

A grammatical study of reduplication in Mwaghavul

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Abstract

This article examines grammatical aspects of reduplication in Mwaghavul, a Western Chadic language spoken in Plateau State, North Central Nigeria. Using a corpus of selected reduplicated words in the Mwaghavul dictionary and the native intuition of selected speakers of the language, the study aims at identifying the grammatical functions of reduplication in the Mwaghavul language. Findings of the research indicate that reduplication, alongside tonal changes in some instances, grammatically functions to indicate distributiveness in cardinal numerals, intensification/emphasis in adjectival verbs, relativity in colour adjectives, and imperative mood in some verbs. Other grammatical roles of reduplication are to mark repetitive actions, modal changes, verb focus, derivation of predicative adjectives from verbs, and the formation of a special type of alternative question in the language, among other things. The study concludes that the process of reduplication in the Mwaghavul language is signalled by the interface of morpho-phonological and syntactic phenomena.

Keywords: Reduplication; Base form; Derived form; Grammatical function; Mwaghavul

Abstract in Mwaghavul

péépà diisì ní kǐ yakshíí a ñkaa rìdùplikyééshòn m̀Mwaghavul, dí ní a méé m̀but song lipòò West Chadic mó. Mu bilip pak pòò mó m̀but dikshinari mù Mwaghavul dǎng mu cìn dǎk kǐ m̀n mù pak nyèm Mwaghavul mó mpèèkú mu kámshíí kǐ rìdùplikyééshòn ní dí m̀Mwaghavul. Bilip diisì ní kám ñné mó kǐ cìn dǎk kǐ rìdùplikyééshòn kǐ dǒó pàrmèèci mpèè kámshíí kǐ m̀bìi mó shìni-shìni m̀Mwaghavul. Mò kǐ cìn dǎk kǐ rìdùplikyééshòn mpèè sàt b̀ak m̀bìi, kǐ mpèè ñìghìt sàt m̀bìi kǐ mpèè nang-nàng zàk. rìdùplikyééshòn ní kǐ kòghòp ní m̀Mwaghavul zám.

Introduction

Reduplication involves the repeating of a word or part of such a word to produce a word with a different grammatical form or a derived word in an entirely different word class.

Lieber (2009:80) suggests that “reduplication is a morphological process in which all or part of the base is repeated”. In like manner, Haspelmath & Sims (2010:38) see reduplication as “a very common morphological operation...whereby part of the base or the complete base is copied and attached to the base (either preceding or following it). In cases where only part of the base is repeated, we have instances of partial reduplication; if the entire base is repeated, this is called full or complete reduplication”.

This research studies the phenomenon of reduplication in Mwaghavul, a western Chadic language spoken in Mangu and Barkin Ladi Local Government Areas of Plateau State, Nigeria (Eberhard, Simons & Fennig, 2019). The first major study on reduplication in Mwaghavul was Arokoyo & Fwangwar (2019). The research examines noun reduplication in Mwaghavul and suggests that a noun in Mwaghavul undergoes total reduplication to yield nouns with meanings such as ‘real N’, ‘genuine N’ or ‘original N’. ‘N’ here represents a noun and the reduplication culturally indicates genuineness or originality for these nouns. This study is, however, not exhaustive since it focuses exclusively on noun reduplication, leaving out other aspects of reduplication in Mwaghavul. Furthermore, the interest of the research is centred on the tonal behaviour of noun reduplication. Data at the disposal of the present researchers show that there is more to reduplication in Mwaghavul than covered in Arokoyo & Fwangwar (2019). The current research investigates different grammatical aspects of reduplication in Mwaghavul. Other landmark grammatical studies on reduplication in related languages within the wider Afroasiatic family include: José (2004) which investigates reduplicated pluractional verbs in Hausa, Schuh (2002) which studies reduplication as an aspect of pluractional verb formation in West Chadic and Ratcliffe (1996) which studies reduplication as an aspect of noun plural formation in Afro-Asiatic languages. According to Blench (2012), the Mwaghavul language belongs to the West Chadic sub-branch of the Bole-Ngas sub-group of the Ngas proper group. Older literature refers to the language as Sura. The name Mwaghavul represents both the glossonym and the ethnonym.

A quick search on studies in reduplication in West Chadic languages like Hausa, Ngas and Mwaghavul indicates that very little has been done on this aspect. Most of the studies on reduplication have concentrated on the Hausa language and these have largely been centred on the derivational aspects of reduplication. Inflectional aspects, which are the major focus of grammar, have been given very little attention. This indicates that this current study, which focuses on grammatical aspects of reduplication in Mwaghavul is very timely.

Literature review

This section discusses reduplication from a conceptual and empirical perspective. It gives a broad insight into how reduplication functions in different languages.

An overview on reduplication

Lieber (2009:203) describes reduplication as “a morphological process whereby words are formed by repeating all or part of their base”. She refers to instances where the entire base is repeated as full or total reduplication and cases where only part of the base is repeated as partial reduplication. Inkelas and Downing (2015) believe that reduplication involves the doubling of some component of a morphological base for some morphological purpose. Unlike other morpheme types, reduplicative morphemes depend for their form on some linguistic property or properties of the root, stem, or word, which serves as the base of reduplication. The relevant properties can be phonological or morphosemantic.

Functions of reduplication

Maduagwu (2012:1) suggests that “reduplication as a process of word formation is a very common phenomenon in many African languages.... Many languages use this process to form new words. It is a morphological process whereby a new word or another linguistic element is formed by repeating the shape of an already existing word or element in the lexicon”. Maduagwu (2012) further suggests that reduplication is generally employed, with self-evident symbolism, to indicate such concepts as distribution, plurality, repetition, customary activity, increase in size, added intensity, continuance etc. In like manner, Inkelas and Downing (2015) suggest that morphological reduplication, both total and partial, is associated with a wide range of syntactic and semantic functions...like pluralization, emphasis, and frequency/repetition. More broadly, however, reduplication can be associated with quite a wide range of derivational and inflectional meanings.... These include changes in part of speech. Reduplication can convert verbs to nouns...nouns to verbs.... Beyond changing part of speech, reduplication can carry out other functions typically categorized as derivational.... In sum, reduplication is associated, cross-linguistically, with a fairly large subset of the derivational and inflectional semantic and syntactic operations that morphology can perform. Lieber (2009) demonstrates that full reduplication is grammatically used to perform attenuative functions in Hausa. Consider the following examples:

- | | |
|----------------------|---------------------------|
| (1) a. bāya ‘behind’ | bāya bāya ‘a bit behind’ |
| b. gāba ‘forward’ | gāba gāba ‘a bit forward’ |
| (Lieber, 2009:80) | |

Lieber (2009) further indicates that in Samoan, reduplication performs derivational functions by forming nouns from verbs. Consider the examples below:

- | | |
|--------------------------|----------------------|
| (2) a. ‘apa ‘beat, lash’ | ‘apa‘apa ‘wing, fin’ |
| b. au ‘flow on, roll on’ | auau ‘current’ |
| (Lieber, 2009:80) | |

Maduagwu (2012) studies reduplication in Tiv, a Benue-Congo language spoken in Nigeria. The study considers the types of reduplication found in Tiv and how reduplication morphologically functions in the language. The study reveals that reduplication in Tiv is a derivational morphological process restricted to the formation of nouns and adjectives. The study further reveals that, unlike in many languages of the world where both complete and partial reduplications occur, in Tiv, only complete reduplication occurs. Adverbs and adjectives are derived through reduplication in Tiv. When adjectives are reduplicated, the derived forms function as adverbs. On the other hand, when nouns are reduplicated, the derived forms function as adjectives. These are exemplified below:

- | | |
|---------------------|----------------------|
| (3) a. vue ‘powder’ | vue vue ‘powdery’ |
| b. mkulem ‘oil’ | mkulem mkulem ‘oily’ |
| | |
| (4) a. fele ‘quick’ | fele fele ‘quickly’ |
| b. bem ‘peaceful’ | bem bem ‘peacefully’ |
- (Adapted from Maduagwu, 2012:4)

Example 3 (a) and (b) show adjectives in Tiv derived from nouns via reduplication, while 4 (a) and (b) show adverbs derived from adjectives via reduplication. This shows that reduplication is a very important aspect of Tiv derivational morphology.

Alsamadani & Talbah (2019) study types and functions of reduplication in Palembang, a Malayic language spoken in Indonesia. The research indicates that reduplication is very productive in the language and it generates a wide variety of semantic functions such as pluralization, iteration, distribution and nominalization. Instances of reduplication to mark plurality in Palembang are shown below:

- | | |
|--------------------|----------------------|
| (5) a. bola ‘ball’ | bola bola ‘balls’ |
| b. anak ‘child’ | anak-anak ‘children’ |
- (Adapted from Alsamadani & Talbah, 2019:118)

In essence, the examples in 1-5 above clearly indicate that reduplication is a very productive morphological process in many languages that can be used to achieve different grammatical and semantic functions. In the next section, we will consider the grammatical functions of reduplication in Mwaghavul.

Methodology

This research is a qualitative study which adopts a descriptive approach in its analysis. Primary data for the research was collected from a corpus of selected reduplicated words in the Mwaghavul dictionary (Blench, Dawum, Daapiya, & Bess, 2021). Five native speakers of the Mwaghavul language in Jos, Plateau State, Nigeria, were used to identify and authenticate instances of reduplicated forms found in the corpus and the native

linguistic intuition of one of the researchers was also relied on to verify the validity of the collected data.

The primary instrument for data collection was made up of this corpus that identified base and reduplicated word forms that accounted for both derivational and inflectional changes within these bases and their derived/inflected forms. In all instances, sentences were also generated to identify the grammatical functions of these reduplicated word forms in different contexts. The data were then analysed descriptively to account for grammatical changes in the function(s) of these reduplicated forms.

Data presentation and discussion

Distributiveness in cardinal numerals

Reduplication in Mwaghavul indicates distributiveness and grouping. Consider the examples below:

- | | | | |
|----|----|----------------------|-----------------------------------|
| 6) | a. | <i>míndòng</i> ‘one’ | <i>míndòng míndòng</i> ‘one each’ |
| | b. | <i>vul</i> ‘two’ | <i>vul-vul</i> ‘two each’ |
| | c. | <i>kún</i> ‘three’ | <i>kún-kún</i> ‘three each’ |
| | d. | <i>fээр</i> ‘four’ | <i>fээр -fээр</i> ‘four each’ |
| | e. | <i>pààt</i> ‘five’ | <i>pààt-pààt</i> ‘five each’ |

The data in 6 (a)-(e) indicates that when cardinal numbers in Mwaghavul are reduplicated, the derived form is a grammatically distributive form of such a number. The following sentences exemplify this grammatical aspect of distributiveness in reduplicated cardinal numbers in Mwaghavul:

- 7) a. *jěp ni mú kwat néérà pààt-pààt*
 children the they pay naira five-five
 ‘The children paid five naira each’
- b. *mú túl súlè vul-vul*
 they contribute shilling two-two
 ‘They contributed two shillings each’
- c. *nàá kóp shwáá ni vul-vul*
 mother planted maize the two-two
 ‘Mother planted the maize seeds in twos.’
- d. *mú bàk gùrùm ni mú kún-kún*
 they divide person the they three-three
 ‘The people were grouped in groups of three.’

As seen in 7 (a) and (b), any cardinal numeral can be reduplicated in Mwaghavul to express distribution. In addition, examples 7 (c) and (d) also indicate that these reduplicated forms can also be used to show groupings within certain contexts. No tonal changes are observed between the base forms and the reduplicated ones.

The counting system of Mwaghavul imposes a constraint on the reduplication of numerals. The basic numbers in Mwaghavul are numbers one through ten. Numbers above ten are derived from these basic numbers. For instance, numbers above ten are formed by adding ten plus one (eleven), ten plus two (twelve), etc. Numbers above twenty are derived by adding twenty and one (twenty-one), twenty and two (twenty-two) etc. Numbers one through ten (1-10) undergo total reduplication to show distributiveness/grouping. However, when a number above ten is reduplicated to show distributiveness, it is the basic element of the numeral that is reduplicated not the entire numeral. This is illustrated 8 (a)-(c) below:

- | | | | |
|----|----|--|---|
| 8) | a. | <i>kàghàpààt</i>
'ten' | <i>kàghàpààt -kàghàpààt</i>
ten-ten
'ten each/in tens' |
| | b. | <i>kàghàpàt bàà' míndòng</i>
ten plus one
'eleven' | <i>kàghàt bàà' míndòng-míndòng</i>
ten plus one-one
'eleven each/in elevens' |
| | c. | <i>hàmbàl míndòng</i>
hundred one
'one hundred' | <i>hàmbàl míndòng-míndòng</i>
hundred one-one
'hundred each/ in groups of hundred |

The data in 8 (a)-(c) indicates that when secondary cardinal numerals (any numeral above ten) in Mwaghavul grammatically indicate distributiveness or grouping, it is only the number that is added to the base form of the word that undergoes reduplication. In essence, a partial reduplication is what occurs.

Metaphoric meaning in cardinal numerals

When reduplicated cardinals occur in idiomatic expressions, they do not indicate distributiveness or groupings. Consider the examples below:

- | | | |
|----|----|--|
| 9) | a. | <i>náá pee vul-vul</i>
see place two-two
'to have blurred vision' |
| | b. | <i>neen láá dàá hǎr rĩ náá pee vul-vul</i>
hunger wound father to extent that he sees place two-two |

‘Father is so hungry that he has blurred vision.’

- c. *cìn m̀bìt̃ shì p̀tughup vul-vul*
do thing with heart two-two
‘to do something half-heartedly’
- d. *g̀r̀um̃ nì m̀ú sò` ñdàng naan shì p̀tughup vul-vul*
person the they go LOC: after God with heart two-two
‘The people follow God half-heartedly.’
- e. *kàt pòò` vul-vul*
find mouth two-two
‘to say one thing repeatedly’

The reduplicated cardinal numerals in 9 (a)-(e) are idiomatic and fixed in expression. The reduplicated forms of these numerals grammatically do not indicate distributiveness or grouping. Instead, they are used idiomatically with a metaphorical meaning.

Adjectival verb reduplication

Another morphologically productive aspect of reduplication in Mwaghavul involves adjectival verbs which reduplicate to show degree/manner. Adjectival verbs are “words that are verbs with respect to their distribution but are adjectival in meaning” (Frajzyngier, 1993) as cited in (Nyang et al. 2013:84). Consider the examples below:

- | | | |
|--------|---------------------------------|--|
| 10) a. | <i>kús</i> ‘be close/ near’ | <i>kús-kús</i> ‘very close/near/closely’ |
| b. | <i>jong</i> ‘be far’ | <i>jong-jong</i> ‘very far/far away’ |
| c. | <i>wéél</i> ‘be slim’ | <i>wéél-wéél</i> ‘very slim/somewhat slim’ |
| d. | <i>kílák</i> ‘be fast | <i>kílák-kílák</i> ‘very quick/quickly’ |
| e. | <i>ńkyen</i> ‘be fast/quick | <i>ńkyen-ńkyen</i> ‘very quick/quickly’ |
| f. | <i>bal</i> ‘be strong/strength’ | <i>bal-bal</i> ‘very strong/strongly/well’ |
| g. | <i>bish</i> ‘be bad/mean’ | <i>bish-bish</i> ‘very bad/badly?’ |
| h. | <i>dùt</i> ‘be short’ | <i>dùt-dùt</i> ‘very short/somewhat short’ |

The data in 10 (a)-(h) indicates that when an adjectival verb in Mwaghavul undergoes complete reduplication, the resulting morphological form grammatically signals an intensification of the characteristic described by such an adjectival verb or describes how the action described in the sentence occurred. This is illustrated in the following sentences:

- 11) a. *Naanpàn saa lwaa ni nan-nan*
 name cut(pl.) meat the big-big
 “Naanpàn cut the meat very big/in big pieces”
 b. *mèè màt ră dùt-dùt gwak mún*
 unspecified woman she short-short rebuke us
 “One very/somewhat short woman rebuked us”

No tonal changes are observed in the base and reduplicated forms too. The sentences in 11 (a) and (b) indicate that the reduplicated forms of these adjectival verbs in Mwaghavul intensify the characteristic(s) being described.

Colour words in Mwaghavul also have the status of adjectival verbs. These can be reduplicated to derive adjectives meaning ‘*X-ish in colour*’. Consider the examples below:

- 12) a. *pyáá* ‘be white’ *pyáa-pyáá* ‘whitish in colour’
 b. *tùp* ‘be black’ *tùp-tùp* ‘blackish in colour’
 c. *nààt* ‘be red’ *nààt-nààt* ‘redish in colour’
 d. *vùùn* ‘be gray’ *vùùn-vùùn* ‘grayish in colour’
 e. *milep* ‘be green’ *milep-milep* ‘greenish in colour’

The examples in 12 (a)-(e) indicate that when the base form of a colour adjective in Mwaghavul undergoes total reduplication, the derived reduplicated form grammatically indicates a word form that attenuates the property of the colour. This is illustrated in the sentences in 12 (a)-(c) below:

- 13) a. *lú ni pyáá-páá*
 house the white-white
 “The house is whitish”
 b. *làà ni ghèr dīi tùp-tùp ni mú*
 child the take(pl.) that:be black-black the they
 “The child took the blackish ones”
 c. *ghiĩ ni se kom pee dīi milep-milep ni*
 goat the eat ear place that:be green-green the
 “The goat ate the greenish leaf”

The reduplicated colour words in 13 (a)-(c) above indicate that the nouns being described in the sentences have an attenuated form of the colour being described. This semantically indicates that the nouns being described in the sentences are more closely related to the colour being described, but might not be exactly that colour.

Reduplication of ideophones

In Mwaghavul, there are also numerous internally reduplicated words without corresponding non-reduplicated forms. These words are largely ideophones. Consider the examples below:

- 14) a. *wúr-wúr* ‘moving straight without turning’
- b. *bǔk-bǔk* ‘describing something fat’
- c. *tèng-tèng* ‘moving in a zigzag/haphazard way’
- d. *zèt-zèt* ‘walking quickly’
- e. *yét-yét* ‘describing something clean/pure’

The data in 14 (a)-(e) shows examples of internally reduplicated ideophones in Mwaghavul which function as adverbs. This reduplication is merely an instance of neologism and does not signal any grammatical changes in the words. Most Internally reduplicated ideophones (mainly those describing motion) often undergo tonal modification to express a shade of meaning of the motion involved. Compare the base and derived forms in the data in 15 (a)-(e):

- | | |
|--|---|
| 15) a. <i>wùr-wùr</i> ‘in a busy way’ | <i>wur-wúr</i> ‘describing a person acting in a busy way’ |
| b. <i>tèng-tèng</i> ‘moving haphazardly’ | <i>teng-téng</i> ‘describing a person moving haphazardly’ |
| c. <i>zèt-zèt</i> ‘walking speedily’ | <i>zet-zét</i> ‘reference to a person walking quickly’ |
| d. <i>zòn-zòn</i> ‘to walk aimlessly’ | <i>zon-zón</i> ‘reference to a person walking aimlessly’ |
| e. <i>tìsh-tìsh</i> ‘restlessly’ | <i>tish-tísh</i> ‘reference to a restless person’ |

The first set of data in 15 (a)-(e) shows that these ideophones in Mwaghavul are adverbial. The base forms of these internally reduplicated motion ideophones in Mwaghavul, which are adverbial, grammatically qualify verbs while the derived forms may serve as adverbs or adjectival verbs. All the syllables in the base forms carry low tones, while the derived forms involve tone raising, as the Low-Low tone pattern in the base form becomes Mid-High in the derived form. The data in 16 and 17 below clearly indicates how these base and

derived ideophones function within the grammar of the language as either adverbs or adjectival verbs:

- 16) a. *dàá' mwààn têng-têng*
father walk ideophone
‘Father walks haphazardly’
b. *dàá' kí têng-têng sí*
father PROG ideophone there
‘Father is being haphazard in his walking.’
- 17) a. *nàá' mwààn zèt-zèt*
mother walk ideophone
‘Mother walks speedily’
b. *nàá' kí zèt-zèt sí*
mother PROG ideophone there
‘Mother is being speedy in her walking.’

As seen in the data in 16 and 17, the derived ideophones in the b-sentences always involve tone raising. The reduplicated ideophones in 16 (b) and 17 (b) clearly function as adjectival verbs too. In essence, reduplication of these ideophones, alongside tone raising performs a derivational function in the language.

Adjective derivation from verbs

Verbs in Mwaghavul undergo partial reduplication and this carries out a derivational function. Consider the examples in the data below:

- | | | | |
|-----|----|--------------------------|-------------------------------------|
| 18) | a. | <i>ran</i> ‘to write’ | <i>riràn</i> ‘written’ |
| | b. | <i>zok</i> ‘to hide’ | <i>zisoḵ</i> ‘hidden’ |
| | c. | <i>wáng</i> ‘to open’ | <i>wuwáng</i> ‘open’ |
| | d. | <i>wàt</i> ‘to spoil’ | <i>wuwàt</i> ‘spoiled’ |
| | e. | <i>kuul</i> ‘to tighten’ | <i>kukùul</i> ‘tightened’ |
| | f. | <i>tèn</i> ‘to lock’ | <i>títèn</i> ‘locked’ |
| | g. | <i>piin</i> ‘to break’ | <i>pipiìn</i> ‘broken’ |
| | h. | <i>sham</i> ‘to go down’ | <i>shîshàm</i> ‘descending/ sloppy’ |

The data in 18 (a)-(h) indicates that the partial reduplication of the initial consonant in the base verb derives an adjective in Mwaghavul. This is exemplified in the data in 19, 20 and 21 below:

- 19) a. *nàá' wáng pòò' lú ni*
mother open mouth house the
“Mother opens the door”
b. *pòò' lú ni a wuwáng*
mouth house the be RED:open
“The door is open”
- 20) a. *dàá' ran ràn*
father write writing
“Father writes”
b. *ni a riràn*
it be RED:writing
“It is written”
- 21) a. *nàá' piin daa ni*
mother break dish the
“Mother broke the dish”
b. *daa ni a pipiìn*
dish the be RED:break
“The dish is broken”

The data in the (b) sentences 19, 20 and 21 above indicate that partial reduplication of the verbs in the (a) examples performs the derivational function of changing these verbs into adjectives. The reduplicated element is always the initial consonant of the verb and the syllable in which it is found is always mid-tone with a CV syllable pattern that contains one of the high vowels /i/, /i/ and /u/.

Verb focus

Verb focus in Mwaghavul is another grammatical aspect that is expressed via partial reduplication. Consider the examples in 22(a)-(d) below:

- | | | |
|--------|---|---|
| 22) a. | <i>nìram</i>
beat:PL
'beat'(pl.) | <i>nì-nìram</i>
beat (PL):FOC
'it is beating that...' |
| b. | <i>nùng</i>
beat:SG
'beat'(sg.) | <i>nìnùng/nunùng</i>
beat (SG):FOC
'it is beating that ...' |
| c. | <i>fulup</i>
abuse:SING
'abuse' (sg.) | <i>fufulup</i>
abuse (SG):FOC
'it is abuse (sg.) that' |
| d. | <i>kas</i>
abuse:(pl.)
'abuse' | <i>kikas</i>
abuse (PL):FOC
'it is abuse (pl.) that ...' |

The sentences 23-25 illustrate how partial reduplication is used as a focus marker in verb focus in Mwaghavul.

- 23) a. *dàá' niram làà' ni*
 Father PL:beat child the
 'Father beat the child.'
 b. *dàá' niniram làà' ni*
 father FOC:beat child the
 'It is beating that father did to the child.'
- 24) a. *náá' kas làà' ni*
 Mother insulted child the
 'Mother insulted the child.'
 b. *náá' kikas làà' ni*
 mother FOC:abuse child the
 'It is insulting what mother did to the child.'
- 25) a. *mât ni gwam làà' ni*
 woman the deceive child the
 'The woman deceived the child.'
 b. *mât ni kigwam làà' ni*
 woman the FOC:deceive child the
 'It is deceiving what the woman did to the child.'

The data shows that the initial consonant of the verb being focused is reduplicated, or a consonant that agrees in place and manner of articulation but differs in voicing is used (as seen in 25 b), where the initial consonant of the verb *gwam* 'deceive' is replaced in the reduplicated focused form *kigwam* 'it is deceiving that...'. As with adjectival verbs, the reduplicated element bears mid-tone and a CV syllable pattern. The initial consonant of the verb is also followed by one of the high vowels /i/, /i/ and /u/.

Furthermore, since adjectival verbs in Mwaghavul have verb status, as suggested by Nyang et al. (2013) and Fwangwar (2018), they also undergo partial reduplication to show focus. This is illustrated in examples 26 and 27 below:

- 26) a. *lú ni kaam*
 House the be wide
 'The house is wide.'
 b. *lú ni kikaam*
 house the FOC:be wide
 'It is wide that the house is.'

- 27) a. *làà' ni mwén*
 Child the be foolish
 'The child is foolish.'
- b. *làà' ni mumwén*
 child the FOC:foolish
 'It is foolish that the child is.'

As seen in 26 and 27, adjectival verbs behave the same as regular verbs under focus, as the reduplicated element carries mid-tone and consists of a CV syllable pattern where the initial consonant of the verb is followed by one of /i/, /i/, and /u/.

Mwaghavul bilinguals sometimes use borrowed English or Hausa verb forms in Mwaghavul sentences. Such borrowed verbs could also be focused. Consider the following examples:

- 28) a. *naà' kùlè' pòò' lú ni*
 mother lock mouth house the
 'Mother locked the door.'
- b. *naà' kíkùlè' pòò' lú ni*
 mother FOC:lock mouth house the
 'It is locking that mother did to the door.'
- 29) a. *mú fix lecture ni*
 they fix lecture the
 'They fixed the lecture.'
- b. *mú fífix lecture ni*
 they FOC:rescheduled lecture the
 'It was a rescheduling that they did for the lecture.'

Both *kùlè* 'to lock' from Hausa and 'fix' from English are partially reduplicated in 28 (b) and 29 (b) to show verb focus.

Adverbial functions

Furthermore, in Mwaghavul, the high-toned particle /kí/ (which typically marks the habitual tense and, in certain restricted cases, the progressive aspect) plus a verb or an adjectival verb can be reduplicated to grammatically indicate gradual movement. Consider the following examples:

- 30) a. *mú kí jî*
 they PROG come
 'They are coming.'

- b. *mú kǐ jì kǐ jì*
 they PROG come PROG come
 ‘They are gradually coming.’
- 31) a. *táptù kǐ sò*
 name PROG go
 ‘Taptu is going.’
- b. *táptù kǐ sò kǐ sò*
 name PROG go PROG go
 ‘Taptu is gradually going.’
- 32) a. *mú kǐ kàà*
 they PROG come up
 ‘They are coming up.’
- b. *mú kǐ kàà kǐ kàà*
 they PROG come up PROG come up
 ‘They are gradually coming up.’

Question formation

Reduplication is also used to form a special type of alternative question in Mwaghavul that expresses uncertainty, doubt, surprise, etc. Consider the examples in 33 (a)-(c):

- 33) a. *a neen a neen aa, kóó a tár a tár ye?*
 be hunger be hunger Q or be madness be madness Q
 ‘Is it hunger or madness? (I am aghast)’
- b. *a dík a dík aa kóó a tàn a tàn ye?*
 be marriage be marriage Q or be play be play Q
 ‘Is it marriage or play? (I am confused)’
- c. *a lèk a lèk aa kóó a tàn a tàn ye?*
 be fight be fight Q or be play be play Q
 ‘Is it fight or play? (I can’t figure it out)’

These reduplicated question forms are often used to show uncertainty, doubt, or surprise at one’s behaviour, or to seek clarification etc. The entire phrase or clause is what undergoes reduplication in the case of this special type of alternative question in Mwaghavul. This happens alongside rising intonation. We should note, however, that the response to such questions does not involve reduplication. A typical response to 33 (a) would simply be, *a neen* ‘It is Hunger;’ and never, **a neen a neen*.

Modal and phrasal distinction

Adverbs also reduplicate in Mwaghavul to show variable moods. Consider the examples below:

- | | | | |
|-----|----|---------------------------|--|
| 34) | a. | <i>yàksɪ̃</i> ‘now’ | <i>yǎk-yàksɪ̃</i> ‘immediately’ |
| | b. | <i>cícín</i> ‘today’ | <i>cícín-cìcìn</i> ‘unfailingly today’ |
| | c. | <i>doghon</i> ‘yesterday’ | <i>doghon-dòghòn</i> ‘just yesterday’ |
| | d. | <i>díkí</i> ‘again’ | <i>díkí- díkí</i> ‘repeatedly’ again and again |
| | e. | <i>nghaa</i> ‘for long’ | <i>nghaa- nghaa</i> ‘forever and ever’ |

It can be seen that instances of partial reduplication (as seen in 34a) or complete reduplication (as seen in the other examples in 34 b-e) are morphologically used to mark different modal distinctions, including urgency, repetition certainty and duration in Mwaghavul. This is exemplified in the sentences in 35 (b) and 36 (b).

- | | | | | |
|-----|----|--|----------------------|--|
| 35) | a. | <i>nàá sát nné yi</i> | <i>jì yàksɪ̃</i> | |
| | | mother say that you:FEM:SING come now | | |
| | | ‘Mother said you should come now.’ | | |
| | b. | <i>nàá sát nné yi</i> | <i>jì yǎk-yàksɪ̃</i> | |
| | | mother say that you:FEM:SING come RED:now | | |
| | | ‘Mother said you should come immediately/straightaway’ | | |
| 36) | a. | <i>rǎ òjì cícín</i> | | |
| | | she FUT:come today | | |
| | | ‘She will come today’ | | |
| | b. | <i>rǎ òjì cícín-cìcìn</i> | | |
| | | she FUT:come today-today | | |
| | | ‘She will come today, unfailingly’ | | |

It can be observed that tonal changes are observed in the reduplicated forms, as exemplified in 35 (b), where *yàksɪ̃* ‘now’ is partially reduplicated to become *yǎk-yàksɪ̃* ‘immediately’, with the reduplicated syllable now containing a rising tone, instead of the low tone found in the base form, *yàksɪ̃* ‘now’.

In Mwaghavul, a nasal can get affixed to an adverb to form the equivalent of an adverbial phrase and this adverbial phrase gets reduplicated to derive a different range of related phrasal meanings. For example, *bít* means ‘morning’, *mbít* means ‘in the morning’, while *mbít- mbít* means ‘early in the morning’. Consider the sentences below:

- | | | |
|-----|----|-----------------------------|
| 37) | a. | <i>nàá put bít</i> |
| | | mother out morning |
| | | ‘Mother goes out mornings.’ |

- b. *nàá put mbít*
 mother out LOC:morning
 ‘Mother goes out in the morning.’
- c. *nàá put mbít-mbít*
 mother out in morning- in morning
 ‘Mother goes out early in the morning.’

This is also exemplified in *par* ‘night’, *mpar* ‘at night’ and *mpar-mpar* ‘early in the morning’. Consider the examples below:

- 38) a. *par kɛ cin*
 night PERF do
 ‘It is night fall’
- b. *làà ni wál mpar*
 child the cry LOC:night
 ‘The child cried at night.’
- c. *nàá put mpar-mpar*
 mother out LOC:night-LOC-night
 ‘Mother goes out early in the morning’

Another instance of this type of reduplication in Mwaghavul involves *lú* ‘house’ vs *nlú* ‘in the house’ vs *nlú- nlú* ‘house by house/family by family’

- 39) a. *dàá séét lú*
 father buy house
 ‘Father bought a house.’
- b. *dàá nlú*
 father LOC:house
 ‘Father is in the house’
- c. *dàá mwaàn nlú-nlú*
 father walk LOC:house-LOC:house
 ‘Father walks from house to house’

Certain words combine with the form *shì* ‘with’ to form phrases in Mwaghavul. These phrases are then reduplicated to show a different range of meanings as shown in 40 (a)-(c) below:

- 40) a. *dàá cìn dák ni shì káá firi*
 father do work the with head his
 ‘Father did the work himself.’

- b. *dàá dík lú shìyíl*
father build house with:sand
'Father builds house with sand.'
- c. *dàá mwààn shìyíl-shìyíl*
father walk with:land-with:land
'Father travels from country to country.'

Some examples of these reduplicated forms with their derived meanings are shown in 41 (a)-(f) below:

- 41) a. *shì* 'with' + *ni* 'it/the' *shìni-shìni* 'different/different types'
- b. *shì* 'with' + *lú* 'house' *shìlú-shìlú* 'house to house/house by house'
- c. *shì* 'with' + *dààr* 'tomorrow' *shìdààr-shìdààr* 'daily/day in-day out'
- d. *shì* 'with' + *pee* 'place' *shìpee-shìpee* 'from place to place'
- e. *shì* 'with' + *súm* 'name' *shìsúm-shìsúm* 'name by name'
- f. *shì* 'with' *shì-gùnan* 'elder, *shì-gùnan- shì-gùnan* 'by seniority'

The examples in 41 (a)-(f) indicate that these reduplicated phrasal forms are adverbial as they describe how certain actions occur within their context of usage.

Imperative emphasis

Verbs in Mwaghavul could also be reduplicated for emphasis. Consider the examples in 42 (a)-(d):

- 42) a. *jì* 'come' *jì-jì* 'come don't go'
- b. *lá* 'take' *lá-lá* 'take, don't refuse'
- c. *wáng* 'open' *wáng- wáng* 'open, you have no choice'
- d. *del* 'enter' *del-del* 'enter, you are going nowhere'

The reduplicated forms in 42 (a)-(d) are imperative in form and emphasize that the person being spoken to is obliged to follow the directive being given.

Pronominal insistence

Personal pronouns in Mwaghavul can be partially reduplicated to grammatically indicate possession, in a context that indicates insistence. Consider the examples in 43 (a)-(h) below:

- | | | | |
|-----|----|-----------------------------------|----------------------------|
| 43) | a. | <i>wùrǎ/rǎ</i> ‘she/her’ | <i>rǐrá</i> ‘her thing’ |
| | b. | <i>wùrĩ/rĩ</i> ‘he/him’ | <i>rírí</i> ‘his thing’ |
| | c. | <i>mùmǔ/mú</i> ‘they/them’ | <i>rúró</i> ‘their thing’ |
| | d. | <i>wǎn/án</i> ‘I/me’ | <i>nǐná</i> ‘my thing’ |
| | e. | <i>mùmǔn/mún</i> ‘we’ | <i>núnú</i> ‘our thing’ |
| | f. | <i>wùghà//ghà</i> ‘you:MASC:SING’ | <i>ghǐghá</i> ‘your thing’ |
| | g. | <i>wì:/yi</i> ‘you:FEM:SING’ | <i>yíyí</i> ‘your thing’ |
| | h. | <i>wu/wún</i> ‘you:PL’ | <i>wúwú</i> ‘your thing’ |

The pronouns undergo clipping before the reduplication in the derived forms. These derived possessive forms grammatically emphasize insistence or obstinacy as exemplified in the sentences 44 (b) and 45 (b) below:

- | | | |
|-----|----|--|
| 44) | a. | <i>rǎ</i> <i>kwar</i> <i>sò</i>
she refuse go
‘She refused to go.’ |
| | b. | <i>rǎ</i> <i>kwar</i> <i>sò</i> <i>rǐrá</i>
she refuse go INFL:her
‘She insisted she won’t go’ |
| 45) | a. | <i>rǐ</i> <i>tong</i>
he sit
‘He sits’ |
| | b. | <i>rǐ</i> <i>tong</i> <i>rírí</i>
he sit INFL:he
‘He insisted on sitting’ |

As seen in the data in 44 (b) and 45 (b), these reduplicated pronominal possessive forms, alongside tone raising, are grammatically used to indicate insistence.

Conclusion

This paper investigates the grammatical function(s) of reduplication in Mwaghavul. The findings of the research indicate that instances of both complete and partial reduplication exist in the language and perform different grammatical functions in the language.

Regarding complete reduplication, the findings of the research indicate that complete reduplication of cardinal numbers in the language grammatically changes such cardinal numbers into distributive forms for such numbers that equates a form that can be interpreted as '*X each*', where X represents the cardinal number. Another instance where complete reduplication of a word leads to a grammatical change in such a word involves adjectival verbs. When this set of verbs in Mwaghavul undergoes complete reduplication, the derived morphological word leads to a grammatical form which indicates an intensification of the characteristic described by such an adjective. Other verbs when completely reduplicated grammatically show emphasis. The inflected forms of these verbs show imperative mood. Complete reduplication is also used to express urgency, repetitive action, or duration in adverbials in Mwaghavul. These occur alongside certain morphophonological tonal modifications to the reduplicated forms. The complete reduplication of some nouns in the language alongside *shì* 'with' in Mwaghavul is grammatically used to indicate changes in phrasal meaning.

In the case of partial reduplication in Mwaghavul, when certain verbs are partially reduplicated, the derived form grammatically changes to a predicative adjective. In another instance, the partial reduplication of verbs in the language grammatically focuses on such verbs. A distinctive type of phrasal reduplication in Mwaghavul is used for the formation of a special type of alternative question in the language which expresses uncertainty, doubt or surprise. Here, a phrase within a clause is reduplicated, and the grammatical effect of this repetition forms an alternative question in the language. In a nutshell, reduplication in Mwaghavul grammatically functions to indicate distributiveness, intensification/emphasis, modal changes, repetitive action, duration, derivation of predicative adjectives from verbs, verb focus, or the formation of a special type of alternative question. In essence, the findings of this research indicate that reduplication in Mwaghavul is grammatically very productive.

References

- Alsamadani, M. & Talbah, S. (2019). Types and functions of reduplication in Palembang. *Journal of the Southeast Asian Linguistics Society (JSEALS)*, 12 (1), 113-142.
- Arokoyo, B. E. & Fwangwar, T. R. (2019). Reduplication in Mwaghavul: A tonal analysis. *Inquiry in African Languages*, 2, 1-11.

- Blench, R. (2012). *An atlas of Nigerian languages*. Cambridge: Kay Williamson Educational Foundation.
- Blench, R., Dawum, R., Daapya, N. F., & Bess, Y. J. (2021). Mwaghavul-English dictionary. Unpublished manuscript.
<https://www.academia.edu/resource/work/3764864>
- Eberhard, D. M., Simons, G. F. & Fennig, C. D. (2019). *Ethnologue: Languages of the world*. (22nd ed.). SIL International. <http://www.ethnologue.com>
- Frajzyngier, Z. (1993). *A grammar of Mupun*. Berlin: Dietrich Reimer.
- Fwangwar, T. R. (2018). Aspects of the phonology of Mwaghavul. Unpublished M.A. thesis, University of Ilorin.
- Haspelmath, M. & Sims, A. D. (2010). *Understanding morphology*. Hodder Education.
- Inkelas, S & Downing, L. J. (2015). What is reduplication? Typology and analysis part 1/2: The typology of reduplication. <https://doi.org/10.1111/Inc3.12166>
- José, B. (2004). The prosodic morphology of (historical) Hausa verb reduplication. *Proceedings from the Annual Meeting of the Chicago Linguistics Society*, 40(2), 103-117.
- Lieber, R. (2009). *Introducing morphology*. Cambridge University Press.
- Maduagwu, G. O. (2012). Reduplication in Tiv. *Multidisciplinary Journal of Empirical Research*, 10 (1), 1-6.
- Nyang, S., Bess, J. & Dawum, R. (2013). *Mwaghavul orthography*. Mwaghavul Bible Translation Committee.
- Ratcliffe, R. R. (1996). Drift and noun plural reduplication in Afroasiatic. *Bulletin of the School of Oriental and African Studies*, 59, 296-311.
- Schuh, R. G. (2002). The locus of pluractional reduplication in West Chadic. Unpublished ms. http://www.linguistics.ucla.edu/people/schuh/Papers/WC_redup.pdf