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Constructions of the Compound Noun in Indonesian: A Derivational Morphology Approach

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Abstract: This research investigated the intricate process of constructing compound nouns in Indonesian through the lens of derivational morphology. Indonesians, renowned for their rich linguistic structure, employed compound nouns extensively in daily communication. This study delved into the mechanisms behind the formation of compound nouns, analyzing the intricate interplay between constituent morphemes and the rules governing their combination. Employing a derivational morphology framework, the research aimed to unveil the underlying patterns, rules, and semantic nuances that governed the construction of compound nouns in Indonesian. The findings showed that (1) the formation of compound nouns in the Indonesian language primarily occurred through compounding, which involved the combination of two or more free morphemes; (2) there were various cognitive processes such as categorization, metaphorical extension, and conceptual blending for better understanding and generating compound nouns; and (3) a set of systematic rules dictated how morphemes were combined and modified to create complex compound nouns. The findings contributed to a deeper understanding of the structural intricacies of the language, shedding light on its derivational processes and their implications for linguistic analysis.
Keywords: Compound nouns, Indonesian Language, Derivational Morphology, Word Formation, Linguistic Structure.

INTRODUCTION

The Indonesian language is widely recognized for its linguistic diversity and structural intricacies. One of the most remarkable features of this language is its remarkable propensity for compound noun construction. Forming compound nouns by amalgamating constituent morphemes is fundamental to Indonesian grammar and communication. Linguists have extensively studied this phenomenon through a comprehensive derivational morphology approach (Lieber, 2001a, 2015; Lieber *et al.*, 2015), which has shed light on the intricacies of this fascinating aspect of the Indonesian language (e.g. Nugraha, 2018a, 2018c, 2018b, 2018d). Through this approach, researchers have gained a deeper understanding of the various factors that influence the formation of compound nouns in Indonesian, including the role of affixation, reduplication, and borrowing from other languages.

The Indonesian language provides a rich ground for analyzing the morphological structure of compound nouns. These nouns are formed by merging multiple lexical units (Borer, 2017; Lieber, 2006b), and they offer a fascinating lens to study the intricate interplay between morphemes (Bobaljik, 2019; Di Sciullo, 2018), their combinatory patterns (Baker, 2003; Dressler, 2015), and the resultant semantic implications (Beavers, 2010; Körtvélyessy *et al.*, 2020). The construction of compound nouns is governed by underlying principles that need to be thoroughly scrutinized to understand their formation and significance (Olsen, 2015; Spencer, 2015). This research aims to delve deep into the fascinating world of compound nouns in Indonesian, unravel their underlying structures, and examine their roles in shaping the language's morphological and semantic features.

The results of this study will provide light on the structural nuances of Indonesian language as well as more general implications for linguistic analysis and the theoretical foundations of morphological research. Admittedly, the research questions are as follows: (1) what are the fundamental morphological rules that govern the construction of Indonesian compound nouns,

and how do these rules affect the intricacies of their semantics and structural makeup; (2) in the context of derivational morphology, how do the cognitive processes involved in the structure and meaning of Indonesian compound nouns; and (3) how can these systematic principles and patterns explain the nuances of word creation in the Indonesian language?

REVIEW OF LITERATURE

Theoretical Framework

The study of compound nouns in the Indonesian language is a complex field that requires a deep understanding of derivational morphology, which is the study of how words are formed and how their meaning changes by adding affixes or other linguistic elements *(Fernández-Domínguez et al.*, 2020; Fradin, 2020; Stekauer, 2014). Scholars and linguists have been fascinated by the Indonesian language's unique characteristics, such as its highly agglutinative nature and vast lexicon. In particular, the process of forming compound nouns in Indonesian involves the combination of two or more words to create a new concept or idea. This process is highly intricate and requires a thorough understanding of the underlying linguistic structures.

The theoretical framework of derivational morphology serves as one of the main pillars supporting this research. According to this theory, which has been explained by academics like Lieber (2001b, 2006a, 2017) and Kotowski & Plag (2023), compound nouns and other complex words arise as a result of systematic processes that combine and modify morphemes. This paradigm offers a window through which to view how the constituent morphemes combine to form compound nouns and shape their meaning subtleties in the Indonesian context (Andreou, 2017; Lieber, 2010).

Additionally, research on Indonesian morphology has been done by linguists such as Sneddon *et al.*, (2012) and Klamer (2015), who have shed light on the complex patterns and laws controlling word development. Sneddon's study emphasized the agglutinative character of Indonesian and the part that compounding and affixation play in the formation of new words. Klamer's research shed important light on the syntactic and semantic characteristics of compound nouns, highlighting their function in expressing complex mental links and meanings.

Furthermore, the theory of cognitive linguistics (Jackendoff, 2009; Jackendoff & Audring, 2018, 2019; Taylor, 2011), as promoted by Langacker and Jackendoff, advances our knowledge of how the mental processes involved in language comprehension and production influence the emergence and meaning of compound nouns in Indonesian. This framework clarifies how Indonesian speakers construct compound nouns through cognitive processes by highlighting the importance of conceptualization and cognitive principles in organizing linguistic expressions.

By combining these theoretical viewpoints, this study attempts to integrate the collective understanding of derivational morphology, Indonesian language analysis, and cognitive linguistic principles. Through the use of this comprehensive theoretical framework, the research aims to elucidate the complex mechanisms that underlie the formation of compound nouns in Indonesian, thereby advancing our comprehension of the language's morphological structure and cognitive processes.

Previous Research

Due to the complex morphological structure and word creation of the Indonesian language, the study of compound nouns in this language has attracted a great deal of attention from linguistic academics. Prior studies have highlighted a variety of factors, from morphological patterns to semantic subtleties, to offer essential insights into the mechanisms behind the creation of compound nouns.

First, the study on Morphological Patterns and Structures. Sneddon *et al.,* (2012) and Nugraha (2017, 2020, 2021b, 2021a, 2022, 2023) provided a thorough examination of the morphological structure of the Indonesian language in his groundbreaking book, emphasizing the ubiquitous functions of compounding, reduplication, and affixation. This study prepared the way for future research into compound noun creation by laying the foundation for comprehending the morphological subtleties of Indonesian.

Second, the study on Semantic and Syntactic Dimensions. In their research, Nugraha & Baryadi, (2019); Pasaribu & Nugraha (2020), explored the syntactic and semantic aspects of compound nouns in Indonesian, clarifying their function in constructing conceptual linkages and expressing complex meanings. Her research demonstrated the syntactic structures and semantic extensions that compound nouns possess, demonstrating their adaptability in conveying a wide range of ideas.

Third, study on Derivational Morphology and Word Formation. Research on derivational morphology by Lieber (2017) and Embick (2013) has made a substantial contribution to our knowledge of word creation mechanisms. Their theoretical frameworks provide light on the systematic processes that govern the addition and change of constituent morphemes to generate compound nouns, although they are not unique to Indonesian. *Lastly,* the study on Cognitive Linguistic Perspectives. Compound noun analysis has also been impacted by the cognitive linguistic viewpoint, which was promoted by Langacker in 1987 and Jackendoff in 1990. Their research focuses on the cognitive foundations of language structure and offers insights into how cognitive processes influence how Indonesian compound nouns are conceptualized and understood.

These earlier studies have established the foundation for comprehending how Indonesian compound nouns are constructed. Even if these studies offer insightful information, they frequently concentrate on particular facets of compound nouns, necessitating a thorough investigation that incorporates morphological, semantic, and cognitive factors. By using a comprehensive derivational morphological method to clarify the complex mechanisms involved in creating compound nouns in Indonesian, the current study aims to close this gap. Specifically, this study focuses mostly on particular aspects of compound nouns in Indonesian, like morphological patterns, semantic subtleties, or cognitive processes. There remains a gap in the thorough integration of these diverse perspectives, though. Prior studies tend to focus on certain elements separately, ignoring the complex interactions that occur between morphology, semantics, and cognition during the formation and meaning-making of compound nouns.

RESEARCH METHODOLOGY

The objective of this methodology was to conduct a thorough investigation of the production of compound nouns in Indonesian by utilizing a diverse approach that integrated derivational morphology and cognitive linguistic concepts. *First*, Corpus Selection. In order to examine how compound nouns were constructed in Indonesian, a broad corpus was acquired, namely *Indonesian – Leipzig Corpora Collection (ILCC)* (https://corpora.unileipzig.de/en?corpusId=ind_mixed_ 2013). Written materials from various sources, such as books, newspapers, internet articles, and scholarly journals, were included in this corpus. Prioritizing linguistic diversity in the selection process provided a representative sample encompassing a range of Indonesian writing genres, registers, and styles.

Second, Data Collection and Analysis. The primary source of data for identifying Indonesian compound nouns was the corpus. Compound nouns were methodically extracted and categorized according to their constituent morphemes, structural patterns, and semantic categories using linguistic analysis tools or human annotation techniques. *Third*, Derivational Morphology Framework. This research analyzed the compound nouns using a derivational morphological framework. Under this paradigm, the constituent morphemes, their combinatory rules, and the processes that resulted in compound noun creation were all systematically examined. We examined how affixation, reduplication, and semantic changes helped create compound nouns.

Fourth, Cognitive Linguistic Analysis. Cognitive linguistic principles were applied in conjunction with derivational morphology to comprehend the cognitive processes behind the production and interpretation of compound nouns. We used cognitive linguistic techniques, such as prototype theory and conceptual integration, to explain how

Indonesian speakers perceived and understood compound words. *Lastly*, Validation and Interpretation. Results were verified by professional consultation in Indonesian linguistics and peer review. In order to understand the findings, the data were synthesized to identify the fundamental principles, trends, and mental processes influencing Indonesian compound noun creation.

FINDINGS AND DISCUSSION

The Fundamental Morphological Rules That Govern the Construction of Compound Nouns

Based on the analysis, it can be concluded that the formation of compound nouns in the Indonesian language primarily occurs through compounding, which involves the combination of two or more free morphemes (*see* Example 1). This method is widely used in the language and has become the most common way to create new compound nouns. However, it's worth noting that affixation and reduplication also play a role in forming compound nouns (*see* Example 2), although they are less frequently used compared to compounding. These methods generally involve adding prefixes or suffixes to the base word or repeating the root word to form a new compound noun. Despite their lower frequency of use, affixation and reduplication contribute to the richness and diversity of the Indonesian language.

On the one hand, concerning the structural composition, compound nouns combine root words in a predictable way; they frequently have head-initial structures, in which modifiers come after heads (*see* Example 3). There is structural variety, which demonstrates the language's adaptability in creating compounds. On the other hand, concerning the semantic nuances, compound nouns are multifaceted words that frequently convey intricate ideas or particular situations. The overall meaning of compound nouns is shaped by the semantic relationships—both transparent and opaque—between their constituent morphemes.

Moreover, the analysis reveals variation in how morphological processes are applied to produce compound nouns. Although compounding is still the most common technique, there are domain-specific morphological preferences evident in the higher frequency of affixed or reduplicated compound nouns in some domains or specialist vocabularies. In Indonesian, compound nouns usually have a head-final construction, meaning that modifiers come after the heads. This structural pattern may be seen in a variety of semantic categories, which helps to explain the language's consistent syntactic organization when forming compounds.

In compound nouns, Indonesian demonstrates structural flexibility despite the widespread head-final structure. There are clear examples of departures from the standard form, demonstrating the flexibility of the language and the possibility of different compound

formation strategies depending on pragmatic and semantic factors. Also, compound nouns show different levels of semantic transparency. Certain compounds exhibit clear links among their constituent morphemes, which correspond to their combined meanings. Some compounds, however, show ambiguous links; in these cases, the overall meaning deviates considerably from the literal interpretation of the constituent morphemes. Additionally, compound nouns facilitate nuanced articulation by encapsulating intricate ideas and particular contextual meanings in a single lexical unit. Compound nouns include semantic nuances that add to the language's variety and ability to convey meaning precisely.

The samples of the following findings highlight the complex interplay between compounding, affixation, reduplication, structural patterns, and semantic subtleties in the construction of compound nouns in Indonesian, highlighting the multifaceted nature of the morphological principles governing compound noun formation in the language.

(1) Example 1
Compounding as the Dominant Mechanism
Compound Noun: {Buku}+{Tulis} (Book + Write = Notebook)
Analysis:
The Indonesian language is known for its extensive use of compounding, which is evident in the compound noun {buku tulis}. This noun is formed by combining two free morphemes – {buku}, meaning "book," and {tulis} meaning "write." The resulting compound noun, {buku tulis}, is commonly understood to mean "notebook." This is just one example of how Indonesians merge morphemes to create compound nouns, showcasing the prevalence of compounding as a primary mechanism in the language. Compounding is a process in which two or more words are combined to form a new word with a distinct meaning. It is a fundamental aspect of Indonesian grammar and is widely used in various contexts, from everyday conversation to formal writing. Overall, the compound noun {buku tulis} serves as a clear illustration of the dominance of compounding in the Indonesian language and highlights its unique linguistic features.

(2) Example 2: Affixation and Reduplication in Compound Nouns
Compound Noun: {pemahaman} (understanding) resulted from {paham} + {pe-} | {-an}
Analysis:
The Indonesian language is rich in compound nouns, formed when two or more words combine to create a new word with a distinct meaning. One such compound noun is {pemahaman}, which exemplifies the significant role of affixation in compound formation. The word {paham} meaning

"understand," is the root word, while the prefix {pe-} and the suffix {-an} are added to modify its meaning. In the case of {pemahaman}, the prefix {pe-} functions as an INTENSIFIER, emphasizing the ACT of understanding, while the suffix {-an} denotes the ABSTRACT noun form. Together, these affixes create a new word that signifies a deeper and more nuanced understanding of a particular subject or concept. This illustrates how affixation plays a critical role in forming compound nouns, enabling speakers of Indonesian to express complex ideas with precision and clarity.

(3) Example 3
Structural Flexibility in Compound Nouns
Compound Noun: {rumah sakit} (house + sick = hospital)
Analysis:
The Indonesian language is known for its versatility in compound noun formation, exemplified by the compound noun {rumah sakit}. In literal translation, this compound noun means "sick house," which differs from the typical head-final structure observed in many compound nouns. Despite this deviation, {rumah sakit} is universally understood to mean "hospital." This demonstrates the flexibility of the Indonesian language in compound formation, allowing for variations in structural composition based on contextual and semantic considerations. The compound noun {rumah sakit} is just one example of how the Indonesian language can adapt and evolve to reflect the changing needs and usages of its speakers over time.

These illustrations show the various morphological processes that contribute to the creation and interpretation of compound nouns in Indonesian, such as compounding, affixation, and structural variants.

Furthermore, according to the analysis, compound nouns in Indonesian primarily arise through compounding, demonstrating the agglutinative nature of the language. The structural diversity and richness of compound nouns are facilitated by the methodical combining of morphemes, sporadic affixation, and reduplication. This strong morphological flexibility highlights the complex interactions between constituent morphemes in forming meaning and enables nuanced semantic expressions (cf. Dalton-Puffer & Plag, 2000; Fábregas, 2007; Gunkel & Zifonun, 2008; Werner & Rastinger, 2022).

In Indonesian, compounding appears to be the main process used to create compound nouns. In order to produce a new lexical unit, two or more free morphemes must be combined. This technique demonstrates how morphemes can be combined in a flexible way to form compound nouns, which is indicative of the agglutinative

nature of Indonesian. Compound nouns are mostly formed through compounding, although they can also be formed through affixation and reduplication. Rarely do prefixes, suffixes, and reduplicated morphemes contribute to the formation of compound nouns; when they do, it's usually to impart particular nuances or change the meaning of the final composite.

The results also highlight the flexibility of the language's morphological processes, demonstrating the ways in which different systems contribute to the creation of compound nouns (Plag, 2020). This language's adaptability fits in well with Indonesian's reputation for complex word construction, laying the groundwork for more research into the morphological complexity of the language.

Analyzing Indonesian compound nouns revealed a rich tapestry of morphological variation. This variety is demonstrated by the combination of free morphemes, sporadic reduplication, and occasional affixation, which highlights the language's complex and varied word production processes. The main mechanism was compounding, which reflected the tendency of the language to combine morphemes to form compound nouns (Pustejovsky, 2020), highlighting the agglutinative nature of Indonesian as a whole.

Indonesian is able to capture complex semantic subtleties in a single lexical unit due to the morphological flexibility seen in compound construction. Indonesian compound nouns show off an amazing ability to convey sophisticated ideas and subtle meanings, demonstrating the complex interaction between constituent morphemes and the resulting semantic complexity. This flexibility shows how precise the language can be in communication as well as how it can change and incorporate new lexical inventions (Embick, 2013).

Further, the morphological rules that control the formation of compound nouns capture the cultural importance and linguistic evolution ingrained in Indonesian language, reflecting the language's evolutionary trajectory. Compound nouns' morphological flexibility and semantic richness allow them to capture cultural ideas, historical allusions, and social subtleties (Embick, 2010a), acting as linguistic artifacts that reflect Indonesia's sociocultural environment.

In summary, the various morphological rules that govern the formation of compound nouns in Indonesian not only highlight the language's linguistic complexity but also open doors to understanding its cultural nuances, offering a rich environment for additional linguistic research and cultural studies.

The Cognitive Processes Involved in The Structure and Meaning of Compound Nouns

According to cognitive analysis, speakers employ various cognitive processes such as categorization (*see* Example 4), metaphorical extension (*see* Example 5), and conceptual blending for better understanding and generating compound nouns (*see* Example 6). These processes are instrumental in enabling speakers to break down complex concepts and ideas into smaller, more manageable units and then combine them in novel ways to create new compound nouns that are both meaningful and comprehensible. By leveraging these cognitive processes, speakers can access a vast network of mental associations and connections, allowing them to communicate more effectively and efficiently with others.

On the one hand, concerning the prototype effects, compound nouns frequently follow prototype effects, in which the conformance of particular compounds to cognitive schemas and widespread usage patterns makes them more archetypal and easily understandable. On the other hand, concerning the contextual influence, compound nouns can be distinguished largely by their context, wherein the linguistic and situational signals present facilitate the interpretation of intricate compound structures.

Moreover, according to the cognitive analysis, speakers use conceptual blending and categorization processes to understand and form compound nouns. These mental operations enable the combination of individual morphemes into coherent and significant compound structures. In compounds such as {matahari} (eye + sun = sun), conceptual blending, for example, helps associate the sun's eye-like appearance.

Metaphorical extensions, in which the semantic characteristics of individual morphemes extend to the compound's overall meaning, are a component of cognitive systems. For example, the metaphorical extension from "head" to "leader" in {kepala sekolah} (head + school = school principal) helps to grasp the job of the school principal.

Some compound nouns are more like their prototypes; they have traits in common with cognitive schemas and usage patterns. Due to their adherence to well-known structures and language standards, these compounds are easily understood, making creation and interpretation simpler. A compound word is better comprehensible if it conforms to more archetypal structures or mental relationships. When compounds depart from standard structures, interpretation may take more mental work, particularly if the compounds' semantic links are not as clear-cut.

When it comes to distinguishing between compound nouns that have several possible meanings, contextual cues—both linguistic and situational—are

essential. Context helps speakers arrive at the desired meaning based on contextual information, so resolving misunderstandings arising from complicated compound structures.

Within the framework of derivational morphology, the following findings demonstrate the complex interactions among cognitive processes, prototypicality effects, and contextual signals that shape Indonesian compound noun comprehension, production, and disambiguation.

(4) Example 4
Categorization and Conceptual Blending
Compound Noun: {matahari} (Eye + Day = Sun)
Analysis:
The compound noun matahari is a fascinating example of the cognitive process of conceptual blending. Interestingly, the word's literal meaning is a combination of {mata} "eye" and {hari} "day" in the Indonesian language. However, the same word is commonly used to refer to the "sun" in the language. This compound noun perfectly illustrates how conceptual blending assists in associating the visual appearance of the sun with the concept of an eye, thereby showcasing the cognitive process that plays a vital role in the interpretation and understanding of compound nouns. In essence, the blending of two concepts, namely "eye" and "day," results in a third concept, which is the "sun." This blending process enables us to understand complex linguistic constructs and contributes to our ability to communicate effectively.

(5) Example 5
Metaphorical Extension
Compound Noun: {kepala sekolah} (Head + School = School Principal)
Analysis:
The compound noun [kepala sekolah] is a unique example of how language works and how our minds process it. It is a combination of two words, {kepala}, meaning "head" and {sekolah} meaning "school." However, the compound noun {kepala sekolah} is not simply a combination of two nouns but a metaphorical extension of their meanings. In this case, the cognitive process involves metaphorical extension, which is a mechanism that allows us to extend the meaning of a word beyond its literal definition. In the compound noun {kepala sekolah}, the meaning of "head" is extended metaphorically to signify a leader or person in charge. This cognitive mechanism contributes to interpreting the compound noun as the school principal. Therefore, the compound noun {kepala sekolah} is an example of how our minds create and process language by using metaphorical extensions. It shows that our understanding of language is not limited to the literal meanings of words but is also influenced by the context in which they are used.

(6) Example 6
Contextual Disambiguation
Compound Noun: {air mata} (Water + Eye = Tears)
Analysis:
The compound noun {air mata} exemplifies the importance of contextual cues in clarifying and distinguishing meanings. Translating (directly without contextual disambiguation) to "eye water," this compound refers to the bodily fluid known as "tears." However, {air mata} can be ambiguous without context. In this case, situational and linguistic cues serve as critical factors in interpreting the intended meaning of the compound. Through such cues, the context of the conversation or written text can help discern the meaning of {air mata} as tears and disambiguate it from other possible interpretations. As such, understanding {air mata} as tears depends on the contextual information available, highlighting the importance of context in language comprehension.

These illustrations show how cognitive processes like conceptual blending, metaphorical extension, and contextual clues affect how compound nouns are understood, interpreted, and disambiguated in Indonesian, which helps to explain the language's complex semantic associations and pragmatic usage.

Furthermore, compound noun creation and interpretation depend heavily on cognitive processes such as conceptual blending, categorization, and metaphorical extension. In order to help speakers of Indonesian understand complex compound structures and arrive at intended meanings based on cognitive associations, these cognitive processes help associate conceptual meanings (cf. Martsa, 2012; Rodrigues, 2009; Villalva, 2022). Additionally, prototypical compound structures are important, and the prototype effects that have been discovered shed information on how simple it is for the brain to perceive compounds that follow regular linguistic patterns. Moreover, the dependence on contextual signals highlights the significance of pragmatic considerations in comprehending compound nouns by highlighting the impact of situational and linguistic context in distinguishing compound meanings (cf. Andreou & Lieber, 2020; Iordachioaia, 2020; Iordăchioaia & Werner, 2019; Lapesa *et al.*, 2018).

Investigating the cognitive processes behind the formation and interpretation of compound nouns illuminates the complex mental processes underlying language understanding (Hathout & Namer, 2019; Plag, 2003). Speakers utilize core cognitive processes such as conceptual blending, classification, and metaphorical extension to interpret complex systems. These

mechanisms let speakers make sense of complex semantic relationships and arrive at desired meanings by combining separate morphemes into coherent and meaningful compounds (Borer, 2014; Embick, 2010b).

The prototype effects that have been found show how easy it is for the brain to understand chemicals that follow well-known linguistic patterns (Geeraerts & Cuyckens, 2010; Rohrer, 2010; Verhagen, 2010). Closely aligned compounds with common structures or conceptual relationships are easier to understand because they fit within cognitive schemas (Schmid, 2010; Tuggy, 2010). This cognitive alignment demonstrates how cognitive prototypes influence language production and interpretation by facilitating faster processing and simpler comprehension.

It is essential to distinguish between situational and linguistic contextual clues when interpreting compound meanings (Cançado & Gonçalves, 2016; Lieber, 2001c). Contextual information is crucial in directing speakers toward the intended interpretation of compounds, as seen by the dependence on it (von Heusinger *et al.*, 2011). The choice and understanding of compound structures are further influenced by pragmatic factors (Heusinger *et al.*, 2011), such as communication objectives or discourse context, highlighting the pragmatic significance of compound noun interpretation in particular communicative settings.

To put it briefly, understanding the cognitive foundations of Indonesian compound noun interpretation offers an insight into the complex thought processes that govern language understanding. These discoveries open up new avenues for multidisciplinary research on human language comprehension and production as well as significant contributions to theories of language acquisition and cognitive linguistics.

The Systematic Principles and Patterns of The Nuances of Word Creation

Through the analysis of linguistic data, it has been found that a set of systematic rules dictate how morphemes are combined and modified to create complex compound nouns. The analysis has revealed that several prevalent compounding (*see* Example 7), affixation (*see* Example 8), and reduplication (*see* Example 8) patterns are commonly employed in constructing compound nouns. These patterns provide a framework for understanding how words are formed in a language and shed light on the underlying principles that govern the structure of words in a given language.

On the one hand, concerning the rule-based formation, the regularity of the language is demonstrated by the rules controlling compound noun formation, underscoring the organized character of Indonesian word development procedures. On the other hand, concerning the implications for word formation, by underlining the rule-governed nature of morphological processes and

their implications for language structure and analysis, the discovered rules and patterns deepen our understanding of word production in Indonesian.

Moreover, the examination finds methodical guidelines controlling how morphemes are combined to form compound nouns. These rules specify particular patterns of compounding, affixation, or reduplication and determine how constituent morphemes are arranged. As an illustration of a common structural pattern, most compound nouns have a head-final structure, in which modifiers come before heads (cf. Efthymiou, 2013; Kastovsky, 2011; Lieber & Plag, 2022; Ševčíková & Hledíková, 2022).

Compound nouns can be modified and derived by systematic procedures. Reduplication and affixation change the structure or meaning of the constituent morphemes, helping to create compound nouns with new syntactic features or complex semantic expansions. The patterns and rules that have been found demonstrate how Indonesian word development is guided by rules. These principles offer a structured framework within which compound nouns are methodically formed, reflecting regularities in morphological processes, notwithstanding the language's flexibility in compound formation.

Morphological processes like compounding, reduplication, and affixation are applied methodically to show that different semantic categories use them consistently. This consistency highlights how Indonesian word development is structured, demonstrating a methodical process for producing compound nouns.

All of the following results point to the existence of systematic patterns, regularities, and rules controlling the construction of compound nouns in Indonesian. Beyond language structure, the implications provide information about language analysis, language acquisition, and the structured character of word formation processes in the Indonesian language.

(7) Example 7
Structural Patterns in Compound Nouns
Compound Noun: {anak laki-laki} (Child + Male = Boy)
Analysis:
The Indonesian language is known for its consistent syntactic structure in compound nouns, exemplified by the compound noun {anak laki-laki}. This compound noun comprises two words: {anak} meaning "child" and {laki-laki} meaning "male." In Indonesian, compound nouns follow a head-modifiers structure where the modifiers come after the head, leading to a clear and systematic pattern in the language. The {anak laki-laki} is just one example of the many compound nouns that follow this prevalent structural pattern in Indonesian, showcasing the language's unique and organized syntax.

(8) Example 8

Affixation for Modification

Compound Noun: Perjalanan panjang (Journey + Long = Long journey)

Analysis:

The compound noun {perjalanan panjang} in Indonesian language consists of three constituent morphemes, {per-an}, {jalan}, and {panjang}, which together signify "long journey". The affix {per-an} is applied to the stem {jalan}, meaning "journey", to create a new meaning, the adjective {panjang} is modified to the newly construction of {perjalanan}, conveying the idea of a prolonged or extended journey. This example clearly illustrates how affixation is a systematic tool for modifying and enriching the meaning of constituent morphemes within compound nouns in Indonesian word formation. Moreover, it highlights the rule-governed nature of affixation, which follows specific patterns and conventions in forming new words in the language.

(9) Example 9

Systematic Reduplication

Compound Noun: {rasa-rasa} (Flavor + Flavor = Various flavors)

Analysis:

The Indonesian language has a unique linguistic feature known as reduplication, which involves repeating a word or a part of it to create a new word or to modify its meaning. One example of such reduplication is the compound noun {rasa-rasa}, which is formed by repeating the word {rasa}, meaning "flavor" in English. The repetition of {rasa} in this compound noun signifies "various flavors" or "different tastes." This systematic reduplication pattern is a common feature in the Indonesian language and is used to convey plural or diversified meanings within compound nouns. It is a consistent linguistic operation in word formation that helps to create new words with different shades of meanings. The use of reduplication is not limited to the word {rasa} and can be observed in many other words in the Indonesian language.

These illustrations highlight the systematic patterns and rules—such as structural arrangements, affixation for modification, and systematic reduplication—that control the emergence of compound nouns in Indonesian. They demonstrate the methodical use of morphological operations inside language's compound nouns and the structured character of word formation processes.

Furthermore, the ordered nature of Indonesian word development is demonstrated by the methodical rules controlling compound noun construction. The recurring patterns in reduplication (Schwaiger, 2015), affixation for modification (Grzega, 2015), and structural arrangement (Taylor, 2015) show how compound formation is guided by rules. In addition to supporting language structure, these methodical norms are vital resources for linguistic study and language acquisition.

The morphological structure of the Indonesian language is supported by the systematic rules controlling compound noun construction. The processes of combination, modification, and derivation that go into making compound nouns are governed by these laws (Luschützky, 2015). The language's systematic word creation patterns are demonstrated by the controlled use of morphological procedures such compounding, affixation, and reduplication (Raffelsiefen, 2015).

The way these principles are consistently applied in many semantic categories and linguistic settings demonstrates how the language adheres to structured patterns (Mugdan, 2015). Because of this consistency, compound noun creation is more predictable, allowing speakers to anticipate and understand new compounds using well-established morphological norms (Wandruszka, 2015). This predictability facilitates effective language production and comprehension.

The systematic patterns and norms found in compound production shed light on the evolutionary history of language (Booij, 2015). They stand for linguistic norms that have evolved through time, reflecting the language's historical development and the cultural influences that have shaped its lexical structure (Štekauer, 2015). Compound nouns function as linguistic artifacts that illustrate the evolution of the language by encapsulating cultural allusions and reflecting historical and socioeconomic developments (Motsch, 2015).

Gaining knowledge of these organized principles provides a framework for analyzing language. Compound nouns can be identified, categorized, and interpreted more easily when linguistic investigations are conducted using an organized method for interpreting compound forms (Harley, 2014; Pustejovsky, 2013). Understanding these methodical guidelines gives language learners a fundamental knowledge that is essential for negotiating the complexity of Indonesian word creation and vocabulary. In the end, Indonesian compound noun creation is governed by a set of systematic norms and patterns that are reflective of the language's historical development and hierarchical structure. These guidelines provide as a solid foundation for linguistic analysis and as insightful windows into the cultural and historical aspects of the language, making them ideal for interdisciplinary study and linguistic investigation.

CONCLUSION

The study of Indonesian compound noun building using a derivational morphology approach has provided detailed insights into the morphological

principles, thought processes, and systematic rules controlling word production of the language. This thorough investigation has shed light on the intricate web of compound noun creation in Indonesian, highlighting the variety of its morphology, its cognitive foundations, and the partial evolution of organized language.

The study clarified the prominent function of compounding in Indonesian, demonstrating the language's agglutinative quality and flexibility in morpheme combination to produce compound nouns. It also emphasized the ways in which cognitive processes, including as conceptual blending and classification, influence how compound nouns are understood and constructed. An organized framework was supplied by the systematic laws seen in compound creation, which helped to clarify Indonesian morphological systems.

Notwithstanding the thorough investigation, a few restrictions should be noted. The size and diversity of the corpus may have limited the study's reach by limiting the coverage of different linguistic registers or specialized domains. Furthermore, there were difficulties in distinguishing complicated compound structures in some situations, suggesting the need for more sophisticated disambiguation techniques.

Subsequent studies could broaden the investigation into compound noun creation by exploring domain-specific variants in specialized fields. Examining the historical background and cultural meanings incorporated into compound nouns may provide light on the socio-cultural development of the language. Moreover, exploring cognitive processes across linguistic backgrounds through psycholinguistic research or looking into cross-linguistic comparisons could improve our comprehension of language universals and variants.

The contributions of this work go beyond linguistics; it provides insightful knowledge about language acquisition theories, cognitive linguistics, and Indonesian morphological systems. The results serve as a basis for linguistic analyses and language instruction, assisting scholars and language learners in understanding the complexities of Indonesian word construction and vocabulary. To put it briefly, investigating compound noun construction in Indonesian through the lens of derivational morphology broadens our knowledge of the structural complexities of the language and creates opportunities for additional interdisciplinary study that will help us understand Indonesian linguistics and its wider context.

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