

Why Cognitive Semantics Says Meaning is Conceptualization –Fictive Motion Has a Word for It

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Abstract- Cognitive semantics relates linguistic expressions to conceptual structures. Different from traditional ideas of semantics, which claim that meaning has nothing to do with perception, cognitive semantics holds the idea that meanings are perceptually grounded. Language phenomenon-fictive motion exists in universal languages. Its linguistic representation depicts factively stationary objects as having physical motion. Research on such special language representation is beneficial for discovering human's cognitive rules toward the outside world, and is also helpful to uncover the veil of relations among the physical world, human's cognitive abilities and the human languages. This paper is attempting to view the idea "meaning equates conceptualization" within cognitive semantics from a new angle. Under the perspective of Conceptual Blending Theory, the linguistic representation of fictive motion gives a strong evidence that the referents of language are mental constructions. The idea Meaning is conceptualization can be better understood through the exploration of fictive motion.

Key Words- Cognitive semantics; Meaning; Conceptualization; Fictive motion

1. INTRODUCTION

Cognitive linguistics, which provides a new approach of research on languages since its emergence, has become a trend that studying semantic and grammatical issues from the cognitive perspective at abroad and home. It develops the term "meaning construction". Meaning construction is viewed as a fundamentally conceptual process. Conceptualization is the mental process of human's constructing concepts. Research in cognitive semantics has clearly demonstrated the conceptual basis of linguistic meaning, most evidence from the crucial role of imaginative capacities, such as metaphor, blending, the construction of mental spaces, and the evocation of myriad entities of a fictive nature [11](Langacker 2001). He also points out that linguistic semantics must attempt the structural analysis and explicit description of abstract entities like thoughts and concepts. Thus, this paper will be presented under the cognitive semantic framework to cognitive view of discuss the "meaning conceptualization" by analyzing the cognitive representation of nonveridical phenomenon, fictive motion.

2. Brief Literature Reviews of Meaning in Semantics

2.1 Study of Meaning in Semantics

Speaking of semantics, there is no doubt that its main research object is meaning. Dealing with the literal meaning of words and the meaning of the way they are combined, semantics is the study of the word meanings and sentence meanings. Relationships of word meaning and sentence meaning have always been a central issue of semantics. The objective of semantics is to describe and explain semantic phenomena in natural language. A lexicon is the mental store of the words we have in our minds. [17]Saeed (2003) classifies these eight lexical relations for the word meaning research: homonymy, polysemy, synonymy, opposites (antonymy), hyponymy, meronymy, member-collection and portion-mass. There are two general traditional approaches in semantics, realistic and cognitivistic [4](Gärdenfors 1997). This part focuses on the former one approach and leaves the second one to the next part.

Realistic semantics, or semantics in general, takes the meaning of a word or expression is something in the outside world, including two types-extensional and intensional. In the extensional type of semantics, one's language maps onto the real world, or say one single world, constituting a bond between names and objects. The main objective of this type of semantics is to determine truth conditions for the real world by using language. The intensional type of semantics, developed by logicians and linguists, is to provide truth conditions for language. Different from the extensional type, language in the intensional type of semantics is mapped onto a set of possible worlds. The term possible worlds in semantics is the hypothetical ways that reality might or might have been. A possible world is different from the actual world. It is a whole alternative universe and is infinite. Examples of extension and intension of words are as follows [8](Kearns 2016:8):

- (1) Word (noun): dog
 Extension: the set of all dogs in the actual world
 Intension: the set of all dogs in all possible worlds
- (2) Word (adjective): brown

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Extension: the set of all brown things in the actual world

Intension: the set of all brown things in all possible words

(3) Word (verb): grin

Extension: the set of all creatures that grin in the actual world

Intension: the set of all creatures that grin in all possible worlds

The meaning of a sentence is taken to be a proposition, which is defined as a function from possible worlds to truth values and determines the set of worlds where the proposition is true, or say the set of possible worlds where the sentence is true. Proposition can be a way of capturing part of the meaning of sentences and it is more abstract than sentences [17](Saeed, 2003). In terms of truth, extensions and intensions for sentences establish connections with reality. The extension of a sentence is its truth value—that is, either true or false, depending on whether or not the sentence is true in the actual world. The intension of a sentence is the set of all possible worlds in which that sentence is true, also called the truth set for the sentence. Examples are given in the followings (Kearns 2016:9):

(4) Sentence: Midge is grinning

Extension: truth value (true or false) in the actual world

Intension: the set of all possible worlds in which *Midge is grinning* is true

[14]Putnam (1981) once put forward his ideas about meaning: 1) the meaning of a sentence is a function which assigns a truth value to the sentence in each possible world; 2) the meaning of the parts of a sentence cannot be changed without changing the meaning of the sentence. [17]Saeed (2003) illustrates that sentence meaning is compositional and describes that the meaning of an expression is determined by the meaning of its component parts and the way in which they are combined.

In sum, semantics is the study of meaning. Semantics in general studies object of word and sentence meaning. Word meaning concerns with the relationship by which language is called reference, whose semantic links between elements within the vocabulary system are an aspect of their sense, or meaning. Sentence meaning concerns with truth-value condition. It is widely accepted that semantics specifies a relation between linguistic expressions and the referents of the expressions, however, opinions about the referents split afterwards in that there is no agreement on what kind of entities the meanings of various words are. Whether the referents of language are things in the world or are things but not in this world, or are mental constructions remains a controversy.

2.2 Study of Meaning in Cognitive Semantics

To study semantics of natural language is to study cognitive psychology [5](Jackendoff 1983). Cognitive semantics relates linguistic expressions to conceptual structures. It has one core idea—meanings are mental

entities. Meaning equates conceptualization. In cognitive semantics, there constitutes a mapping from the linguistic expression to cognitive structures. Language itself is considered as a part of the cognitive structure, instead of entities with independent standing, so word meaning is a relation between mental entities in cognitive semantics. The emphasis is on lexical meaning rather than on the meaning of sentences within cognitive semantics, while considerations about acceptance or belief are the chief feature instead of the truth of sentences. As [11]Langacker (2001:11) puts in: "I use the term conceptualization (rather than 'concept') to emphasize the dynamic nature of linguistic meaning. Conceptualization does not reside in static entities, but in cognitive activity... The conceptualization functioning as linguistic meanings exhibit many kinds of dynamicity."

In contrast to traditional realistic versions of semantics that claims that meaning has nothing to do with perception, cognitive semantics considers that meanings are perceptually grounded. It proposes that common human experience of maturing and interacting in society motivates basic conceptual structures which make understanding and language possible [17](Saeed 2003). The thesis that a semantics for a language is seen as a mapping from the expressions of the language to some cognitive or mental entities puts cognitive semantics in contact with psychological notions and makes it possible to talk about a speaker "grasping" a meaning. [4] Gärdenfors (1997) puts forward his central position that meanings are not in the head of a single individual, but they emerge from the conceptual schemes in the heads of the language users together with the semantic power structure. [10]Langacker (1986) comes up with the idea that meaning is equated with conceptualization, which resides in cognitive processing and thus linguistic semantics must attempt the structural analysis and explicit description of abstract entities like thoughts and concepts. He considers the term conceptualization is interpreted quite broadly: it encompasses novel conception as well as fixed concepts; sensory, kinesthetic, and emotive experience; recognition of the immediate context (social, physical, and linguistic); and so on. Adopted an experientialist perspective, cognitive semantics develops the term "meaning construction" and it treats meaning construction as a process that is fundamentally conceptual in nature [1](Evans & Green 2006).

Lakoff [9](Lakoff and Johnson 1980, Lakoff 1987; cited from Seed 2003) claims that metaphor is pervasive in everyday language and there is no principled distinction between literal and metaphorical uses of language. Lakoff's spatial metaphors present that meanings comes from experiences and is perceptually stored in human's minds. For instance [9](Lakoff 1980):

(1) HAPPY IS UP

I'm feeling *up*. / That *boosted* my spirits. / You're in *high* spirits.

(2) SAD IS DOWN

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I'm feeling down. / I'm depressed. / My spirits sank.

(3) GOOD IS UP

Things are looking up. / He does high-quality work.

(4) BAD IS DOWN

It's been *downhill* ever since. / Things are at an all-time *low*.

[17]Saeed (2003) considers scholars like Lakoff see metaphor as an integral part of human categorization that is a way of organizing humans' thoughts about the world and believe that whole semantic fields are systematically organized around central metaphors.

In sum, there are three main ideas about meanings in cognitive semantics: meanings are mental entities; meaning comes before truth; meanings are perceptually grounded. Conceptualization resides in cognitive processing. How a conceptualization develops and unfolds processing time is often a pivotal factor in the meanings of expressions [11](Langacker 2001). The distinct feature of cognitive semantics is its attempts to form an experientialist basis for meaning and for cognitive semantics, the prime slogan is that meanings are mentally encoded.

3. Fictive Motion as an Evidence for Meaning Is Conceptualization

3.1 What is Fictive Motion

3.1.1 Definition of Fictive Motion

The language phenomenon, fictive motion, first came up by Leonard Talmy as 'virtual motion' (Talmy1983), has various names by other scholars like "abstract motion" and "subjective motion". Despite all these different terms, they all referent a motion that is not real but is considered as having a physical motion by the observer. In fact, Talmy did not specifically give a clear definition of fictive motion, but through his expositions, we can have a whole perspective that fictive motion is the linguistic representation that the factively stationary surroundings are depicted as moving.

Generally, fictive motion is coupled with fictive stationariness, that is to say, the literal representation is fictive, while the representation based on belief is factive. It is a cognitive representation of nonveridical phenomenon, presenting visual perceptions in which one perceives motion with no physical occurrence. In all, fictive motion, a language phenomenon depicting motion with no physical occurrences, refers to an object or a kind of abstract concepts having a process of metaphorical motion in space.

3.1.2 Talmy's Classifications of Fictive Motion

Talmy is the first scholar who pays much attentions to fictive motion and gives elaborate explanations of this language phenomenon. According to [18]Talmy (1996,2000), fictive motion in language encompasses a number of relatively distinct categories, including

"emanation", "pattern paths", "frame-relative motion", "advent paths", "access paths" and "coextension paths".

[19]Talmy (1996,2000) gives a detailed illustration of the type of fictive motion, emanation, which contains four types: "orientation paths," "radiation paths," "shadow paths," and "sensory paths." The path of emanation extends between two objects and it seems like that there is a kind of intangible object projecting into the space and travelling in straight lines until it finally acts on the distal object. For example:

- (1) The cliff wall faces toward/away from/into/past the valley. (orientation paths)
- (2) The sun is shining into the cave. (radiation paths)
- (3) The tree threw its shadow down into/across the valley. (shadow paths)
- (4) We can be seen by the enemy from where they're positioned. (sensory paths)

Here are the rest of types of fictive motions. Pattern paths depict the motion of physical substance along a particular path, while people still consider factively that this substance is either stationary or moves in some other way than along the depicted path. Frame-relative motion concerns with a global frame and a local frame. In global frame, a language can factively refer to an observer as moving relative to her stationary surroundings, but a language can alternatively refer to this situation by adopting a local frame around the observer as center, shifts permitted between a global and a local framing of situation within a single sentence in a language. Advent paths, the category of this type in language is a depiction of a stationary object's location in terms of its arrival or manifestation at the site it occupies. Site arrival and site manifestation are two main subtypes of advent paths. Access paths, a depiction of a stationary object's location, relate to a path that some other entity might follow to the point of encounter with the object. Coextension paths, a depiction of the form, orientation, or location of a spatially extended object, relate to a path over the object's extent. All of these language representations depict nonveridical paths of motion. Some examples are listed as follows:

- (5) As I painted the ceiling, (a line of) paint spots slowly progressed across the floor. (pattern paths)
- (6) I sat in the car and watched the scenery rush past me. (frame-relative motion)
- (7) The palm trees clustered together around the oasis. (advent paths)
- (8) The bakery is across the street from the bank. (access paths)
- (9) The fence goes/zigzags/descends from the plateau to the valley. (coextension paths)

Illustrations of all the types of fictive motion show that the linguistic expressions of fictive motions are in fact based on human's experience, especially on the observer's sense perception or the observer's belief and present a fact of human's linguistic expressive tendency towards

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dynamicity. More analyses will be presented in the following sections.

3.2 Cognitive Semantic Analysis of Fictive Motion

As mentioned on the above, fictive motion is a linguistic expression that the factively stationary surroundings are depicted as moving. It reflects the linguistic fact that people tend to use dynamic expressions of language. The dynamic nature of linguistic meaning embodies in a way that human's language processing is conceptualization. If grammar is inherently meaningful, the dynamicity of conceptualization should have manifestations in grammatical structure. [11]Langacker (2001) puts forward the idea that conceptualization is inherently dynamic. He considers conceptualization resides in mental processing. so every conception requires some span of processing time—however brief—for its occurrence. Linguistic representations of fictive motion depict the nonveridical paths of motion, which exhibits human's linguistic expressive tendency towards dynamicity, it thus proves the semantic view of "meaning cognitive conceptualization". Example (10) shows a linguistic representation of the path of fictive motion.

(10) a. The highway goes from Canada to America.

b. The highway goes from America to Canada. In example (10), the truth value of these two sentences is completely the same. However, the conceptualization process of these two sentences is different. In sentence a, the conceptualization of the path is from Canada to America, constructing gradually the full content of the concept of highway. Conceptualization of the path in sentence b is exactly on the opposite of sentence a. Delicate meaning distinctions of these two sentences are at the root of their ways of developing conceptualization. The above example of fictive motion proves that meaning equates conceptualization and only by pertaining to the view of dynamicity in linguistic expression can we give a proper account of fictive motion.

3.2.1 Mental Space Theory & Conceptual Blending Theory

To illustrate this special language phenomenon, the cognitive theories of Gilles Fauconnier's Mental Space Theory and Conceptual Blending Theory must be involved. In this section, I give an overview of these two theories.

First take a brief look at the Mental Space Theory. Developed by [2][3] Fauconnier, Gilles (1985, 1994, 1997), this theory holds that language guides meaning construction directly in context. Fauconnier (1997) defines mental spaces as "partial structures that proliferate when we think and talk, allowing a fine-grained partitioning of our discourse and knowledge structures". Constructed on the basis of generalized linguistic, pragmatic and cultural strategies for recruiting information, mental spaces are regions of the conceptual space that contains specific kinds of information. In particular, meaning construction relies on some of the mechanisms of conceptual projection, such as metaphor and metonymy. Therefore, meaning

construction involves two processes: 1) the building of mental spaces; 2) the establishment of mappings between those mental space. As [1]Evans & Green (2006) noted, the fundamental insight that this theory provides is that mental spaces partition meaning into distinct conceptual regions or "packets".

Then comes with Conceptual Blending Theory. Also known as Conceptual Integration Theory, Conceptual Blending Theory first developed by conceptual metaphor theorists and further developed by Gilles Fauconnier and Mark Turner, deriving from two traditions within cognitive semantics: Conceptual Metaphor Theory and Mental Spaces Theory, but it is most related to Mental Spaces Theory. The initial focus in Conceptual Blending Theory was to account for local and dynamic meaning construction, which is a focus that is inherited from Mental Spaces Theory. The following diagram is the original conceptual blending network.

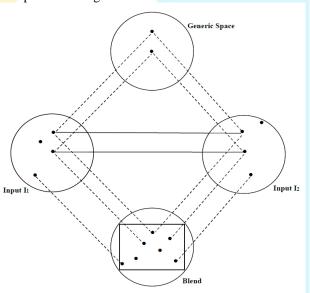


Figure 3-1 Conceptual Blending Network (Fauconnier 1997: 151)

Only two Input spaces are included in the early stage of this theory. But the integration networks in Conceptual Blending Theory are not just simply two entities in that these networks account for the dynamic aspects of meaning constructions, they are multiple-space entities. The two or more input spaces are linked by means of a generic space, which provides information that is abstract enough to be common to both or all the inputs. Moreover, this network consists of a fourth space, blended space or blend, containing new or emergent structure: information that is not contained in either of the inputs. The blend takes elements from both inputs and goes further in providing additional structure that distinguishes the blend from either of its inputs. That is to say, the blend derives structure that is contained in neither input.

There are four spaces in a basic integration network: generic space, input 1, input 2, and blending space. The two inputs are partially projected onto a fourth space, the

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blend. The two input spaces share frame structure, which constitutes a generic space. The generic space maps onto each of the inputs. Generic space reflects some common, usually more abstract, structure and organization shared by the inputs and defines the core cross-space projections between them. It is a highly abstract space and also the key functions of cross-mappings. Blending operates on two input mental spaces to yield the blend space. The blend has emergent structure not provided by the inputs. This happens in three ways: composition, completion, and elaboration. Composition is to take elements in two input spaces together and makes new relations; completion refers to the knowledge of background frames, cognitive and cultural models, allowing the composite structure projected into the blend from the inputs to be viewed as part of a larger self-contained structure in the blend; elaboration consists in cognitive work performed within the blend and is the final dynamic process of this structure.

Conceptual Blending Theory believes that at least two input spaces are motivated when people are trying to understand discourse meaning and it forms new concepts through the cross-mappings of mental spaces and the blending of mental spaces. Similar elements of the inputs spaces share some similar properties and thus establish the generic space in an abstract way. Based on generic space, elements and structures in the two generic spaces can have mappings across spaces.

3.2.2 Analysis of Fictive Motion under Conceptual Blending Theory

[3]Fauconnier (1997) considers that fictive motion is conceptual blending. He elaborates the cognitive motivations of emanation path under the Conceptual Blending Theory. Linguistic representations of fictive motion reflect stationary scenes but use expressions linked to motion in order to present motion phenomena. Sentences in example (11) are emanation path of fictive motion [3](Fauconnier 1997:177):

(11) a. The blackboard goes all the way to the wall. b. The cliff faces away from the valley.

Fictive motion works by having an "imaginary" trajector move along the relevant dimension of an object, or along some "imaginary" path linking two objects and what moves fictively in sentence a is not the blackboard but the imaginary trajector [3](Fauconnier 1997). In the above two sentences, the two inputs to the blending are a space with a moving trajector on a path, with a reference point and a space for the stationary scene. The linguistic expression mode of fictive motion conveys motion and immobility at the same time, which is quite remarkable. [3] Fauconnier (1997) points out that objective immobility is expressed along with perceptual or conceptual motion and hence this contradiction is a result of conceptual blending. He believes that fictive motion involves both metaphorical and non-metaphorical motion of events and both of the two types of motions are conceptual blending. [3]Fauconnier (1997) thinks Talmy's emanation paths that go from one object to another are especially interesting. He gives explanations of example (12):

(12) The snake is lying toward/away from the TV.

Stationary vocabulary—*lying* is combined with motion vocabulary—*toward*. The first comes from Input 2, indicating a stationary, oriented position. The second comes from Input 1 (the trajector moves toward the refence point). In the blend, we have a trajector moving toward the TV on an emanation path originating at the position of the snake [3](Fauconnier 1997:179). [18]Talmy (1996) gives explanations that this construction combines a verb of stationariness, *lie*, with a path preposition, *toward*, or *away from*, that coerces the verb's semantic properties.

Fictive motion expressions also exist in Chinese. Examples (13) is a line from an ancient poet of Tang Dynasty, Cen Sen's poem, *Yu Gao Shi Xue Ju Deng Cien Si Futu* (Ascending the Pagoda at the Temple of Kind Favour with Gao Shi and Xue Ju):

(13) Original line: <u>连山</u>若波涛,<u>奔凑似朝东</u>

Pinyin: <u>Lian shan</u> ruo bo tao, <u>ben cou si chao</u> dong.

Translation: Just like waves, the rolling hills are running to the east.

In the above line, the advent path fictive motion is expressed. This line describes that successive mountains are running to the east just like waves. In order to comprehend this sentence, the four mental spaces should be considered. As the following figure shows:

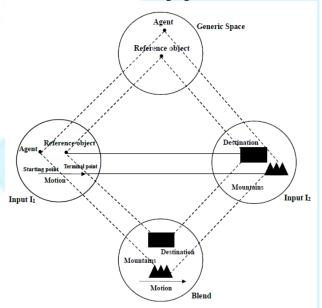


Figure 3-2 Conceptual Blending Network of "Lian shan ruo bo tao, ben cou si chao dong"

To comprehend the expression, four mental spaces are constructed: a generic space that includes agent and reference object, projecting onto the two input spaces; input space 1 that represents the real physical motion; input space 2 that presents entities' stationary status; the blending space possessing partial elements of input space 1 and input space 2 through selecting. In the blending space, an emergent structure is constructed, concerning with both motion and stationariness. It is obvious that the successive

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mountains cannot actually run to the east, but through the conceptual blending process the mountains exhibit motion in the literal sense.

The following is another example of fictive motion in a modern poem by Mao Zedong, *Deng Lushan* (Climb up to Mount Lu), whose poem belongs to modern poetry:

(14)Original line: 一山飞峙大江边, 跃上葱茏四百旋

Pinyin: Yi shan fei zhi da jiang bian, yue shang cong long si bai xuan.

Translation: A mountain is flying to the riverside with luxuriantly green sceneries.

In the above example, the line "Yi shan fei zhi da jiang bian" is concerned with advent path, describing the location of Lushan Mountain and praising its beauty.

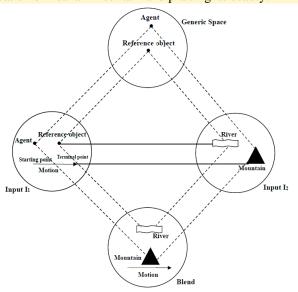


Figure 3-3 Conceptual Blending Network of "Yi shan fei zhi da jiang bian"

To understand this line, we need to construct for mental spaces: generic space that consists two necessary abstract elements of all motions—the moving subject and reference object; input space 1 that represents the real physical motion, an object that flies toward Yangtze River from the starting point; input space 2 that represents object's stationary status, the objective reality of Yangtze River and Lushan Mountain; the blending space that includes partial elements of input space 1 and input space 2, constructing a emergent structure that involves both motion and stationariness. Yangtze River serves as the reference object for the purpose of describing Lushan Mountain's geographical location. Through a series of cognitive mechanisms, reference point in input space 1 is coupled with reference object-Yangtze River, Lushan Mountain thus have fictive motion, which seems like it actually moves to Yangtze River. This emergent structure involves the displacement of Lushan Mountain and also presents its stationary spatial orientation.

From the above analysis, ideas can be come up that mental spaces are regions of the conceptual space contained specific kinds of information and meaning construction relies on some of the mechanisms of conceptual projection. One of the key claims of cognitive semantics is that human imagination plays a crucial role in cognitive processes in what it is to be human [1](Evans & Green 2006:400). Conceptual Blending Theory is to account for local and dynamic meaning construction. According to this view, sentences cannot be analyzed in isolation from ongoing discourse. In other words, semantics cannot be meaningfully separated from pragmatics, in that meaning constructions is guided by context and is therefore subject to situation-specific information. The linguistic representation of fictive motion also takes account of general cognitive process and principles that contribute to meaning construction in that meaning construction is viewed as a fundamentally conceptual process.

4. CONCLUSION

The linguistic phenomenon of fictive motion reflects a cognitive bias toward dynamism [18](Talmy 1996,2000). Conceptual Blending Theory is to account for dynamic meaning construction. Such dynamism toward human language proves that meaning is conceptualization in human's mind. Under the perspective of Conceptual Blending Theory, which believes that at least two input spaces are motivated when people are trying to understand discourse meaning and thus it forms new concepts through the cross-mappings of mental spaces and the blending of mental spaces, the linguistic representation of fictive motion gives a strong evidence of the referents of language are mental constructions. Through the above analyses of the linguistic representations of metaphor and fictive motion, it is considered that the linguistic fact of fictive motion indeed reflects that human's comprehension of the world is conceptualized. The way how human senses the physical outside world is through a process of human brain, which determines our understanding of the world. Therefore, verb meaning, noun meaning, and other lexical meaning are all a reflection of conceptualization.

Conceptualization is the mental process of human's constructing concepts and it is the fundament of human thought. Linguistic representations of metaphor and fictive motion verify that meaning constitutes in human mind and it is conceptualized. Meaning construction is viewed as a fundamentally conceptual process. That the considerations about acceptance or belief is the essential feature of meaning is emphasized within cognitive semantics, which relates linguistic expressions to conceptual structures. Human conceptualized lexical meaning in minds, hence meaning equates conceptualization, in other words, meaning is conceptualization.

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