



The Art of Repetition: An In-depth Study of Dhatki Reduplication

Sheelo Bai Malhi

MPhil Scholar, Assistant Teacher, Department of Nursing (English)

Mirphukhas institute of Nursing & Allied Health Science

Email: sheelobai2002@gmail.com

Hafiz Imran Nawaz

Senior Lecturer, Department of English, Hamdard University, Karachi

Email: Imran.nawaz@hamdard.edu.pk

Nosheen Begum

M.phil Scholar, English Teacher at The Educators

Email: noshb6363@gamil.com

Warisha Khan

MPhil Scholar

Email: warikhan12@gmail.com

Abstract

This study investigates the patterns and functions of reduplication in the Dhatki language, an IndoAryan language spoken in southeastern Sindh and parts of Rajasthan. The main objectives are to identify the types of reduplication found in Dhatki and to analyze the meanings and functions they serve. Reduplication is a common word-formation process in many South Asian languages, but its detailed role in Dhatki has been underexplored. Using the framework of Morphological Doubling Theory (MDT), this research provides a structural and functional analysis of reduplication in Dhatki. The study follows a qualitative research methodology. Data were collected through purposive sampling from native Dhatki speakers in natural conversational settings. Around 30 authentic examples of reduplication were recorded, transcribed, and analyzed morphologically and semantically. The findings reveal three major types of reduplication in Dhatki: total reduplication (e.g., *bol-bol*), partial reduplication (e.g., *jal-jalen*), and nonsensical or echo reduplication (e.g., *tappu-kuppu*). Each type performs distinct linguistic functions such as expressing repetition, emphasis, derivation, or playfulness. These patterns reflect Dhatki's creative and expressive wordbuilding strategies. This study fills a gap in existing linguistic research and emphasizes the importance of studying lesser-known regional languages to understand broader morphological patterns in South Asian linguistics.

Keywords: Reduplication, Dhatki language, Total Reduplication, Partial Reduplication, Doubling theory

1. Introduction

Language is a system with its own syntactic, semantic, morphological, and phonological rules (Ramzan et al., 2023). However, languages consistently exhibit universal patterns that extend far beyond their first-language limits. For instance,



Vol. 3 No. 6 (June) (2025)

studying Pakistan's education system calls forth sheer insights into language policies and practices (Akram 2020; Akram et al., 2021). Reduplication happens to be one of the numerous word-formation processes and most decidedly multifunctional. Reduplication is a process for forming new words through complete or partial repetition of a base (Rubino, 2005) and finds usage in diverse ways across languages. For example, in Chinese, reduplication aids plural formation, but in South Asian languages like Urdu, Hindi, Pashto, and Dhatki, reduplication serves multiple functions, such as emphasis and semantic enhancement. Reduplication is a derivational and inflectional process in which a complete word, root, stem, or even a prefix or a phrase is copied (Inkelas & Downing, 2015). Reduplication can be based on sound patterns or semantic features and reflects both morphological and syntactic features of the language. Interestingly, reduplication is implicated in compounding, helps in the creation of new lexical items, and facilitates syntactic organization in phrases and sentences. Two general types of reduplication are identified: total reduplication where the base is completely reduplicated, and partial reduplication, where part of the base is reduplicated. Reduplication, as noted by Montaut (2008) alters the relationships between constituents of a sentence and thus has a syntactic reality (Riaz, 2023).

The language under scrutiny here is Dhatki, an agglutinative Indo-Aryan language spoken mainly in southeastern Sindh and Rajasthan, India (Shackle, 1976; Jain, 2001). Although closely connected with Marwari and Sindhi, Dhatki possesses an independent linguistic identity. Similar to other Indo-Aryan languages, Dhatki shows a high tradition of reduplication both in spoken and folk genres (Abbi, 1992). In spite of this, Dhatki is underrepresented in linguistic work. Reduplication in Dhatki is found both in day-to-day conversation and oral literature and is a productive word-formation technique (Booij, 2007). A semantic formalization of these idioms includes the reduplication of root words or portions thereof, motivated by particular semantic functions (Hurch et al., 2008). Abbi (1985) commented that modernization has restricted the employment of reduplication to primarily oral usage—a tendency also observable in Dhatki.

Reduplication in Dhatki may take place at the level of prefixes, suffixes, or both, and shows extensive structural and functional diversity. For example, in the closely related Hadoti (of Rajasthan), reduplication is mainly in the suffix position. The same pattern is found in Dhatki due to its geographical and linguistic closeness to languages such as Marwari and Sindhi. Unlike repetition, reduplication in Dhatki is within a morphological domain, tapping into the internal composition of the word and serving as a major strategy in word formation (Gil, 2005).

Dhatki reduplication, like its neighboring languages, includes both total and partial forms. According to Ramzan et al. (2023), total reduplication (where the base word is fully repeated) is found in languages such as Urdu, Sindhi, Punjabi, Saraiki, and Balochi—as well as in Dhatki.

Partial reduplication, which includes alliterative forms, is common in many South Asian languages and shows semantic variation across them (Inkelas & Zoll, 2005). To contribute meaningfully to general linguistics, this study investigates reduplication in Dhatki and analyzes its morphosyntactic and morphosemantic roles within the framework of Morphological Doubling Theory.



Research Objectives

1. To identify the types of reduplication in the Dhatki language
2. To analyze the functions and meanings associated with the different types of reduplication in the Dhatki language

Research Questions

1. What types of reduplication are found in the Dhatki language?
2. What are the functions and meanings associated with the different types of reduplication in the Dhatki language?

2. Literature Review

Morphology, especially reduplication, has received substantial attention in linguistic research. Researchers identify reduplication as a morphosyntactic, morphosemantic, and morphophonological process, each differing in degree and usage across languages. Reduplication in the Balochi language, spoken in Rahim Yar Khan, Rajanpur, and parts of Sindh, Majeed et al., (2024) examined 33 instances of Balochi reduplication borrowed from colloquial speech and demonstrated that there are as highly developed patterns of reduplication in Balochi as can be found. Adjectives and verbs showed total reduplication, while nouns had partial reduplication used for examples like intensification and emphasis. This study can significantly enhance Balochi morphology knowledge and stimulate further studies of reduplication in Dhatki and other Pakistani indigenous languages. Detection of reduplication in Dhatki using computers is addressed by Garg, Marwaha, et al. in their 2020 paper. A program and graphical user interface were created to identify and classify reduplicative words as discontinuous, partial, and complete. Observation leadw to changes in term through terminology as well as conceptualshifted. Dhatki blogs and tweets is the basis for this work. This determines the issues created by the non-computational character of Dhatki and gives room for the future research of regional languages reduplication.

Riaz refuted Harrison's (1973) belief that triplication is confined to monosyllabic verbs only by demonstrating how triplication can be employed for monosyllabic as well as disyllabic nouns in Dhatki.

The study also checked triplication of imperative verbs and irrational particles to validate earlier hypotheses regarding triplication limits. Inkelas and Zoll (2005) responded to Morphological Doubling Theory (MDT) reduplication theory. Reduplication in MDT is described as a morphosemantic doubling phenomenon where forms are phonologically close but differ in meaning. Through the use of morpho-syntactic and semantic conditions, reduplication is viewed differently than in phonological change through the application of MDT. While MDT is specifically suited for reduplication analysis, McCarthy and Prince's (1995) work on Base Reduplicant Correspondence Theory (BRCT) is another previous study that is relevant to the understanding of the relationship between reduplicated forms.

Studies of reduplication have been done across many languages, including pidgins and creoles. For example, Tok Pisin, as observed by Kouwenberg (2011), has a separate category of reduplication, not repetition. This study shows that reduplication in Tok Pisin functions morphologically and differs from repetition in other respects, from function to use. Indeed, Leroy and Morgenstern (2005)



Vol. 3 No. 6 (June) (2025)

proceeded to investigate the semantic and pragmatic roles of reduplication in child language acquisition.

2.1. Limited Research on Reduplication in Indigenous Languages of Pakistan

A limited amount of research has been completed on reduplication in native languages of Pakistan. The four proposed case studies in this thesis are the investigation of nominal reduplication in the Burushaski, Domaaki, Kalasha, Khowar, and Shina languages spoken in Northern Pakistan, as reported in Yoshika (2017). The closest combination of patterns of reduplication to Burushaski was found in Domaaki and Shina, with the echo-word patterns, for example, as main features, and the most remote ones belonged to Kalasha and Khowar, which differ by unique features. In this context, this work underscores the need for more extensive research on reduplication in Pakistan's indigenous languages, including Dhatki.

Many researchers have done their research on Dhatki language but this area has not been explored by them, morphological analyses of reduplication in Dhatki have been less discussed, especially in terms of the different Dhatki speakers' lives in various regions. Work on reduplication in Dhatki has been primarily computational. The purpose of this study is to fill this gap by offering a complete morphological analysis of reduplication in Dhatki, and generally for reduplication in regional languages.

3. Theoretical Framework

The framework for this study is Morphological Doubling Theory (MDT). Morphological Doubling Theory (MDT) is a framework to describe the duplication of a morphological constituent of a base in order to add additional meaning. MDT differs from traditional phonological models, such as those in Marantz (1982) and Steriade (1988; cited in Inkless, 2005), which treat the reduplicant as an abstract morpheme (e.g., RED) whose substance is derived phonologically via copying. However, MDT proposes that the reduplicant and base are generated by morphological operations in concert within a construction that reflects semantic and phonological generalizations on the output.

MDT's central principle is that reduplication (repetition) is a morphological form that fulfills a particular morphosemantic descriptions, and not simply a phonological phenomenon. It is an approach focused on the morphological structure and meaning of reduplicated forms (which may be formed by duplicating words, stems, or roots; Inkless & Zoll, 2005). MDT went further than previous, more phonology-focused theories of reduplication by treating it as a morphological process, giving a richer notion of how reduplicated forms are constructed.

While MDT adds to foundational ideas proposed by earlier scholars such as Singh (1982), Saperstein (1997), and Sherrard (2001), beyond these three ideas, MDT consistently demonstrates that investments in a firm's domestic human capital have substantial spillover benefits. These contributions set the stage for MDT, showing that reduplication is subject to morphological rules that account for semantic and structural factors, rather than being there solely to achieve phonological harmony. From this perspective, reduplication is not just a mere sound duplication, but a morphological meaningful operation.



4. Research Methodology

The participants for this research were recruited from indigenous Dhatki speakers, residing in Sindh, Pakistan. The participants were chosen through purposive sampling to guarantee that they were proficient in Dhatki. Data was collected in natural environments, like during family discussion or at home, to obtain spontaneous use of language.

In order to investigate the Dhatki reduplication, the investigator presented some words to the speaker in order to check their frequency and application in various contexts, the last observation contains 30 examples of Dhatki reduplication which were recorded and examined to see the various kinds and applications of reduplication in the language.

5. Findings and Discussion

5.1. Full Reduplication in Dhatki Language

Full reduplication is a morphological process whereby an entire word or root, is repeated, exactly, in order to create a separate word or to express certain grammatical or semantic functions.

Repetition, continuity, intensity or habitual action are often stressed by this type of reduplication. The use of full reduplication in Dhatki to signify repeated or continued actions, intensity of emotion, repetition or rhythm, is very much at work. It involves repeating all the way until what is called the root word, but without forced phonological change. For example, the same verb root is duplicated to emphasize or denote the repeated action such as in Bol- Bol (to talk continuously), ro ro (to cry repeatedly). In a similar case, describing intensity or frequency in a descriptive way, we find the nouns paal - paal (every moment) and rato - rato (very red) which also fully reduplicate. Full reduplication in Dhatki not only enhances meaning but also adds musicality and emotional depth to speech.

Table 5.1 shows the Full Reduplication in Dhatki Language

Dhatki Example	Phonetic Form	English Translation	Grammatical structure
Paal-paal	[pa:l-pa:l]	Every moment	Noun+noun
Bas-bas	[bəs-bəs]	Sitting repeating	Verb+verb
Kaat-kaat	[ka:t-ka:t]	Repeating cutting	Verb+verb
Bol-bol	[bo:l-bo:l]	Constant talk	Verb+verb
Haal-haal	[ha:l-ha:l]	continuously	Noun+noun
Rato-rato	[raʈo-raʈo]	Very red	Noun+noun
Ghoom-ghoom	[gʱu:m-gʱu:m]	Wandering everywhere	Verb +verb
Hans-hans	[həns-həns]	Laughing continuously	Verb+verb
Ro-ro	[ro:-ro:]	Crying repeatedly	Verb+verb



Uth-uth	[u ^h -u ^h]	Getting up repeating	Verb+verb
---------	-----------------------------------	----------------------	-----------

Continuing with the same example in the Dhatki language, the reduplicated verb form 'bol bol' represents the use of verb reduplication to indicate repetition, continuity or intensity of an action,

i.e. three showing repeated and also continuous talking. If used in a sentence like "Bol-bol k thak gaya" (Got tired of talking constantly), the repeated verb structure brings out the idea that the action lasted for a long time and was tiring. Morphological reduplication is a syntactic economy for obtaining emphasis, in the absence of added lexical items and an inherent characteristic of many South Asian languages. However, English lacks verb reduplication in this way, repeating is done by syntactic strategies like repeating the whole phrase ("talking and talking") or by using adverbs like "repeatedly," "constantly" (e.g. "*He got tired of talking repeatedly*"). Hence English makes greater use of syntactic devices and lexical richness to convey the same semantic nuance in place of morphological reduplication. The language Urdu, related to Dhatki, does resort to reduplication but adds a participial marker /kar/ to show reason or manner as in 'Bol bol kar thak gaya'. 'Kar' is the connector in Hindi which adds grammatical sophistication and clarity of cause; this phrase translates to 'Got tired by constantly talking'. The Dhatki language's form is phonologically fully reduplicated, with long vowels and even stress on both segments – it is thus rhythmic and emphatic. Both parts of the long vowel to Urdu are retained, but for the sake of the following 'kar', the second is de-emphasized slightly. When used in English, the word has different stress patterns, as well as distinctive phonetic qualities which tend in the direction of diphthongization and auxiliary structures. The fact that there is phonological conditioning in Dhatki with reduplication shows how it plays a unique role in Dhatki as a morphophonological process which integrates structure and sound to convey meaning directly. Such reduplication is absent in English which thereby offers a typological contrast in the way in which languages express intensity and repetition—both of which reflect deeper grammatical and cognitive strategies. For this reason, "bol-bol" in Dhatki is not merely a lexical option, but a phonological and syntactic mechanism missing or realized differently in both English and Urdu and consequently it constitutes a uniquely linguistically rich point of interest in South Asian morphosyntax and cross-linguistic pragmatics.

5.2 Partial Reduplication in Dhatki

Partial reduplication is where a part of a word, generally just the root or base, is repeated with some variation—a change in sound or a partial segment, to which may be added affixes. On this type of change word class can be changed and semantic nuances added.

In the context of Dhatki, partial reduplication is the repetition of a part of a verb or noun root, changing its phonology or morphology slightly, for purposes of creating new words or changing a word's category. For example, mar-marnu, lit. 'to die', also mar-nu 'dying' or likh-likhai, lit. 'to write', also likh-ai 'written form'. Reduplication of this sort is especially productive in nominalization so that verbs become process or result nouns. Understanding the roots of Dhatki, it enriches the lexicon by deriving processes (sun-suniyo – listening), states (lag-lagyo – attachment) or results (tor-toran – broken things) and thereby making Dhatki



Vol. 3 No. 6 (June) (2025)

morphology a very powerful tool.

Table 5.2 indicates Partial Reduplication in Dhatki

Dhatki Example	Phonetic Form	English Translation	Grammatical structure
Mar-marnu	/mər-mər.nu/	to die	Verb → Noun (Action)
Jal-Jalen	/dʒəl-dʒə.lən/	burning sensation	Verb→Noun (Process)
Sun-suniyo	/sun-su.ni. vo/	act of listening	Verb→Noun/Infinitive
Lag-lagyo	/ləg-lə.gjo/	attachment or impact	Verb → Past Participle
Likh-likhai	/lik ^h -lik ^h ət/	written form	Verb→Present Participle/Noun
Kha-khadu	/k ^h a-k ^h ə. du/	Edible	Verb → Noun (Object)
Uth-uthan	/ut ^h -ut ^h ən/	act of getting up	Verb→Noun (Process)
Tor-toran	/tor-to. rən/	broken things	Verb→Noun (Action/Result)
Bhajh-bhajan	/b ^h aɪ-b ^h a.dʒən/	religious song	Noun (state) → Noun (form)
Jho-jhoolan	/dʒ ^h o-dʒ ^h u.lən/	swaying movement	Verb→ Noun (Motion)

In Dhatki, Jal jalen is an example of reduplication: the verb jal (to burn) is reduplicated and its final vowel elided before being nominalized as a noun which refers to a process or state. Used in a sentence such as "Usay jal jalayen ho rahi thi" (She was feeling a burning sensation) signifies both the physical process of burning and an ongoing state of being, in which there is continuous discomfort or in which pain persists. The redundancy in Dhatki uses such reduplication combined with derivational morphology to encode such complex meanings in a single lexical item. In English, there is no direct morphological equivalent to such formations; the corresponding meaning is expressed lexically with such phrases as burning sensation ('burning') or something like 'burning (the interior) of your body' (with the literal meaning of a feeling of being burned). The processes of reduplication and derivational affixation are not internal to morphological processes of English which rely on free morphemes and phrases. In closely related Urdu, the equivalent would be "jalan" (جلان), formed from the verb "jalna" (to burn). Urdu, however, does not use reduplication as a means of forming this word which instead uses a root verb with a common nominalising suffix. The Dhatki form "Jaljen" (from a root packed with rimes) is phonologically an instance of a base verb plus a reduplicated form which is morphologically altered. Phonologically it is patterned rhythmically and phonologically harmonic across both segments. By contrast, Urdu's 'jalan' is monosyllabic and prosodically simpler and English constructions are polysyllabic and syntactically derived. Broader typological differences underlie these. Though both Dhatki and Urdu adopt the principle of the affixation of the elements to encapsulate meaning and English doesn't, yet Urdu makes use of the combination of roots and affixes and Dhatki relies on



Vol. 3 No. 6 (June) (2025)

morphological reduplication and derivation to express meanings in a compact but expressive form, while in English the meanings are expressed by syntactic expansion. So, "Jal-jalen" in Dhatki is a phonological and morphological transformation of a verb into a noun and it is an example of how South Asian languages exhibit a typologically rich word formation via reduplication that is not available in languages like English and Urdu and where word formation is a grammatical and also semantic, vehicle.

5.3 Non-sensical Reduplication in Dhatki

Echo reduplication or nonsensical reduplication, is the repetition of a root word plus a form phonologically similar, but semantically meaningless or invented, to the root. The root of the second part is altered in initial consonant or vowel but remains similar to the root in rhythmic terms. It is used for this form of expression, play or mimicry.

Nonsensical reduplication in Dhatki is a lively and expressive morphological lyrical phenomenon, in which a real root word is followed by another phonetically modified, semantically meaningless partner. Later, variations in vowels or consonants make the second part sound like the sound structure of the first word, for example, tappu-kuppu, phillu-shillu or muku-bhuku. Many of these expressions are used for playful purposes, baby talk or for describing what something looks/sounds like (soft sounds, flickering lights, etc) or is cute. The second element is independent in meaning, but it adds intensity to the expressive force of the root, it makes a powerful, imaginative linguistic effect. But this form contributes colour and inventiveness to speech as it also evokes the rich oral and cultural traditions that underlie Dhatki.

Table 5.3 indicates Non-Sensical Reduplication in Dhatki

Dhatki Example	Phonetic Form	English Translation	Grammatical Structure
Tappu-kuppu	/tæp:u kup:u/	Light tapping sound / playful phrase	Root + nonsense reduplicant (consonant change)
Chik-mik	/tʃɪk mɪk/	Small or quick movement/noise	Root + nonsense reduplicant (onset change)
Bunku-shunku	/bʊŋkʊ ʃʊŋkʊ/	Jiggling or shaking motion	Root + nonsense reduplicant (consonant cluster change)
Phillu-shillu	/pʰɪllu ʃɪllu/	Soft touch / gentle action	Root + nonsense reduplicant (initial consonant change)
Gullu-mullu	/gʊllu mʊllu/	Roundness or fullness	Root + nonsense reduplicant (initial consonant change)
Dhillu-phillu	/dʰɪllu pʰɪllu/	Loose, hanging loosely	Root + nonsense reduplicant (consonant alternation)



Vol. 3 No. 6 (June) (2025)

Muku-bhuku	/moku b ^h oku/	Something small & cute	Root + nonsense reduplicant (voicing change)
Millu-chillu	/millu t ^ʃ illu/	Flickering or sparkling	Root + nonsense reduplicant (initial consonant change)
Jhallu-jhillu	/dʒ ^h ællu dʒ ^h illu/	Shaking head or shaking motion	Root + partial reduplication (vowel change + truncation)
Pittu-mittu	/pittu mittu/	Small, tiny or quick	Root + nonsense reduplicant (initial consonant change)

The following is a Dhatki reduplicated expression (Tappu-kuppu) which shows the use of expressive reduplication common in south Asian languages. The term 'Tappu kuppu' is a playful one, for there is a play on words and also it sounds 'onomatopoeic', evoking a light tapping sound or possibly a rhythmic teasing action. This is a construction where we have a 'root + nonsense reduplicant' in which the second part is not a real word at all but is a phonological modification of the root often changing the consonant so that it rhymes or is playful. In this, the root is "tappu", "kuppu" merely a stylized mimic which changes the initial consonant /t/ to /k/ to achieve rhythmic balance and/or have some sensory/emotional association, often humorous or affectionate. No other morphological parallel to this kind of expressive reduplication exists in English, though similar effects can be obtained expressedly through sound symbolic expressions or alliteration (e.g. pitterpatter, zig-zag). This sound symbolism is heavily dependent on lexical conventions to create this form in English and often the second term has no meaningful morphemes. Expressive reduplication in Urdu does exist (like 'chik-chik' or 'phatak-phatak'), but nonsense reduplication with root alteration is rare and when it occurs the segments tend to be identical or near identical. Thus, reduplication in Dhatki is more creative and phonetically free than Urdu or English, for example in 'Tappu-kuppu'. Phonetically, this form uses geminated plosives (/p:/), rounded vowels, consonant switching in order to maintain phonetic symmetry but with enough variety in order to distinguish the two elements phonologically. Not only does the rhythmic flow and consonant shift generate a pleasing auditory pattern, but it also functions morphopragmatically signaling informality, playfulness or affective meaning which expands the expressive range of the language.

One sees this kind of reduplication in folk speech, children's language and the like: where it matters little to be precise about the meaning, but the reduplication is expressive of emotion or sensory effect. Since "Tappu-kuppu" is thus a highly expressive, phonologically playful reduplicated form used for nonsense reduplication to express mood, texture and motion, only embedded structurally and culturally in South Asian expressive systems and only indirectly mirrored lexically in more rigid systems, as with Urdu and western languages like English, it is a very viable form in Dhatki.



Conclusion

This research makes it quite clear that reduplication is a major and creative part of the Dhatki language. First it is not only used for form new words, but for expressing emotions, repeating action and plays ideas. Three major types of reduplication were found: full (total), partial and nonsensical (echo). Each type has a prescribed role in meaning making and in coloring speech with color. For example, bol—bol is a full reduplication which makes action continuous, jal—jal in a partial reduplication is used to turn verbs into nouns and tappu—kuppu is a echo reduplication which adds fun and expressiveness. Using Morphological Doubling Theory (MDT), the research paper explains that reduplication in Dhatki is not merely copying of sound, but it performs specific grammatical and semantic functions. Results showed some differences between Dhatki and English and Urdu languages which use other means to say repetition or intensity but they are mainly relied on reduplication in Dhatki. It's unique and expressive for that reason.

References

- Abbi, A. (1985). Reduplication in South Asian Languages: An Areal, Typological and Historical Study. Allied Publishers.
- Abbi, A. (1992). Reduplication in South Asian Languages: An Areal, Typological and Historical Study (2nd ed.). Allied Publishers.
- Ahmed, N., & Saleem, M. (2022). The role of morphological reduplication in Urdu and Punjabi: A cognitive grammar approach. *Pakistan Journal of Linguistics*, 18(1), 22–38.
- Akram, A. (2020). Language policy and education in Pakistan: An analysis. *Journal of Educational Studies*, 10(2), 45–60.
- Akram, A., & Yang, Y. (2021). Language ideologies and multilingual practices in Pakistan's education system. *International Journal of Multilingualism*, 18(3), 270–288.
- Booij, G. (2007). *The Grammar of Words: An Introduction to Linguistic Morphology* (2nd ed.). Oxford University Press.
- Farooq, S., & Hussain, Z. (2023). Digital tools for linguistic analysis of reduplication in minority languages of Pakistan. *Linguistic Studies in South Asia*, 4(2), 58–74.
- Garg, R., Marwaha, P., & Sharma, K. (2020). A computational framework for reduplication in South Asian languages: A case study of Dhatki. *Journal of Natural Language Engineering*, 26(5), 673–690.
- Gil, D. (2005). Intensionality and reduplication in Malay and other languages. In B. Hurch (Ed.), *Studies on Reduplication* (pp. 31–64). Mouton de Gruyter.
- Harrison, S. (1973). The role of triplication in verb morphology. *Linguistic Inquiry*, 4(1), 121–130.
- Hurch, B., Inkelas, S., & Downing, L. J. (2008). Reduplication. In M. Haspelmath et al. (Eds.), *The World Atlas of Language Structures*. Oxford University Press.
- Inkelas, S., & Downing, L. J. (2015). What is reduplication? Typology and analysis. In J. Audring & F. Masini (Eds.), *The Oxford Handbook of Morphological Theory* (pp. 536– 562). Oxford University Press.
- Inkelas, S., & Zoll, C. (2005). *Reduplication: Doubling in Morphology*. Cambridge University Press.
- Jain, D. (2001). *A Grammar of Dhatki and Related Varieties*. Delhi University



Vol. 3 No. 6 (June) (2025)

Press.

- Kouwenberg, S. (2011). Reduplication in pidgins, creoles and mixed languages. In M. Everaert & H. van Riemsdijk (Eds.), *The Wiley-Blackwell Companion to Syntax*. WileyBlackwell.
- Kumar, A. (2022). Echo words and semantic redundancy in Hindi and Dhatki: A crosslinguistic study. *Indo-Aryan Journal of Comparative Linguistics*, 7(1), 103–119.
- Leroy, M., & Morgenstern, A. (2005). Reduplication in early language acquisition: Semantic and pragmatic functions. *First Language*, 25(3), 317–337.
- Majeed, H., Khan, S., & Rehman, R. (2024). Reduplication in the Balochi language: A morphological analysis. *Journal of South Asian Linguistics*, 12(1), 55–72.
- Marantz, A. (1982). Re reduplication. *Linguistic Inquiry*, 13(3), 435–482.
- McCarthy, J., & Prince, A. (1995). Faithfulness and reduplicative identity. In J. Beckman, S. Urbanczyk, & L. Walsh Dickey (Eds.), *Papers in Optimality Theory* (pp. 249–384). University of Massachusetts.
- Montaut, A. (2008). Syntactic consequences of reduplication in Indo-Aryan languages. In B. Hurch (Ed.), *Studies on Reduplication* (pp. 201–222). Mouton de Gruyter.
- Ramzan, A., Riaz, S., & Hussain, T. (2023). Reduplication in South Asian languages: A comparative study. *South Asian Linguistics Review*, 9(2), 89–107.
- Riaz, S. (2023). Triplication patterns in Dhatki language. *Journal of Morphological Studies*, 5(1), 41–56.
- Saperstein, S. (1997). Reduplication and semantic extension in Urdu-Hindi. *South Asian Language Review*, 7(1), 45–68.
- Shackle, C. (1976). *The Indo-Aryan languages of central Pakistan*. School of Oriental and African Studies.
- Sherrard, P. (2001). Morphological operations in word formation. *Linguistics Today*, 7(3), 203–219.
- Singh, R. (1982). Morphology and reduplication in Hindi. *Indian Linguistics*, 43(1), 13–34.
- Steriade, D. (1988). Reduplication and syllable transfer. *Linguistic Inquiry*, 19(3), 491–528.
- Yoshika, A. (2017). Reduplication in the indigenous languages of Northern Pakistan: A comparative survey. *Himalayan Linguistics Journal*, 16(2), 77–99.
- Zhao, L., & Rahman, M. (2024). Computational morphology and South Asian reduplication: New advances. *Language Resources and Evaluation*, 58(1), 97–115.