



## **A Cognitive Semantic Study of the Arabic Preposition “khilāl”**

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### **Abstract:**

This study aims to demonstrate the concept of the Arabic preposition "khilāl" from a cognitive semantic perspective. Prototype theory, image schema, and metaphor theory are used to analyze the data. Some of the Arabic expressions are chosen to be analyzed. It has been found that the spatial meaning of the preposition "khilāl" is its prototype meaning. The source–path–goal schema and the spatial metaphor are used to extend the meaning of the word from the spatial to non–spatial domains. These results lead to the conclusion that a given preposition's prototype meaning, "khilāl" is the source of all of its non–prototypical meanings.

**Keywords:** cognitive, preposition, prototype, image schema, metaphor.



## دراسة دلالية معرفية لحرف الجر العربي (الخلال)

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### الملخص :

تهدف هذه الدراسة إلى بيان مفهوم حرف الجر العربي "الخلال" من المنظور الدلالي المعرفي. تُستخدم نظرية النموذج الأولي ومخطط الصورة ونظرية الاستعارة لتحليل التاريخ. تم اختيار بعض التعبيرات العربية لتحليلها. وقد وجد أن المعنى المكاني لحرف الجر "الخلال" هو معناه النموذجي. يتم استخدام مخطط المصدر والمسار والهدف والاستعارة المكانية لتوسيع معنى الكلمة من المجالات المكانية إلى المجالات غير المكانية. تؤدي هذه النتائج إلى استنتاج مفاده أن المعنى النموذجي لحرف الجر، "الخلال" هو مصدر جميع معانيه غير النموذجية.

ان حرف الجر "الخلال" معاني مجازية. ويمكن إضافة مجالات أخرى إلى معاني "الخلال" في المجال المكاني. امتداداتها المجازية هي كما يلي: "من البداية إلى نهاية فترة زمنية" و "حتى وتشمل" تستخدم في المجال الزمني. يتم استخدام "بسبب" و"بواسطة" في مجالات السبب والسبب والطريقة، على التوالي، في مجال الحالة، "التصرف (شيء)" أو "تجربة (شيء)". هذه المعاني بالإضافة إلى المعلومات الحسية التي يمكن الحصول عليها .

الكلمات المفتاحية : علم اللغة المعرفي ، حروف الجر ، الأنموذج ، الصورة .



## **1. Introduction:**

The early 1970s saw the emergence of Cognitive Linguistics (CL), a modern school of linguistics that is focused on human categorization. Cognitive psychology, particularly the early psychological work of Gestalt, has had an impact on cognitive linguistics (Evans & Green, 2006). On the other hand, cognitive linguistics, which started in the 1980s, is a relatively new development within cognitive science, according to Evans (2007). However, the primary areas of study in cognitive linguistics are language practice and thought. In other terms, it investigates the relationship between language and the mind by placing a heavy emphasis on "meaning, conceptual processes, and embodied experience.

Cognitive semantics, which is a crucial field of cognitive linguistics. However, among the main conceptual structures that cognitive semantics relies on are image schema, prototype theory, and metaphor theory. These could be seen as an expression of human encounters and interactions with the outer environment (Alyaa, 2020).

Image schemas can generally be defined as dynamic analog representations of spatial interactions and movements in space, as mentioned by Gibbs and Colston (1995: 349). Despite being formed from perceptual and motor processes, image schemas are not sensorimotor processes in and of themselves. They said, "Image schemas exist across all perceptual modalities, something that must hold for there to be any sensorimotor coordination in our experience, accepting the idea that image schemas are produced from a wide variety of sensorimotor input. Image schemas are hence simultaneously visual, aural, kinesthetic, and tactile.

"Prototype" cited in (Richards, John Platt, & Heidi Platt, 2000: 374. According to Zhu.li (2017), a "prototype" is a person or thing that is widely regarded as being representative of its category or group. According to the prototype theory, many of the notions we hold in our



minds are actually prototypes. People frequently use common examples to illustrate a concept's meaning. For instance, a bird prototype might resemble a small, flightless bird more than a large, flightless bird like an emu or a New Zealand kiwi. On the basis of the absence of classical theory, prototype theory is proposed. One of the cornerstones of cognitive linguistics is this theory. According to classical category theory, a thing's category is formed by the shared traits of its constituent parts, and the context of these constituent parts totally determines the status of these constituent parts.

According to Lakoff (1992), cited in (Monika,2020), metaphor is the primary means by which we understand abstract concepts. He also argues that since metaphor is basically conceptual in nature, it helps us understand the experience much better. According to Lakoff and Johnson (1980), "metaphor imposed itself in our everyday speech, language, and conceptual framework." They also made it abundantly obvious that metaphor is often as a feature of language alone, a matter of word rather than thought or action.

Newmark (1988) defines a metaphor as any figurative expression that involves the personification of an abstraction, the transfer of a word's literal meaning, or the use of wordplay. The term "single" (a single word) or "extended" metaphor (a collocation an idiom a sentence a proverb an allegory a complete imaginative text) from another side, Newmark (1988), the primary goal of a metaphor is to more fully and succinctly depict a thing, event, or characteristic. Compared to simile, metaphor is more creative and innovative since it makes language more potent and draws the reader's attention to their emotional thoughts. (ibid)

## **2.Literature Review**



In cognitive semantic, there are different kinds of theories that may help the researcher to finds out the meaning of Arabic Preposition “khilāl”:

## **2.2 Previous Studies**

There are a lot of studies on prepositions in different areas of linguistics. One of these studies is contracted by Brugman and Lakoff's investigations. Several of Dewell's (1994) methods for analyzing data are more straightforward and comprehensible. Segment profiling, resultant state, subjective path to endpoint, edge-trajector, planar-extending trajector, multi-directional planar trajector, and planar-extending trajector are only a few of the image-schema transformations described by Dewell (1994).

In addition, a study by (Nasser(2020) titled Cognitive–Semantic Analysis of Prepositions on intends reveal the special challenges Iraqi students encounter while appropriately employing English prepositions. A paper titled (preposition in Cognitive semantics) by Nassaralain covers all aspects of the semantics model of preposition, abstracts and bodily experiences, especially prepositions that are used in religious texts

A study contracted by (Saeed(2018) studies the preposition under the title (The Polysemy Khalil from cognitive linguistics) focuses on the classification of prepositions in Arabic grammar books and analysis within cognitive framework.

Another study is contracted by (AL–Braham(2017) in her paper (A Cognitive Semantic Analysis of the preposition at). She refers to prepositions and postpositions in this sense, describing the former as a 'particle' that arrives before the noun phrase and the latter as their



position in a specific linguistic context. Alternatively, they might be semantically expressed using terms like direction, position, possession,

### **2.3 The Porotype Theory**

According to Zhu Li, who was cited in (2020), a "prototype" is an individual or thing that is generally regarded as being indicative of a class or group. Many of our mental concepts, according to the prototype theory, are truly prototypes. A notion is typically defined using common instances. For instance, a bird prototype would more closely resemble a little flying bird than how notions are produced, such as what constitutes a typical house and to what extent particular concepts can be regarded as universal or distinctive to particular cultures.

Prototype theory is put up as a defense for why classical theory is not present. This hypothesis is one of the pillars of cognitive linguistics. According to classical category theory, a thing's category is determined by the shared characteristics of its members, and these members all have the same status in the context. The prototype theory, however, includes the area that is not built above the shared features because there is no one set of characteristics that precisely represents the components of the spheres. Members of the category radiate outward from the center, connecting to one another based on shared familial qualities, but the characteristics of the members differ within the circumstances; in fact, there are major variations. The prototypal category, which serves as the focal point of this area and has the strongest familial resemblance, is an example of the category in general (Rosch, 1987: 468).

Three qualities that define a prototype were established by Rosch (1987). First, perceptual salience, which means they are simple to differentiate; second, memorability, which means



they are simple to recall. Thirdly, the characteristics of the prototype were dependent on stimulus generalization, which is the ability to conceptualize different objects with physical as well as functional characteristics. People may immediately recognize from the prototype category's attributes that not all members of the same category have the same status. Although the term "prototype" is sometimes used to refer to the category's greatest members or typical representations, all members of the same category share the same names and qualities (ibid).

Based on the details provided above on the prototype theory, this paper focuses on the concept of the preposition "khilāl" in Arabic language. to preposition examine how the people understood the typical concept of "khilāl".

## **2.4 The image schema**

Johnson states (1987) in his book *The Body in the Mind* that "an image schema is a recurrent dynamic pattern of our perceptual interaction and motor programs that gives coherence and shape to our experience." His definitions offer an explanation of how image schema connects the conceptual world to the interactions of real things in time and place. This suggests that formalizing visual schema may aid in the development of artificial intelligence and computational concept formation.

The Cognitive have seen (cited by Raphael) that the mental pattern known as the picture schema is represented by concepts like PATH, SOURCE-PATH, and CONTAINER. Yu (1998) described the PATH schema as one of the most common schemas that emerge from our basic physiological experiences. The four structural elements of the PATH schema are a Source a starting location), a destination (an end point), a path (a collection of adjacent sites



connecting the source and the destination), and a direct (Lakoff, 1989: 119). "The simplest conception of any item following any path through space, without reference to the features of the object or the intricacy of the trajectory itself – it is basically anything going in through space,( Mandler,2004: 78). This schema's fundamental components are the SOURCE of motion (JOURNEY), the PATH traveled, and a GOAL (DESTINATION). The Source–Path–Goal Schema's schematic structure can be schematically described as illustrated below, which means The arrow denotes the direction in which the traveler is moving forward along the PATH (ibid).

Source Path Goal



Figure 1. Schematic Structure of the PATH Image Schema Source:

<https://inst.eecs.berkeley.edu>lecture>

The concept of containment is represented by the CONTAINER image schema (Johnson, 1987). Regarded as a relationship between the container's (border) and its content, containment (interior). The image schema is the product of our frequent and widespread interactions with containers (Lakoff, 1987). The IN–OUT orientation, taken into consideration for different senses of IN, OUT, INTO, and OUT OF, is crucial to the schema (Johnson, 1987). To those wishing to obtain or study an image of the Arabic preposition "khilāl" image schema displays the image.

## 2.5 The Metaphor Theory





In the perspective of cognitive linguistics, metaphor is the understanding of one conceptual domain in terms of another conceptual domain, as we understand life in terms of journeys and arguments in terms of war (Landau, 2017: 62; Massey & Ehrensberger-Dow, 2017: 174).

According to the cognitive linguistic perspective, a metaphor is when one mental domain is understood in terms of another conceptual domain. One conceptual domain (the target domain) is understood in terms of another in a conceptual metaphor, which consists of two conceptual domains (the source domain). Any coherent structure of experience is a conceptual domain. The foundation of conceptual metaphor is experience and culture on the other hand.

According to Langacker, the words "TRAJECTOR" and "LANDMARK" are suggested to characterize the semantics of language expressions signifying straightforward and complicated occurrences in which one object (the Trajector) is moving or changing in relation to another object (the Landmark). The Path is the path that the Trajector is travelling along, either literally or figuratively (Talmy, 2001).

The movement or change need not have an objective dynamics of the entities; it might be abstract or fictive, for example: "The balloon (Trajector) is flying above (Path) the home (Landmark)" or it could have a spatiotemporal aspect. The prime (trajector) wants his minister to navigate the state apparatus (abstract Landmark) via a crude path; Out of the valley, the road ascends sharply (see the definition of "fictive motion" in (Talmy 2001). As components of the conceived event, Trajector and Landmark are brought into the speaker's line of sight, but they are given uneven focal importance (Langacker 2000: 30). The main focus is on the trajectory, a moving component of the environment. Typically, the landmark that the Trajector uses as a point of reference is put in the secondary focus. (ibid) Metaphor theory has this



kind of capacity to interfere in different field of linguistics so one of this interesting diamonds it is understanding the meaning of preposition

## **2.6 The Preposition**

In the Arabic language, prepositions are linguistic instruments that are essential for constructing meaning and drawing inferences. Despite being categorized as a non-true preposition in the majority of Arabic grammar manuals, the preposition "khilāl" is one of the Arabic grammar terms "in front of," "behind," "before," "after," "qabl," "after," "fawq," and "under," which are all classified as nouns or adverbs of position. These elements share many syntactic and semantic properties with actual prepositions such as min "from," ʔla "to," hata "until," fi "in," a "away from," and a ʕala "on," but they are not the same as them due to their nominal origin. The non-true prepositions are referred to as "prepositional"

in modern linguistics by Badawi, Carter, and Gully (2004: 174), but Abu-Chacra (2007: 55) calls them "secondary prepositions," which are "derived from (verbal) nouns by use of the accusative ending -a." Other suggested terms are "semi-prepositions" by Ryding and "quasi-prepositions" by Kouloughli (1994: 152).

The preposition "through" in English is seen to be a useful way to translate the Arabic preposition "khilāl" into English. As a result, the author learns the definition of the prototypical meaning of "through" in after consulting various dictionaries. The first definition of "through" Werriam-Advanced Webster's Learner's English Dictionary is "into one side and out of the other side of (something). Additionally, "to travel through a hole or aperture suggests to move through one side or end of it to the other," according to the Collins Cobuild Essential English Dictionary's definition of the word "through" from 1998. The New Oxford American Dictionary also provides a definition for "going in one side and out on the other side of (an opening



channel, or site)". The prototypical meaning of through provides a spatial sense in which TR (Trajectory) crosses the bounded LM since a bounded LM (Landmark) has an entry point and an exit point (Nasser, 2020).

Prepositions, according to Evans and Tyler (2005), have a primary meaning that contributes to the mental representation of spatial relationships. In a polysomic network, the variety of the several meanings is said to occur when the preposition's primary meaning does. (Zhao, 2019).

### **3. Analysis and Results**

The preposition "khilāl" will be thoroughly examined in this part from some aspects of cognitive semantic linguistics theories.

#### **3. 1 Prototypical Meaning of the Arabic preposition "khilāl"**

Prototype is the term used in semantics or a typical member of the extension of a referring expression and meaning. In other words, it is the semantic information that is more prominent or typical than other information among various semantic items of the same word. Every prepositional meaning is strongly related to a prototype. The prototype meaning of a preposition is typically considered to be its first meaning. The first entry of all the meanings of this term is often the oldest meaning of a preposition, as mentioned by Wu (2017). The definition as found in a dictionary, is the one that has been around the longest. This viewpoint



allows us to believe that the prototype meaning derives from the original meaning. From this point of view, all the meanings of a preposition are closely related to a principled method to a prototype.

-دخل ضوء الشمس خلال الشباك  
-يمر القطار خلال النفق

- The light of sun came through the window
- The train goes through the channel

From a dictionary definition, in the first sentence the prototypes of meaning "khilāl" represents the light into one side and outside of window in opposite, the second sentence "khilāl" indicates to prototype meaning "the train move through a hole "the channel" directly one side and end of it with other side The study observed the prototype meaning of the term and concluded that the spatial sense of "khilāl" is its first or prototypical meaning.

### 3.2 Spatial Meaning of Arabic Preposition "khilāl"

Researcher tries to find out the spatial sense of the preposition "khilāl" in its initial or prototypical meaning after the words prototype meaning

#### A. Image Schema of Arabic Preposition "khilāl"

1. وصل الى العمل خلال المظاهرات
- 2 رجع للبيت خلال السوق

- He arrived to the work through Demonstration
- He came back home through the market



The different image schemata are described in cognitive linguistics by the positions and movements of TR (Trajectory) and LM (Landmark) The image has three elements: source (the starting point), goal (the place to go), and path (the way from one point to another).

According to above view, it is knowing that the elements of image schema in the first sentence, which could describe the SOURCE, is (he start moving from somewhere), GOAL (the work) and PATH (the way which has "khilāl" Demonstration). The second sentence source represented by (where the person stated moving from somewhere), the goal seems as arriving to home and path the way connecting with the market

#### B. Static and Dynamic Meaning of Arabic Preposition "khilāl"

The preposition "khilāl" has a fixed meaning when TR is relatively still in a particular point or an area of LM. "khilāl" also has a dynamic meaning when TR is constantly moving toward an end point across LM.

1.الأراء السياسية تتذبذب خلال احتجاجات الشعب

2.الاولاد قضوا كل الوقت يمشون خلال الحديقة

–The political opinions vibrated through the public protesting

–The boys spend most their time walking through the park

Preposition "khilāl" conveys a static sense and means "over all the parts of (something)" in the first sentence. TR is " The political opinions " The subject of the action, LM is a space



known as " public protesting and TR are completely overlapped While in the second sentence, "khilāl" means "from one side or end to another side or end of (something)" which suggests a dynamic sense. TR refers to " The boys ". LM is "the entrance". "The moves in the direction of the park in The Path.

### **3.2 Metaphorical Meaning Arabic Preposition "khilāl"**

The Arabic preposition "khilāl" has also various metaphorical interpretations that go beyond its basic original meaning. The preposition "khilāl" metaphorical meanings will be examined from five domains.

#### **A. understanding "khilāl" from Spatial Domain to Temporal Domain**

The Space and time are conceptualized differently. The idea of space can be experienced by people directly, whereas the idea of time is more abstract and is defined through metaphor. A thing or a time period that occurs or is experienced can be viewed as a specific point or a portion of that bounded space, which can be conceptualized as time. At the same time, "from the beginning to the end of a period of time" is added to the meaning of "through."

1. هو نام خلال المحاضرة

2. هربت جميع العوائل خلال القصف

3. تعرف على زوجته خلال الرحلة الصيفية

–He slept *through* the lecture

– Many families escape *through* mortaring

– The parent met together *through* the summer trips.



The terms "he," "many Families " and " the parent " are used in the preceding sentences as TRs, while "the lecture" "the mortaring" and "the trip summer" are used as LMs. TR crosses LM after touching it. The fundamental spatial concept of "from one side or end to the other side or end" serves as the foundation for the phrases "through the lecture," "through the mortaring," and "through the trip summer" Their image schemata resemble the concept of "through the tunnel" in people's minds, and their meanings are metaphorical. The temporal concept is projected onto the spatial concept in this manner. As a result, the preposition "through" acquires a new meaning in the temporal domain. That is to say, the use of the word "khilāl" in these sentences denotes the passage of time. In the third sentence, TR only moves in the middle of LM, which is differed.

#### B. Understanding "khilāl" from the spatial domain to cause and effect domain.

Trajectory traverses the path from one side or end to the other using the spatial image schema provided by the preposition "khilāl" "External forces may cause TR's state to completely shift during this process. This spatial image reveals a causal relationship when projected onto tangible objects "khilāl" indicates "because of" or "due to," which demonstrates the connection between a particular process and a particular state or circumstance.

1.زيادة أسعار النفط خلال شدة الحرب

2.السائقين يعملون الكثير من الحوادث خلال العاصفة

3.هاجر بعض القرى خلال جفاف نهر

- The prices patrol increased through war
- The drivers meet with a lot accident through the storm
- some of villages migrate through drought



In the first sentence the process of " The prices patrol " (TR) shifting from "low" to "high" as a result of " difficulties of war " (LM) is described by the verb "increase". The TRs in the following two sentences are, respectively, "the drivers " and "some villages." The forces of "the storm " and "drought river " also change their states.

#### C. Understanding preposition "khilāl" Spatial Domain to Domain of Manner

PATH can frequently be understood as a strategy for accomplishing a goal, completing a task, or engaging in a particular activity. As a result, the preposition gains the additional meaning of "by means of."

1. الطلاب يأدون الامتحان خلال الانترنت

2. الإرهاب يحكم على المدينة خلال العنف

-The students take exam through the internet

-The terrorism ruled the city through fear .

The first sentence The students (TR) can only communicate with the help of the internet (LM).TR helps with communication, and TR likes to act as a bridge between students. In the second sentence, it says that they (TR) ran the country with the help of fear, which made people afraid.

#### D. understanding preposition "khilāl" Spatial Domain to State Domain





The state field can be projected using the spatial concept of "from one side to the Other side. "TR crosses LM and comes into contact with it. The meanings "in the process of (something)" and "experiencing (something)" are produced by this process, which projects onto a specific event.

-الشركة الأفضل خلال المبيعات  
-ستكون جيد ليس فقط خلال المقابلة

- 1.The company is the best through the selling
- 2.she will be good not only through interview

The word "the company" is TR, and "the selling is LM in the first sentence. In this sentence, "the company motivated by "selling," are moving from one side of the selling to the other, from the selling's beginning to its end.

As a result, the sentence indicates that the company's best is up.TR is "the company" in the second sentence, while LM is " work place. "The phrase "experiencing in an interview " or "in the process of the interview " conveys that she has succeeded in work.

#### E. understanding the preposition "khilāl" from the Spatial Domain to Sensory Domain

In our experience of the physical world, sensory organs like our eyes, ears, nose, mouth, and body provide people with cognition and sensory meanings. They need to experience the physical world. Additionally, these sensory meanings constitute the essential components of our information sources. Conceptual metaphor theory studies how to comprehend abstract sensory information by utilizing the spatial concept. According to the mapping from the spatial domain to the sensory domain, TR is able to get specific sensory information by overcoming a particular sensory barrier.



The sense of sight is used to learn the majority of the information. Consequently, the image schema in this state is that TR enables the sense of sight to obtain certain visual information by overcoming obstacles.

1.هي تستطيع رويه النجوم خلال الغيوم

2.هو يستمع الى الموسيقى خلال السماعه

3.انظر الى أصدقائي خلال الشباك

-She could see the stars through the clouds

-She listens to music through headphone

-I look to my friends through the windows.

People are represented by TRs, while "clouds," "windows," and "headphones " are represented by LMs. LMs, that the sense of sight can pass through are somewhat transparent for getting visual information. The image schema between TR and LM in the sensory domain, which is mapped from the relationship between TR and LM in the spatial domain, can be used to obtain not only the visual information but also the auditory information and some other sensory information.

By examining the typical meaning of "khilāl" The typical spatial meaning of the word "khilāl " is that it traverses a bounded LM that has an entrance and an exit. The preposition "khilāl" uses the source-path-goal schema for its image schema. Different image schemata clearly demonstrate that this preposition carries both static and dynamic meanings. Second applies "khilāl" metaphorical extension. The typical meaning (the prototypical meaning) can be extended to obtain the non-prototypical meaning. The meaning of "khilāl" can be extended into the temporal, spatial, cause-and-reason, manner, state, and sensory domains in addition



to the spatial domain. Additionally, the researcher uses examples to demonstrate the various non-prototypical meanings of "khilāl".

#### **4. Conclusion**

This paper started by looking up the definition of the preposition "khilāl" in a number of dictionaries to ascertain its original meaning. The prototype meaning is typically the initial interpretation or definition found in a dictionary. As a result, the spatial sense of the preposition "khilāl" which denotes entering one side or end of something and leaving the other side or end (something).

The image schema of the "khilāl" is successfully shown. Similar to the source-path-goal schema, it has the same meaning. It has a set meaning over the component, for example something. In other words, Trajectory is constant inside a certain area of the Landmark (ML).

In addition, "khilāl" has metaphorical meanings. Other domains can be added to the meanings of the "khilāl" in the spatial domain. Its metaphorical extensions are as follows: "from the beginning to the end of a period of time" and "until and including" are used in the time domain. "Because of" and "by means of" are used in the cause and reason and manner domains, respectively, in the state domain, "acting (something)" or "experiencing (something)". These meanings are in addition to the sensory information that can be obtained when TR gets over a particular sensory barrier.

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