Cognitive Linguistics: A Brief Overview of the Key Elements

Asst. Inst. Ateka Majid Fakhir

Ministry of Education / General Directorate of Education in Baghdad Rusafa/3

atktmajid@gmail.com

Abstract. A contemporary multidisciplinary approach to language called cognitive linguistics which aims to comprehend the relationship between language and the mind. Through the examining of the cognitive processes which involved the usage and comprehension of a language, cognitive linguistics is provided important insights into the human mind and its relationship with language. Cognitive Linguistics is offered a renewable perspective on language by placing cognition and embodiment at its core. By exploring the interplay between the human mind, thought and language, this interdisciplinary field provides valuable insights into how individuals produce, understand and interpret language. This paper aims to give a succinct overview of cognitive linguistics by examining its fields of study, its core concepts, theoretical underpinnings, and its relationships to other branches of linguistics.

Keywords: Cognation, Cognitive Linguistics, Mental Conditions.

1. INTRODUCTION

Cognition is referred to "The mental action or process of acquiring knowledge and understanding through thought, experience, and the senses" Therefore, the term "cognition" describes a variety of mental operations associated with the manipulation, storing, acquisition, and retrieving of

information. Thus, information input and storage are related to mental processes (Thalnon, 2022).

While, the scientific study of minds and brains is known as cognitive science. In actuality, cognitive science is studied the functions and the nature of cognition . Cognitive scientists pursue to understand the mental computations underlying cognitive functioning by conceiving the mind as an abstract computing device which implemented computations by neural tissue. Cognitive science has been emerged as the interface of many disciplines , among them is linguistics.(Nadel & Palmarini, 2003).

Since language is a cognitive system .So, it can be defined as a mental phenomenon with its own structures and patterns (Geeraerts, 2006). Thus, language is studied as a particular human cognitive ability that is part of the system of other cognitive competences.

Language study is part of cognitive research. Hence language is comprehended as a special knowledge subsystem, which is required to be examined in the context of other subsystems of cognitive system in order to understand how language ability is produced in the functional and structural constitutions of the human brain .

Although cognitive linguistics is a branch of the cognitive sciences that focuses on the description and explanation of the brain structures and processes associated with language understanding, this area of study is primarily concerned with the relationship between cognition and language, examines how language influences and reflects individuals' thoughts, concepts and mental processes.

Cognitive linguistics has received a great deal of attention in the field of linguistics and it emerged as a school of linguistic thought through the works of a several of researchers active in the 1970s who were interested in the relationship between language and mind, and who rejected the prevailing tendency to explain linguistic patterns by making appeals to structural properties (Thalnon, 2022).

 Langaker (2002) states that "Cognitive linguistics is focused neither physicality nor functionalistic, but it integrates certain aspects of both perspectives in order to affect neuropsychological language reality." (p. 33). At the same time cognitive–linguistic research is considered as mentalist because it is postulated the mental characteristic of language. Thus, cognitive linguistics serves as an integrated scientific field that that looks for

relationships between the processing of mental representations, their structures, and their neural substrate.

Therefore, cognitive linguistics focuses on the structures and processes of mental knowledge. In addition to the capacity for thought and language, cognitive processes also involve perception, learning, and memory. Under this apprehension, mental conditions and processes were classified as being unperceivable since they were directly unobservable by science.

Chomsky's theory of "generative grammar" is represented passage from "systemic description of language" to "cognitive explanation" (Chomsky, 1988). Thus, "Cognitive revolution" is meant the transformation from descripting of "cognitive abilities" to their explanation.

Cognitive linguistics stresses that language is a reflection of the basic qualities and structural elements of the human mind, in contrast to traditional approaches that see language as a system of formal rules. It examines how our cognitive capacities—such as perception, attention, and memory—affect language production and understanding, it is viewed language as a mental process (Thalnon,2022).

Recent years have seen the application of cognitive linguistics to a wide range of fields, including political discourse, mathematics, philosophy, literary and poetic sociolinguistics, translation, intercultural communication, language acquisition, and technology design. Cognitive linguistics has also provided insights into how adults and children acquire second languages. It also offers a framework for creating efficient language techniques that complement our cognitive processes (Thalnon, 2022).

2. AREAS OF STUDY OF COGNITIVE LINGUISTICS

The earlier achievements of cognitive linguistics is included its ability to connect the semantic components of grammar with their common conceptual foundation and to bridge the gap between formal syntax and morphology (Ungerer & Schmid ,1996).Cognitive linguistics is comprised three primary fields of study:-

2.1. COGNITIVE SEMANTICS

The study of linguistic meaning is known as semantics. According to cognitive semantics, language can only explain the world as individuals

understand it ,since it is a component of a wider range of human cognitive abilities (Croft and Cruse 2004). Rather than implying the discrepancy between an individual's conceptual and actual worlds (erroneous beliefs), it is implied that various linguistic communities have distinct conceptions of basic objects and processes in the universe (different cultures).

Therefore, lexical semantics is the main focus of cognitive linguistics, which divides semantics (meaning) into two categories: meaning formation and knowledge representation. (Taylor, 1994c).

2.2. GRAMMAR: A COGNITIVE APPROACH

The primary focus of cognitive linguistics in grammar is on syntax, morphology, and other domains that are typically more closely related to grammar. The study of morphology has been benefited greatly from the contributions of cognitive linguistics. (Taylor,2002b).

This kind of study is expressed by word-formation items and their constituents including morphemes, the structural patterns underlying derivatives , and procession aspects and word-formation like lexicalization (Mandelbilt, 2000).

2.3. COGNITIVE PHONETICS

The classification of different correspondences between morphemes and sequences is the focus of cognitive linguistics. According to the contemporary cognitive perspective, phonology is a reflection of our understanding of physical experience (Taylor,2002a).

Fundamental properties of a sound system are comprehended as ″cognitive representations″ underlying ″phonological representations″. (Lee, 2001)

3. CONCERNS OF COGNITIVE LINGUISTICS

According to Taylor (2002b) the following list highlights a few of the issues raised by cognitive linguistics:-

(a) CATEGORIZATION: This is the process by which individuals must divide the environment into dangerous and non-harmful categories, as well as edible and non-edible categories. A creature needs to be able to identify others of its own species. Categorization is permeated in individuals' nonlinguistic cognition.

(b) FIGURE-GROUND ORGANIZATION: One type of perceptual grouping that is essential for object recognition through vision is figure ground organization . So that it is provided by visual perception .It is referred to as "identifying a figure from the background" in Gestalt psychology. On a printed sheet of paper, for instance, black text is perceived as the "figure" and a white sheet as the "background".

(c) METAPHOR AND "EXPERIENTIALISM": Metaphors allow us to interpret one concept in terms of another. According to Lakoff and Turner (1989), metaphor is considerably more than just a literary device; it influences many aspects of our language and way of thinking, making it a crucial area of study in cognitive linguistics.

(d) CONCEPTUAL ARCHETYPES: The degree to which language expands upon pre-existing conceptual structures has been a central theme in studies on language acquisition.

(e) INFERENCE: If individuals have given a snippet of information, they rapidly quickly fill in the details by providing missing facts, assuming the unsaid objectives and motives, deducing causes from effects, and forecasting effects based on the situation from current circumstances.

4. COGNITIVE LINGUISTICS CONCEPTS

Categorization is the main focus of cognitive linguistics. Words, morphemes, and nouns are examples of linguistic categories that are used to describe research items (Taylor, 1995). In Cognitive Linguistics, several key concepts contribute to the cognition and understanding of a language. These concepts are prototype theory, conceptual metaphor, and image schemas(Murphy, 2002). As explore in the subsequent :

4.1 PROTOTYPE THEORY

One of the key concepts in Cognitive Linguistics is the idea of prototype theory which is suggested which contends that central exemplars rather than rigid borders determine categories. Prototype is observed in cognitive psychology and cognitive linguistics since the 1970s and 1980s, respectively (Lakoff, 1987; Langacker, 1987a; Taylor,1995). It emerged through the work of psychologist Eleanor Rosch in 1971.

Prototype model is often used but it is partly misunderstood concept in cognitive linguistics due to its overlapping with a schema model. As it advances to the rank of a theory and addresses a wider range of language phenomena, including ″phonology, syntax, prepositions, semantics, and the study of diachronic lexical semantics, it is used as a model in the theory of ideas and covers natural objects and nouns in cognitive psychology″ (Komatsu,1992).

Prototype theory is challenged "the traditional view of categories" as having clear-cut boundaries which emphasizes the graded nature of categorization, (Geeraerts, 1989).

Linguistic categories, like words, show prototype structure, whereas some words are more essential to a category than others. For example, when individuals think of the category "bird" ,their tendency is to have a prototype in mind, as an example of a "sparrow" or a "robin", rather than a strict definition that includes all potential bird species.

This concept is donated to individuals' understanding of language and cognition by emphasizing the fuzziness and flexibility of categories as well as the function of prototypes in individuals' mental representations of concepts (Hilferty, 1997).

Prototype concept has a tendency to get reified, as if it was a ″mental structure″. Komatsu (1992) has listed five characteristics of prototype under the name of a family resemblance view: ″ (1)centrality of typicality, (2)abstractness , (3)weighted attributes, (4) independence and additive combination of weights: linear separability, and (5) Retention of central tendencies″.

Murphy(2002) states that a prototype is an idea that is represented by schemata. It organizes a representation that breaks down an item's attributes into dimensions and values associated with those dimensions. Whereas ,Wierzbicka (1990) states that, in semantics, definitions cannot adequately capture the actual, messy, and unpredictable ways in which words are used. But opportunely, semanticists no longer need to worry about it because they can now apply the concept of prototype to all residues and open issues. Instead, she thinks that the prototype model can be beneficial as a particular and effective analytical instrument rather than as "a universal thought-saving device." This means that, it is a useful instrument for "semantic description but not a useful full-fledged semantic theory by its own".

According to Taylor (2002) "prototype is thought of as a "catchall device" (Geeraerts, 1989; Wierzbicka, 1990). In the application of prototype theory ,the study of prepositions is a fruitful and effective topic (Rice, 1996; Tyler & Evans, 2001).

4.2 CONCEPTUAL METAPHOR

Another important concept of cognitive linguistics is conceptual metaphor, which proposes that humans comprehend abstract concepts through physical experiences and concrete (*Deignan*, 2005).

A conceptual metaphor is a metaphor in which one notion (or conceptual domain) is understood in terms of another. It is also referred to as a generative metaphor. The source domain, as used in cognitive linguistics, is the conceptual realm from which individuals get the metaphorical phrases needed to comprehend another conceptual domain. The target domain is the conceptual domain that is understood.

For instance, the metaphor "life is a journey" . The common idea of a journey can be used to translate the abstract concept of "life" onto more concrete experiences . Consequently, the target domain of life is frequently explained by using the source domain of the journey.

Conceptual metaphor was explored by George Lakoff and Johnson (1980). According to this theory, individuals map knowledge and the structure from one domain (the source domain) to another (the target domain) via metaphors.

Lakoff and Johnson (1980) have distinguished three types of conceptual metaphors:

- **ORIENTATIONAL METAPHOR**

This type of metaphor is considered as "a system of ideas is organized in the relation and interaction in space like up-down, inside-out, front-behind, shallow-deep etc". due to the fact that they are connected to spatial orientation.

According to Tran Van Co (2007), "We see the outer world as the world outside of us because we are a physical being confined to a specific area and shielded from it by our skin. The body's surface confines each of us in a finite amount of space; this may be an orientational sort of "inside-out". When we considered other physical objects, we can image them as constrained by the surface(Vu, 2015).

- **ONTOLOGICAL METAPHOR**

According to Lakoff and Johnson, this kind of conceptual metaphors is employed so frequently, people take it for granted. This metaphor involves projecting something concrete onto something abstract.

In the same line, Tran Van Co (2007) asserts that we are able to extract and comprehend some aspects of experience through the semanticization of experience or terminology. Once the experience is conceptualized as a particular thing or substance, we can categorize, organize, quantify, and so on and this allows us to think about the experience.

- **STRUCTURAL METAPHOR**

This type of metaphors are considered as the group with the highest number. Lakoff and Johnson (1980) state that Structural conceptual metaphor is a metaphorical system in which a complex concept (usually abstract) is expressed in terms of another concept (usually more concrete). Therefore, in this kind of conceptual metaphor, complex and abstract experiences are conceptualized based on the experience of specific and basic experiences.

The theory of conceptual metaphor holds that metaphor is more than just "a decorative device, peripheral to language and thought." Conceptual metaphors, on the other hand, are argued to be "central to thought, and therefore to language." From this theory , a number of basic principles are derived:

- "Metaphors structure thinking"
- "Metaphors structure knowledge"
- "Metaphor is central to abstract language"
- "Metaphor is grounded in experience"
- "Metaphor is ideological" *(Lakoff and Turner, 1989)*

Therefore, conceptual metaphors are ubiquitous in language and cognition, influencing our perception of many areas, such as emotions, time, and relationships. They also help people understand language and cognition by emphasizing the part metaphorical thinking plays in forming their conceptual frameworks, communication styles, and worldviews (Deignan, 2005).

4.3 IMAGE SCHEMAS

Image schemas are also explored in Cognitive Linguistics, which are recurrent patterns of sensory and spatial experiences that shape individuals' understanding of the outside world. A cognitive framework for structuring and organizing individuals' thoughts and language is offered by these schemas.

Johnson (1987) states that an image schema is a recurrent dynamic pattern of individuals' motor programs and perceptual interactions that provides coherence and structure to individuals' experience . It encompasses basic perceptual, motor-program, emotional, historical, social, and linguistic components. It should be interpreted in this broad meaning.

In 1987 ,Lakoff and Johnson jointly introduced the idea of "image schema" as one of experientialism's major foundational by an advance of a non-objectivist, "experiential" approach to language and thought .

Image schemas are pre-conceptual structures that have direct meaning (being "experiential" or "embodied"). They are originated from, or are based on human recurring movements through space, perceptual interactions, and

ways of managing things. Because of their highly configuration ,these schemas are considered as an integrated data from various modalities and represent the structural outlines of sensory-motor experience (Johnson,1987).

Independent from other concepts, image schemas are existed as analogical and continual patterns underneath conscious awareness. These schemas are learned from "embodied experiences and encompass abstract information in notions such as containment, source-path-goal, and scale". For instance, the containment schemas are involved the understanding of outside and inside, which can be figuratively applied to nonconcrete domains like "emotions" (e.g., "I'm bursting with joy") (Taylor, 1990).

The way individuals conceptualize space, time, causality, and other abstract ideas is greatly influenced by image schemas. Thus, by emphasizing the embodied aspect of individuals' conceptual systems and the influence of sensory-motor experiences on how individuals comprehend language and thought, this idea advances individuals' understanding of language and cognition.

These key concepts in Cognitive Linguistics are provided a valuable insight into the relation between language and cognition. Prototype theory highlights the graded nature of categories. Whereas, conceptual metaphor is emphasized the importance of metaphorical thinking in grasping abstract concepts .Finally , image schemas shed light on the embodied character of our conceptual systems .By studying these concepts, individuals get a deeper understanding of how language reflects and shapes their concepts, thoughts, and mental processes.

5. MENTAL CONDITION AND COGNITIVE LINGUISTICS

Since cognitive linguistics is focused on how individuals' mental representations and conceptual frameworks are reflected in and shaped by language. An individuals' cognitive and psychological state that influences how they receive and comprehend language is referred to as their "mental condition" (Sakai, 2005)

According to cognitive linguistics, a person's mental processes and conceptual systems are intimately linked to the language they use. It implies that individuals' thoughts and perceptions of the world are reflected in their language, and that an understanding of language can lead to an understanding of the mental models that underlie language.

Determining the kinds of mental representations which are made by different language units is one of the main objectives of cognitive linguistics. This involves examining the ways in which language affects our ability to perceive, pay attention, remember, construct concepts, solve problems, and employed in other cognitive processes (Perlovsky, 2009).

Despite its emphasis on the mental components of language, cognitive linguistics does not particularly address mental illnesses or clinical diseases. Somewhat, it is explored the mental processes which is related to language understanding, producing, and creating meaning through language.

The study of cognitive linguistics also looks into how language usage and acquisition are influenced by cognitive development. For example, when young children grow, their language follows their cognitive development, acquiring more sophisticated vocabulary and structures. On the other hand, those with cognitive deficits, such as those on the autism spectrum, might have distinctive linguistic patterns that shed light on the connection between language development and cognitive processes.

According to cognitive linguistics, language is a reflection of human thought processes rather than just a collection of vocabulary and grammatical rules. Therefore, it is highlighted upon the close relationship between individuals cognitive processes(memory, reasoning, and emotional processing)and how they perceive language. The complex interaction between cognition and language is highlighted by the fact that mental conditions, such as ″anxiety, depression, or neurodevelopmental disorders″, can have a substantial impact on language usage and comprehension (Perlovsky, 2009).

Since cognitive linguistics studies how language both reflects and shapes individuals cognitive processes, including their mental states and circumstances, there is a major relationship between cognitive linguistics and mental condition. Aphasia, autism spectrum disorders, and schizophrenia are a few examples of conditions that can affect how individuals use and interpret language, by offering insight into the cognitive processes that go into language(Hampe ,2005).

6. COGNITIVE LINGUISTICS AND OTHER BRANCHES OF LINGUISTICS

6.1 COGNITIVE LINGUISTICS AND PSYCHOLINGUISTICS

Psycholinguistics is the study of language and speech from a mental perspective. Its main focus is on the representation and processing of language in the brain (Carroll, 2008). Therefore, it is the study of ″mental mechanisms″ that enables people to use language.

Garnham(1985) states that " Psycholinguistics is a scientific discipline whose goal is a coherent theory of the way in which language is produced and understood"

Carroll (2008) states that "psycholinguistics elucidates, on the one hand, the cognitive processes involved in the ordinary use of language, which means such things as understanding, reading, writing, and holding a conversation", and, on the other hand, the language knowledge that is needed to use language, so that individuals must know a language to use it, but they are not always fully aware of this knowledge. Through "cognitive processes, " as remembering, thinking, and perception "(Hampe, 2005).

Cognitive linguistics and psycholinguistics both deal with the relationship between language and the mind, but they approach the relationship from various perspectives and vary in their areas, basic assumptions about methodologies and the nature of language (Pulvermüller,2007). This a sharp and inseparable difference between cognitive linguistics and psycholinguistics is explained as if psycholinguistics is a body, cognitive linguistics is its arms.

Psycholinguistics studies the cognitive processes involved in understanding utterances, words, texts, etc., as well as the mechanisms that enable one to construct a grammatical and meaningful phrase from a vocabulary and grammatical structures. Psycholinguists investigate how the mind manages language, while cognitive linguists examine how language reflects the functioning of the mind (Field, 2003).

For instance, cognitive linguists are more interested in examining whether the quantity of colour words in various languages influences how speakers of those languages perceive colour, whereas psycholinguistics studies how language abilities are affected by strokes in different areas of the brain (K. Balamurugan & S. Thirunavukkarasu, 2018).

6.2 COGNITIVE LINGUISTICS AND NEUROLINGUISTICS

Neurolinguistics is the study of human brain systems that underlie spoken, signed, or written language comprehension, production, and abstract knowledge (Nuyts, 1993). Thus, this field of study is focused on how the brain

interprets language. It is closely associated with the area of psycholinguistics, which uses conventional experimental psychology techniques to explain the cognitive mechanics of language. This field has brought attention to the unique function of the Broca's area of the human brain in key facets of language(Mondry, & Taylor, 1992).

Neurolinguistics and cognitive linguistics are two interdisciplinary fields that explore the relationship between language and the brain, but they are focused on different aspects. Neurolinguistics is studied the neurological processes underlying language acquisition, comprehension, and production . It is examined how language is represented and processed in the brain to understand how different brain areas are contributed to language functions, it frequently uses techniques like brain imaging and also studies of brain injuries in order to understand how different brain areas are contributed to language functions. Cognitive linguistics, on the other hand, studies the connection between language and thought processes. It highlights the part that human cognition—including conceptual frameworks and mental representations—plays in both comprehending and producing language. (Nuyts, 1993).

The cognitive and conceptual components of language are emphasized by cognitive linguistics, while the biological and neurological foundation of language is the focus of neurolinguistics. Rather than ″direct neuronal evidence″, cognitive linguistics depends on theoretical models and empirical studies in psychology and linguistics (Le & Nguyen,2023).

To sum up , while cognitive linguistics and neurolinguistics approach language from different perspectives, both fields contribute to a deep comprehend to the interaction between language, cognition, and the brain. they provide a more comprehensive understanding of how language functions in the human mind.

7. CONCLUSION

Cognitive linguistics in this brief overview, explores the relationship between language and cognition, examining how language both reflects and changes people's thinking and mental processes. As a result, cognitive

linguistics have a very varied range of theories and methods to language studies. Traditional methods of studying language are being challenged by cognitive linguistics, which provides insightful knowledge on a variety of language-related topics, such as metaphor and language learning. Additionally, it offers a unifying principle that unites disparate theories and presumptions, interpreting linguistics as the study of nature, structure, and the patterns of human cognition represented in language forms in addition to language forms themselves.

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