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Restrictions in the Attachment of Verbal Extensions in Degema^{* ** ***}

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Ethelbert Emmanuel Kari (2016), Restrictions in the Attachment of Verbal Extensions in Degema. *Studies in Linguistics* 39, 399-429. This paper discusses restrictions observed in the attachment of verbal extensions to all verb bases in Degema. Kari (1995) discusses verbal extensions in Degema focusing on the number, underlying forms, and phonological rules that derive the surface forms of these extensions, but does not discuss the factors that permit or prohibit the attachment of each of the extensions

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*** Degema is spoken in southern Nigeria by two autonomous communities - Usokun-Degema and Degema Town (Atala) in Degema Local Government Area of Rivers State. It is a Delta Edoid language (Elugbe, 1989) classified under West Benue-Congo (Blench, 1989) within the Niger-Congo phylum. Degema speakers number approximately 22,000 (Kari, 2004: 5). Each of the Degema-speaking communities speaks a variety of Degema that is highly mutually intelligible with the other and is known by the variety of Degema it speaks. Usokun-Degema people speak the Usokun variety while Degema Town (Atala) people speak the Atala variety.

to all verb bases in the language. In later works such as Kari (2003, 2008), Kari claims that reference is made directly or indirectly to semantics as a possible factor responsible for the prohibition of the causative, reflexive, reciprocal, and habitual extensions from attaching to certain verb bases. By examining a number of verb bases, the primary goal of this paper is to establish the range of factors that permit or prohibit verbal extensions from attaching to all verb bases in Degema. The findings of this paper show that phonological and syntactic factors, especially valency, in addition to the semantic character of verbs, play a crucial role in permitting or prohibiting the attachment of these extensions to all verbs bases in Degema. **(University of Botswana)**

Key Words: verbal extensions, derivation, semantic character of verbs, phonology-morphology-syntax-semantics interface, Degema

1. Introduction

The aim of this paper is to discuss verbal extensions in Degema and to establish a range of possible factors that tend to permit or prohibit the attachment of each of the identified verbal extensions (see Thomas, 1966; Kari, 1995) to all verb bases in the language. This study is informed by the observation that although verbal extensions attach to verbs, there are some extensions that do not attach to all verb bases in the language. In other words, verbal extensions in Degema select the kind of verb base or verb bases they attach to. For instance, the causative, reflexive, reciprocal, benefactive-reciprocal and pluriactional-reflexive suffixes in Degema, unlike the iterative and habitual verbal extensions, tend to attach to particular verb bases instead of attaching to all verb bases in the language. Preliminary observations seem to indicate that the factors involved in prohibiting the attachment of Degema verbal extensions to all

verb bases may not be limited to semantics. Consequently, this paper will examine a number of verb bases in Degema and attempt to establish the range of factors that permit or prohibit verbal extensions from attaching to all verb bases in the language.

The Degema data in this paper, based on the Usokun variety, are collected from existing works on the language, especially from Kari (1995), and supplemented by data obtained from the present author's intuition as a native speaker of Degema. The bulk of the data on verbal extensions and verb bases in Degema are carefully selected and presented in Tables (1), (5), (6) and (7) so that they are varied and comparable. The variety of verbs selected includes transitive, intransitive, dynamic and stative verbs. The selection of a variety of verbs is intended to give the reader some indication as to the kind of verb bases that verbal extensions in Degema attach to and why some of the extensions fail to attach to certain verb bases. The analysis adopted in this paper is descriptive, accounting for the data in a way that agrees with the intuition of the native speakers of the language.

The paper is divided into five sections. In Section 1, the aim of the study, the method of data collection and the method of data analysis are presented. A background of the discussion of extensional affixes in the world's languages is provided in Section 2. In Section 3, a background discussion of verbal extensions in Degema is presented. The combinatorial restrictions in base-extensional suffix attachment in Degema are discussed in Section 4. In Section 5, a summary of the findings of the paper is given.

2. Background

In general, extensional affixes are meaning-modifying morphological affixes that attach to nominals and verbal bases and modify or extend the meanings of such nominal and verbal bases. Basically, these affixes do not change the class of the base to which they attach themselves. In

other words, their attachment to a nominal or verbal base does not result in the base changing from one part of speech to another. The attachment of nominal extensions to nominal bases produces nominals. Similarly, the attachment of verbal extensions to verbal bases produces verbals. These affixes, which may take the form of prefixes, suffixes, infixes, circumfixes, incorporation, lengthening, root-and-pattern or stem modification (cf. Štekauer, Valera, & Körtvélyessy, 2012), express a variety of or a combination of meanings, which include locative, benefactive, benefactive-reciprocal, causative, instrumental, intensive, iterative, reciprocal, reflexive, pluriactional-reflexive, associative, contactive and reversible.

Discussions of verbal and nominal extensions abound in the literature on African linguistics. For some works on these extensions, see Cole (1955), Arnott (1970), Emenanjo (1978: 2015), Gerhardt (1988), Newman (1990), Kari (1995), Mutaka and Tamanji (2000), Blench (2003), Hyman (2007), Ameka (2009), among others. Extensional affixes, especially verbal extensions, “...occur across the four phyla (Niger-Congo, Nilo-Saharan, Khoisan and Afroasiatic) of the African continent; as such the phenomenon has been described as an areal characteristic of African languages” (Ameka, 2009: 139) (parentheses, added). Needless to say that extensional affixes are by no means restricted to African languages. These affixes are also attested in non-African languages, such as English¹ (cf. Katamba and Stonham, 2006: 50ff; Kari, 2015a: 16) and Estonian, Indonesian and Japanese (Štekauer et al., 2012).

It is worthwhile to state that languages differ in respect of the number of synchronic extensional affixes they have. Some languages are found

¹ Interestingly, English extensional affixes are not restricted to nouns and verbs, unlike what is common in African languages. These affixes also attach to bases belonging to other categories, such as adjectives, to extend or modify their lexical meanings, e.g. *accurate* (adjective) > *in-accurate* (adjective), *kind* (adjective) > *un-kind* (adjective) and *honest* (adjective) > *dis-honest* (adjective), as the data taken from Katamba and Stonham (2006: 50f) show.

to have a very large number of extensional affixes, while others have a relatively not-too large number. Yet others have a relatively small number of synchronic extensional affixes. In this regard, Igbo - a West Benue-Congo language spoken in Nigeria - distinguishes over eighty extensions (Emenanjo, 2015); Fula - a North Atlantic language spoken in West and Central Africa (Williamson and Blench, 2000) - distinguishes nineteen extensions (Arnott, 1970), Lamnso' (a Southern Bantoid language spoken in Cameroun and Nigeria) - distinguishes nine different extensions (Yuka, 2008); Degema distinguishes seven extensions, some of which are homophonous, (Kari, 1995), while Likpe (Sekpelé) - a Kwa language spoken in the "east and north-east of Hohoe (the district capital and an Ewe (Gbe) speaking town) as far as the Togo border in the northern part of the Volta Region of Ghana" - distinguishes four synchronic extensions (Ameka, 2009).

Extensional affixes are of interest to linguists because of their non-class changing derivational and/or inflectional functions, and the array of meanings they express. They are also of interest to linguists because some of them, especially verbal extensions, interface with syntax in increasing or decreasing the valency (i.e. the number of noun phrases or arguments a verb can take) of verbs to which they attach themselves (cf. Arnott, 1970; Hyman, 2007; Yuka, 2008; Ameka, 2009).

2.1. The Class-maintaining Nature of Extensional Affixes

As has already been noted, Extensional affixes belong to the class-maintaining type of morphological affixes. These affixes may serve an inflectional or derivational function. However, as noted by Hyman (2007), derivational functions seem to be more commonly associated with these affixes. As derivational affixes, they modify the lexical meaning of the base to which they attach themselves, as seen in examples (1) - (3):

(1) *Class-maintaining function of verbal extensions in Degema* (Kari, 1995: 156ff)

- | | | | | | |
|----|-----------------|-----------------------|---|-----------|----------------------------------|
| a. | tó ² | ‘be burnt’ (verb) | > | tō-εsé | ‘cause to be burnt’ (verb) |
| b. | dí | ‘eat’ (verb) | > | dī-εné | ‘eat oneself/itself’ (verb) |
| c. | kotú | ‘call’ (verb) | > | kot-oujné | ‘call each other’ (verb) |
| d. | gbé | ‘go (finally)’ (verb) | > | gbe-βiríj | ‘go (finally) many times’ (verb) |

(2) *Class-maintaining function of verbal extensions in Lamnso’* (Yuka, 2008: 152ff)

- | | | | | | |
|----|-----|----------------|---|---------|-----------------------------|
| a. | lem | ‘wound’ (verb) | > | lem-nin | ‘wound one another’ (verb) |
| b. | kív | ‘break’ (verb) | > | kív-kír | ‘break repeatedly’ (verb) |
| c. | tum | ‘send’ (verb) | > | tum-rí | ‘send unceasingly’ (verb) |
| d. | wá’ | ‘break’ (verb) | > | wá’-tí | ‘break continuously’ (verb) |

² Degema has two basic tones: high tone, marked (‘) and low tone, which is unmarked for the sake of economy. There is also a tonal phenomenon known as downstep, which is the result of a high tone becoming phonetically lower than a preceding high tone. The downstepped tone is the tone that anchors on the syllable after the down arrow, as represented in this work. It is worth mentioning that Degema is an advanced tongue root (ATR) vowel harmony language in which the two sets of five vowels (+ATR set [i, e, ə, o, u] and -ATR set [ɪ, ɛ, a, ɔ, ɔ̃]) are distinguished by the size of the pharynx. In simple words, except in recently borrowed words, the vowels are exclusively drawn from either the +ATR set or from the -ATR set. The vowels of affixes in the language agree with or are determined by the ±ATR quality of those in the base. In other words, the vowels of affixes are +ATR if the base has +ATR vowels and -ATR is the base has -ATR vowels. Degema data in this paper are transcribed in International Phonetic Alphabet symbols.

(3) *Class-maintaining function of verbal and nominal extensions in English* (Katamba and Stonham, 2006: 51)

a.	continue	(verb)	>	dis-continue	(verb)
b.	write	(verb)	>	re-write	(verb)
c.	child	(noun)	>	child-hood	(noun)
d.	king	(noun)	>	king-ship	(noun)
e.	mayor	(noun)	>	ex-mayor	(noun)

Examples (1) - (3) from Degema, Lamnso' and English respectively illustrate the class-maintaining derivational function of extensional affixes, where forms derived from either verbs or nouns by the attachment of verbal or nominal extensions remain verbs or nouns.

2.2. The Semantics of Extensional Affixes

Just as languages differ in respect of the number of extensional affixes they have, with the numbers ranging from over eighty in Igbo to less than five in Likpe (Sɛkpɛlé), languages also differ in respect of the range of meanings that extensional affixes express. In this regard, it is observed that the larger the number of extensional affixes, the wider the range of meanings associated with such extensions. Other shades of meanings that extensional affixes express, in addition to locative, benefactive, benefactive-reciprocal, causative, instrumental, intensive, iterative, reciprocal, reflexive, pluriactional-reflexive, associative, contactive and reversive that were listed earlier, are frequentative, applicative, augmentative, extensive and stative. It is important to state that the range of meanings that these extensions express in the languages of the world is not exhaustively given in this paper. Let us consider examples (4) - (6) in respect of the semantics of extensional affixes in some languages of the world:

(4) *Meanings expressed by verbal extensions in Degema* (Kari, 1995: 156ff)

tó	‘be burnt’	>	tɔ-ɛsɛ	‘cause to be burnt’	<i>causative</i>
bún	‘break’	>	bun-ené	‘break (by) itself’	<i>reflexive</i>
nó		>	nɔ-βɛɪɪmé	‘hit each other’	<i>reciprocal</i>
			nɔ-βɛɪɪmé	‘hit for each other’	<i>benefactive-reciprocal</i>
			nɔ-βɛɪɪmé	‘hit oneself/itself many times’	<i>pluriactional-reflexive</i>
kó	‘fold’	>	ko-βiriɟ	‘fold many times’	<i>iterative</i>
			ko-βiriɟ	‘fold always’	<i>habitual</i>

(5) *Meanings expressed by verbal extensions in Lamnso’* (Yuka, 2008: 152ff)

tar	‘meet’	>	tarin	‘meet one another’	<i>reciprocal</i>
nàn	‘lift’	>	nànkir	‘lift repeatedly’	<i>frequentative</i>
kum	‘touch’	>	kum-rì	‘touch unceasingly’	<i>iterative</i>
là’	‘pay’	>	là-ti	‘pay continuously’	<i>applicative</i>
rán	‘clean’	>	rán-sí	‘cause to be clean’	<i>causative</i>
way	‘put’	>	way-sín	‘put into one another’	<i>contactive</i>
táv	‘hard’	>	táv-ír	‘harden’	<i>augmentative</i>
rom	‘point’	>	room-è	‘point extensively’	<i>extensive</i>
ghe’	‘burn’	>	ghé’-éy	‘burn glowingly’	<i>intensive</i>

(6) *Some meanings expressed by verbal and nominal extensions in English* (Katamba and Stonham, 2006: 50f)

a. tie	>	un-tie	<i>reversive</i>
b. write	>	re-write	<i>again</i>
c. mayor	>	ex-mayor	<i>former</i>
d. king	>	king-ship	<i>state or condition</i>

The Degema, Lamnso’ and English data in (4), (5) and (6) respectively illustrate, though not exhaustively, the wide range of meanings associated with these extensions.

2.3. Extensional Affixes and Valency

As was noted earlier, extensional affixes, especially verbal extensions, have the potential to increase or decrease the valency of verbs (cf. Arnott, 1970; Yuka, 2008; Ameka, 2009). Arnott (1970: 338) remarks that in Fula, “extended radicals containing the causative, modal, locative, and dative extensions...can support one or more objects (or object element)...”. Similarly, he remarks that in Fula “extended radicals containing the reflexive and reciprocal extensions...are often capable of supporting one object les s...”. The example data in Fula (7) (full morphemic breaks and interlinear glossing, added) and Degema (8) demonstrate the valency-increasing nature of these meaning-modifying affixes, where an intransitive verb is made transitive by the attachment of the causative verbal suffix:

(7) *Valency-increasing verbal extension (causative) in Fula* (Arnott, 1970: 338)

- a. dar ‘stop’ > dar-n-ii ‘cause to stop’
 b. moota dar-ake.
 car stop-GEN³PST.MID
 ‘The car stopped’
 c. ’o-dar-n-ii moota.
 he-stop-CAUS-GEN PST.ACT car
 ‘He stopped the car’

(8) *Valency-increasing verbal extension (causative) in Degema*

- a. bí ‘be black’ > bi-esé ‘cause to be black’

³ The following abbreviations are used in this paper: 1SgSCL = first person singular subject clitic, 3SgSCL = third person singular subject clitic, ACT = active voice, ATR = advanced tongue root, BRS = benefactive-reciprocal suffix, CAUS = causative, CL = class marking suffix, DEF = definite article, EMPH = emphatic, FACT = factative enclitic, GEN = general, LOC = locative suffix, MID = middle voice, PST = past, PRS = pluriactional-reflexive suffix, REFL = reflexive, RPS = reciprocal suffix.

- b. ómó jǒ o=bí= *in.
 child DEF 3SgSCL=be black=FACT
 ‘The child is black’
- c. ómó jǒ o=bí-ésé=n óβáj jǒ.
 child DEF 3SgSCL=be black-CAUS=FACT house DEF
 ‘The child made the house black’

In examples (7) and (8), the intransitive verbs *dar* ‘stop’ and *bí* ‘be black’ are made transitive in Fula and Degema respectively by attaching the causative suffixes *-n* and *-ese* to the verb bases. Let us consider valency-decreasing extensions in Fula (9) (full morphemic breaks and interlinear glossing, added) and Degema (10):

(9) *Valency-decreasing verbal extension (reciprocal) in Fula* (Arnott, 1970: 338)

- a. tokk ‘follow’ > tokk-ootir-i ‘follow each other’
 b. ’o-tokk-ii-be.
 he-follow-GEN PST.ACT-them
 ‘He followed them’
- c. ðe-tokk-ootir-i.
 they-follow-RPS-EMPH PST.MID
 ‘They followed each other’

(10) *Valency-decreasing verbal extension (reflexive) in Degema*

- a. fǐjá ‘cut’ > fǐja-né ‘cut oneself/itself’
 b. mǐ=fǐjá=n údíŋ^w jǒ.
 1SgSCL=child =FACT rope DEF
 ‘I cut the rope’
- c. údíŋ^w jǒ ɔ=fǐjá-né= *én.
 rope DEF 3SgSCL=cut-REFL=FACT
 ‘The rope cut (by itself)’

In examples (9) and (10), the transitive verbs *tokk* ‘follow’ and *fǐjá*

they-help load on-RPS-GEN PST.ACT head
 ‘They helped each other up with their loads’

Similarly, Arnott notes that the locative extension *-r-* (or *-d-*), *-ir-* or *-or-* “occurs in nouns referring to a place associated with an action...”. This is supported by example (12) taken from Arnott (1970:353) (full morphemic breaks and interlinear glossing, added):

- (12) a. jaŋŋg-ir-de ‘school’ (jaŋŋga ‘read, learn’)
 read/learn-LOC-CL9
 b. ’un-or-du ‘store’ (’una ‘pound’)
 pound-LOC-CL11

We can deduce from Arnott’s (1970) observation in respect of the reciprocal extension that nouns that do not refer to a place associated with an action automatically prohibit the locative extension from attaching to them, even though there are no corresponding ungrammatical data given in his work on Fula to validate this deduction. Here, we see semantics as a factor that limits the locative extension from attaching to every noun base in Fula.

Barbaresi (n.d.:2) discusses the combinatorial patterns in Italian evaluative affixes, noting that the combination of such meaning modifying affixes is regulated by the phonological, morphological, semantic and pragmatic properties of both affixes and bases, among other principles, often operating together. In respect of the phonological restriction imposed on base-affix combination, for example, Serianni (1988) and Rainer (1990) cited by Barbaresi (n.d.) note that in Italian the phonological make up of a base has the tendency to prohibit the attachment of a suffix to such base, especially when the base and the (diminutive) suffix are homophonous. As a result of this phonological restriction, “*-etto* suffix can hardly be added to a base ending in *-ettV-*, as in **lett-etto* ← *letto* ‘bed’, or *-trV-* as in **teatr-etto* ← *teatro* ‘theatre.’” (Barbaresi n.d.:4).

From the works of Arnott, Barbaresi, Rainer and Serianni cited above, it is clear that some of the factors that determine base-extensional affix combinatorial possibilities in the world's languages include phonology, syntax and semantics.

3. Verbal Extensions in Degema⁴

This section provides a background to the discussion of verbal extensions in Degema. Verbal extensions in Degema occur as suffixes. The earliest reference to the existence of these meaning-modifying suffixes in Degema is Thomas (1966). She identifies five meaning-modifying suffixes in Degema, although one of the suffixes is actually not a meaning-modifying suffix (cf. Kari, 1995: 150). Kari (1995) provides an elaborate discussion of verbal extensions in Degema. He focuses on the number and underlying forms of these suffixes and the relative order of the suffixes. He also sets up and discusses phonological rules that derive surface forms from underlying forms of verbal extensions in Degema. Furthermore, he identifies seven extensional suffixes in Degema as follows: causative, reflexive, reciprocal, benefactive-reciprocal, pluriactional-reflexive, iterative and habitual, and notes that the reciprocal, benefactive-reciprocal and pluriactional-reflexive suffixes are homophonous like the iterative and habitual suffixes. The number of extensions in Degema is relatively small in comparison to the over eighty extensions in Igbo (Emenango, 2015), nineteen in Fula (Arnott 1970) and nine in Lamnso' (Yuka, 2008). The forms of verbal extensions established by Kari (1995) are given in (13):

- (13) *Forms of verbal extensions in Degema*
- | | |
|------|-------------|
| -EsE | 'causative' |
| -EnE | 'reflexive' |

⁴ There are no nominal extensions in Degema.

-βEŋInE	‘reciprocal, benefactive–reciprocal and pluriactional–reflexive’
-βIrIj	‘iterative and habitual’

These suffixes have allomorphs. The causative suffix has the allomorphs *-ese/-εsē*; the reflexive suffix has the allomorphs *-ene/-enε*; the homophonous reciprocal, benefactive–reciprocal and pluriactional reflexive suffixes have the allomorphs *-βeŋine/-βεŋmε*, while the homophonous iterative and habitual suffixes have the allomorphs *-βirij/-βrɪj*. The quality of the vowels of each allomorph is determined by that of the vowels in the verb base in terms of whether the vowels in the verb base are produced with an advanced tongue root (+ATR) or with a retracted tongue root (-ATR). Consequently, the allomorphs of these suffixes are *-ese*, *-ene*, *-βeŋine* and *-βirij* when the verb base contains +ATR vowels, as in (14):

(14) *Verbal extensions with +ATR verb bases*

bí	‘be black’	>	bi-esé	‘cause to be black’
bún	‘break’	>	bun-ené	‘break (by) itself’
bijé	‘give birth’	>	bije-βeŋiné	‘give birth to each other’
gbé	‘go home’	>	gbe-βirij	‘go home many times’

In (15) where the verb bases contain -ATR vowels, the allomorphs of these suffixes are *-εsε*, *-enε*, *-βεŋmε* and *-βrɪj*:

(15) *Verbal extensions with -ATR verb bases*

sín	‘climb’	>	sm-εsé	‘cause to climb’
kól	‘fold’	>	kəl-ené	‘fold itself’

⁵ It is important to state that there is considerable variation in the shapes that the allomorphs of verbal extensions in Degema take. The shapes of the allomorphs of these suffixes are largely determined by the phonological nature of the verb base (root-controlled ATR vowel harmony) and by the position in which the suffixes occur relative to other verbal suffixes (cf. Hyman, 2007; Kari, 1995).

tó	'burn' (v.t.)	>	tɔ-βɔŋɪné	'burn each other'
ká	'buy (drink)'	>	ka-βírɪj	'buy (drink) many times'

For a detailed discussion of the phonological changes that these verbal extensions undergo and the phonological rules that apply to derive the surface forms of these extensions and the verb bases they attach to, see Kari (1995).

4. Combinatorial Restrictions in Base-Verbal Extension Attachment in Degema

Although Thomas (1966) and Kari (1995) discuss the attachment of verbal extensions to verb bases, they are silent on the restrictions in the attachment of some of these extensions in the language. They are also silent on the syntactic role of these extensions in respect of their ability to increase or decrease the valency of the verbs to which they attach themselves. Subsequent works such as Kari (2003, 2008), however, note that some verbal extensions in Degema do not attach to all verb bases in the language. In these later works, reference is made directly or indirectly to semantics as a possible factor that is responsible for the prohibition of the causative and reflexive extensions from attaching to certain verb bases, while also attributing the attachment of the causative, reciprocal and habitual extensions to certain verb bases to semantic factors. Kari (2004: 272) notes and exemplifies the fact that the valency of verbs in Degema can be affected by the attachment of verbal extensions, such as the causative, reflexive and reciprocal suffixes, to verb bases.

It is worthwhile to note that the fact that grammatical considerations, including phonological, syntactic and/or semantic factors, play a role in the combinatorial restrictions in base-extensional affix selection in the world's languages is neither a recent discovery nor is it peculiar to or tenable only in Degema base-extensional affix combination. The

restrictions these grammatical considerations impose on base-extensional affix combinatorial possibilities are discussed and exemplified in Section 2.4 based on data from Arnott (1970), working on Fula, and (Barbarese (n.d.), working on Italian.

In what follows, we shall examine a number of verb bases in Degema and the verbal extensions attached to them in order to establish the range of possible factors that permit or prohibit the attachment of each of the identified verbal extensions to all verb bases in the language. We shall begin by looking at the causative suffix and the possible verb bases it attaches to. We shall also look at the verb bases that the causative suffix does not attach to and try to establish the factor(s) that are responsible for the restriction in attachment of the suffix.

4.1. The Causative Suffix (-EsE)

The causative verbal extension, when attached to a verb base, denotes the fact that the subject or agent causes or brings about a change in the activity or state expressed by the verb. This verbal extension has the capacity to increase the valency of verbs by making intransitive verbs to become transitive. It is worthwhile to note that in languages, such as Lamnso' (Yuka, 2008) and Likpe (Ameka, 2009), the causative extension does not only have the potential to transitive verbs but also has the potential to detransitivize verbs. Let us look at the data in Table 1 to see the behaviour of the causative suffix as regards its attachment to verb bases:

Table 1. Verb Base-Causative Suffix Attachment

Verb Base			Verb Base + Causative Suffix	
ɓár	'burn' (v.i.)	>	ɓr-asé	'cause to burn' (v.i.)
bí	'be black'	>	bi-esé	'cause to be black'
ɓij	'be ripe'	>	ɓij-esé	'cause to be ripe'
ɓijé	'give birth'	>	ɓij-esé	'cause to give birth'
ɓól	'hold'	>	ɓl-osé ⁶	'cause to hold'

ḃów	'pull out'	>	*ḃow-sé	
ḃún	'break'	>	*ḃun-esé	
déŋ	'fall'	>	d-esé *deŋ-sé	'cause to fall'
dúw	'follow'	>	dúw-esé	'cause to follow'
fihíḃ	'sob'	>	fihíḃ-sé	'cause to sob'
gbé	'go home'	>	gb-esé	'cause to go home'
gbéj	'laugh'	>	gb-ésé *gbej-sé	'cause to laugh'
gbóm	'bite'	>	gbom-osé	'cause to bite'
hír	'surround'	>	*hir-esé	
hóḃ	'scoop'	>	*hóḃ-ɔsé	
jów	'swim'	>	jow-sé	'cause to swim'
ká	'buy drink'	>	*k-asé	
kír	'return'	>	kir-esé	'cause to return'
kój	'be heavy'	>	kɔj-sé	'cause to be heavy'
ków	'shout'	>	kow-sé	'cause to shout'
kpeŋ	'wash'	>	*kpeŋ-sé	
kpóm	'be sick'	>	kpom-osé	'cause to be sick'
kól	'fold'	>	*kɔl-esé	
kúw	'close'	>	*kuw-esé	
láḃ	'cut'	>	*láḃ-asé	
ŋáŋ	'drive'	>	ŋaŋ-sé	'cause to drive'
ŋəŋ	'be frightened'	>	ŋ-əsé *ŋəŋ-sé	'caused to be frightened'
níŋ ^w	'try to pass urine/faeces'	>	níŋ ^w -esé	'cause to try to pass urine/faeces'
ŋón	'snore'	>	ŋn-ɔsé	'cause to snore'
sɔhóḃ	'tip-toe'	>	sɔhóḃ-sé	'cause to tip-toe'
tó	'burn' (v.t.)	>	*t-ɔsé	
tó	'be hot'	>	tɔ-esé	'cause to be hot'
wáj	'spread'	>	*wáj-sé	
ḃów	'breathe'	>	ḃow-sé	'cause to breathe'

⁶ Verb bases, such as *ḃól* 'hold', *ḃár* 'burn' and *ŋón* 'snore', which contain non-high vowels and which end in any of the alveolar consonants *n*, *r* and *l*, have their non-high vowels preceding the final consonant syncopated before the attachment of the causative suffix. For this reason derived forms such as **ḃol-osé*, **ḃar-asé* and **ŋn-ɔsé* are ill-formed. Similarly, verb bases, such as *gbéj* 'laugh', *déŋ* 'fall' and *ŋəŋ* 'be frightened' have their vowels and following consonant deleted before the causative suffix. The final consonant of the verb *ŋáŋ* 'drive', for some inexplicable phonological reasons, does not delete before the causative suffix (cf. *ŋəŋ* 'be frightened' > *ŋ-əsé* 'cause to be frightened').

The data in Table 1 show that the causative verbal extension attaches to different syntactic classes of verbs. Like in the Lamnso' language, as observed by Yuka (2008), the causative extension can attach to both transitive and intransitive verbs in Degema although it is generally found to attach to intransitive verbs. The attachment of the suffix to an intransitive verb automatically changes the valency of the verb from a one-place to a two-place verb. Let us consider example (8) repeated as (16) below:

- (16) a. bí 'be black > bi-esé 'cause to be black'
 b. ómó jó o=bí=†ín.
 child DEF 3SgSCL=be black=FACT
 'The child is black'
 c. ómó jó o=bí-ésé=n óβáj jó.
 child DEF 3SgSCL=be black-CAUS=FACT house DEF
 'The child made the house black'

Example (16) shows that an intransitive verb base, such as bí 'be black', is changed from a one-place predicate verb to a two-place predicate verb by the attachment of the causative suffix.

The causative suffix is found to attach to some transitive verbs while failing to attach to others. An interesting observation that can be made regarding intransitive verbs in Degema, and which seems to explain why the causative extension fails to attach to all transitive verbs, is that all the intransitive verbs that the causative suffix attaches to in Table 1 take cognate objects. These objects, i.e. cognate objects, derive from verbs and are thus phonologically, morphologically and semantically related to their corresponding verbs (cf. Kari, 2015b), as Table 2 shows:

Table 2. Intransitive Verbs and their Cognate Objects

Intransitive Verbs		Cognate Objects		Intransitive Verbs+Causative Suffix	
ɓár	'burn'	ɔ́ɓá*rá	'state of being burnt'	ɓra-sé	'cause to burn'
bí	'be black'	ubi*ó	'state of being black'	bi-esé	'cause to be black'
ɓíj	'be ripe'	ubi*jó	'state of being ripe'	ɓij-esé	'cause to be ripe'
kír	'return'	uki*ró	'state of being returned'	kir-esé	'cause to return'
kój	'be heavy'	ɔkɔ*já	'state of being heavy'	kɔj-sé	'cause to be heavy'
kpóm	'be sick'	ikpóm	'sickness'	kpom-osé	'cause to be sick'
ɲáɲ	'be frightened'	iɲá*ɲá	'state of being frightened'	ɲ-əsé	'cause to be frightened'
ɲón	'snore'	ɲɔ*ná	'snore'	ɲn-ɔsé	'cause to snore'
sɔhɔβ	'tip-toe'	ɪsɔhɔ*βá	'tip-toe'	sɔhɔβ-sé	'cause to tip-toe'
tó	'be hot'	ɔtɔ*á	'state of being hot'	tɔ-esé	'cause to be hot'

It is also interesting to note that transitive verbs that the causative verbal extension attaches to in Degema are those that take both cognate and non-cognate objects whereas those that the causative verbal extension fails to attach to are the ones that take only non-cognate objects, as a comparison between Tables 3 and 4 shows:

Table 3. Transitive Verbs Taking Cognate Objects/Non-Cognate Objects

Transitive Verbs		Cognate/Non-Cognate Objects		Transitive Verbs+Causative Suffix	
ków	'shout'	ikó* wá/ini nɔɲ ^w	'shout'/'his name'	kow-sé	'cause to shout'
jów	'swim'	ɔjów/é*dá	'swimming'/'river'	jɔw-sé	'cause to swim'
gbóm	'bite'	igbó*má/ɔjí	'bite'/'him'	gbom-osé	'cause to bite'
gbéj	'laugh'	agbéj/mé	'laugh'/'me'	gb-esé	'cause to laugh'
ɗúw	'follow'	idú* wá/ení	'following'/'us'	ɗuw-esé	'cause to follow'
ɓól	'hold'	iɓó*lá/ɛnám	'holding'/'animal'	ɓl-osé	'cause to hold'
ɓijé	'give birth'	ú*ɓijé/ɔ*mó	'giving birth'/'child'	ɓij-esé	'cause to give birth'

Table 4. Transitive Taking only Non-Cognate Objects

Transitive Verbs		Cognate/Non-Cognate Objects	Transitive Verbs+Causative Suffix
ká	'buy (drinks)'	*ɔká*á/uđí	'drink(s)' *k-asé
tó	'burn'	*ɔt*ó/ésén	'fish' *tɔ-sé
wáj	'spread'	*ɪwá*já/ɔtɔ́ ^w	'clothes' *waj-sé
láβ	'cut'	*ɪlá*βá/ɔ* táɲ	'tree' *laβ-asé
kúw	'close'	*ikú* wá/egú	'door' *kuw-sé
kól	'fold'	*ɪkó* lá/ɔbí	'book' *kɔl-esé
hóβ	'scoop'	*ɪhó* βá/ɔgóβ	'mud' *hɔβ-ɔsé
hír	'surround'	*ihí* rá/ɔ* βáj	'house' *hir-esé
ɓún	'break'	*ibú* nǎ/ɛlegé	'knife' *ɓun-esé
ɓów	'pull out'	*ɪɓó* wá/ɔ* táɲ	'tree' *ɓow-sé

Table 3 reveals that all the transitive verbs that are listed therein can take both cognate and non-cognate objects. Thus, the transitive verb *ków* 'shout', for instance, can take its corresponding cognate object *ikó* wó* 'shout' to become *kow ikó* wó* 'shout shout'. The transitive verb *ków* 'shout' can also take a non-cognate object, such as *ini nɔɔɲ^w* (*iní* 'name' + *nɔɔɲ^w* 'his') 'his name', to become *kow ini nɔɔɲ^w* 'shout his name'. Table 4 however reveals that, unlike the transitive verbs in Table 3, those in Table 4 can only take non-cognate objects. Thus the transitive verb *ká* 'buy drink(s)', for instance, can only take a non-cognate object, such as *uđí* 'drink(s)' to become *ka uđí* 'buy drink(s)'. The combination of the transitive verb *ká* 'buy drink(s)' and its corresponding cognate object **ɔká* á* to yield **ka ɔká* á* is ungrammatical.

It is evident from our discussion of the causative verbal extension that syntactic factors, transitivity in particular, are responsible for the combinatorial possibilities that exist in verb base-causative suffix attachment in Degema, as the ability or inability of a verb to take a cognate object determines the possibility or impossibility of having the causative verbal extension attach to it.

4.2. The Reflexive Suffix (-EnE)

The reflexive verbal extension expresses the fact that the effect of an action is felt or experienced by the subject. Let us consider the behaviour of the reflexive suffix in respect of its attachment to verb bases in the data in Table 5:

Table 5. Verb Base-Reflexive Suffix Attachment

Verb Base			Verb Base + Reflexive Suffix	
ɓár	'burn' (v.i.)	>	*ɓr-ané	
bí	'be black'	>	*bi-ené	
ɓíj	'be ripe'	>	*ɓij-ené	
ɓijé	'give birth'	>	ɓij-ené	'give birth to oneself/itself'
ɓól	'hold'	>	ɓl-oné	'hold oneself/itself'
ɓów	'pull out'	>	ɓ-óné	'pull oneself/itself out'
déɲ	'fall'	>	*d-ené	
ɗúw	'follow'	>	*ɗuw-ené	
fihíβ	'sob'	>	*fihíβ-né	
gbé	'go home'	>	*gb-ené	
gbéj	'laugh'	>	*gbɛj-né	
gbóm	'bite'	>	gbom-oné	'bite oneself/itself'
hír	'surround'	>	hir-ené	'surround oneself/itself'
hóβ	'scoop'	>	*hɔβ-ɔné	
jów	'swim'	>	*jɔw-ené	
ká	'buy drink'	>	*k-ané	
kír	'return'	>	*kir-ené	
kój	'be heavy'	>	*kɔj-ené	
ków	'shout'	>	*kow-ené	
kpéɲ	'wash'	>	kp-ené	'wash each other/wash for each other/wash many times'
kpóm	'be sick'	>	*kpom-oné	
kól	'fold'	>	kɔl-ené	'fold oneself/itself'
kúw	'close'	>	kuw-ené	'close itself'
láβ	'cut'	>	laβ-ané	'cut oneself/itself'
ɲáɲ	'drive'	>	*ɲaɲ-né	
ɲəɲ	'be frightened'	>	*ɲəɲ-əné	
niŋ ^w	'make effort to pass urine/faeces'	>	*niŋ ^w -ené	

ἡτόν	‘snore’	>	*ἡτν-ῶνέ	
σολόβ	‘tip-toe’	>	*σολοβ-νέ	
σίν	‘climb’	>	*σιν-ενέ	
τό	‘burn’ (v.t.)	>	τ-ῶνέ	‘burn oneself/itself’
τό	‘be hot’	>	*τῶ-ενέ	
βά	‘spread’	>	ω-ανέ	‘spread over oneself/itself’
βώ	‘breathe’	>	*βω-νέ	

The data in Table 5 show that the attachment of the reflexive suffix to verb bases is constrained by the syntactic and semantic character of the verb bases. Syntactically, the reflexive suffix is prohibited from attaching to intransitive verb bases, such as *bí* ‘be black’ and *kír* ‘return’. The basic reason for this prohibition lies in the fact that the suffix has the capacity to decrease the valency of verbs. Given that intransitive verbs are already low in respect of valency, there cannot be a further decrease in their valency. The reflexive suffix is also prohibited from attaching to some transitive verbs basically because of the semantic character of such verbs.

Semantically, some transitive verbs do not take the reflexive suffix because of the nature of the object they select. A transitive verb like *ká* ‘buy drink’, for instance, requires that the object it selects be inanimate and liquid. Consequently, the attachment of the reflexive suffix to the verb *ká* is disallowed, since an object that is animate does not meet the selectional needs or requirements of the verb. Similarly, an agent that is animate cannot buy itself because what is bought or is to be bought is inanimate. Furthermore, it is not possible for an inanimate subject to buy itself because it lacks the mobility to do so.

The reflexive suffix is disallowed from attaching to a transitive verb like *áw* ‘follow’ for some syntactic and semantic reasons. Syntactically, the reflexive suffix fails to attach to the verb *áw* ‘follow’ because the verb requires a following object noun phrase or argument. For this reason, it rejects or prohibits the reflexive suffix from attaching to it. Semantically, the reflexive suffix fails to attach to the verb *áw* ‘follow’

because the verb requires that the object noun phrase or argument that follows it should not have the feature [+SELF], as it is impossible for someone to physically follow oneself or for something to physically follow itself. It is for syntactic and/or semantic reasons that verbs in Degema reject or prohibit the reflexive suffix from attaching to them.

4.3. The Reciprocal, Benefactive-Reciprocal and Pluriactional-Reflexive Suffixes (-βEŋInE)

The reciprocal, benefactive–reciprocal and pluriactional–reflexive verbal extensions have a number of things in common. They are identical in their forms and have the same pronunciation. Another point of similarity is that the three homophonous suffixes are inherently plural in their meanings (cf. Newman, 1990). Thus whereas the reciprocal and benefactive–reciprocal suffixes suggest that more than one entity is involved, the pluriactional–reflexive denotes the fact that the action of the verb is performed more than once or by more than one entity. Let us now consider the behaviour of these homophonous suffixes in terms of their attachment to the verb bases in Table 6:

Table 6. Verb Base–Reciprocal, Benefactive–Reciprocal and Pluriactional–Reflexive Suffixes Attachment

Verb Base		Verb Base + Reciprocal, Benefactive–Reciprocal and Pluriactional–Reflexive Suffixes	
gbóm	‘bite’	>	gbom-ŋjné ‘bite each other/bite for each other/bite many times’
ḡár	‘burn’ (v.i.)	>	*ḡr-ŋjné
bí	‘be black’	>	*bi-βeŋjné
ḡj	‘be ripe’	>	*ḡj-ŋjné
ḡjé	‘give birth’	>	ḡjje-βeŋjné ‘give birth for each other/give birth many times’ *RPS
ból	‘hold’	>	ḡl-ŋjné ‘hold each other/hold many times’
déŋ	‘fall’	>	d-ŋjné ‘fall many times’
ḡúw	‘follow’	>	ḡuw-ŋjné ‘follow each other/follow many times’
fihíβ	‘sob’	>	*fihíβ-ŋjné

gbé	'go home'	>	*gbe-βeɣiné	
gbéj	'laugh'	>	gb-εɣiné	'laugh at each other/many times'
gím	'pin'	>	gim-εɣiné	'pin each other/pin for each other/pin many times'
hír	'go round'	>	hir-εɣiné	'go round each other/go round for each other/go round many times'
hóβ	'scoop'	>	*hɔβ-ɔɣiné	
jów	'swim'	>	j-ɔɣiné	'swim many times'
ká	'buy drink'	>	ka-βaɣiné	'buy drink for each other' *RPS/*PRS
kír	'return'	>	*kir-εɣiné	
kóɟ	'be heavy'	>	*kɔɟ-εɣiné	
ków	'shout'	>	k-ɔɣiné	'shout each other's (name)/shout many times'
kpéɲ	'wash'	>	kp-εɣiné	'wash each other/wash for each other/wash many times'
kpóm	'be sick'	>	kpom-ɔɣiné	'be sick many times' *RPS/*BRS
kól	'fold'	>	kɔl-εɣiné	'fold each other/fold many times'
kúw	'close'	>	kuw-εɣiné	'close for each other/many times' *RPS
láβ	'cut'	>	laβ-aɣiné	'cut each other/cut for each other/cut many times'
náɲ	'drive'	>	ɲ-aɣiné	'drive for each other/drive many times'
ɲəɲ	'be frightened'	>	*ɲəɲ-εɣiné	
ɲíɲ ^w	'make effort to pass urine/faeces'	>	*ɲíɲ ^w -εɣiné	
ɲón	'snore'	>	*ɲn-ɔɣiné	
sɔhóβ	'tip-toe'	>	*sɔhɔβ-ɔɣiné	
tó	'burn' (v.t.)	>	tɔ-βɔɣiné	'burn each other/burn for each other/burn many times'
tó	'be hot'	>	*tɔ-βeɣiné	
wáj	'spread'	>	wa-βaɣiné	'spread over each other/spread many times'
βów	'breathe'	>	*βow-ɔɣiné	

The data in Table 6 show that the reciprocal, benefactive-reciprocal and pluriactional-reflexive verbal extensions do not attach to all verb bases. A syntactic requirement is imposed on the reciprocal,

benefactive–reciprocal and pluriactional–reflexive verbal extensions such that they attach only to transitive verbs. There are, however, few transitive verbs that these suffixes fail to attach to. The prohibition in attachment of these suffixes to transitive verbs results from the semantics of the verbs. For instance, the suffixes fail to attach to a transitive verb such as *náj^w* ‘make effort to pass urine/faeces’ to yield **náj^w-əjme* because the meaning of the verb *náj^w* neither includes ‘each otherness’ nor the fact that the verbal action could be performed for each other (cf. Yuka, 2008:152). Similarly, the suffixes fail to attach to the verb *βow* ‘breathe’ for a semantic reason that border on the fact that the agents or participants cannot breathe each other, breathe for each other or breathe themselves many times.

4.4. The Iterative and Habitual Suffixes (-βIrIj)

Like the reciprocal, benefactive–reciprocal and pluriactional–reflexive, the iterative and habitual verbal extensions also have a number of things in common. One of the things that the two suffixes have in common is sameness in their forms and pronunciations. They are also closely related in their meanings. The iterative denotes an action or state that occurs repeatedly while the habitual denotes ‘often’ or ‘always’. The relatedness in meaning between the iterative and habitual suffixes is in the sense of an action or a state occurring more than once or frequently. Let us look at the data in Table 7 to see the behaviour of the iterative and habitual suffixes with respect to their attachment to verb bases:

Table 7. Verb Base–Iterative and Habitual Suffixes Attachment

Verb Base			Verb Base + Iterative and Habitual Suffixes	
βár	‘burn’ (v.i.)	>	βr-áj	‘burn many times/always’
bí	‘be black’	>	bi-βiríj	‘be black many times/always’
βíj	‘be ripe’	>	βi-íj	‘be ripe many times/always’
βijé	‘give birth’	>	βije-βiríj	‘give birth many times/always’
βól	‘hold’	>	βl-ój	‘hold many times/always’

ḃún	'break'	>	ḃun-íj	'break many times/always'
déj	'fall'	>	*de-éj d-ejɛn-éj	possible only after the attachment of the RPS-BRS-PRS
dúw	'follow'	>	dúw-íj	'follow many times/always'
fihíḃ	'sob'	>	*fihíḃ-íj	
gbé	'go home'	>	gbe-ḃiríj	'go home many times/always'
gbéj	'laugh'	>	gbe-éj	'laugh many times/always'
gbóm	'bite'	>	gbom-ój	'bite many times/always'
gól	'sing'	>	gl-ój	'sing many times/always'
hír	'surround'	>	hir-íj	'surround many times/always'
hóḃ	'scoop'	>	hóḃ-ój	'scoop many times/always'
jów	'swim'	>	jów-ój	'swim many times/always'
ká	'buy drink'	>	ka-ḃiríj	'buy drink many times/always'
kír	'return'	>	kir-íj ⁷	'return many times/always'
kój	'be heavy'	>	kɔ-ój	'be heavy many times/always'
ków	'shout'	>	kow-ój	'shout many times/always'
kpéj	'wash'	>	kpe-éj	'wash many times/always' (with transferred nasalization)
kpóm	'be sick'	>	kpom-ój	'be sick many times/always'
kól	'fold'	>	kɔl-íj	'fold many times/always'
kúw	'close'	>	kuw-íj	'close many times/always'
láḃ	'cut'	>	laḃ-áj	'cut many times/always'
náj	'drive'	>	na-áj	'drive many times/always' (with transferred nasalization)
náj	'be frightened'	>	nə-áj	'be frightened many times/always'
níŋ ^w	'try to pass urine/faeces'	>	nɪŋ ^w -íj	'try to pass urine/faeces many times/always'
ŋón	'snore'	>	ŋn-ój	'snore many times/always'
sóhóḃ	'tip-toe'	>	*sóhóḃ-ój	
tó	'burn' (v.t.)	>	tɔ-ḃiríj	'burn many times/always'
tó	'be hot'	>	tɔ-ḃiríj	'be hot many times/always'
wáj	'spread'	>	wa-áj	'spread many times/always'
ḃów	'breathe'	>	ḃow-ój	'breathe many times/always'

⁷ In cases where the iterative and habitual suffixes are reduced to the form *-íj*, the vocalic part of the suffixes assimilates to the non-high vowel in the verb stem, as forms such as *láḃ* 'cut' > *laḃ-áj* 'cut many times/always' and *ków* 'shout' > *kow-ój* 'shout many times/always' show (cf. *kól* 'fold' > *kɔl-íj* 'fold many times/always' and *hír* 'surround' > *hir-íj* 'surround many

The data in Table 7 show that the iterative and habitual suffixes attach to almost all verb bases, except to verb bases that have more than one syllable and which end with the voiced bilabial fricative [β]. The ungrammatical verb base-suffix combination *sɔhɔβ-ɟj illustrates this phonological restriction in the attachment of the iterative and habitual suffixes to the verb base. The claim that the restriction in the attachment of the iterative and habitual suffixes to the verb base sɔhɔβ 'tip-toe' is indeed phonologically induced is supported by the fact that whereas a monosyllabic verb base, such as hɔβ 'scoop' with a similar phonological make-up, permits the attachment of the iterative and habitual suffixes to become hɔβ-ɟj 'scoop many times/always', a verb base like fihiβ 'sob' does not permit the attachment of these suffixes to become *fihiβ-ɟj. The underlying reason for the attachment of the iterative and habitual suffixes to almost all verb bases in the language is the possibility for verbal action or state to occur more than once or regularly.

5. Conclusion

Thus far, this paper has discussed verbal extensions and their possibility or impossibility to combine with verb bases in Degema. Although the analysis presented in this paper is not entirely new, it establishes possible factors that permit or prohibit the attachment of each of the identified verbal extensions to all verb bases in the language. The restrictions that inhibit the attachment of particular verbal extensions to all verb bases are found to be basically phonological, syntactic and semantic but more of syntactic and semantic or a combination of these factors.

Specifically, the attachment of the causative suffix to verb bases is found to be partly restricted by phonology but mainly by syntax. The combinatorial possibilities that exist in verb base-causative suffix

attachment in Degema are determined by the ability or inability of a verb to take a cognate object. This observation in respect of the behaviour of verb bases and the attachment or non-attachment of the causative extensional suffix is worthy of note as far as the discussion in the literature on the combinatorial restrictions that hold between verb bases and verbal extensions is concerned.

The reflexive suffix is found to be restricted in attachment to verb bases due to syntactic and semantic factors. Syntactically, the reflexive suffix is prohibited from attaching to intransitive verb bases because such verbs are already low in valency and cannot have their valency further decreased. The reflexive suffix is found to be prohibited from attaching to some transitive verbs because such attachment will engender meanings that are semantically odd.

Syntactic and semantic factors are found to restrict the homophonous reciprocal, benefactive-reciprocal and pluriactional-reflexive suffixes from attaching to all verb bases. It is noted that these suffixes attach only to transitive verbs. Their failure to attach to some transitive verbs is attributable to semantics, as the meanings of such verbs neither include 'each otherness' nor the fact that the action could be performed for each other (cf. Yuka, 2008:152).

Unlike other verbal extensions, the iterative and habitual suffixes attach to almost all verb bases in the language because of the possibility for verbal action or state to occur more than once or regularly. Nevertheless, it is observed that the phonological make-up of some verb bases prohibit the attachment of these suffixes. Specifically, it is observed that verb bases that have more than one syllable and which end with the voiced bilabial fricative [β] do not permit the attachment of the iterative and habitual suffixes.

Like Barbaresi (n.d.:11) observed in Italian, despite the role of phonology in the permission or prohibition of verbal extensions in Degema from attaching to all verb bases, we would like to highlight the fact that the syntactic and semantic reasons for verbal extension suffix selection

and combination are much stronger than the few verb base-verbal extension suffix phonological restrictions.

Of particular interest in the combinatorial restrictions in verb-extensional suffix selection in Degema is the significance of the valency of verbs, as most of the grammatical considerations, especially syntactic and semantic, that permit or prohibit the attachment of verbal extensions to verb bases seem to depend on whether the verbs allow or disallow a following object (argument), and what kind of object verbs take. For example, the causative suffix in Degema is generally found to attach to one-place predicate verbs, such as intransitives, whereas the reflexive suffix is prohibited from attaching to one-place predicate verbs. The reflexive suffix is also prohibited from attaching to some transitive verbs in order not to engender meanings that are semantically odd. Similarly, the attachment of the reciprocal, benefactive-reciprocal and pluriactional-reflexive suffixes is mainly restricted to transitive verbs, i.e. verbs whose valency is more than one. The fact that the reciprocal, benefactive-reciprocal and pluriactional-reflexive suffixes are semantically restricted from attaching to some transitive verbs is because the semantics of such transitive verbs does not include 'each otherness' or the fact that the action could be performed for each other.

On the whole, it is evident from our discussion and findings that verbal extensions in Degema are interesting elements at the phonology-morphology-syntax-semantics interface.

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