# Morphological transformation of numerical phrases into verbs in the Javanese language

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**Abstract -** This study explores the morphological process in the Javanese language where numerical phrases are transformed into verbs through the addition of the prefix "N-." This process is not only a linguistic phenomenon but also deeply rooted in Javanese culture and socio-religious practices. The urgency of this study lies in documenting and analysing how these transformations reflect cultural traditions, particularly the ceremonial practices observed after specific days following someone's death, such as the third, seventh, fortieth, one hundredth, and one-thousandth days. A review of previous studies shows a lack of focus on the intersection of language, culture, and religion in the transformation of numerical phrases into verbs. This study fills this gap by examining the specific phrases "telung dina" (three days), "pitung dina" (seven days), "patang puluh dina" (forty days), "satus" (one hundred), and "sewu" (one thousand), which are culturally significant in Javanese rituals, and their transformation into verbs such as "nelung dina," "mitung dina," "matang puluh dina," "nyatus," and "nyewu." The analysis demonstrates that the prefix "N-" not only verbalizes these phrases but also embodies the cultural significance of the corresponding periods, turning static expressions into action-oriented verbs that imply ceremonial activities. The conclusion emphasizes the importance of this morphological process in understanding how the Javanese language encapsulates cultural values and practices, offering new insights into the relationship between language, culture, and religion in Austronesian linguistics.

**Keywords:** Javanese culture, morphological transformation, prefix "N-", numerical phrases, socio-religious practices

## I. INTRODUCTION

The Javanese language, spoken predominantly on the island of Java in Indonesia, is one of the largest languages within the Austronesian family, known for its rich linguistic and cultural heritage. As with many other languages in this family, Javanese exhibits a highly complex morphological system, which allows for intricate transformations of words and phrases to convey nuanced meanings. One particularly intriguing aspect of Javanese morphology is the

transformation of numerical phrases into verbs through the addition of the prefix "N-." This linguistic process not only showcases the flexibility and adaptability of the language but also reflects deep cultural and socio-religious traditions inherent in Javanese society.

In Javanese culture, numbers and time periods play a significant role, particularly in the context of ceremonial practices following a person's death. Ceremonies are typically held on the third, seventh, fortieth, one hundredth, and one-thousandth days after death, marking these periods as culturally and religiously significant. The transformation of numerical phrases such as "telung dina" (three days), "pitung dina" (seven days), "patang puluh dina" (forty days), "satus" (one hundred), and "sewu" (one thousand) into verbs like "nelung dina," "mitung dina," "matang puluh dina," "nyatus," and "nyewu" respectively, is a reflection of these traditions. These verbs are not merely linguistic constructs; they encapsulate actions and events that are deeply intertwined with the cultural practices and beliefs of the Javanese people.

Understanding the morphological transformation of numerical phrases into verbs in Javanese is crucial for several reasons. Firstly, it sheds light on how language and culture are inextricably linked, with linguistic structures often mirroring cultural practices. The study of this specific morphological process provides insights into how the Javanese language has evolved to accommodate and reflect the cultural and religious practices of its speakers. It highlights the role of language as a repository of cultural knowledge, where even seemingly simple numerical expressions carry deep cultural significance when transformed into verbs.

Secondly, this study is important because it addresses a gap in the existing linguistic literature. While there has been considerable research on the morphology of Austronesian languages, particularly in relation to verb formation and affixation, the specific phenomenon of transforming numerical phrases into verbs in Javanese has received relatively little attention. Previous studies have largely focused on more general aspects of Javanese grammar, such as affixation, reduplication, and phonological processes, but have not adequately explored the cultural dimensions of morphological transformations.

Furthermore, this study contributes to the broader field of Austronesian linguistics by providing a detailed analysis of a unique morphological process that is culturally motivated. It offers a model for how linguists can explore the intersections of language, culture, and religion, thereby enriching our understanding of how linguistic structures are shaped by the cultural contexts in which they are used.

The transformation of numerical phrases into verbs through affixation is a phenomenon observed in several Austronesian languages, though the specifics of this process vary widely across languages. In the context of Javanese, several scholars have explored the general principles of affixation and verb formation. For instance, Robson (2014) provided a comprehensive overview of Javanese grammar, including the various prefixes, suffixes, and infixes that contribute to verb formation. However, Robson's work primarily focused on more commonly used affixes such as "di-" (passive) and "ke-" (accidental or unintentional action), with less attention given to the "N-" prefix and its role in verbalizing numerical phrases.

Another relevant study is that of Poedjosoedarmo (2006), who examined the phonological and morphological processes in Javanese, including the use of affixes to modify the meaning and function of words. Poedjosoedarmo's research highlighted the rich inflectional system of Javanese but did not delve into the cultural implications of morphological changes, particularly in relation to numerical phrases and their transformation into verbs.

In a broader context, Blust (2013) explored affixation across Austronesian languages, noting the prevalence of prefixation as a means of verb formation. Blust's work provided valuable insights into the general principles of affixation within the language family, but again, specific cultural applications of these processes in Javanese were not the focus.

More culturally-oriented linguistic studies, such as those by Geertz (1976), have examined how Javanese language reflects social and cultural norms, particularly in relation to etiquette, politeness, and social hierarchy. Geertz's research, while not focused on morphological processes, underscores the importance of language as a reflection of cultural practices, setting the stage for the current study to explore this intersection in greater detail.

The collection of references provides a solid foundation for understanding the morphological processes in the Javanese language, particularly the transformation of numerical phrases into verbs. Blust (2013) and Wang (2017) offer broader insights into the Austronesian language family, to which Javanese belongs, helping to situate the morphological processes within a larger linguistic context. This background is crucial for understanding how Javanese, as part of this family, shares common linguistic features with other Austronesian languages, yet also exhibits unique characteristics, especially in its verb formation processes.

Poedjosoedarmo (2006) and Robson (2014) provide comprehensive overviews of Javanese linguistics, focusing on grammar, syntax, and morphological processes. Their works are essential for understanding the structural aspects of the Javanese language, including how numerical phrases like "telung dina" (three days) can be transformed into verbs such as "nelung dina." These transformations, as detailed by Sartono (2010) and Sukardi (2013), highlight the importance of the prefix "N-" in Javanese verbalization, illustrating how this morphological process expands the language's expressive capacity.

The cultural significance of these linguistic transformations is explored by Geertz (1976) and Suryadi (2018), who examine the intersection of language, culture, and socio-religious practices in Javanese society. Their research underscores the role of language in reflecting and reinforcing cultural values, particularly in the context of traditional ceremonies and rituals. The transformation of numerical phrases into verbs is not just a linguistic phenomenon but also a reflection of the deep cultural and religious practices that shape Javanese society.

Andresen and Carter (2016) explore the intricate relationship between language and various societal factors, including history, culture, and politics. They argue that language is not merely a means of communication but a reflection of the broader socio-political and historical contexts in which it operates. Their work underscores how linguistic practices are influenced by and, in turn, influence cultural and political dynamics.

Hodidjah (2012) examines the reciprocal influence between language and culture, discussing how language can both shape and be shaped by cultural contexts. The article highlights that understanding this relationship is crucial for comprehending how cultural identity and practices are communicated and perpetuated through language. Navrátil (2019) presents a collection of essays reflecting on how language and literature mirror human experiences and cultural values, emphasizing the interplay between linguistic expression and cultural identity. Vestergaard (1999) focuses on the connections between language, culture, and identity, particularly within the framework of intercultural studies, shedding light on how language serves as a tool for negotiating and expressing personal and collective identities across different cultural contexts.

Hengki and Ratna (2023) conducted a comparative analysis focusing on the morphological processes involved in verb formation in English, Indonesian, and Banjar Kuala, a language spoken in South Borneo. Their research highlighted the unique ways in which affixes contribute to verb creation in these languages, revealing the cultural and linguistic distinctions that shape their morphological structures. The study provides valuable insight into how different languages utilize affixation to construct meaning through verbs.

Pham and Nguyen (2022) explored the phenomenon of morphological conversion as presented in English and Vietnamese high school textbooks. The research examined how conversion, a process where a word changes its grammatical category without altering its form, is applied in both languages. This investigation underscored the educational importance of understanding conversion in language instruction, showing how it functions in the teaching materials and its role in language acquisition.

Outaleb-Pellé (2013) delved into the morphology of verb phrases in learners of French as a Foreign Language. The study focused on the difficulties encountered by these learners in mastering French verb morphology, emphasizing the complexities of verb conjugation and structure. The research offered insights into the challenges non-native speakers face when learning a highly inflected language like French.

Veselinova (2020) examined numeral morphology across a range of languages, studying how numeral systems interact with linguistic morphology. The research uncovered patterns in how different languages express numbers, highlighting both universal and language-specific principles. Veselinova's findings provide a broader understanding of the linguistic structures underlying numeral formation.

Engelmann et al (2019) explored how exposure to linguistic input influences the acquisition of verb morphology in children learning highly inflected languages. Through experiments and computational modelling, the researchers demonstrated that the type and frequency of linguistic input directly shape children's ability to grasp complex verb structures. Their work contributes to understanding how children develop morphological knowledge and its dependency on language input.

Jackendoff (1975) investigated the regularities in morphological and semantic patterns within the lexicon. His research focused on identifying shared morphological traits that categorize words, revealing how these traits influence word formation and lexical organization. The study contributed to a deeper understanding of how morphological structures are semantically grounded in language.

Bybee and Moder (1983) analyzed morphological classes as natural linguistic categories, exploring how speakers of a language cognitively group words based on shared morphological features. Their work shed light on the cognitive processes involved in language categorization, suggesting that morphological patterns serve as natural groupings for language users.

Candrasari (2018) presented an analysis of the morphological processes in Devayan, a language spoken in the Simeulue Island. Her study focused on the language's typological characteristics, particularly the use of affixes and other morphological processes that contribute to word formation. The research offers a descriptive account of Devayan's morphological features, adding to the knowledge of lesser-studied languages.

Zhang, Xu, and Xu (2023) explored the connection between morphological awareness and arithmetic word-problem solving in Chinese adolescents. Their study found that students' understanding of morphological structures in language directly influenced their ability to solve word problems in mathematics, suggesting that linguistic skills play a significant role in mathematical reasoning.

Jiang (2004) examined morphological insensitivity in second language (L2) learners, highlighting the challenges they face in processing morphological information in a new language. His research revealed that L2 learners often struggle with recognizing and interpreting morphological cues, which affects their overall language comprehension. This study provided important insights into the cognitive hurdles associated with second language acquisition.

Finally, studies by Hasisah et al (2021) and Zulferdi (2014) contribute to understanding the typological and dialectal variations within Javanese, particularly in the formation of verbs. These studies reveal the nuances of morphological processes across different Javanese dialects, offering a more detailed and localized understanding of how these linguistic transformations operate within the broader framework of Javanese language and culture. Together, these references form a comprehensive basis for exploring the intersection of language, culture, and society in Javanese morphosyntax.

These references collectively provide a comprehensive foundation for studying the transformation of numerical phrases into verbs in Javanese, within the broader context of Austronesian linguistics and Javanese culture.

Given the background and significance of this topic, several research questions arise that this study seeks to address:

(1) How does the morphological process of adding the prefix "N-" transform numerical phrases into verbs in Javanese?

- o This question focuses on the linguistic mechanisms involved in the transformation, including phonological changes, syntactic implications, and the resulting shifts in meaning.

(2) What are the cultural and socio-religious significances of the specific numerical phrases that undergo this transformation?

- o This question aims to explore the cultural contexts in which these verbs are used, particularly in relation to Javanese ceremonial practices.

(3) How does this morphological process reflect broader patterns in Austronesian languages, and what does it reveal about the relationship between language and culture?

- o This question places the study within a broader linguistic framework, seeking to understand how similar processes might occur in other Austronesian languages and what this tells us about the role of language in cultural preservation and expression.

The primary objective of this study is to provide a comprehensive analysis of the morphological transformation of numerical phrases into verbs in the Javanese language, with a particular focus on the addition of the prefix "N-." This objective involves both a linguistic analysis and a cultural examination of the phenomena.

Specifically, the study aims to:

(1) Analyse the Morphological Process:

- o Conduct a detailed linguistic analysis of how the prefix "N-" is added to numerical phrases, examining the phonological and syntactic changes that occur during the transformation.

(2) Explore Cultural Significance:

- o Investigate the cultural and socio-religious contexts in which these verbs are used, focusing on Javanese ceremonial practices related to death and mourning.

(3) Contribute to Austronesian Linguistics:

- o Situate the findings within the broader field of Austronesian linguistics, drawing comparisons with similar morphological processes in other languages within the family.

(4) Preserve Cultural Knowledge:

- o Highlight the importance of documenting and analysing these linguistic phenomena as a means of preserving cultural knowledge and practices embedded within the language.

By achieving these objectives, the study will not only advance our understanding of Javanese morphology but also contribute to the broader discourse on the relationship between language, culture, and religion in Austronesian societies.

This study addresses a significant yet underexplored area of Javanese linguistics, offering new insights into how language and culture interact. The transformation of numerical phrases into verbs through the prefix "N-" is not merely a linguistic curiosity; it is a reflection of the deep cultural and religious values of the Javanese people. By exploring this phenomenon in detail, the study contributes to a richer understanding of both the Javanese language and the cultural practices it encapsulates, providing valuable perspectives for linguists, anthropologists, and cultural historians alike.

## II. METHOD

The data for this study is collected using a combination of document study and ethnolinguistic fieldwork methods, focusing on authentic Javanese language usage and its cultural context.

2.1 Document Study:

- o The primary source of data comes from traditional Javanese texts, such as ceremonial manuscripts, religious scriptures, and classical literature that contain references to numerical phrases. Additionally, modern sources such as Javanese dictionaries, language textbooks, and online Javanese language forums are examined. These texts provide a comprehensive overview of how numerical

phrases like "telung dina" (three days) and "pitung dina" (seven days) are used and transformed into verbs.

- o Audio-visual materials like recorded speeches, rituals, and interviews with native speakers are also reviewed to capture the pronunciation, intonation, and contextual usage of these verbs in daily communication.

2.2 Ethnolinguistic Fieldwork:

- o Interviews and Focus Group Discussions (FGDs): In-depth interviews and FGDs with native Javanese speakers, particularly those involved in religious and cultural ceremonies, are conducted to gather insights into the socio-religious significance of the numerical phrases and their verbal forms. Participants include community elders, religious leaders, and cultural practitioners who can provide contextual and practical examples of these transformations.
- o Participant Observation: Observations are made during key cultural ceremonies, such as the "Selamatan" (a communal feast held for various life events, including death ceremonies), to document the live usage of these verbs and understand their role in the rituals.

The analysis of the collected data involves several steps:

(1) Morphological Analysis:

- o The study begins with a detailed morphological analysis of the numerical phrases and their verbal forms. This includes examining the addition of the prefix "N-" and any phonological or syntactic changes that occur during the transformation. The analysis focuses on understanding the rules governing this transformation, such as the conditions under which "N-" changes to "m-", "ng-", "ny-", or remains "n-" based on the initial consonant of the root word.

(2) Semantic and Pragmatic Analysis:

- o The transformed verbs are analysed semantically to determine how their meanings shift from numerical to action-oriented expressions. Pragmatic analysis is also conducted to understand the contextual use of these verbs in socio-religious settings. This involves analysing the cultural and religious significance of each verb, particularly in the context of Javanese death rituals and other ceremonies.

(3) Ethnolinguistic Analysis:

- o The data from interviews, FGDs, and participant observations are used to contextualize the morphological and semantic findings within the broader cultural and religious practices of the Javanese people. This analysis seeks to link the linguistic transformations with their cultural functions, highlighting how language reflects and preserves cultural values.

(4) Comparative Analysis:

- o Finally, the findings are compared with similar morphological processes in other Austronesian languages to identify common patterns and unique features of the Javanese language. This comparative analysis helps to situate the study within the broader field of Austronesian linguistics, offering insights into the interaction between language, culture, and religion across the language family.

This methodological approach ensures a comprehensive understanding of how Javanese numerical phrases are transformed into culturally significant verbs, providing valuable contributions to both linguistic theory and cultural studies.

## III. RESULTS AND DISCUSSION
### 3.1 Results and Discussion
The transformation of numerical phrases into verbs in the Javanese language, particularly through the addition of the prefix "N-," is a linguistic phenomenon that intertwines language with culture and religion. This section critically analyses the results of the study, focusing on the morphological, semantic, and cultural implications of this process. The discussion is organized

around the three central research questions: (1) How does the morphological process of adding the prefix "N-" transform numerical phrases into verbs in Javanese? (2) What are the cultural and socio-religious significances of the specific numerical phrases that undergo this transformation? (3) How does this morphological process reflect broader patterns in Austronesian languages, and what does it reveal about the relationship between language and culture?

*3.1.1 Morphological Transformation of Numerical Phrases into Verbs*

The primary result of the study confirms that the addition of the prefix "N-" to numerical phrases in Javanese is a systematic morphological process that converts static numerical expressions into dynamic verbs. This transformation is not arbitrary but follows specific phonological and morphological rules.

**(1) Phonological Adaptations**:
- The prefix "N-" adapts to the phonological environment of the root word, resulting in various allomorphic forms such as "m-", "ng-", "ny-", and "n-". For example, when "N-" is added to "telung" (three), the resulting verb is "nelung," where "n-" is preserved. However, when added to "pitung" (seven), the prefix morphs into "m-", resulting in "mitung." This phonological adaptation is crucial for maintaining the euphony and phonotactic constraints of the Javanese language.
- The study further reveals that these adaptations are predictable and follow the general phonological rules of Javanese, where the prefix "N-" assimilates to the place of articulation of the initial consonant of the root word. This is consistent with findings in other Austronesian languages, where nasal assimilation is a common morphological feature.

**(2) Morphological Regularity**:
- The transformation process is highly regular, indicating a robust morphological pattern within the language. Each numerical phrase, when combined with "dina" (day) or other similar time-related nouns, undergoes a predictable transformation. For example, "telung dina" (three days) becomes "nelung dina," "pitung dina" (seven days) becomes "mitung dina," and "patang puluh dina" (forty days) becomes "matang puluh dina."
- This regularity suggests that the "N-" prefix is a productive morpheme in Javanese, capable of generating a wide range of verbs from numerical phrases. This productivity is a key feature of the morphological system, allowing speakers to create verbs as needed to express specific actions or events tied to cultural practices.

**(3) Grammatical Implications**:
- The transformation of numerical phrases into verbs also has grammatical implications. These verbs function within sentences as action-oriented predicates, shifting the focus from a static temporal or quantitative expression to a dynamic event or process. This shift is not just a change in word class but also involves a change in the syntactic structure of sentences. For example, "nelung dina" as a verb can be used in sentences like "Iku wis nelung dina" (It has been three days), where it serves as the main verb, driving the action of the sentence.
- The study's analysis reveals that this morphological process contributes to the overall flexibility and expressiveness of the Javanese language, enabling speakers to convey complex temporal relationships succinctly and effectively.

*3.1.2 Cultural and Socio-Religious Significance*

The morphological transformation of numerical phrases into verbs in Javanese is deeply rooted in cultural and socio-religious practices, particularly those associated with death rituals and ceremonies. The study finds that these verbs are not merely linguistic constructs but are imbued with cultural meanings and significance.

(1) Ceremonial Contexts:

- o In Javanese culture, specific numerical periods following a person's death are marked by ceremonies, such as on the third day ("telung dina"), the seventh day ("pitung dina"), the fortieth day ("patang puluh dina"), the hundredth day ("satus"), and the thousandth day ("sewu"). These periods are culturally significant as they represent stages in the mourning process and are believed to be important for the soul's journey in the afterlife.
- o The verbs derived from these numerical phrases, such as "nelung dina" (marking the third day) and "mitung dina" (marking the seventh day), are used to describe the actions associated with these ceremonies. For instance, "nelung dina" may describe the act of holding a ceremony on the third day after death, while "mitung dina" refers to the ceremony held on the seventh day.
- o The use of these verbs in ceremonial contexts highlights the intersection of language and culture, where linguistic forms are shaped by and serve to reinforce cultural practices. This finding aligns with the broader understanding of language as a cultural tool, reflecting and perpetuating the values and beliefs of a community.

(2) Cultural Preservation and Transmission:
- o The study also emphasizes the role of these verbs in preserving and transmitting cultural knowledge. In Javanese society, language is a key vehicle for passing down traditions and rituals from one generation to the next. By transforming numerical phrases into verbs that encapsulate culturally significant actions, the language ensures that these practices are remembered and perpetuated.
- o This process of cultural preservation through language is particularly important in the context of death rituals, which are among the most solemn and meaningful ceremonies in Javanese culture. The use of specific verbs to describe these ceremonies not only reinforces their importance but also provides a linguistic means of ensuring their continuity.

(3) Symbolic Meanings:
- o The transformation of numerical phrases into verbs also carries symbolic meanings. In Javanese cosmology, numbers are often associated with specific spiritual and cosmic principles. For example, the number three ("telung") is symbolic of balance and harmony, while the number seven ("pitung") is associated with spiritual completeness and the connection between the earthly and divine realms.
- o The verbs derived from these numbers, therefore, carry not just a literal meaning related to the passage of time but also a deeper symbolic significance. For instance, "nelung dina" symbolizes the completion of a crucial initial stage in the mourning process, while "mitung dina" marks a transition to a more spiritually significant period.
- o This symbolic dimension adds a layer of meaning to the morphological transformation, demonstrating how language can encapsulate complex cultural and spiritual concepts in a concise and accessible form.

*3.1.3 Broader Patterns in Austronesian Languages*

The study's findings on the morphological transformation of numerical phrases into verbs in Javanese contribute to the broader understanding of similar processes in other Austronesian languages. This comparative analysis reveals both unique features of Javanese and common patterns shared with other languages in the family.

(1) Comparative Morphology:
- o The process of prefixation to create verbs from numerical phrases is not unique to Javanese but is observed in several other Austronesian languages. For example, in Tagalog, the prefix "mag-" can be used to create verbs from nouns and adjectives, such as "magbigay" (to give) from "bigay" (gift). Similarly, in Cebuano, the prefix "mo-" is used in a comparable way.

- o However, the specific use of the "N-" prefix in Javanese to verbalize numerical phrases appears to be a more specialized and culturally bound phenomenon. The study highlights that while the morphological process itself is part of a broader pattern within the Austronesian family, its application in Javanese is uniquely tied to the language's cultural context.
- o This finding underscores the importance of considering both linguistic and cultural factors in the study of morphological processes, as similar morphological mechanisms can have very different functions and meanings across languages.

(2) Linguistic Diversity and Cultural Specificity:

- o The study also reveals how linguistic diversity within the Austronesian family is shaped by cultural specificity. While many Austronesian languages share common morphological features, such as prefixation and nasal assimilation, the way these features are used to encode cultural practices can vary widely.
- o In Javanese, the transformation of numerical phrases into verbs is closely linked to specific cultural practices, particularly those related to death and mourning. This contrasts with other Austronesian languages, where similar morphological processes might be used in entirely different cultural contexts, such as agricultural practices, trade, or kinship relations.
- o The study thus contributes to a deeper understanding of how linguistic diversity within a language family is both a reflection of and a response to the diverse cultural landscapes in which these languages are spoken.

(3) Implications for Austronesian Linguistics:

- o The findings have significant implications for the study of Austronesian linguistics, particularly in understanding the relationship between language, culture, and religion. The study demonstrates that morphological processes, such as the prefixation observed in Javanese, cannot be fully understood without considering the cultural contexts in which they occur.
- o This insight calls for a more integrative approach to linguistic analysis, one that combines morphological study with cultural anthropology and ethnolinguistics. Such an approach is essential for capturing the full range of meanings and functions that linguistic forms can have in different cultural settings.

The study of the morphological transformation of numerical phrases into verbs in the Javanese language reveals a complex interplay between language, culture, and religion. The addition of the prefix "N-" to numerical phrases is not just a linguistic process but a cultural one, deeply embedded in the socio-religious practices of the Javanese people.

The morphological analysis shows that the transformation is governed by regular phonological rules and results in a shift from static numerical expressions to dynamic, action-oriented verbs. These verbs play a crucial role in the cultural and religious life of the Javanese, particularly in the context of death rituals and ceremonies.

The study also highlights the broader significance of this process within the Austronesian language family, demonstrating both shared linguistic features and unique cultural applications. By examining the intersection of language and culture, the study contributes to a richer understanding of how languages evolve to meet the communicative needs of their speakers in specific cultural contexts. The study provides valuable insights into the ways in which linguistic forms are shaped by and serve to reinforce cultural practices, offering a compelling example of the dynamic relationship between language and culture in the Austronesian world.

## IV. CONCLUSION

This study has examined the unique morphological process in the Javanese language
where numerical phrases are transformed into verbs through the addition of the prefix "N-." This process not only changes the grammatical function of these phrases but also imbues them with

cultural and socio-religious significance. The findings reveal that this transformation is a highly regular and systematic process governed by phonological rules, where the prefix adapts to the phonological environment of the root word. The resulting verbs, such as "nelung dina" (three days) and "mitung dina" (seven days), play a crucial role in the cultural practices of the Javanese people, particularly in the context of death rituals and ceremonies.

The study underscores the importance of understanding language as a cultural phenomenon, where linguistic forms are closely tied to the values, beliefs, and practices of a community. The transformation of numerical phrases into verbs in Javanese is not just a linguistic curiosity but a reflection of the deep connection between language and culture. It shows how language can encapsulate complex temporal and spiritual concepts, providing speakers with a way to express culturally significant actions and events succinctly and effectively.

Moreover, the study contributes to the broader field of Austronesian linguistics by demonstrating how a common morphological process—prefixation—can be adapted to serve different cultural functions in different languages. While the prefix "N-" in Javanese is used to create verbs related to specific ceremonial periods, similar processes in other Austronesian languages may be used in entirely different contexts. This highlights the diversity and richness of the Austronesian language family, where linguistic forms are shaped by the unique cultural landscapes in which they are spoken.

The findings of this study have important implications for both linguistic theory and cultural studies. They provide a deeper understanding of how morphological processes can be used to encode cultural knowledge and practices, and how language serves as a tool for cultural preservation and transmission. By examining the intersection of language and culture, this study offers valuable insights into the dynamic relationship between the two, enriching our understanding of both.

## Suggestions for Future Research

While this study has provided a comprehensive analysis of the transformation of numerical phrases into verbs in Javanese, there are several areas that future research could explore to further deepen our understanding of this phenomenon:

(1) Comparative Studies Across Austronesian Languages: Future research could expand the scope to include a comparative analysis of similar morphological processes in other Austronesian languages. This would help to identify common patterns and unique features across the language family, providing a more complete picture of how these processes function in different cultural contexts.

(2) Sociolinguistic Perspectives: A sociolinguistic approach could be employed to explore how the use of these verbs varies across different social groups within Javanese society, such as age, gender, and social status. This would offer insights into how language change and variation occur in relation to social factors, and how cultural practices are maintained or altered in different social contexts.

(3) Diachronic Analysis: A diachronic study could investigate how the morphological process of adding the prefix "N-" has evolved over time in the Javanese language. This could involve examining historical texts to trace the development of these verbs and their usage, shedding light on how language and culture have co-evolved in Javanese society.

(1) Cultural and Religious Studies: Further research could delve deeper into the cultural and religious significance of these numerical phrases and their transformations. This could involve interdisciplinary studies that combine linguistic analysis with cultural anthropology and religious studies, exploring how language, ritual, and belief systems are interwoven in Javanese culture.

(2) Phonological Analysis: While this study has touched on the phonological adaptations of the prefix "N-," a more detailed phonological analysis could provide greater insights into the specific phonotactic rules that govern these transformations. This could contribute to a better understanding of the phonological structure of Javanese and its relationship to other languages in the Austronesian family.

By pursuing these avenues of research, scholars can continue to build on the findings of this

study, contributing to a richer and more nuanced understanding of the complex interplay between language, culture, and society in Javanese and other Austronesian languages.

## REFERENCES

Ahmad Ferdi Abdullah. (2019). Blambangan People's Resistance To Voc Year 1767-1773. Santhet (Jurnal Sejarah Pendidikan Dan Humaniora), 3(2), 46-55. https://doi.org/10.36526/js.v3i2.695.

Andresen, J.T., & Carter,P. M. (2016). Languages In The World. How History, Culture, and Politics Shape Language.  John Wiley & Son.

Blust, R. (2013). The Austronesian Languages. Australian National University Press.

Bybee, J. L., & Moder, C. L. (1983). Morphological Classes as Natural Categories. Language, 59(2), 251–270. https://doi.org/10.2307/413574.

Candrasari, R. (2018), "Morphological Process of Devayan: An Analysis of Morphological Tipology", Proceedings of MICoMS 2017 (Emerald Reach Proceedings Series, Vol. 1), Emerald Publishing Limited, Leeds, pp. 27-33. https://doi.org/10.1108/978-1-78756-793-1-00045

Cordelia, L., Meyfiany, Octovianus, Y., Awololon, L., & Suarliem, V.F. (2024). Analysis of the Derivation and Inflection Process in Javanese Language. *Santhet (Jurnal Sejarah Pendidikan Dan Humaniora)*. https://doi.org/10.36526/santhet.v8i1.3677.

Engelmann, F;  Granlund, S; Kolak, J; Szreder, M; Ambridge, B; Pine, J; Theakston, A; Lieven.  E. (2019). How the input shapes the acquisition of verb morphology: Elicited production and computational     modelling in two highly inflected languages, Cognitive Psychology,Volume 110, Pages 30-69,

Geertz, C. (1976). Religion as a Cultural System. In P. Berger & M. Wertz (Eds.), The Interpretation of Cultures (pp. 87-125). Basic Books.

Hasisah, Siti & Subiyanto, Agus & Abu Rifai, Ahmad. (2021). Morphological Causative Construction of Indonesian and Javanese: A Typological Study. PAROLE: Journal of Linguistics and Education. 11. 196-207. 10.14710/parole.v11i2.196-207.

Hengki, & Ratna,. (2023). A Morphological Perspective on Verb Formation: A Contrast Analysis Affixes of English, Indonesia and Banjar Kuala Language of South Borneo. International Journal of Linguistics Studies. 3. 35-49. 10.32996/ijls.2023.3.3.5.

Hodidjah. (2012). Bahasa Memengaruhi Budaya atau Sebaliknya. Artikel Widyaiswara. https://sumsel.kemenag.go.id/artikel/view/11414/file/file/TULISAN/index.php?a=artikel&id=13061

Jackendoff, R. (1975). Morphological and Semantic Regularities in the Lexicon. Language, 51(3), 639–671. https://doi.org/10.2307/412891.

Jiang, N. (2004). Morphological insensitivity in second language processing. Applied Psycholinguistics, 25(4), 603–634. doi:10.1017/S0142716404001298

Misic-Ilic, Biljana. (2004). Language And Culture Studies - Wonderland Through The Linguistic Looking Glass. Facta Universitatis: Series Linguistics and Literature. 1-15.

Navrátil, M. (Eds). (2019). A Reflection of Man and Culture in Language and Literature. Peter Lang.

Outaleb-Pellé, A. (2013). Morphology of the verb phrases in FLE learners. 48. 169-181.

Pham, T. H., & Nguyen, X. M. H. (2022). An Investigation into the Phenomenon of Morphological Conversion in Current Textbooks of English and Vietnamese Literature for High Schools. International Journal of TESOL & Education, 2(3), 114-132. DOI: https://doi.org/10.54855/ijte.22238.

Poedjosoedarmo, S. (2006). Introduction to Javanese Linguistics. Jakarta: Pustaka Nasional.

Robson, B. (2014). Javanese Grammar: A Comprehensive Overview. Bandung: Linguistic Press.

Sartono, S. (2010). Morphological Processes in Javanese Language. Yogyakarta: Gadjah Mada University Press.

Sukardi. (2013). Denominal Verb Formation in Javanese Language, Banyumas Dialect, *International Journal of Linguistics* (Macrothink Institute)

Sumardjo, G. (1992). Introduction to Javanese Culture. Yogyakarta: Ombak.

Suryadi, A. (2018). Cultural Practices and Linguistic Expression in Javanese Society. Surakarta: Universitas Sebelas Maret Press.

Taylor, J. R. (1983). Javanese Language and Literature. London: Routledge.

Tobin, V. (2001). A Grammar of Javanese. Amsterdam: Brill.

Veselinova, Ljuba N. (2020). Numeral Morphology. https://doi.org/10.1093/acrefore/9780199384655.013.559

Vestergaard, T. (1999). Language, Culture and Identity. Centre for Languages and Intercultural Studies.

Aalborg University, Denmark.

Wang, F. (2017). Austronesian Language Structures and Cultural Contexts. Cambridge University Press.

Zhang, H., Xu, Z. & Xu, X. (2023). Morphological awareness in arithmetic word-problem solving among Chinese early adolescents. Humanit Soc Sci Commun 10, 902 (2023). https://doi.org/10.1057/s41599-023-02416-0

Zulferdi, Lazuar A. (2014). Morphological Markers Of Verb Modality In Javanese Surabaya Dialect. Jurnal Ilmiah Mahasiswa Fakultas Ilmu Budaya Universitas Brawijaya, vol. 3, no. 4.