

Comparison of Binary and Non-binary Words between English and Indonesian

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ARTICLE INFO	ABSTRACT
Received: 20 March 2026	Antonyms are an important component of lexical semantics because they enable language users to express contrasting meanings and communicate ideas precisely. However, the classification of antonyms may differ across languages, particularly between binary and non-binary antonyms. This study aims to compare the classification and use of binary and non-binary antonyms in English and Indonesian, focusing on their similarities, differences, and semantic characteristics. This research employed a library research approach using secondary data obtained from linguistic books, scholarly journal articles, theses, dissertations, dictionaries, and other relevant academic publications. The collected data were analyzed descriptively and comparatively by identifying, classifying, and interpreting antonym pairs according to their semantic relationships and the presence or absence of intermediate meanings. The findings indicate that English and Indonesian share several similarities in the use of binary and non-binary antonyms. Binary antonyms in both languages generally express mutually exclusive meanings without an intermediate state, as illustrated by <i>true-false</i> , <i>alive-dead</i> , and <i>open-close</i> . Non-binary antonyms, in contrast, permit intermediate or gradable meanings, such as <i>beautiful-ugly</i> and <i>expensive-cheap</i> . Nevertheless, several antonym pairs demonstrate different classifications across the two languages. For example, <i>rich-poor</i> and <i>fast-slow</i> are treated as binary in English but may function as non-binary in Indonesian because intermediate expressions can occur. Conversely, <i>agree-disagree</i> and <i>bitter-sweet</i> may be interpreted as non-binary in English but binary in Indonesian. These findings demonstrate that antonym classification is influenced by semantic interpretation and language-specific usage. The study contributes to contrastive linguistics and lexical semantics and provides useful implications for vocabulary learning, translation, and effective communication.
Accepted: 15 June 2026	
Published: 01 July 2026	
Keywords:	
Antonyms, Binary Antonyms, Non- Binary Antonyms, English, Indonesian, Contrastive Linguistics	

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1. Introduction

The use of opposite words in language can be classified into several types. The classification of opposite words in Indonesian and English shows both similarities and differences, particularly in terms of binary and non-binary antonyms. Antonyms are an important part of the lexical system of every language because they express contrasting meanings and contribute to the organization of lexical relations (Koptjevskaja-Tamm et al., 2024). Understanding the classification of antonyms is essential not only for linguistic studies but also for practical language use, as different languages may categorize opposite meanings differently (Kostić, 2017). Therefore, comparing the antonym systems of Indonesian and English can provide a deeper understanding of how each language represents semantic opposition and lexical relationships.

Asriati and Asmayanti (2021) state that binary antonyms consist of two opposite words that represent mutually exclusive conditions, whereas non-binary antonyms consist of opposite words that allow intermediate degrees or conditions. Binary antonyms describe situations in which only two mutually exclusive possibilities exist; if one condition is true, the other must be false (124. Sample of Two Options, 2025). In contrast, non-binary antonyms represent opposite meanings that exist along a continuum or scale, allowing for intermediate degrees between the two extremes (Kennedy, 2001). This distinction is significant because it influences how meanings are interpreted and applied in both spoken and written communication. Language users should understand the opposite forms of words and the semantic relationships between them (Onyshchak et al., 2023). This research is conducted to reduce confusion among language users when distinguishing between binary and non-binary opposites. Furthermore, a clear understanding of these classifications can improve vocabulary mastery, semantic awareness, and the ability to communicate accurately in different linguistic contexts (Jalilov, 2024).

The lack of knowledge about binary and non-binary opposites in English and Indonesian may create difficulties in distinguishing between these types of antonyms (Papadopoulos, 2022). This limited understanding may lead language learners to misinterpret meanings or use antonyms inaccurately in communication. As a result, learners may experience difficulties in selecting appropriate vocabulary, translating expressions, or understanding contextual meanings in both languages (Abdelkadir & Ahmed, 2024). Effective language learning requires the selection of vocabulary that is relevant and contextualized to learners' experiences and subject matter. This approach can enhance comprehension and language skills by connecting vocabulary to students' social and cultural contexts (Aswadi, 2024).

For example, the Indonesian words *cantik* (beautiful) and *jelek* (ugly) may be considered non-binary because an intermediate expression such as *biasa* (ordinary) can occur between the two extremes. In English, *alive* and *dead* are generally considered complementary or binary antonyms because they represent mutually exclusive states (Malaterre, 2024). These examples demonstrate that the classification of antonyms is not necessarily identical across languages, making comparative analysis important for understanding how semantic relationships differ between Indonesian and English (Raihani et al., 2026).

Previous research entitled "Teaching Non-binary Antonym through Card Game Strategy to the Seventh Grade Students" was conducted by Saputro (2019). The study primarily focused on teaching strategies for introducing non-binary antonyms in English language learning and examined whether a card game strategy was effective in teaching non-binary antonyms to seventh-grade students. The study demonstrates the relevance of antonym classification to vocabulary learning and language teaching (Saputro, 2019). In discussing antonyms, examples such as *rich* and *poor* can illustrate opposing meanings, although their classification may depend on the semantic framework and linguistic context used for analysis. Differences in the availability and interpretation of intermediate values across languages further indicate the importance of examining antonymy from a comparative perspective

(Kerimbayeva & Beisenbai, 2024). Although the previous study contributes to language teaching, it mainly discusses antonyms from an instructional perspective. It does not provide a comprehensive comparison of how binary and non-binary antonyms are categorized and interpreted in both Indonesian and English. Previous research on Indonesian antonymy has also examined the semantic and stylistic principles underlying combinations of antonymous lexemes (Dewa & Wijana, 2023). Therefore, there is still a need for further research that examines these semantic differences through a comparative linguistic perspective.

Based on previous research, the researchers are interested in investigating the comparison of binary and non-binary antonyms in English and Indonesian. This study aims to identify the similarities and differences between the two languages regarding the classification of binary and non-binary antonyms and to explain how these differences influence meaning and language use. By comparing the semantic characteristics of antonyms in both languages, this research is expected to contribute to the fields of contrastive linguistics and lexical semantics (Kvach, 2025). It is also expected to reduce confusion among language users when using and distinguishing binary and non-binary antonyms in English and Indonesian. In addition, this research may be beneficial for selecting binary and non-binary words appropriate to particular contexts, especially in speaking and writing. The findings are also expected to serve as a useful reference for students, teachers, translators, and future researchers interested in semantics, contrastive linguistics, and English-Indonesian language comparison.

2. Method

In this research, the researcher employed a library research approach. Library research involves examining reference books and previous research findings that are relevant to the research topic and can provide a theoretical foundation for the problem under investigation (Sari, 2020). This method focuses on collecting, reviewing, and analyzing information from existing academic sources rather than gathering primary data directly from participants. The sources included books, scholarly journal articles, theses, dissertations, conference proceedings, dictionaries, and other relevant publications related to semantics and antonymy (Khalikov, 2025).

Library research is appropriate for this study because it enables the researcher to investigate linguistic concepts through an extensive review of previous studies and theoretical frameworks (Athirah et al., 2025). By examining reliable and credible literature, the researcher can identify similarities, differences, and patterns in the classification and use of antonyms in different languages. Furthermore, this approach provides a comprehensive understanding of the semantic relationships between lexical items in Indonesian and English (Simorangkir et al., 2024).

The data used in this study were obtained from secondary sources, particularly linguistic books, academic journals, and other scientific publications discussing antonyms, lexical semantics, and contrastive analysis. The researcher selected relevant references based on their relevance to the research objectives and their contribution to the discussion of binary and non-binary antonyms. After collecting the data, the researcher organized and classified the relevant information according to the categories of binary and non-binary antonyms in both languages.

The data were then analyzed using a descriptive comparative approach. The researcher compared the characteristics, meanings, and semantic relationships of binary and non-binary antonyms in Indonesian and English by interpreting information obtained from the selected literature (Hafidz, 2023). This analysis aimed to identify both similarities and differences between the two languages while maintaining consistency with established semantic theories.

3. Results

In lexical relations, there is something called an antonym. When we talk about antonyms, we are talking about the existence of words with opposite meanings (Aqromi, 2019). Antonym consists of different types. But in this research, the types of antonyms that will be discussed are binary and non-binary words antonym.

2.1 The concept of binary and non-binary words

a. The concept of binary words

According to Kreidler (2002), antonyms are two sentences with opposite or contradictory meanings. When one word is accurate, the other word is false. When two sentences have opposite predicates, it is called a binary antonym. There is no middle word between the two contrasting terms.

Binary antonyms do not allow the existence of other words (Pangaribuan, 2022).

b. The concept of non-binary words

According to Kreidler (2002), when two sentences have opposite predicates, but there is a mediator between the two words, it is called a non-binary antonym. The word non-binary is rarely found in English. Usually, non-binary is often found in Indonesian.

c. Similarities of binary and non-binary antonym in English and Indonesian

There are some examples of binary and non-binary equations in terms of examples of their use in English and Indonesian, which are as follows.

Binary antonym

Example:

In English:

- "on" and "off"
- "legal" and "illegal"
- "true" and "false"
- "passed" and "failed"
- "black" and "white"
- "open" and "close"
- "live" and "dead"
- "broken" and "fixed"

In Indonesian:

- "nyala" dan "padam"
- "sah" dan "tidak sah"
- "benar" and "salah"
- "lulus" dan "gagal"
- "Hitam" dan "putih"
- "Buka" dan "tutup"
- "hidup" dan "mati"
- "merusak" dan "memperbaiki"

Based on some examples of binary antonym words in Indonesian and English, it can be concluded that there is no middle word between two opposite words in binary antonym. Thus, this binary antonym word focuses only on the word in question.

Non-binary antonyms

Example:

Non-binary in English:

- "Tall" and "short"

There is an intermediate word between the words “big” and “small”: a little big, a little small, too big, and too small.

- “Expensive” and “cheap”
Between the words “expensive” and “cheap”, there is a middle word: somewhat expensive, somewhat cheap, too expensive, and too cheap.
- “Hot” and “cold”
There is a middle word between the words “hot” and “cold”: warm and cool.
- “Beautiful” and “ugly”
Between the words “beautiful” and “ugly” is an intermediate word: ordinary girl.

Non-binary in Indonesian:

- “tinggi” dan “pendek”
- “mahal” dan “murah”
- “panas” dan “dingin”
- “cantik” dan “jelek”
- “Tua” dan “Muda”

As for non-binary antonyms in Indonesian and English in some of the examples above, they are different from binary. A non-binary antonym has one word that mediates two opposite words. So that this non-binary will provide additional meaning and explanation. The mediating word in this non-binary antonym does not consist of only one word but can be more.

d. The Differences Between Binar and Non-Binary of English and Indonesian

There are several examples of the difference between binary and non-binary in terms of standards of its use in English and Indonesian, which are as follows. Example:

- “Rich” and “Poor”
English, “rich” and “poor” have no middle words. Therefore, “rich” and “poor” are binary antonyms. Whereas in Indonesian, the words “kaya” dan “miskin” has a middle word which is “tidak terlalu kaya” and “tidak terlalu miskin”. Oleh karena itu, “kaya” and “miskin” are non-binary antonym.
- “Hot” and “Cold”
In English, “hot” and “cold” have no middle words. Therefore, these two words are included in the binary antonym. Whereas in Indonesian, the word “Panas” and “Dingin” has a middle word, which is “hangat”, “The word “Warm” in English does exist, but its use is not included in the non-binary antonym (Aqromi, 2019). The word “Warm” in English does exist, but its usage is not included in the non-binary.
- “Fast” and “slow”
In English, “fast” and “slow” have no middle word. Therefore, these two words are included in the binary antonym. Whereas in Indonesian, the word “cepat” dan “lambat” has a middle word which is “tidak terlalu cepat” and “tidak terlalu lambat” or “cukup lambat” and “cukup cepat”.
- “Come” and “go”
In English, “come” and “go” have no middle words. Therefore, these two words are included in the binary antonym. Whereas in Indonesian, it has the central term “menetap”. Consequently, the words “datang” and “pergi” in Indonesian are non-binary antonyms.
- “Win” and “lose”

In English, “win” and “lose” have no middle word. Therefore, these two words are included in the binary antonym. Whereas in Indonesian, the words “menang” and “kalah” have a middle comment which is “bersaing”. Therefore, the words “menang” and “kalah” in Indonesian are non-binary antonyms.

- “Active” and “passive”
In English, “active” and “passive” have no middle word. Therefore, these two words are included in the binary antonym. Whereas in Indonesian, the words “aktif” and “pasif” have a middle word which is “moderat”. Therefore, the words “aktif” and “pasif” in Indonesian are non-binary antonyms.
- “Continue” and “stop”
In English, “continue” and “stop” have no middle words. Therefore, these two words are included in the binary antonym. Whereas in Indonesian, the words “melanjutkan” and “berhenti” have a middle word, namely “jeda”. Therefore, the words “berhenti” and “melanjutkan” in Indonesian are non-binary antonyms.
- “Good” and “bad”
In English, “bad” and “good” have no middle word. Therefore, these two words are included in the binary antonym. Whereas in Indonesian, the words “baik” and “buruk” have a middle word which is “rata-rata”. Therefore, the words “baik” and “buruk” in Indonesian are non-binary antonyms.
- “Evil” and “good”
In English, “evil” and “good” have a middle word. The central terms of “evil” and “good” are very nice, quite nasty, neither nor rather lovely. Therefore, these two words are included in the non-binary antonym. In Indonesian, “jahat” and “baik” have no middle word. Thus, the words “baik” and “buruk” in Indonesian are binary antonyms.
- “Agree” and “disagree”
In English, “agree” and “disagree” have a middle word. The central terms of “agree” and “disagree” are: somewhat agree and somewhat disagree. Therefore, these two words are included in the non-binary antonym. In Indonesian, the words “setuju” and “tidak setuju” do not have a middle comment. Therefore, the words “setuju” and “tidak setuju” in Indonesian are binary antonyms.
- “Bitter” and “sweet”
In English, “bitter” and “sweet” have a middle word. The central expression of “bitter” and “sweet” is “bittersweet”. Therefore, these two words are included in the non-binary antonym. The words “pahit” and “manis” do not have a middle comment in Indonesian. Therefore, the words “pahit” and “manis” in Indonesian are binary antonyms.

4. Discussion

Traditional terminology states that antonyms are words with opposite meanings. This definition seems quite popular, so it is worth mentioning that when discussing antonyms, we discuss the existence of words with opposing meanings (Aqromi, 2019). Antonym ada beberapa jenis, salah satunya adalah binary and non-binary antonym.

Based on the results of the library research that has been carried out, the word binary is often found in English and Indonesian. In addition, the term binary in English has many

similarities. However, the word non-binary is scarce, especially in English. Binary and non-binary are two types of antonyms.

In English and Indonesian, there are some similarities and differences in binary and non-binary words. The examples of binary similarities in Indonesian and English are as follows:

- **On and off**
The words on and off in this example refer to electronic devices. “on” means turning an electronic device on or off. Meanwhile, “off” means turning off or extinguishing an electronic device. The example sentences are as follows:
Please turn **off** the lamp!
Please turn **on** the lamp!
- **True and False**
The word true means factual. Meanwhile, the word false means wrong or false. The example sentences are as follows:
The statement is **true**
The statement is **false**
- **Live and dead**
The word “live” means that we are still breathing and can continue living. Whereas the word “dead” suggests that our breathing has stopped and we cannot continue living. The example sentences are as follows:
The cat is **dead**
The cat is still **live**

Examples of non-binary equations in Indonesian and English are as follows:

- **Expensive and cheap**
In this example, the words expensive and cheap focus on the context of the price of goods. The term “expensive” means the cost of an item is very high. Meanwhile, the word “cheap” means the price of an item is low or affordable. The example sentences are as follows:
- **The book is too expensive**
Books are too **cheap**
Beautiful and Ugly
The words beautiful and ugly in this example focus on the physical context of the face. The term “beautiful” means a woman who has an attractive look. Meanwhile, ugly means a woman or man with a sour face. In Indonesian and English, beauty and ugliness are not only measured by the beginning. The example sentences are as follows:
Nanas is a very beautiful girl
Nanas is a very **ugly** girl

In addition to similarities, binary and non-binary words differ in Indonesian and English. The examples of differences in terms of usage are as follows:

- **Rich and Poor**
The words rich and poor in this example focus on people with a lot of money and those with little money. The term is binary in English because there is no middle word between rich and poor. Meanwhile, in Indonesian, the word is non-binary because there is a central word between rich and poor, namely simple. The example sentences are as follows:
My family is simple (neither **rich** nor **poor**).

- **Fast and Slow**

The words fast and slow in this example focus on the context of driving a vehicle. In Indonesian, the middle terms of fast and slow are not too fast, not too slow, slow enough, and fast enough. The example sentences are as follows:

The motorcycle was traveling **quite slowly**

That car is going **fast enough**

The bicycle is going **too slow**

- **Good and bad**

The words good and evil in this example are in the context of student grades. In Indonesian, there is an average middle word between good and evil. The example sentence is as follows:

Student exam results in the vocabulary in context course are **average** (most students get a score that could be better or **better**).

- **Bitter and Sweet**

The words bitter and sweet in this example are the flavors of food or drink. There is a middle word for bitter and sweet in English, which is bittersweet. The example sentences are as follows.

This bread tastes **bittersweet**.

5. Conclusion

This study concludes that binary and non-binary antonyms in English and Indonesian share several similarities but also demonstrate important semantic differences. Binary antonyms in both languages consist of pairs of words that express mutually exclusive meanings without any intermediate state, such as alive-dead, true-false, and open-close. In contrast, non-binary antonyms represent opposite meanings that allow intermediate or gradable expressions, such as beautiful-ugly and expensive-cheap. These findings indicate that both languages recognize the concepts of binary and non-binary opposition, although their classifications are not always identical.

The study also reveals that some antonym pairs are classified differently in English and Indonesian because of differences in semantic interpretation and language usage. For example, rich-poor and fast-slow are generally treated as binary antonyms in English but may function as non-binary antonyms in Indonesian due to the existence of intermediate expressions. Conversely, pairs such as agree-disagree and bitter-sweet may be considered non-binary in English but binary in Indonesian. Therefore, understanding the semantic characteristics of binary and non-binary antonyms is essential for improving vocabulary mastery, translation accuracy, and effective communication in both languages. The findings also contribute to contrastive linguistics and provide useful references for students, teachers, translators, and future researchers interested in lexical semantics and English-Indonesian language comparison.

Funding

No external funding was received for this research.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

Authors' Contribution

Sariana Sariana: Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Writing – original draft, Writing – review & editing.

Nurhayati Nurhayati: Supervision, Validation, Methodology, Formal analysis, Writing – review & editing.

Rahmi R.: Data curation, Investigation, Visualization, Writing – review & editing.

All authors have read and approved the final version of the manuscript.

Statement of the Use of AI

Artificial intelligence (AI) tools were used for grammar checking and language editing during the preparation of this manuscript. The authors remain fully responsible for the content, interpretation, analysis, and conclusions presented in the article.

References

- Abdelkadir, A. M., & Ahmed, F. M. (2024). Difficulties that facing EFL learners of second and third year of English Department at Omar Al-mukhtar University in translating idiomatic expressions. *Al-Mukhtar Journal of Social Science*, 42(1), 150–163. <https://doi.org/10.54172/wjjawb65>
- Aqromi, N. L. (2019). Semantics analysis: The antonym of military, time, and taste terms. *PIONEER: Journal of Language and Literature*, 11(1), 21–31. <https://doi.org/10.36841/pioneer.v11i1.353>
- Asrianti, & Asmayanti. (2020). *Semantics book for English department student*. Muhammadiyah University of Makassar.
- Aswadi, D. (2024). Optimizing language learning with relevant and contextual vocabulary selection in education. *Journal on Education*, 7(1), 8615–8625. <https://doi.org/10.31004/joe.v7i1.7714>
- Athirah, S. A. P., Hamzah, R. A., & Said, M. (2025). Penerapan kaidah Bahasa Indonesia yang baik serta analisis kesalahan fonologi dan morfologi. *Semantik: Jurnal Riset Ilmu Pendidikan, Bahasa dan Budaya*, 3(2), 10–20. <https://doi.org/10.61132/semantik.v3i2.1596>
- Hafidz, M. (2023). Al-taḥlīl al-taqābulī bayna al-tahakkum fī al-lughah al-‘Arabīyah wa antifrasis fī al-lughah al-Indūnīsīyah. *JILSA (Jurnal Ilmu Linguistik dan Sastra Arab)*, 7(2), 169–178. <https://doi.org/10.15642/jilsa.2023.7.2.169-178>
- Jalilov, O. M. (2024). Stylistic classification of English vocabulary. *Journal of Higher Education and Academic Advancement*, 1(11), 7–11. <https://doi.org/10.61796/ejheaa.v1i11.1034>
- Khalikov, M. M. (2025). Antonymy as unreplaceable communicative resource (Case study of L. Feuchtwanger’s novel *Exile*). *Izvestiya Samarskogo Nauchnogo Tsentra Rossiyskoy Akademii Nauk*, 27(100), 56–69. <https://doi.org/10.37313/2413-9645-2024-27-100-56-69>
- Kennedy, C. (2001). Polar opposition and the ontology of ‘degrees’. *Linguistics and Philosophy*, 24(1), 33–70. <https://doi.org/10.1023/A:1005668525906>
- Kerimbayeva, K., & Beisenbai, A. (2024). Wealth/poverty opposition in English and Kazakh: A comparative study. *World Journal of English Language*, 14(5), 596–604. <https://doi.org/10.5430/wjel.v14n5p596>
- Khalikov, M. M. (2025). Antonymy as unreplaceable communicative resource (Case study of L. Feuchtwanger’s novel *Exile*). *Izvestiya Samarskogo Nauchnogo Tsentra Rossiyskoy Akademii Nauk*, 27(100), 56–69. <https://doi.org/10.37313/2413-9645-2024-27-100-56-69>
- Koptjevskaja-Tamm, M., Miestamo, M., & Börstell, C. (2024). A cross-linguistic study of lexical and derived antonymy. *Linguistics*, 62(6), 1417–1472. <https://doi.org/10.1515/ling-2023-0140>
- Kostić, N. (2017). Adjectival antonyms in discourse: A corpus study of scalar and complementary antonyms. *Folia Linguistica*, 51(3), 587–610. <https://doi.org/10.1515/flin-2017-0022>
- Kreidler, C. W. (2002). *Introducing English semantics*. Routledge.
- Kvach, Y. A. (2025). The phenomenon of synonymy and antonymy in English and Russian

- construction terminology. *Philology: Theory & Practice*, 18(8), 3503–3509. <https://doi.org/10.30853/phil20250483>
- Malaterre, C. (2024). Is life binary or gradual? *Life*, 14(5), Article 564. <https://doi.org/10.3390/life14050564>
- Onyshchak, H., Shastalo, V., Myronova, N., Yesypovych, K., Filonenko, N., & Herman, L. (2023). The analysis of the binary opposition of “good” and “evil” in modern English and French in the context of foreign language teaching. *Revista Romaneasca Pentru Educatie Multidimensionala*, 15(4), 192–206. <https://doi.org/10.18662/rrem/15.4/788>
- Pangaribuan, M. (2022). An analysis of entailment found in cosmetic and fast food advertisement. *JETAL: Journal of English Teaching & Applied Linguistic*, 4(1), 19–26. <https://doi.org/10.36655/jetal.v4i1.785>
- Papadopoulos, B. (2022). The definitional dilemma of gender in language. *Hesperia: Anuario de Filología Hispánica*, 24(2). <https://doi.org/10.35869/hafh.v24i2.4106>
- Raihani, A., Mahara, E. F., Zahriah, P., Jannah, M., & Ismahani, S. (2026). Meaning across languages: A contrastive study of causative structures in English and Indonesian. *International Journal Multidisciplinary Science*, 5(1), 34–39. <https://doi.org/10.56127/ijml.v5i1.2503>
- Saputro, J. P. (2019). Teaching non-binary antonym through card game strategy to the seventh grade students. *Esteem Journal of English Education Study Programme*, 2(1), 70–85. <https://doi.org/10.31851/esteem.v2i1.4817>
- Sari, M., & Asmendri, A. (2020). Penelitian kepustakaan (library research) dalam penelitian pendidikan IPA [Library research in science education research]. *Natural Science*, 6(1), 41–53. <https://doi.org/10.15548/nsc.v6i1.1555>
- Simorangkir, A. V., Tarigan, N. S., Banjarnahor, P. G., & Sari, Y. (2024). Meaning relations in Indonesian semantic studies. *AURELIA: Jurnal Penelitian dan Pengabdian Masyarakat Indonesia*, 3(2), 1294–1300. <https://doi.org/10.57235/aurelia.v3i2.2688>
- Wijana, I. D. P. (2023). Principles of antonymous lexemic combination in Indonesian. *Semiotika: Jurnal Ilmu Sastra dan Linguistik*, 24(1). <https://doi.org/10.19184/semiotika.v24i1.36506>