Reduplication in Javanese

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This paper discusses the semantic functions of Javanese reduplication, focusing on full reduplication and reduplication with vowel shifts. We also discuss the relations between reduplication and iconicity Like many other languages which have reduplications, Javanese reduplication indicates plurality, repetition, duration in time, and distribution over time and space, reciprocity, and pairings. Javanese reduplication also functions to indicate attenuation, mimicry/playing, and simulation. This study also shows that several kinds of reduplication are context dependent, functioning as discourse markers, depending on whether they are located in the sentence head or not. This paper also shows that in many frequently used verbs Javanese favors reduplication with vowel shifts. Reduplication without vowel shift tends to have less predictable semantics, than does reduplication with vowel shift. In this sense, Javanese reduplication occasionally cannot be considered iconic or is even at times anti-iconic.

1. Introduction∗

Javanese, a member of the Austronesian language family, is spoken in the central and eastern parts of Java. It is estimated that about half the Indonesian population are speakers of Javanese (Robson and Wibisono 2002). There have been a reasonably large number of studies on Javanese language, most of which have focused on speech levels (Errington, 1985, 1988, Ishii 1984, Keeler 1984, Myhill 1994) or on politeness and gender (Berman 1998, Smith-Hefner 1988). Javanese has two levels, i.e. *ngoko* 'low' and *kromo* 'elevated', while its vocabulary can be divided into three levels, i.e. *ngoko, kromo*, and *kromo inggil* 'high *kromo*' (Ishii 1984, Keeler 1984, Robson 2002).

Reduplication is the repetition of a word or phonological material within a word for semantic or grammatical purposes. Javanese, like other Austronesian languages such as Bahasa Indonesia (Sasaki 2011, Sneddon 1996) has a great deal of reduplication. However, except for Poedjosoedarmo, Wedhawati, and Laginem (1981), there have been few studies on reduplication in Javanese. In their *Sistem Perulangan dalam Bahasa Jawa* [The system of Reduplication in Javanese language], Poedjosoedarmo et al. discuss lexicalized reduplication, and categorize other types of reduplication according to their morphophonological characteristics, that is, 1. *dwilingga*, full reduplication, 2. *dwipurwa*, partial reduplication of the syllable 3. *dwiwasana*, partial reduplication of the last syllable, and 4. *dwilingga swara*, reduplication accompanied by sound change. Javanese has vast range of partial reduplication requiring far more space than can be allotted in this paper. Therefore, I will confine my discussion to full reduplication with the exception of reduplication with vowel shift.

This mainly descriptive study by Poedjosoedarma et al., however, does not systematize the semantic functions of reduplication. In this paper, based on interviews with speakers of Javanese, on dictionaries (Horne 1974, Prawiroatmojo 1981, Widoro 2010, Robson and Wibisono 2002) and on data provided in Poedjosoedarmo et al (1981), I will discuss the detailed semantics of lexicalized/fixed reduplication, full reduplication, and reduplication with sound shifting. The paper is limited to a study of reduplication in *ngoko*.

Based on the characteristics of their reduplication, Rubino classifies languages into three types: 1. languages in which reduplication is non-productive, 2. languages having both partial and full reduplication, and 3. languages having only full reduplication (Rubino 2005).

Rubino categorizes Bahasa Indonesia as a language having only full reduplication, and categorizes other languages of Indonesia, such as Javanese, as a language with both partial and full reduplication. Since Bahasa Indonesia also has reduplication of first syllable or of last syllable, Rubino's classification must be regarded as only approximately correct. Nonetheless, it is true that full reduplication occurs far more frequently in Bahasa Indonesia than partial reduplication. Linguists have categorized functions of reduplications into plurality or augmentation, intensification, and attenuation, but reduplication also yields diminution, indefiniteness, reciprocity, and associated qualities (Gil 2005, Kajitani 2005, Rubino 2005). Based on their cross-linguistic studies, Kajitani 2005 and Rubino 2005 conclude that the most common function of reduplication is to express plurality of the referent of the reduplicated term but the functions of reduplication are complex.

Gil in his study of the Riau language states that reduplication is associated with a wide range of interrelated meanings, and provides a detailed list of functions. "Some of them are of a high degree of iconicity, such as plurality, large quantity, large number, large size,

intensiveness, universal quantification, distributivity, indefiniteness, interactivity, durativity, and reciprocity." (Gil 2005: 35).

Javanese reduplication includes both full reduplication and partial reduplication. This paper distinguishes the following three kinds of full reduplication: (1) reduplicated words derived from a base which is not used as an independent word, (2) full reduplication from an independent word, and (3) full reduplication with sound shifting. I will explain (1) in Section 2, then discuss (2) in Section 3． I will further divide full reduplication into, 3.1., reduplication which does not cause change of grammatical category, and, 3.2., reduplication which does cause change of grammatical category. [Both (1) and (2) are called Dwilinggo by Indonesian grammarians.] Then in Section 4, I will discuss full reduplication with sound shifting, which is called Dwireka, focusing only on vowel shifting. In Section 4.3., I will compare and contrast full reduplication of types (2) and (3) by giving examples of reduplication with vowel shifting and opposing examples of reduplication without vowel shifting. I will also consider whether there is an identifiable relationship between specific vowel shifts and the semantics of the reduplicated form.

2. Reduplicated words which derive from a bound root

In Javanese fully reduplicated words derived from bases which are not used as independent words are abundant. Below are the semantic categories to which many of those reduplicated words belong. It should be noted that there are a number of reduplications with vowel shift.

2.1. Smaller sized animals
angga-angga 'water spider',
undur-undur 'insect which moves backward'

2.2. Body parts and accessories
ari-ari 'afterbirth'
paru-paru 'lung'[1]
ula-ula 'backbone'
anthing-anthing 'dangling ear ring'
ubel-ubel　'head scarf'

2.3. Traditional foods
ondhe-ondhe 'ball shaped sticky rice'
arem-arem 'food made of rice with mincemeat in it'
kolang-kaling 'palm fruit'

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[1]　*paru*= 'cow's lung'

2.4. Places
ara-ara / alun-alun 'large field'
ajug-ajug 'vessel for lamp oil'

2.5. Other nouns
angger-angger 'law'
ila-ila 'taboo'
uyon-uyon 'light gamelan music'

2.6. A variety of:
neka-neka 'various'

2.7. Auxiliary use
ethok-ethok 'to play a role, to pretend'

(1)　　*aku*　　　　*ethok-ethok*　　*dadi*　　　　*presiden.*
　　　1st PRSN　　pretending　　become　　president
　　　'(at performance) I play a role of the president.'

(2)　　*ethok-ethok*　　*ra*　　　*krungu*　　*wae,*　　*ah.*
　　　pretending　　NEG　　hear　　just　　EXCLAM
　　　'(you) are just pretending not to listen, ah.'

2.8. Descriptive word
　　The amount of onomatopoeia based on reduplication is tremendous. Much of it is iconic, i.e. onomatopoeia describing certain movements as repetitive, circular, time taking, and dilatory. Also, reduplicated words which describe distribution over time and space are abundant. 2.8.1. and 2.8.2. are examples of these two types of descriptive reduplication.

2.8.1. Description of movement
klamed-klamed 'to move the lips and tongue in order to swallow without chewing'
krembyah-krembyah 'to flutter, wave loosely'
klothak-klothek 'to keep thudding'
krenggas-krenggos 'panting, out of breath'
moyag-mayig 'to shake'

2.8.2. Distribution (over space, time, etc.)
dhiwud-dhiwud 'hairy on arms and legs'
klethir-klethir 'to (do) a little by little rather than all at once.'
kedher-kedher 'scattered about in disorder, higgledy-piggledy, helter-skelter'
krekes-krekes 'shivery, shivering'

krempel-krempel 'to stick together'

3. Full reduplication from an independent word

This section will discuss full reduplication of independent words. First, reduplication words which do not cause the change of grammatical category will be discussed in 3.1. then reduplication which cause change of grammatical category will be discussed in 3.2.

3.1. Reduplication words which do not cause change of grammatical category

3.1.1. Pluralization

The most common function of reduplication in Javanese is to indicate plurality. Except for abstract and mass nouns and lexicalized reduplicated terms, any noun can be reduplicated to indicate plurality. It should also be added that by adding the suffix *-an* to a reduplicated form speakers can express a more general meaning, as seen by comparing *obat* 'a particular medicine' to *obat-obat* 'medicines', then to *obat-obatan* 'medicine in general'.

3.1.1.1. Nouns reduplicated to indicate plurality

bocah 'child' ➔ *bocah-bocah* 'children'
obat 'medicine' ➔ *obat-obat* 'medicines' ➔ *obat-obatan* 'medicine in general'

(3) *wong-wong kae padha seneng.*
  people   those PL.for plural agent happy
  'Those people are happy.'

3.1.1.2. Adjectivals reduplicated in order to indicate plurality of their modifiees

The reduplicated adjective *cendhak-cendhak* (short) denotes the plurality of *wong Jepang* 'Japanese people' (Poedjosoedarmo et al.: 1981). Interestingly reduplication of *wong* as in (5) is also possible, but it is less frequent compared with (4). According to native Javanese, in (4), being short is emphasized, but (5) focuses more on 'Japanese'. (6) is not acceptable.

(4) *wong   Jepang, cendhak-cendhak.*
  people Japan   short
  'Japanese people, their legs are short.'

(5) *wong-wong   Jepang,   cendhak.*
  people   Japan   short
  'Japanese people, their legs are short.'

(6)　　　*wong-wong　　Jepang,　cendhak-cendhak.
　　　　　people　　　　　Japan　　short

3.1.2. Intensification

Adjectives and adverbs can be intensified by reduplication.

esuk 'morning'　→　*esuk-esuk* 'early in the morning'

3.1.3. Attenuation

In several adjectives reduplication functions to attenuate, making the meaning blurred or weaker. The suffix *-an* is sometimes added.

abang 'red'　→　*abang-abang* 'somewhat red, reddish'
biru 'blue'　→　*biru-biruan* 'bluish'

For direction terms, reduplication indicates an area or region.
kidul 'south'　→　*kidul-kidulan* 'the southern part'

3.1.4. Repetitive

Reduplication of a verb often means repetition or continuation of action, such as

turu 'sleep'　→　*turu-turu* 'to keep falling asleep'
klecem 'smile'　→　*klecem-klecem* 'to keep smiling'

(7)　　　*bocahé　　turu-turu　wae.*
　　　　　Child-the　sleep　　　only
　　　　　'The child keeps falling asleep.'

It should be noted that some verbs, especially transitive and frequently used verbs, have contrasting uses between simple full reduplication and full reduplication with vowel shift as shown in (8) and (9).

(8)　　　*neng　Jepang　Tanto　**tuku-tuku**.*
　　　　　LOC　Japan　　Tanto　buy
　　　　　'In Japan Tanto buys/bought lots of things.'

(9)　　　*neng　　Jepang　Tanto　**tuka-tuku**.*
　　　　　LOC　　Japan　Tanto　buy
　　　　　'In Japan Tanto keeps/kept going shopping.'

3.1.5. Incompleteness

Reduplication of some verbs refers to continuous, atelic, incomplete acts, or to states. Sentence (10) refers to a situation in which the speaker tries to forget something sad.

lali 'forget' → *lali-lali* 'try to forget'
pikir 'think' → *pikir-pikir* 'try to think'

(10) *aku*   *sedhih, tak*   *lali-lali.*
      1st PRSN sad   1st PRSN   forget
      'I am sad. I am trying to forget (that).'

3.1.6. Similarity and imitation

Full Reduplication of a certain object plus the suffix *-an* yields a similar object.

irung 'nose' → *irung-irungan* 'nose-shaped latch'

The pattern reduplication+*an* 'doll, toy use' is productive. By reduplicating and adding the suffix *an*, almost any words, whether referring to animate beings or inanimate things, can be made to refer to the corresponding toy.

wong 'people' → *wong-wongan* 'doll'
macan 'tiger' → *macan-macanan* 'toy tiger'
kuda 'horse'[2] → *kuda-kudaan* 'toy horse'

3.1.7. Specification

Some reduplication process yields different meaning from its base. Below are a few examples of them.

olah 'to prepare' → *olah-olah* 'to do the cooking'
ula 'snake' → *ula-ula* 'backbone'

3.1.8. Position-dependent functions

The meaning of simple reduplication is sometimes context dependent. Being placed at the head of sentence, reduplication can express concession as in 3.1.8.1.

3.1.8.1. Concession
Concession 1

The sense of 'although' can be expressed by reduplicating the adjective that follows the modified noun.

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[2] *Kuda-kuda* (←*kuda* 'horse') instead of *kuda-kudaan*, refers to the starting position in martial arts such as karate.

(11)　*wong*　*cendhek-cendhek*　*kuwat*.
　　　person　short　　　　　　tough
　　　'Although he is short, he is tough.'

(12)　*wong*　*ayu-ayu*　*kok*　　*bodho*.
　　　person　beautiful　EXCLAM　stupid
　　　'(It's a shame.) she is beautiful, but stupid.'

Concession 2

Many times when reduplication occurs sentence-initially, it gives the sense of 'even if':

(13)　*randha-randha*　*gelem*　*waton*　*seneng*　*karo*　*aku*.
　　　divorced/widow　ok　　provided　like　　with　　me
　　　'A divorcee does not matter as long as s/he likes me.'

(14)　*guru-guru*　*ora*　*apa*　*anggere*　*bayare*　*gedhe*.
　　　teacher　　NEG　what　provided　salary　big
　　　'(Me) being a teacher does not matter as long as the salary is big.'

3.1.8.2. Reprove

Example (15) illustrates a structural pattern that expresses a sequence of action that the speaker is not happy about:

(15)　*teka-teka*　*kowe*　　*kok*　　　*mangan*.
　　　come　　　2nd PRSN　EXCLAM.　eat
　　　'No sooner do you get here than the first thing you do is to start eating something!!'

3.2. Reduplication which cause change of grammatical category

Like Indonesian (Sneddon 1996) Javanese reduplication can change the grammatical category of a word, although the boundary between grammatical categories, especially between adjectives and adverbs is blurred in Javanese (Sumukti 1971, Suharno1974). In 3.2.1.1–3.2.1.3., verbal use from nouns will be discussed while verbal use from adjectives will be discussed in 3.2.1.4.

3.2.1. Verbal use

Reduplicating some nouns can yield a verb that indicates a change of situation as shown in 3.2.1.1.

3.2.1.1. Change of situation

awak 'body' → *awak-awak* 'to bath quickly only from the waist up'

anak 'child' → *anak-anak* 'to have children'

omah 'house' → *omah-omah* 'to marry'

(16) *anakku   wis   omah-omah.*
      my child   already   house-house
      'My child is already married.'

3.2.1.2. Pretending and playing

The use of reduplication for pretending and playing seems distinctive in Javanese. Reduplication of noun and adjective can yield a verb which means pretending or playing at the thing indicated by the unreduplicated noun. Usually a suffix *-an* should be added to the reduplication.

monyet 'monkey' → *monyet-monyetan* 'to play monkey'

montor 'car' → *montor-montoran* 'to play car'

kucing 'cat' → *kucing-kucingan* '1. to play hide-and-seek 2. play cat'

3.2.1.3. Negation

To express complete negation, noun *apa* 'what' or *sapa* 'who', following the negation marker can be reduplicated.

(17) *ora   apa-apa*.
      NEG   what
      'It does not matter at all.'

(18) *ora   ana   sapa-sapa*.
      NEG   exist   who
      'There is not anybody.'

3.2.1.4. Adjective → Verb

Reduplication of adjectives sometimes yields verbs.

resik 'clean' → *resik-resik* 'to clean'

rame 'noisy' → *rame-rame* 'to make noise'

(19) *aku   resik-resik   kamarku   dhisik.*
      1st PRSN   clean   room-my   before
      'I will clean my room first.'

3.2.2. Adverbial use

Reduplication of adjectives sometimes yields adverbials.

alon 'slow'　→　*alon-alon* 'slowly'
enak 'delicious, comfortable'　→　*enak-enak* 'easily, comfortably'
sethithik 'little'　→　*sethithik-sethithik* 'little by little'

   (20) *Adi   enak-enak   nyambut-gawe   neng   kene.*
           Adi   comfortably   work   in   here
           'Adi is working here comfortably.'

   (21) *olehe   mangan   sethithik-sethithik   wae*.
           3rd PRSN   eat   little little   only
           'S/he eats only little by little.'

3.2.3. Nominal use

Reduplicating some adjectives or verbs can yield nouns of which the meaning is related to the original word as 3.2.3.1. and 3.2.3.2.

3.2.3.1. Adjective→ Noun

  ijo 'green'　→　*ijo-ijo* 'vegetable'
  ayu 'beautiful'　→　*ayu-ayon/ayu-ayunan* 'cosmetics'

3.2.3.2. Verb → Noun

  oleh 'to get'　→　*oleh-oleh* 'souvenir'

4. Sound shift

Consonant shift, mainly the shifting (or adding) of a consonant accompanies the transformation of an adjective or noun to a verb, while a vowel shift occurs more often in certain fixed reduplications. In this section I discuss the phenomenon of vowel shift only in order to make comparisons among non-reduplicated form, full reduplication form without vowel shift, and full reduplication with vowel shift. Reduplication indicating repeated or reciprocal action often involves vowel shift. Some reduplicated forms do not retain the vowels of their sources. Also some reduplications with vowel shift show subtle differences in meaning when compared with simple reduplications without sound shift.

4.1. Variations of vowel shift

Four kinds of vowel shift processing in full reduplication are observed as 4.1.1., 4.1.2., 4.1.3., and 4.1.4.

4.1.1. The original root vowel is altogether missing.

mangan 'eat'　→　*mongan-mengen* 'always eating'

Cf. *mangan-mangan*, the full reduplication without vowel shift, has a different meaning, i.e. 'go out for feast with a bunch of people [like friends]; going out for a dinner party'

obor 'torch'　→　*obar-abir* 'lightning (followed by thunder)'

4.1.2. The vowel of the reduplicand is retained in the first component of the reduplicate.

moyang 'to travel about'　→　*moyang-mayeng* 'to move about'

ontal 'to knock something to one side'　→　*ontal-antil* 'to cause something or someone to move back and forth; cause to oscillate'

4.1.3. The vowel of the original form appears in the second unit.

The final vowel of the first component in the reduplicate is shifted away from that of the reduplicand.

ngombé 'to drink'　→　*ngomba-ngombé* 'to keep drinking'
cf. *ngombé-ngombé* 'to drink alcohol' (current meaning)

4.1.4. Pair (gender oriented) *aCa-iCi*

This shift has a fixed vowel pattern, that is, */aCa-iCi/.*

gana-gini 'property acquired jointly during marriage and which is for this reason to be divided in case of divorce'

gedhana-gedhini/kedhana-kedhini 'boy-girl sibling combination'

aCa-iCi pattern is usually used for dual entities, although this form is fixed, denoting very specific situations. In both examples, although /*aCa*/ refers to masculine while /*iCi*/ to feminine, the units cannot be separated.

4.2. Vowel shift in full reduplication

Vowel shifts in full reduplication have various forms as shown in Table 1.

Table 1: Vowel shift in full reduplication

1st unit	2nd unit
oCa	-aCi/ aCa/ aCu/ eCe
eCa	-eCe/ eCu/eCo
aCa	-iCi
iCa	-iCi/ iCe/ iCu
uCa	-uCu/ uCo

Note: A capital 'C' usually means '(any) consonant'.

Among the patterns listed above, the *oCa-aCi* pattern is the most frequently found. More importantly, the final vowel of the first component is uniformly /*a*/.

4.3. Semantic variation in doublets

Sometimes reduplication with vowel shift has a different connotation than the corresponding reduplication without vowel shift. Some of these forms undergo vowel shifting as discussed in Section 3. Semantically these forms tend to express negative feeling, as in scolding or complaints (Poedjosoedarmo et al. 1981), although they can be objective, too, depending on the intonation.

demek 'touch' → *demak-demek* 'to touch something repeatedly'
lunga 'to go' → *lunga-lungo* 'to go out very often'
tuku 'buy' → *tuka-tuku* 'keep going shopping' cf. *tuku-tuku* 'buy a lot'
tangis 'cry' → *nongas-nangis*[3] 'keep crying' cf. *tangis-tangis* (+*an*) 'all cry together'

Mangan 'to eat' also has two kinds of reduplication, i.e. reduplication with vowel shift, *mongan-mengen* (the original verb is *mangan*), and simple full reduplication. They have different meanings as shown in (22) and (23):

(22) *kowe*   *mongan-mengen*   *wae.*
      2nd PRSN   eat   only
      'You keep only eating.'

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[3] A regular consonant shift t→n is observed.

(23) *aku   luga   mangan-mangan*.
1st PRSN   go   eat

'I am going to eat out (with friends)'.

Table 2 shows the differences between single use, reduplication without vowel shift, and reduplication with vowel shift

Table 2: Semantic difference between reduplication without vowel shift and reduplication with vowel shift

Single use	Reduplication **without** vowel shift	Reduplication **with** vowel shift
ngombe 'to drink'	*ngombe-ngombe* 'to drink alcohol'	*ngomba-ngombe* 'drink often'
mangan 'to eat'	*mangan-mangan* 'to eat out with friends'	*mongan-mengen* 'to keep only eating'
tuku 'to buy'	*tuku-tuku* 'to buy a lot'	*tuka-tuku* 'to keep going shopping'
tangis 'cry'	*tangis-tangis* (+*an*) 'all cry together'	*nongas-nangis* 'to keep crying'
	plural subject/object idiosyncrasy	repetition and continuity

Javanese has abundant reduplication with vowel shift. It can be said even that Javanese has a tendency to shift vowels rather than simply repeat them.

Another interesting phenomenon is that reduplication with vowel shift occurs in very frequently used verbs such as tuku 'buy', mangan 'eat', to mean repetition and continuity of the action. Meanwhile the simple full reduplication of the corresponding verbs tends to yield extended meanings. This phenomenon suggests that, compared with reduplication with vowel shift, the semantics of reduplication without vowel shifts are not predictable: ngombe 'to drink' has two different kinds of reduplication, i.e. reduplication with vowel shift, and reduplication without vowel shift. While ngomba-ngombe means 'to keep drinking', ngombe-ngombe [without vowel shift] currently means 'to drink alcohol'. As shown in Table 2 above, there is a tendency that full reduplication without vowel shift often denotes the plurality of subject or object, but Javanese keep adding another meaning to them. In this respect, the morphological complexity of reduplication does not run parallel to the semantic complexity, suggesting a counter-example for the issue of iconicity (Haiman 1983, 1985).

5. Conclusions

In this paper I have discussed the semantic functions of Javanese reduplication, focusing on full reduplication and reduplication with vowel shifts. To a significant degree reduplication in Javanese is iconic. In addition to many examples of lexicalized

reduplication, including many based on onomatopoeia, reduplication indicates plurality, repetition, duration in time, and distribution over time and space, reciprocity, and pairings. Reciprocal or two-fold action or situation is indicated by reduplicated forms. Javanese reduplication also functions to indicate attenuation, mimicry/playing, and simulation, many times with the suffix -*an*. In some of these cases, the reduplication cannot be considered to be iconic or is even anti-iconic.

Reduplication is also involved in shifting grammatical categories. It should be noted, however, that Javanese is not as strictly definite in terms of grammatical categorization as some other languages are. The distinction between adjective and verb is often blurred, especially when onomatopoeia and reduplication are involved.

Furthermore, for many frequently used terms Javanese favors reduplication with vowel shifts. By including reduplications both with and without sound shift, Javanese becomes quite rich in reduplication, although, interestingly, simple full reduplication for frequently used terms can yield more specific meanings, in contrast to reduplications with sound shifts, providing a counter-example to commonly observed patterns of iconicity. At the same time speakers keep creating novel forms of reduplication. Therefore, Javanese reduplication while often productive and systematic can sometimes be arbitrary[4].

Abbreviations

EXCLAM:exclamative
LOC: locative
NEG: negation
PL:plural
PRSN:person

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[4] The reduplication of many action verbs was not discussed. The reduplication of reduplicated was not discussed, either. The study of reduplication of krama vocabulary should also be added to this study in the future.

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