Exploring Reduplication as A Morphological Process In Balinese Folktales

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Abstract

This study examines reduplication patterns in Balinese using a corpus-based approach, highlighting the language's rich and complex morphology. The data source is Kumpulan Satua (Balinese Folktales) by Suwija, Darmada, and Mulyawan (2019), consisting of 62 narrative texts converted into plain text and processed with AntConc 3.5.8. Reduplicated forms were identified with Regular Expressions (Regex), yielding 142 valid instances after filtering and verification. Analysis combined quantitative frequency counts with qualitative classification based on Carstairs-McCarthy (2002) and Sneddon (2020). Results show that partial reduplication (40.78%) and full reduplication (39.47%) dominate, confirming their central role in lexical formation and semantic extension. Other types—Ca-reduplication (13.82%), vowel alternation (12.50%), and echo-words (6.58%)—further illustrate the language's phonological and semantic creativity. The identification of Ca-reduplication as a productive process contributes new insights to Balinese linguistics. Overall, the study advances understanding of Balinese morpho-semantics while offering implications for grammar teaching, language preservation, and curriculum design.

Keywords*: Reduplication, Morphology, Balinese*

Abstrak

Penelitian ini mengkaji pola reduplikasi dalam bahasa Bali melalui pendekatan berbasis korpus yang menyoroti kekayaan dan kompleksitas morfologi bahasa Bali. Sumber data berasal dari Kumpulan Satua karya Suwija, Darmada, dan Mulyawan (2019) yang memuat 62 teks naratif. Teks dikonversi ke format plain text dan dianalisis menggunakan AntConc 3.5.8 dengan fungsi Regular Expressions (Regex). Dari proses ini dihimpun 142 bentuk reduplikasi yang valid setelah penyaringan dan verifikasi manual. Analisis dilakukan secara kuantitatif melalui frekuensi dan distribusi, serta kualitatif dengan kerangka Carstairs-McCarthy (2002) dan Sneddon (2020). Hasil penelitian menunjukkan bahwa reduplikasi sebagian (40,78%) dan reduplikasi penuh (39,47%) mendominasi, menegaskan perannya dalam pembentukan leksikon dan perluasan makna. Jenis lain, seperti reduplikasi Ca (13,82%), pergantian vokal (12,50%), dan kata gema (6,58%), memperlihatkan kreativitas fonologis dan semantis bahasa Bali. Identifikasi reduplikasi Ca sebagai proses morfologis produktif memberikan kontribusi baru bagi kajian linguistik Bali. Penelitian ini memperkaya pemahaman tentang dinamika morfosemantik bahasa Bali sekaligus menawarkan implikasi penting bagi pengajaran tata bahasa, pelestarian bahasa, dan pengembangan kurikulum.

***Kata kunci**: reduplikasi, morfologi, Bahasa Bali*

Introduction

The use of the Balinese language in both formal and informal settings reflects its vitality and continuity across various social domains, including education and ceremonial practices. As a system of agreed-upon sound symbols among community members, language enables social interaction, identity expression, and

intergenerational communication (Kridalaksana, 2009; Tumbole & Cholsy, 2022). Balinese, classified under the Austronesian language family and specifically within the Bali-Sasak subgroup (Nata & Yudiastra, 2017; Temaja, 2018), not only functions as the native language of the Balinese people but also serves as a cultural identity marker that distinguishes social groups. In the modern era, the role of Balinese has extended to digital platforms and information technology (Rismaya et al., 2022), underscoring its adaptability while maintaining its social and cultural significance. Academically, Balinese has been a subject of linguistic inquiry, particularly within the domain of microlinguistics.

One of the key morphological processes studied in this context is reduplication, which involves the repetition of a whole or partial base form to express plurality, intensity, or frequency of actions (Booij, 2007; Zulharby et al., 2022). Reduplication is highly productive in Austronesian languages, including Indonesian and Malay, offering substantial ground for linguistic analysis (Blust, 2009; Rafferty, 2002). In Malay, for instance, reduplication serves not only grammatical functions—such as pluralization and intensification—but also lexical functions in word formation (Nadarajan, 2006; Wang, 2005). However, most studies on reduplication have predominantly focused on morphological patterns, often overlooking its broader discourse functions (Wang, 2005). Wang emphasizes the value of corpus-based approaches to better understand the interaction of various reduplication types, employing tools like MonoConc Pro and WordSmith 4.0 to extract data from the British National Corpus (BNC).

This study adopts a novel approach by utilizing AntConc 3.5.8 and Microsoft Excel 2010 to filter and analyze reduplicative forms in Balinese, drawn from a self-compiled corpus of Balinese folktales. In contrast to previous research that relied on manual methods, the use of software tools in this study enables a more systematic, efficient, and accurate analysis. This is particularly relevant given that the last major study on Balinese reduplication was conducted in 2018, highlighting the need to update and expand research in this area.

Temaja (2018) identified a unique pattern in Balinese reduplication involving the prefix kə-, typically found in nominal forms and used to mark collectivity without altering the base meaning. Examples include sə-sate (various types of satay) and bə-banten (various ceremonial offerings). However, that study did not employ a corpus-based or technological approach, thereby limiting the scope and generalizability of the findings (Temaja, 2018).

This study contributes to Balinese morphology in three key ways. First, it applies AntConc 3.5.8 to analyze reduplicative forms, offering greater efficiency and replicability than earlier manual approaches (Booij, 2007; Wang, 2005). Second, it provides a corpus-based account of reduplication in Balinese, capturing both structural and semantic patterns, an area still underrepresented compared with Indonesian and Malay (Blust, 1999; Nadarajan, 2006),. Third, it addresses the lack of corpus-driven studies since Temaja (2018), whose description of the kə- prefix was valuable but limited in scope. By extending this work and documenting new patterns, including the productive 'Ca' form, the study advances Austronesian morphology and offers implications for Balinese grammar education, language preservation, and curriculum development.

Method

This study adopts a qualitative descriptive approach within corpus linguistics to identify reduplication patterns in Balinese. The primary data source is *Kumpulan Satua* (Balinese Folktales) by Suwija, Darmada, and Mulyawan (2019), comprising 62 narratives in standardized orthography. Folktales were chosen because they represent culturally embedded oral traditions, preserve traditional vocabulary and morphology, and thus provide reliable data for studying reduplication (Danandjaja, 2002). The texts in PDF were converted into plain text (TXT) using iLovePDF to facilitate corpus processing. All texts were analyzed with AntConc 3.5.8, which enables systematic and replicable extraction of linguistic features that manual inspection might overlook (Anthony, 2019; McEnery & Hardie, 2012). The Regular Expressions (Regex) function identified 535 candidate reduplications (see Figure 1).
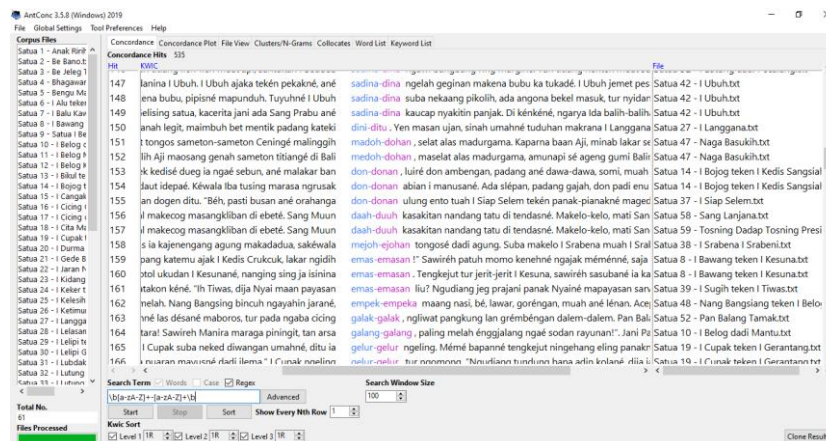

Figure 1. Screenshot of Data Filtering Using AntConc Application

The results were exported to Microsoft Excel 2010 for verification, yielding 142 valid instances. These were classified into full and partial reduplication (Carstairs-Mccarthy, 2002), while other patterns were treated as novel findings. This method ensures both analytical accuracy and efficiency compared to purely manual sampling. Findings are presented through a mixed approach: quantitatively by frequency and distribution tables, and qualitatively through detailed linguistic interpretation. Annotation conventions include a hyphen (-) for morpheme boundaries, a period (.) for syllable breaks, bold typeface for reduplicants, brackets ( ) for base forms, and an asterisk (*) for ungrammatical items. Semantic analysis follows Sneddon's (2020) framework of plurality, intensity, reciprocity, iteration, concessive meaning, and imperfective aspect. This integrated framework reveals how form and meaning interact in Balinese reduplication and contributes to broader Austronesian morphological studies.

Result

This study used a qualitative descriptive approach with morphological analysis to identify and classify reduplication in Balinese. The corpus shows two main types: full reduplication and partial reduplication. Full reduplication repeats the base entirely, often marking plurality, emphasis, or intensity, while partial reduplication

signals aspectual or semantic nuances (Katamba, 1993). Existing frameworks offer complementary views: Katamba provides structural precision, Rafferty situates reduplication in the Austronesian tradition, and Sneddon emphasizes functional roles, though all leave certain gaps (Rafferty, 2002; Sneddon, 2020). These insights point to the need for corpus-driven analysis that captures both regular and novel Balinese forms.

Beyond these categories, the data reveal echo expressions, where the base is repeated with slight phonological variation, serving informal or expressive functions (Booij, 2007; Nadarajan, 2006). These patterns expand the scope of reduplication as a productive morphological strategy in Balinese. Table 1 summarizes the frequency of each identified reduplication type in the analyzed corpus:

Table 1.
Reduplication Types Identified in the Corpus

Type of Reduplication	Frequency	%
Full Reduplication	60	39.47
Partial Reduplication	62	40.78
Reduplication with 'Ca' Form	21	13.82
Vowel Substitution Reduplication	19	12.50
Echo-word Formation	10	6.58
Total	**152**	**100 %**

The findings presented in Table 1 reveal a diverse and complex system of reduplication in Balinese. Partial reduplication is the most prevalent type, accounting for 40.78% of occurrences, followed closely by full reduplication at 39.47%. This distribution indicates that both complete and partial repetition play significant roles in Balinese word formation and semantic expansion. Reduplication employing the 'Ca' pattern constitutes 13.82% of instances, suggesting its function as a productive morphological process, likely involved in derivation or modification of base forms. Vowel substitution reduplication accounts for 12.50%, highlighting the importance of phonological variation in encoding semantic distinctions. Echo-word formation, although less frequent at 6.58%, serves a distinct expressive purpose often associated with sound symbolism and mimetic effects. Together, these findings demonstrate that Balinese utilizes multiple reduplication mechanisms to enrich lexical meaning, grammatical structure, and expressive nuance, reflecting the morphological richness and dynamism of the language.

3.1 Full Reduplication

Full reduplication, referred to as total or symmetrical reduplication, involves the complete repetition of the base form without the addition of affixes or any phonemic alteration. This type of reduplication is employed across various lexical categories, including nouns, verbs, adjectives, and pronouns. In Balinese, full reduplication performs a range of semantic functions. When applied to nouns, it frequently conveys plurality or intensity. The process often serves to indicate multiple entities or repeated occurrences (iteration). Notably, nouns in Balinese can appear without explicit markers of number, and reduplication is one of the

morphological strategies used to express such distinctions. Examples of full reduplication in nominal categories are presented in Table 2 below.

Table 2.
Examples of Full Reduplication in Nominal Categories

Base Form	Reduplicated Form	Gloss
luh 'woman'	*luh-luh*	'women'
lanang 'man'	*lanang-lanang*	'men'
istri 'woman/wife'	*istri-istri*	'women'

Noun reduplication plays a significant role in marking plural interpretations in Balinese (Alsamadani & Taibah, 2019). For example, the reduplicated forms *luh-luh*, *lanang-lanang*, and *istri-istri*, as shown in Table 2, are interpreted respectively as 'many women', 'many men', and 'many women'. The variation between *luh* and *istri* reflects the use of different speech levels in Balinese, as illustrated in Examples 1a and 1b:

1a. *...I Grantang pragat malali dogén, buina ia ngenemin anak **luh-luh** dogén gaénné".*
'Grantang just plays around, and he even dates **girls** all the time.'

1b. *...ané **lanang-lanang** makarya genah, ané **istri-istri** makarya saopakaning yadnya.*
'The **men** construct the place, and the **women** prepare the ceremonial offerings.'

In contrast, full reduplication within the pronoun category appears only twice in the data corpus, as shown in Table 3. This is likely due to the inherent nature of pronouns, which are more frequently used in their singular form to refer to specific subjects or objects in discourse.

Table 3.
Full Reduplication in the Pronoun Category

Base Form	Reduplicated Form
jero ('a respectful term for a man and woman')	*jero-jero* ('repeated reference to men and women')
bli ('a respectful term for an older brother/man')	*bli-bli* ('repeated reference to older men')

While noun reduplication typically signals plurality or repetition, as demonstrated in Examples 1a and 1b, a different function emerges in Examples 2a and 2b:

2a. *"**Jero-jero** sané nuénang pondoké niki, dados tiang milu ngetis driki?"*
'**Whoever** owns this house, may I take shelter here?'

2b. *"**Bli-bli**, apa ya ento pesu andus?"*
'**Brothers**, is that smoke coming out?'

In Data 2, the reduplication of *jero-jero* and *bli-bli* does not mark plurality but rather conveys emphatic intensity. This use highlights specific qualities of the subjects and underscores the interpersonal significance of their interaction. Such forms show how reduplication in Balinese extends beyond grammatical function to enrich meaning and enhance expressive force.

Adjective reduplication also contributes to stylistic nuance in Balinese, as adjectives typically follow nouns within noun phrases. By doubling, adjectives intensify description, add vividness, and may even indicate excess, thereby creating sharper mental imagery for the listener or reader. These functions reflect the expressive potential of reduplication in Balinese communication (see Table 4).

Table 4.
Full Reduplication in the Adjective Category

Base Form	Reduplicated Form
kelih ('mature')	*kelih-kelih* ('fairly mature')
bagus ('handsome')	*bagus-bagus* ('fairly handsome')
jegég ('beautiful')	*jegég-jegég* ('fairly beautiful')
tegeh ('tall')	*tegeh-tegeh* ('fairly tall')
gedé ('big')	*gedé-gedé* ('fairly big')
mangan ('sharp')	*mangan-mangan* ('fairly sharp')
joh ('far')	*joh-joh* ('fairly far')

Adjective reduplication in Balinese cannot be interpreted as a form of pluralization of the nouns they modify, as demonstrated in Data Set (3) below:

3a.   *Tan kacarita sagét pada **kelih-kelih** pianakné Pan Brayut ané muani **bagus-bagus**, ané luh **jegég-jegég**.*
         'It was not told in detail, but all of Pan Brayut's **sons** had **grown fairly mature** and handsome, and the **daughters** fairly beautiful.'

3b.   *Punyan kayuné **tegeh-tegeh** tur **gedé-gedé**, majajar saling kuubin ajaka punyan tiing gesingé ané bet ngriung tur punyan gegirang ané madui **mangan-mangan**.*
         'The trees were **tall** and **large**, standing in overlapping rows alongside dense bamboo trees and thorny gegirang trees with fairly **sharp** edges.'

3c.   *Ni Rempag prajani luas ngumbara **joh-joh** désa.*
         'Ni Rempag immediately set off wandering **far away** from the village.'

All reduplicated adjectives in Data 3 (a–c) indicate that reduplication functions to distribute adjectival properties across multiple referents, thereby contributing to the interpretation of plurality in the associated nouns. A different phenomenon occurs when reduplicated adjectives such as *tegeh-tegeh* and *joh-joh* undergo affixation processes, as shown in Table 5.

Table 5.
Full Reduplication of Adjectives with Affixation

Reduplicated Form	Affixed Form (Confixed with {ma...an})
tegeh-tegeh ('fairly tall')	*mategeh-tegehan* ('to be taller than each

	other')
joh-joh ('fairly far')	*majoh-johan* ('to be distant from one another')

The application of the circumfix *{ma...an}* in forms such as *mategeh-tegehan* and *majoh-johan* demonstrates a reciprocal semantic function. In these cases, reduplication not only intensifies an attribute but also conveys a relational meaning—specifically, a mutual or reciprocal interaction between entities (Satyawati et al., 2023; Sulaga et al., 1996). In other words, reduplicated adjectives combined with affixation contribute not only to the notion of intensity but also highlight interactions between entities, as illustrated in Data Set 4.

4a.   *Ané jani jalan **mategeh-tegehan** makeber!*
       'Now, let us fly **higher** together (mutually surpassing each other in height)!'
4b.   *...lantas ia kajenengang agung makadadua, sakéwala **mejoh-johan** tongosé dadi agung.*
       '…then the two of them were granted the noble title, although their places were **far apart** from each other.'

Data 4 (a–b) demonstrates that the reduplicated forms *mategeh-tegehan* and *majoh-johan* function to express reciprocal relationships between entities, each conveying the concepts of "mutual elevation" and "mutual separation," respectively (Sulaga et al., 1996). The form *mategeh-tegehan* does not merely describe individuals or objects of considerable height; rather, it implies an active process in which entities elevate each other, suggesting collaboration or mutual support. In contrast, *majoh-johan* constructs a sense of active distance or separation between two entities, reflecting a more complex form of interaction than mere physical displacement.

Reduplication in verbs serves various semantic functions, one of the most prominent being iteration. Iteration refers to the repetition of an event or action, and it is a frequently observed function of verbal reduplication across many languages. When applied to verbs, reduplication typically signals continuity or frequency of an action, thereby offering a clearer representation of how an action occurs repeatedly or continuously. This is illustrated in Table 6 below.

Table 6.
Full Reduplication in the Verbal Category

Base Form	Reduplicated Form
nadah ('to kill')	*nadah-nadah* ('to kill repeatedly')
gending ('song')	*gending-gending* ('to sing repeatedly')

The reduplicated forms in Table 6 originate from different lexical categories. *Nadah* is a verb in its base form and retains its verbal category upon reduplication. In contrast, *gending* is originally a noun, but through reduplication, it undergoes a

functional shift into the verbal category. This functional transformation is further exemplified in the sentence contexts presented in Data 5 (a–b):

5a.   *Suudang Iba **nadah-nadah** manusa!*
      'Stop killing people over and over again!'

5b.   *Disubané teka Pan Brayut, mara lantas madaar sabarengan malelagaran, ada **gending-gending**, ada ngigel nyrégség, muah ané lén-lénan.*
      'When Pan Brayut arrived, they began to eat together in the open space, with some singing repeatedly, some dancing around, and others doing various activities.'

In addition to lexical categories such as verbs and nouns, full reduplication also occurs with interrogatives and negative forms, reflecting the morphological flexibility and semantic richness of reduplication in the language. These forms, while less frequent, provide insight into the nuanced functions of reduplication, as shown in Data 6 and 7:

6.   *Ditu pesu dayané ané **tidong-tidong**.*
      'There appeared his completely absurd ideas.'

7.   *I Alu nepukin lantas sebun I Kedis Puuhé puyung tusing misi **apa-apa**,…*
      'I Alu then saw the nest of I Kedis Puuh was empty, containing **nothing** at all,…'

In Data 6, the reduplication *tidong-tidong*, derived from the negator *tidong* ('not' or 'no'), functions as an adjectival reduplication describing something irrational or nonsensical. This usage conveys intensified negation or disapproval, emphasizing the absurdity of the ideas mentioned. In Data 7, *apa-apa*, a reduplication of the interrogative *apa* ('what'), functions as a nominal expression referring to an unspecified or indefinite object. These reduplicated forms not only introduce variation into the syntactic and lexical system but also enrich the pragmatic and semantic depth of the language. While *tidong-tidong* underscores rejection or implausibility, *apa-apa* suggests indeterminacy or vagueness, contributing subtlety and expressive nuance in discourse.

3.2 Partial Reduplication

Partial reduplication in this study can be categorized into two primary types: (1) affixed base reduplication, and (2) first-syllable reduplication. The first type, affixed base reduplication, involves the addition of affixes to the base form of a word. This type not only serves an emphatic function but also introduces subtle shifts in meaning. Affixed base reduplication can be further divided into three morphological patterns: (1) prefixation, (2) suffixation, and (3) circumfixation (confix).

The prefixal reduplication pattern entails the repetition of a base word accompanied by the addition of prefixes such as *{ka-}*, *{ma-}*, and *{N-}*. These prefixes alter the meaning of the reduplicated base by introducing grammatical nuances, intensifying the action, or clarifying the nature of the activity. Examples of this pattern are presented in Table 7 below.

Table 7.
Partial Reduplication with Prefixes

Base Form	Reduplicated Form with Prefix
kedas ('clean')	*makedas-kedas* ('to clean repeatedly')
utah ('vomit')	*ngutah-utah* ('to vomit repeatedly')

Words undergoing prefixal reduplication retain their core semantic meaning but are modified by the prefix to convey additional nuances, as illustrated in Data 8.

8a. ***Makedas-kedas*** *men Mémé di jumah metén krana tiang lakar nglinggihang Ida ditu…*
'Mother was **cleaning** *jumah metén (balé daja, the main or central pavilion in a Balinese house)* repeatedly because I was about to perform a ritual seat for Ida there…'

8b. *Mén Bangsing kanti **ngutah-utah** ngadek bon tain jarané buka kéto.*
'Mén Bangsing was **gagging** repeatedly at the smell of horse dung of that kind.'

In 8a, *makedas-kedas* derives from the base *kedas* 'clean' with the prefix *ma-*, indicating a repetitive and continuous act of cleaning the *jumah metén* (balé daja, the central pavilion in a Balinese house). This form not only marks iteration but also suggests intensity and sustained effort. In 8b, *ngutah-utah* originates from the nominal base *utah* 'vomit' and, through full reduplication and the verbalizing prefix {N-}, becomes a verb that denotes repeated vomiting. The construction emphasizes recurrence rather than a singular action, reflecting the speaker's perception of a persistent reaction to odor. Both forms illustrate how prefixal reduplication in Balinese functions to encode iteration and highlight the durative or repetitive nature of actions.

The second type of partial reduplication involves first-syllable reduplication, where only the initial syllable of the base word is repeated. This pattern is commonly accompanied by suffixes such as {-a}, {-in}, {-an}, {-n}, {-né}, and {-ang}, which expand the meaning of the base or introduce additional nuances, yielding derived words with distinct grammatical or semantic functions (see Table 8).

Table 8.
Partial Reduplication with Suffixes

Base Form	Reduplicated Form with Suffix
amah ('to eat')	*amah-amahan* ('various kinds of food')
sibak ('to split')	*sibak-sibaka* ('split repeatedly')
tugel ('to cut')	*tugel-tugela* ('cut into pieces')

This type of reduplication is frequently used to create new lexical items with meanings related to the original base forms while maintaining recognizability of the root. First-syllable reduplication often occurs in informal contexts or daily conversation, providing a tone of familiarity and approachability. Examples of this

pattern can be found in Data 9 below, where each suffix contributes uniquely to the final semantic interpretation of the reduplicated word.

9a. *Gelisin satua, I Alu teka ka tegale ento ngalih **amah-amahan**.*
     'In short, I Alu went to the field to look for food.'
9b. *"Ih… to kétoanga jené béné, o… to **sibak-sibaka**, to buin **tugel-tugela**, mara cemplunganga di payuké…."*
     'The fish was treated that way—split repeatedly, then cut into pieces, and finally placed into the pot…'

In Data 9, the suffixes modify the reduplicated bases in distinct ways. In 9a, *amah-amahan* is derived from *amah* ('to eat') with the suffix {-an}, shifting the verb into a noun meaning 'various kinds of food.' This semantic extension reflects quantity and variety, rather than a single act of eating. In 9b, *sibak-sibaka* ('split repeatedly') and *tugel-tugela* ('cut into pieces') retain their verbal categories but highlight iterative and sequential processes in food preparation. Together, these forms demonstrate how first-syllable reduplication with suffixation serves both grammatical derivation and semantic elaboration, particularly in expressing repetition, variation, and procedural sequencing in everyday activities.

The third pattern involves reduplication accompanied by confixation, a morphological process in which base word reduplication is combined with the addition of confixes, such as *{ma…an}*, *{ka…in}*, and *{ng…in}*, to derive new lexical items with distinct semantic properties. Table 9 illustrates examples of this reduplication pattern.

Table 9.
Partial Reduplication with Confixes

Base Form	Reduplicated Form with Confix
pula ('to plant')	*mamula-mulan* ('repetitive planting activity')
alih ('to search')	*ngalih-alihin* ('to search repeatedly')

In both examples, the base forms *pula* and *alih* are categorized as verbs. In the case of *mamula-mulan*, the derived form results from partial reduplication and the application of the confix *{ma…an}*. Similarly, *ngalih-alihin* is formed by combining reduplication with the confix *{ng…in}*. These constructions serve to emphasize repetitive or iterative actions, as further exemplified in Data 10.

10a. *…I Lubdaka nyumunin ngutang geginané maboros, nyemak geginan anyar, mawali ia mamacul, **mamula-mulan** di tegalé.*
      '…I Lubdaka gave up hunting, took on a new occupation, and returned to ploughing and repeatedly planting in the field.'

10b. *Kanti sandikala Pan Meri **ngalih-alihin** tusing masi tepukina meriné.*
      'Until dusk, Pan Meri kept searching, but the duckling was still nowhere to be found.'

In Data 10a, the reduplicated form *mamula-mulan* denotes that I Lubdaka engaged in repeated acts of planting, emphasizing the durative and sustained nature

of the agricultural activity. This pattern highlights not only the physical repetition of action but also the persistence and continuity inherent in farming practices. In Data 10b, the form *ngalih-alihin* reflects Pan Meri's prolonged effort in searching for the missing duckling. The reduplication underscores her diligence and emotional investment in the task, despite the absence of immediate results.

These examples demonstrate that reduplication with confixes enhances both the grammatical and semantic dimensions of verbal constructions. The forms encode iterative, durative, and volitional aspects, thereby enriching the narrative with temporal depth and affective nuance. Such constructions illustrate how reduplication in Balinese extends beyond simple repetition to function as a discourse device that conveys intensity, persistence, and emotional engagement.

3.3 Ca-Reduplication in Balinese

Ca-reduplication is a linguistic phenomenon involving the repetition of the initial consonant-vowel (Ca) syllable of a base word, followed by a fixed vowel pattern (Blust, 1998, 1999, 2009). According to Blust's studies on Proto-Austronesian (PAN), Ca-reduplication performs three primary functions: (1) the formation of numeral sets used specifically for counting humans, (2) the derivation of specific verbal forms, and (3) the formation of instrumental nouns.

This type of reduplication has also been identified in other Austronesian languages such as Tetun, spoken in Timor-Leste, and Asilulu, a language native to Western Ambon in Eastern Indonesia (Morris, as cited in Blust, 1998). Examples of Ca-reduplication in Balinese are provided below:

11a.   ***Makatelu*** *sing ja taén makisid uli telagané ento.*
'**All three** (of them) never moved from that lake.'
11b.   *... **makadadua** kambang.*
'… **both** of them were floating.'
12a.   *Beli Wayan pipisé anak suba kaanggon nguup baas **maka** telung juta*
'Beli Wayan, his money was already used to buy rice, three million **each**.'

12b.   *... sagét **maka** duang anéh koné misi subeng emas.*
'… soon **both** of those (ears) were adorned with gold earrings.'

In these examples, the reduplicated forms such as *makatelu*, *makadadua*, *maka telung*, and *maka duang* illustrate how Ca-reduplication functions in quantification, particularly in reference to human count nouns or paired body parts. For instance, *makatelu* and *makadadua* signify groups of three and two individuals, respectively, while *maka telung juta* and *maka duang anéh* refer to distributive quantities or dual possession.

Ca-reduplication thus plays a vital role in encoding numerical distribution, personhood, and plurality, particularly when human referents or animate entities are involved. The morphological form is not only grammatically productive but also semantically significant, enabling fine-grained distinctions in number and relational reference. These findings support earlier claims by Blust and others that Ca-reduplication is a common and meaningful morphological strategy within the

Austronesian language family, with typological and functional relevance across a range of languages, including Balinese.

3.4 Reduplication with Vowel Alternation in Balinese

Vowel alternation reduplication illustrates how vowel shifts within reduplicated forms contribute to semantic variation and expressive depth in language. In this type of reduplication, commonly referred to as vocalic ablaut, the first syllable of the reduplicated form undergoes two distinct morphological processes: (1) Syllable copying, and (2) Systematic vowel alternation (ablaut). Typically, the base word holds a clear lexical meaning, whereas the reduplicated form—especially the reduplicant—may not independently bear a specific semantic content but serves to modify or intensify the meaning of the base. Consider the following example involving the verb *tolih* 'to look' in data excerpt [13]:

13a. *"Nang **tolih** jeneng Ibané, nyak masaih ajak tlapakan batis Icangé?"*
'Try **looking** at your face—does it match the sole of my foot?'
13b. **"Nang **tolah** jeneng Ibané, nyak masaih ajak tlapakan batis Icangé?"*
[*Ungrammatical*]

In Balinese, the grammatical acceptability of verbs in imperative constructions is sensitive to reduplication with vowel alternation. In [13a], the use of *tolih* is grammatically acceptable and semantically appropriate in imperative form, whereas *tolah* in [13b] is ungrammatical and unacceptable. This example highlights the functional role of vowel alternation in shaping both the grammaticality and semantic acceptability of verbal expressions.

To explore this further, Tables 10 and 11 below illustrate instances of vowel alternation within reduplication, noting the syllable position of the alternation, the nature of the vowel change, and the semantic implications of these patterns. The base forms are underlined, while the reduplicants appear at the initial position of the reduplicated structure.

Table 10.
Reduplication with Vowel Alternation in the First and Second Syllables

Reduplicated Form	Syllable of Vowel Change	Vowel Alternation
slasah-slisih	First and second	[a] ---> [i]
srayang-sruyung	First and second	[a] ---> [u]

As shown in Table 10, reduplication in Balinese is not confined to phonological duplication but frequently involves systematic vowel alternation that enhances semantic expression, particularly intensity, continuity, and repetition. For instance, *slasah* → *slisih* ([a] → [i]) conveys sharper intensity, while *srayang-sruyung* ([a] → [u]) suggests sustained action. These patterns demonstrate that vowel alternation reduplication contributes both morphological productivity and semantic nuance.

In contrast, Table 11 illustrates reduplication where vowel alternation occurs only in the second syllable. Forms such as *tolah-tolih* ([a] → [i]), *kipak-kipek* ([a] → [e]), and *dengak-dengok* ([a] → [o]) show localized shifts, producing distinct

semantic variations while maintaining recognizability of the base form. This highlights the role of vowel alternation in enriching verbal dynamism within Balinese morphology.

Table 11.
Reduplication with Vowel Alternation in the Second Syllable

Reduplicated Form	Syllable of Vowel Change	Vowel Alternation
tolah-tolih	Second	[a] → [i]
kipak-kipek	Second	[a] → [e]

This pattern of vowel alternation introduces phonological variation that enriches morphological structure while signaling semantic functions such as intensity, nuance, or iterative aspect. When restricted to the second syllable, the alternation produces subtler modification yet preserves the recognizability of the root. The analysis further shows that these forms derive from reduplication of the first syllable combined with vowel alternation (ablaut) in the second. This process not only yields rhyming variants but also systematically generates new lexical items with distinct semantic values.

3.5 Echoic Reduplication in Balinese

Echoic expression, or echoism, refers to a type of reduplication that reproduces sounds to create aesthetic or expressive effects (Nadarajan, 2006). It reflects auditory experiences by forming phonological representations of natural or cultural sounds, typically categorized as primary and secondary onomatopoeia. Primary onomatopoeia directly imitates natural sounds, establishing a symbolic link between sound and sensory meaning, whereas secondary onomatopoeia adapts phonological patterns to evoke specific semantic effects shaped more by cultural context than direct imitation. In Balinese, echoic reduplication shows strong contextual and cultural dependencies, as the non-reduplicated bases are usually semantically non-referential, acquiring meaning only through reduplication. This indicates that semantic value is activated by repetition, with the resulting sound symbolism resonating with culturally embedded auditory experiences (see Table 12).

Table 12.
Echoic Reduplication in Balinese

Reduplicated Form	Contextual Meaning
gruguh-gruguh	the sound of muttering or talking in one's sleep (delirium)
geris-geris	the sound of snoring
keprus-keprus	the sound produced when blowing air forcefully from the mouth
sengu-sengu	the sobbing sound of someone crying intermittently

goar-goar	the loud, echoing sound produced when crying out or shouting intensely
kriet-kriet	the crunching or biting sound
siyut-siyut	the sharp inhaling sound when eating something spicy
ciplak-ciplak	the sound of chewing or smacking lips while eating

The data in Table 12 illustrate how Balinese echoic reduplication transforms phonological patterns into culturally resonant meanings. Forms such as *gruguh-gruguh* 'the sound of muttering in sleep,' *geris-geris* 'snoring sound,' and *siyut-siyut* 'sharp inhaling when eating something spicy' highlight how reduplication links sound patterns to specific embodied experiences. These forms demonstrate that echoism in Balinese is semantically opaque in isolation but meaningful in reduplication, functioning as both a phonosemantic mechanism and a cultural marker of local sound perception. The semantic salience thus emerges from repetition and auditory imitation, positioning echoic reduplication as a productive and culturally embedded phenomenon in the Balinese lexicon.

14. *Bapanné memegeng cara togog nolih I Pucung nyingkrung di plangkané **geris-geris** sirep leplep.*
    'His father stood like a statue, watching I Pucung squatting on the veranda, snoring **softly** in deep sleep.'
16. *I Blenjo laut ngeling **goar-goar**.*
    'Then I Blenjo cried **loudly**.
17. *Sesubané katigtig, lantas ia ngeling **sengu-sengu** nuju ka tukadé apang katemu ngajak I Kedis Crukcuk Kuning.*
    'After being struck, she began to **sob** and made his way to the river, hoping to meet I Kedis Crukcuk Kuning'
18. *Ento lantas daara **ciplak-ciplak** buka ciplakan bangkungé baang amah-amahané ané jaen.*
    Then he was eaten **noisily**, like the chomping of a pig given delicious food

Data 14—18 illustrate the prominent use of echoic reduplication to vividly evoke sounds and emotional states within the narrative. Words such as *geris-geris* imitate the soft, repetitive snoring of I Pucung, effectively portraying a peaceful sleep through gentle auditory imagery. In contrast, *goar-goar* represents loud crying, emphasizing emotional intensity and distress, while *sengu-sengu* captures the subtle, intermittent sobbing that follows an upsetting event, highlighting vulnerability and sadness. The reduplication *ciplak-ciplak* mimics the noisy chomping sound of a pig eagerly eating, creating a vivid sensory experience that conveys liveliness and urgency. These echoic forms function as phonosemantic devices that transcend mere sound imitation, serving as culturally embedded markers that enhance the narrative's expressiveness and emotional depth.

Conclusion

     This study concludes that reduplication in Balinese exhibits diverse patterns, with partial and full reduplication as the most prevalent forms, playing a crucial role in lexical formation and semantic expansion. Notably, the identification of 'Ca' form reduplication represents a novel finding, highlighting an additional productive morphological process within the language. The occurrence of vowel substitution and echo-word formation further demonstrate Balinese's complex phonological and morphological system. These findings have significant implications for education, particularly in developing Balinese grammar teaching materials that accurately reflect native linguistic structures and deepen learners' understanding of morphological variation. Furthermore, this research provides valuable insights for linguists, language preservationists, and curriculum developers committed to sustaining and revitalizing Balinese, ensuring that the unique morphological characteristics are integrated effectively into both formal education and community language initiatives.

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