# Development of Non-arbitrary to the Arbitrary Iconic Words in Javanese Language

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## ABSTRACT

Onomatopoeic words in Javanese language are an evidence of the uniqueness of both the lingual aspects and the described facts. This study discussed the phenomenon of phonological and morphological language processing. It examined the derivation of the onomatopoeic root words of Javanese language into some form of the word as iconic formation. The data source covers the source language of local print media and another complementary source which was obtained from informants living in the regions of Surakarta and Yogyakarta. This study revealed the Ullman's onomatopoeic classification of primary and secondary onomatopoeias. The primary onomatopoeic is sound imitations of referents, i.e. crowing, roaring, barking sounds, etc. The secondary onomatopoeia is the sound which arises beyond the occurring acoustic experience; they are sounds produced by movements and physical, and mental quality of an object. i.e. the word *bruk* (voice of falling heavy objects), prang (sound of a broken plate). The development of sound imitation icon as an icon causes a shift in the status of a root word form or onomatopoeic sound imitator to other states. Words like *thuthuk* [ṭuṭU?] ''beater', *kethuk kempyang* [kəṭU? kəmpjaŋ] 'typical instrument used in Gamelan', pethuk [pəṭU?] 'coming across' and *bathuk* [baṭU?] 'forehead' were the derivative words which originated from the root word *thuk* [ṭuk] with the additional formative process, repetition on the root word, compounding, and reduplication. In the Javanese language, onomatopoeic words often have the same family with other words.

**Keywords:** Javanese language; onomatopoeia; iconicity; phonological aspects; root word

## INTRODUCTION

Language is a system of signs whereby this statement refers to its arbitrary and conventional nature. In its arbitrariness, a language uses very personal and conventional system on the level of the language users. Thus, its system of signs makes a language unique. The Javanese language[1] (JL) sound system reflects the uniqueness in producing various meanings, i.e., the

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[1]Java is the most populous island in Indonesia. About two thirds of the people on the island speak Javanese. Javanese is spoken mainly in Central and Eastern Java. It is also spoken along the north coast of West Java, except for those living in the

word *cilik*[ʧilI?] 'small', additionally pronounced *cilik*[ʧilik], *cuilik* [ʧuilik] meaning 'extremely small', 'diminutive'; the word *ijo*[iʤo] 'green' can be pronounced *iju*[iʤu] and *uijo*[uiʤo] or *uiju*[uiʤu] meaning 'extremely green', and many more. Such symptom is very *common* in the JL pronunciation. Concerning the phenomenon of phonemes as above, the term as suggested by Sudaryanto (1982) is the so called 'phonestemic symptoms'. The occurrence of such phonestemic symptom functions to emphasize". In addition, this may also refer to an enhancement of the sense "very", for instance, a speaker provides other additional elements, described in the phrases like *cilikmenthik* [ʧilikmənʈik] 'extremely small', *ijoroyo-royo*[ iʤorojo-rojo] 'extremely green', *abangbranang* [abaŋbranaŋ] 'extremely red', *putihmemplak* [putihməmpla?] 'extremely white', and many others. Those words underwent a process of phonestemic symptoms which also reflects a sense of value. Among these words are the so called 'emotive words' or 'expressive words' or 'expressive-emotive words', which are more expressive than cognitive (Jakobson & Waugh, 1979) or as 'the grouping of similar meanings about similar sound' (Abelin, 1999, p. 15). Such phonestemic words symptoms indicate a (change in) sense. Much research on onomatopeic words analysis discusses the words referred to as 'emotive' or 'expressive' or 'emotive- expressive' words (Sudaryanto, 1989, pp. 43-52; Uhlenbeck, 1978, p. 154).

In accordance with Peirce theory of Semiotics (1977), language is a sign consisting of three elements (known as Peirce's Semiotic Triangle), they are; representament, object and interpretant. Representament is the element that represents something, the object is something represented, and interpretant is a sign that is stated in the mind of the recipient. Representament forms a sign in the mind of the recipients which could be a sign of value or it could be a more developed sign. The necessary condition in order for the representament to be a sign is, theoretically, the existence of a (common) ground. Without this ground, the representament will be totally unacceptable. Furthermore, as Pierce has suggested, object is not a group but a sign represented by representament. Actually, the sign comes into being only in the mind of the recipient. "There's nothing that can be called a sign, except that has been interpreted as sign" (Noth, 1990, p. 42, in Zaimar, 2008, p. 323).

Some of the vocal sounds in JL may refer to certain opposite meanings, i.e., vocal *i*, can be used to designate the meaning of 'diminutive', as exemplified in words *krikil* [krikIl] 'a small stone' which is opposite in meaning to a word *krakal* [krakal] 'a somewhat bigger stone'; *kriwik* [kriwI?] 'a hole or a rather small nook' *krowok* [krɔwɔ?] or *krowak* [krowa?] 'a hole or a somewhat bigger nook'; *dhekik* [ḍəkI?] 'a cranny' which can be reversed with the word *dhekok* [ḍəkɔ?] 'a rather nook'; *cekit* [ʧəkit] 'pain like small bites' which can be reversed with the word *cekot* [ʧəkɔt] 'a more acute pain'; *plethik* [pləʈik] 'sound of shard or small explosion' that can be placed with words *plethok* [pləʈɔk] and *plethuk* [pləʈuk] 'sound of shard or a popping sound'; and many more. Based on a some examples of oppositions as decribed, it can be said that the phoneme *i* can be opposed to the phoneme *a, i* or *o*. In accordance with the meanings, they created a sense of rather large, or in opposition to the sense of 'diminutive' (as shown from vocal *i*). In other words, the addition on the phoneme *a, i* and *o* to each word represents meaning of "somewhat big" or "big" (vocals such as *a, u*, and *o*) (c.f. Sudaryanto, 1989, p. 43).The discussed words indicate the uniqueness of lingual aspect. The smallest lingual unit, i.e. phonemes (for the language users) enables a person to describe some aspects of what he /she means, especially in terms of sense. Apart from the aspect of phonemes, JL words in which the description or the naming is based on the production of a sound *imitation* (onomatopoeic), words of the animal names: *emprit* [əmprIt] 'sparrow', *cecak* [ʧəʧa?] 'lizard', *tekek* [təkɛ?] 'gecko', *prenjak* [prənʤa?] 'Prenjak bird', *ciblek* [ʧiblɛ?]'Ciblek bird' etc. (Sudaryanto, 1989, p. 113) are also found. The naming of

area around Jakarta where the people speak sort of Malayic language. Proto-Malayo-Javanic is believed to be the ancestor of Javanese language, as has been reconstructed by Nothofer (1975).

animals with sound imitations can be found in other languages too. A research conducted by Cowan indicated that in the language of Algon there is a trend of naming birds with reduplicated form such as *memewa*, *kakakiwa*, *pohpohkwa*, *paxpaxkiwa*, *sasakewa*, etc. (Cowan, 1972, p. 229).

This study is an attempt to describe the onomatopoeic words in Javanese language (JL) (c.f. Uhlenbeck, 1978, p. 155; Sudaryanto, 1989, pp. 117-134). Following the development of sound imitations or onomatopoeic words becoming "ordinary" or arbitrary, the study is considered evidence from which the onomatopoeia in Javanese language has an important position in the development of the Javanese language itself. This intrinsically Javanese quality is what categorizes Javanese language as expressive, affective, and onomatopoeic. In addition to that, Kanero (2014) in his article entitled "*How Sound Symbolism is Processed in the Brain: A Study on Japanese Mimetic Word*", has undertaken classification on the onomatopoeic or mimetic words into three categories: *phonomimes* (*giongo*), (the category of) *phenomimes* (*gitaigo*), and (the category of) *psychomimes* (*gijogo*). *Phonomimes* are words that imitate sounds; *phenomimes* are words that imitate certain physical movements; and *psychomimes* are words that mimic mental states. Arguments and previous research motivated the researcher(s) to focus their attention on the onomatopoeic words of JL, especially associated with its iconic process.

Ullmann (1962) divides the concept of onomatopoeia into two main types, namely primary and secondary (onomatopoeias). Primary onomatopoeia is a sound imitation of the sound, the sound imitation of referents, i.e., *kokok*' crowing'*, aum* 'roaring'*, gonggong* 'barking' etc. In the secondary onomatopoeia, the sound that arises is not the direct result of an actual acoustic experience, but the product of a movement or a physical and mental quality of an object, i.e., the word *bruk* (voice of falling heavy objects), *prang* (sound of broken plate) and so forth (Ullmann, 1962, p. 84).

Thus far only few studies have focused on the onomatopoeic words in JL especially compared to similar studies in other languages. This is evidenced by Albert, in a "Note to PPI Congress in Australia (Canberra in June 22nd to 24th, 2012)", which is very surprising to say that linguistic studies on onomatopoeias are still quite limited. Furthermore, this is evidenced by Albard (2012, pp. 1-2), where Albard pointed out that Japanese and Korean are two of the richest languages with onomatopoeic words. In accordance with data obtained through observations, the onomatopoeic aspects of JL are no less richer compared to other languages, because of the variety of words reflecting one or the other types of onomatopoeia.

Some studies on the onomatopoeic words in JL only reviewed "surface aspects" of the words, such as a research conducted by Mulyani (2014) in her article "onomatopoeia in the Novel of *Emas Sumawuring Baluwarti,* a work by Partini B" who identified onomatopoeic words in four categories: a) the imitative sound(s) of an object, b) the sound imitations of an animal, c) imitations of natural sound, and d) human sound imitations. In addition, she described four categories based on their forms and functions. Subroto (1981) reviewed a small sample of JL onomatopoeic words from (the) phonestemic aspects (Sudaryanto, 1989, p. 52). The finding**s** conclude that the phonemic vowels / i /, / u /, and / o / in the affective words of JL enable users to denote ranging nuances of meaning ranging from somewhat large, larger and huge, i.e. the words *methingil*' small looked'*, methungul*' somewhat bigger looked'*,* and *methongol*' a giant looked'; *ithir-ithir* 'a little pouring', *uthur-uthur* 'a rather much pouring', and *othor-othor* 'a great pouring' (Subroto, 1981). Abelin (1999) in his doctoral dissertation 'Studies in Sound Symbolism' examined the nature of onomatopoeic words in Swedish. He termed onomatopoeia to include all kinds of sound imitation, while phonestheme as the bound submorphemic strings (e.g. consonant clusters) which have in common a certain element of meaning or function. For Abelin (1993), the relation between sound and meaning is often iconic or indexical, as well as symbolic. Lastly, Abelin (1993)

concluded that (the) sound symbolism referred to the general phenomenon of motivated relations between sound and meaning, including onomatopoeia.

Recent studies have also investigated the linguistic aspects of onomatopoeia, as was conducted by Carling and Johansson (2015) who examined the German-motivated language changes, as part of the branch of Indo-European languages. They presented an overview of where the onomatopoeic expressions originate, as well as rational, or phonestemic and examined the symbolic groups historically traceable to Proto-Germanic and Proto-Indo-European languages. The two main types of motivated relationships between expression and content are distinguished: icons and indexes. Iconic connections basically include an onomatopoeic expression; there is an attempt to create a resemblance between the sound created by the content and the form of linguistic expression. Furthermore, Sasamoto and Jackson (2015) focused their research on onomatopoeia as a communicative phenomenon, and the terms of communication that are applied to onomatopoeia were used. Onomatopoeia contributes to the theory of relevance by providing direct evidence of some of the meanings it communicates. They argue that onomatopoeia involves the exploitation of similarities, and the relationship between sound and meaning, and is the result of the communicator's attempt to revive his sensory experience by using sounds that give a picture of his speaker's existing experience. What is communicated with the use of onomatopoeia depends on the context (based on the linguistic view of relevance). Mohammad Fadzeli Jaafar, Idris Aman and Norsimah Mat Awal (2017) who conducted a study on comaparative dialectology of dialects Negeri Sembilan and Minangkabau focused their study on the morphosyntax and phonology systems. It is found that Negeri Sembilan and the Minangkabau dialects are different in terms of the sound and the lexical forms, however, there is no difference in the grammatical system. Their study concludes that the grammatical categories of the two dialects share similarities in terms of the language and culture.

Based on the aforementioned previous research, specific studies concerning the Javanese onomatopoeic words are still quite limited in numbers. This motivates the researcher(s) to pay close attention on the onomatopoeic words of JL from the derivative root word formation, conceptually to provide a description on how each root word generate other words in order to trace back the iconic meanings. In addition, the process of Nusantaran words analysis has been carried out by Brandstetter and Gonda. Brandstetter (1957) outlines five ways in which root descendent becomes a basic word: 1) the root of the word itself can be a basic word; 2) the root word is repeated; 3) two or more root words put together. 4) at root word it is added the formative form; and 5) at the root word, it is attached with *pêpêt* sound that is not prefix. Specific formative developed into: (a) formative prefixes and roots, (b) formative inserts and roots, (c) formative endings with roots (Brandstetter, 1957, p. 36).

**METHODS**

This study is designed with qualitative approach since the analytical method use engages both phonological and morphological phenomenon of a language. This study examines the derivational root of the onomatopoeic words in JL which generated some forms of the iconic words. The data source is in the form of documents; JL of print media such as Panjebar Semangat (labeled P.S.), Jaya Baya (J.B), Djaka Lodang (D.L), and the Javanese literary work of Serat Wicarakeras (S.W). The other sources are information obtained from the informants living around the areas of Surakarta andYogyakarta. These informants were selected among the eligible people from which information concerning the onomatopoeic words in JL can be obtained orally. Ten respondents were involved in the data collection. The data were technically collected through purposive questionnaires. The research data includes the clauses and sentences of JL representing the onomatopoeic words both in written

and oral data sources. The data collection technique involves the techniques of reading and listening, taking notes, recording technique, and distributing questionnaires.

The method used in this study is a linguistic model of research proposed by Sudaryanto (2001), in his book entitled "*Metode dan Aneka Teknik Analisis Bahasa*" (Trans. Methods and Various Techniques of Language Analysis), namely the method of *agih* and *padan*. The method of *agih* is a language analysis which directly links the elements within the language itself, regardless of the element outside the language. In this method, it employs the basic technique for the direct element (*Bagi Unsur Langsung* /BUL), which is analyzing directly the lingual unit into the studied material. Furthermore, advanced techniques such as *lesap* (vanished) technique, substitution technique, expansion technique, and technique of *sisip* (insert) (Sudaryanto, 2001, pp. 13-17) were used.

## RESULTS AND DISCUSSION

### THE JAVANESE ONOMATOPOEIC WORDS

The discussion of onomatopoeic words in JL has to be reviewed from its definition. Kanero (2014, p. 2) previously classified onomatopoeic or mimetic words into three categories, namely phonomimes (*giongo*), phenomimes (*gitaigo*), and psychomimes (*gijogo*). Phonomimes are the words that imitate sounds; phenomimes are words that imitate moving objects; and psychomimes are words that imitate the mental state(s). Ullmann (1962, p. 84) classified onomatopoeias into two main types, namely the primary and secondary onomatopoeia. The primary onomatopoeia is a sound imitation of the sound, the sound imitation of referents i.e. crowing, walkout about, barking, and others. Secondary onomatopoeia refers to the sounds that arise beyond the acoustic experience, because of a movement or physical and mental quality of an object. i.e., the word *bruk* (voice of a falling heavy object), *prang* (sound of broken plate), and others.

### PRIMARY ONOMATOPOEIA

Primary onomatopoeia concerns the sound imitation of sound. This opinion confirmed Kanero et al. (2014) suggestion, that there are similarities with *phonomimes* or the Japanese term *gionggo*, i.e. words (thatare) produced through sound imitations. Shrum and Lowrey (2007, p. 45) also reported sounds which imitate sounds involving onomatopoeic aspect of both words and phrases that indicate environmental sounds of animate (animal sounds) and inanimate entities (ambience, mechanical sounds) such as bang, swish, tick-tock, vroom, knock, etc. which compared to the English language are limited in nature. Here, on the basis of results obtained from questionnaires, there are some words imitations that belonged to the primary onomatopoeic sounds which are (commonly) recognized by the Javanese community namely the animals' sound imitations, as shown in table 1.

TABLE 1. Sounds which are produced from the animal sound imitations

| The animal names | The produced sound imitations |
| --- | --- |
| Lizard | *Cek-cek* [ʧək-ʧək] |
| Gecko | *Te kek* [tə:kɛʔ] |
| Chick | *Piyek* [pijɛk] |
| Hen | *Petok-petok* [pətɔk-pətɔk] |
|  | *kok-kok* [kɔk-kɔk] |
|  | *kruk-kruk* [kruk-kruk] |
| Cock | *Ku-ku-ruyuuk* [ku:kuruyuuk] |
| Cat | *Meong* [meɔŋ] |
| Dog | *gug-gug* [gug:gug] |
|  | *kaik-kaik* [kaik-kaik] |

| Cricket | ***krik-krik*** [krik-krik] |
|---|---|
| Mole-cricket | ***roo...ong*** [rɔɔ...ɔŋ] |
| Katydid | ***oreng-oreng*** [orɛŋ-orɛŋ] |
| Prenjak bird | ***prenjek-prenjek*** [prəñdʒək-prəñdʒək] |
| Ciblek bird | ***ciblek-ciblek*** [ʧĭblɛk- ʧĭblɛk] |
| Cow | ***hemooh*** [həmɔɔh] |

These sound imitations are among the (most) widely recognized sounds by the Javanese community, since these sounds are often found in their daily life activities, which came into existence by experience. Due to the high degree of familiarity with the encountered sounds, the sound imitation becomes identically synonymous with referents which produce the sound, acting as the name droppers of such particular kinds of animal. This idea is in line with Werner and Kaplan's (1963) understanding towards the onomatopoeic words production, that the onomatopoeias are produced based on the experience of the subject's world (through learning) (c.f. Brown, 1958) but it is also formed by predispositions of perception (Werner & Kaplan, 1963, Lakoff & Johnsson, 1989). This leads to the conclusion that the onomatopoeic words in JL work in much the same way as the suggested concept.

## SECONDARY ONOMATOPOEIA

Secondary onomatopoeia is the sounds arising beyond acoustic experience; these sound productions relate to the physical and mental quality of (the) moving objects. With regards to the data obtained from questionnaires, the Javanese onomatopoeic words emerged from a variety of physical and mental sound imitations, all of which can be classified into phenomimic and psychomimic onomatopoeias (see table 2).

TABLE 2. Sounds produced out of moving objects (*phenomimes*)

| Physical Movements | Characteristic of Things | Sound Imitations |
|---|---|---|
| Explosion | 1. Small (i.e. firecracker) | *ther* [ʈər] *thor*[ʈɔr] |
| | 2. bigger (i.e. fire gun) | *dher* [ɖɔr] *dhor*[ɖɔr], |
| | 3. giant ((i.e. mount) | *gler* [glər], *glur*[glur] *blug*[blug]. |
| Friction | 1. rough/hard | *sret*[srɛt], *ret* [rɛt], *srek*[srɛk], *srok*[srɔk], |
| | 2. rougher | *sek*[sɛk], |
| | 3. soft/ malleable | *slep*[slɛp]. |
| Collision | | *dhes*[ɖəs], |
| | Between hard things | *dher*[ɖɛr], *brug*[brug], *brus*[brus], *prok*[prɔk], *prol*[prɔl], *thok*[ʈɔk], *dhok*[ɖɔk]. *dhug*[ɖug] *glug* [glug] |
| Throwing | Small stuff to medium (in size) | *wer*[wər], *wes*[wɛs], *ber*[bər]. |
| Sucking (*serot/sedhot*) | Liquid/strong | *sut*[sut], *srut*[srut], *srot*[srɔt]. |

| | | |
|---|---|---|
| Cutting off (*pedhot*) | String | *thel*[ʈəl], *thot*[ʈɔt], *dhot*[ɖɔt]. |
| A breaking (stuff) (*coklek/ tugel*) | Hard stuff | *klik*[klik], *klek*[klɛk], *klok*[klɔk]. |
| Inserting | 1. Small pointy / sharp objects to the malleable objects | *blus*[blus], *bles*[bləs], *jleb*[ʤləb] *jles*[ʤləs] |
| | 2. Large objects into the large space<br>3. Small objects into the small space<br>1. Liquid/strong | *bleng*[bləŋ], *slep*[sləp]. *crot*[ʧrɔt] *crut*[ʧrut] *jrot*[ʤrɔt] *jrut*[ʤrut] *prot*[prɔt] *bre t* [brɛ] *brot*[brɔt] *pret*[prɛt] |
| Leaking out (out of a narrow hole with pressure) | 2. Air | *bre t* [brɛ] *thot*[ʈɔt] *thut*[ʈut] *dhot*[ɖɔt] *dhut*[ɖut] |
| Breaking | Hard stuff | *pyar*[pjar], *byar*[bjar], |
| Opening | Wide stuff | *byak*[bja?], *blak*[bla?]. |
| Closing | | *krep*[krəp], *kep*[kəp] |
| Circle | | *Ser*[sər] *Sir* [sir] |
| Falling | 1. Solid to liquid | *plung*[pluŋ], *blung*[bluŋ], *byur*[bjur], *gur*[gur]. |
| | 2. Solid to strong liquid | *bluk*[bluk] *blok*[blɔk]. |
| | 3. Solid to solid | *brok*[brɔk], *bok*[bɔk], *bug* [bug], *brak*[brak], *jleg*[ʤləg] *jlug*[ʤlug] *jlog* [ʤlɔg] |
| | 4. liquid to solid/ liquid | *tes*[tɛs] |
| Hitting | 1) A Strike on body | *plek*[plək] *peng*[pəŋ] *pok*[pɔk] *bok*[bɔk] |
| | 2) A strike of hard things | *thok*[ʈɔk] *thuk*[ʈuk] |
| | 3) A strike of the hollow stuffs | *thong* [ʈɔŋ] *thung*[ʈuŋ] *gong* [gɔŋ] |
| Slapping | | *plak*[plak] *plek*[plək] *plok*[plɔk] *blok*[blɔk] |

The list in table 2 display onomatopoeic words of *phenomimes* or sound produced as the result of moving objects is not an exhaustive list. There are other kinds. However, it is not possible to provide a complete picture of this kind of sound imitations. Most of the given examples on moving objects' sound imitations might function as root word. Simply, some sounds are derived into a word form.

The root word (in JL renown for *tembung word*), as described in the next section, is the element on which the formation of a word, or a word that implies a core nucleus and the basis for the formation of words. The word has the core characteristics and patterned CVC monosyllabic or consonant and consonant, although sometimes may vary, exchange the phoneme, and sometimes is realized in homonymy to other forms (Kridalaksana, 2001, p. 4). Drawing from the two types of sounds categorized as primary and secondary onomatopoeias, the most suitable definition of the root word is that of secondary onomatopoeia, and not primary onomatopoeia, since primary onomatopoeia is not monosyllabic. In other words, the secondary onomatopoeia, frequently found in JL, is very prolific as the basis of establishing words with their morphological process.

Based on the results of data classification onomatopoeic words, there are some forms of onomatopoeic words, i.e. basic words, repeated words, compound words, and onomatopoeic word affixed solid. Some words may be productively found in the data source of this study, especially in the JL magazines. Each form of the word is experiencing a very unique morphological process which is varied.

### SOUNDS OF PHYSICAL STATE *(PSYCHOMIMES)*

Sounds of physical state (*psychomimes*) according to Kenaro et al. (2014, pp. 14-15) is the onomatopoeic words that mimic the psychological state. In other words, the sound imitation instead of real sounds is an imitation of a psychical sound. The psychological state used to describe some of the following things is illiustrated in table 3:

TABLE 3. Lists of physical sound imitations (*psychomimes*)

| *Common State* | *Mental and Physical Sound Imitations* |
|---|---|
| Somewhat cold (water) | *nyes*[ñəs] |
| Hottie things | *nyas*[ñas] |
| Getting toothache | *nut* [nut] |
| Getting dizzy | *nyut*[ñut] |
| Feeling relieved | *plong*[plɔŋ] |
| Things immediately vanished | *plas*[plas] |
| Situation immediately darken | *pet* [pət] |
| Immediately feeling enamored on certain body part. | *greng*[grəŋ] |
| Immediately feeling hurt on certain body part. | *theng*[ʈəŋ] |
| A string immediately breaking | *thel*[ʈəl] |

Secondary onomatopoeia consisting of both the named sounds were coined after the moving objects (*phenomimes)* or psychological state (*psychomimes*) imitations, each of which can be put in the order of words *mak* [ma?], which shows the onomatopoeic nature. Such as: *mak nyes* [ma? ñəs]*, mak nyut* [ma? ñut]*, mak plong* [ma? plɔŋ]*,* and so forth.

### THE PROCESS OF ICONICITY FROM THE ONOMATOPOEIC
### TO NON- ONOMATOPOEIC WORDS

Concerning the concept of sign in a language, Saussure (2001) believed that the arbitrariness of a sign is beyond absolute. There are signs in which the arbitrary relationship between the signifier and signified are more dominant. In addition to that, there is also the arbitrary

relationship which is less dominant or more motivated. In this regard, Saussure does not deny the existence of motivation in language for he argues, "not all signs are absolutely arbitrary", and "the sign may be motivated to a certain extent." (Saussure, 2001, p. 130). Thus, every language consists of two coexisting elements; element that really motivated and a relatively mixed-motivated in various proportions. One language can be contrasted with another language by a closer examination of these elements.

The root word of sound imitations discussed earlier, for the Javanese community in Surakarta and Yogyakarta is perceived as a manifestation of sign. Sign, symbol, or specifically in this study termed with icon, is constantly progressing alongside with the "thinking capacity" and the ground within the minds of the sign owners' (innate capacities and learning, c.f. Abelin, 1993, p. 68). Thinking capacity in the form language productivity is demonstrated in a variety of models derived into various forms of words, and so on, up to the higher linguistic level.

The derivation on the root words such as basic words, repeated words, and compound words formations with a variety of unique structures in them, is a process called iconization. The root word of iconic sound imitations further develops into a wider form of icons. The development of the icon causes a shift in the status of the root form of sound imitations or onomatopoeia into other claims. Similarly, Jespersen (1922 a, in Abelin, 1993, p. 10) suggested a view that 'languages in the course of time grow richer and richer in symbolic' (sound symbolism) 'words' and 'develops towards a greater number of easy and adequate expressions. This also happened in the JL, words such as; *kluthuk* [kluṭuk] 'sound of thuk' (PS.6.6/2/2016: 8.5), *gedhangkluthuk* [gəḍaŋkluṭU?] 'a typical black-seeded banana'(PS.50.12/12/2015: 44.7), *thuthuk* [ṭuṭU?] 'a cudgel'(PS.6.6/2/2016: 38.3), *kethukkempyang* [kəṭU? kəmpjaŋ] 'a kind of Gamelan (Javanese traditional music) instrument'(PS.14.4/4/14: 16.5), *pethuk*[pəṭU?] 'coming across'(DL.28.12-12-2015: 20), *bathuk* [baṭU?] 'forehead' (PS.7.13/2/2016: 24.9). Those words are derived from the root word *thuk* [ṭuk] (D.A.(S.Y): B.2) with the addition of the formation, repetition of root words, compounding, and reduplication process. Since these words were derived from the root word, everything can then be incorporated into a single word' family, and the relationship of these words with the root word is illustrated in the following diagram:
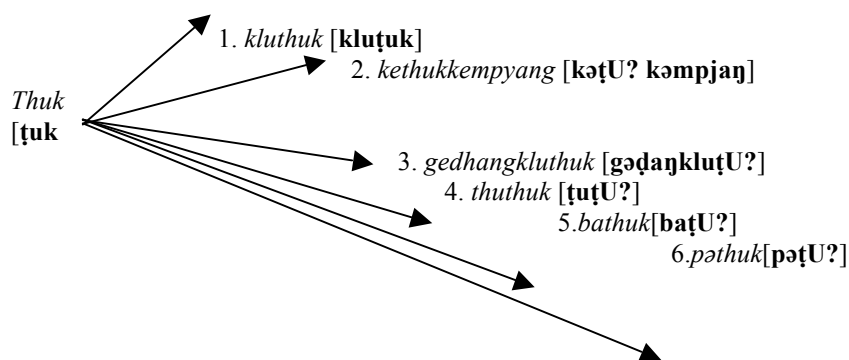


FIGURE 1. Derivational process of the root word *thuk*

Figure 1 shows the proximity of meaning between the root word and its derivatives, illustrated by the different length of arrows which depict their relation to each other. Word number 1represents the closest relation to the root word, followed by word number 2 and 3, which is situated near number 1 in comparison to the successive words which disperse further away from the root word, as number 4, number 5 and the farthest being number 6.

The word *kluthuk*[kluṭuk] has a closest link to the root word meaning *thuk*[ṭuk], since the word still directly refers to its root word *thuk*[ṭuk]. That closeness in meaning is attested in the attachment of the word *mak*[ma?] in both the language elements to demonstrate the meaning of "sudden", and each can accept the attachment of word *mak,* which is *makthuk* and *makkluthuk.* Pronuncing phonemes of / th /, / u /, and / k / in both the language elements have similarities in common, phonetically pronounced [t u k]. However, both the language elements have differences too, which can be paired with the words *kluthuk* and is addable with the word *pating*[patIŋ], to show an intentional meaning of "multiple times" or "a lot in numbers", while the root word *thuk* cannot.

The next word *kethuk*in is a compound word form *kethukkempyang,* and the word *kluthuk* in compound words *gedhangkluthuk*, is a bit in distant from the root *thuk*. However, clearly and easily guessed, the words *kethuk*[kəṭU?] and *kluthuk*[kluṭU?] are both compounding words in which the meanings remain the same with the sound *thuk* at the root word level. Additional meaning of the root word can be evidenced by the implementation of the word *mak*; the root word *thuk* can accept the word *mak*, whereas both words cannot. The pronunciation on phonemes / u / and / k / in this pair of words is also different from the corresponding phonemes of the root word. Both of the phonemes in these two words are pronounced as an allophone of [U] and [?], while in the root word they are pronounced as original phonemes, i.e [u] and [k]. However, in a given context, the word *kethuk* could be pronounced as its original phoneme, namely [kəṭuk] in the series of order *makkethuk* [ma? kəṭuk], or with the insertion of -l- to become *klethuk* in the context *patingklethuk* [Patinkləṭuk]. Hence, the word *kluthuk* can be pronounced in accordance to the original phonemes, that is [klutuk] in the series of order *makkluthuk* [ma? klutuk] identical to the first word *kluthuk*.

The words *thuthuk, bathuk,* and *pethuk,* in terms of the meaning of each position are somewhat distant from the root word *thuk.* The word *thuthuk* literally means a "beater", one does not directly link it to the sound *thuk*, because the beater does not necessarily sounds like *thuk.* In other words, to reflate the word *thuthuk* on the root word or sound *thuk,* one maybe get stunned in pause and thought, because the sound imitation was produced through batting the object. This is different from the word *bathuk* 'forehead', one will have a subsequent(ly) long pause to find an association between the word *bathuk* with the sound *thuk,* because one has to fully recognize the character of the iconified objects with the word *bathuk*, link them logically and put a question of what is the relationship with the sound *thuk.* A process which will inevitably lead to the answer, that is the object of the iconified word *bathuk* is a tough physical entity in nature, and if hit it will produce the sound *thuk.* The word *pethuk* 'coming across' requires even longer time to reflect in order to correlate it to the sound *thuk.* Indeed, one will need longer time to consider their relation compared with the previous words. During this process, many questions emerge: why are objects or persons who meet iconified with the word *pethuk*? ('coming across') Why do people pick up other people in a particular place is iconified with the word *methuk* ('to pick up')?. Although the elaboration of the said questions is time-consuming, logic indicates that the action of "coming across" is iconified with the word *pethuk,* thus suggesting that the issue is a matter of association. In other words, "a meeting" of two things or people is associated with "meeting" or "clash" of two hard objects that result in the sound *thuk.*

The aforementioned relationship among the word meanings in the derivational process of onomatopoeic root words illustrated above influences accordingly the formulation of their status. The root word as a sound imitation occupies the status of onomatopoeia; the derivation of root word into other word formations which preserve a close tie with the onomatopoeia and can still be paired with the word *mak* and obtain their status as semi-onomatopoeia. While the words derived from the root word but stray further from the

onomatopoeia because of the development of intrinsically different meanings and cannot be paired with the word *mak*; in that case a non-onomatopoeic status is ascribed. The third status can be described in the following triangular pyramid.



FIGURE 2. The triangular pyramid of derivational process from onomatopoeic to non-onomatopoeic words

The above figure places the onomatopoeic status at the top and has a narrower space. In addition to the onomatopoeic sound, it is the origin of various word-formations, and the narrow space shows the meaning that they are just imitators or sounds imitation. The second position is semi onomatopoeia, which occupies a larger space than onomatopoeia, and is situated between onomatopoeia and non-onomatopoeia. This shows that semi-onomatopoeia stands enclosed at the intervals of onomatopoeia and non-onomatopoeia, which entails that semi-onomatopoeia has similarities with onomatopoeia, and that it grammatically follows the rules of non-onomatopoeia. To clarify this statement, the words derived from the onomatopoeic root word can each be inserted into its space, such as shown in figure 3.



FIGURE 3. The triangular pyramid of onomatopoeic root words derivation

Figure 3 indicates that the derivation of onomatopoeic root words concordant to the meanings is increasingly extended. Words undergoing certain extensions in meaning hence falling into the non-onomatopoeia category normally follow the principles of common words. Concerning pronunciation, words in which the status turned into non-onomatopoeic, phonemes /i/ and /u/, located on the last closed syllable is pronounced with /I/ and /U/; whereas phonemes such as /k/ on the last position of words, thus likely to be pronounced with glottal stop [?] allophone.

**FAMILY WORDS**

The extended derivations of the onomatopoeic root words point to a higher productivity (level). As a result of the productivity of onomatopoeic root words, it turns the derivative words into subdividing groups of words, words family, or the family words. Table 4 shows some examples of words belonging to a single family root.

TABLE 4.   The Family Words of Javanese Onomatopeic Words

| OnomatopoeicRoot words | Semi-Onomatopoeic Words | The non-onomatopoeic Words |
|---|---|---|
| *plok*[plɔk] | *ceplok*[ʧəplɔk] (*makceplok*) | 1. *caplok*[ʧaplɔ?] inserting food into mouth by way of throwing into it' 2. *emplok*[əmplɔ?] 'inserting food into mouth' 3. *dheplok*[ḍəplɔ?] 'pounding' 4. *keplok-keplok* [kəplɔ?-kəplɔ?] 'hands clapping multiple times' 5. *ceplokpiring* [ʧəplɔ? pirIŋ] 'a species of plant' 6. *tuwagaplok* [tuwɔgaplɔ?] 'decrepit' 7. *koplok*[kɔplɔ?] 'strong vibrating body |
| *thuk*[ʈuk] | 1. *cethuk*[ʧəʈuk] (*makcethuk*) 2. *plethuk*[pləʈuk] (*makplethuk*) 3. *kluthuk*[kluʈuk] (*makkluthuk*) | 1. *kethuk kempyang* [kəʈU? kəmpjaŋ] 'part of Gamelan instrument' 2. *gedhang kluthuk* [gəḍaŋ kluʈU?] 'a typical black-seeded banana' 3. *thuthuk* [ʈuʈU?] 'beater' 4. *bathuk* [baʈU?] 'forehead' 5. *pethuk* [pəʈU?] 'coming across' |
| *dhul*[ḍul] | *jedhul*[ʤəḍul] (*makjedhul*) | 1. *sundhul*[sunḍUl] 'top of head touching on something' 2. *gundhul*[gunḍUl] 'bald head' 3. *gandhul*[ganḍUl] 'hanging down' 4. *jedhal-jedhul* [ʤəḍal-ʤəḍul] 'frequently appearing' |
| *thik*[ʈik] | *plethik* [pləʈik] (*makplethik*) | 1. *jenthik*[ʤənʈI?] 'little finger' 2. *uthik*[uʈi?] '(his/her) finger constantly touches (something)' 3. *sithik*[siʈI?] 'few/little' 4. *cilikmenthik* [ʧilikmənʈik] 'quite a few/little' 5. *uthik-uthik* [uʈI?- uʈI?] '(his/her) finger moving something' 6. *wajikklethik* [waʤI? kləʈI?] 'traditional snack made with steamed glutinous (sticky) rice' 7. *trithik*[triʈik] 'annoying' |

|  |  | 8. *slentik*[slənţI?] 'flicking' |
| --- | --- | --- |
| ***thok*[ţɔk]** | 1.*plethok* [pləţɔk] (makplethok) | 1. *pathok*[paţɔ?] 'stake' |
|  | 2. *cethok*[ʧəţɔk] (*makcethok*) | 2. *githok*[giţɔ?] 'nape of neck' |
|  |  | 3. *bathok*[baţɔ?] 'cranium' |
|  |  | 4. *thokthil*[ţɔ?ţil] 'just that point' |
|  |  | 5. *thothok*[ţɔţɔ?] 'taping sound |
|  |  | 6. *thothok-thothok* [ţɔţɔ?-ţɔţɔ?] 'knocking' |
| ***seg*[səg]** | *bleseg*[bləsəg] (*makbleseg*) | 1. *angseg* [aŋsəg] 'push' |
|  |  | 2. *beseseg* [bəsəsəg] 'asphyxia' |
|  |  | 3. *seseg* [səsəg] 'crowded' |
|  |  | 4. *dheseg* [ḍəsəg] 'pressed' |
| *thek*[ɛk] | *plethek*[pləţɛk] (*makplethek*) | 1. *plethek* [pləţɛ?] 'sun rising' |
|  |  | 2. *gethek* [gɛţɛ?] 'small raft' |
|  |  | 3. *glethek* [glɛţɛ?] 'put (something) randomly |
|  |  | 4. *trethek*[trɛţɛ?] 'agile' |

These words are categorized into the family words since these words were derived from the same onomatopoeic root words. Similarly in the JL, it is often found the onomatopoeic words have the same family with other words. However, there are some words that are already in distant with the root words origin.

The word family table consists of the words whose meaning has been away or distant from the origin root word, such as *ceplok piring* [ʧəplɔ? pirIŋ], *tuwa gaplok* [tuwɔ gaplɔ?] . They have been in distance from the root p*l*ok [plɔ?];  pethuk [pəţU?] in distance from the sound word thuk [ţuk]; *jenthik* [ʤənţI?], *sithik* [sitI?]; and *gethek* [gɛţɛ?], and far from the sound word *thek* [ţɛk]. As explained earlier, to restore and connect these words with the root word is a quite complicated task. Pierce (in Liszka, 1996, p. 213) suggests that 'to recognize a sign or icon a word should be grounded, at least be a native speaker in question', so it has a "force of sense" that can be used to understand it more deeply.

## CONCLUSION AND IMPLICATIONS

This study concluded that the Ullman's (1962) onomatopoeias classification is attestable to data of the onomatopoeic words in Javanese language. The classification of the concept can be distinguished into two main types; the primary and secondary onomatopoeias. Primary onomatopoeia is the sound imitation of sound, which is the imitations of referents, i.e. sounds of crowing, roaring, barking, etc. Secondary onomatopoeia is the sound which arises beyond the occurring acoustic experience, but because of movement or physical and mental quality of an object. i.e. the word *bruk* (voice of falling heavy objects), *prang* (sound of a broken plate). The development of sound imitation icon as an icon causes a shift in the status of a root word form or onomatopoeic sound imitator to other states. Words like *thuthuk* [ţuţU?]

''beater', *kethukkempyang* [kəʈU? kəmpjaŋ] 'a typical instrument used in Gamelan*', pethuk* [pəʈU?] 'coming across' and *bathuk* [baʈU?] 'forehead' were the derivative words originated from the root word *thuk* [ʈuk] with the additional formative process, repetition on the root word, compounding, and reduplication. Additionally, in JL it is quite often found onomatopoeic words that have the same family with other types of words.

This study is expected to provide new insights about the Java language, especially for the observers of the Java language. They can use the results of this study as a basis for understanding the character of the Javanese language, which is a strong language with words derived from the root of onomatopoeia. Strong words in JL refer to the hierarchical foot consisting of stressing syllables and all syllables without pressure until the next emphasis, usually mark with high tones.  In addition, the results of this study may be used to carefully identify onomatopoeic words that have not been registered in the Javanese dictionary, among others such as *pethithit* [pəʈiʈit] 'messy' *kesenthok* [kəsənʈɔ?] ''his beaten heart ', *kethikluk* [kəʈiklu?] 'messy'.

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