# Lexical Relation Presentations In The Views Of Usage-Based Cognitive Semantics: The Case Of Antonymy, Synonymy, And Polysemy

## Maha Jamal Al-qadi<sup>1</sup>, Issa Mohammad Muflih Naser<sup>2</sup>

<sup>1</sup>Al-Zaytoonah University of Jordan Faculty of Arts English Language and Translation Pragmatics <sup>2</sup>Utara University Malaysia Languages Applied linguistics

## Abstract

Usage-based cognitive semantics studies are an important field of study as they give a good overview of a specific part of a particular language. With the present study, the researchers aspire to investigate the aspects of semantic relation containing antonymy, synonymy, and polysemy being presented in usage-based cognitive semantics rather than the traditional use of semantics affecting the interactions of people. It is found that cognitive semantics is seen to be the launch of cognitive linguistics movement. It also indicated that language learners face challenges when they deal with semantic relations e.g., synonymy, antonymy, and polysemy. Additionally, cognitive linguistics is considered a usage-based approach to language, it must account for the language's complexities that arise during interaction as language is a social phenomenon. This means that a cognitive semantic approach should consider extra-linguistic parameters when dealing with semantic relations including synonymy, antonymy, and polysemy. This study recommends paying further attention to semantic relations, especially, when learning a language. Accordingly, an experimental study is required to compare the effective way of teaching the aspects of semantic relations.

Keywords: Antonymy, Synonymy, Polysemy, Usage-Based Cognitive Semantics.

#### I- Introduction

Cognitive linguistics is an interdisciplinary approach to the study of language, mind and sociocultural experience. According to Galantomos (2019), cognitive linguistics, in general, is seen to be a language theory in which it explains that dealing with a language is associated with cognition, communication and that it is related to spatial, physical, as well as the social world. Hence, throughout the 20<sup>th</sup>century, generative linguists and structuralists have highlighted that studying a system of a language including langue and competence has to be separated when studying its use "parole and performance" (Diessel, 2017). This kind of

language view is called into question by what is known as usage-based linguistics. It holds that grammar is not only a system for producing and understanding language, but is also shaped by the interactive processes. These linguists argue that the organization and structure of the linguistic knowledge of speakers are the products of language performance and use. In this vein, language is deemed as a dynamic system of flexible semantic constraints and fluid categories which are reorganized and restructured constantly under the pressure of domain-general cognitive processes involved in the cognitive phenomena such as joint attention and vision. Thus, usage-based linguistics' general goal is to develop an analysis framework for the emergence of linguistic meaning and structure (Diessel, 2017).

In fact, language is a communication instrument, and people use this instrument to direct other people's actions, express emotions, make promises, ask questions, or share information (Austin, 1962). These language's communicative functions have led to the structure of linguistics. The existence of word order patterns, particular sentence types as well as some certain types of expressions like demonstratives for instance are motivated by the interactive process while using language (Diessel, 2006). This indicates that the use of language cannot be separated from meaning itself and many words' meanings rely on their uses. This kind of separation leads to the establishment of two forms of semantics: meaning related to real world "semantics" and meaning related to use and conception "cognitive semantics" which asserts that, "Meaning is conceptualization in a cognitive model (not truth conditions in possible worlds)" (Clark, Ezquerro, & Larrazabal, 2013, p.162).

Based on the differences between the two common traditions related to semantic, this study is highlighted. In this respect, Gärdenfors (1996) explains that the semantic realistic approach is used to be associated with expression meaning in which it indicates something found out in the real world. More precisely, semantics in a language is known to be a mapping from the syntactic structure to real things presented in the world or in several possible worlds. This indicates that meanings are often defined in truth conditions' terms. There is always, in semantic analysis, a focus on what conventionally words mean rather than on what individuals want these words to mean on a specific occasion (Yule, 2006). This means that semantics deals with the words' meanings as exactly what these words denote. Consequently, the semantics' classical view leads to some serious problems when applying it practically to natural use of language (Gärdenfors, 1996). This view is supported by several researchers (e.g., Alzghoul, & Alazzam, 2021; Diessel, 2017; Itkonen, 2016) who explained that a used-based cognitive semantics should be there.

Therefore, this study aims to investigate the semantic relation aspects including antonymy, synonymy, and polysemy being presented in usage-based cognitive semantics rather than the traditional use of semantics. Point of fact, "The problems for the traditional semantics justifies search for a fundamentally different kind of semantics" (Gärdenfors, 1996, p.3).In addition, ongoing debates about the lexical words' meaning are always present (Vicente, 2017). This kind of study could advance both linguistic as well as cognitive theories in order to contribute to vital elements that might be needed to developing a comprehensive based account related to lexicalsemantic organizations, namely, lexical relations. In addition, the semantic system influence goes beyond language itself: the breakdown in the field of knowledge regarding the conceptual information and objects influences individuals' interactions with the outside world (Vonk, 2017).

## I- Some Basic Principles of Usage-Based Cognitive Semantic

Langacker (1987) states that general cognitive processes influence linguistic structure bv concerning the conceptualization and categorization of the experience as categories are formed through the latter. They have central and peripheral members depending on the features they pose; the activation and representation of knowledge in memory as humans have rich memories. They can memorize the plural of nouns and the past tense of verbs for example (Bybee, 2007); the process of chunking in which words that are used together fuse together like collocations and prefabs (Diessel & Hilpert, 2016); and how the consciousness flows in the of discourse (Chafe, 1994). In processing addition, one of the main objectives of usagebased approach is to develop a language dynamic theory accounting for the influence of cognitive and interactive processes on the emergence of linguistic meaning and structure (Beckner et al. 2009; Bybee 2006, 2007, 2010; Bybee and Hopper 2001; Diessel 2011; Goldberg 1995, 2006; Kemmer & Barlow 2000; Langacker 1987, 1990, 2001, 2005; Tomasello 2003). In this regard, it is stated by Croft, William and Alan (2004) that cognitive semantics is considered a cognitive part of linguistic movement. As

semantics is known to be the study of linguistic meaning, cognitive semantics means that language is more general than the human ability

There are some common claims linked to cognitive semantics presented in studies such as Lakoff (1987) and Langacker (1987) reveal that one of the main issues that has been argued about in linguistic theory is the meaning nature and the meaning as a conceptualization matter. Additionally, as for many cognitive semanticists, the conceptualization takes its place under the consciousness level (Itkonen, 2016).Cognitive linguistics, by its nature, is deemed a usage-based approach to a language (Langacker, 2000). Glynn, (2009) explains that since cognitive is a usage-based approach, it must account for the language complexities because it is a social phenomenon.

According to Clark et al (2013) the cognitive semantics' prime slogan is that the meanings are seen to be in the head. In other words, semantics is considered to be a mapping from language expressions to some mental or cognitive entities. This kind of change by cognitivists creates a conflict with some of semantic theories which claim that there is no truth conditions of form for expressions that must determine meanings. According to these cognitivists, the truth of an expression is deemed of being secondary as this truth concerns the cognitive structure as well as the world relation. Consequently, cognitive models indicate that meanings are not independent of perceptions (Clark et al., 2013; Gärdenfors, 1996).

As mentioned earlier that a cognitive structure in our heads is linked with our own perceptual mechanism either directly or indirectly; this points out that the meaning is grounded perceptually (Gärdenfors, 1996). In fact, this opposes semantics' traditional earlier versions which claim that meanings have nothing to do with perceptions, they are mapping between both the language form and the external world. In contrary, as people can talk about what they hear and see, hence, they can create mental or real pictures of what they listen or read. This means that we can match between the visual form of representation and the linguistic code (Jackendoff, 1987). Consequently, a central hypothesis regarding cognitive semantics states that the way people store their perceptions in memories have the same forms as the words' meanings (Clark et al., 2013). Thus, investigating semantic relations concerning a usage-based cognitive semantics is seen to be significant as it may highlight some points that can help in dealing with them such as antonymy, synonymy, polysemy, and so on.

# 2- Semantic Relations and Lexicon

Lexical relations are one of the most important semantic relations in exploring the meanings of words in a language (Malik, 2017). According to Murphy (2003) semantic relations of words have been capturing various interests of linguists, philosophers, literary theorists, second language and early childhood educators and computer scientists. In this regard, Vonk (2017) mentions that studying lexical-semantics is significant in a way that a single word has more than its own meanings, but also, its conceptual representations have lexical forms. In addition, while discussing how these words are being presented in the brain, comprehensive perspectives are required to include not just meaning (i.e., semantics) but more aspects of a language. As stated by several researchers (e.g., Jeon, Lee, Kim, & Cho, 2009; Pustejovsky, 1995), it is commonly assumed that semantic relations of words such as synonymy. polysemy, and antonymy are reflected in the word storage organization in a brain (Jeon, et al., 2009).

# 3-I Synonymy, Antynomy, and Polysemy

Synonyms are known as the meaning's sameness in which this sameness could be identified by the substitution use. However, real synonyms are not there (Malik, 2017). Miller and Fellbaum (1991) illustrated that two expressions can be synonymous if they can substitute each other and the new expression never changes the sentence's truth value when this substitution is being made. Antonymy is defined in semantics as the meaning oppositeness (Malik, 2017). In this regard, Crystal (2003) sees antonymy as two forms with opposite meanings. The term polysemy refers to a single word that has various different but related meanings (Vicente, 2017) or several related senses as in (1) below:

- (1a) John has his mouth full of food.
- (1b) Mary kissed him on the mouth.
- (1c) My mouth is sore.
- (1d) Watch your mouth.
- (1e) The mouth of the wine was dry
- (1f) I have three mouths to feed

(1g) You can see the mouth of the river from here.

(Vicente, & Falkum, 2017, p.2).

# 3- Discussion

As it is seen in the above section, cognitive semantics has been known as a part associated to the movement of cognitive linguistics. Semantics is identified as the linguistic meaning's study. According to Croft et al (2004), cognitive semantics indicates that language is greater and general than the ability more of the individual cognitive, and can therefore describe the world as people conceive of it. It could be said that various linguistic communities conceive of simple things differently in the world due to their various cultures and beliefs Croft et al (2004). Lastly, the ability of language use is drawn from general cognitive resources and it is not associated to a special language module. It is also seen that the approach of cognitive semantics is a part of the cognitive linguistic field that rejects linguists' traditional the separation of linguistics itself into syntax, phonology, pragmatics, morphology, and so on. The approach of cognitive semantics considers semantics to be both meaning constructions as well as knowledge representations. Thus, cognitive semantic approach rapidly studies the areas devoted traditionally to semantics and pragmatics.

Accordingly, this study reveals that based on the definitions of synonymy, antonymy, and polysemy, semantic relations of lexicon face a challenge when dealing with a language. In semantics, it is seen that each word has its own representation in the real world. In fact, this kind

of assumption cannot work in this way since in cognitive semantics meaning is related to use and conception. Hence, the frame of cognitive semantics is not limited to studying lexemes, but studies might investigate semantic relation expressions at a more complex level including the sentence or the utterance. In addition, truthconditional semantics or traditional semantics is deemed incapable when dealing with some meanings' aspects. In this regard, as language is a social phenomenon, cognitive linguistics is a usage-based approach to language that must account for the complexities that occur during interaction. This means that while dealing with semantic relations like synonymy, antonymy, and polysemy, a cognitive semantic approach should take into account extra linguistic aspects.

# 4- Conclusion

In traditional semantic approach, the sentence meaning is described regarding the possible world in which it would be true. However, in fact, the meaning of a sentence might be dependent on some propositional attitudes. These attitudes are probably associated with desires, beliefs, and mental states of human beings. Hence, the propositional attitudes' role in the approach of truth-conditional semantics is seen to be controversial. This indicates that studying semantic relation of lexicon and ignoring the importance of cognitive semantics will affect language learners and users. E.g., in a real context, if a student fails an exam and he informs his father regarding the results, the father might "wow excellent", expression reply the "excellent" does not indicate excellence or holds any positive value, in fact, it has negative connotations like "very bad". Accordingly, it can be said that the term excellent in general is synonymous to "outstanding" when dealing with it under traditional semantics, however, when dealing with cognitive semantics as in the above example, it means "very bad". Therefore, a very clear distinction can be traced when dealing with semantic relations under the umbrella of either traditional or cognitive semantics, and because meaning is of crucial importance while communicating, further studies are recommended to be conducted by implementing an experimental study to be applied among language users.

#### References

- 1. Alzghoul, M., & Alazzam, T. (2021). Translation, Re-translation, and the Reception of Arabic Literature in English: The Case of Ahlam Mostaghenami's Novel Chaos of the Senses. Journal of Educational and Social Research, 11(5), 230-230.
- 2. Bybee, J. (2006). From usage to grammar: The mind's response to repetition. Language 82: 711-733.
- 3. Bybee, J. (2007). Frequency of use and the organization of language. Cambridge: Cambridge University Press.
- 4. Bybee, J. (2010). Language, usage, and cognition. Cambridge: Cambridge University Press.
- 5. Bybee, J. and P. Hopper. (2001). (eds.), Frequency and the emergence of linguistic structure. Amsterdam: John Benjamins.
- 6. Chafe, W. (1994). Discourse, consciousness, and time. The flow and displacement of conscious experience in speaking and writing. Chicago: Chicago University Press.
- Clark, A., Ezquerro, J., & Larrazabal, J. M. (Eds.). (2013). Philosophy and Cognitive Science: Categories, Consciousness, and Reasoning: Proceeding of the Second International Colloquium on Cognitive Science (Vol. 69). Springer Science & Business Media.
- Croft, William & Alan C. (2004). Cognitive Linguistics. Cambridge: Cambridge University Press. pp. 1, 105, 7–15, 33–39
- 9. Crystal, D .(2003). A Dictionary of Linguistics and Phonetics. Oxford: Blackwell Publishing.
- Diessel, H. (2006). Demonstratives, joint attention, and the emergence of grammar. Cognitive Linguistics 17: 463-489.
- Diessel, H. (2011). Review article of 'Language, usage and cognition' by Joan Bybee. Language 87: 830-844.
- Diessel, H. (2017). Usage-based linguistics. In Oxford Research Encyclopedia of Linguistics.
- 13. Diessel, H. & M. Hilpert. (2016). Frequency effects in grammar. Oxford Research Encyclopedia of Linguistics.
- 14. Galantomos, I. (2019). Applied Cognitive Linguistics: What Every Language

Practitioner Should Know. Journal of Foreign Languages, 7(1), 1-12.

- Gärdenfors, P. (1996). Conceptual spaces as a basis for cognitive semantics. In Philosophy and cognitive Science: categories, consciousness, and reasoning (pp. 159-180). Springer, Dordrecht.
- Glynn, D. (2009). Polysemy, syntax, and variation. A usage-based method for Cognitive Semantics. New directions in cognitive linguistics, 24, 77-104.
- 17. Goldberg, A. (1995). Constructions: a construction grammar approach to argument structure. Chicago: University of Chicago Press.
- Goldberg, A. (2006). Constructions at work: The nature of generalization in language. Oxford: Oxford University Press.
- 19. Itkonen, E. (2016). An assessment of (mentalist) cognitive semantics. Public Journal of Semiotics, 7(1), 1-42.
- 20. Jackendoff, R. (1987). "On Beyond Zebra: The relation of linguistic and visual information," Cognition 26, pp. 89-114.
- Jeon, H. A., Lee, K. M., Kim, Y. B., & Cho, Z. H. (2009). Neural substrates of semantic relationships: common and distinct leftfrontal activities for generation of synonyms vs. antonyms. Neuroimage, 48(2), 449-457.
- 22. Barlow, M., & Kemmer, S. (2000). Usagebased models of grammar. Stanford: CSLI Publications.
- 23. Lakoff, G. (1987). Women, Fire, and Dangerous Things, University of Chicago Press:
- 24. Chicago, IL.
- 25. Langacker, R. W. (1987). Foundations of cognitive grammar. Vol. II. Theoretical prerequisites. Stanford: Stanford University Press.
- Langacker, R. W. (1990). Foundations of cognitive grammar, Vol. 2: Descriptive applications prerequisites. Stanford, CA: Stanford University Press.
- Langacker, R. W. (2001). Discourse in cognitive grammar. Cognitive Linguistics 12, 143-188.
- Langacker, R. W. (2005). Dynamicity, fictivity, and scanning: The imaginative basis of logic and linguistic meaning. In R. A. Zwaan & D. Pecher (Eds.), Grounding

cognition: The role of perception and action in memory, language, and thinking (pp.164-197). Cambridge: Cambridge University Press.

- Malik. M. (2017). The Significance of the Use of Lexical Relations in English Language. Int. J. of Adv. Res.5 (4). 944-947] (ISSN 2320-5407). <u>www.journalijar.com</u>
- 30. Miller, G.A., Fellbaum, C., 1991. Semantic networks of English. Cognition 41, 197–229.
- 31. Murphy, M. L. (2003). Semantic relations and the lexicon: Antonymy, synonymy and other paradigms. Cambridge University Press.
- 32. Pustejovsky, J., (1995). The Generative Lexicon. MIT Press, Cambridge, MA.
- Tomasello, M. (2003), Constructing a language: A usage-based theory of language acquisition. Cambridge, MA: Harvard University Press.
- Vicente, A. (2017). Polysemy and word meaning: an account of lexical meaning for different kinds of content words. Philosophical Studies, 175(4), 947-968.
- Vicente, A. and Falkum, I. L. (2017). Polysemy. Oxford Research Encyclopedia of Linguistics, OUP. DOI: 10.1093/acrefore/9780199384655.013.325 (19) (PDF) Descriptions and Tests for Polysemy.
- 36. Vonk, J. M. (2017). Cognitive and neurobiological degeneration of the mental lexicon in primary progressive aphasia.
- 37. Yule, G. (2006). The Study of Language. Cambridge: Cambridge University Press.