

## Reduplication in Bodo

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**Abstract:** Reduplication is a morphophonemic process by which a word, the root or stem of it (or initial, medial or final phonological part of it) or another lexical item structurally/semantically related to it is repeated, which is called reduplicant. It is one of the common morphophonemic processes of word formation in Bodo, the major Tibeto-Burman language of northeast India.

On the basis of the different structures of the roots/stems and their reduplicants five different types of reduplication are found in Bodo; viz., full reduplication, partial reduplication, rhyming reduplication, ablaut reduplication and dissimilar reduplication.

As a typical kind of reduplication, dissimilar reduplication is found in Bodo, where the root/stem and its reduplicant do not have any similarity in structure. Moreover, the language witnesses good number examples of different kinds of reduplication which are very rarely found across languages. For example- Inherent reduplication (refer examples- 38-43).

As in other Tibeto-Burman and Indo-Aryan languages, the function of the Bodo reduplicated elements includes- (i) to form plurals nouns, pronouns and adjectives; (ii) to intensify the action of a verb; (iii) to derive words: deverbal adverbials, denominal adverbials, deadjectival adverbials, collective nouns, etc.; (iv) to intensify adjectives and adverbs; (v) to derive compound adjective; etc.

**Key Words:** Bodo (*brx*), Reduplicant (*dupleme*), Reduplication, Replication.

### Introduction

Reduplication is the technical term for the linguistic phenomenon where cloning, doubling, duplication or repetition of linguistic elements (especially, in morphophonemic level) occur and the repeated element is called reduplicant (the term *dupleme* is also used (after *morpheme*) to refer to different types of reduplication that have the same meaning. In other words, it is a morphophonemic process by which the root or stem of a word (or initial, medial or final phonological part of it) is repeated. For example-

- (1) bibajari            -ja    *gami gami*    magi    -duŋ  
       beggar            -NOM village RED    beg    -PFV  
       ‘The beggar begged village to village.’

- (2) *sumsri* -ja *mini mini* p<sup>h</sup>ui -duŋ -muun  
 Swmsri -NOM smile RED come -PFV -PST  
 'Swmsri came smiling.'
- (3) *k<sup>h</sup>uowuo* *k<sup>h</sup>uowuo* gab -duŋ dao k<sup>h</sup>uowuo  
 cuckoo RED cry -PFV cuckoo  
 'Cuckoo is singing (cuckoo cuckoo).'

Reduplication is used in inflections to convey a grammatical function such as plurality as in (1) above, intensification, etc., and in lexical derivation to create new words as in (2) above. It is also a regular process of expressing onomatopoeic words as in (3) above. It is found in a wide range of languages and language groups, though its level of linguistic productivity varies.

There are also considerable set of reduplications of parts of words in Bodo. In general, only the repetition of final part of root/stem is found in Bodo. For instance-

- (4) *hamk<sup>h</sup>reŋ* - *k<sup>h</sup>reŋ* hinzaosa  
 thin - RED girl  
 'very thin girl'
- (5) *k<sup>h</sup>aobɔ* - *bɔ* zɔ  
 still - RED sit  
 'Sit very still.'
- (6) *sumzru* - *zru* sik<sup>h</sup>la  
 light dark - RED girl  
 'dark girl'
- (7) *hait<sup>h</sup>a* - *t<sup>h</sup>a* seŋgra  
 short - RED boy  
 'very short boy'

In most cases, in Bodo, the reduplicant of the final part of a root/stem adds some degree of intensification of the word. So, this sub-phenomenon of reduplication functions like an inflectional process.

*Examples from Other Languages:*

- (8) ja: 'themselves' → ja:ja: 'they to them'<sup>30</sup> (Kham language)  
 (9) q<sup>w</sup>él 'to speak' → q<sup>w</sup>élq<sup>w</sup>el 'talkative'<sup>31</sup> (Salish language)

<sup>30</sup>David E. Watters. *A grammar of Kham* (Cambridge: Cambridge University Press, 2002).

<sup>31</sup>Patricia A. Shaw. *Reduplicant order and identity: Never trust a Salish CVC either?*. In D. Gerdt and L. Matthewson (Eds.). *Studies in Salish linguistics in honor of M. Dale Kinkade*. (University of Montana Occasional Papers in Linguistics (Vol. 17). Missoula, MT: University of Montana, 2004).

(10) takin 'sock' → takinkin 'to wear socks'<sup>32</sup>

(Marshallese language)

## Methodology

Before going to work in this particular area on the Bodo language I went through available literature on this area and tried to find out the problems, and undescribed and underdescribed things in the reduplications in Bodo. Then, I tried to sort out things more or less related to reduplication and to formulate and present them in this paper. However, as there are limited resources in this area, this study is mainly based on the primary data.

Being a native speaker of the language under study I collected data from books through scanning and speeches through observation with my intuition on the language and analysed them using Leipzig Glossing Conventions for interlinear morpheme-by-morpheme analysis, and classified them into different sub-classes to distribute them to concerned types of reduplication found in linguistics tradition.

## Types of Reduplication in Bodo

On the basis of different grounds reduplication, as a phenomenon, can be subdivided into different subtypes. The major grounds include structural point of view and degree of sameness of the structures and meanings of the reduplicant and the root/stem reduplicated. Some of the possible types based on the data collected and analysed for this study are considered in the following discussion.

On the basis of the structures of the reduplicants and the reduplicated roots/stems, reduplication can be divided into two different subtypes, namely, *full* reduplication and *partial* reduplication. These types of reduplication are discussed below illustrations of different examples.

## Full Reduplication

Full reduplication involves a reduplication of the entire word. It can also be termed as exact Reduplication. This type of reduplication reduplicates the root/stem/word without any change in the structure of the reduplicated root/stem/word. For example-

(11) zuŋ sɔm sɔm zuŋ -ni gami -ao berai -hwi -ju  
we time RED we -GEN village -LOC visit -DIST -HAB

*'Sometimes we go to visit our village.'*

(12) sik<sup>h</sup>iri -p<sup>h</sup>ur -a bibar bibar bidui sub -duŋ  
butterfly -PL -NOM flower RED nectar suck -PFV

*'Butterflies are sucking nectar flower to flower.'*

(13) gezer gezer  
middle RED

*'sometimes/ in the middles'*

<sup>32</sup> Edith Moravcsik. *Reduplicative constructions*. In J. H. Greenberg (Ed.), *Universals of human language: Word structure* (Vol. 3, pp. 297-334) (Stanford, CA: Stanford University Press 1978).

- |             |  |             |
|-------------|--|-------------|
| (14) muɯzɑŋ |  | muɯzɑŋ      |
| good        |  | RED         |
|             |  | 'good (PL)' |

### Partial Reduplication

Partial reduplication involves a reduplication of only a part of the reduplicated root/stem. That part is very often called phonological because it is, in almost all cases, reduplication of some phonological part of the reduplicated root/stem. So, we can analyse the reduplicants as syllable units. For example, reduplication of the last consonant-vowel-consonant (CVC), consonant-vowel (CV), consonant-consonant-vowel-consonant (CCVC), consonant-consonant-vowel (CCV), etc. sequences of the reduplicated bases; i.e. base+CV/CVC/CCV/CCVC/etc. These four structures of partial reduplicants are possible in Bodo. Some examples are given below-

CV:

- |                          |   |                   |
|--------------------------|---|-------------------|
| (15) k <sup>h</sup> aobɔ | - | bɔ                |
| still                    | - | RED               |
|                          |   | 'very still'      |
| (16) zat <sup>h</sup> ao | - | t <sup>h</sup> ao |
| edible                   | - | RED               |
|                          |   | 'very edible'     |

CVC:

- |                           |   |                   |
|---------------------------|---|-------------------|
| (17) dulur                | - | lur               |
| round                     | - | RED               |
|                           |   | 'very round'      |
| (18) rant <sup>h</sup> eŋ | - | t <sup>h</sup> eŋ |
| thin                      | - | RED               |
|                           |   | 'very thin'       |

CCV:

- |             |   |             |
|-------------|---|-------------|
| (19) damble | - | ble         |
| flat        | - | RED         |
|             |   | 'very flat' |
| (20) sansla | - | sla         |
| bald        | - | RED         |
|             |   | 'very bald' |

CCVC:

- |               |   |               |
|---------------|---|---------------|
| (21) dweisraŋ | - | sraŋ          |
| watery        | - | RED           |
|               |   | 'very watery' |

- (22) k<sup>h</sup>abraŋ - braŋ  
 raucous - RED  
 'very harsh (voice)'

Again, on the basis of the sameness of the reduplicants and the respective reduplicated roots/stems, reduplication can further be divided into, at least, three different subtypes, namely, *rhyming*, *exact* and *ablaut* reduplications.

### Rhyming Reduplication

In this type of reduplication, the rhyme scheme of the root/stem and its reduplicant remains the same. For example-

- (23) mansi - dumsi  
 person - RED  
 'people'
- (24) mairɔŋ - duiɔŋ  
 rice (uncooked) - RED  
 'foods'

### Ablaut Reduplication

Ablaut means 'alternation in the vowels of related word forms'. So, in this type of reduplication, the vowel sound of the reduplicant alters. For example-

- (25) sigi - sɔgɔ  
 frighten - RED  
 'having frightened'
- (26) k<sup>h</sup>eŋk<sup>h</sup>ra - k<sup>h</sup>eŋk<sup>h</sup>ri  
 bent - RED  
 'bent (more than an angle/arc)'

### Dissimilar Reduplication

Another type of reduplication occurs in the formation of some compound words in Bodo, in which different word/root/stem is found to be a reduplicant of the reduplicated word/root/stem; i.e., there is not a single similarity between the word/root/stem and reduplicated word/root/stem except their semantic relationship. For example-

- (27) daok<sup>h</sup>a - sila  
 crow - RED (kite)  
 'others'
- (28) mai - dui  
 paddy - RED (water)  
 'raw properties/ crop'

This type of reduplication is, often, not included within reduplication because the reduplicant forms of this kind of reduplication are completely different from the reduplicated root/stem. So, morphologically, dissimilar reduplication cannot be one of the types of reduplication. But, as the reduplicants in this type are somehow similar with their respective roots/stems semantically, sometimes it is called a type of reduplication. This type of reduplication can be better said to be compounding because the reduplicated forms mean some kind of compound meanings which are not exactly related to the meanings of the reduplicated forms rather more or less related to the meanings of the roots/stems and their respective reduplicants.

### Multiple Replications

Reduplication, as its meaning suggests, is restricted to having only one reduplicant. However, in a number of languages like Bodo, Ewe, Min Nan, Mokilese, Shipibo, Twi, etc. languages, repetition of a root/stem or a syllabic part(s) of it can occur more than once. If a root/stem is repeated twice the process is said to be *triplication*. Pingelapese (a Micronesian language spoken on the Pingelap atoll) examples of both reduplication and triplication are cited below.

<i>Basic Verb</i>	<i>Reduplication</i>	<i>Triplication</i>
koul 'to sing'	koukoul 'singing'	koukoulkoul 'still singing'
mejr 'to sleep'	mejmejr 'sleeping'	mejmejmejr 'still sleeping'

#### Reduplication and Triplication in Pingelapese (Rehg 1981)

However, reduplication has been a general term to mean *repetition* of roots/stems or their syllabic parts. Interestingly, the Bodo language witnesses repetition of roots/stems upto possible utterance in the context of the use of them.

In most cases, further replication in Bodo occurs to show intensification and frequency/plurality of action. For example-

- (29) ɔma -ja bip<sup>h</sup>aŋ -ni suurgidiŋ      *sur sur sur sur* gidin  
 pig -NOM tree -GEN around      round RED RED RED RED turn  
 -duŋ -mun  
 -PFV -PST

*'The pig turned around the tree many times.'*

- (30) ɔt<sup>h</sup>ɔ -wa guddu guddu guddu guddu undu -laŋ -bai  
 child -NOM deep RED RED RED sleep -DIST -PRF

*'The child has slept very deeply.'*

### Reduplicant Position

Reduplicants occur to the right of the roots/stems in Bodo. However, reduplication may be initial (i.e. prefixal), final (i.e. suffixal), or internal (i.e. infixal)<sup>33</sup>, but only final reduplication is possible in the Bodo language. In both the two types, full and partial reduplications, reduplicants

<sup>33</sup> <http://www.wikidoc.org/index.php/Reduplication> (6/21/2010).

follow their roots/stems. Orthographically, reduplicants occur like free words in exact reduplication and are combined with their roots/stems using hyphen in all other types of reduplication. But, still, using hyphens to connect reduplicants to their roots/stems has not been a hard and fast rule in the Bodo spelling system. Thus, the Bodo language is characterized with one of the properties of reduplications cited in a following page.

### Copying Direction

A reduplicant can copy the whole word/root/stem, or from either the left edge of a word which is called *left-to-right copying* or from the right edge called *right-to-left copying*<sup>34</sup>. Only the latter one is possible in Bodo. Therefore, the copying direction in Bodo can be formulated as-

Final R → L copying

One thing should be very clear that a reduplicated structure, i.e., a root/stem/word and its reduplicant, is a single constituent of a higher structure. Because, sometimes, some structures such as *gaonu gao*, *gaoba gao*, etc. look like reduplicated structures. These are not the combinations of the roots/stems/words and their respective reduplicants rather two different constituents of syntactic structures. Following illustrations of these examples can better explain this description-

- (31) gao                                    -nu    gao  
       herself/himself/itself -PTL herself/himself/itself  
       '*she/he/it (antecedent) herself/himself/itself (anaphor)*'

Here, the preceding *gao* and the following *gao* are two different constituents, namely, *antecedent* and *anaphor*.

- (32) gao                                    -ba                                    gao  
       herself/himself/itself -CONJP                                    herself/himself/itself  
       '*themselves separately*'

Here again, the preceding *gao* and the following *gao* are two different constituents – two different reflexive pronouns (i.e., anaphors) of two different antecedents.

- (33) gao                                    -zuŋ    gao  
       herself/himself/itself -INS    herself/himself/itself  
       '*each other*'

Here also, the preceding *gao* and the following *gao* are two different constituents – two different reflexive pronouns (i.e., anaphors) of two different antecedents connected by the instrumental case marker {-zuŋ}.

### Syllable Structures and various Morphophonemic Processes in Reduplication

The reduplication process in the Bodo language is controlled by the syllable structure of the roots/stems which are reduplicated. In course of deriving deverbal adverbs reduplication follows

<sup>34</sup> *ibid.*

a derivational rule, i.e., the adverbializing suffix {-ui} occurs with the verb root/stem as well as with its reduplicant. It is obligatory in case of monosyllabic verb roots/stems whereas optional elsewhere. For example-

*Verbs → Adverbs:*

- |      |                   |         |                       |                    |                   |
|------|-------------------|---------|-----------------------|--------------------|-------------------|
| (34) | k <sup>h</sup> ar | -ui     | k <sup>h</sup> arui / | *k <sup>h</sup> ar | k <sup>h</sup> ar |
|      | run               | -ADVLZ  | RED                   |                    |                   |
|      |                   |         |                       |                    | 'Having run'      |
| (35) | zaj               | -ui     | zajui /               | *za                | za                |
|      | eat               | -ADVLZ  | RED                   |                    |                   |
|      |                   |         |                       |                    | 'Having eaten'    |
| (36) | muusa             | muusa / | muusa -jui            | muusajui           |                   |
|      | dance             | RED /   | dance -ADVLZ          | RED                |                   |
|      |                   |         |                       |                    | 'Having danced'   |
| (37) | undu              | undu /  | undu -jui             | undujui            |                   |
|      | sleep             | RED /   | sleep -ADVLZ          | RED                |                   |
|      |                   |         |                       |                    | 'Having slept'    |

\*Grammatically ill-formed.

## Functions and Meanings

Reduplication is used –

(i) to form plurals nouns, pronouns and adjectives; e.g.- *nɔ nɔ* 'houses', *gami gami* 'villages', *gao gao* 'selves', *sur sur* 'who.PL', *surba surba* 'somebodies', *muzan muzan* 'good.PL', etc.

(ii) to intensify the action of a verb; e.g.- *t<sup>h</sup>an t<sup>h</sup>an* 'go go', *p<sup>h</sup>ui p<sup>h</sup>ui* 'come come', *labu labu* 'bring bring', *sao sao* 'burn burn', *za za* 'eat eat', *luŋ luŋ* 'drink drink', etc.

(iii) to derive words; (a) collective nouns (e.g.- *raŋ-rup<sup>h</sup>a* 'property', *musuo-musa* 'cattle', *t<sup>h</sup>ursi-lɔ<sup>t</sup>a* 'kitchen utensils'), (b) adverbials from nouns (e.g.- *sɔm sɔm* 'sometimes'), (c) adverbials from adjectives (e.g.- *siri siri* 'silently'), (d) adverbials from verbs (e.g.- *railai railai* 'talking to each other'), etc.

(iv) to intensify adjectives and adverbs; *duilɔ-lɔ* 'watery', *k<sup>h</sup>en<sup>h</sup>ra-k<sup>h</sup>ra* 'bent', *guduudu* 'deeply', *sur sur* 'round and round', *k<sup>h</sup>ulu k<sup>h</sup>ulu* 'breezily', etc.

(v) to derive compound adjective; *k<sup>h</sup>uirum-duirum* 'sweet-and-sour', *p<sup>h</sup>ura-suma* 'not so white/dark', *haja-zuowa* 'not so short/long', etc.

## Inherent Reduplication

There are also large number of words which are already in reduplicated forms, i.e., they are always used in reduplicated forms as single words. For example- *ziri ziri* 'flowingly', *gunu-gut<sup>h</sup>u* 'confused', *suk<sup>h</sup>u-muk<sup>h</sup>u* 'like a flash', *ulan ulan* 'freely', onomatopoeic words such as

*ga ga, meo meo*, etc. These types of words are called inherent reduplicated forms. Some examples follow-

- |      |                                     |      |                   |
|------|-------------------------------------|------|-------------------|
| (38) | ziri                                |      | ziri              |
|      | in a continuous stream (of flowing) |      | RED               |
|      | <i>'flowingly'</i>                  |      |                   |
| (39) | gunnu                               | -    | gut <sup>hu</sup> |
|      | (no clear meaning)                  | -    | RED               |
|      | <i>'confused'</i>                   |      |                   |
| (40) | suuk <sup>hu</sup>                  | -    | muk <sup>hu</sup> |
|      | (no clear meaning)                  | -    | RED               |
|      | <i>'like a flash'</i>               |      |                   |
| (41) | ulaŋ                                | ulaŋ |                   |
|      | free                                | RED  |                   |
|      | <i>'free'</i>                       |      |                   |
| (42) | ga                                  | ga   |                   |
|      | caw                                 | RED  |                   |
|      | <i>'cry of a crow (cawing)'</i>     |      |                   |
| (43) | meo                                 | meo  |                   |
|      | miaow/meow                          | RED  |                   |
|      | <i>'miaow miaow'</i>                |      |                   |

Here, *ziri, gunnu* or *gut<sup>hu</sup>*, *suuk<sup>hu</sup>* or *muk<sup>hu</sup>*, *ulaŋ, ga* and *meo* are not used without their reduplicants or roots/stems.

### Findings and Conclusion

Reduplication is one of the integral and most important processes of word formation in the Bodo language. The presence of inherent reduplication proves it. Thus, the word formation in Bodo is incomplete except the reduplication process. This process covers wide range of types of reduplication, which can be categorized into five different types on the basis of the different structures of the roots/stems and their reduplicants; viz., full reduplication, partial reduplication, rhyming reduplication, ablaut reduplication and dissimilar reduplication.

Some typological kinds of reduplication in the Bodo language are dissimilar reduplication, inherent reduplication, etc. The words formed by inherent reduplication are a problem in defining a word. Again, in course of deriving deverbal adverbs reduplication follows a derivational rule, i.e., the adverbializing suffix {-ui} occurs with the verb root/stem as well as with its reduplicant. It is obligatory in case of monosyllabic verb roots/stems whereas optional in others.

The functions of the reduplication elements in the Bodo language show a very much productive property of the reduplication process. The functions of the reduplication in the

language include- (i) to form plurals nouns, pronouns and adjectives; (ii) to intensify the action of a verb; (iii) to derive words; (a) collective nouns (e.g.- *raŋ-rup<sup>h</sup>a* ‘property’, *musuo-musa* ‘cattle’, *t<sup>h</sup>ursi-lət<sup>h</sup>a* ‘kitchen utensils’), (b) adverbials from nouns (e.g.- *səm səm* ‘sometimes’), (c) adverbials from adjectives (e.g.- *siri siri* ‘silently’), (d) adverbials from verbs (e.g.- *railai railai* ‘talking to each other’), etc.; (iv) to intensify adjectives and adverbs; (v) to derive compound adjective; etc.

However, reduplication in Bodo is a structural counterpart of compounding and onomatopoeic sounds forming process. Because, some copulative compounds which are here considered to be as dissimilar reduplication elements show more or less repetition of linguistic elements as the reduplicant in such reduplication elements are more or less related to the reduplicated roots/stems. And, the formation of the most of the onomatopoeic words in Bodo exhibits *full reduplication* (e.g.- *ga ga* ‘caw’), *ablaut reduplication* (e.g.- *t<sup>h</sup>ət<sup>h</sup>ə-t<sup>h</sup>at<sup>h</sup>a* ‘sound of heating on wooden object’), *partial reduplication* (e.g.- *dabuduj-buduj* ‘sound of a *k<sup>h</sup>am* (a kind of big drum which is used as one of the five traditional musical instruments of the Bodos)’) and *rhyming reduplication* (e.g.- *t<sup>h</sup>ɔri-rɔri-rɔ* ‘sound of a flute’).

As a morphological process, reduplication exhibits both as inflectional (in case of repetition of an adjective to form its plural counterpart, repetition of a verb to form its intensive form, etc.) and derivational (in case of deriving deverbal adverbials, denominal adverbials, deadjectival adverbials) phenomena of word formation. Reduplication as a derivational process derives adverbials in majority.

## References

- Baro, M.R. 1996. *Gojou Raokhanthi* (in Bodo). Hajo, Kamrup, India: Priyadini Brahma.
- Brahma, A. 2012. *Modern Bodo Grammar*. Guwahati, India: N.L. Publications.
- Moravcsik, E. 1978. Reduplicative Constructions. In J.H. Greenberg (Ed.), *Universals of human language: Word structure* (Vol. 3, pp. 297-334). Stanford, CA: Stanford University Press.
- Rehg, K.L. 1981. *Ponapean Reference Grammar*. Honolulu: The University Press of Hawaii.
- Shaw, P.A. 2004. Reduplicant order and identity: Never trust a Salish CVC either?. In D. Gerdts and L. Matthewson (Eds.). *Studies in Salish linguistics in honor of M. Dale Kinkade*. University of Montana Occasional Papers in Linguistics (Vol. 17). Missoula, MT: University of Montana.
- Watters, D.E. 2002. *A grammar of Kham*. Cambridge: Cambridge University Press.

*Online Resources:*

<http://www.wikidoc.org/index.php/Reduplication>.