
RESEARCH ARTICLE

The Interpretation of Deixis in Cognitive Linguistics: A Literature Review

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ABSTRACT

This paper studied deixis in cognitive linguistics, and mainly introduced three types of deixis: spatio-temporal; knowledge-related; empathy. On the basis, the literature on this topic in recent years was reviewed relying on China National Knowledge Infrastructure (CNKI) and Web of Science. The findings are: the deixis represented by "这" and "那" and "this" and "that" are related to the distance of psychological space rather than only physical space; the emerging study like children's deixis and the combination of deixis with sign language has been developing gradually. More cross-field or other empirical studies will attract more researchers to conduct in the future.

KEYWORDS

Deixis; cognitive linguistics; spatiotemporal; demonstrative pronoun

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1. Introduction

In *Cognitive Linguistics* written by Croft and Cruse, it is pointed out that perspective, especially deixis, may be the most obvious in construal operations, especially spatial descriptions that depend on the relative position and point of view of the speaker (2004). And location includes not only the concept of space, but also the positioning in knowledge and cultural context. Deixis, which has been deeply studied in pragmatics (Levinson, 1983), and has been divided into spatial deixis, temporal deixis, personal deixis, discourse deixis and social deixis. Rather than pragmatics, the topic was analyzed in this paper from the perspective of cognitive linguistics. The study of deixis in the field can not only expand the scope of study and application of deixis, deconstruct the psychological process behind it but more importantly, promote the common development of cognitive science and linguistics.

From the view, there is a large number of deictic studies, and with the change of time, the fields and types involved in the research are more abundant. However, there is a lack of synthesis that encompasses relevant studies especially their findings. Therefore, in order to understand the basic content of deictic research from the cognitive view and its development in the past 20 years, I searched articles by keywords like "deixis and cognitive " from SSCI and A&HCI and Chinese top journals in China National Knowledge Infrastructure (CNKI), the time was selected from 2000 to 2022, and 202 articles were collected. I demonstrated the research in the following sections, firstly interpreting deixis, then sorting out relevant literature and research results, outlining the panorama and pointing out the future development trend.

2. Deixis

The use of deixis means that the speaker associates an entity with the current speech situation, making it cognitively accessible to the listener. Specifically, it can be understood as the non-verbal representation of an entity in the external context becomes a part of the discourse and is introduced into the context of the discourse by means of instructions; therefore, some kind of linguistic item is used in discourse to refer to that entity. This paper explained by referring to Croft and Cruse's classification -Spatiotemporal, Epistemic (common ground) and Empathy.

2.1 Spatiotemporal

The correlation of temporal and spatial references to the context or perspective of speech events. As in example 1:

- a. Contay approached me, pressed his brass cap to mine, greeted me with his eyes...
- b. Contay moved away from me, gradually separating our brass caps, and he made a sign to me with his eyes...
- c. Contay left my side, pressed his brass cap to mine, and greeted me with his eyes...

Examples (1a) and (1b) are explained in terms of the deictic nature of a place and time in the statement; the expression (1c) is strange because the perspective in the sentence conflicts with the information presented.

Example 2:

- a. He came up before me, and stopped suddenly, and I rammed into him.
- b. He comes up before me, and stops suddenly, and I rams into him.

In the context of spatial deixis, the difference between reference centers and neutral dominance points can be interpreted based on perspective. Neutral vantage point is one of the multiple realizations of "self" (Laczkó, 2010). In this sense, it has nothing to do with the actual space-time structure of the text; the center of reference is the position of the actual speaker. For example, in "Mary is off to work.", the central advantage point refers to "Mary", and the reference center refers to the speaker. If the sentence is changed to "I am off to work." then both the central advantage and the center of reference are the speaker himself. Croft and Cruse (2004) went further: deictic elements typically represent two layers of conceptualization: a situation relative to the participant in a speech act, and a transfer of the interlocutor's actual situation to another time and place (p. 60).

2.2 Epistemic/common ground

The expression of discourse depends on the interlocutor's shared knowledge, beliefs and attitudes, which is often referred to as interlocutor's common ground. Common ground provides us with a cognitive perspective from which to locate the speaker and listener (Croft, Cruse, 2004, p. 60). For example:

Example 3:

- a. I'd like a piece of cake.
- b. I'd like to eat this cake.

(3b) can be interpreted to mean that the listener and the speaker share background knowledge.

2.3 Empathy

Through empathy, the speaker accepts the participants in the event presented. Kuno and Kaburaki (1997) argued that empathy involves semantic problems of many syntactic structures.

Example 4:

- a. Then Mary hit her sister.
- b. Then Jill was hit by Mary/her sister.

In the case of Mary and Jill, Mary's sister describes Jill from the perspective of Mary's relationship, which means that the speaker is more sympathetic to Mary. In addition, if the sentence is described in a passive rather than active way, such as sentence b, it is likely that the speaker is more sympathetic to Jill.

3. Literature review

3.1 The study of spatial deixis occupied an important position in cognitive linguistics

Xu (2001) pointed out in his review that the introduction of cognitive grammar theory is one of the main reasons for the new breakthrough in the study of "this" and "that". It shows that deixis, especially spatial deixis and cognitive science, has a tendency to integrate, so that the study of deictic language is no longer limited to pragmatics. Liu (2002) used Langacker's platform theory of cognitive grammar, Facunnier's mental spatial domain theory, and Lakoff's ideal cognitive model (ICM) to explain the semantic phenomena of deixis and solve some problems that pragmatics failed to solve. Chu and Deng (2003) analyzed the iconicity of multipartitive demonstrative pronouns with the help of the theoretical methods of cognitive linguistics. In the subsequent studies of spatial deixis, Chinese literature mainly explored the characteristics, functions and rules of pronouns such as "这", "那", "here", "there", "this" and "that". Wu (2003) explored the subjectivity of language from the two groups of spatial deictic "this", "that" and "this" and "that", and found that the subjectivity of language is reflected in three linguistic levels: semantic structure, narrative

discourse structure and face-to-face conversation. At the same time, it pointed out the differences between English and Chinese self-expression in real life and defined them as "deictic insertion" and deictic readjustment respectively. Jia (2008) concluded the cross-category phenomenon involved in demonstrative pronouns is caused by the change in the directivity of the conceptual subject. In addition to the analysis of the spatial deixis represented by the word, Zhang (2010) investigated the mode of meaning construals of the deictic *There*- structure formed by the deixis *there*, indicating that the spatial orientation marked by the structure is relative and subjective.

While textual analysis has increased, empirical research has also developed. For example, by analyzing the use of "this" and "that" of the subjects, Xu Xueping and Zhou (2009) found that in Chinese spatial deixis, the real factor that determines the choice of the representation of the near and far deixis is the speaker's subjective psychological construction. On this basis, they also proved the change in the representation of near and far deixis in different situations through experiments. The auto-touch situation tends to refer to other referents in the form of proximate; there is a tendency to use telepathic forms to refer to others in other touch situations (2010). Then the variables were adjusted to explore the influence of visibility on the selection of spatial deixis. If the feature of visibility is strong, it tends to be near indicative form; otherwise, it is far indicative form. The authors seem firmly convinced that the ideal cognitive model can account for both spatial deixis. However, Facunnier's mental spatial domain theory can also reasonably explain deictic language (Jia, 2008). At the same time, it was found that the process of determining the choice of deixis is obviously subjective, which echoes the views of Wu (2003) and Zhang (2010).

Similar findings have been found in the English literature, where the authors concluded that the use of spatial deixis was based on the perceived distinction between the surrounding space and the external space of the speaker, emphasizing the egocentric spatial distance. The conclusion of a study broke through this view, proposed a shared spatial scope, supported a socially-centered deictic approach, and emphasized that, in deictic referents, the mental proximity of the referent may be more important than its physical proximity (Peeters, Hagoort & Ozyurek, 2015). This indicated that the study of spatial deixis on spatial division and psychological distance was further developing. In addition, these studies cover a wide range of languages and reach more general conclusions. For example, macro Indo-European languages (Brtolotta, 2018) and specific Hungarian languages (Laczkó, 2010). In addition to linguistic diversity, spatial deixis was also studied in comparison with temporal deixis or anaphora (Laczkó, 2010).

3.2 The applications of deixis are wider and research dimensions are broadening

Among the numerous relevant researches, four kinds of researches involving different fields stand out:

First: cognitive processing of deixis (Koder, Maier & Hendriks, 2015), especially the application of deixis construals in the study of neurological disorders, such as deixis navigation networks applied to schizophrenia (Van Schuppen, et al. 2019); second, the research on children's deixis perception and output is also in continuous development. For example, study on the order and regularity of children's deixis acquisition (Webb, Abrahamson 1976; Clark, Sengul, 1978; Peng, Liang, 2014; Tillman et al. 2017), the relationship between children's deixis and attention and theory of mind (Diessel, 2006; Chu, Minai, 2018), Children's meaning reasoning of deixis in graphic mode (Teng, Cheng, 2022) ; third, the combination of sign language, gesture and deixis (Danziger, 2010; Wilcox, Martinez, 2020); fourth: analysis of deixis in poetry, novels and other literary works (Bruhn, 2005; Liu, Yang, 2015); fifth: integrating critical discourse analysis, propose the discourse space paradigm of critical cognitive deixis, or refining some ideology (Tang, 2014; Liu, Liu, 2021); other topics include cognitive deixis in second language writing (Liu, Xiong, 2007).

In general, the research on deictic language from the perspective of cognition, based on the discussion of language itself, mostly focuses on the potential meaning of the demonstrative pronoun and the distance of the projected mental space. In the applied research of cognitive deixis, international journals excel in neuroscience. However, the text analysis in Chinese literature still responsible for the majority.

4. Conclusion

This paper mainly illustrated the content of deixis in cognitive linguistics and reviewed the literature. In addition to the basic construal, spatio-temporal deixis also includes two concepts: the participant's central perspective and the event narrator's perspective. It is found that there are a large number of personal pronouns, demonstrative pronouns represented by *this/that*, *here/there* and "这" and "那" in Chinese, no matter in applied or pure deixis research. Through the study of representative demonstrative pronouns, it was found that the implied space or distance research results: the physical distance and psychological distance reflected in these demonstrative pronouns were not completely consistent, and the psychological distance plays a more important role. The construction of space is not only self-centered, there can also be shared space. With the increase of research, its related neuroscience, stylistics, children's deixis research were fruitful.

The future development trends of the issue include three directions. First, researchers may focus on empirical research, especially brain science experiments, over the limitations of text analysis, and find the cognitive map behind it. For example, the study of the cognitive processing under deixis was observed in the laboratory (Breshears, 2014) to confirm the representation and rule of deixis

use. Second, cross-fields are further integrated and interdisciplinary development becomes a trend. For example, studies on emotion (Peterson, 2016) may increase and develop in-depth; third, the comparison should be beyond English and Chinese. Analyzing Chinese with other foreign or Chinese minority languages can gear towards the need for the richness of languages, so as to find out the similarities and differences of deixis between many languages and their uses. Among the above literatures, Foreign literatures are more prominent in interdisciplinary aspects than Chinese literatures, and there are more empirical studies and more languages involved. These development trends may provide some inspiration for the research of deictic language in domestic cognitive linguistics.

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