the individual parts due to prototypical non-compositionality of FL-ISVC structures. For example, in the noun *ǹkɔ̃́gú(ó)* 'defeat', there seemed to be a consensus on the verbs in the SVCN being *kɔ̀̃* and *gù* with a valid percentage of 93.8% of P1 respondents agreeing on the answer. Respondents also seemed to be in agreement with the meaning of *kɔ̀̃* being 'fight' with 57.1% of P1 respondents giving the meaning of *kɔ̀̃* as 'fight'.

20.	Ǹ	kɔ́̃	gú
	+NMLZ	fight	spill
	SVCN: ǹkɔ́̃gú(ó)/ɔ̀kɔ́̃gú 'defeat'		

However, there was no majority consensus for the meaning of *gú*, with respondents giving disparate answers such as 'fall', 'pour,' 'sow', 'nurse', 'nothing', 'collapse', 'spread', 'vain', 'spill', and 'fail'. The most answers were for 'pour' 'fall' and 'sow', each with just 5 P1 respondents giving these as the meanings of *gú*.

In accounting for the data, the issue at hand here is not that speakers do not know or cannot agree on a meaning for a given verb. The lack of solid consensus on meaning is due to the fact that *gú* is a complementary part of an emergent whole. While *gú*, in and of itself, has multifaceted meanings, in this instance, the meaning of *gú* is inextricably linked to the other verb in the SVC. Because *kɔ́̃* translates to 'fight', *gú*, in this particular context, simply carries the connotation that action delineated by the first verb was not carried out successfully. In other words, in cases of high semantic integration/lexicalisation, for speakers surveyed, it seems that, at times, the

individual verb is meaningless or difficult/impossible to interpret outside of the context of the other elements it collocates with. This was a pattern observed for various cases which shows clearly that semantic integration as emergence can occur to the point that the meaning of one verb in the SVC/SVCN is semantically bleached or no longer readily interpretable outside of the context of the entire unit. This observation is consistent with expectations in instantiations of emergence.

The next FL-ISVC, *ɔpamsɛn* was not attested in any of the four primary sources consulted for the study, but was found in Warren and Andrews (1990:39) documenting "Elements of Change in a Ghanaian Indigenous Knowledge System" and innovative terminology used for Akan arts and aesthetics. According to Warren and Andrews, "Ready-made clothes are termed *ɔpamsɛn* (*pam* 'to sew', *sɛn* 'to hang up') and are disparaged in comparison to tailor-made clothes which are supposed to fit better" (1990:39). In Fante, the form *otwasɛn* was reported to be used with the same meaning.[28] However, only one speaker, a Kumasi Asante Twi speaker, was able to produce *otwasɛn* and this was left without definition while 88.2% of respondents indicated that there is no SVCN derivable from *twa...sɛn*. None of the Fante speakers surveyed were able to verify *otwasɛn* as an SVCN variant of *(ɔ)pamsɛn*.

21. ɔ/ø pam sɛn
    +NOM sew hang
    SVCN: (ɔ)pamsɛn 'ready-made clothes'

When given the FL-ISVC *pam...sɛn*, the majority of P1 respondents indicated that they were not familiar with the term at a total of 30.2%. The second largest percentage of P1 respondents was from those who produced the SVCN without the prefix *ɔ* +NOM as *pamsɛn.* The third highest percentage was from those who produced the form as it appeared in Warren and Andrews (1990:39) as *ɔpamsɛn*. Amongst P2 respondents 42.1% selected *pamsɛn* without prefix as the correct form, 21.1% selected *ɔpamsɛn*, 21.1% chose *pamsɛnhɔ* while 5.3% chose *pamsensɛn* and *mpamsɛn*, respectively. All of the above were attributed the same meaning of 'ready-made clothing'.

[28] Osam, E. Kweku. 2012. "Personal Communication." edited by O. Kambon.

When asked the meaning of *ɔpamsɛn*, 59.5% of P1 respondents responded that it translates to 'ready-made clothing'. While over half of all P1 participants, 38 out of 75 or 50.7% were abstentions, out of those who did respond, *ɔpamsɛn* seemed to be relatively familiar.

A primary conclusion with regard to FL-IVCs is that they can be used as lexicalised idioms and, as such, evaluative criteria applied to other idioms-as-emergents may be relevant to FL-ISVCs/FL-ISVCNs in Akan. Secondarily, FL-ISVCs show idiomaticity and they nominalise with a prefix as a nominalisation marker and are typically made contiguous upon nominalisation. On the other hand, PL-ISVCs, which will be discussed briefly below, are more like collocations and, in the comparatively fewer cases when they do nominalise, they do so in their own peculiar way while CCSCs are like frozen sentences that nominalise somewhat haphazardly, but which tend to retain TAMP markers upon nominalisation. However, as mentioned above, the core finding is that more than 98% of Akan FL-ISVCs identified have nominal counterparts. This is nominalisation behaviour distinct to FL-ISVCs in Akan and, thus, the first indication of the cognitive reality of SVC categorisation on the basis of emergent semantic integration and lexicalisation.

3.2 Partial Lexicalised-Integrated Serial Verb Construction Nominalisations as Resultants

The term "resultant" signifies the ultimate or aggregate outcome or effect that arises from the interaction, combination, or synthesis of various elements, factors, or actions. The most significant observation with regard to PL-ISVCs is that nominalisation for them is extremely rare—demonstrating divergent behaviour that may substantiate it as a real and valid category. Out of nearly 700 low-idiomaticity PL-ISVCs identified, less than 3% were found to have nominal counterparts. In the rare instances of nominalisation attested in sources consulted or via native speaker judgments, some of the characteristics of PL-ISVCNs are that they tend to either show compositionality, flexibility, be collocationally open or limited (as opposed to non-compositional, inflexible and collocationally closed as expected for FL-ISVCs) and/or be less familiar than more prototypical FL-ISVCs. Some of these PL-ISVCs are referred to in the literature as the literal 'counterfeit form' counterparts of FL-ISVCs/FL-ISVCNs as discussed by Barkema (1996) in relation to other types of

idioms. I refer to these as semantic resultants. Such an example is *hwíégú(ó)* 'pouring away' the PL-ISVCN and, after nominalisation, when used with *mógyá* (*ɛ.n., mógyá…hwíégúó*), *hwíégu(o)* can carry the meaning of 'sacrifice of one's life blood for a cause' the FL-ISVCN which have disparate uses: one literal and one idiomatic.

22. ø hwìé gú
+NMLZ pour spill
SVCN: hwìégu(o) 'pouring away'

The PL-ISVC and the FL-ISVC versions are argued to be separate and distinct forms. In the PL-ISVC form it simply means 'pouring out' as defined in all three major sources consulted. Boadi (2005) even gives a collocationally limited alternative of *sɔ̀nè...gú* with V1 replaced by a synonym—*hwìè*—wherein he defines *hwíégú(o)* as the following:

23. (nnèyɛ́ɛ́) sɛ̂ wɔ̀-sɔ̀né ànáá wɔ̀-hwíé gú
(action) COND 3PL.SBJ-trickle DISJ 3PL.SBJ-pour spill
fáḿ
ground
'(action) when [something is] trickled or poured out on the ground'
(Boadi 2005: 319).

However, when *mogya* is introduced, it becomes an idiomatic FL-ISVCN, in which Boadi gives an extended definition:

24. mógyá hwíégúó (=nìpàkúḿ)
blood pouring (=nìpákúḿ)
'bloodshed (=killing of persons)'
(Boadi 2005: 319)

This is again, reason why the term SVCN should be used rather than simply SVN as the construction part of the term allows for capturing the effect of *mogya* 'blood' on the lack of compositionality of the resulting nominal. In essence, we see that when *hwíégú(o)* is used in a different context, it is no longer literal and fully compositional, but rather an idiom for the killing/death of persons. Thus, here we

make the case for two separate instances of *hwìè...gú*: one an idiom and one a non-idiom (simple resultant). Another example of *hwìè...gú* as an FL-ISVC may be found in a patriotic song about Ghana: *Yɛn Ara Asase Ni* 'This is our land'. Two lines of the song appear below:

25. Mógyá nà nànánóḿ hwíé gú-í
blood FOC ancestors pour spill-COMPL
nyá dé tó-ò hɔ́ má yɛ̀ǹ.
obtain take put-COMPL DEM give 3PL.OBJ
'Blood that our ancestors shed to acquire it (land) and preserve it for us.'

In (24) *hwìè...gú* is the idiomatic version of the SVC (*ɛ.n.* an FL-ISVC). In (25), it is not seen as literal that ancestors poured their blood out in the way one pours water out of a jar for the purpose of acquiring land. It is rather an idiomatic usage here to mean that the forefathers of Ghanaians died to liberate Ghana. Thus, we are arguing that *hwíégú(o)* (non-idiomatic, literal 'pouring out') the resultant PL-ISVCN and *(mógyá) hwíégú(o)* (idiomatic) the emergent FL-ISVCN have disparate uses and co-exist in complementary distribution wherein one is literal/compositional and one is idiomatic/non-compositional.

Another linguistically significant generalisation is that sequential ordering of PL-ISVCs and their nominal counterparts are iconic in keeping with the actual temporal order of events in the real world.

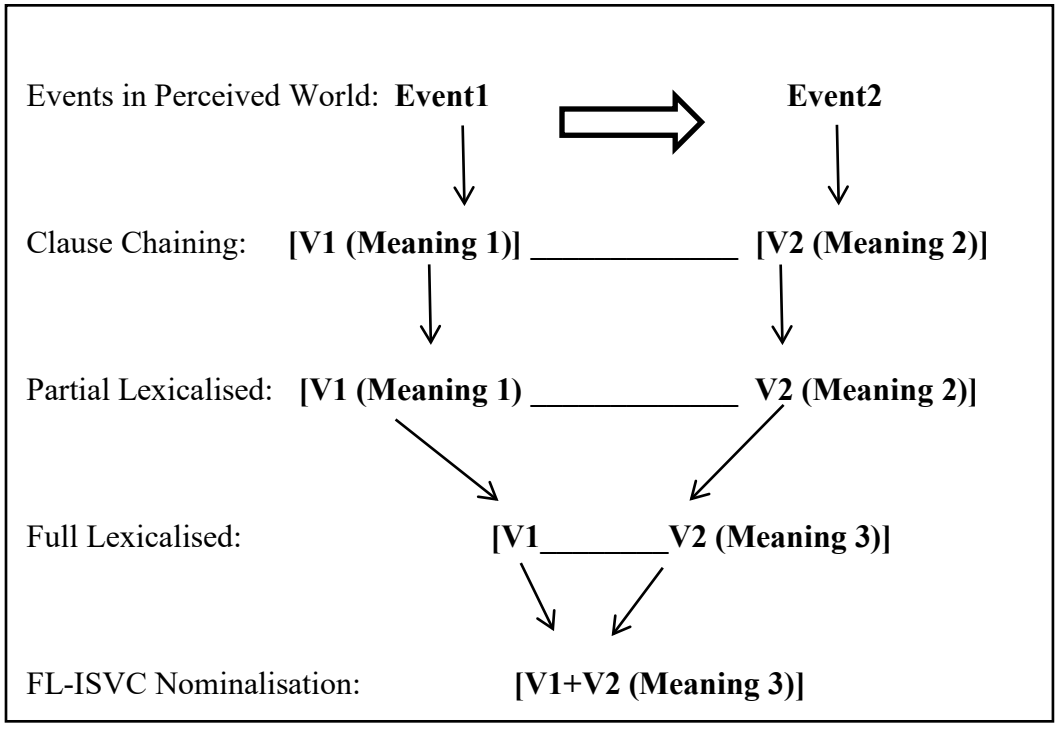

Figure 6: Iconicity from perceived world to nominalisation

The PL-ISVCN *akyetɔn* derived from PL-ISVC *kye...tɔn* 'to catch and sell' and exemplifies temporal iconicity expected this category. As resultants, both verbs retain their meaning both in the SVC structure and in the nominalized structure. In relation to flexibility unlike emergent FL-ISVCNs, components of the resultant PL-ISVCN like *kye* can be duplicated as *kyekye* and *tɔn* can be duplicated as *tontɔn* without any significant change in meaning of V1, V2 or the composite structure of the PL-ISVC/PL-ISVCN. When it comes to collocability, *kye* can be replaced by *kyere* as expected in a PL-ISVC which is less rigid and more collocationally open than prototypical instances of FL-ISVCNs discussed above.

26. a kye tɔn
+NOM catch sell
SVN: akyetɔn 'catching and selling'

Example (26) above is an example of this iconicity in PL-ISVCs. In other words, if in the real world something must be caught before that thing can be sold, then this reality will be reflected in the sequential order of verbs in the language in question. This fact of reality is carried over to the word order of the ISVC and, therefore, the SVCN, which is why it cannot be **atɔnkye* whereby one sells the thing before that very thing has been captured. Thus, iconicity in the form of temporal sequencing order, or faithfulness to the actual order of events in the real world, is the primary factor in the morphosyntactic ordering of verbal elements in Akan PL-ISVC nominalisation.

It is worth noting that this type of temporal sequencing cannot be argued as existing in the case of FL-ISVCs due to the fact that the two erstwhile events have undergone semantic integration to the point of being regarded within the language as a single event. Thus, there can be no temporal sequencing order of distinct events since there is but one single unitary event rather than two. It is significant to note, however, that because the pre-existing base template form or schema for constructing FL-ISVCs is based upon how verbs are ordered as observed in earlier stages of lexicalisation, FL-ISVCs overwhelmingly follow an 'iconicity-like' pattern whereby one verb always precedes the other in terms of linear ordering in the SVC. This ordering is then carried over to the SVCN.

PL-ISVCNs also may have TAMP and/or nominalisation markers within the SVCNs (Kambon, Duah and Appah 2018). When there are two markers of nominalisation in the same SVCN, typically they have the same phonological form. An example of this is the initial and intervening nasal at the same place of articulation for SVC *fua* 'grab hold' *hwé* 'beat up' when nominalised as *m̀fùà(ǹ)hwé(ɛ́)* 'grabbing and beating up' (also exemplifying iconic temporal sequence). In *m̀fùà(ǹ)hwé(ɛ́)*, and other such examples, the 'infix' is attributed to insertion based on particular phonological conditions of nasalisation.

The core finding with regard to PL-ISVC nominalisation is that less than 3% of all Akan PL-ISVCs identified can be nominalised. This is a major finding to support our categorisation of Akan SVCs based on degree of lexicalisation in light of behaviour distinct from that of FL-ISVC nominalisation.

3.3 Clause Chaining Serial Construction Nominalisations

Clause Chaining Serial Constructions (CCSCs) can nominalise in Akan in a type of 'frozen sentential nominalisation.' As such, CCSCs are closer to the finite end of the non-finite – finite continuum, retaining aspects of Tense, Aspect, Mood and Polarity (TAMP) when nominalised. Traditional nominalisation markers such as *a-* +NMLZ, *ɔ-* +NMLZ and *n-* +NMLZ are in complementary distribution with TAMP when formally retained in CCSN. In other words, erstwhile TAMP markers displace the NMLZ markers as the two do not co-occur in the same morphosyntactic position.

This may be due to what we posit may be a continuum as argued for by Vendler (1967:131) wherein some SVCNs retain more verb-like features while others are more prototypically nominal with such features stripped away. According to Vendler (1967) there are imperfect nominals and perfect nominals, "one in which the verb is still alive as a verb, and the other in which the verb is dead as a verb, having become a noun" (Vendler 1967:131). Also, following Koptjevskaja-Tamm (1993), we find that "In the former category, nominalisations may contain tenses, auxiliaries and adverbs, while nominalisations of the latter category may not contain such verbal satellites, but rather take articles, prenominal adjectives and so on." (Koptjevskaja-Tamm 1993:18). An example of retention of TAMP in CCSNs can be observed in the case of *ǹtéǹsèré.*

27. Ǹ-té m'àmánèhúnú nyìnáá ǹ-sèré mé
NEG-hear 1SG.POSS'troubles all NEG-laugh 1SG.OBJ
'Don't listen to my problems and laugh'
SVCN: Ǹtéǹsèré 'don't listen and (don't) laugh' (Kambon, Duah and Appah 2018: 402)

28. ǹtéǹsèré
Ǹ- té Ǹ- sèré
NEG hear NEG laugh
'don't hear [my story] and laugh'

Here, we see very clearly that the negative polarity that occurs in the finite construction occurs in the nominal as well. The same ordering and polarity occur prior to and after nominalisation.
Another example can be seen below in (47):

29. Ɔ̀-à-m̀-má m-à-ǹ-yɛ́
3SG.SBJ-COMPL-NEG-allow 1SG.SBJ-COMPL-NEG-do

m'àdwúmá 1SG.POSS'work
'He/she did not allow me to do my work'
SVCN: àm̀mámàǹyɛ́ 'impediment'

30. pɛ̀ wó á yɛ̀ dɛ́ń
look for you CONS do what
'why should (I) look for you?'
SVCN: Pɛ̀wóáyɛ̀dɛ́ń? 'Search-for-you-to-use-you-to-do-what?' (Obeng 2001: 100)

In the above examples we find that the completive aspect occurs in the finite construction which is, again, retained with the same linear ordering and semantics post-nominalisation. Examples such as these show that TAMP markers are retained in CCSC nominalisation. Thus, it appears that a gradient approach as is consistent with Prototype Theory is appropriate for Akan SVC nominalisation in that some nominals are more noun-like than others (Lexicalised-Integrated Serial Verb Constructions) while others are more verb-like (Chaining Serial Constructions).

CCSCs nominalise somewhat haphazardly in the sense that some sentences, expressions and proverbs may make their way to become CCSCNs, others may not. Such sentences or expressions may happen to have Clause Chaining Serial Constructions in them. What we observe in CCSCNs is rather an arbitrary sentence, proverb, phrase or expression which happens to contain a Clause Chaining Serial Construction that is instantaneously 'frozen' or transformed into a nominal referent for any given person, place or thing in the real world 'on-the-fly.' Consistently, the majority of respondents indicated that they are not sure of CCSCNs that could be derived from verbal elements of CCSCs provided while others stated outright that there are none.

Relevant to our overall discussion of emergence, if something is not emergent (like FL-ISVCNs) or resultant (like PL-ISVCNs), then what could it possibly be? Here, discussions from our physics-based analogy may be instructive. If something is not considered emergent or resultant, it can be categorized as either fundamental, elementary, or basic. These terms imply that the thing in question is a foundational component or a fundamental aspect that does not arise as a result of a combination or emergence from other elements.

In sum, SVC semantic integration, therefore, seems to effectively provide something of a 'roadmap' to what the SVCN form will be. Further, in the case of CCSCs there is no idiomaticity in place in the sense of the four idiomaticity factors seen in the case of FL-ISVCs. When there is less semantic integration, there tends to be correspondingly less familiarity with the SVC form and, therefore, respondents are less able to ascertain the correct SVCN form when provided with components (Kambon 2012).

Distinct CCSC behaviour with regard to haphazard nominalisation forms the third piece of independent language-internal linguistic evidence showing the cognitive reality of the categorisation of SVCs in Akan on the basis of degrees of lexicalisation. Thus, while statistically significant and replicable findings can be ascertained in the cases of FL-ISVC and PL-ISVC nominalisation, because literally any and every sentence that happens to contain a CCSC could potentially be nominalised on-the-fly, such percentages are not available for CCSC nominalisation.

4. Conclusions

The objective of this chapter was to draw a conceptual and theoretical link between semantic integration in Akan Serial Verb Construction Nominalization and the concept of emergence as articulated in various disciplines. I argued that the degree to which semantic integration as an exemplification of emergence in language pertains at the serial verb construction level correlates to nominalisability (or lack thereof) for that class of serial verb construction. Consequently, in the case of Akan SVCNs, three categories of SVCs were analysed on the basis of how they are nominalised, the degree to which nominalisation occurs and whether nominalisation can occur at all. Various sources were consulted in three major literary dialects of Akan: Asante Twi, Fante and Akuapem Twi. Further, native speakers of each of these dialects

were consulted to ascertain the veracity of various attested serial verb construction nominals (SVCNs) in Akan.

The results of this study point to a clear relationship between degrees of semantic integration, lexicalisation and nominalisability. Indeed, when the independent variable in the form of the lexicalisation of an SVC is changed, the result is clear in that native speakers tend to be largely either able to nominalise or not able to nominalise on that basis alone. Thus, lexicalisation itself is an emergent property. With regard to semantics, the more semantically integrated the components of the SVC are, the less semantically compositional the SVC is. Thus, the whole is different from and greater than the individual components taken alone. This reality is one of the hallmarks of emergence as a concept. Thus, the conclusion can safely be drawn that semantic integration is to linguistics what emergence is to other disciplines. As semantically integrated SVCs are idiomatic, it holds that idioms in other languages that may or may not have SVCs will also display degrees of semantic emergence. In example (15), for example FL-ISVCN *odima* 'intercession' is distinct from the components *di* 'eat' and *ma* 'give'. It is not resultant in the sense of literally eating and giving something to someone. The meaning of the whole is emergent. In example (26), however, in the case of PL-ISVCN *akyetɔn* 'catching and selling' the meaning is wholly compositional and even iconic with regard to temporal sequencing phenomena as expected. This would be the equivalent of a resultant. However, in reflection upon the fact that nominalisation is not 100% for FL-ISVCs, it leaves the door open that there are FL-ISVCs that are more prototypical and others that are less so. Similarly, because PL-ISVC nominalisation is not 0%, it follows that there are also prototype effects with regard to the behaviour of resultants. In other words, there can be said to be fuzzy boundaries that account for categorial outliers.

As such, using Prototype Theory, we are not only able to account for the bulk of the data in this regard, but we are also able to come to terms with the statistically insignificant cases of divergence at the fuzzy boundaries of the category in question. It was found that, as expected, those more prototypical Full Lexicalised-Integrated Serial Verb Constructions would be more readily made into nominals versus those which are located at the fuzzy boundaries or are, in other words, less prototypical. On the other hand, those serial verb constructions that exhibit less lexicalisation

would prototypically not be expected to be made into nouns. This relationship seemed to play out in terms of comparatively fewer respondents from P1 and P2 able to create an SVCN form from either PL-ISVCs or CSCs as opposed to the vast majority who were able to do so in the case of FL-ISVCs. As such, our expectations were borne out in the results of the study and, further, show a validation of the cognitive basis of a typology of SVCs in Akan on the basis of lexicalisation in that this method of categorisation serves to tell us what native speakers know about their language. Additionally, prototype theory allowed us to capture otherwise anomalous cases which diverged from the prototypical pattern.

This chapter substantially builds upon the literature on SVCs in general and Akan SVCs in particular. A fundamental contribution is the detailed discussion, exemplification and analysis pertinent to the nominalisation of SVCs. This study, as such, constitutes a detailed analysis of nominalisation behaviour for the serializing language in question: Akan. Further, the categorisation of SVCs on the basis of lexicalisation is vindicated by means of independent language-internal evidence from the three major literary Akan dialects. Conclusions drawn in the chapter are based on fieldwork and copious data collected and on painstaking synthesis and analysis of this data not only imparting them with functional validity but also ensuring their ability to stand the test of time under academic scrutiny.

Therefore, this chapter significantly contributes to a discussion of emergence in the context of semantics in general and in the context of serial verb construction nominalisation specifically. It effectively serves as a blueprint for extended tests (such as nominalisation, morphosemantic decomposition of nominals, relativisation, reflexivisation, etc.) as a means of substantiating the categorisation of SVCs in general and on the basis of lexicalisation in Akan in particular. As such, a future area of research will be in more fully addressing analysability of nominalisations (or lack thereof) in terms of decomposition of nominals in Akan and other West African languages, such as Yorùbá (Kambon Forthcoming). This future research, too, has implications for more theoretical discussions of emergence as it may demonstrate the degree to which, in the context of language, emergents may be reliably traced back to their constituent elements.

Abbreviations

1	First person
2	Second person
3	Third person
BEN	Benefactive
COMPL	Completive aspect
COND	Conditional marker
CONJ	Conjunction
CONS	Consecutive marker
DEF	Definite marker
DEM	Demonstrative marker
DISJ	Disjunction
DUP	Duplication
FOC	Focus marker
FUT	Future marker
INAN	Inanimate
NEG	Negation
NMLZ	Nominalization
OBJ	Object
PL	Plural
POSS	Possessive
PRF	Perfect
SBJ	Subject
SG	Singular
SVCN	Serial verb construction nominalisation

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