SYSTEMATIC LITERATURE REVIEW: METAPHOR, PROTOTYPE, AND MEANING ANALYSIS IN COGNITIVE LINGUISTIC STUDIES

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ABSTRACT

This study aims to compile a systematic review of the use of metaphors, prototypes, and meaning analysis within the scope of cognitive linguistics through a Systematic Literature Review (SLR) approach. Cognitive linguistics is a branch of linguistics that examines the relationship between language, thought, and human experience. This field focuses on three key concepts: conceptual metaphor, prototype structure, and the dynamics of meaning analysis. This review involves analyzing relevant literature, including journal articles, books, and research reports, to identify patterns, trends, and gaps in previous studies. The findings indicate that conceptual metaphors play a crucial role in representing human experience, while prototype theory provides insights into conceptual categories and meaning perception. Furthermore, meaning analysis within cognitive linguistics tends to be interdisciplinary, involving cognitive psychology, anthropology, and computer science. This study also highlights that the integration of digital technology in cognitive linguistic analysis presents new opportunities for developing more accurate methods. Overall, this research provides a comprehensive mapping of current literature and offers recommendations for future research directions, particularly in applying cognitive linguistics to understand language and cultural phenomena.

Keyword: Cognitive Linguistics, Metaphor, Prototype, Meaning Analysis

1. INTRODUCTION

Cognitive linguistics is a branch of linguistics that explores the intricate connection between language and the human mind. It posits that language reflects cognitive processes, human experiences, and interactions with the world around us. This approach contrasts with structural linguistics, which primarily focuses on analyzing structures language in isolation. Cognitive linguistics arose in the late

1970s and early 1980s as a response to generative linguistics, offering a more integrated model that incorporates mental processes and the nervous system (Antunano, 2004). The goal of cognitive linguistics is to formalize the syntax and grammar of natural language, creating abstract models across various linguistic levels (Wang & Berwick, 2012; Suprayogi et al., 2024). Ultimately, cognitive linguistics provides a holistic framework for understanding language as a mental phenomenon, merging

linguistic and cognitive elements (Chubaryan & Vardanyan, 2024; Fadilah et al., 2023).

Key concepts in cognitive linguistics, such as metaphor, prototype, and meaning analysis, are distinct yet interconnected, as they shed light on humans link language with how meaning. metaphor involves conceptualizing relationships between a source domain and a target domain, helping humans grasp abstract ideas through more tangible concepts. Lakoff and Johnson (1980)argued metaphors arise from human thoughts actions, not linguistic and just expressions. Similarly, Ungerer (2006) and Dash (2022) emphasized that metaphors stem from human thinking about concepts, not merely creative language use. A prototype refers to a concept within a category that may be vague but has a more central or defining aspect. Meaning analysis examines how meaning is constructed in the human mind and conveyed through language. In cognitive linguistics, meaning analysis often involves conceptual mappings, schemas, and semantic frameworks.

Studying cognitive linguistics is crucial as it helps us understand the relationship between language, thought, and experience. This field provides insights into how humans construct meaning, process language, and use language to interpret the world. The

cognitive linguistic approach emphasizes linguistic choices that enable speakers and listeners to identify entities and events uniquely (Langacker, 2013; Putri et al., 2023). For instance, the metaphor "Life is a journey" requires individuals to understand abstract ideas through concrete experiences. As a cognitive linguistics offers result, valuable knowledge about human communication, thinking, and understanding, blending language, While cognition, and experience. initially focused on explaining semantic categories of perception, the scope of cognitive linguistics has expanded to encompass a wide range of linguistic phenomena (Divjak et al., 2016).

2. METHODS

This research uses the Systematic Literature Review (SLR) method. This method provides a systematic and comprehensive overview to review and synthesize the literature relevant to the research topic. SLR is used to provide a comprehensive overview of a field field of study, identify research gaps, formulate a basis for further research.

Researchers focus on the field of cognitive linguistics. From the search results on Google Scholar, there are 142 articles related to linguistics. However, only 35 articles are relevant to the field

that researchers are trying to discuss. Based on the results of a thorough review, the researcher concluded three things that have become a trend of discussion in the field of cognitive linguistics over the past 10 years, namely prototypes, metaphors, and meaning analysis.

3. RESULT AND DISSCUSION

Based on the results of a review of various kinds of research in the field of cognitive linguistics, three things were found. The three things are metaphor, prototype, and meaning analysis. These three things will be explained as follows.

3.1 Prototype

linguistics, In cognitive prototype refers to the most typical representation of a conceptual category. Prototypes serve as key concepts that help explain how humans categorize meaning and establish the connection between words and the real world. Evans (2007) states that prototypes are also known as ideal models, meaning the representative or exemplary most variation of a category. Furthermore, prototype theory emerged as a response to dissatisfaction with componential analysis in structural studies, which focuses solely on the meanings of categories that construct them. In componential analysis, certain aspects of word meaning are obscured (Geeraerts,

2016), leading to misinterpretations, such as the distance between categories.

Research on corruption prototypes indicates that the most influential variables in determining the degree of corruption are (1) "the presence of unauthorized rewards" and (2) "the abuse of authority." Meanwhile, the variables "awareness of corruption" and "intent to commit corruption" do not significantly affect corruption levels. These findings reinforce the notion that prototype studies identify two key aspects influencing category prototypicality: category member variables and respondent background (Zakiyah, 2018).

Other studies have demonstrated the existence of prototype semantics. For instance, the prototype of the word steal is supported by three core elements: (a) taking someone else's property without permission, (b) recognizing that the property belongs to someone else, and (c) using the property for personal benefit. The presence of these elements significantly influences people's judgment of the concept of stealing. Among these, element (b) holds the highest importance, followed by element (c), with element (a) being the least significant. This that suggests respondents exhibit greater tolerance when an act of taking something occurs due to an accident or good intentions (Tasliati, 2020). Similarly, people's

perception of the word loyal is shaped by attributes such as not being flirtatious, commitment, and trust, with variations influenced by gender, age, education level, and belief systems (Nahdliyah, 2019).

Additionally, research on the ideal mother prototype suggests that the most influential characteristics are, in order: (1) taking care of one's own children, (2) doing household chores personally, and (3) not working (being a homemaker). Interestingly, gender differences were observed in ranking these variables. While both male and female respondents agreed that "taking care of children" was the most defining feature, men ranked "not working" higher than "doing housework," whereas women prioritized "doing housework" over "not working." However, marital status did not produce any significant differences, with married and unmarried respondents similarly ranking "taking care of children" as the most important characteristic, followed by "doing household chores" and "not working" (Zakiyah, 2018).

A similar pattern was observed in study on Buddhist counselor prototypes, where the most critical component was moral integrity in accordance with the concept of sila (morality), which serves the as foundation Buddhist for practice. Buddhist educators are expected to serve as role models, contrasting with the

Javanese saying Jarkoni: iso ngajar/ujar ora iso nglakoni (can teach or speak but practice). Additionally, cannot the shared assembly component was considered crucial for several variables (Prasetyo et al., 2022). These findings align with Rosch's (1975) perspective, which states that prototypes represent the most central member of a category, highlighting their significance classification.

Prototype theory gained prominence in linguistics it introduced a fresh perspective categorization and language analysis. It challenges traditional views by suggesting that linguistic categories are structured around prototypical examples rather than rigid definitions (Tsohatsidis, 1990). Consequently, word meaning is determined by the distance from the prototype rather than merely presence or absence of specific semantic components (Kushartanti et al., 2010). Thus, prototypes are integral to semantic studies, leading to the term prototype semantics. In this approach, words are not simply classified in a binary manner (yes or no) but exist on a continuum. For instance, the meaning of stealing may range from "not stealing" to "somewhat stealing" or "actually stealing," which has significant implications in legal contexts.

3.2 Metaphors

The concept of metaphor is a fascinating of cognitive aspect linguistics. The appeal of metaphors lies in the distinction between their literal and metaphorical meanings, which emerge from language use. This aligns with the fundamental function of metaphor: simplifying complex meanings to make them more accessible to the listener. Essentially, metaphor is a cognitive tool that involves conceptualizing one domain experience in relation to another. Each metaphor consists of a source domain and a target domain that can be identified in its usage (Lee, 2005).

Numerous studies have explored metaphors. One study mapped COVID-19 into three conceptual spaces: as a virus, as a case, and as a pandemic. These were expressed through various metaphor types, including metaphors, pandemic metaphors, action metaphors, phenomenon metaphors, and impact metaphors. Researchers identified 10 corpus data points for case metaphors with 7 mind mappings: development, surge, rise, case, explode, skyrocket, and donate. **Pandemic** metaphors were found in 6 corpus data with 6 mind mappings: down, come, blow, force, era, and essence. Action metaphors had 5 corpus data points with 5 mind mappings: game, struggle, attack, spread, and wave. Phenomenon metaphors appeared in 1 corpus data

with 2 mind mappings: *storm*. Lastly, impact metaphors were found in 2 corpus data with 2 mind mappings: *effect and cause* (Rahmasari & Subiyanto, 2022).

Another study analyzed Slank song lyrics with themes of social criticism. The majority of metaphorical expressions were identified as structural (76.9%).metaphors Meanwhile, orientational metaphors appeared only in the lyrics of Intellectual Actor and Hey Bung (15%),while ontological metaphors were found only in Anti *Nuclear* (7.6%). However, the research on metaphors in Slank's lyrics was considered to be in its early stages, with room for improvement in data presentation and analysis. Many data points had not yet been fully constructed, leaving opportunities for further development to theoretical support advancements (Nasrullah, 2020).

A study on metaphors in news headlines on *Kontan.co.id* revealed three types of conceptual metaphors: (1) structural metaphors (two instances), (2) orientational metaphors (two instances), and (3) ontological metaphors (two instances). Among the image schemas identified, the most dominant was the *identity image schema*, indicating that the headlines tended to describe concepts indirectly rather than explicitly stating their meaning (Haula, 2020).

Additionally, research identified 12 *tembang* (traditional Javanese songs) that contained metaphorical elements conceptualizing body parts into Javanese script. The findings suggested that Javanese speakers conceptualize limbs in Javanese script based on visual form and phonetic similarities between the script and the names of body parts (Elika & Nurhayati, 2024).

Furthermore, an analysis of the Japanese word mizu ('water') showed that it functions not only as a metaphor (indicating freshness) but also metonymy and synecdoche in Japanese kan'yōku expressions (Izzati, 2023). Another study classified the Japanese idiom (kan'yōku) me ('eye') into five categories based on Muneo Inoue's Reikai Kan'yōku Jiten: (1) expressions related to feelings and emotions, (2) expressions related to body, character, and attitude, (3) expressions related to actions or activities, (4) expressions denoting states, degrees, or value levels, and (5) expressions reflecting local culture and society. The construction patterns of kan'yōku were found to consist of noun-verb (dōshi kan'yōku), noun-adjective (keiyōdōshi kan'yōku), noun-noun (meishi kan'yōku) phrases. The findings also highlighted that me (eye) is closely linked to visual experiences, as vision plays a crucial role in human cognition. The discussion kan'yōku verbs related to me demonstrated the productivity of associated lexemes with perception. Additionally, while NP me

[A] (subject argument) must be animate and have a concrete object, NP me [P] (predicate argument) could be either animate or inanimate, with abstract or concrete meanings depending on context. These meanings formed a semantic network where NP me [P] had multiple interpretations based on subject type (Santoso & Riani, 2019).

In Japanese, three main rhetorical figures—metaphor, metonymy, and simile—are commonly analyzed through cognitive linguistics, which helps bridge the arbitrary nature of language, making figurative meanings more comprehensible to learners (Nisa, 2018).

Further research on metaphorical conceptualizations of drugs identified several metaphor types, including *Drugs as Liquid, Drugs as Animal, Drugs as War, and Drugs as Chain.* These metaphors were formed by comparing similarities in characteristics, traits, and categorical associations between the source and target domains (Masthuroh, 2020).

Lastly, a comparative study of conceptual blending models of Metaphorical Knowledge Theory (TMK) Theory of Blended and Knowledge (TBK)—revealed kev differences: (1) TMK operates with domains, while TBK uses mental spaces; (2) TMK follows a two-domain model, whereas TBK incorporates multiple spaces (at least four); (3) TMK applies direct mapping, whereas TBK uses selective projection; and (4) TBK

includes emergent structures, which are absent in TMK. Additionally, discourse context plays a crucial role in determining the effectiveness of conceptual blending models in linguistic analysis (Sukarsih, 2018).

3.3 Meaning Analysis

In cognitive linguistics, meaning is understood as a complex phenomenon closely linked to human experience, cultural context, and mental processes. This perspective enhances understanding of language by framing it as a reflection of human thought and interaction with the surrounding world. According to Chaer (2008), every word or lexeme has meaning, initially in the lexical, denotative, of conceptual meanings. However, the true meaning of a word becomes clear only when it is used in a specific context. The variation in word meanings Indonesian arises due to factors such as experience, history, intention, emotions of the speaker. Despite these variations. all meanings remain connected to a core or central meaning.

A study analyzing idioms using cognitive linguistic approaches—particularly the expansion of meaning through figurative language—identified ten figurative meanings. These meanings were classified into three categories based on linguistic styles: metaphor,

metonymy, and synecdoche. Metaphorical expansion included three figurative meanings: container, selfesteem, and attractiveness. Metonymic expansion encompassed six figurative meanings: front, vision, judgment, bad habits, speaking, and taste. Meanwhile, synecdochic expansion contained only figurative meaning: expression (Wicaksono & Nurhadi, 2023). Additionally, comparative research on the Indonesian word bunga ('flower') and the Japanese word hana ('flower') revealed that both share similar meanings and functions. This similarity makes it relatively easy for Indonesian speakers to understand and use the word hana in Japanese conversation (Riani, 2019).

Another study explored the polysemous nature of the word mouth in both Indonesian and Japanese. The primary meaning of mouth refers to the facial cavity containing the teeth and tongue, which serves as the entry point for food in both humans and animals. However, the term also carries figurative meanings far removed from its literal sense, such as taste and job vacancies. The analysis of the Indonesian word enak ('delicious') and the Japanese word kuchi ('mouth') demonstrated that enak has multiple meanings depending on sentence context. It extends beyond

describing the taste of food to include various pleasurable sensations perceived by different parts of the body, not just the sense of taste (Sulhiyah, 2018). These findings reinforce the idea that language meaning is dynamic and context-dependent, shaped by cultural experiences, cognitive processes, and historical usage.

4. CONCLUSION

This systematic review highlights the important role of metaphor, prototype, and meaning analysis in the development of cognitive linguistics as a discipline that is explores the relationship of language to human understanding of the world. Conceptual metaphors are shown to be a key cognitive mechanism that influences the humans represent way abstract experiences and concepts. The approach provides prototype insights into the structure of conceptual categories and the dynamics of meaning flexibility different contexts. Meanwhile, an analysis of meaning integrated with a cognitive perspective demonstrates interdisciplinary relevance to other fields, such as psychology, anthropology and information technology.

The results show that current research trends are moving towards the utilization of digital technologies to support more in-depth and extensive analysis of linguistic data. addition, there are significant opportunities to expand the application of cognitive linguistics to cultural studies, education, and human-computer interaction. Thus, this study not only strengthens the theoretical foundation of cognitive linguistics but also encourages the development of new approaches that are more contextual and applicable in understanding the phenomenon language and meaning. It relates to the role of metaphors, prototypes, meaning analysis which key foundations in understanding how humans process, construct, and use language to represent the world and human experience.

5. REFERENCES

- Antunano, I. I. (2004). What's Cognitive Linguistics.
- Chaer, A. (2008). *General linguistics*. PT. Rineka Cipta.
- Chubaryan, A., & Vardanyan, M. (2024). Exploring the Cognitive Dimensions of Language Acquisition. Armenian Folia Anglistika, 20(1 (29)), 13-24. https://doi.org/10.46991/AFA/202 4.20.1.13
- Dash, B. B. (2022). Digital Tools for Teaching and Learning English Language in 21 st Century. *International Journal Of English and Studies*, 4(2), 8–13. http://dx.doi.org/10.47311/IJOES. 2022.4202
- Divjak, D., Levshina, N., & Klavan, J. (2016). "Cognitive Linguistics: Looking back, looking forward."

- Cognitive Linguistics, 27(4), 447-463. https://doi.org/10.1515/cog-2016-0095
- Elika, N., & Nurhayati, N. (2024).

 Javanese script conceptual metaphors in Serat Centhini: A cognitive linguistic study.

 Diglosia: Journal of Language,
 Literature, and Teaching Studies,
 7(3), 431--444.

 https://alfianunmul.com/diglosiac
 adangan/index.php/diglosia/article
 /view/1038
- Evans, Vyvyans. (2007). A glossary of cognitive linguistics. Edinburgh University Press.
- Fadilah, I. A., Jaya, A., & Uzer, Y. (2023). Visual Representation and Comprehension: the Exploration of Multimodal Text To Energize Reading of the Tenth Grade Students' At State Vocational High School 5 of Palembang. Esteem Journal of English Education Study Programme, 6(1), 125–130. https://doi.org/10.31851/esteem.v 6i1.10226
- Geeraterts, D. (2016). Prospects and problems of prototype theory. *Diacronia*, 3(1), 1-16.
- Haula, B. (2020). Conceptual metaphors in kontan.co.id news headlines: a cognitive linguistic study. *Suar Betang*, 15(1), 15-23. http://suarbetang.kemdikbud.go.id/journal/index.php/BETANG/article/view/118
- Izzati, N. (2023). The metaphorical meaning of the word mizu in idioms: A study Cognitive Linguistics. *Hirameki*, 1(2), 64-70. https://hirameki.ejournal.unri.ac.i d/index.php/hirameki/article/dow n load/123/48
- Kushartanti, U. Y. and M. Lauder. (2010). *The charm of language*. Gramedia.
- Lakoff, & Johnson. (1980). Metaphor

- and Methonymy in Comparison and Contrast. Mouton de Gruyter.
- Langacker, R. W. (Ed.). (2013). Essentials of Cognitive Grammar. Oxford University Press.
- Lee, D. (2005). Cognitive linguistics: An introduction (repr). Oxford Univ. Press.
- Masthuroh, S. (2020). Conceptualization of drug metaphors: A Cognitive Linguistic Study. *Skripta Journal*, 6(1), 25-32. http://journal.upy.ac.id/index.php/skripta/article/view/646
- Nahdliyah, L. (2019). A Cognitive Linguistic Study: Perception Of The Word 'Loyal'. Jurnal UPGRIS 159-168. https://conference.upgris.ac.id/ind ex.php/snl/article/view/789
- Nasrullah, R. (2020). Metaphore in Slank Song Lyrics with Social Criticism Theme: A Cognitive Linguistic Study. *Metabasa*, 2(1), 18-29. https://jurnal.unsil.ac.id/index.php/mbsi/article/view/1803
- Nisa, N. (2018). Cognitive linguistics in Japanese metaphor, metonymy and synecdoche. *Diglossia: Journal of Scientific Studies of Language, and Teaching*, 10(1), 25-30. http://journal.unipdu.ac.id/index.php/diglosia/article/view/1453
- Prasetyo, L., Abbas, A., & Benu, N. (2022). The Prototype of 'Buddhist Religious Instructor' Linguistic Study (Prototype of "Buddhist religious counselor": A Cognitive Linguistics Study). Uniqbu Journal of Social, 3(1), 129-144. http://ejournal-uniqbu.ac.id/index.php/ujss/article/view/182
- Putri, A. D., Jaya, A., & Marleni, M. (2023). Exploring the Students' Speaking Ability Based on Their Different Personalities. *Esteem*

- Journal of English Education Study Programme, 6(1), 10–16. https://doi.org/10.31851/esteem.v 6i1.10203
- Rahmasari, N., & Subiyanto, A. (2022).

 Mind maps in metaphorical expressions about the Covid-19
 Pandemic in news texts: A
 Cognitive Linguistic Study.

 Humanika, 29(2), 216-230.

 https://ejournal.undip.ac.id/index.
 php/humanika/article/view/46451
- Riani, R. W. (2019). Analysis of the meaning of the words hana and bunga as polysemy (Cognitive Linguistics Study). *Philosophica: Journal of Language, Literature, and Culture*, 2(1), 24-32. https://jurnal.unw.ac.id/index.php/philosophica/article/view/237/20
- Rosch, E. (1975). "Human categorization" in Warren (ed.) Studies in Cross Linguistic Psychology. Academic Press.
- Santoso, T., & Riani, R. (2019). The metaphorical meaning of idioms (kanyouku) in the eye element (me): A Cognitive Linguistic Study. *Journal of Japanese Language Education*, 3(1), 35-55. https://journal.umy.ac.id/index.ph p/jjlel/article/view/6275
- Sukarsih, N. (2018). From conceptual metaphor to blending: hypothesis of conceptual integration at the cognitive linguistic level. From Conceptual Metaphors Towards Blending: A Conceptual Integration Hypothesis at The Cognitive Linguistic Level. Jurnal Undhirabali, 437-1, 442.https://jurnal.undhirabali.ac.id ex.php/synthesis/article/view/513
- Sulhiyah, S. (2018). Analysis of the meaning of the words enak and kuchi as polysemy (Cognitive Linguistics Study). *Philosophica:*

- Journal of Language, Literature, and Culture, 1(1), 43-51. https://jurnal.unw.ac.id/index.php/philosophica/article/view/150
- Suprayogi, Y., Luckyardi, S., Kurnia, D., & Khairusy, M. A. (2024). Linguistic Technopreneurship in Business Success Digitalization for Small Medium Enterprises in West Java: Implication for Language Education. International Journal of Language Education, 8(2), 343–358. https://doi.org/10.26858/ijole.v8i2.64117
- Tasliati, T. (2020). The semantics of stealing word prototypes in Indonesian: a Cognitive Linguistic analysis. *Genta Bahtera: Scientific Journal*, Query date: 2024-12-16 20:35:23. https://gentabahtera.kemdikbud.g o.id/index.php/gentabahtera/articl e/view/109
- Tsohatsidis, S. (1990). Meanings and prototypes: studies in linguistic categorization.
- Ungerer, F., & Schmid, H.J. (1996). *An introduction to cognitive linguistics*. Longman.
- Wang, Y., & Berwick, R. C. (2012). On formal models for cognitive linguistics. 2012 IEEE 11th International Conference on Cognitive Informatics and Cognitive Computing, 7-17. https://doi.org/10.1109/ICCI-CC.2012.6311169
- Wicaksono, M., & Nurhadi, D. (2023).

 Analysis Of The Figurative
 Meaning Of Limb Idioms In
 Anime Saiki Kusuo Season 1
 Linguistic Studies. *Kognitive*. *Ejournal Unesa*, 7(2), 238-248.

 https://ejournal.unesa.ac.id/index.
 p
 hp/hikari/article/view/56663/4450

Zakiyah, M. (2018). Prototype of Ideal Mother: A Cognitive Linguistic Study. oldjournal.iainsurakarta.ac.id. https://oldjournal.iainsurakarta.ac. d/index.php/buanagender/article/view/1229