Reduplication in Indonesian: *Mobil-Mobil,* not **Mobils*
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Abstract

Linguists have identified Indonesian reduplication as a morphological process and have suggested five versions of it, each from different perspectives and approaches. Analytical efforts have predominantly focused on the morphology, phonology, and semantics of reduplication as separate elements. However, these efforts have not been extended to larger linguistic units, partly due to the absence of established methodological criteria in the field. This observation arises because most current findings are not based on cross-linguistic analysis and do not consider Indonesian reduplication as stemming from a morphophonological process with corresponding meanings. To address this challenge, this study uncovers some new features not discussed in previous research on Indonesian reduplication. It employs a cross-linguistic approach, combined with Kentner's (2017) taxonomy, to handle Indonesian reduplication. The findings reveal that the same reduplication data have been described by different versions of reduplication without any clear criteria. This highlights the complex interaction of Indonesian reduplication with various linguistic features, including morphology, phonology, lexis, and semantics, as attested in corpus data. In addition, some reduplication meanings must be identified through contextual use. A word can be reduplicated in various ways, altering its meaning. Some words may sound reduplicated but do not have a root word. Meanwhile, there are words that should be classified as compounds instead of reduplication.

1.   Introduction

Indonesian reduplication is a morphological process whereby a base form is repeated either totally, partially, or with a sound alteration (Chaer 2014). This is generally the case, as stated by Rafi'ie et al. (2018). Therefore, it is categorized as whole, partial, or linked to a sound alteration. In such cases, a differentiation is commonly established between complete reduplication, such as *buku-buku* 'books' derived from the root form *buku*, partial reduplication, such as *lelaki* 'a man' derived from the root form *laki*, and reduplication accompanied by a phonetic alteration, such as *bolak-balik* 'back and forth' derived from the root form *balik* (Chaer 2014; Alek 2018: 64).

Additionally, reduplication with affixes (Kaharuddin et al. 2023) and pseudo-reduplications exist, as observed by Alisjahbana, such as *mondar-mandir* (stride), which appears to reflect reduplication, but it is uncertain whether a base form is repeated here or not (Chaer 2014:183). However, some reduplications remain in question, as noted by Chaer (2014: 183 - 184): *"mondar-mandir, tunggang-langgang, komat-kamit;* whether it is a form of reduplication or not; *rama-rama, sema- sema, ani-ani,* tupai-tupai; also another form, such as *pipi, kuku, sisi, titi,* can be questioned".

The above-mentioned questions suggest that Indonesian reduplication remains a subject of disagreement among Indonesian linguists. This is mostly

because semantics was the sole analytical criterion utilized for classifying certain forms of reduplication (cf. Zamzani 1993; Rumilah and Ibnu 2020; Kaharuddin et al. 2023). Furthermore, the term is employed to describe various reduplication characteristics, and even identical data are classified as distinct reduplications. For instance, *membaca-baca* 'read', *mengukur-ukur* 'measure', and *melambai-lambaikan* 'wave' reflect partial reduplication. Keraf (1991), in contrast, refers to them as *dwilinga berimbuhan*, which means the affixation of two words, while Keraf (1984) views them as affixed repetition. However, the specific criteria used to classify these words remain undefined (Zamzani 1993: 42; see also Rumilah and Ibnu 2020). Since uncertainty regarding reduplication with affixes in Indonesian persists, it can be further clarified whether the specific criteria used to classify types of reduplication are well defined and mapped.

For that reason, this research differs from previous studies, as it segments and examines different data sources to address the shortcomings of previous research and uncover potential new features of Indonesian reduplication formats. Hence, thoroughly examining Indonesian reduplication from a cross-linguistic perspective is crucial, as most previous studies have not addressed larger linguistic units due to a lack of established methodological criteria within the field. This aligns with Rumilah and Ibnu's (2020) contention of a lack of consistent criteria for characterizing the various forms of Indonesian reduplication. Indonesian reduplication can be hypothesized to occur in various linguistic domains, including morphology, phonology, lexicon, semantics, and syntax. Kentner (2017) proposes a taxonomy that systematically classifies and examines the many reduplicative patterns found in German. Additionally, Jeffries' (1998, as cited by Wang 2004: 510) concept of "contextual language level" offers a solution for analyzing and defining the specific criteria needed to classify different interactions of Indonesian reduplication in contextual usage. This study examines the approach of Indonesian linguists in incorporating cross-linguistic traits, specifically focusing on the morphological, phonological, and semantic components of word formation through reduplication. It draws on the cross-linguistic perspective presented by Kentner (2017).

Various sources, including literary examples, corpus texts obtained through the WebCorp application, collections of Indonesian songs and poems, and the Indonesian dictionary, were all employed for analysis, aiming to achieve the study's main objective: to discover and compare reduplication across these distinct linguistic patterns. These data were examined alongside the taxonomy suggested by Kentner, including "reduplicative phrases" (Kentner 2017: 236-241).

Given the above-mentioned theoretical notions, three primary inquiries are considered: (1) Do word formation processes and results correspond to other linguistic aspects, such as phonology, semantics, lexis, and syntax, as argued by several scholars? (2) To what extent can different types of word formation be considered reduplication? (3) What are the linguistic elements affected by Indonesian reduplication? The word formation process of reduplication interacts with various linguistic features. Moreover, not all nouns can be pluralized, as they may possess alternative meanings (see Simatupang, 1983) or may not undergo

reduplication at all. Indonesian reduplication is also thought to interact with all linguistic elements and influence their meaning.

This article presents a literature survey of the variable being studied, starting with the earliest studies and providing examples. It then discusses reduplication types, processes, and their results, and cross-linguistic approaches to handling Indonesian reduplication. Additionally, it discusses the cross-linguistic approach of Kentner's (2017) taxonomy used to assess reduplication. This discussion is presented in Section 2. Section 3 provides a more comprehensive explanation of the procedure. It includes corpus data presentation and a data analysis strategy. The findings section evaluates the word formations across different linguistic features with specific examples (Section 4). Section 5 provides a more comprehensive data analysis, with limits and recommendations for further research. Finally, this article closes with a conclusion (Section 6).

## 2.	Theories and Approach to Handling Indonesian Reduplication

### 2.1	Indonesian Reduplication: Types and Meaning Alterations

Linguists have employed the term *reduplication* in Indonesian in various ways. Prior research (Zamzani 1993; Sumarsih 2013; Rumilah and Ibnu 2020) has identified that the terminology related to reduplication originates from earlier studies. For instance, Keraf (1984) employed the term *kata ulang* 'word repetition', while in a subsequent study, Keraf (1991) used a different term, namely *bentuk ulang* 'reformatting'. Similarly, Ramlan (1979) referred to the process as *proses pengulangan* 'repetition process', and Samsuri (1988) used *pengulangan bentuk kata* 'repetition of word forms'. However, the term most used is reduplication, as indicated by Zamzani (1993: 41 as noted from Sumarsih 2013). Subsequently, the term reduplication has been adopted in more recent studies, including those by Marneti (2014), Hafmawati and Setiawan (2018), Mangga (2018), Rafi'e et al. (2018), Rumilah and Cahyani (2020), Habibi (2021), Maryani (2021), Denistia and Baayen (2022), and Kaharuddin et al. (2023).

Reduplication is a linguistic phenomenon observable in numerous languages across the globe (Simatupang 1983; Sumarsih 2013; Chaer 2014; Alek 2018; Mangga 2018; Dolatian and Heinz 2019). According to the World Atlas of Language Structures (WALS), 85% of the 368 languages surveyed use reduplication in various forms to signal one or more semantic functions. This information was based on a statistical database provided by Rubino in 2013, as cited in Dolatian and Heinz (2019a: 8). Indonesian reduplication impacts various linguistic functions, extending beyond semantics, as previously mentioned.

According to Hafawati and Setiawan (2019), out of 1026 instances of Indonesian reduplication, 677 were complete reduplications. These data suggest a greater prevalence of full reduplication relative to other forms of reduplication, such as partial reduplication, across many languages. According to Rubino (2013, as noted from Dolatian and Heinz 2019b: 67), it is widely believed that 83% of the world's languages exhibit complete reduplication, while 75% display partial reduplication. Nevertheless, the construction of words is undeniable in every language, although the methods and structures vary across different languages. For instance, one

language may favor affixation, another may choose composition, and a third may utilize conversion and other forms of word construction (Dairabekova et al. 2022). Literature on reduplication often suggests that Indonesian reduplication follows morphological processes in word creation, including affixation, reduplication, and composition (Denistia and Baayen 2022).

Furthermore, Indonesian makes extensive use of compounding, for example, *meja tulis* 'writing table', while it is often unclear where to draw the line between compound words and fixed phrases such as *kakek nenek* 'grandfather grandmother', which can be understood as coordinative compounds, and phrases such as *baju baru* 'new cloth', which can be analyzed as subordinative compound words. However, Indonesian reduplication extends beyond individual words and encompasses entire phrases and components of sentences, known as syntactic reduplication (Bijleveld (1943), as noted from Simatupang 1983). The reduplication process can be paradigmatic (inflectional) and derivational. The former does not change the lexical identity but gives grammatical meaning; for instance, *meja-meja* means many tables (plural meaning). The latter forms a new word, or the word whose lexical identity differs from the base (cf. Chaer 2014). Dyen (1967) stressed that reduplication sometimes has hyphens between the repeated parts. Nevertheless, most scholars have identified Indonesian reduplication as a morphological process, where a base form is repeated (cf Sneddon 1996; Chaer 2014; Denistia and Baayen 2022; Kaharuddin et al. 2023).

Puspani and Indrawati (2021) encompass a range of meanings and forms, including the reduplication of verbs, nouns, and adjectives. However, Lander (2003), and Sneddon (1996) provided evidence that Indonesian reduplication can be formed from different word classes, namely, in pronouns usage *mereka-mereka* 'they'; adjective usage *kecil-kecil* 'small'; adverbs *keras-keras* 'loudly'; verbs *jalan* 'walk' → *berjalan-jalan* 'take a walk'; and numbers *satu-satu* 'one by one'. In addition, reduplication can be formed without matching single bases, as in the word *tiba* 'arrive', which has no relationship to *tiba-tiba* 'suddenly'.

However, certain reduplications remain in question: for instance, "*kering kerontang, tua renta,* and *segar bugar* (free morpheme and unique morpheme; is it a sound-changing reduplication form, or a compositional form?); mondar-mandir, tunggang-langgang,* and *komat-kamit (*the bound morpheme, whether it is a form of reduplication or not)" (Chaer 2014: 184). Conversely, Indonesian linguists have different views on classifying reduplication. Some scholars have identified three versions, but others have classified it into four versions. For instance, Puspani and Indrawati (2021) identified three distinct reduplication types: (1) partial, (2) stem-affix combination, and (3) full reduplication. While some scholars have verified the existence of four types of reduplication, most agree on the identification of full and partial reduplication. However, other versions use different terms, as shown in Table 1.

Table 1: Indonesian Reduplication Types

Marneti (2014); Rumilah and Ibnu (2020); Hafawati and Setiawan (2019)	verified the existence of four reduplication types: 1) complete/full reduplication, (2) partial reduplication, (3) reduplication with affixes, and (4) reduplication including modifications in phonemes/phoneme

		changes.
●	Denistia and Baayen (2022)	identified four reduplication types: (1) full reduplication, (2) imitative reduplication, (3) partial reduplication, and (4) affixed reduplication.
●	Kaharuddin et al. (2023).	identified four distinct types: (1) full reduplication, (2) partial reduplication, (3) reduplication with affix combination, and (4) reduplication with phoneme modifications in repeated forms.

Full Reduplication

Most scholars agree that full reduplication involves repeating the base form without any change in phonemes and without affix placement. In other words, the repetition part is the same as the base word (cf. Zamzani 1993; Marneti 2014; Hafawati and Setiawan 2019; Kaharuddin et al. 2023). Additionally, full reduplication can be applied to nouns, verbs, adjectives, adverbs, connectors, and pronouns (Denistia and Baayen 2022: 5). Reduplication of simple words, complicated words, bases within complex words, and reduplication without corresponding single bases are the four subcategories that make up this reduplication type (Rafi'ie, et al. 2018).

(1) *Kata ulang utuh* (full repetition)

a	*buku* 'book'	→	*buku - buku*	Sneddon 1996
b	*ubah* 'change.PRED	→	*perubahan-perubahan* "changes' N-PL	Sneddon 1996
c	*mobil* 'car'	→	*mobil-mobil* 'cars'.N-PL	Mangga 2018: 22
d	*gedung* 'building'.N-SG	→	*gedung-gedung* 'buildings'.N-PL	Hafawati and Setiawan 2019: 23
e	-		*kupu-kupu 'butterfly'.N*	Marneti 2014: 202
f	*minum*.drink.PRED	→	*minum-minum* 'drink'.PRED	Rumilah and Ibnu 2020

The examples above show that full reduplication in Indonesian can be formed mostly from a noun such as *mobil* 'car' as word base, to be *mobil-mobil* 'cars'. This form is unlikely in English, where the word base *mobil* 'car' does not become *mobils* as cars in English. Basic forms of reduplication are obtained through basic morphemes (e.g. *meja* 'table' - *meja-meja* 'tables'). However, it seems that this type can also be formed with affixes (prefix pe- and suffix an) in the word *pembangunan-pembangunan* 'developments', or in a word combination, such as *surat kabar - surat kabar* 'newspapers' (cf. Chaer 2014). Sneddon (1996) refers to this type as a free base, meaning that any kind of word can be reduplicated using the same word base. Interestingly, this reduplication type can be formed from a word base with affixes and is thus identified as simple reduplication, which is formed from base words such as *mobil* to become *mobil-mobil* 'cars', and for complex reduplication, which is formed with affixes such as *pertemuan* 'meeting' from word base *temu* 'meet', it reduplicates to be *pertemuan-pertemuan* 'meetings' (cf. Mangga 2018).

Partial Reduplication

Partial reduplication is a part of the base word (Zamzani 1993). It is "a repetition of the first syllable of a word" (Kaharuddin et al. 2023: 400) and can occur in both single and complex words (Hafawati and Setiawan 2019). However, partial reduplication is not productive in Indonesian (Denistia and Bayaan 2022). Furthermore, in cases of plurality or variety, the partial reduplication of a noun is expressed. Yet, words for plants are particularly associated with this partial reduplication pattern, such as *pepohonan* 'trees'. In this case, "the first consonant of the word base *pohon* is *p* plus the vocal *e* create *pe* plus the word base and the suffix–an create *pepohonan*" (Rafi'ie et al. 2018: 23). Some examples include *rerumputan* 'weed' from the base *rumput* 'weed' and *dedaunan* 'leaves' from the base 'leaf' (Rafi'ie et al. 2018). More examples of this reduplication version are presented below.

(2)   Partial reduplication

a	*tahun* 'year'.N	→	*bertahun-tahun* 'for many years'.NUM	Marneti 2014: 204
b	*mabuk* 'get drunk'.ADV	→	*mabuk-mabukan* 'likes to get drunk'.PRED	Marneti 2014: 204
c	*garuk* 'scratch'.PRED	→	*menggaruk-garuk* 'scratching'. PRED	Hafawati and Setiawan 2019: 24
d	*laki* 'man', 'husband'.N	→	*lelaki* 'man/men'.N	Sneddon 1996; Denistia and Baayan 2022
e	*tangga* 'ladder'.N	→	*tetangga* 'neighbor'.N	Sneddon 1996; Rumilah and Ibnu 2020
f	*tanaman* 'plant'.N-SG	→	*tetanaman* 'plants'.N-PL	Rumilah and Ibnu 2020

Reduplication with Affixes

Reduplication with affix involves repeating the base form with affix placement. Affixed reduplication refers to cases in which reduplication is combined with affixation (Hafawati and Setiawan 2019) and is fully productive (Denistia and Baayen 2022). Zamzani (1993), Sneddon (1996), Marneti (2014), Mangga (2018), and Rumilah and Ibnu (2020) provide several illustrations of the various forms of reduplication with affixes, which are outlined below:

(3)   Repetition with affixes
      Prefix -per, -ber, -ter, -di, -se, -me

a	[atur+per-an]: *peraturan*.regulation.N.SG	→	*peraturan-peraturan*.regulations.N.PL
b	[ber+main]-RED	→	*bermain-main*. playing.PRED
c	[ber+tahun]-RED	→	*bertahun-tahun*.for many years.NUM
d	Ter+jerit-RED	→	terjerit-jerit 'scream'.PRED
e	Di+usap-RED	→	diusap-usap 'swabbed'.PRED
f	Se+umurRED	→	seumur-umur 'lifetime'.N

Prefix with -Me, MeN, Mem:

g	MeN +bagi - RED	→	*membagi-bagi*.divide.PRED

h	MeN +pijit-RED	→	*memijit-mijit*. massaging.PRED
i	MeN+tulis-RED	→	*menulis-nulis*.writing.PRED
j	Mem+[bolak-balik].RED	→	*membolak-balik*.flipping through.PRED
k	Meng-an+RED[hambur-hambur]	→	*menghambur-hamburkan*
l	Meng+garuk-RED	→	menggaruk-garuk 'scratching'. PRED

Suffix -an, pe(N)-an

m	mabuk-RED+an	→	*mabuk-mabukan* 'likes to get drunk'.PRED
n	pen+dapat.RED+an	→	*pendapatan-pendapatan* (income)

Affix ke-an, ber-an

o	ke+ragu-RED+an	→	*keragu-raguan* 'indecision'.N
p	ber-pasang.RED+an	→	*Berpasang-pasangan 'pairs'.N-PL*

Reduplication formed by multiple affixes exists in Indonesian, can take place together, first, in the beginning of the process, or after the first affixation process. The affixes can be a prefix (e.g., MeN), where N is a reduplicated base in which the initial consonant has been lost (e.g., *MeN+bagi-R → membagi-bagi* 'divide') or a suffix (Sneddon 1996). Thus, the given examples mentioned above were noted by Marneti (2014), who categorized additional forms of reduplication, specifically partial reduplication, which involves the use of affixes (*ber-, ter-, men-, se-, di-,* and *-an*). For instance, the word *bertahun-tahun* exemplifies the use of the *ber-* prefix, as shown in example (3c). Additionally, prefix *ber-* can be added to verbal, nouns, and adjectives (Sato and McDonnel 2007).

Similarly, the word *terjerit-jerit* demonstrates the use of the *ter-* prefix to convey shouting. The prefix *di-* is utilized in the word *diusap-usap*, while the prefix *meng-* is employed in the word *menggaruk-garuk* to convey scratching. Lastly, the suffix *-an* is observed in example (3m–, 3n).

Another form of reduplication, known as affix reduplication, involves repeating the base word with an affix. For example, the word *keragu-raguan* is formed by repeating the base word *ragu-ragu* with the affix *ke-an*. Similarly, *hambur-hambur* becomes *menghambur-hamburkan* with the affix *meN-an*, and *pasang-pasang* becomes *berpasang-pasangan* with the affix *ber-an*. These examples are illustrated in examples (3o– and 3p).

Reduplication with Phoneme Changes

Reduplication with phoneme change entails repeating the base form with a change in the inventory of soundsphonemes (Hafawati and Setiawan 2019), where the repetition involves a change in phoneme (Parera 1988 as noted from Zamzani 1993). However, the term "*imitative reduplication*" was employed by Sneddon (1996), Rafi'ie et al. (2018), and Denistia and Baayan (2022), regarding nouns, verbs, and adjectives. The examples formed by adjectives include *kaya-raya* 'extremely rich', by nouns and verbs *sayur-mayur* 'vegetables' and *gerak-gerik* 'various coincident movements'. However, this type of reduplicationit is not productive in Indonesian (Denistia and Baayan 2022).

(4) Reduplicated words with phoneme changes
(vowel -a into -i, variant) or consonant

a	*jaka* 'single'.N	→	*Jejaka* 'a male child who	Hafawati and Setiawan

			has grown up but is not yet married'.	2019: 24
b	*kerang* 'shell'.N	→	*kerang-kerangan* 'shells'.N-PL	
c	*warna*.colour.N	→	*warna-warni* 'many colours'.N-PL	Zamzani 1993: 49; Rumilah and Ibnu 2020
d	*ramah* 'kind hearthed'.ADJ	→	*ramah[-]tamah* 'hospitality'.ADJ/PRED	Zamzani 1993: 49
e	*serba* 'everything'	→	*serba-serbi* 'various kind'.ADV	Rumilah and Ibnu 2020: 81
f	*sayur*'vegetable'.N-SG	→	*sayur-mayur* 'vegetables'.N-PL	

However, Rumilah and Ibnu (2020) contended that a comprehensive account of reduplication is lacking; thus, consistent criteria for describing the many varieties of Indonesian reduplication remain lacking. In addition, a reduplication process involving phoneme modifications can be observed, where the phoneme -a (*warna*) is transformed into -i (*warni*), as demonstrated in examples (4c) (ibid. 204-205). These examples *warna-warni* and *ramah-tamah* consonant and/or vowel repeats referred to as a reduplication variant by Chaer (2014).

Conversely, certain types of reduplication, such as *sayur-mayur* 'a variety of vegetables', are referred to in different terms by scholars. Wijana (2018) referred to the word as sound change reduplication, reduplication with phoneme changes (Hafawati and Setiawan 2019; Rumilah and Ibnus 2020), and imitative reduplication (Sneddon 1996; Denistia and Baayen 2022), which refers to a particular form of reduplication as morphemic reduplication by Wijana (2018). In contrast, Marneti (2014) identified them as partial reduplication, which refers to a different process, including the use of affixes.

Pseudo-Reduplication

The fifth version of reduplication, highlighted by Zamzani (1993), includes instances of phonological reduplication mentioned by researchers such as Samsuri (1988), Keraf (1991), and Alisyahbana (1953). These examples include words, as in examples (5a)–(5h). This form of reduplication is referred to as *reduplikasi semu* 'pseudo-reduplication', and according to *Tata Bahasa Indonesia* 'Indonesian Standard Grammar' (2017), it is not condemned but rather acknowledged as a phenomenon that exists in Indonesian.

(5) *Reduplikasi semu* (pseudo-reduplication)

a	*susu* 'milk'		e	*kupu-kupu* 'butterfly'
b	*pipi* 'cheek'		f	*kura-kura* 'turtle'
c	*sisi* 'sister'		g	*biri-biri* 'sheep'
d	*kuku* 'nail'		h	*betutu* 'spicy Balinese dish'

Nevertheless, the fundamental structure of this phonological reduplication, which is observed in the present state, is absent in the subsequent instances: *papa 'father', mama 'mother', kuku* 'referring to nails', *biri-biri* 'referring to sheep', *kura-kura* 'referring to turtle', *kupu-kupu* 'referring to butterfly'. Indonesian linguists refer to

this form of reduplication as pseudo-reduplication (Samsuri 1988: 91 as noted from Rumilah and Ibnu 2020: 80).

Reduplication and Its Meaning Alteration

Some scholars have determined the term reduplication version by considering the process of word formation and meaning. Mintz's study (1994) on Indonesian reduplication revealed an intriguing perspective, distinguishing between noun reduplication, which conveys a plural meaning, and the non-reduplicated form, which can indicate both singular and plural. For instance, the term *pelabuhan* translates to 'harbour', whereas *pelabuhan-pelabuhan* refers to 'harbours'. Nevertheless, this is not true. The non-replicated version of the word can be regarded as either singular or plural, depending on its usage and context. The primary function of noun reduplication is to illustrate distinctiveness within a collective, as evidenced by examples (6) and (7). When utilizing non-reduplicated nouns, it is crucial to regard the referent as a singular entity. According to the source mentioned (ibid. 260), all Malay ports, regardless of their number, are treated as a collective entity, whereas individual ports are seen as part of a larger group. Mintz revealed that reduplication is intriguing, as it enables the identification of individual components inside a group, yet these components cannot be enumerated in the usual manner. If a reduplicated noun is used together with a numeral, such as in example (8), it must be pronounced in the following manner (ibid. 264):

(6) | *Singapura* | *menjadi* | *pelabuhan* | | *yang utama* | *di Asia Tenggara.* |
| Singapore | became | port.N | | the main | in Southeast Asia. |

      Singapore became the main port in Southeast Asia.

(7) | *Pedagang* | *dari* | *seluruh dunia* | *datang ke* | *pelabuhan Malaysia.* |
| Traders | from | all over the world | came to | Malaysian ports.PL |

      Traders from all over the world came to Malaysian ports.

(8) | *Dua* | *dari* | *kumpulan-kumpulan* | *orang asli.* |
| Two | from | the groups of.N.PL | aborigines |

      Two of the groups of aborigines.

While the term *kumpulan* is derived from the verb root *kumpul* and signifies the act of gathering, the noun *kumpulan* is derived by affixing the *suffix -an* to the root, resulting in a meaning of 'that which is brought together' or 'a group'. The noun is derived and subsequently duplicated: *kumpulan-kumpulan*. While the most prevalent kind of reduplication involves duplicating the root, there is another variant in which the root is first duplicated and then transformed into a noun by appending the suffix -an (Mintz 1994: 264-265).

Further, Chaer (2014) identified the semantic reduplication, which refers to synonymous reduplication as a linguistic phenomenon whereby the base form is repeated using synonyms. This type is a part of "reduplication by changing the phoneme in the form is repeated" (Kaharuddin, et al. 2023: 40). Conversely, the

given examples of synonymous reduplication by Kaharuddin et al. (2023) include *ilmu-pengetahuan, tutur-kata, yatim-piatu, akal-budi, adat-istiadat, asal-usul, alim-ulama, and hitam kelam.* These words refer to other types of reduplications, for example, sound changes such as *asal-usul* (cf. Hafawati and Setiawan 2019) and other examples given are presumably composites—that is, the combination of two words to form a new word (cf. Ramlan 2009 as noted from Rumilah and Ibnu 2020, see also Denistia and Baayen 2022).

According to Mintz's (1994) research, another form of reduplication might be referred to as imitative or rhyming. The word root undergoes reduplication, resulting in alterations to one or more of its vowels or consonants. The function of this is characterized as the process of individualizing within a collective. This form of reduplication is not currently generating new words. This implies that the speaker is unable to generate this repetition type, as explained earlier, but can only utilize the existing patterns, as demonstrated in the subsequent cases (9). When interrogative or investigative pronouns are reduplicated, they transform into indefinite pronouns. Furthermore, the phenomenon of reduplication can also be noticed with pronouns, as demonstrated in the following example (10) (bid.266-267).

(9)   *lauk pauk* 'various dishes'.N-PL
(10)a   *Siapa* 'who'
(10)b   *Siapa-siapa* 'whoever, anyone, or anyone person'
(10)c   *Tidak siapa-siapa* 'no one; no one person'

Further, each reduplication type has its own specific forms and differences in meaning implications (Rafi'ie et al. 2018). The Tata Bahasa Indonesia 'Indonesian Grammar Handbook' (2017) presents a contrasting viewpoint regarding reduplication interpretations in the Indonesian language. The handbook summarizes five meanings of reduplication: (1) Meaning refers to the act of **expressing an activity without a particular objective**. For instance, *duduk-duduk* 'sit' denotes the act of sitting down to discuss something without resolving a specific issue. (2) The interpretation refers to **a recurring or ongoing activity** that includes variations. For instance, *anak-anak yang berlari-lari di lapangan* 'children running around the field' depicts a continuous or repetitive act of running. (3) refers to **reciprocity**, such as the act of *bersalam-salaman,* which refers to shaking hands. Reciprocity-based actions, such as shaking hands, are denoted by it. This action entails a corresponding action. (4) **Meaning refers to something of great intensity**, such as *sesuatu yang porak-poranda* 'something that is completely demolished'. This indicates the level of force exerted in the action, leading to the outcome of either damaging or completely destroying the state. (5) Connotation refers to **the possessive form**, which indicates ownership or belonging. This significance is discovered in verbs that have undergone reduplication of their base and function as nouns. The typical connotation of the prefix ber- is that the root word is duplicated. For instance: *bercita-cita* 'to strive', *memiliki cita-cita* 'to possess aspirations'. The specific instances of reduplication in Indonesian and its semantics can be found in Table 2 below, as provided by Denistia and Baayen (2022).

Table 2: Reduplication and Its Semantics (Denistia and Baayen 2022)

Word formation	Base word	Base translation	Derived word	Word translation	Semantics
full	buku	book	buku-buku	books	plurality
	marah	angry	marah-marah	to be angry intensively	intensity
	dua	two	dua-dua	two by two	by group of X
imitative	sayur	vegetable	Sayur-mayur	vegetables	many kinds of X
	gerak	movement	gerak-gerik	various movement at the same time	many kinds of X
	kaya	rich	kaya-raya	extraordinarily rich	intensity
partial	laki	man	lelaki	man/men	plurality
	daun	leaf	dedaunan	foliage	plurality
	pohon	tree	pepohonan	trees	plurality
affixed	lihat	To see	melihat-lihat	to see around	casual action
	kuda	horse	kuda-kudaan	horse toy	imitation
	bantu	To help	bantu-membantu	to help each other	reciprocal
	kecil	small	mengecil-ngecilkan	to make something very small	intensity

Further, pronominal clitic forms exist, -ku, -mu, and -nya (Denistia and Baayen 2022: 6), also referred to as 'inflection' by Sato and McDonnell (2007: 365).

In essence, the prevailing consensus among scholars is that Indonesian reduplication is a morphological process, commonly known as a word construction process (Denistia and Baayan 2022; Kaharuddin et al. 2023) or the repetition of word structures (Habibi 2021). The scholarly discourse surrounding reduplication, as discussed by Kridalaksana in 1982 and cited by Rumilah and Ibnu in 2020, has sparked significant controversy about the relative significance of reduplication. Reduplication is the act of repeating units of speech as a means of phonological or grammatical expression, enabling the identification of both phonological and grammatical reduplication.

Some cases of identical reduplications exist but are classified differently by other scholars. Poedtjosoedarmo (1982) confirmed that certain derived words originate from Javanese, a regional language spoken in Indonesia. Javanese has had an impact on the practice of Indonesian reduplication. However, in formal Indonesian, reduplicated nouns are common, while in informal Indonesian, reduplicated adjectives are more common (Rafferty 2002). These cases require further investigation and explanation in the context of this article.

2.2   Cross-Linguistic Approaches to Handling Indonesian Reduplication

Jeffries (1998), as noted by Wang (2004), highlighted that the seven levels of language classification can be organized into three main layers (see Table 3). Historically, reduplication was mainly addressed within levels 1–3. Levels 1–6 can be considered for examining reduplication, but level 7 has been disregarded. The linguistic criteria identified by Wang can be used as a foundation for analyzing reduplication across different languages, especially studies related to Indonesian reduplication.

Table 3: Different levels of language model (Jeffries, 1998, in Wang 2004:510)

Units at each level				Language's Level
1	Sounds, which combine to make	phonology		Lexical level
2	Morphemes, which combine to make	morphology		
3	Words, which combine to make	lexis		
4	Phrases, which combine to make	syntax		Syntactical level
5	Clauses, which combine to make	syntax		
6	Sentences, which combine to make	syntax		
7	Texts, which combine to make	discourse		Contextual level

Hasan and Liaw (1994, as cited from Nian, et.al.2012: 68) categorized six morphological structures of reduplication in Bahasa Melayu as follows:
1. Full reduplication—*buku-buku* 'books', *orang-orang* 'people';
2. Rhythmic reduplication—*kuih-muih* 'cakes', *gunung-ganang* 'mountains';
3. Partial reduplication—*kekuda* 'trusses', *tetamu* 'visitor';
4. Insertion reduplication—-em- in the words *turun-temurun* 'descendants', *gilang-gemilang* 'brilliant';
5. Reduplication shown by root words that cannot be independent, except when they are reduplicated—*kura-kura* 'turtle', *sia-sia* 'vain';
6. Reduplication shown by the affixation process (prefix, inffix and suffix)—*berbual-bual* 'talking idly', *kehijau-hijauan* 'greenish' and *buah-buahan* 'fruits'.

However, reduplicative patterns involving three syllables are absent, as no prosodic units with a precise length of three syllables exist. Three-syllable shortenings are a type of Japanese loanword shortening, as mentioned by Itô (1990, in Urbanczyk 2017), and the same phenomenon assumably happens in Indonesian reduplication.
Prior research has utilized other forms of data as a corpus, such as song lyrics (e.g., Maryani 2021; Hafawati and Setiawan 2019), alongside the *Kamus Besar Bahasa* Indonesia 'Indonesian Dictionary Handbook' (2008, Pusat Bahasa cf. Sumarsih 2013; Wijana 2018). Thus, Kentner's taxonomy was used as the basis for some of the data identified in this study. However, some of the dataset obtained was also analyzed based on a cross-linguistic study of reduplication, as mentioned in section 2.2. The linguistic features of reduplication proposed by other language experts, referred to as 'cross-linguistic studies', were presumably parts of Kentner's taxonomy. Thus, both combined approaches could enrich the analysis of this study, which aims to fill the gap, answer some unclarified reduplications, and test all the study hypotheses.

2.3 Analysis of Reduplication from Kentner's Taxonomy Review

According to Kentner's (2017) concept, when a morphological base cannot be identified, such as in the case of the word "ma" in "mama," the segmental structure must be expanded to create at least one bimoraic foot for the word to be considered valid. This can be accomplished by multiplying by two. In addition, phonological doubling can be viewed as a strategy for fixing a problem that arises when the segmental definition of a morpheme is insufficient to create a minimum word on its own (Kirchner 2010 in Kentner 2017: 237).

Kentner's taxonomy makes three distinctions: i) words employed as lexical items (3-II); ii) structures beyond the word (3-III); and iii) syntactically autonomous (i.e. non-incorporated) interjections (3-I), as listed in Table 4 below.

Table 4: Reduplication Structure in German, Kentner (2017:236)

3		Reduplication Structures	
	I	Reduplication Interjections	
		(i) Restricted to paralinguistic use, violating word phonotactic principles ([ts.ts.ts]- sound marking disapproval	hahaha, hihi - laughter rattattattatta - imitation of machine gun
		(ii) Phonotatically legal (onomatopoeic) interjections without lexical base	*(dingdong - imitation of doorbell)* *Piffpaff - imitation of gun)*
	II	Reduplication forms used as lexical items	
		(i) no morphological base identifiable a. purely phonological doubling	mama, kuckkuck
		b. synchronically unrecoverable base	techtelmechtel
		(ii) with single morphological base: Rhyme and ablaut reduplication	Schickimicki, Krimkrams
		(iii) combination of two stems a. blends, compounds	Schnippschnapp Kindeskind
		b. identical constituent compounds	Reis-Reis
	III	Reduplicative phrases	
		(i) Frozen coordination	fix und foxi
		(ii) X- and -X- construction	teuer und teuer
		(iii) Lexical sequence	Sehr sehr schön, schnell schnell

3. Research Method and Corpus Data

3.1 Methods of Data Collection and Analysis

Corpora are digitally processed texts that can be analyzed and archived. Once constructed, they can be utilized in specific contexts by many researchers. A corpus needs to be accessible and available for research. A corpus must also be appropriate for addressing a specific research issue. These two requirements are not always met, though, as not all current corpora are accessible to the public or capable of providing

an opportunity for the researcher to address the research question. Therefore, planning and creating a corpus may be required (Ngula 2018), depending on the focus of each research project.

This study focuses on reduplication in Indonesian and utilizes various data sources, including literary examples, corpus texts obtained through the WebCorp application, collections of Indonesian songs, poems, and data from the Indonesian dictionary.

In addition, WebCorp provides the option to perform post-editing tasks, such as sorting the dataset by date or alphabet (Renouf and Kehoe 2006). Furthermore, the data extracted through Webcorp come from various sources (web links) that can be used as a search engine for linguistic corpus data (see Renouf and Kehoe 2006). Employing this web, words can be identified as reduplication or repetition from various links and sources, including (1) a link to online newspapers (e.g. kompas.com, liputan6.com), (2) publishers (e.g. de publish), and (3) educational magazines. The following keywords were used to search the corpus data via the WebCorp application (www.webcorp.org.uk): (1) *reduplikasi* 'reduplication', (2) *kata ulang* 'repetition word', (3) *kata ulang semu* 'pseudo-reduplication', (4) *contoh kata ulang* 'example of reduplication-repetition', and (5) *kata ulang murni* 'pure repetition'.

This data search aims not to measure the degree or quantity of reduplication but to document the process of word formation or reduplications. The WebCorp data yield identical reduplications seen on this website. To enhance the data through WebCorp and showcase its features, reduplication from song lyrics (cf. Maryani, 2021) and a collection of poems were gathered. Both song lyrics and poems were searched through a metasearch via Google with keywords *kumpulan lagu* 'song collection' and *kumpulan puisi* 'poems collection'. This allows for a more comprehensive data variants and analysis of reduplication in Indonesian. The curated data were utilized to verify the hypothesis and to identify further types of reduplication structures.

In analyzing reduplication, a qualitative research approach was employed for performing descriptive data analysis (cf. Rafi'ie et.al. 2018). The data analysis technique followed the three steps of analysis outlined by Kajitani (2005), combined with Nadarajan's (2006) study, which are (1) identifying reduplication data from sources; (2) populating the data table with the presence or absence of specific features related to word formation or reduplication, which were identified based on their cross-linguistic traits; (3) analyzing the examples from data corpus, and dictionary. To enhance reduplication data analyzability, these data were organized in alphabetical order along with their corresponding attributes (see Appendix A) and segmented into different linguistics features (see Appendix B to Appendix E) through the cross-linguistic perspective presented by Kentner (2017).

In addition, WebCorp data were categorized using the specified table of data, whereas the data from the texts (song lyrics and poem collection) were manually categorized based on the linguistic characteristics of reduplication, which are also in different tables of data identified. To prevent any misunderstanding regarding the significance and mechanism of reduplication, the Big Indonesian Dictionary, the official dictionary for Indonesian (The fourth edition of KBBI, Sugono 2008), was consulted to elucidate the fundamental words, word classes, and meaning of specific

terms. If some words do not occur in the official dictionary (pdf version), online dictionary (www.kbbi.web.id) was used to verify certain words, as in the search for the words of *kuda-kudaan* and *kuda-kuda*: <u>https://typoonline.com/kbbi/kuda-kudaan</u>.

However, to enrich the data on the existence of reduplication and understand its meanings, and to verify word classes of data in this research, the Big Indonesian Dictionary was also utilized as secondary data.

3.2 Materials

For an internal comparison within the dataset, the collected data were divided into four different subsets (data 1, 2, 3, 4), which are compared in this section of the analysis. The reduplication data occurring twice or more in the source of WebCorp was only recorded once (one word). The division of the datasets is shown as follows:

1 : a dataset with 333 reduplications from WebCorp, accessed on March 20, April 8, and during April 21–26, 2024. An additional dataset from WebCorp with certain words was attained by searching with specific words such as pronominal reduplication (if the word is nonexistent in the dictionaries)

2 : a dataset with 46 proportional reduplications from song lyrics collection, but with less data compared to the data from WebCorp

3 : a dataset with 57 proportional reduplications from poems collection, but with less data compared to the data from WebCorp

4 : a dataset with certain words from Indonesian Big Dictionary (henceforth BD), also verification words to compare and present the inexistence reduplications in the three datasets

Therefore, BD serves two functions in this research as it provides data and may be used as a tool for the analysis. Further, the annotations used for the datasets are Data 1. No. 100 (D.1.100), which is the data from WebCorp, and refers to an identified number of data, as well as Data 2. No. 10 (annotated as D.2.10), etc. Data 4, which is from the dictionary, is hereinafter referred to as BD, and the page number is mentioned (e.g. BD: 300). While the BD-provided PDF version is not completed (missing words with J and P alphabetical), data from the online dictionary (KBBI-online) is needed as a comprehensive source. The annotation for word classes uses Leipzig glossing rules (Lehmann 1982): Noun (N), adjective (ADJ), adverbial (ADV), verbs (PRED), pronoun (PRO), reduplication (R), singular (SG), plural (PL), and particle (PTL). Additionally, for the data not found in the dictionary, both PDF version and online are coded as CWM (creating [word]without meaning).

4. Results - Data from Corpora

Based on the literature reviews presented in Section (2), Indonesian linguists have identified a total of five versions of reduplication thus far: (1) full reduplication, (2) partial reduplication, (3) affixed reduplication, (4) reduplication with sound changes, and (5) pseudo-reduplication. All five have also appeared in the data collection described in Section 3. However, the different reduplicative forms in Indonesian must be segmented based on their linguistic features, such as word form process, additional word classes of reduplications, and their meaning. Further, the following

hypothesis may be tested: The processes and outcomes of word formation align with other linguistic features, such as phonology, semantics, lexis, and syntax, as posited by various scholars. This hypothesis can be answered by answering the question about how many different forms of word creation may be classified as reduplication?

Further, the aim of extracting data from corpora is to examine which word classes serve as base words in Indonesian reduplication (cf. Sneddon 1996), to analyze all types of affixes, and to determine if other features are relevant to the affixation process in Indonesian reduplication. Additionally, determining whether reduplicated words are used in official situations is interesting (documented in the dictionary). If these words are not official, they are not found in the official Indonesian dictionary and are subsequently used only in conversation. Such non-official types of words are marked with an asterisk **(*)** below, and if the base word belongs to the same word class as the reduplicated word with the same meaning, it is annotated with **=M**. A final issue to be investigated is how reduplication interacts with semantic processes in Indonesian word formation? The complete dataset can be found in Appendix (A)–(H).

Consider, now, the following examples, which are attested in the corpus as shown in the example of Table 5-9 below:

Table 5: Examples of Indonesian reduplication analyzed using Kentner's (2017) taxonomy as attested in the corpus.

Group	Base Word		Derived Word	Translation
a	-		*anai-anai*	termites
	-		*biri-biri*	sheep
	-		*kupu-kupu*	butterfly
	-		*gado-gado*	mixed vegetables with peanut sauce
	-		*mondar-mandir*	Back and forth
	-		*pontang-panting*	scattered everywhere
b	-		*kuku*	nail
	-		*pipi*	cheek
			sisi	side
	-		*bidadari*	angel
c	-		*ubun-ubunnya*	his/her part of the head
d	*segar* 'fresh'	→	*segar bugar*=M	healthy and fresh
e	*kuku* 'nails'	→	*kuku kaki*	toe nails
	mau 'want'	→	*maumu begini-maumu begitu*	you want this, you want that
f	*sinar* 'ray'	→	*sinar-seminar** *sinar-menyinar*	ray seminar 'excellent seminar' 'shine on each other'

Table 6: Examples of Indonesian reduplication from different word classes as attested in the corpus.

Word class	Base word	Base word Translation	Reduplication word	RED.Translation
Adjective	*Diam*	silent	*diam-diam*.ADV	quietly
Adverbs	*bukan*	not.ADV	*bukan-bukan*.ADJ	No, no; impossible
Nouns	*anjing*	dog.N.SG	*anjing-anjing*.N-PL	dogs
Numerals	*lima*	five	*lima-lima*.NUM	five by five
Particles	*agar*	to/so	*agar-agar*.N	gelatin
	kadang	sometimes	*kadang-kadang*.ADV	sometimes
Pronouns	*kita*	us	*kita-kita*.PRO	all of us
	apa	what	*apa-apa*.N	everything
Verbs	*duduk*	sit	*duduk-duduk*.PRED	

Table 7: Examples of Indonesian reduplication with sound changes, as attested in the corpus

	Base Word		Derived Word	Derived Word Translation	Data Source
a	*sayur* 'vegetable'.N	→	*sayur-mayur*.N-PL	many kinds of vegetables	D.1.248
b	*tali* 'rope'.N	→	*tali-mali**	CWM (nonce word, creating without meaning)	D.1.296
			tali-temali =M	various kind of ropes	D.1.304
			tali-tali.N-PL	ropes	BD.p.1425
			tali-bertali.PRED	has something to do with it	BD.p.1424
			bertali-tali.PRED	continuing	BD.p.1424; https://kbbi.web.id/tali
			tali-menali.PRED	interrelating	BD.p.1424

Table 8: Patterns of Indonesian reduplication with affixess as attested in the corpus

Prefix *ber-* →	*-ber-RED+an (*berlari-larian*), ber-RED (*berlari-lari*), ber-RED.SC* (*beranak-pinak*)
Prefix *me-* →	*MeN-RED (*mendorong-dorong*), Meng-RED (*Mengulur-ulur*), Mem-RED (*membeli-beli*), Me-RED (*melihat-lihat*),* Men-RED +an (*menjelek-jelekan*), Meng-R+an (*menguat-nguatkan*), *Prefix* Me-R+clitic-I (*memata-matai*), base word+Prefix -me+RED (*pukul-memuku*l), and base word +Prefix -me+RED+an (*maaf-memaafkan*)
Prefix *per-* →	*pertama* 'first' appears such as a prefix, but not prefix; Prefix per-RED (*perlahan-lahan*)

Prefix s*e-* →	Prefix -se-RED (*sehari-hari*), Prefix -se-RED+an (*sehari-harian*), Prefix -se-RED+nya (*setinggi-tingginya*)
Prefix di- →	Prefix di-RED (*dibawa-bawa*), di+per-RED+an (*diperkira-kirakan*)
Prefix k*e-* →	Prefix ke-RED (*kemana-mana*), ke-RED+nya (*kedua-duany*a), Prefix -ke-RED+an (*kemerah-merahan*)
Prefix t*er-* →	Prefix -ter-RED (*tertawa-tawa*)
	Ku-RED (*kuulang-ulang*)
Suffix -*an, -nya, -ku, -mu* →	Full RED+ suffix -an (*besar-besaran*), Full RED +nya (*anak-anaknya*), Full RED +ku (*cita-citaku*), and Full RED +mu (*bayang-bayangmu*)

Table 9: Examples of Indonesian reduplication, which reflects various meanings as attested in the corpus.

RED.	Base Word		Derived Word	Semantic Features
full	*panas* 'hot'.ADJ	→	*panas-panas* 'hot'	Synonym
	jauh 'far'.ADJ	→	*jauh-jauh* 'far away ADV	Synonym
	cara 'way'.N.SG	→	*cara-cara* 'ways'.N-PL	Plurality, quantities
	besar 'big, great'.ADJ	→	*besar-besar**'big, great'	Meaning of circumstance
	pulang 'go home'.PRED	→	*pulang-pulang** 'go home'	Meaning of time
	tinggi 'high'.ADJ	→	*tinggi-tinggi** 'up high'	Identifying comparative, superlative
	duduk 'sit'	→	*duduk-duduk* 'sit around'	Activity without objective
partial	*pohon* 'tree.N	→	*pepohonan*'trees'.N-PL	Plurality, quantities
	daun 'leaf'.N-SG	→	*dedaunan* 'various leafs'N-PL	Plurality, but in various things
imitative*/Ph.Ch	*lauk* 'dish'.N-SG	→	*lauk-pauk* 'various side dish.N-PL	Plurality, but in various things
	*kacau 'chaotic'*ADJ		*kacau-balau* 'messed up'	Intensity
full	mobil 'car'N-SG	→	*mobil-mobil* 'cars'.N-PL	Plurality, quantities
affixed	mobil 'car'N-SG	→	*mobil-mobilan* 'toy cars'.N	Identifying something similar /imitate
	anak'child'.N	→	*anak-anakan* 'child imitation'/doll'.N	Identifying something similar/imitate
	buah 'fruit'.N-SG	→	*buah-buahan* 'fruits'N-PL	Plurality, but in various things
	salam 'regard'.N	→	*bersalam-salaman* 'shaking hands'.PRED	Reciprocal event
	peluk 'hug'.PRED	→	berpeluk-pelukan 'hugging each other'.PRED	Reciprocal event
	puluh 'tens'.N	→	*berpuluh-puluh* 'dozens'.NUM	Identified numerical
	ratus 'hundred'.N	→	*beratus-ratus* 'hundreds'.NUM	Identified numerical
	lihat 'see, to look'.PRED	→	*melihat-lihat* 'looking at things casually'.PRED	Casual event
	cita 'mind'.N	→	*cita-citaku* 'my dreams'.N-	Expressing possesive

	POSS		
memukul 'hit'.PRED	→	*memukul-mukul* 'hit repeatedly'	Expressing event repeatedly
rendah 'low'.ADJ	→	*serendah-rendahnya* 'as low as possible'	Identifying comparative, superlative
tiga 'three'.NUM	→	*ketiga-tiganya* 'all three'.NUM	Identifying collective
hitam 'black'.N	→	kehitam-hitaman 'slightly black'.ADJ	Expressing somewhat (quite) of
lari 'run'.PRED	→	*berlari-larian* 'running around playfully'.PRED	Expressing ongoing activity

5. Analysis

5.1 Morphophonological Reduplication versus Compounding

The examples show that a reduplicated word can be derived from different word classes, such as adverbs, verbs, and adjectives. Even some word forms are considered reduplication by linguists, but this might not involve a reduplication based on a simple rule; namely, reduplications are written with a hyphen (cf. Dyen 1967).

Thus, this section begins with the analysis of certain words from corpora that Kentner's Taxonomy can be applied. In analyzing the examples in Table 5, the notion and structure of Kentner's taxonomy about rhyme-reduplication is inappropriate in use to all examples because his identification of rhyme refers to suffix-reduplication, regardless of whether it is a one-syllable base, a two-syllable base, or whether it can be attested as a prefixing reduplicate (cf. Kentner 2017: 245). Because affixes (prefixes, infixes, and suffixes) in Indonesian have a proportional form (cf. Sneddon 1996; Chaer 2014), they can easily be identified as prefixes, suffixes, or infixes. In rhyme reduplication, however, phonological constraints co-determine the base and reduplicate sequencing (Kentner 2017: 246).

In contrast, the approach of morphological structures of reduplication, particularly the 5th reduplication by Hasan and Liaw (1994, here cited from Nian 2012), can be applied. This approach refers to reduplication manifested by root words that cannot be independent unless they are reduplicated. However, these words, like *mondar-mandir* and *tunggang-langgang* are noted in BD. The word form *mondar-mandir* 'walking to and fro' is identified as a verb (cf. BD: 968)*,* while *mandir* has no independent meaning, yet BD purposes to understand its reduplication form (cf. BD: 912)*.* Further, *tunggang-langgang* 'turning around' serves as an adverb, and *tunggang* 'tipped over', 'upside down' as a verb *(cf. BD: 1565).*

Additionally, both word forms *mondar-mandir* and *tunggang-langgang* were found in the data corpus, D.1.176 and D.1.321, respectively. These examples are often used in different linguistic literature on reduplication. These words can be considered reduplication with sound changes due to the morphophonology process, including the sound changes, /o/ changes to /a/ in *mondar- mandir*, which also express the intensity of the events repeatedly.

Other forms such as *pipi, kuku,* and *sisi* (Table 5b) can also follow the pattern of phonological doubling, as illustrated by Kentner's example *mama*. The difference

is that the first group of words involves stem doubling (5a), while the second group involves phonological doubling (5b), where no morphological base can be identified, such as 'pi-pi' becoming the legitimate word *pipi* and producing meaning. The question is whether these words belong to partial reduplication or pseudo-reduplication. However, certain rules exclude these from being considered reduplication, as reduplication involves a reduplicative word base, and partial reduplication refers to the repeated syllable of a word, e.g. *laki* becoming *lelaki* (cf. Kaharuddin et al. 2023).

In contrast, pseudo-reduplication is inappropriate because phonologically or morphologically, *pi* cannot be separated until it becomes *pipi* and has meaning. The same arguments can also be applied to all the words in Table 5 (b). While the word in example (c) is formed with the clitic *nya*. However, it cannot be identified whether the first or the second word is the base—that is, which one is being reduplicated. Yet, these word forms (a and c), both after being reduplicated or when separated, entail no meaning.

Further, for other reduplication forms questioned by Chaer (2014: 184), as shown from corpora such as *segar bugar* (Table 5d), the issue arises whether these are sound-changing reduplication forms or compositional forms. According to Kentner's taxonomy, they should be strictly categorized as compounds. Even though examples like "Kindeskind" in German are classified as recursive compounds (cf. Kentner, 2017: 239) and cannot be directly compared to Indonesian, they present "iterating phonological material" and semantically consist of two "identical stems" (ibid. 239) in meaning. Kentner's argument can be accepted to categorize *segar bugar* as no reduplication. Moreover, reduplication is written with a hyphen, so another simple rule argument is sufficient to establish that the word is not reduplication but compound. The other word group in Table 5 (e- and f) shows some examples of data which can be analyzed using Kentner's taxonomy like *kuku kaki* 'toenails' is a compound, and *maumu begini maumu begitu* 'you want this you want that' is a phrase (see also Denistia and Bayaan (2022). However, the example of *sinar-seminar* 'rays seminar' is not written in the dictionary, thus must be analyzed based on the context of use (cf. Jeffries 1998, as noted from Wang 2004).

Table 6 shows that Indonesian reduplication can be formed from different word classes. Meanwhile, Sneddon's (1996) finding encompassed six-word classes (nouns, verbs, adjectives, numbers, adverbs, and pronouns), missing the word classes of particles. This particle is not productive, and to the best of my knowledge, it does not appear in official written text but most in daily conversation. Interestingly, the following examples of data confirm that reduplication in Indonesian is formed in all seven-word classes, especially numbers, which can be formed in different ways: it can be reduplicated by its word base, also with affixes (prefix *-ber*, *-ke* and suffix *-an*, *-nya*) as shown in the following examples (11), but these are rarely explained in the literature.

(11)	Pattern	Base word	Derived word/RED
a	*Dua*-R	*Dua* 'two'.NUM	*Dua-dua* 'Two by two'NUM
b	*Dua*-R+an		*Dua-duaan* 'just the two of us'.PRED
c	*Dua*-R+nya		*Dua-duanya* 'both of them'.NUM
d	Prefix ber-R		*Berdua-dua* 'always together'PRED
e	Prefix ke-R+nya		*Kedua-duanya* 'both of them'

The examples in Table (7) show reduplication with sound changes, identified by scholars as phoneme changes. These can be categorized as reduplication, with sound changes from morphophonological features. However, not all word bases are independent, and words written without hyphens cannot be considered true reduplications. WebCorp's data shows the words as reduplication, but BD, an official dictionary does not note it as reduplication, suggesting that it must be used as a tool to determine a reduplication.

The reduplication of *sayur-mayur* (Table 7) based on Kentner's taxonomy can be categorized as 'onomatopoeic words' due to one word 'sayur' reduplicated to become *sayur-mayur* to make a name of a collection of *sayur* 'vegetable' and its meaning changes to a variety of vegetables. This word *mayur* referred to the same meaning as *sayur* (BD: 931). Therefore, this form of reduplication in Indonesian is phonological reduplication, which is a phoneme repeated without changing the meaning of the base word of *sayur*. The reduplication *sayur-sayuran* (Data 1.250) has the same meaning as *sayur-mayur*, but both refer to a plurality of 'many vegetables'. This reduplication has been identified in different terms, such as imitative reduplication (Sneddon 1996; Denistia and Baayen 2022). I refer to this type of reduplication as described by Wijana (2018), who identifies it as sound change reduplication, or reduplication with phoneme changes (Hafawati and Setiawan 2019; Rumilah and Ibnus 2020).

Furthermore, the phoneme changes /t/ to become /m/, for instance, *tali –> tali-mali*, *mali* cannot be found in the official dictionary (CWM), or can be interpreted as a word that does not contribute semantically. However, the finding word is *mali-mali* 'small plants' (BD: 907). In line with the previous form of *sayur-mayu*r, the word *tali-temali* has the same process of sound change. However, if one word is separated, e.g. *temali,* refers to as *tali*. In other words, *temali* has the same meaning as *tali* (BD: 1424). BD noted *tali-temali* has two meanings: (1) about ropes, and (2) different kinds of ropes. Additionally, it expresses plurality, while reduplication from *tali-tali* is referred to as a plant with beautiful flowers. Notably, as an informal meaning, *tali-tali* can be interpreted as plurality. Example (Table 7)b confirmed that the morphophonological process of reduplication in Indonesian can vary, from sound change, and affixed (prefix *-ber*) and inflection *-te* and *-me*. However, a reduplicant can be created without meaning, for example *tali-mali*.

5.2 **Morphophonology versus Reduplication with Affixes in Indonesian**
Table 8 shows that the reduplication with affixes can be found in different affixes in Indonesian. Some affixes, such as prefix *me-*, can be transformed to sound changes in other forms of *MeN, MeNG*. These affixes have been found in the work of some scholars (e.g. Sneddon 1996; Kaharuddin et al. 2023), but the pattern of affixes should be explained more comprehensively and clearly with specific examples.

Thus, the data shows the morphological process and the need for a differentiated understanding of how reduplication works in different linguistic contexts. Notably, in the morphological process, reduplication with the prefix *ber-* can be added not only to verbal bases, as Sato and MCdonnel (2007) illustrated, but also to nouns and adjectives. Additionally, there are reduplications involving a base word and the prefix *ber-* with sound changes, as shown in the example *beranak-pinak.* If the words are decomposed between the prefix *me* and its variants

+reduplication, then the root element needs to be placed correctly. For example, the word *meniru-niru* can be deciphered as the base form of the word *meniru*, but if the process of forming the word is deciphered, then the origin of the word must be deciphered from the base word *tiru* to which the initial/prefix *me* is added to turn into the word *meniru*. Hence, the reduplicated process becomes *meniru-niru*.

Therefore, some scholars identified such reduplication as 'sound change reduplication' (cf. Marneti 2014); Rumilah and Ibnu (2020), and some other scholars identified it as imitative reduplication (cf. Sneddon 1996; Denistia and Baayan 2022). Kentner's taxonomy can be applied to this word form as a single morphological base of rhyme reduplication. Further, Table 8 identifies additional prefix-reduplicated bases, such as those prefixed with *per-*, which are reduplicated with the full base form. The *per-* prefix combined with the base form results in full reduplication, indicating nominal plurals. There are also examples of repetition with the prefixes *se-* and *di-*, involving reduplication of the full base. Additionally, there are instances of reduplication with the prefix *se-* plus the clitic *-nya*, and with the clitic *-ku* as taken from the data are shown in the following examples *cita-citaku* 'my vision' and *teman-temanku* 'my friends', in which *-ku* refers to possessive.

An interesting finding, not previously discussed by linguists, is that some reduplications retain the same meaning between the base word and the word after the affixation process: for example *terbahak-bahak* 'laughing with a loud voice'. In addition, the dictionary suggests looking at the meaning of the base word. Some reduplications are not found in the dictionary, such as *masak-memasak* 'cooking', *ditusuk-tusuk* 'stabbing', *kemana-mana* 'everywhere'. As a native speaker, I can confirm that these reduplications are productively used in both conversational and written language, warranting further research.

5.3 Semantics - Meaning Alternation
Table 9 provides examples of Indonesian reduplication, which identifies varying meanings as attested in the Corpus. For example, Table 9 (c) shows the morphophonological process, the word is repeated with the same word base, partial (two syllables), sound change, and affixes.

Hence, this extract has different meanings, which were also shown in the data corpus. Some generalizations of the semantic features of Indonesian reduplication were identified as follows: (1) repetitions with similar meanings, (2) repetitions with plural meaning, (3) repetitions with mutual meaning or reciprocal, (4) repetitions with collective, (5) numerical meaning, (6) repetition meaning ongoing activity, (7) repetitions reflecting circumstances, and (8) repetitions with comparative–superlative meaning. Additionally, one word can be reduplicated in some ways, and it changes its meaning. For instance, *mobil* 'car' to be *mobil-mobil* 'cars' as plurality meaning, but it can be reduplicated with affixes -an to become *mobil-mobilan* 'toy cars', referring to the imitative meaning of cars. Meanwhile, affixed reduplication creates more varied meanings, compared to the findings of *Tata Bahasa Indonesia* (2017), and Denistia and Bayaan (2022 in Table 2).

However, based on all the identified data and a comparative analysis of previous studies, some disregarded reduplications should also be considered. Some scholars have identified these words as reduplication with sound changes, as clarified by some scholars in Section 2. This should follow Kentner's taxonomy of

lexical items concerning the "synchronically unrecoverable base," such as "Techtelmechtel" (Kentner 2017:236), where the morphophonological forms presumably arise from sound or phoneme changes. Although some scholars have identified this form as affixed reduplication (see Section 2), lexical identity extracts its meaning through that formation. In this case, *mahasiswa-mahasiswi* 'students' identified its meaning as students, male and female, as shown in the following examples (12)–(15) below:

(12)	*mahasiswa-mahasiswi*	students (male-female) at university
(13)	*siswa-siswa*	many students (does not specify, male or female)
(14)	*siswa-siswi*	students (male-female) at schools
(15)	*saudara-saudari*	people who are related

Additionally, the form of a repeated word has relatively little bearing on its meaning but identifies gender between male and female. A rephrase is a form in which a word that is essentially a base word is repeated. However, it has no further explanation of what semantic features are. Hence, this forms as repetition that identifies gender differences between males and females, for example, mahasiswa (male - student) and mahasiswi (female -student). This form and its meaning have not been found in any reduplication literature. The morphological process can be explained as the affix -*wan* mark the male gender, while the female gender is expressed with the affix -*wati*. These words can be proven through a search of WebCorps (see Appendix H).

The difference with stem repetition, such as *siswa-siswa* 'students', is the identification of plurality but not gender. Conversely, *siswa-siswi* means 'students' and reveals plurality, which means many students, but it also identifies gender between students male and female. These word formations are more frequently used in oral speech, especially at the beginning of a speech, in which the audience will be addressed *saudara-saudari,* which refers to ladies and gentlemen, but the gentlemen are addressed first and ladies after. The pragmatic aspect refers to all the audiences who attend the event.

The pattern in Figure 1 illustrates that reduplication in morphophonology is formed with sound changes -a and i-. Semantically, this change shifts the meaning from a male to a female student. This pattern is depicted in Figure 2 as follows:
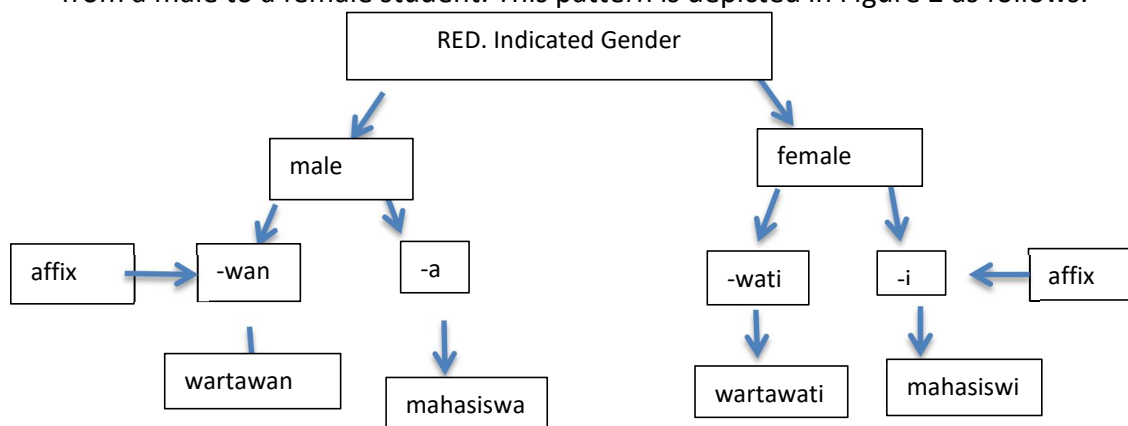

Figure 1: The pattern of reduplication with sound change, which identifies gender

6. General Discussion

The previous section combines Kentner's taxonomy with a cross-linguistic approach to analyzing Indonesian reduplication. This analysis treats reduplication in Indonesian not only as a morphological process, as most scholars claim, but also considers other linguistic phenomena that occur within various linguistic features.

Accordingly, reduplication in Indonesian is shown in all seven-word classes, as reported by the BD, about the sum of word classes, without assuming a specific reduplication or morphological process that has so far disregarded reduplication (nonexistence).

To sum up the most important points, most reduplications originate from nouns rather than from other word classes (cf. Hafawati and Setiawan 2019). Further, in Indonesian, the reduplicants of base words are productive and can be formed for all nouns, as in the example mentioned in Table 9—*cara-cara* 'ways'. The study data also shows that reduplication with the prefix *me-* and *ber-* is more productive as well as with the prefix *-pe* (see Appendix D). Although this study does not aim to measure the frequency or productivity of reduplications, the data (Appendix A) clearly show this.

However, it is clear from the morphological process that this type of full reduplication is formed from the word base and reduplicates the same word as its word base, but it can also be formed from its root, phrase, or affixes. This kind of process can be compared to the patterns confirmed by Urbanczyk (2017) that total reduplication involves repeating a word, phrase, stem, or root in its entirety; as a result, the size and structure of the repeated unit change. Further, the corpora show full reduplication in Indonesian is derived from base words, both with and without affixes (cf. Mangga 2018). For example, the prefix *-per*, as in *peraturan-peraturan* 'rules', comes from the base word *atur* 'set', combined with the prefix *-per* and the suffix *-an.* Another example is *pendapat-pendapat* 'opinions', derived from the base word *dapat* 'get' with the addition of the prefix *-pen*. Therefore, this complete reduplication process can be categorized into two groups: a simple and complex process, which is simple when it reduplicates only the base words, and complex when it is formed with an affixed process. In this case, this corroborates the results of Mangga (2018), as the author identified both features of full reduplication.

Additionally, reduplications with affixes are also considered partial reduplication (cf. Marneti 2014). In this context, I refer to other scholars who classify these as affixed reduplications, involving the placement of affixes alongside the reduplicated base. The reduplications with affixed morphemes are supposed to be categorized as one type of reduplication, called reduplication with affixed, or affixed reduplication, whether it is derived by prefix, suffix, or infix. The three types of affixed processes in Indonesian morphology are recognizable. For example, there are different prefixes, e.g. prefix *-ber*, in *berlari-lari* with the base word *lari*, or there are both prefixes and suffixes in the reduplication process, e.g. prefix *-ber* and suffix *-an* in the word forms of *berlari-larian* (*ber+lari*-RED+*an*). For words with an infixed process, it could not be argued in more detail whether the reduplication, such as *masak-**me**masak* can be considered an infixed-derived word (*masak* + prefix *-me* +RED), or whether *-me* in *memasak* can be accepted as an infix between the base word and the reduplicant due to the hyphenated reduplicant. In Indonesian, however, *-me* is known as a prefix, so the form should be answered as an affixed

reduplication with prefix *-me*. Additionally, some reduplications resemble those with affixes but are not actually affixed (cf. Mintz 1994).

Furthermore, the reduplication process can be interpreted as a cross-linguistic process, as it changes the sound, changes the word forms, and forms a different meaning. In other words, when the morphological process changes a one- or two-syllable morpheme or a word derived from an affix, and when it is pronounced, its sound changes as in a phonological process. In this case, the corpus data revealed that, for instance, an affixed reduplication of *memuji-memuja*, or *beranak-pinak* can be formed to be reduplication with sound changes, but the affixes in Indonesian are identified and thus must be explained as reduplication with affixes.

Notably, most reduplications change their meaning, and some are not used in formal situations but rather in local languages such as Javanese (cf. Poedjosoedarmo 1982). Moreover, some reduplications derive their meaning from the word base while others derive their meaning from the context of use as the BD provides a different meaning of reduplications.

Additionally, Indonesian linguists confirmed another type of reduplication, which is called 'pseudo-reduplication (e.g. Alisjabahna, in Chaer 2014), in which, for example, *mondar-mandir*, or other forms, when separated have no own meaning. Thus, recognizing whether Kentner's taxonomy of rhyme reduplication is appropriate for analyzing such words becomes difficult: Kentner's refers to these as compounds (see Kentner 2017: 238 - 239), but when written with a hyphen, it can be referred to as pseudo-reduplication as Indonesian linguists identified this.

Several aspects of reduplication reflecting the 'contextual level' mentioned by Jeffries (1998, in Wang 2004) have been disregarded. This aspect presents an intriguing prospect for future studies. Nevertheless, data analysis on reduplication provides some clues: The avoidance of complex onsets and the bias toward types of reduplication such as differences between the sound changes and partial reduplication and in which context it is used when the word form does not appear in the dictionary or is noticed. For example, *ayang-ayangku* and *bete-bete, which reduplication* form of *ayang-ayangku* derives from the base word *sayang* 'love' and the reduplicant *sayang-sayang*, plus the clitic *-ku* means 'my' refers to as possessive or genitive. This reduplication comes from the data of song lyrics and is used in informal situations as 'prokem' language by young people, but it can also be used as a metaphoric phrase to express 'my lover'. While *bete-bete* comes from the local Javanese language, the researcher has also found this word in the dialogs of the TV series, where the expert feels that the speaker finds something 'boring'.

Kentner's taxonomy is appropriate to analyze the reduplication features, which are not explained by Indonesian linguists such as the analysis of morphophonology process and reduplicative forms used as lexical items such as "phonological doubling' (Kentner 2017: 236) in this study.

7. Conclusion

Based on the data in the findings and analysis sections, some generalizations of the features of reduplication in Indonesian can be formulated as follows:

a) Reduplications are written with hyphens as a simple rule; those that are not written with hyphens are not considered reduplications and can be accepted as forms of compounds.

b) A word can be reduplicated in some ways, and it changes meaning: For instance, *mobil* 'car' to be *mobil-mobil* 'cars' a plurality meaning, but it can be reduplicated with an affix -an to become *mobil-mobilan* 'toy cars', referring to the imitative meaning of cars.

c) The reduplicant is semantically synonymous with the base word. The base word (left) detects the reduplicant (right) word meaning, or at least both have the same meaning, and some have distinct meanings.

d) Certain words appear to be reduplicated in sound but lack a root word. This type can be categorized as rhyme reduplication as the pattern made by Kentner, also reinforced by Mintz (1994).

From the word formations based on corpus data, it can be summarized that reduplications in Indonesian must be analyzed from a cross-linguistic perspective because its forms are extracted not only morphologically but also phonologically, lexically, syntactically, and even more can be explained in a form of discourse or contextual level (cf. Jeffries, 1998 in Wang 2004). Further, the debate between linguists on the categorization of partial reduplication, affixation and sound change can be solved with a clear definition of morphophonology and affixation in Indonesian.

This article presents the discovery of new features of reduplications, such as the various ways numerical forms can be created. However, Indonesian reduplication can be applied not only to six different word classes (cf. Sneddon 1996; Lander 2003) but also to particles. In addition, the research results confirmed that reduplications with sound changes from -a to -i such as *warna-warni*, as identified by some scholars (e.g. Denistia and Baayan 2022), can be examined more closely in many other reduplications that exhibit these meaning differences between masculine and feminine gender, such as *mahasiswa-mahasiswi, siswa-siswi*. Otherwise, both reduplications can be pragmatically interpreted: if people say *mahasiswa-mahasiswi*, it means students at university, but if people say *siswa-siswi*, it refers to students at schools. These forms are not found in any other literature on reduplication with measurement of its wide meaning and have only been identified as reduplication with phoneme changes.

Notably, this article's strength lies in its use of various data sources. However, it is limited by the exclusion of more examples due to page constraints. Therefore, more extensive research is suggested to spur a comprehensive book on the progress of reduplication in Indonesian and its cross-linguistic features.

References:

Alek, M. 2018. *Linguistik Umum*. Jakarta: Erlangga.

Chaer, Abdul. 2014. *Linguistik Umum*. (4th edition) Jakarta: Rineka Cipta.

Dairabekova, G.K, Zabrodskaja, A.N. & Igilikova, S.I. 2022. *Reduplication in the English Word-Formation System*. *IRSTI* 16.21.21.

Denistia, Karlina & Baayen R Harald. 2022. *The morphology of Indonesian: Data and quantitative modeling*. In: Routledge handbook of Asian linguistics. London: Routledge.

Hossep, Dolatian & Jeffrey, Heinz. 2019. *RedTyp: A Database of Reduplication with Computational Models.* In Proceedings of the Society for Computation in Linguistics (SCiL) 3:8–18.

Dolatian, Hossep. & Heinz, Jeffrey. (2019)b. *Learning reduplication with 2-way finite-state transducers.* In Proceedings of Machine Learning Research 93:67-80

Dyen, Isidore. 1967. *A Descriptive Indonesian Grammar.* Preliminary Edition. New Hafen: Yale University.

Hafawati, Anis & Setiawan Teguh. *Reduplication Comparison of Indonesian and Asli Rawa Language.* In Proceeding International Conference on Interdisciplinary Language, Literature and Education (ICILLE 2018). *Atlantis Press* 297:22-26

Habibi, Akhmad Wildan. 2021. *The Comparative Study of Reduplication Between English and Indonesian Language*. Edulitics Journal 6(1):7-13.

Kaharuddin, Asriani Abbas, Hasjim Munira & Armin Mardi Adi. 2023. *Formation Rules for Indonesian Nouns Reduplication* (Generative Morphology Review). ELS Journal on Interdisciplinary Studies in Humanities 6(2):397-408.

Kajitani, Motomi. 2005. Semantic Properties of Reduplication among the World's Languages. *In Proceedings of WIGL* 93-106.

Kentner, Gerrit. 2017. On the emergence of reduplication in German morphophonology. *Zeitschrift fur Sprachwissenschaft.* De Gruyter Mouton 36(2):233–277.

Lander, Y. A. 2003. *Nominal reduplication in Indonesian challenging the   theory   of grammatical change*. In Book of Papers of The 7th International Symposium on Malay/Indonesian Linguistics. Nijmegen: *IIAS*.

Mangga, Stephanus. 2018. *Comparison of nouns reduplication in Indonesian and Japanese language.* English Review: Journal of English Education 6(2): 19-26.

Marnetti. 2014. *Reduplikasi dan Maknanya Dalam Novel Jamal Jamilah Karya Kampau*. Madah 5(2):199-207.

Maryani, Zulish. 2021. *Reduplikasi Berbahasa Indonesia Dalam Lirik Lagu Jawa Kontemporer.* EPIGRAM(e-Journal) *18*(2):117-123.

Mintz, Malcolm W. 1994. *A student's grammar of Malay and Indonesian*. Singapore: EPB Publishers.

Moeliono Anton M, Lapoliwa Hans, Alwi Hasan, Sasangka Sry Satrya Tjatur Wisnus, & Sugiyono. 2017. *Tata Bahasa Baku Bahasa Indonesia*. (4th edition). Badan Pengembangan dan Pembinaan Bahasa, Kementerian Pendidikan dan Kebudayaan. Jakarta: Kementerian Pendidikan dan Kebudayaan.

Nadarajan, Shanti. 2006. *A Crosslinguistic Study of Reduplication*. Arizona Working Papers in SLAT–13:39-53.

Nian, Ong Shyi, Jubilado Rodney C, Dumanig Francisco Perlas & Noor Ahmad Hilmi Mohd. 2012. *A Contrastive Analysis of the Reduplication Process in Bahasa Melayu and Japanese.* Polyglossia 22: 67-71.

Poedjosoedarmo, Soepomo. 1982. *Javanese Influence On Indonesian: Materials In Languages of Indonesia*. Pacific Linguistics D(38). Research School of Pacific Studies. The Australian National University.

Puspani, Ida Ayu Made & Indrawati Ni Luh Ketut Mas. 2021. *Challenges in translating Indonesian reduplication into English*. Journal of Language and Linguistic Studies, 17(4):1973-1983.

Rafferty, Ellen. 2002. *Reduplication of nouns and adjectives in Indonesian*. In Southeast Asian Linguistics Society (Sealang):317-332.

Rafi'ie, Muhammad, Pastika I Wayan & Malini, Ni Luh Nyoman Seri. 2018. *Types of Indonesian Reduplication as The Translation Equivalence of English Lexicons*. Linguistika 48(25):15-25.

Renouf, Antoinette & Kehoe Andrew. 2006. *The Changing Face of Corpus Linguistics.* Amsterdam: Rodopi. 297-307.

Rumilah, Siti & Cahyani Ibnu. 2020. *Struktur Bahasa: Pembentukan Kata dan Morfem Sebagai Proses Morfemis Dan Morfofonemik Dalam Bahasa Indonesia*. Jurnal Pendidikan Bahasa Indonesia. Pbsi 8(1):70-81.

Sato, Yosuke & MCdonnell Bradley. 2007. *Reduplication in Indonesian and the Lexicalist Hypothesis.* Berkeley Linguistics Society and the Linguistic Society of America. BLS 33(1):365-372.

Simatupang, M.D.S. 1983. *Reduplikasi Morfemis Bahasa Indonesia.* Jakarta: Djambatan.

Sneddon, James Neil. 1996. *Indonesian: A Comprehensive Grammar*. London: Routledge.

Sugono, Dendy et al. 2008. *Kamus Bahasa Indonesia*. Jakarta: Pusat Bahasa.

Sumarsih, Nanik. 2013.*Tipe-Tipe Reduplikasi Semantis Bahasa Indonesia: Kajian Bentuk dan Makna*. Widyapanfl 41(1):81-90.

Urbanczyk, Suzanne. 2017. Phonological and Morphological Aspects of Reduplication. Oxford Research Encyclopedia of Linguistics.

Wang, Shih-ping. 2004. *Corpus-based approaches and discourse analysis in relation to reduplication and repetition*. Journal of Pragmatics 37 (2005):505–540.

Wijana, I Dewa Putu. 2018. Unique Morphs in Indonesian. International Journal of Languages, Literature and Linguistics 4(2):121-124.

Zamzani. 1993. *Pemerian Wujud Reduplikasi Bahasa Indonesia*. Diksi (2):41-51.

Internet/Data Sources:

Kumpulan Lirik Lagu Indonesia dan Chord. Retrieved from https://sudimara-tabanan.desa.id/desa/upload/media/Lirik%20dan%20Chord%20Lagu%20Indonesia.pdf

WebCorp: https://www.webcorp.org.uk/live/

Kurniawan, Eva Dwi. 2016. Aurora: Antologi Puisi. Yogyakarta: Komojoyo Press.