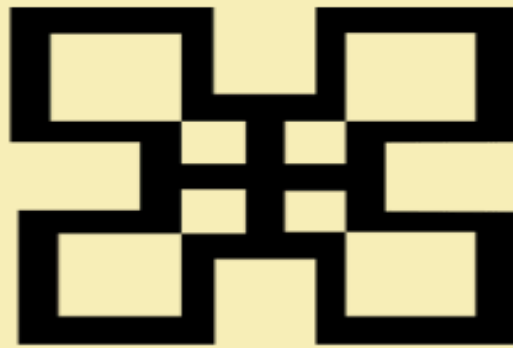UiT The Arctic University of Norway

Faculty of Humanities, Social Sciences and Education

Causativisation and Applicativisation with the Grammaticalised Verb *De* in Akan

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Acknowledgments

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Dedication

To my late mum.

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List of Abbreviations

1SG – First Person Singular

2SG – Second Person Singular

3SG – Third Person Singular

ACC – Accusative Case

Adj – Adjective

Ak – Akuapem Twi

ApplP – Applicative Phrase

Caus - Causer

CC – Clause Chaining

Cont – Continuative Aspect

DET – Determiner

DOC – Double Object Construction

DP – Determiner Phrase

DOM – Differential Object Marking

Fa – Fante

FOC – Focus

FUT - Future Tense

GEN – Genitive Case

HAB – Habitual Aspect

IND – Indefinite Article

ISVC – Integrated Serial Verb Construction

L1 – First Language

L2 – Second Language

L3 – Third Language

NEG – Negation

NP – Noun Phrase

Num – Number

NOM – Nominative Case

PAST – Past Tense

Pers – Person

PRES – Present Tense

PROG – Progressive Aspect

Quant – Quantifier

Rel.Cl – Relative Clause

Rec – Recipient

RP – Resumptive Pronoun

SVC – Serial Verb Construction

SVO – Subject Verb Object

TP – Tense Phrase

vP – Little v

VP – Verb Phrase

Abstract

The thesis investigates a grammaticalised verb *de,* reanalysed as a semi/functional element which is involved in valency changing operations such as causativisation and applicativisation in Akan. The causative and applicative use of the morpheme points to a polysemous syncretism (Franco 2019) in the language. *D*e is realised as three different heads with different functions: as a causer, an applicative, and a DOM licensing head that is involved in theta role assignment. Following Plykannen's (2000, 2002, 2008) bipartite characterisation of applicative heads into high or low in natural languages, *de* is majorly a high applicative that introduces non-causers such as comitatives and instrument/means in the language. The causative shows a sensitivity to the kind of predicate it combines with: with intransitives, locatives and unaccusatives, *de* introduces an external argument. With transitive verbs, *de* introduces a comitative and an instrument/means. In ditransitive constructions, *de* introduces an argument position licensed through the presence of a clitic that is co-indexed with the theme, and this has implications for DOM and theta role assignment. A tentative analysis combining the causative and the applicative head as a common functor is proffered following Ramchand (2019).

Keywords: causative, applicative, syncretism, polysemous, valency changing, grammaticalisation

1 Chapter 1. Introduction

Applicatives and causatives are valency-changing morphemes that add new participants to an event through 'overt verbal morphology' (Peterson 2006) or morphosyntactic alignments (Baker 1988). The applicative adds a non-agent argument while the causative adds an agent/causer.

Kinyarwanda

(1) a. umugabo a-ra-andik- iish-a   umugabo íbárúwa

      man   he-PRES-write-CAUS-ASP man   letter

    'The man is making the man write a letter.'

    b. umugabo a-ra-andik-iish-a   íkárámu íbárúwa

     man   he-PRES-write-INSTR-ASP pen   letter

    'The man is writing a letter with a pen.

(Kimenyi 1980:164)

The clause in (1a) is a causative construction where a causer instigates a causee to perform an action that he/she is not directly involved with. The causative morpheme *ish* introduces a new argument to the structure increasing its valence from two to three so we have *man-man-letter*. There is another type of causer introduced by a causative morpheme that is directly involved in the action expressed in the VP. As such, causatives can be direct, indirect or sociative (Gysel 2018).

In the (1b) example, the argument that is introduced is instrument, *a pen*, that the man writes with. So, the non-applicative construction would have been 'the man is writing', then with the applicative included it becomes 'the man is writing with a pen'. The same morpheme that introduced the causer, is the one that introduces the instrument. To that effect, *ish* has both applicative and causative functions. Applicatives usually introduce comitatives, benefactives, instruments, locatives, etc.

Causativisation and applicativisation are phenomena that are widespread in natural languages. They are found for example, in Australian aboriginal languages (Austin 2005), Bantu (Jerro 2016), and Austronesian languages (Kikusawa 2012). These phenomena vary across languages. Some languages have just one of the two, while others exhibit both systems. The morphemes that trigger both causativisation and applicativisation in the same language are often referred to as polysemous or homonymous. Homonymous morphemes are separate morphemes "that have the same phonological realisation" (Hemmings 2019:167). The polysemous ones are composed of a single morpheme with different meanings or functions. The applicative causative polysemy/homonymy can be referred to as syncretism (Franco 2019).

In this thesis, I investigate the applicative and causative system in Akan with the grammaticalised verb *de*, a phonologically reduced, syntactically restructured and recategorised morpheme as a semi-functional theta assigning element in the V domain that has applicative and causative functions. I investigate how the morpheme integrates applicatives and causatives into the argument structure and the grammatical /semantic relations that are borne out from said interactions. In Akan, the applicative and causative morphology can be said to be polysemous to a single form, *de*. In its causative use, I argue that *de* encodes causation periphrastically through a complex predicate and combines with locative verbs, intransitive verbs and unaccusatives to do so. In effect, the morpheme is decomposed as causP and it shares the same structural position as little v.

In its applicative use, I adopt Pylkkänen's (2000, 2002, 2008) bipartite characterisation of applicatives into high or low and show that *de* is majorly a high applicative introducing a comitative or instrument/means. It introduces a mid-high argument above the VP, precisely below the vP and this head is called Appl. The applicative use in the ditransitive differs from the monotransitive in that it does not introduce a new argument, rather it provides a new position through a cliticising mechanism where definiteness is licensed. This head is denoted deP. The definiteness licensing forays into a DOM analysis with its inverse, an abstract HAVE relation that imposes a definiteness restriction on the theme such that it can only be licensed through a DOM mechanism. In effect *de* decomposed, consists of three heads with three different functions.

In most of the literature on the causative applicative syncretism, the morpheme that induces these relations appears to license the causative and the applicative in separate clauses. However, two of the heads, CausP and ApplP both appear in a single clausal projection and there is a tentative approach to unify them as a common functor following Ramchand (2019).

On the data and methodology, the data that is used in this thesis comes from archival sources and myself, a native Akan speaker. When in doubt about certain parts of the grammar, I consulted with other native Akan speakers for quality control. Akan is a dialectal continuum with several dialects. The dialect used in this work unless otherwise stated is Twi, hereafter referred to as Akan. The literature analysis is done in tandem with the analysis proper as the thesis covers a range of topics. Also, the analysis is the first of its foray into the language (no other comprehensive analysis of the subject matter is known to the researcher as of now) as such it involved extensive comparative analysis to similar languages especially to Indonesian (with the morpheme *kan),* with which it shares a lot of symmetric and asymmetric parallels.

The thesis is divided into eight (8) chapters. The second chapter introduces the language under study and discusses areas that are relevant to the research. The third chapter analyses the morpheme *de*, through a grammaticalisation framework. It reviews past literature on the morpheme and its initial analysis as an object marker (Lord 1993), a case marker (Riis 1854), etc is abandoned for a reconsideration as a semi-functional theta-assigning element in the v-domain. The next two chapters thus four (4) and five (5), cover the causative and applicative functions of *de* proper respectively. Chapter six (6) builds on the relations from the preceding two chapters where DOM and the abstract HAVE relation are analysed as converse relations. Chapter seven (7) attempts a unification of causP and ApplP as a common functor. The study concludes with chapter eight (8).

2 Chapter 2. Grammatical Sketch of the Akan Language
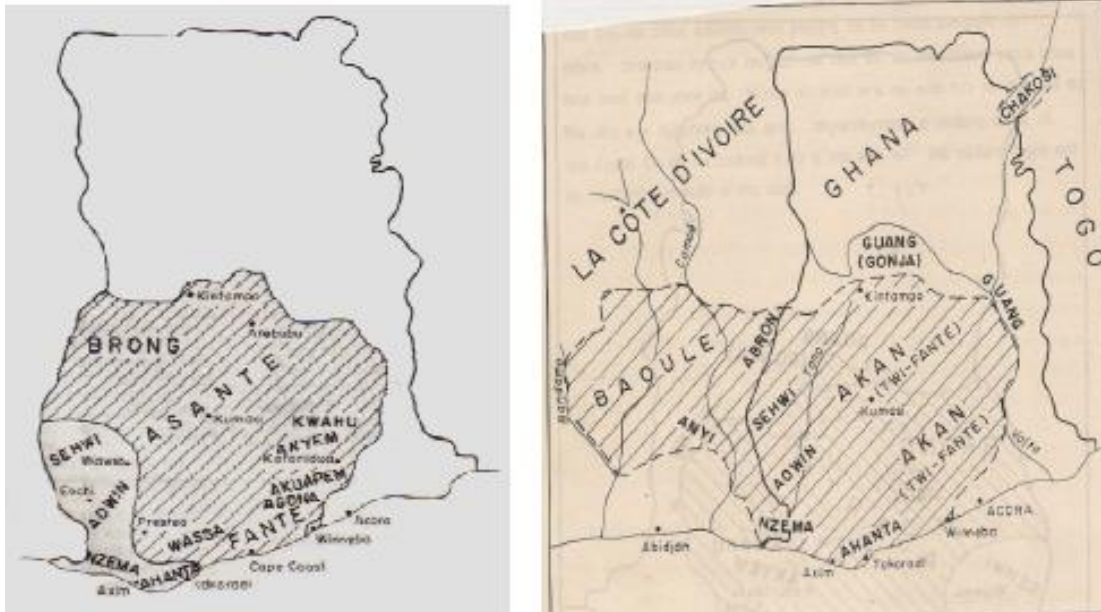
Fig.1 A map of the Akan dialects in both Ghana and Cote d'Ivoire

2.1 Introduction

Akan is a Kwa language from the Niger-Congo language family used by the Akan meta-ethnicity in Ghana and Cote d'Ivoire. Introduced through the slave trade to the Caribbean and South America, Akan is also spoken in Suriname by the Ndyuka and in Jamaica by the Jamaican Maroons known as the Coromantee.[1] In Ghana, it is spoken by about 44% of the population as an L1 and by 80% of the population overall as either an L1, L2 or L3.[2] It comprises various dialects, with a dialectal continuum of r-Akan (no /l/ phoneme) and l-Akan (no /r/ phoneme), the latter found mostly in Cote d'Ivoire. Using mutual intelligibility, Dolphyne (1986), further groups Akan into two subgroups:

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[1] *"Akan (Twi) at Rutgers"*. www.amesall.rutgers.edu. Retrieved 2020-01-22

[2] *"Akan (Twi) at Rutgers"*. www.amesall.rutgers.edu. Retrieved 2020-01-22

''Akan (whose dialects are Asante, Akyem, Bron/Abron, Wassa, Kwahu, Fante, Agona, Gomua, Akuapem) and Nzema-Anyi-Baule (whose dialects are Anyi, Baule, Chakosi, Nzema, Ahanta, Sanwi (Afema), Aowin, Sehwi).''

The most popular dialects of the Akan language are Asante Twi, Akuapem Twi (both comprising Twi) and Fante. All three dialects are mutually intelligible and have attained literary status. In Ghana, the language is backed by government resources and is used as the introductory language for school children in public schools at the basic level from class one (1) through to three (3). It is also used as a communicative medium on both radio and television. As such the language has a ubiquitous influence and permeates most social and educational settings. With the extensive use of English as the official language of the country, the ubiquitous nature of Akan and its cultural influence has created a situation where both languages rival each other for status as a lingua franca, a situation commonly referred to as a double overlapping diglossia (Faido et al 2019).

2.2 Phonology

Akan phonology is characterised by vowel harmony, tone terracing and a vast amount of palatalisation. There are two phonemic tones in the language: the high and low tones. The high and low tones are contrastive and mark both lexical and grammatical functions. A lexical word can have different meanings depending on the tone it bears. The tone-bearing unit (TBU) is the syllable.

(1) pápá 'good'   pàpá 'father'   pàpà 'fan' (Dolphyne 1988)

For grammatical function, the habitual (HAB) and continuative (CONT) aspects are distinguished through tone e.g., dá-sleep (CONT) vs dà (HAB). The vowel inventory of the language consists of nine (9) oral vowels (/æ/ is a variant of /a/) and five (5) nasalised vowels.

Fig 2. Oral vowels in Akan

Front i ⎡ ɪ   u ⎤ Back   closed (high)

       e ⎣   ʊ o   half closed

         ɛ   ɔ   half opened

                 æ, a   open (low)
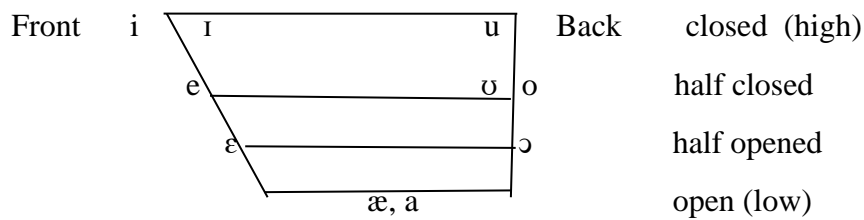
However, the orthography does not distinguish /æ/ from /a/, /ɪ/ from /i/ and /ʊ/ from /o/. This is shown below in (2):

(2) a ⟶ [a, æ]

    e ⟶ [e, ɪ]

    o ⟶ [o, ʊ]

Table 1. Nasalised vowels in Akan (Dolphyne 1988:2)

Vowel	Nasalised	Oral
i	fĩ 'dirt'	fí 'go out
ɪ	sĩ 'teeth'	sé/séẁ 'sharpen'
a	kã 'say'	ká 'be left behind'
ʊ	tõ 'bake'	tó/ tóẁ 'throw'
u	hũ 'see'	hú/ húẁ 'blow air

The consonantal chart is presented below in Table 2. The table represents both allophones and phonetic values[3] with dialectal variations indicated with Ak and Fa.

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[3] Indicated with [ ].

Table 2. Akan Consonant Chart (Dolphyne 1988:2)

	Bilabial	Labiodental	Alveolar	Palatal	Velar	Glottal
Plosives	p b		t d		k kw g gw	
Fricatives		f	s si [sy] su	hy [ɕ] hw [ɕɥ]		h hu
Affricate			ts (Fa) dz	ky[tɕ] gy [dʑ] tw [tɕɥ] dw [dʑɥ]		
Nasal	M		n	ny [[ɲ] nw [ɲɥ]	n [ŋ] nw [ŋw]	
Lateral						
Trill			r (Ak)			
Glide	W w[ɥ]		 r	 y[ɥ]		

2.3 Syntax

This section discusses some aspects of Akan syntax that are relevant to the study in general. It covers relevant categories and grammatical relations.

2.3.1 Nouns

A noun is the head of the Noun Phrase in Akan, and it can either be a simple NP or a compounded NP. NPs can occupy the subject and object positions in a clause. The compound NPs are made up of modifiers that are either preposed or postposed in relation to the position of the NP. Pre-head modifiers include the demonstrative pronoun 'saa', (Appah 2003) possessive pronouns and 'a noun functioning as a modifier' (Agyepong 2017). Post-head modifiers can be determiners, adjectives, numerals, quantifiers, and relative clauses. The relative order of the post-head modifiers is shown in (2). Number and animacy are marked through affixation and agreement on the noun stem.

(3) N – Adj – Num – (Quant) – Det – Quant – Rel.Cl.

$\longleftarrow\qquad\qquad\qquad\qquad\longrightarrow$

Head   Post head modifier
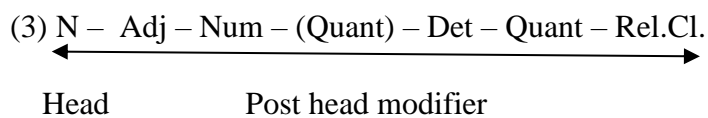
(Appah 2003)

An NP can also be realised as a pronoun and it is generally permissible to pronominalise any NP in Akan (Appah 2003). An idiosyncrasy in the language is that the third person does not distinguish between masculine and feminine genders, rather, it distinguishes between animate and inanimate NPs by way of affixation on the noun/verb stem with the prefixes 'ɔ' and 'ɛ-' respectively. The third person singular pronominal NP, *Ɔno,* again, gives insight into a possible case system in the language which generally lacks inflectional morphology for case. There are two distinct realisations for this pronominal element in the subject and object positions in a clause. *Ɔno*[4] in the subject position becomes *ɔ - he/she,* a cliticised NP that attaches to the verb; in the object position it is realised as *no – him/her,* a free morpheme. To that effect, NPs that occupy the subject and object positions in a simple clause in Akan could be analysed as marked for nominative and accusative case.

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[4] *Ɔno* in its entirety as a word is only used in focus constructions.

(4) Pronominal system in Akan (Appah 2003, Saah 2002)

NUM	PERS	CITATION FORM	NOM	ACC	GEN
SG	1	me	me-	me	me
	2	wo	wo-	wo	wo
	3	ɔno (animate)	ɔ-	no	ne
		ɛno (inanimate)	ɛ-	no	ne
PL	1	yɛn	yɛ-	yɛn	yɛ-
	2	mo	mo-	mo	mo
	3	wɔn	wɔn-	wɔn	wɔn

According to Riis (1854) the definite marker 'no' and the indefinite marker 'bi' are derivatives of the pronominals ɔno/ɛno and obi/ebi[5] respectively. The former are bound morphemes attached to the head noun phrase whilst the latter are independent morphemes. In essence, the derivatives form a paradigm with the pronominals from which they are derived (Amfo 2010). The definite marker 'no' is used to encode familiarity in a discourse (Arkoh and Mathewson 2012) where the object of discussion is known to both the speaker and the hearer. As Riis puts it:

> ''…when by circumstance, it is made easily intelligible to the person addressed, what particular object is referred to. In English therefore, it may frequently be rendered by the definite article'' (Riis 1854:54).

(5) Abofra no   nomm.ee   nkwan no   nnera

child   DET drink.PAST soup   DET   yesterday

'The child drank the soup yesterday.'

---

[5] This translates as somebody, anybody (for animates) and something (for inanimates)

Indefiniteness is marked in two ways: the bare noun and the indefinite marker *bi*. The use of the bare noun does not project referentiality. With the indefinite marker, there is a particular referent in the mind of the speaker which the hearer is not privy to. Boadi (2005) describes *bi* as projecting 'a specificity-of-reference interpretation.' It correlates with a '*certain*' interpretation in English (Amfo 2010). Further to this, Amfo (2010) breaks down *bi* as having quantitative and scopal properties with its semantics as follows:

> i.   '…*bi* as an existential quantifier that introduces specific tokens of the type of entity expressed by the preceding nominal and quantifies over the set of such tokens.
>
> ii. Referential is the minimum cognitive status of the referent of a phrase that contains *bi*.'

(6) Me-pɛ   ataade

1SG.want dress

'I want a dress.'

(7) Me-pɛ   ataade bi

 1SG.want   dress   IND

'I want a certain dress.'

2.3.2 Adpositions

Adpositions are used to express locative and spatio-temporal concepts. In Akan, Adpositions as a syntactic category are drawn from nouns (body parts and object parts) and verbs, within the framework of grammaticalisation. The adpositions that are drawn from nouns are postpositions with locative functions eg *akyi*-the back*, anim*-the face*, mu*-the interior

(8) Me-wɔ dan   no   akyi
1SG-am house DET back
'I am behind the house.'

The verbal adpositions are prepositions that are used to express directional relations (Riis 1854). They denote actions that are 'imagined under the form of motion' where the direction may be

to a place as in *kɔ-* 'to go', *from a place* as in *fi-* 'to issue' or where there may be *neutrality of direction* as in *wɔ-* 'to be somewhere'[6] (Riis 1854). Their distribution is between the verb and the object, or as in (9), with *fi,* may be positioned purely as a verb that takes complements/objects.

(9) Kofi yɛ   adwuma wɔ afuo-m

   Kofi do work   LOC   farm-inside

   'Kofi works in the farm.'

(10) Ama fi   dan   no   mu   re-ba

   Ama from room DET inside PROG-come

   Ama is coming from the room.'

2.3.3 Verbs

Lexical verbs in Akan have contentive meaning that express notional concepts (Riis 1854). The structure of the Akan VP is complex because the verb stem/infinitive form carries morphophonological inflections for tense, person, aspect, mood, and negation. The linear ordering of the phi features, tense, aspect, and negation in the Akan verbal complex (Abunya et al 2021) can be represented as:

- '(Subject marker)-(Negation)-tense/aspect prefixes-ROOT-tense/aspect suffixes'

(11) Me-n-ni-i   aduane no

   1SG-NEG-eat-PAST   food   DET

   'I have not eaten the food.'

(12) Ɔ-re-da

   3SG-PROG-da

   'He/she is sleeping.'

---

[6] Riis (1854) notes that the direction of neutrality with the verbal preposition *wɔ* is not particularly expressed in English. As such there is no word that correlates to this expression and "it may not be translated at all."

There has not been a consensus on the delimitation of tense and aspect in Akan. Dolphyne (1987), Clemens (1982) and Saah (1995) all give varying accounts of what constitutes tense or aspect in the language. Despite this, Akan has been described as a majorly aspectual language (Fromkin 1968, Osam 1994, Boadi 2008) with seven (7) aspects: stative, habitual, progressive, completive, perfective, future, optative, and two main tenses which are past and future (Clemens 1982).

(13)   **Tense-Aspect in Akan**

Tense	Aspect
Future	Stative
Past	Habitual
	Progressive
	Completive
	Perfective
	Future
	Optative

2.3.4 Word order and Grammatical Function

Akan is a canonically SVO language with little variation in the sentence structure and has the verb as the central entity. The position of arguments preverbal and postverbal determine their grammatical functions and syntactic roles. As such word order marks syntactic and semantic functions.

(14) [$_S$ **NP$_1$...** [$_{VP}$ **V   NP$_2$**]]

      S   -   V - O

To distinguish the grammatical functions of the NPs subcategorised for by the verb for a sentence S, it is subject to word order analysis. In (14) NP$_1$ precedes the verb while NP$_2$ follows it. The NPs in preverbal positions are the subjects and thus receive the nominative case, the postverbal NPs are the direct objects and consequently receive the accusative case.

(15) a. Ɔ-bɔ-ɔ   no   nnera

12

3SG-hit-PAST 3SG yesterday

'He/she hit him/her.'

b. *No ɔ-bɔ-ɔ   nnera

   3SG 3SG-hit-PAST yesterday

2.3.5 Serial Verb Constructions

Serial Verb Constructions (SVCs) as a clause phenomenon was first analysed in Akan as a "syntactic combinations of verbs" used to express "many verbal notions that are expressed with a simple verb in English and other European and Asiatic languages" (Christaller 1875).

Expanding on Christaller's definition, an SVC configuration, is one which has two or more verbs in a sequence showing a series of non-overlapping events which encode temporal notions without any form of dependency. Following Grano (2015), the temporal order may be:

- simultaneity (e_1 overlaps with e_2)

- posteriority (e_1 follows e_2)

- anteriority (e_1 precedes e_2).

SVCs in Akan have a single inflectional system; thus, tense, aspect, and negation are marked only once (single marking) or on all VPs (concordant marking). To this effect, the components of SVCs cannot have two TPs or subclausal negation.

(16) a. $V(T_{past})$ $V(T_{past})$ [7]

       Kofi tɔ-ɔ   aduane di-i
       Kofi buy-PAST   food   eat-PAST
        'Kofi bought food and ate.'

   b. *$V(T_{past})$ $V(T_{present})$

---

[7] (15) is taken from Owusu (2019)

Kofi tɔ-ɔ   aduane di

Kofi buy-PAST   food   eat-PRES

'Kofi bought food and ate.'

(17) a. V(Neg) V(Neg)

Kofi n-tɔ-ɔ   aduane n-ni-i

Kofi NEG-buy-PAST   food   NEG-eat-PAST

'Kofi has not bought food to eat.'

b. *V(+Neg) V(-Neg)

Kofi n-tɔ-ɔ   aduane di-i

Kofi NEG-buy-PAST   food   eat-PAST

'Kofi has not bought food to eat.'

The composition of verbs in an SVC may be symmetrical or asymmetrical[8], contiguous or non-contiguous[9] and arguments may have overt or null phonological realisation. Another distinctive feature of SVCs aside monoclausality is argument sharing. Argument sharing is a natural consequence of SVCs given the imbalance in the mapping of VPs to NPs which subject to the θ-criterion[10], would result in ungrammaticality. The theta criterion constrains NP-VP matching such that the requirements of c-selection as well as s-selection is satisfied.

In Akan, a bipartite characterization of SVCs is proposed on the basis of *event integration*: Clause Chaining Serial Verb Constructions (CCs) and Integrated Serial Verb Constructions (ISVCs). CCs are made up of a series of lexical verbs in succession that encode subevents that can be broken up with conjunctions. ISVCs, on the other hand, involve the combination of a semi-functional verb and a full lexical verb encoding a single event that cannot be broken into constituent parts (Kroeger 2004).

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[8] Symmetrical – the VPs come from verb classes that are not syntactically and semantically restricted
  Asymmetrical – the SVC may have a minor verb in combination with a full verb as in ISVCs

[9] Contiguous – the VPs follow in a sequence without any intervening XP
  Non-contiguous – two VPs have an intervening XP

[10] The θ-criterion: Each argument bears one and only one θ-role, and each θ-role is assigned to one and only   one argument. (Chomsky 1981)

2.3.5.1 Clause Chaining SVCs

Clause Chaining refers to the serialization of two or more lexical verbs which express "chains of distinct, non-overlapping consecutive events, with no upward bound on the number of VPs" (Hellan et al 2003). In notational representation, CCs will have a V+V arrangement where both VPs are full lexical verbs.

- $[_{VP}\ V+V…x]$

- $[_{VP}\ V(XP)+V(XP)…x]$ [11]

   (18) Kofi nom   mene.

   Kofi drink swallow.

   'Kofi drinks and swallows (it).'

In (18) there are two transitive VPs *nom* and *mene* which subcategorize for two NPs. However, there is only one NP in subject position with a phonologically null object. For the two VPs, argument sharing will obligatorily obtain for grammaticality judgements given the limited slots for NPs in relation to the number of VPs. *Kofi* receives the thematic role of agent from both verbs, as well as the grammatical function of Subject. Assuming the phonologically null object is *nsuo*-'water', both VPs will again engage in argument sharing by assigning the theta role of **theme** to *nsuo* and the grammatical function, **object**. Decomposed, (18) can read as:

   a. **Kofi** nom   **nsuo**

      Kofi drink water

   b. **Kofi** mene   **nsuo**

      Kofi swallow water

Another way of satisfying argument requirement is resorting to null anaphora. The second VP in the sequence, *mene-* 'swallow', will have its own argument, an anaphor which is co-referent

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[11] (Where XP is an NP constituent and x represents additional verbs in the chain)

to Kofi, the antecedent, with Kofi being the subject of *nom* -'drink'. Decomposed (18) will read as:

    c. Kofi nom + ɔ-mene

        Kofi drink   3SG-swallow

(19) Ama di-i   aduane no   da-e

    Ama eat-PAST   food   DET   sleep-PAST.

    'Ama ate the food and slept.'

The CC in (19) has an intervening XP – *aduane no* between VPs. The VPs also have different valence: *dii* is transitive, requiring two arguments; *dae* is intransitive with only a slot for an NP. Both verbs assign agent to the NP *Ama*, in other words they token-share the subject. *Aduane no* is the object of *dii*. Since *dae* does not have any requirement for an object, token sharing is limited to just the subject position.

2.3.5.2 Integrated SVC (ISVC)

This type of SVC construction involves a verb in a functional distribution, with another in a lexical distribution to form a complex predicate (Aboh 2015) to which we will have the notational arrangement V_1+V_2, where V_1 is the functional verb and V_2 is the lexical verb.

-   [$_{VP}$ V_1+V_2]

-   [$_{VP}$ V_1(XP$_)$+V_2(XP)]

The complex predicate encodes a single event, as such there are no "chains of distinct non-overlapping events…" like in the CC. Breaking down the verbs into subevents results in ungrammaticality as in (20). However, this structure also involves argument sharing like the CC (Hellan et al 2013).

(20) ɔ-bɔ-ɔ   mpaeɛ ma-a   me
     3SG-say-PAST prayer give-PAST 1SG '
    'S/he prayed for me.'
          a. *ɔ-bɔ-ɔ   mpaeɛ
            3SG-say-PAST prayer

b. *ma-a   me
   give-PAST 1SG

3 Chapter 3. The Grammaticalised Verb *de* in Akan

3.1 Introduction

As languages develop, there are bound to be changes and these changes can induce a shift or change in meaning. Certain lexical forms and constructions go through a process of grammaticalization. Essentially, these forms ''come in certain linguistic contexts to serve grammatical functions'' (Hopper and Traugott 2003:1) with attendant features like reduction in phonological form and syntactic recategorization to become inflections, clitics, derivational morphemes and monomorphemic structures, etc. As these forms become bleached, they are drained of substantive lexical content to serve functional purposes such as case makers, sentence connectives and auxiliaries to accommodate trends and shifts in language structure and meaning (Hopper and Traugott 2003). Grammaticalization of forms goes through different dimensions, it can affect words, word orders and sentence structures. Diachronic studies in tandem with synchronic studies shed light on the grammaticalized forms that can be mapped over time to make sense of the shift in meaning. Grammaticalization is seen in the development of *lets* in English; a reanalysis of the cognition and perceptive Ewe verb *bé* 'say' as a complementizer, the development of the suffixal accusative marker *ra* in Persian (Hopper and Traugott 2003), and *take* verbs in Serial Verb Constructions as aspect, valency increasing and object markers in Kwa (Lee 2019) among others. Ultimately, grammaticalization leads to reanalysis and analogy with the development of new paradigms and the adaptation of existing structures to these paradigms.

A case of grammaticalization is seen in Akan with the light verb *de*. Verbs that go through grammaticalization in Akan can be distinguished and put into two different groups. The first group of grammaticalized verbs involves a shift in the primary meaning of the verbs ''but they have retained the character of verbs'' and are used for predicate relations (Riis 1854). The second group contains verbs that have changed their original meaning as well as losing the character of verbs entirely, assuming a functional delimitation only and when they are used as such, they are recategorized as belonging to different word classes. Examples are the verbal prepositions which are used to express directional relations *fi –* 'to come forth' recategorized as 'from', *kɔ* - 'to go', recategorized as 'into/onto', and *ma –* 'give' recategorized as 'for'. *De* belongs to the former group. This is a verb that is highly bleached in semantic content as such it has zero lexical codings. Any lexical coding for *de* is secondary and borne out only in context.

This secondary meaning, however, still fails to lend a clue into its primary meaning. *De* has been available since the first transcriptions of the Akan language[12] into the Latin script, so it may be difficult to map at what point the changes occurred.

Some linguists like Riis (1854) and Lord (1993) suggest that the primary meaning of *de* is similar to *fa,* the verb meaning 'take'. *Fa* is a full lexical verb that is available for verbal operations and diagnostics such as inflection for phi-features, tense, aspect, and negation. So, what informs the correlation? *De* takes *fa* as an allomorph in negative and imperative constructions and this possibly lends a clue into its primary meaning. According to Riis, *fa* in the negative and the imperative presupposes that the primary meaning of *de* could be 'carry' or 'hold' in tandem with the secondary meaning that it evokes in the instances where it has given glimpses of its lexicality. This inferencing from secondary contexts is not unsubstantiated as grammaticalized forms tend to derive their interpretations from ''the original lexical meaning by either metaphorical or conceptual metonymic inferencing. Therefore, meaning changes in grammaticalization are not arbitrary'' (Hopper and Traugott 2003:24). Again, sudden loss of meaning is not expected, there is rather a shift in meaning and there are vestiges of the 'lexical history' of the grammaticalized form that may constrain its distribution, a feature of grammaticalization known as persistence.

(1) Ɔde   akutu   ma   abofra no
    3SG-de orange   give child   DET
    'He/She gives an orange to the child.'

<div align="center">(Riis 1854)</div>

This sentence evokes a sense of motion and initial possession[13] of an item that is transferred from an agent to a goal, as in the orange being held or carried by someone and then being transferred to the child. 'He held an orange and gave it to the child'. The act of carrying or holding is imagined figuratively when *de* is used with the main verb in the clause (Riis 1854). The sentence also evokes the act of *taking* the orange and giving it to the child. Since *de* and *fa*

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[12] The first transcription of Akan in the Latin Script was done in the 17th century (Brown and Ogilvie 2010)

[13] Possession is used very loosely

are closely correlated in the semanticity of the former, is it possible then to substitute *fa* in a construction that necessitates the use of *de*?

(2) Ama de   aduane kɔ sukuu

    Ama de   food   go school

   'Ama takes food to school.'

(3) Ama fa   aduane kɔ sukuu

    Ama take   food   go school

   'Ama takes food to school'

In (2) *de* seems to imply an abstract taking of the object food, by the agent whilst with *fa* in (3), the verb is descriptive, the speaker or hearer can picture the action of food being moved from one location to the other. Though both constructions are grammatical, there is a slight difference in the meaning that they present, and the locus of this variation lies in abstractness as opposed to physicality. In this context, the literal sense of 'take' and 'carry/hold' is apparent and the two forms appear to be interchangeable. However, the interchangeability fails in the set of sentences below.

(4) a. Ebinom wɔ   akokoduro a   wɔ-de   tu sa

     some   have courage   that 3SG-de run

     Some have courage that they use to run

     'Some people dare to run.'

   b.* Ebinom wɔ   akokoduro a   wɔ-fa   tu sa

      some   have courage   that 3SG-fa   run

     'Some people dare to run.'

(5) a. Wo dɔ   a   wo-de   dɔ   me no   so

     2SG love   that 2SG-de love 1SG DET big

     Your love that you use to love me is big

     'Your love for me is big'

  b. *Wo dɔ   a   wo-fa   dɔ   me no   so

     2SG love   that 2SG-take love 1SG DET big

     'Your love for me is big'

(6) a. Yɛ-de   nyansa na   e-kura   ɔman mu

   3SG-de wisdom FOC RP[14]-hold nation in

   'We govern a nation with wisdom'

 (7) b.?*Yɛ-fa   nyansa na e-kura ɔman mu

   3SG-take   wisdom FOC RP-hold nation in

   'We use wisdom to govern a nation'

Gathering from (3) to (7), *de* is able to s-select NPs with abstract notions like love, wisdom and courage where *fa* fails. All the *a* variant of the sentences are acceptable while the *b* variants range from unacceptable to marginal acceptability as seen in (7b). When the NPs are abstract notions that do not necessitate a literal act of taking, *fa* in those expressions yields ungrammaticality. It becomes apparent that in contexts where the NP that is being acted on is tangible, *de* and *fa* are interchangeable with a marginal difference in semantics, but where the NP is intangible, the two forms are not interchangeable. As such, the paradigmatic relationship between abstract and physical denotation is made evident. Some of the possible core meaning of *de* is maintained as seen with the interchangeability with *fa* in certain contexts, new paradigms are however developed with its grammaticalized status and *de* 'becomes available to many more contexts.'[15] *De* then can be said to assume a polysemy that marks both abstract and physical denotation. It gains in pragmaticism with added layers of functional properties while being drained in lexicality.

Why the need for a grammaticalized *de* in the syntax though? Riis (1854) as well as Christaller (1875) and Boadi (1966) suggest that *de* is a repair strategy that is used for a defect in Akan which is inflectional morphology for case.

 (8) a. 'Ɔ-de   akutu ma abofra no'

   3SG-de orange give child DET

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[14] Resumptive Pronoun

[15] The other contexts that de is available to is summed up by Lee (2019) '…the semantics of 'taking' is so bleached that actual taking does not occur, thereby allowing abstract objects, such as places construed as goal, and objects with higher animacy, such as humans, to occur with 'take'.

'He/She gives an orange to the child

b.' Ɔ-ma   abofra no   akutu'
   3SG-give   child   DET   orange
   'He/She gives the child an orange'

In (1), repeated above as (8), the *b* sentence involves stacked objects and it is difficult to determine the exact grammatical role that the objects have in relation to the predicate. To disambiguate these roles, *de* is used to make transparent what the direct object and indirect object is and the sentence takes the structure in *a* because ''languages in their early stages present an action or performance in all its concrete circumstantialities'' and this goes back to the notional meaning of *de* with ''the orange being held and transferred to a different person'' (Riis 1854). Riis further argues that the trend in the language warrants *de* becoming a ''mere relational and auxiliary verb so as in the present stage of the language not to express any definite idea of its own, but to be merely subservient to the construction of the sentence, denoting the relation between the object attached to it and the predicate.'' *De* can only be inflected for person, it also ''maintains only the form of the aorist'' and it is employed in the indicative mood only.[16] It is also highly constrained in its marking and distribution being primarily analysed as an object marker, specifically an accusative case marker, in both the diachronic (Riis 1854) and synchronic grammars (Lord 1993, Lee 2019).

De as an object marker patterns with a trend in Kwa, where 'take' verbs in Serial Verb Constructions (SVCs) are grammaticalized in a V_1 functional distribution (Section 2.3.5.2). A lexical word 'take' is reanalysed as a functional word essentially serving the purpose of an object marker among other grammaticalized functions. This phenomenon is attested in Chinese, with the differential object marker *ba*[17] which can be translated as 'take/hold' in consonance with the Kwa languages. Most of the take verbs in SVCs that function as object markers in the

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[16] Refer to Section 3.4 for *de's* interaction with tense.

[17] The development of *ba* from a lexical verb to a grammaticalized verb is well documented in Chinese. As of the fifth century BC, *ba* was a predicate that meant to 'take hold of'. It appeared in SVCs in the seventh to ninth centuries AD. Currently, *ba* cannot function as the "predicate of a simple sentence" and is unable to take aspect markers (Lord 1993).

various Kwa languages retain their full lexical composition. They can be analysed as lexical verbs with contentive meaning while also serving as functional words with varying degrees of bleaching. *De* seems to be the only exception in this regard (Lee 2019).

Ewe

(9) Sɛ́tù zé   kpò xò kɔ̀jó.
     Setu take stick hit Kojo
     'Setu hit Kojo with the stick.'

                              (Aboh 2015)

Ga

(10) È   kɛ̀   wòlò ŋmè-sì̃
      she take book lay-down
      'She put down a book.'

                              (Lord 1993)

3.2 Analogy and Reanalysis

Analogy, according to Hopper and Traugott (2003), is an indicator of change in a language because it is overt. It is about rule generalisation that affects the surface structure. It uses 'extant' forms for constructions that exist already. In this instance, the rule generalisation affects the ditransitive construction with the DOC surface structure as in *a*. *De*, a verb meaning *holding* or *carrying* that already exists for lexical purposes, is used in the Double Object Construction (DOC) in *a* to disambiguate the roles of the two objective NPs. As can be seen in *b,* the surface order changes and one of the objects is shifted from its canonical position. In the initial phase where *de* was still a lexical verb, the configuration in terms of an SVC would be the structure in *b,* with all the verbs in the sequence being notional. Then as the rule spreads and *de* becomes available to other contexts, it mutates and becomes bleached of its lexical semantics and verbal properties, eventually resulting in the structure in *c.* The result is that the structures in *a* and *c* coexist as variations of a ditransitive construction, *de* gets recategorized as a functional verb, and its grammatical relation with the other syntactic units is reanalysed as an object marker.

a. [ma abofra no akutu]¹⁸ >

b. [de akutu][ma abofra no]] >

c. [de [akutu [ma abofra no]

Reanalysis on the other hand, involves a covert restructuring of constituent and hierarchical structures as well as a reassessment of grammatical relations and category labels that result in rule change. Reanalysis is brought about by language users in interactive discourse, basically what a hearer hears and misinterprets can lead to the development of new structures and forms. It can also occur with ambiguity or opacity. As an example, *try + main verb* in English is reanalysed as *auxiliary + main verb* (Hopper and Traugott 2003) and this reanalysis will entail constituent rebracketing and syntactic-semantic relabelling since *try* here is not being employed in its primary sense as a lexical verb. As has been hitherto discussed, *de* has been reanalysed as a functional morpheme and as a natural consequence, undergoes the covert mechanisms of reanalysis shown below:

d. [de akutu][ma abofra no]] >
e. [de [akutu [ma abofra no]

Reanalysis affects the syntagmatic axis, thus the linear ordering of syntactic sequences and the relations that hold between them. What has happened with the rebracketing in *e* (*c* rewritten as *e*) is an 'instance of constituency change'. In terms of subcategorization, *de* is unable to c-select 'akutu' in *e* where it could as a lexical verb in *d* (*b* rewritten as *d*). The purpose of *de* in the *e* sequence is to mark accusative case. In terms of an SVC, *e* ushers in a new structure distinct of the Clause Chaining kind to become an Integrated Serial Verb Construction (ISVC) (viz Section 2.3.5). What has happened in the two structures, thus d > e can be explained in terms of abduction[19]. Eventually, the *de* in *e* assumes a new structure and interpretation as a functional morpheme with attendant changes in constituency and category status. Reanalysis ''replaces

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[18] For gloss refer to (1)

[19] In a logical reasoning framework, inductive and deductive reasoning uses a syllogism of case, law and result to make inferences about a situation. Abduction, using the syllogism, can make inferences about a situation beyond its scope that can also return untrue values or result in the generation of new rules.

old structures with new ones, it is covert because the surface structures do not change'' (Hopper and Traugott 2003).

3.3 Reanalysis, a Reconsideration:

This section departs from the literature of *de* in its description as an object marker for a reconsideration as a semi-functional (θ assigning) element in the V domain which has implications for argument structure marking.

3.4 Reanalysis as a semi-functional (θ assigning) element in the V domain

Following the change in its status, *de* is reanalysed as a morpheme that encodes grammatical information and thereby assumes a functional status. However, since it is possible for grammaticalised forms to maintain some properties of the forms from which they evolve, it is plausible that as a verb, *de* may still have some property of its lexical composition intact. This presupposes that *de* can be toggled between a functional class and a lexical one. In that sense, *de* can be considered a semi-functional element with a fusion of both lexical and functional properties. In a functional-lexical dichotomy analysis, Corver (2013) presents some indicators for distinguishing between a functional class and a lexical class. Lexical classes have a ''relatively 'specific or detailed' semantic content and as such carry the principal meaning of a linguistic expression'' (Corver 2013:355). For a verb, the lexical indicators are contentive meaning, argument selection, and theta role assignment. The first indicator is straightforward from the discussion thus far, *de* is bleached of any notional semantic content as such it cannot function as the predicate of a simple clause.

(11) a. *Ama de kuruwa dabiara

      Ama de cup   every day

    b. Ama fa   kuruwa nom nsafufuo dabiara

      Ama take cup   drink palmwine everyday

      'Ama takes a cup to drink water every day.'

The second indicator is less obvious. So put to the test, let us consider the minimal pair in (12). *Drink* is a transitive verb that subcategorises for two arguments – a subject and an object with the thematic roles of agent and theme respectively. Subject to the theta criterion, the arguments get their theta roles directly from the verb that selects it as in (12a). In the *b* construction however, an extra argument *kuruwa*, an instrument/means, is introduced that is not licensed by

drink. The only other head in the construction that can license and assign a theta role to *kuruwa* is *de* because it introduces this extra argument. In the Pylkannen (2002, 2008) literature, this would refer to an applicative construction.

(12) a. Ama nom   nsafufuo

     Ama drink palmwine

    'Ama drinks palmwine.'

  b. Ama de kuruwa nom   nsafufuo

    Ama de cup   drink palmwine

    'Ama drinks water with a cup.'

The same morphological exponence in (12b) holds for the sentence in (13b) where *de* selects the external argument *Kofi* and assigns it the theta role of causer.

(13) a. Asɛm bɛ-ba

     Trouble FUT-come

  b. Kofi de asɛm   bɛ-ba

    Kofi de trouble   FUT-come

    'Kofi will bring trouble.'

In contrast to lexical classes, functional morphemes lack lexical content. Functional morphemes can function as discourse connectives that encode purely grammatical meanings like definiteness, finiteness, etc. Other indicators of a functional morpheme include a closed class of words, and (morpho)-phonological dependence (Corver 2013). As already stated, *de* lacks lexical meaning and subject to the diagnostics and characteristics of verbs in Akan (viz Section 2.3.3), it falls short of the ability to undergo most of the operations except for inflection for person. It lacks morphological inflection for T, Asp, and Neg. In the examples below, *de* is contrasted with *di-* 'eat', a full lexical verb, and as can be seen, only the inflection for person is grammatical. In this sense, *de* can be said to have undergone a morphological reduction.

(14) T   *bɛ-de   be-di   'will eat'

    Neg   *n-de   n-ni   'not eat'

    Asp   *a-de   a-di   'has eaten'

    Person   yɛ-de   ye-di   'we eat'

Another functional diagnostic is that, unlike lexical verbs, *de* is unable to form a constituent with the NP it selects. This is evidenced through constituency tests like movement and ellipsis.

(15) Noa aduane/ *de aduane

cook food/   de food

[$_{VP}$ V NP]   *[$_{VP}$ V NP]

(16) a. Kwame de ngo   noa   aduane

   Kwame de palmoil cook food

   'Kwame cooks food with palmoil.'

b. *Movement*

   De ngo,   Kwame noa   aduane

   de palmoil, Kwame cook food.

c. *Ellipsis*

   i. Deɛn na   Kwame de noa   aduane?

      what FOC Kwame de cook food

      'What does Kwame cook with?'

   ii. *De ngo

       de palmoil

The last diagnostic is the type of construction that *de* enters. It obligatorily enters monoclausal constructions, specifically, the Integrated Serial Verb Construction where it remains in a V$_1$ functional distribution as opposed to a Clause Chaining SVC where all the verbs are lexical as in (17). Aside from the lexical component in (17), the two phrases that are contained can be joined together as a coordinate structure by the conjunction *na* – 'and' and we can have (17b). This establishes a temporal order, and the sentence can be broken down as subevents with a degree of independence – *take a cup, then drink water*. The same cannot be said of the ISVC construction in (18) as such a relation results in ungrammaticality because one verb is in a functional distribution. What is this functional distribution and how is it established?

(17) a. [$_{VP1}$ fa   kuruwa] [$_{VP2}$ nom nsuo]]

   take cup   drink water

   'Take a cup and drink water.'

b. [fa   kuruwa] na [nom   nsuo]]

   take cup   and drink water

   'Take a cup and drink water.'

27

(18) a. [Ɔ-de   kuruwa nom   nsuo]

      3SG-de cup   drink water

      'He/She drinks water with a cup.'

   b.*[Ɔ-de   kuruwa] na [nom nsuo]]

     3SG   cup   and drink water

The functional distribution can be established through an analysis of the possible structural relations that underlie SVCs – which are adjunction, coordination, and subordination (Johnson 2006). If the relation is subordination, it would correspond to a specifier relation and if it were adjunction, it would correspond to an optional modifier. In (17), the two constituents, VP_1 and VP_2 relate to each other by adjunction because the second constituent is an optional modifier, *take the cup* can be optionally modified by *the act of drinking water*. As such VP_1 does not require the information in VP_2 to make its meaning complete and VP_2 gets adjoined to VP_I, with VP_1 becoming the head of the projection because of the prominence of its object as opposed to the object of VP_2.[20] Adjunction presupposes that the projection is a projection of one of the two constituents that have merged (Johnson 2006).

(19) VP_I

               VP_1 VP_2
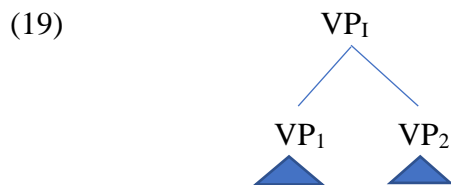
The structural relation in the ISVC construction, on the other hand, is not of adjunction but subordination. This is better represented by the reanalysis paradigm in (20).

(20) a. [VP1 de kuruwa] [VP2 nom nsuo]] >

    b. [FP F de [kuruwa [VP nom nsuo]

(20a) is the CC structure with an adjunction relation when *de* was still a full lexical verb. Over time, the relation ceases to be adjunction because the lexical component in the V in VP_1, which is contentive meaning, is lost. As a result, VP_1 disintegrates and is no longer a constituent. VP_1 is then reanalysed as involving a functional head that embeds VP_2 and takes it as its complement in (20b). The structure is still a projection of VP_1 but VP_1 is now functional not lexical and VP_2

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[20] The object of VP1 has a higher referential prominence because "...it can bind a pronoun that is an object of the second verb…VP1 must have a higher projection than VP2" (Johnson 2006:44).

is structurally contained within the projection of the functional head, in the sense of an extended projection, subject to the Functional Head Hypothesis (Grimshaw 1991).

(21)　　　　　　　　　FP$_1$

F$_1$　　　VP$_2$
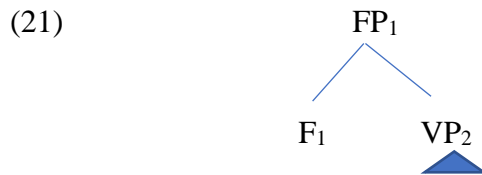
3.5 *De* in the V domain

The V domain is a layered field with both functional and lexical heads. The V head introduces the internal argument, and the v/Voice head introduces the external argument (Chomsky 1995, Marantz 1997, Harley 1995). From the examples in (12) and (13), *de*, a semi/functional verb, is seen to encode causative as well as applicative semantics. Because v is able assign theta roles to external arguments, I take that as an indicator of its lexical colouring, so the description of *de* as a semi-functional is apt. *De* has multiple distributions in the V domain as shown below. As a causative, *de* can be considered an inner causative, sharing the same structure as little v and licensing a causer.

(22)

vP

EA　　　v'

v　　　VP
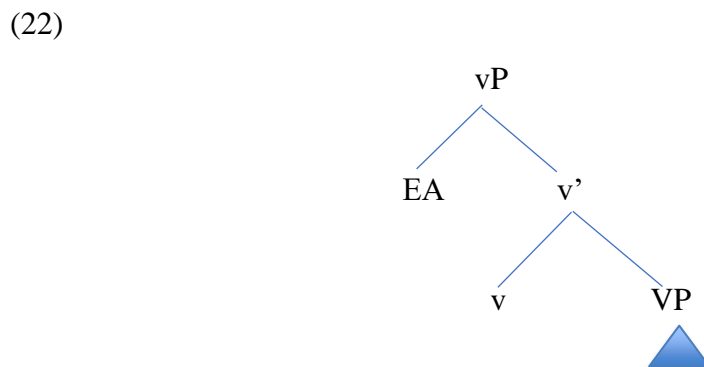
 As an applicative, *de* is sandwiched between V and v. Unlike the causer which adds an external argument, the applicative adds an internal argument.

(23)

```
                          vP
                    ┌──────┴──────┐
                   EA             v'
                           ┌──────┴──────┐
                           v           ApplP
                                   ┌──────┴──────┐
                                  IA           Appl'
                                          ┌──────┴──────┐
                                         Appl          VP
                                                        ▲
```
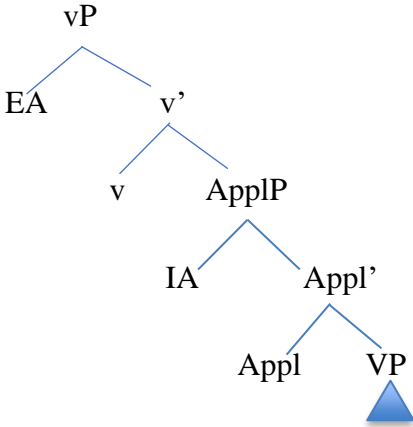
4 Chapter 4. Valency Operations: The Causative Use of *De*

4.1 Introduction

Causatives, in a sense, can be considered as valency increasing morphemes that introduce new actors in a clause and modify the argument structure. They are quite pervasive in the languages of the world and have received extensive literature delving into its syntax and semantics (Haspelmath and Muller-Bardey 2004, Shibatani and Pardeshi 2001, Guillaume & Rose 2010, Guillaume 2008, Dixon 2000b, Comrie 1975, 1976) as well as its polysemy with applicatives (Song 1990, Holt 1989, Quesada Pacheco 2011). A causative head combines with an intransitive to assume transitivity effects and its use is necessitated when speakers "need, or want, to introduce to the clause an external agent, the causer" (Zúñiga and Kittilä 2019). Zúñiga and Kittilä (2019) further distinguish prototypical causers – those that are directly involved in the event expressed by the VP; thus, they are actual performers in the action being undertaken and those that 'instigate' a causee to undertake the event as non-prototypical causers. Apart from the introduction of new arguments to the clause, a causative head also assigns theta roles to its specifier. Theta role assignment occurs in the VP domain (Chomsky 1995, Kratzer 1996). Following the previous chapter which dichotomises the VP domain into functional and lexical domains, the vP in the 'lexical domain' is what constrains causative syntax (and semantics).

(1)
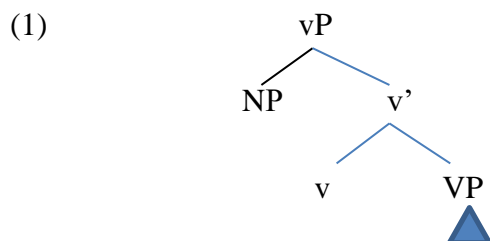
The causative head syntax can be conceived as revolving around transitivity. Causative heads that induce the introduction of an additional argument to the clause to assume transitivity effects can be represented with the structure in (1) with the vP licensing the external argument in [Spec, vP]. Causative marking may take different forms. It can be morphological, periphrastic or lexical. Morphological causation may typically involve a morphophonological process that triggers causation like consonant gemination, affixation or vowel lengthening among others. Lexical causation is not reducible to a specific morpheme. On the contrary, it is built in coherent

semantics eg "*die* vs *kill*". Periphrastic causation encodes causation with a complex predicate (Zúñiga and Kittilä 2019).

The salient characteristics of the causative head/clause are summed up following Zúñiga and Kittilä (2019) as follows:

a) "The syntactic valency of a causative clause is one higher than that of the base, non-causativized, clause…
b) A new A (the causer) is installed into the semantic argument structure.
c) The new A (the causer) is introduced as the subject of the causative clause; the base subject of the non-causative clause (the causee) may be a core argument or an adjunct in the causative clause.
d) Causativization is formally coded on the predicate complex."

In the examples below, the argument structures of the clauses are modified with the addition of an external argument, a causer, introduced by a causative morpheme into the clause. For Kinyarwanda, the causative morpheme *-esh*, a part of the verbal complex, introduces the causer which modifies the argument structure in the clause from two arguments to three arguments in (2). The Javanese example in (3) also follows a similar structuration, this time, with the causative morpheme *-aké*. The clauses in (2) and (3) can be contrasted as non-prototypical and prototypical causers respectively.

Kinyarwanda

(2) a. Habimana y-a-men-a igi-kombe

   Habimana 1.sbj-pst-break-ipfv 7-cup

   'Habimana broke the cup.'

 b. Habimana y-a-men-esh-eje umw-ana igi-kombe

   Habimana 1.sbj-pst-break-caus-pfv 1-child 7-cup

   'Habimana made the child break the cup.'

Javanese

(3) a. ès nyair

    ice melt

    'The ice melted'

  b. aku nyair-aké ès

    1SG melt-caus ice

    'I melted the ice.'

                    (Franco 2019)

4.2 *De* as a causative

De as a causative shares prima facie parallels with (12) and (13) from the discussion in the foregoing chapter on its causative use. It can be considered as a prototypical causative that encodes causation periphrastically as it combines with a base verb in an ISVC with a V_1 functional distribution. As a causative, the base verb that *de* combines with is not open to a wide array of VP selection, it is restricted. The base verb must either be an intransitive verb, or a locative verb. With *de* being a periphrastic causative, its combination with the intransitive or locative verb results in a valency-changing operation, and the argument structure is modified with the selection of an additional NP in agentive role. By virtue of this, the clause then assumes a transitive interpretation which makes *de* a marker of transitivity.[21]

De + intransitives

(6) a. Asɛm   bɛ-ba

      trouble   FUT-come

      'Trouble will come'

---

[21] In (6) to (7) the verbs *come* and *go in* the *a* constructions change to *bring* and *take* in the *b* constructions.

b. Kofi de   asɛm   bɛ-ba

   Kofi de   trouble   FUT-come

   'Kofi will bring trouble'

(7) a. Kɔ   fie

   Go   home

   'Go home.'

   b. Fa   no   kɔ   fie

   Take   3SG go   home

   'Take him/her home '

                              (Christaller 1964)

De + locative verbs

(8) a.   Ataade no   sɛn   hɔ

   dress   DET hang there

   'The dress hangs there.'

   b.   Kwame de ataade no   sɛn   hɔ

   Kwame de dress   DET hang there

   'Kwame hangs the dress there.'

(9) a.   Nsuo gu   ahina no   mu

   water in   pot   DET in

   'There is water in the pot'

34

b.   Kofi de nsuo gu   ahina no   mu

      Kofi de water pour   pot   DET in

      'Kofi pours waters into the pot.'

(10) a. Kanea si pon   so

      lamp is table on

      'A lamp is on the table.'

   b.   Owura no   de kanea si pon   so

      Man   DET de lamp put table on

      'The man puts a lamp on the table.'

(Riis 1854)

The *a* constructions in the paradigm are non-causative with one to two arguments. However, with the introduction of *de* in the *b* constructions, the arguments increase in number. The modification in the argument structure encodes a slight semantic change and a causal interpretation is inferred.

(11) "New subject = causative 'cause to V_0 ', 'make V_0' where V_0 = embedded base verb"

(Kulikov 2011)

De + Locative verbs and Aspect

Apart from the causative effect of *de* in the locative verb constructions, it also changes Aktionsart. The locative verbs change from static in the non-causative constructions to dynamic in the causative constructions because of a change in tone that can be attributed to the presence of *de* in the clause. Recall that tone is grammatical in Akan and the continuative and habitual aspects are distinguished through tone (viz Section 2.2.) When *de* combines with locative verbs, the high tone that is derived on the verbs gets interpreted as habitual as shown in the *b*

constructions as opposed to the continuative in the *a* constructions. So, in a way, Aktionsart interacts with aspect in Akan through *de*.

(12) a. Ataade no **da** fam

     dress DET lie   floor

     'The dress is on the floor.'

   b. Kofi de ataade no   **tó**[22]   fam.

     Kofi de dress DET put   floor.

     'Kofi puts the dress on the floor.'

(13) a. Nam **dà**   kyɛnsee no   mu

     meat sleep bowl   DET inside

     'There is meat in the bowl.'

   b. Kofi de nam **tó** kyɛnsee no   mu

     Kofi de meat put   bowl   DET inside

     'Kofi puts meat put meat in the bowl.'

(14) a. Nsuo **sì**   pono no   so

     Water sit table DET on

     'There is water on the table.'

   b. Kofi de nsuo **sí** [23] pono no   so

---

[22] The different words for expressing the act applies to location-placement type verbs in coherence semantics. Examples are verbs that pattern together like 'lie' and 'lay' in English.

[23] 'Si' can surface with a low tone in the *de* construction, but it would mean that Kofi is actually sitting on the chair with the water which is not a causative interpretation.

Kofi de water put   table DET on

‘Kofi puts water on the table.’

(15) a. Atwedeɛ no **twèrè** dua no ho.

    ladder DET lean   tree DET skin

    ‘The ladder is leaning against the tree.’

  b. Kofi de atwedeɛ no   **twéré**   dua no   ho

    Kofi de ladder   DET   lean_{HAB} tree DET   skin

    ‘Kofi puts the ladder against the tree.’

Unaccusatives

Some unaccusative verbs may be syntactically restricted in their expression of causation with *de*. In the instances where a causative interpretation was induced (16 to 17), an extra argument was introduced that patterned with the way instrument/means is expressed (see below) in the language.[24] An unaccusative verb like ‘drip’ can never become causal with the causative head *de* (19).

(16) a. Mpoma no   bu-i

    window DET break-PAST

    ‘The window broke.’

  b. Mframa no   de ahoɔden bu-u   mpoma no

    wind   DET de strength break-PAST Window DET

    ‘The force of the wind broke the window.’

---

[24] This situation, where *de* adds both a causer and a seeming applicative will be addressed in the chapter on Unification (Chapter 7).

(17) a. Nkwan no   nane-e

      soup   DET melt-PAST

      'The soup melted.'

  b. Kofi de egya na   ɛ-nane-e   nkwan no

     Kofi de heat FOC RP[25]-melt-PAST soup   DET

     'Kofi defrosted the soup with heat.'

(18) a. Mogya no   re-sɔne

    blood   DET PROG-drip

    'The blood is dripping.'

  b. *Kofi de…X[26].. mogya re-sɔne.

4.3 *De* as causP

In the foregoing section, *de* appears to license the argument in [Spec vP], assigning the theta roles of actor, causer and agent. When combined with an intransitive or locative verb, the anti-causative meaning encoded in the sentence changes and becomes transitive with the addition of a new argument for a causal interpretation. Breaking down the mechanics of this relation in (20) with the clause in (19b), an agent introduced by the causative head moves to the subject position [Spec, TP], above the head that introduces it, where it is assigned its theta role from the nearest head subject to Relativised Minimality. *Kuruwa*-cup is introduced by the spatial relation and moves to the specifier of VP. *De* moves to T for purposes of linearisation at PF. Though *de* appears not to be able to carry tense in the indicative mood, its movement to T is made possible because of Tense agreement in Akan. A single tense is repeated on all verbs in

[25] Resumptive Pronoun

[26] Where X is an instrument, means or material.

an SVC sequence with an Agree feature (viz Section 2.35), as such the tense morphology in Akan is T-v-Agree (Owusu 2022). When we take negative and imperative constructions where *de* surfaces with the allomorph *fa*, tense agreement is overt on *de* and the other ensuing verbs in the construction.

(19) a. Kuruwa no   si   pon no   so

    cup   DET sit table DET   on

    'The cup is on the table.'

  b. Kofi de   kuruwa no   si pono no   so

    Kofi CAUS cup   DET   sit table DET on

(20)

```
                                    TP
                              ╱           ╲
                          NPᵢ               T'
                          Kofi          ╱        ╲
                                     deⱼ          causP
                                              ╱          ╲
                                            tᵢ            caus'
                                                      ╱         ╲
                                                   causⱼ         VP
                                                            ╱         ╲
                                                          NP            V'
                                                          △          ╱     ╲
                                                      kuruwa no     V       PP
                                                                    si    ╱     ╲
                                                                        NPₜ      P'
                                                                        △      ╱    ╲
                                                                    pon no    P      NP
                                                                              so     △
                                                                                     t
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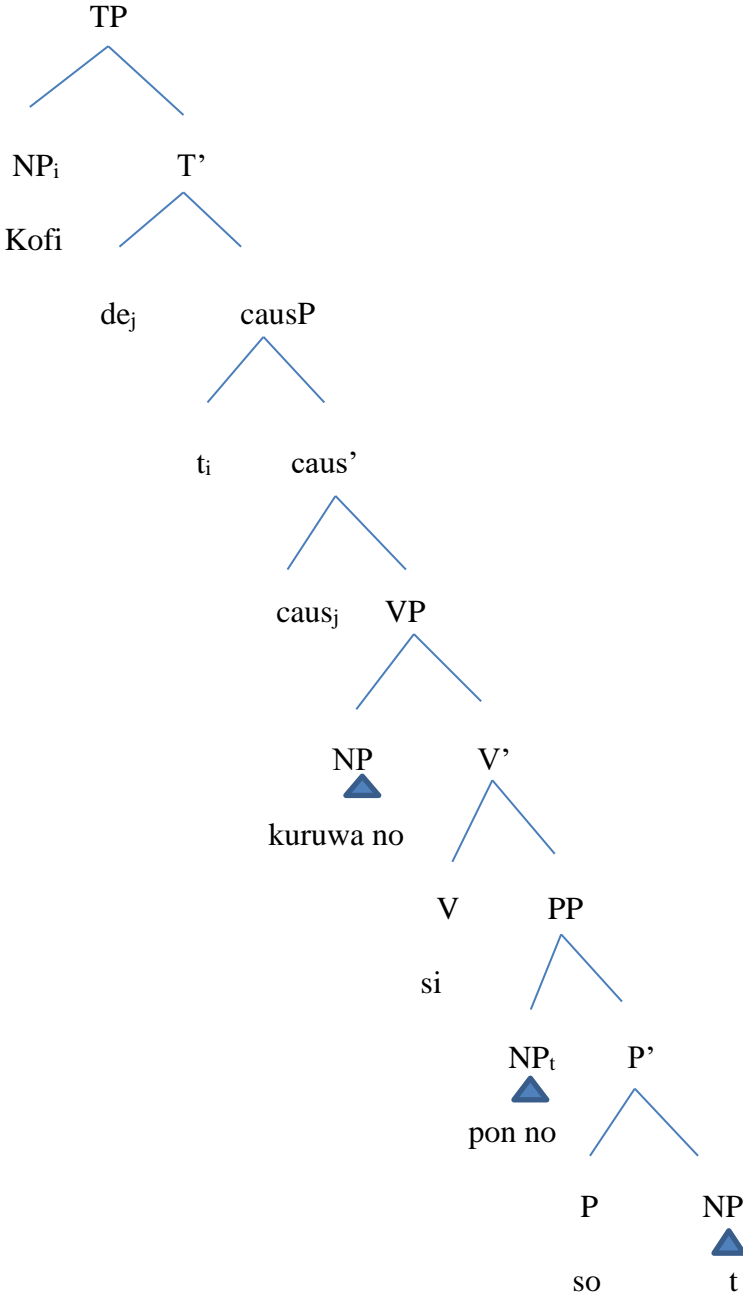
5 Chapter 5. Valency Operations: The Applicative Use of De

5.1 Introduction

Applicative constructions allow the encoding of non-core arguments as core arguments in a clause (Pylkkänen 2008, Peterson 2006). Arguments that are not subcategorised for by the verb in a clause can be introduced or promoted as core arguments through 'overt verbal morphology' (Peterson 2006) or morphosyntactic alignments (Baker 1988). The resultant effect of this is a modification in the argument structure as regards valence. The argument that is introduced can be either a subject or an object depending on the kind of Head that introduces it. Two kinds of heads are thus attested: the applicative head with connotations of 'give'/'to the benefit of' and the causative head which induces inferences of 'make'/cause' (Jung 2014). The heads do not only introduce new arguments to the clause, they also assign theta roles. As such an applicative head assigns a theta role to its specifier. Theta role assignment occurs in the VP domain. The applicative head (ApplP) can either be situated between the two VP domains, thus between the domain that introduces the external argument and the one that introduces the internal argument, or below the VP. Two types of applicative heads are attested cross-linguistically: the low applicative and the high applicative (Pylkkänen 2002, 2008).

Using asymmetries in English and Chaga DOC benefactive constructions, Pylkkänen (2000) makes a case for the two applicative subtypes. The high applicative introduces a new argument, the applied object. The low applicative relates an applicative object to an individual and is usually possessive.

Chaga

    (1) a. N-li-Y-lyi-i-a rh -ka k-elya I

        FOC-I s-PR-eat-APPL-FY -wife-food

       'He is eating food for his wife'

      b. N-a-i-zric-i- a mbitya.

        FOC-I s-PR-eat-APPL-FY friend
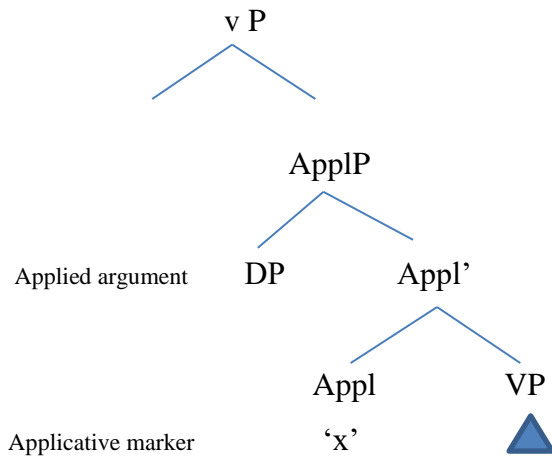
'He is running for a friend'

English

  (2) a. I baked a cake.

    b. I baked him a cake.

    c. I ran.

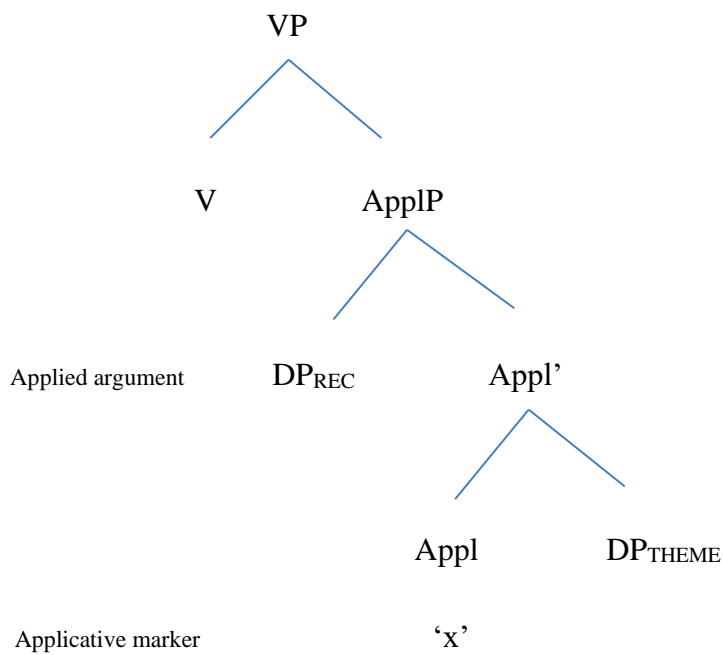   d. *1 ran him. (i.e I ran for him)

(Pylkkänen 2000)[27]

In (2a), the wife, the applied object, only benefits from the event carried by the VP. She is not directly involved in the event and therefore ''bears no relation to the object, food'' (Pylkkänen 2000:198). However, she is linked to this event by the applicative and there isn't any transfer relation between the applied object and the direct object. On the contrary, the relation that is established in (3b) is between two arguments – an individual and the direct object. There is a transfer of possession from one argument to the other. The agent bakes a cake which is transferred to a recipient (him) and 'him' becomes the possessor of the 'cake'. The contrast between these two DOC constructions is that while Chaga does not require a relation between the applied object and the direct object, English requires an obligatory relation between the applied object and the direct object. Therefore, the constructions in (2) cannot be realised as a DOC construction in (3), hence the ungrammaticality of (3d). To that effect:

---

[27] Pylkkanen (2000) quoting (Bresnan and Moshi 1993: 49-50) for the Chaga example.

(3) A high applicative 'denotes a relation between an event and an individual.'

```
                    v P
                   /    \
                        ApplP
                       /     \
  Applied argument   DP      Appl'
                            /     \
                          Appl     VP
  Applicative marker      'x'      ▲
```

(4) A low applicative, 'denotes a relation between two individuals.'

```
                    VP
                   /    \
                  V     ApplP
                       /      \
  Applied argument   DP_REC    Appl'
                              /      \
                            Appl     DP_THEME
  Applicative marker        'x'
```

5.2 *De* as an Applicative

As an applicative, the base verb that *de* selects is not restricted to a closed verbal class. *De* can combine with intransitive, monotransitive and ditransitive verbs. Akan uses *de* as an applicative marking morphology particularly to mark instrument, material or means and grammaticality judgments are affected when *de* is absent in a construction where these types of readings are

necessitated. With intransitive verbs, a comitative interpretation can also be encoded in the construction.

(5) a. Ɔ-da

    3SG-sleep

  b. Ɔ-de   ∅   da

    3SG-de NP   sleep

    'He/She sleeps with it.

  c. Ɔ-de   aboduaba no   da

    3SG-de toy   DET sleep

    'He/She sleeps with the toy.'

  d. *Ɔ   aboduaba no   da.

    He/She toy   DET sleep.

The constructions in (5) show a progression of the structural and semantic change in the sentence with *de* as an applicative. Juxtaposing *a* and *b*, semantically, there is supplemental information with the introduction of *de*, a comitative reading is assumed with the actions of the agent. To that effect, there is an accompanier and an accompanee. However, the accompanee is covertly realised in (5b). Structurally, the construction changes from one to two arguments. Expanding the construction, the phonologically null elliptical object in *b* is realised in *c* as an overt NP, *aboduaba* which becomes the direct object of the clause. As with the causative *de*, applicative *de* with an intransitive verb changes the construction to a transitive one where *de* + the lexical verb subcategorises for two NPs. When *de* is omitted from the sentence, it becomes ungrammatical as shown in *d*. While the sentence can generally be accepted as a comitative, this interpretation can overlap lightly with an instrumental reading suggesting a degree of optionality in the expression of comitativity. Comitativity is usually marked with the 'clausal connective ne' (Amfo 2010) in Akan. A major factor affecting the comitative-instrumental dichotomy is animacy. When the direct object of *de* is changed to an NP with a +animate

feature, the sentence becomes ungrammatical in a comitative interpretation with *de* but acceptable in a comitative interpretation with *ne*.

(6) a. *Ɔ-de   kraman no   da

    3SG-de dog   DET sleep

    'He/she sleeps with the dog.'

  b. Ɔ-ne   kraman no   da

    3SG-ne dog   DET sleep

    'He/she sleeps with the dog.'

A purely instrumental reading of *de* + an intransitive verb without any ambiguities is (7).

(7)   Ɔ- de   ne   nsa   benkum didi

    He/She -de GEN hand left   eat

    'He/she eats with his/her left hand.'

The same morphological exponence in (5) holds for monotransitive constructions with instrument, materials and means readings as shown in (8) to (11).

> - *De* is an obligatory morphological marking in these types of constructions.

> - The direct object that *de* introduces can be phonologically null, although a null instrumental reading follows from the omission of the direct object.

> - As an applicative, *de* changes the argument structure of a clause, by increasing the number of arguments.

Decomposing (8), the verb *nom*-drink subcategories for two core arguments which are realised as *Kwame* and *nsuo* – water. With *de*, the arguments increase to three. In effect, there are two Objects and one Subject. In this instance, because there is only one place for the S position, *de* and *nom* are explained as 'subject-sharing'. The empirical basis of this is that the NP in S

position cannot be displaced or omitted. However, the two NPs in object positions can be omitted because they are governed separately.

- De (O) + Lexical VP (O)

The applied object can be phonologically null without affecting the grammaticality of the sentence as in (8c), but specificity is affected and Kofi is understood as drinking water with something and not specifically a cup**.** The omission of the object of the lexical verb results in a somewhat grammatical sentence in (8d). The reason why grammaticality judgments are not affected in (8c) may be because the applicative object is not a core argument or because the lexical verb does not govern that particular NP. As with the obligatory requirement of *de* in instrumental readings, (8e) becomes ungrammatical in the absence of the morpheme.

(8) a.   Kwame nom nsuo

Kwame drink water

'Kwame drinks water'

    b.   Kwame *(de) kuruwa nom nsuo

Kwame de   cup   drink water

'Kwame drinks water with a cup.'

    c.   Kwame de Ø nom nsuo

Kwame de   drinks water.

Kwame drinks water with it.

    d.   ?Kwame de kuruwa nom Ø

Kwame de cup   drink

    e.   *Kwame kuruwa   nom   nsuo

kwame   cup   drink water

(9)   Wɔ-de afiri   na   yi   anomaa

       3PL-de machine   that remove bird

       'With a snare they catch a bird.'

(10)   Ɔ-de   ahohyu   ayera ne   nneɛma nyinaa

       3SG-de debauchery lost   GEN things   all

       'By debauchery he lost all his property.'

(11)   Me-de ne   din   mi-fre   no

       1SG-de GEN   name 1SG-call 3SG

       'I call him by his name.'

(Riis 1854)

5.3 De as ApplP

The ApplP appears to introduce an argument above the VP and relate an argument to the event described by the VP. Unlike the causative which places the argument before the head that introduces it, the argument that the ApplP introduces appears after it. The theta role that this head assigns is comitative or instrument/means.

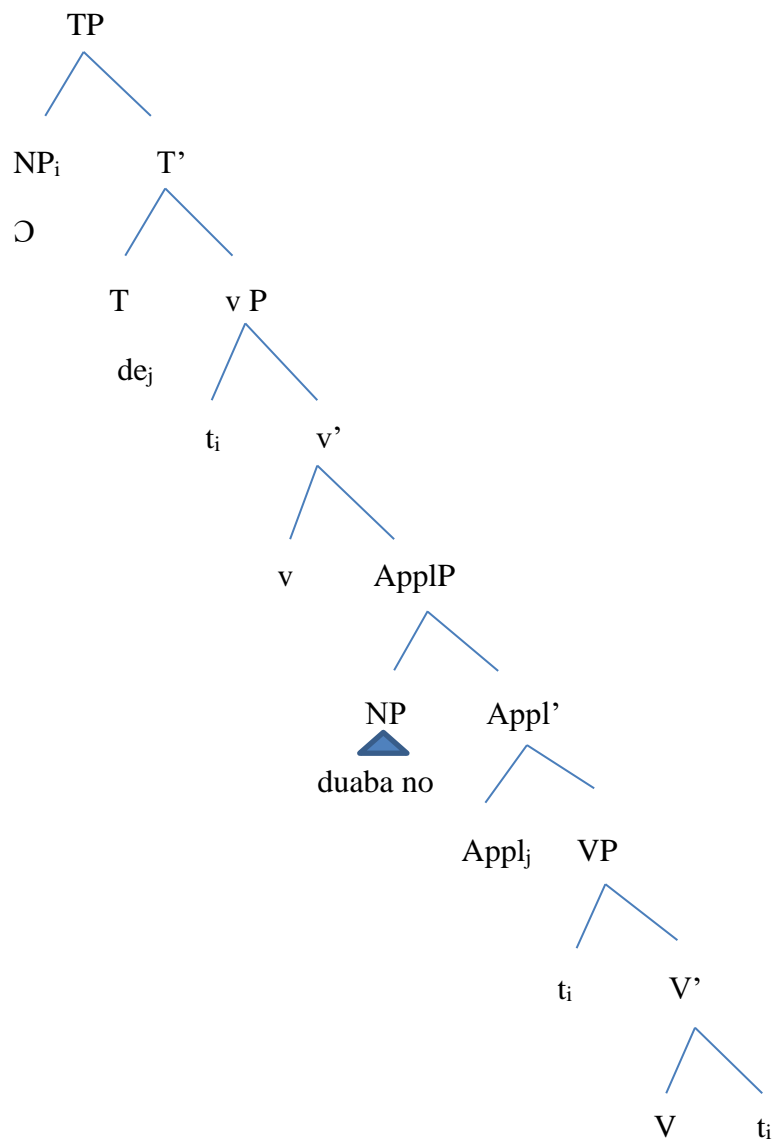(12) Ɔ-de   duaba no   da

    3SG-APPL toy   DET   sleep

In (12), the event expressed in the VP is an intransitive verb *da*-sleep that consists of two parts – v and V. So, *da*-sleep gets its theta role assigned at v, as it does not have an internal theta role. Because its theta role is assigned at v, it becomes the argument of little v where it is assigned a theta role as an experiencer, or rather, an external experiencer. Thus, sleep becomes an experiencer verb that consists of both little v and VP with the applicative head somewhere in between the two domains subject to the structure in (4) for the high applicative. The applicative head then assigns a comitative or an instrumental theta role to the argument that it introduces.
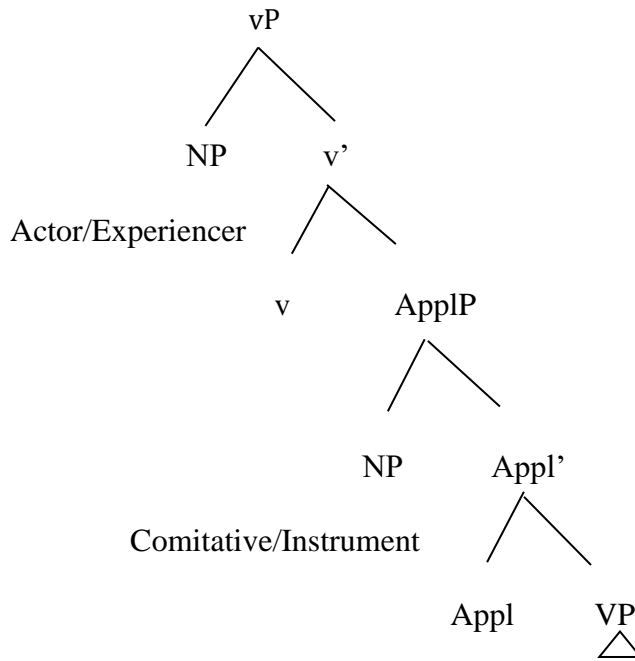
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De, like the causative projection, moves to T. This recourse is necessitated because of the word order. If the subject of *da* - 'sleep' were to be generated in the VP, then it would not be able to move successive-cyclically to the subject position at [Spec, TP]. There would be a violation of Relativised Minimality as the argument would have to cross the ApplP to get to [Spec, TP] as shown in (13). In that regard, the correct structure for ApplP is (14).

As a rule: If α is closer to γ than β, and α and β are the same type, then β should not be able to move to γ. (Rizzi 1990)

(13)

(14)

```
                        vP
                       /  \
                    NP      v'
               Actor/Experiencer
                            / \
                           v   ApplP
                              /    \
                           NP       Appl'
                    Comitative/Instrument
                                    /   \
                                 Appl    VP
                                         /\
```
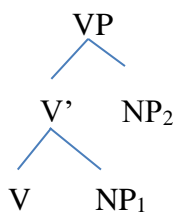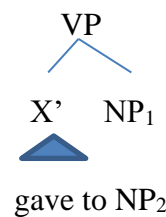
5.4 Ditransitive Constructions

Trivalent propositions are effectuated in two structurally distinct ways—in a Double Object Construction (DOC) and a Dative Construction. In both constructions, the verb subcategorises for two internal arguments - a theme and a goal/recipient as well as an external argument which is the agent. The DOC assumes a construction where there is adjacency in the objects that the base verb subcategorises for. It surfaces with the order **V-goal-theme**. In the Dative Construction, the goal is a PP, and the linear order that follows is **V-theme-(to) goal.**

(15) a.   DOC (Chomsky 1981)   b. Dative Construction (Chomsky 1955)

```
           VP                                              VP
          /  \                                            /  \
        V'    NP₂                                       X'    NP₁
       /  \                                             /\
      V    NP₁                                      gave to NP₂
```

There have been different approaches to the analysis of ditransitives. One is the derivational approach, where the DOC and the Dative construction are derivationally related. Other approaches assess the DOC as 'derivationally independent' of the Dative Construction (Harley and Miyagawa 2017). And the one that would be most relevant to linearisation in the *de* construction is alignment strategies (Haspelmath 2021). In this theory, the theme and the

recipient/goal surface with asymmetries in the coding patterns with respect to grammemic marking where either of the two is marked with case markers, adpositions, applicative heads, etc. The DOC correlates to the neutral alignment where both arguments receive zero coding. The DC, however, correlates to indirective alignment, it is the goal that is overtly marked. The *de* construction then would be the secundative alignment, which is distinct of the DC, because it is the theme, not the recipient/goal, that is marked.

Neutral alignment (No overt coding)

(16)   Peter sent Mary $_R$ a box $_T$

Indirective alignment (R receives grammemic marking)

(17)   Peter sent a box $_T$ to Mary $_R$

Secundative alignment (Ewe, Kwa: T receives grammemic marking)

(18)   Kosí   tsɔ-e $_T$ ná   Amí $_R$.

         Kosi   take-3SG.OBJ   give   Ami

         'Kosi gave it to Ami.'

In Akan, the secundative alignment follows from the introduction of *de* which dislocates one of the objective NPs in the DOC construction to the left in line with Marantz' (1993) theory of an applicative head analysis. The difference, however, is the NP that *de* attracts. *De* licenses the theme and promotes it to the center as an applied object. In Marantz's theory, the applicative head licenses the goal. In the Haspelmath literature (2021), this would be the indirective alignment.

(19) a. M-mea   no   ma-a   [NP1 abofra no]   [NP2 aduane]

         PL-woman   DET   give-PAST   child   DET   food

         'The women gave the child food.'

      b. M-mea   no   de [NP2 aduane] ma-a   [NP1 abofra no]

PL-woman DET de   food   give-PAST   child DET

'The women gave food to the child.'

(20)   VP→ NP$_1$ - NP$_2$

The object position is inhabited by two different NPs – NP$_1$ and NP$_2$. The opacity of the grammatical functions and semantic component lies in the adjacency of the objects. What role exactly does *abofra no* and *aduane* play? The arguments in the secundative alignment in (19b) undergo a shift. NP$_2$ in the neutral alignment moves from its position to a direct object position with the introduction of *de*. *De* may therefore be considered as a trigger for the alternation since it licenses the direct object of the clause. The effect of the *de*-trigger and subsequent alternation is that the semantic and syntactic composition of the otherwise undefined objects and by extension the NP in subject position are rendered clear - who is acting, who is receiving, what is being received. *Mmea no* are agents with a nominative case marking, *abofra no* corresponds to the recipient with an accusative case marking and *aduane* is the theme.[28] Unlike the causative and other applicative approaches where *de* introduces a new argument, the *de* in ditransitive construction differs in that, there is no new argument, what rather happens is the promotion and demotion of the arguments that are already subcategorised for by the base verb. However, there are constraints on the kind of arguments that are selected. The arguments that are selected must have a recipient/goal in their theta grid since the secundative alignment involves a transfer of possession of a theme from an agent to a recipient /goal.

(21)   de + VP →   NP$_2$ – NP$_1$

(22) a. Kofi papa kyε-ε   no   kyinniε

       Kofi father gift-PAST 3SG umbrella

       'Kofi's father gifted him an umbrella.'

   b. Kofi papa   de kyinniε   kyε-ε   no

---

[28] With respect to word order and the grammatical relations it encodes Akan.

Kofi father de umbrella gift-PAST 3SG

'Kofi's father gifted him with an umbrella.'

5.4.1 The deP

The Akan secundative alignment is isomorphic to the English dative construction with a verb like 'give' which derives the order V-theme-(to) goal. This means the complement of V is a PP and not an NP. Arguably, the Akan secundative alignment does not have a prepositional element in at a first approximation. This is because Akan does not have prepositions (Christaller 1964) corresponding to the ones attested in English. The language makes up for this using 'verbal prepositions' that encode prepositional semantics relating to place, direction, time, spatial notions, etc. *De*, combined with the ditransitive verb emerges with prepositional connotations in the secundative alignment. When we take the neutral alignment and the secundative alignment, they carry slightly different semantic meanings. The neutral alignment in (23a) projects a caused *possession* meaning whilst the secundative alignment in (23b) expresses a *caused motion meaning* equivalent to a movement of [from a place to…]. The prepositional interpretation becomes an epiphenomenon of the *de* construction. As such the VP in the secundative alignment can be analysed as having a PP complement with an empty preposition.

(23) a. Akua mane   ne   nua-nom sika

   Akua send   GEN sibling-PL money

   'Akua sends her siblings money.'

  b. Akua de sika   mane   ne   nua-nom

    Akua de money   send   GEN sibling-PL

   'Akua sends money to her siblings.'

In the applicative and causative constructions, *de* is seen to consistently introduce a position outside V but below little v for a new argument. If V really takes a PP complement with two arguments in it, then what *de* introduces in the secundative alignment is a new position, not a new argument. This new position harbours an overt argument, a resumptive pronoun that is co-

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indexed with the theme, something like clitic doubling as shown in (23e). This clitic doubling is impossible in the neutral alignment. Therefore, it is safe to posit that *de* is required in order to have the resumptive pronoun. The sense of the clitic being referential is most prominent when the theme is definite, that is why (23c) has marginal acceptability.
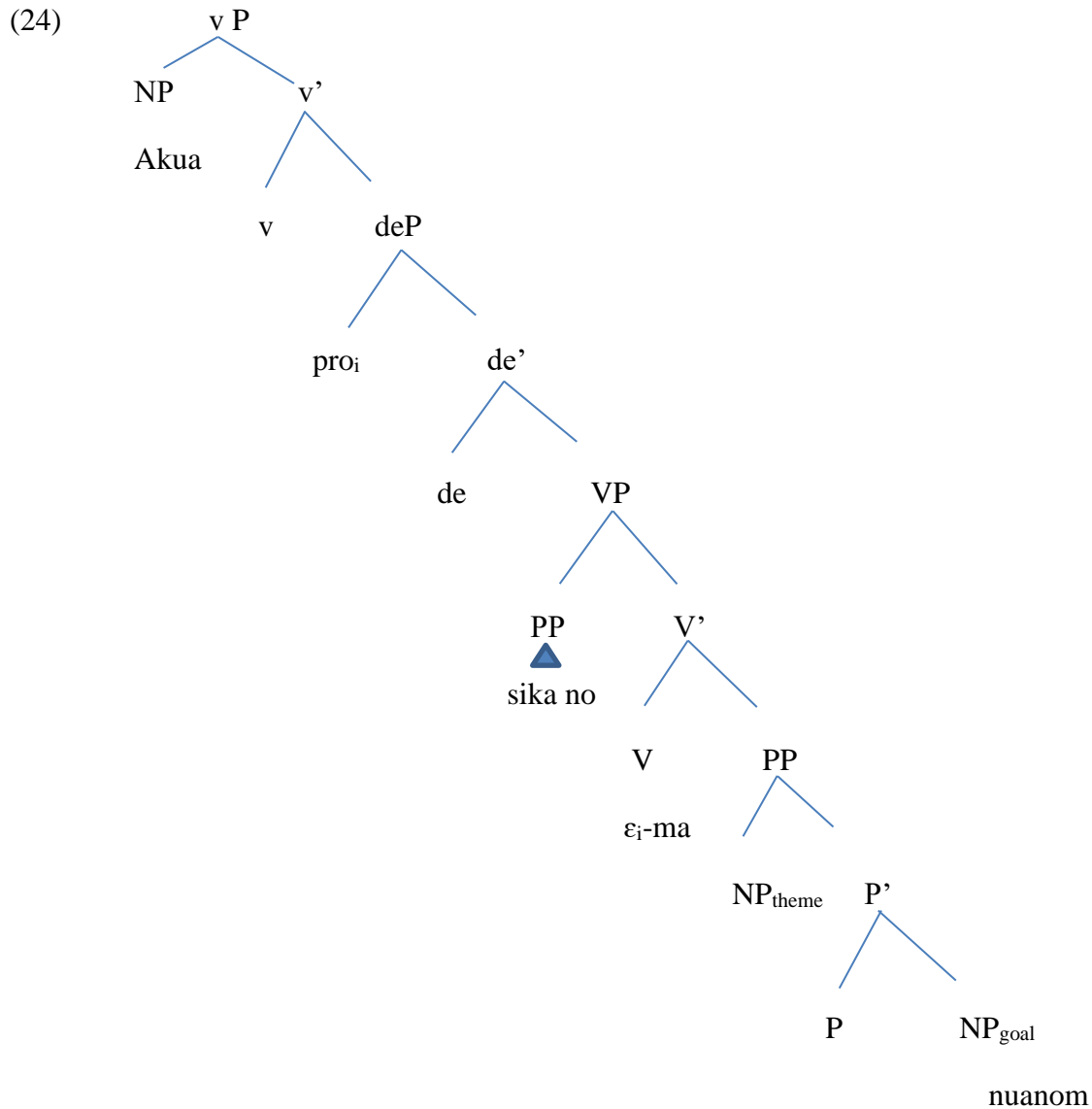
c. ?Akua de sika ɛ-mane ne nua-nom

   Akua de money **RP**-send GEN sibling-PL

e. Akua de sika no ɛ-mane ne nua-nom

   Akua de money DET RP-send GEN sibling-PL

In (24), there are two positions for the theme, the clitic generated in [Spec, deP] and the one in [Spec, VP]. The main verb *ma*-give, without *de*, already gives a position for the theme. *De* normally introduces a new argument so the additional position for the theme is a natural consequence of its trait. The clitic originates in the specifier of *de* but cliticises to *ma* by some kind of movement effect like lowering. The verb remains in situ and *de* remains high, attaching itself directly above VP.

(24)

```
                    v P
                   /   \
                 NP     v'
                Akua   /  \
                      v    deP
                          /   \
                       proᵢ    de'
                              /   \
                            de     VP
                                  /   \
                                 PP    V'
                                 ▲    /  \
                              sika no V    PP
                                    εᵢ-ma  /  \
                                     NPtheme  P'
                                            /   \
                                           P    NPgoal
                                               nuanom
```

The significance of the additional position for the theme and the corresponding clitic lies with the function of *de* licensing theta roles as an applicative head. The *de* head in the ditransitive construction interacts with theta role assignment through Differential Object Marking (DOM). As was seen in (23e), the prominence of the clitic was subject to the definiteness encoding of the theme. Akan places restrictions on the theme NP in the neutral alignment. The *theme can only be definite* when it is licensed by *de* in the secundative alignment. In effect *de* differentially marks the theme in Akan. The question then arises as to why the theme is obligatorily indefinite in the neutral alignment but definite in the secundative alignment. This can be explained in terms of *de* introducing a 'structural' thematic role, one that is not set (Baker 2015) and this can be analysed within the framework of DOM as opposed to an abstract have relation in the neutral

alignment. Structurally, it is consistent with the position of the causative and the applicative, attaching right above VP.

5.5 High or Low Applicative?

The AppIP per Pylkkänen 's description is a high applicative that introduces new arguments to the clause and relate the individual to the event expressed by the VP. The individuals do not get into a possessive-like relationship with the object that is introduced. From the analysis, the comitative and instrumental readings did not project this type of interpretation.

Secondly, only high applicatives can combine with intransitives like unergatives (Pylkkänen 2000). This is made evident in the comitative expression where the applicative combines with the unergative verb-sleep in (5).

Structurally, the high applicative head attaches "above the Root and low applicative below it" (Pylkkänen 2000:199). AppIP is structurally high. It attaches above the VP as presented in (14).

The diagnostics for a low applicative head includes its position relative to the clause, a possessive relation and directionality (Pylkkänen 2000): in the sense of a transfer 'from…to the possession of…' or 'to…the possession of…'. As such it relates two individuals to the event described in the VP. Per these diagnostics, deP presents a bit of an enigma. It is structurally high, attaching above the VP as shown in the secundative alignment in (24) but there is also a possession relation and a directionality which is a transfer of an object from one individual to the other.

Again, in the secundative alignment, it appears to be a high applicative that does not introduce a new argument, what it does is introduce a new position evidenced by the presence of the clitic in (24). The ditransitive can therefore be said to have both high and low applicative semantics. The neutral alignment can be correlated to a low applicative whilst the secundative is a high applicative construction in a sense to be elaborated on in the next chapter.

5.6 Summary

To surmise, there are three cases of *de*: with certain kinds of locatives and unaccusatives it is *causative*, and with some verbs that already have an external argument it is an *applicative*, with ditransitives where there are two internal arguments, it is correlated with differential object

marking in the secundative alignment as opposed to an abstract have relation in the neutral alignment. These issues are discussed in the following chapter.

6 Chapter 6. Theta Role Assignment in The Ditransitive Construction

6.1 Introduction

This chapter discusses the definiteness effect that is seen in the secundative alignment where definiteness of the theme is constrained in the neutral alignment and explores other possible semantic-pragmatic features and their structural implications. The neutral and secundative alignments will be juxtaposed against each other in determining how they interact with theta role assignment and what kind of theta roles they can assign. In that sense, the secundative alignment is analysed as a high applicative construction as opposed to the neutral alignment, a low applicative construction within the frameworks of DOM and an abstract Have relation.

6.2 Differential Object Marking (DOM) in the Secundative Alignment

DIFFERENTIAL Object Marking (DOM) is a phenomenon that typically involves overt morphological case marking of direct objects (Aissen 2003). Bossong (1982) conceptualised DOM as a strategy for differentiating arguments in the object domain subject to semantic and pragmatic features with so-called grammemic marking (a special morphology used to mark the accusative like adpositions and case markers). Grammemic marking is triggered by *referential prominence (*Haspelmath 2021)*, a hierarchised scale of semantic and pragmatic features that characterise the object NP as shown in (1) and thus constrains the dimensions through which DOM is typically manifest like animacy and definiteness (Aissen 2003).

(1) scales of referential prominence (Haspelmath 2021)

inherent prominence

person scale: locuphoric (first/second) > aliophoric (third person)

(full) nominality scale: person form (independent or index) > full nominal

animacy scale: human (> animal) > inanimate

discourse prominence

definiteness scale: definite (> specific indefinite) > indefinite nonspecific

givenness scale: discourse-given > discourse-new

focus scale: background > focus

To that effect, objects that receive this differential marking have a higher prominence/individuation on the prominence scale. As such, the overarching generalisation about DOM is that NPs that are high in prominence are more likely to be overtly case marked (Aissen 2003). In most languages, DOM is marked in animacy and definiteness. In Sinhalese for example, only NPs that are 'high in prominence on the animacy scale' receive overt case marking; the same goes for definiteness in Hebrew; in Romanian both definiteness and animacy are overtly cased marked (Aissen 2003). In the minimal pair in (2) from Hebrew, the definiteness coding of the direct object NP, *boy,* obligatorily requires the marker 'et' whereas the indefinite form does not.

(2) a. Raiti *(et)   ha-yele

     I.saw   ACC   the-boy

     'I saw the boy.'

   b. Raiti   (*et)   yele

     I.saw   ACC   boy

     'I saw a boy.'

              (Kagan 2020)

DOM can be found in both monotransitive and ditransitive constructions with different split motivations. Haspelmath (2021), in his discussion of DOM, which he conceptualises as argument split coding, makes recourse to 'role rank and referential prominence associations'. The underlying idea of argument rank and prominence is drawn from cross-linguistic tendencies/universals where arguments with higher-ranked roles tend to be more referentially prominent than those with lower-ranked roles. In that regard, the role of the Agent in the monotransitive construction ranks higher than the Patient. In the ditransitive construction, the role of the Recipient ranks higher than that of the Theme. As a result, "deviations from usual associations of role rank and referential prominence tend to be coded by longer grammatical forms" (Haspelmath 2021).

(3) Role rank: A > P in monotransitives

R > T in ditransitives

DOM has also been analysed through verbal and nominal parameters like *ad* in Romance (Kabatek et al 2021) and *ba* in Chinese (Bergen 2006). Other reasonings behind the expression of DOM have been attributed to higher transitivity (Hopper and Thompson 1980) and (non-) prototypical objects as well as disambiguation of subject and object NPs in the clausal syntax for languages that lack inflectional morphology for distinguishing these forms (Aissen 2003). In Akan, DOM is seen in the ditransitive construction with the applicative head deP as discussed in the foregoing chapter where it constrains definiteness.

6.3 DOM in the Ditransitive Construction in Akan

Ditransitive constructions express 'an event of cognitive or possessive transfer' with two internal arguments – the Theme and the Recipient which show different alignment strategies (Haspelmath 2015). The Recipient and the Theme can show variable behaviour and may occur as alternations ('both patterns co-exist but with different grammatical usage') or splits ('different patterns under different grammatical conditions') (Haspelmath 2015). Prominence in the coding patterns can also be related to primacy[29] in the sense of constituent linearization. In the neutral alignment, the Recipient takes primacy over the Theme, and then grammemic marking can give rise to R-T or T-R asymmetries. Generally, the Recipient tends to receive grammemic marking because it ranks higher than the Theme in prominence. Split T coding is a rarity and appears to be found mostly in West African languages (Haspelmath 2021)

The ditransitive construction in Akan employs both the secundative and neutral alignment strategies. Akan follows the trend in Kwa, where the Theme shows sensitivity to definiteness and thus receives grammemic coding with 'take' SVCs in the ditransitive syntax. Split T coding has been found in other Akan languages like Anyin and Baule where definiteness is constrained in the neutral alignment (Makeeba and Shluinsky 2020). In the present analysis, grammemic marking corresponds to deP, its applicability on both inherent and discourse prominence scales, and the theta relations that ensue thereof.

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[29] 'An object has primacy over another object if it precedes it.' (Haspelmath 2015)

6.3.1 Definiteness

(4) a. Abena kyɛ-ɛ   abofra no   **sika**.

   Abena give-PAST   child   DET   money.

   'Abena gave money to the child.'

 b.*Abena kyɛ-ɛ   abofra no   **sika**   **no**

   Abena give-PAST   child DET   money   DET.

   'Abena gave the money to the child.'

 c. Abena *(de) **sika**   **no**   kyɛ-ɛ   abofra no

   Abena   de   money DET give-PAST   Child DET

   'Abena gave money to the child.'

                                                    (Osam 2003:23)

(5) a.   *Abena kyɛ-ɛ   abofra no   **kraman no**.

     Abena givePAST   child   DET   dog   DET.

     'Abena gave money to the child.'

      Abena de **kraman no**   kyɛ-ɛ   abofra no.

      Abena de dog   DET give-PAST   child   DET

      'Abena gave money to the child.'

The theme NP 'sika no', is an inanimate direct object as observed in (4c). In the neutral alignment in (4a), the theme does not carry any definite article and the sentence is grammatical. In (4b) when the theme becomes definite the sentence is ungrammatical. However, in the secundative alignment in (4c), the theme is definite, and the sentence is grammatical. What can be gleaned from the juxtaposition of the three clauses is that the theme is differentially marked

with the overt marker *de*. The same explanation holds for the animate theme NP *kraman* in (5). As Osam theorises:

> 'A possible explanation for why most ditransitive verbs do not allow definite theme NPs to occur in the NP3 slot is that they rank high on the hierarchy of definiteness. Consequently, they require a higher ranking on the grammatical relations scale.' As a result, they are promoted out of the non-core relation to a position where they can have a core grammatical relation.' (Osam 2003:23)

Therefore, in order for a theme NP (whether animate or inanimate) to become definite in a ditransitive construction, it has to be introduced obligatorily by the overt marker *de*. In effect *de* licenses definiteness, which it differentially marks.[30]

6.3.2 Animacy

Akan has an animacy scale (Osam 1996:163) that is likely to affect the way NPs are marked in the language. Although the animacy conditionalities were given under different motivations, (for these motivations see Osam 1996), I will analyse these as being constrained on DOM features.

(6) **Human > Animate Nonhuman > Inanimate**

Osam (2003) makes reference to a pronominalisation test which has an interface with split coding of the Theme in the secundative alignment. This pronominalisation test is in consonance with how animacy is marked in Akan. The underlying idea of the test is ''…that in Akan a post-verbal NP whose referent is inanimate receives zero coding'' (Osam 2003:24). Basically, the 3SG object pronoun is null when its antecedent is an inanimate NP. However, if it is an animate

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[30] Certain asymmetries arrive, however, depending on the semantic coding of the NP. When the theme is   abstract, it is unable to carry any definite marker even with *de*.

    a. Adwoa a-m-fa [30]   obuo   a-m-ma   me.

       Adwoa ASP-NEG-de   respect   ASP-NEG-give 1SG-OBJ

     Adwoa did not show respect to me.'

    b.*Adwoa a-m-fa   obuo   no a-m-ma   me.

       Adwoa ASP-NEG-de respect   DET ASP-NEG-give 1SG-OBJ

NP, the object pronoun must be obligatorily coded. The [+animate] pronominal object appears to be highly constrained with a high referentiality and hence the obligatory coding. It is a form of split argument coding that points to evidence of an animacy hierarchy in the language which could possibly inform DOM constraints in animacy marking. Even without the context of antecedents, an interlocutor's understanding of the zero and overt coding of the theme directly maps to animacy distinctions in the language. In (7a) because of the inanimate feature of the theme, it can be phonologically null as shown in (7b).

(7) a. Abena kyε-ε   abofra no   kosua

    Abena gift-PAST child   DET egg

    'Abena gifted the child an egg.'

    b. Abena de Ø kyε-ε   abofra no

    Abena de Ø gift-PAST child DET

    'Abena gave it to the child.'

In contrast, when the inanimate object *kosua no* is replaced with an NP with a [+animate] feature, it would have to be obligatorily coded.

(8) a. Abena de **kraman**   kyε-ε   abofra no

    Abena de dog   give.PAST child   DET

    'Abena gave a dog to the child.'

    b.*Abena de **Ø** kyε-ε   abofra no.

    Abena de   give-PAST child   DET

    'Abena gave (it) to the child.'

    c. Abena de **no**   kyε-ε   abofra   no

    Abena de 3SG.OBJ give-PAST   child   DET

'Abena gave it to the child.'

Given this hierarchy and the asymmetry observed in the coding of animate NPs, it was only plausible to infer that perhaps, DOM exists in animacy marking in Akan as well. However, the data below presents an arbitrary pattern that, in the present analysis, makes it untenable to posit animacy marking in the language as a robust DOM parameter. The neutral and secundative alignment show variable behaviour with the Human theme NPs[31] as shown in (9) to (11). In (9), only the secundative alignment admits the human theme (perhaps because it is definite); both structures admit the theme NP in (10); then in (11), only the neutral alignment admits the theme. Perhaps there is a reason to this that can be researched further but for now, the only DOM parameter that appears robust in Akan is definiteness.

(9) a. *Ɔhene no   ma-a   Akua   ne   **ba**

  chief DET give-PAST   Akua GEN   child

  'The chief gave Akua his child.'

  b. Ɔhene no   de ne   **ba**   ma-a   Akua

  chief DET de GEN child   give-PAST   Akua

  'The chief gave his child to Akua.'

(10) a. Ɔhene no   ma-a   Akua **akoa   bi**

  chief DET give-PAST   Akua servant IND

  'The chief gave Akua a certain servant.'

  b. Ɔhene no   de   **akoa   bi**   ma-a   Akua

  chief DET de   servant IND   give-PAST   Akua

  'The chief gave his child to Akua.'

(11) a. Ɔhene no   ma-a   Akua **kunu**

  chief DET give-PAST   Akua husband

  'The chief gave Akua a husband.'

---

[31] Only human NPs are used here because a nonhuman one is used in the analysis in (5) and (7)

b. *Ɔhene no de **kunu** ma-a Akua

chief DET de husband give-PAST Akua

'The chief gave a husband to Akua.'

The expression of DOM in Akan, put in context, is a juxtaposition of the neutral and secundative alignments and the limitations that disallow the expression of certain inherent and discourse prominent features in either construction. In the foregoing section, deP is seen in the ditransitive construction where it attracts the Theme from a position of low referentiality in the neutral alignment to a position of prominence in the secundative alignment[32] (in the expression of definiteness). In reconciling deP and its function of theta role assignment, it appears to work in the context of high referentiality, thus establishing primacy and assigning prominence to theme NPs that rank high on the discourse prominence scale.

6.4 An Abstract *HAVE* Relation in the Neutral Alignment

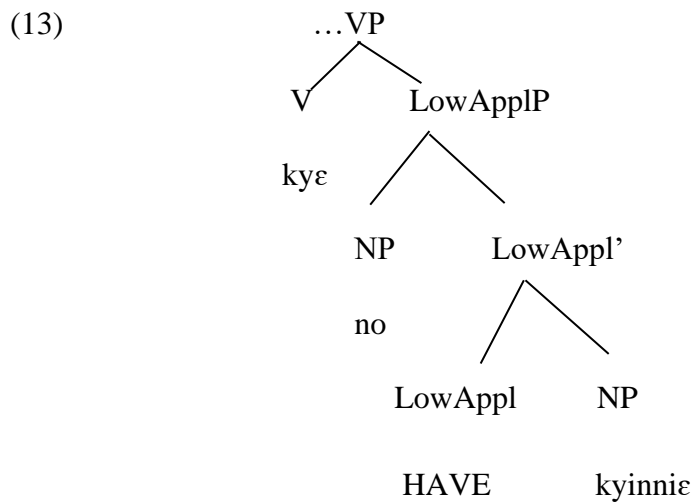The neutral alignment in Akan, is a low applicative construction that expresses a caused possession meaning.

(12) Kofi papa kyɛ-ɛ no kyinniɛ

Kofi father gift-PAST 3SG umbrella

'Kofi's father gifted him an umbrella.'

This phrase 'gift him an umbrella' subject to Pylkkänen's (2000) analysis would be a low applicative construction. The verb *gift* takes an abstract low applicative *P*, which expresses a relation like *have*, so we can call *P* a HAVE applicative. This applicative is a two-place relation between a *haver* and *what they possess*. So, *no* 'him', possesses an umbrella as a result of a transfer. As such, *have* is expressed by the verb *gift* or a zero. Since the function of applicatives

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[32] *De* licenses the theme in the secundative alignment irrespective of its semantic-pragmatic features or referentiality – it marks definite, specific indefinite and nonspecific indefinite objects. In some languages, only objects with high referentiality receive grammemic marking: ''v attracts only a [+specific] NP (or a [+bounded] one, in Finnish)'' (Baker 2015). But definiteness is expressed only in the secundative alignment, that is why it must be put in context.

in the ditransitive syntax in Akan is to license the theme, the HAVE applicative can be considered as licensing the theme as well.

(13)

```
                    …VP
                   /    \
                  V      LowApplP
                  |      /    \
                 kyɛ    /      \
                      NP       LowAppl'
                      |        /    \
                      no      /      \
                          LowAppl    NP
                                
                           HAVE     kyinniɛ
```

But unlike the secundative alignment, where the theme surfaces with a high referentiality, the theme in the neutral alignment surfaces with a low referentiality. The question is could the HAVE applicative place a definiteness restriction on the theme that makes a sentence ungrammatical as in (14)?

(14) *Kofi papa   kyɛ-ɛ   no   kyinniɛ no

     Kofi father gift-PAST 3SG umbrella DET

     'Kofi's father gifted him the umbrella.'

A plausible explanation to describe this pattern is that the abstract applicative HAVE cannot license a definite complement. Rather, it wants something that is probably too little to be definite or somehow semantically not definite. The conjecture is strengthened by the observation that the overt verb *have* behaves similarly. The overt *have,* is used in a simple clause where it selects three types of complements – a nonspecific complement, an indefinite complement, and a definite complement. The result is as expected – the nonspecific and indefinite complements are grammatical, the definite complement on the other hand, yields ungrammaticality.

(15) Me-wɔ   ataade

     1SG-have dress

'I have a dress.'

(16) Me-wɔ   ataade bi

ISG-have dress   DET_{IND}

'I have a certain dress.'
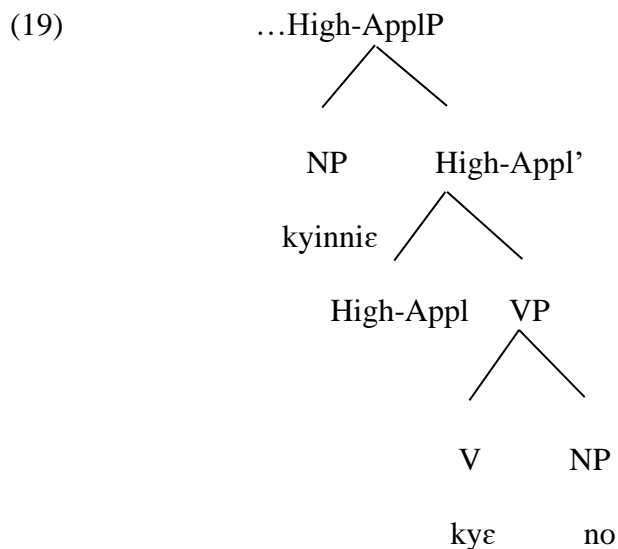
(17) *Me-wɔ   ataade no

1SG-have dress   DET

'I have the dress.'

This is the reason why definiteness is expressed in the secundative alignment only through a DOM framework because DOM typically marks high referentiality objects.

(18)   Kofi papa de kyinniɛ   no   kyɛ-ɛ   no

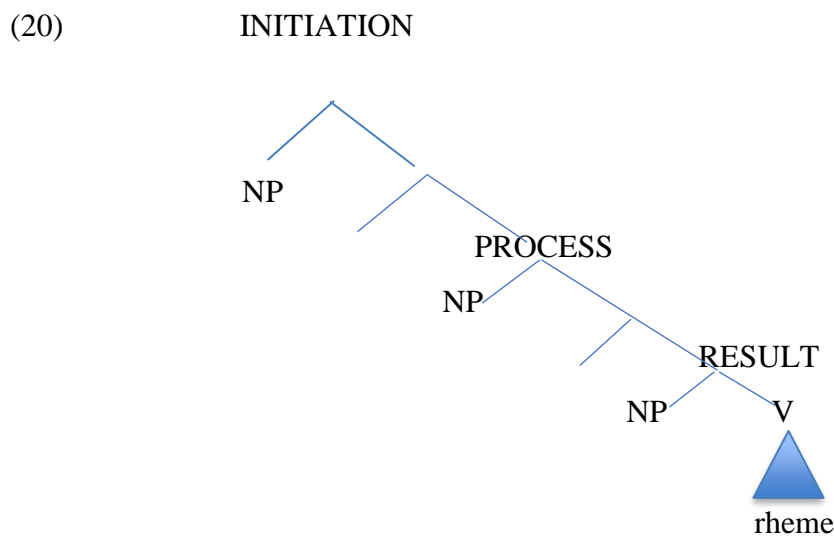Kofi father de umbrella DET gift-PAST   3SG

'Kofi's father gifted him with an umbrella.'

(19)   …High-ApplP

            NP   High-Appl'

          kyinniɛ

               High-Appl   VP

                        V   NP

                       kyɛ   no

6.5 Theta Role Assignment

From the discussion above, the two structures appear to be in a converse relation. In this case, the theta role that deP assigns through DOM should be something that can move up to be licensed. Following Ramchand (2019), this can be adapted to an event structure with the figure

ground asymmetry. The core of this theory is how argument structure converges with Akstionsart to encode dynamic and stative thematic roles. A thematic and stative dichotomy is correlated with a figure/holder-ground asymmetry.
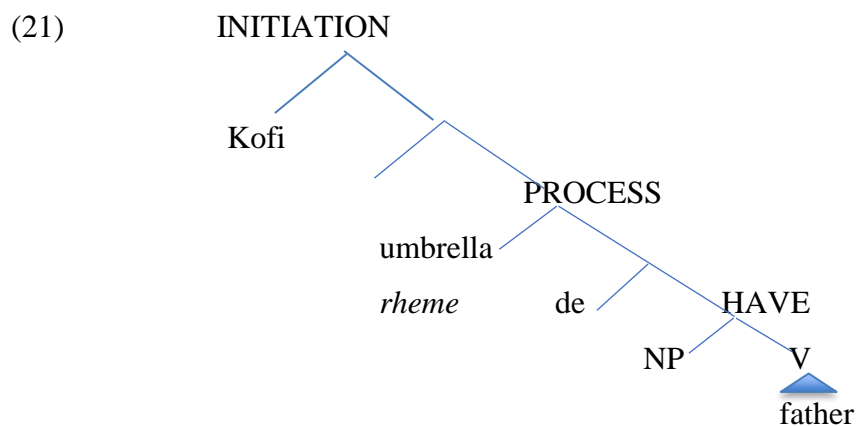
> "The Figure of a property predication is the entity whose degree of possession of a particular property is at issue; the Ground is the reference property, or property scale which the Figure is predicated to 'hold' to some degree." (Ramchand 2019:14)

In that sense, the specifier of a stative predication is a holder and its complement, ground. On the other hand, the specifier of a dynamic predication is a '*changing* holder', and its complement is path. As such, a dynamic event involves causation and an undergoer relation which brings about a transformation/change. The two structures converge for a decompositional structure that merges both stative and dynamic events as well as the participants of the event which includes causers for subjects and undergoers, path and ground for objects. The undergoer establishes a relation R (process), which links the changing holder (causation) and the ground (result). In essence, we get an **initiation-process-results** event structure.

(20)   INITIATION

Using a low applicative analysis of 'gift' without *de*, produces an initiation-process-HAVE structure, where, HAVE takes the place of result. There are four argument positions, whose theta roles could be described as initiator, undergoer, "haver" and rheme. The "haver" argument would normally rise up and also become the undergoer. *Kofi* (initiator) gifted *father* (undergoer/haver) *umbrella* (rheme). When *de* is added to clause, then that allows the rheme to move up and become the undergoer, crossing the "haver".

Kofi (initiator)-de umbrella (undergoer/rheme)- gifted father (haver).

(21)   INITIATION

```
(21)            INITIATION
              /\
           Kofi  \
                  \
                 PROCESS
                 /\
        umbrella/  \
        rheme   de  \
                   /\
                  NP  HAVE
                     /\
                    NP  V
                        △
                      father
```

The idea proposed here is that indefinites can be rhemes of HAVE, but definites can't.

In Ramchand's system, the theta roles assigned by init, proc, and res are initiator, undergoer, and resultee. An initiator has to start something, and a resultee has to gain a property or location as a result of the event. The undergoer is a little vague but should "undergo" the event. Something that merges as the complement of the verb at the bottom gets a "rheme" role. Applicatives in the literature assign more specific roles like comitative, benefactives, instrument, etc. but because this role is a structural thematic role (Baker 2015), it can be vague. In this sense, the two internal arguments in the ditransitive could be described as figure and ground, and the argument introduced by the applicative could just be called the **applicative theta role**.

7 Chapter 7. Unification of the Two Heads – ApplP and CausP

7.1 Introduction

This chapter attempts to give a unified account of the two levels of *de* – the ApplP and the causP as a common functor. It first discusses languages that show a similar pattern of applicative and causative use. Against that backdrop, a single functor theory is postulated.

7.2 Crosslinguistic Parallels: The Case of Indonesian kan[33]

Cole and Son (2004) describe the suffixal affix *-kan* as a ''typologically aberrant'' and ''homonymous'' form with multiple functions. In some sentences it behaves like a causative, in others, it is an applicative, and more still in others it is an object marker. The suffix has been widely studied in acrolectal Indonesian for the complexity of its nature (Dardjowidjojo 1967, Sneddon 1996, Arka 1993, Kaswanti Purwo1995, Macdonald and Dardjowidjojo 1967) and the determination of its exact function. The many attributes that *kan* possesses make it difficult to unify it under a common descriptor. Cole and Son eventually consider it as neither a causative nor an applicative but rather as evidence for exploring a distinct level of argument structure.

> "…-kan is a derivational morpheme affecting the argument structure of the verb to which kan is affixed. It also 'indicates the syntactic licensing of an argument in the argument structure that is not licensed syntactically by the base verb." (Cole and Son 2004:340)

On the surface, *kan* shares a lot of parallels with *de*, since it appears both as a causative, an applicative and also as an object marker licensing the direct object in the ditransitive construction. The parallels are straightforward and intuitive with some differences in the semantics that emerge. As a causative, *kan* combines with intransitive verbs to encode a causative reading with the selection of an external argument in a manner reminiscent of the *de* causative in (2). The external argument is an agent *Tono* in (1b) who is directly involved in breaking *the cup*. *Kan* and *de* both introduce the external argument in anti-causative constructions which then lose their intransitive nature to become transitive constructions. In that regard, both morphemes are markers of transitivity.

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[33] All the Indonesian examples are taken from Cole and Son (2004)

(1) a. Cangkirnya pecah

    cup-3   break

    'The cup broke.'

  b. Tono memecah-**kan** cangkirnya.

    Tono meN-break-kan cup

    'Tono broke the cup'

                          (Cole, Son 2004: 340-341)

(2) a. Asɛm   bɛ-ba

    trouble   FUT-come

    'Trouble will come'

  b. Kofi **de**   asɛm   bɛ-ba

    Kofi de   trouble FUT-come

    'Kofi will bring trouble'

As an applicative, *kan* patterns with monotransitive verbs for a benefactive interpretation**.** Indonesian has the preposition *untunk* which introduces the benefactive, but this makes the benefactive an 'optional adjunct' and not a subcategorised argument of the verb as shown in (3). On the other hand, when *kan* is suffixed on the verb, the benefactive becomes a subcategorised argument of the verb in (4). In instances where the benefactive argument is phonologically null, the mere fact of the suffix being affixed to the verb still projects a null benefactive reading as in (5). In the absence of *kan,* the benefactive interpretation disappears in (6).

  (3) Saya memanggang roti ***untuk*** Eric.

    ISG meN-bake bread for Eric

    'I baked bread for E

  (4) Saya memanggang-**kan** Eric roti.

    ISG meN-bake-KAN Eric bread

    'I baked Eric bread.'

  (5) Saya memanggang-**kan** roti.

    ISG meN-bake-KAN bread

    'I baked bread for someone.'

  (6) Saya memanggang roti.

    ISG meN-bake bread

'I baked bread.'

On the other hand, *de* with monotransitives emerges with an instrumental reading. *De* introduces the instrument NP which (similar to the *kan* ellipsis of the benefactive), can be omitted for a null instrumental interpretation as in (7).

(7) Kwame de ∅ nom nsuo

    Kwame de drinks water

   'Kwame drinks water with it.'

Its apparent applicative function notwithstanding, benefactive *kan* appears not to be a prototypical applicative as ''in Indonesian, the seeming applied nominal may also occur in a prepositional phrase, despite the presence of *-kan* on the verb'' (Cole, Son 2004). It also does not make the benefactive argument the direct object of the sentence as with prototypical applicatives. However, as an object marker and in ditransitive constructions, *kan* licenses the direct object.

(8) Saya memanggang-kan roti untuk Eric

    1sg meN-bake-kan bread for Eric

    'I baked bread for Eric.'

In contrast, *de* is a prototypical applicative as it licenses the direct object. It introduces the applicative object as the primary object and triggers the promotion of an internal argument as the primary object in in the secundative alignment as opposed to the neutral alignment. As an object marker, the absence of *kan* renders a sentence ungrammatical. In instrumental readings, the absence of *de* makes a sentence ungrammatical.

(9) a.Ia merunding-kan   rencana baru.

     3sg meN-discuss-kan plan   new

    'He discussed a new plan.'

    b.*Ia merunding   rencana baru.

      3sg meN-discuss plan   new

     'He discussed a new plan.'

(10) a. Kwame de   kuruwa nom nsuo

      Kwame de   cup   drink water

     'Kwame drinks water with a cup.'

     b.*Kwame kuruwa nom nsuo

       kwame cup   drink water

Kan introduces an outer argument and a middle argument with its causative and benefactive functions. This applies to *de* as well which adds two different layers to the argument structure.

7.3 Crosslinguistic Parallels with Other Languages

The nature of *kan* and *de* as both causatives and applicatives is not an unusual phenomenon. The existence of such morphemes has been attested in languages such as Javanese, Kinywarda, P'orhépecha (Franco 2019) among others. Following Franco (2019), these devices "change verbs into their causative forms and in which such causative morphemes happen to have the same lexical shape as an applicative" (Franco 2019:108). As has been discussed thus far, *kan* and *de* are valency changing morphemes that are split into different heads with applicative and causative functions. The core function of the heads is the same, adding extra arguments to the clause and promoting them as core elements but they differ in their structural relation and the kind of theta roles they assign, as such Caus=Appl is syncretism (Franco 2019). The examples below show causative-applicative syncretism in above-mentioned languages: all the *a* clauses are canonical/anti-causative/anti-applicative, the *b* clauses are causative, and the *c* clauses are applicative.

Kinyarwanda[34]

(11)a. Habimana y-a-men-a igi-kombe

Habimana 1.sbj-pst-break-ipfv 7-cup

'Habimana broke the cup'

b. Habimana y-a-men-**esh**-eje umw-ana igi-kombe

Habimana 1.sbj-pst-break-caus-pfv 1-child 7-cup

---

[34] Gloss for the Abbreviation

pst – Past Tense

ipfv – Imperfective

sbj – subject

7- Definite article

9 – Indefinite article

pfv – Perfective

'Habimana made the child break the cup.'

   c. Habimana y-a-men-**esh**-eje igi-kombe in-koni

     Habimana 1.sbj-pst-break-appl-pfv 7-cup 9-stick

     'Habimana broke the cup with a stick.'

Javanese

  (12) a. kucing mangan iwak

     cat eat fish

     'The cat ate fish.'

    b. aku mangan-**i** kucing iwak

     1sg eat-caus cat fish

     'I fed the cat fish.'

   c. pelem nyeblòk-**i** gentèng ómah-ku

     mango fall-appl roof house-1sg.poss

    'A mango fell on the roof of my house'.

  (13)a. ès nyair

     ice melt

     'The ice melted'.

    b. aku nyair-**aké** ès

     1sg melt-caus ice

     'I melted the ice

   c. aku masak-**aké** Karolina jajan

     1sg cook-appl Karolina cake

     'I baked Karolina a cake.'

P'orhépecha[35]

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[35] Abbreviations

prs – Present Tense

prf - Perfect

obl – oblique

(14) a. Xwánu xwá-s-Ø-ti tsíri

   Juan bring-prf-prs-3ind corn

   'Juan brought some corn.'

   b. María xwá-**ra**-s-Ø-ti Xwánu-ni tsíri

   Maria bring-caus-prf-prs-3ind Juan-obl corn

   'Maria made Juan bring some corn.'

   c. xí tsúntsu-ni xwá-**ra**-s-Ø-ka-ni its

   1sg pot-obl bring-appl-prf-prs-1/2ind-1sg.sbj water

   'I brought some water with a pot.'

(Franco 2019:108-109)

The applicative morpheme *-ish/-esh* introduces both a causer and an instrument in Kinyarwada, a Bantu language spoken in Rwanda. There is an agent who breaks a *cup* in (11a), then makes a *child* break the cup in (11b), then finally breaks the cup *with a stick* in (11c) showing a causer-instrument syncretism. The argument structure builds on with the addition of extra arguments in new folds. A similar situation is seen in Javanese (an Austronesian language) with two morphemes *-(n)i* and *aké* that are involved in causativisation and applicativisation at the same time. The former is used to ''encode locative relations'' and the latter is used with inchoative verbs like "melt" (Franco 2019:2). The causatives in (12b) and (13b) are also prototypical causatives with direct agent-related causation as in the agent being directly involved in the action that affects the patient. In (13c) we see the applicative morpheme introducing a benefactive, *Karolina*, who gets a cake. The Javanese morphemes encode causative-benefactive relations. In a similar vein, P'orhépecha, a language spoken in the North-western Region of Mexico, uses the morpheme *-ra* to present a causative-instrument syncretism as shown in (14). All these morphemes from genetically unrelated languages, including some from genetically related languages express the same notion, the concept of modifying the argument structure with minute differences in how they operate. They all add the two levels of causativisation and applicativisation that is seen with *de* and *kan*.

7.4 Unification of CausP and ApplP

Revisiting the chapter on causation in unaccusatives, besides the causer being added to the verbal predicate, there was an unaddressed situation of the presence of an additional argument that seemed like an instrument: "In the instances where a causative interpretation was induced…an extra argument was introduced that patterned with the way instrument/means is expressed." Those sentences are repeated here as (15) and (16). In (15), *de* combines with an unaccusative verb *break* and introduces the arguments *mframa* - 'wind', the causer, and *ahoɔden* – 'strength' to translate literally as 'The wind used strength to break the window'. In the causative and applicative analysis, *de* introduced only one argument, one at the topmost part of the clause, and the other in the middle layer. But here it introduces two extra arguments, and it appears the outermost contribution and the middle contribution are both showing up. So, from one argument in the clause, we get three. It's straightforward to say that there is a theta role coming from *bui* - 'break' assigned to *window*, it is also straightforward to say that *wind* gets it theta role from cause. But then where does strength get its theta role? We can make recourse to the meaning of the sentence which is illustrating a *means* and the only way means/instrument is encoded in Akan is through ApplP. So, it is also straightforward to say that *strength* gets it theta role from ApplP. Decomposing the structure of (15b), we can stipulate that there are three arguments licensed by three heads, but two of the heads are reducible to a single form, *de*.

(15) a. Mpoma no   bu-i

    window DET break-PAST

    'The window broke.'

  b. Mframa no   de ahoɔden bu-u   mpoma no

     wind   DET de strength break-PAST Window DET

    'The force of the wind broke the window.'

 (16) a. Nkwan no   nane-e

     soup   DET melt-PAST

     'The soup melted.'

  b. Kofi de gya na   ɛ-nane-e   nkwan no

    Kofi de heat FOC RP[36]-melt-PAST soup   DET

---

[36] Resumptive Pronoun

'Kofi defrosted the soup with heat.'

The same explanation in (15) holds for (16). *Kofi* and *gya* – 'heat' are in the positions where you would expect to see a causer and a means. Kofi is a causer and *soup* is undergoing a transformation by way of the heat. Melt assigns a theta role to *nkwan* – 'soup', causP assigns a causer to *Kofi*, ApplP assigns means to *gya* - 'heat'. Essentially, Kofi took heat to melt the soup is like an event where the first one is already transitiv[37]e. Then there are additional participants who add a layer to the same event, and this can be referred to as a caused augmentation. (Ramchand 2019):

  i.   The soup melted.

  ii.   Kofi used heat to melt the soup.

The caused augmentation when broken down further reveals a causative-means-result structure. Partly adopting Ramchand's (2019), theory again, repeated here, on event structure and verbal decomposition, the caused augmentation can be considered a composite structure where "event structure hierarchies and participant relation hierarchies track each other quite directly" (Ramchand 2019:21).

> "The core of this theory is how argument structure converges with Akstionsart to encode dynamic and stative thematic roles. A thematic and stative dichotomy is correlated with a figure/holder-ground asymmetry'. In that sense, the specifier of a stative predication is a holder and its complement, ground. On the other hand, the specifier of a dynamic predication is a '*changing* holder, and its complement is path. As such, a dynamic event involves causation and an undergoer relation which brings about a transformation/change. The two structures converge for a decompositional structure that merges both stative and dynamic events as well as the participants of the event which includes causers for subjects and undergoers, path and ground for objects. The undergoer establishes a relation R (process), which links the changing holder (causation) and the ground (result). In essence, we get an **initiation-process-results** event structure.'

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[37] A remark here is that a diagnostic of ISVC is that it cannot be broken down as subevents and the structure is monoclausal. However, the analysis here shows that such a structure can be attuned to event decomposition.

Another thing that is relevant to the theory is the hierarchy of the participants. The participants are arguments that are analysed in terms of their syntactic and semantic features and mapped based on a sensitivity to a hierarchy in both domains. In that sense, the causer directly maps to the subject as the highest element in the ordering of grammatical relations and argument structure respectively.

- "If there is a generalization about Subject selection, it is that it attracts the argument that is hierarchically the highest in terms of the causational or force dynamic chain". (Ramchand 2019: pp 9-10)

The internal argument, the object, is associated with affectedness, measuring out and telicity and it can be a path, undergoer or resultee. In essence, an **initiation-process-results** event involves force dynamics, scalar structure, and event participancy. And Ramchand's position is that it is the force dynamic that drives the entire event. The force dynamic is the causer or INITIATOR.

- "…thus, I will simply take abstract causational or force-dynamical glue to be a primitive of subevental combination." (Ramchand 2019:16)

The clause in (16) is a caused augmentation that comprises at least three subevents, two of which are built 'mechanically' into the event structure through causP and ApplP. *Kofi* is added to the event structure as a participant with a causative role and *gya*-heat is built into the event structure as a mode of causation. Then there is the *melting soup* representing V. So, we have a **causP-ApplP-V** that maps directly to **initiation-process-result**.

(17)
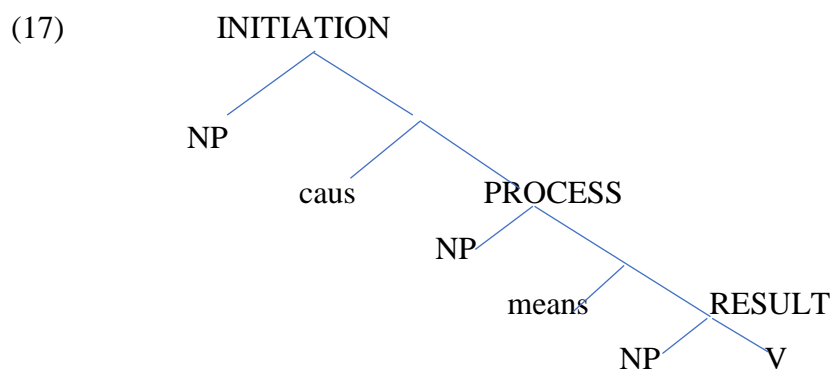
Breaking down the mechanics of this structure, there is a relation that is established between the causing event and the melting event. These two events are tied together by way of a means which is *heat*. Causing is the initiation, the means is the process and melting is the result of the chain of events. So, *Kofi initiates the event of heat being used to melt the soup*. Per Ramchand's

theory, the most important point in the block of events is INITIATION. Initiation carries the dynamic force that necessarily triggers a culmination of the subevents into a single event. This event can be considered a caused dynamic event with results because *soup* undergoes a transformative change, as such the thematic role that is assigned Kofi is dynamic, not stative. Kofi is assigned INITIATOR.

(18) 'Caused Dynamic Event with Result: $e_{cause} \rightarrow (e_{dyn} \rightarrow e_{result})$' (Ramchand 2014:17)

At this point it appears causP and ApplP are merged into a common functor. The reducibility of the two heads into a single form can be captured/conceptualised as:

19. *de* is a dynamic theta-assigning element, but it is not that it assigns a causer or instrument, it assigns this kind of *initiation theta role* that is necessarily subordinated to a causer but can be understood as a causer if there isn't one.

The same functor, in an event, could be introducing a kind of initiator but if that same functor is embedded under a causer, then it is understood as some kind of means.

However, we need to pull the breaks on this conjecture, because ApplP is not a means assigning head only, it also introduces a comitative, whose structural event semantics does not involve a telos. Ramchand (2019) describes events as having different terminal points. An event that results in a change is an accomplishment and the one that does not is an activity. A comitative example (from section 5.2 example 5c) is repeated here:

(19) Ɔ-de   aboduaba no   da
    3SG-de toy   DET sleep
    'He/She sleeps with the toy.'

An individual *sleeping with a toy* does not have a determinate state as such it is an activity, not an accomplishment. Therefore, the decomposition of ApplP poses a challenge for the unification of CausP and ApplP as a common functor and unification appears impossible.

8 Chapter 8. Conclusion

I have presented in this thesis, an argument for a causative applicative syncretism in Akan using a grammaticalized verb, reanalysed as semi-functional theta assigning element in the V domain. *De*'s function in the V domain is extensive with different predicate relations. When *de* is a causative, it is an inner causative that combines directly with a VP. When *de* is applicative, it's position relative to the clause is between v and VP and it introduces non-causative arguments. As a semi-functional element, it has some lexical properties like argument selection and theta role assignment. As an aspect/tense marker it interacts with akstionsart to change events from stative to dynamic through tone.

I have shown that *de* is a polysemous morpheme with varied functions spelling out three heads, a causP, an ApplP and a deP. I have shown that causativisation in Akan induces an agent-related causer that is directly involved in the action expressed in the VP as such, Akan exhibits direct agent causativisation. The complex predicate that is formed of *de* and a base verb triggers a series of transitivity-related processes. The combination with intransitives and unaccusatives yields transitivised constructions, and its interaction with aktionsart through a tone-inducing mechanism also induces transitivisation. To that effect *de* can be considered as a marker of transitivity.

I have shown that as an applicative, *de* is usually a high applicative that introduces a comitative and an instrument/means into the argument structure through ApplP. However, it shows variable behaviour in the ditransitive construction. Structurally, the argument that *de* licenses appears in the same position as the ApplP, which is between a v and V. However, when we take Pylkannen's (2000) diagnostics for high and low applicatives, which includes directionality, the ditransitive structure that *de* appears in, which is the secundative alignment, expresses such a meaning. Nonetheless, its structural position relative to the clause being the same as ApplP, *de* is analysed as a high applicative that interacts with Differential Object Marking where it licenses definiteness juxtaposed against the low applicative which expresses a lexical HAVE relation that constrains definiteness marking. As such definiteness marking requires licensing from applicatives, specifically, the applicative head designated deP, and deP assigns a theta role known simply as the applicative theta role.

The appearance of both a causer and an applicative in the same construction, which expressed a bound relation, such that 'in order for x to occur y has to be present' suggested that maybe causP and ApplP could be unified as a common functor through an analysis of event structure and verbal decomposition (Ramchand 2019). The attempt at unifying the two heads was tentative at best, as the decomposed ApplP showed different telos. The comitative use had a non-determinate state whilst the applicative use with means/instrument had a determinate state. Unification could not be achieved in the present analysis.

De as a grammaticalized verb, presents a lot of insights into the argument structure in Akan and the Akan grammar in general. This is evidenced in its capacity to mechanically incorporate additional participants into the argument structure and its extensive relations relative to the predicate. From the analysis, the morpheme has been productive in producing a series of mirroring syntactic and semantic processes and structures that have implications for the syntax semantic interface and to an extent, the syntax phonology interface as well.

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