Ellipsis and Cognitive Semantics

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Abstract—**Ellipsis and cognitive linguistics are closely related to each other, which have been accepted by many linguists. Ellipsis has been described as the omission of some words which have been repeated for many times in the same context. In a broad sense, ellipsis is prevalent in human language. Theories of ellipsis have evolved not only across disciplinary boundaries but also through time. This paper is mainly about the universality of ellipsis among different sentence constructions and the detailed process of ellipsis cognition. From a historical point of view, the popularity of ellipsis comes from the so-called historical turn to simplicity. This paper discusses different constructions of ellipsis by analyzing prominence theory. Although typical examples of ellipsis have been analyzed by the processes of prominence theory, the purpose of this paper is to analyze each individual ellipsis case from the perspective of cognitive linguistics.**

Index Terms—**ellipsis, cognitive linguistics, prominence**

I. INTRODUCTION

Ellipsis, understood as the absence of information, is based on context and cognitive common sense extension. To answer what ellipsis is, different people have different opinions. This is mainly because people explain ellipsis from different perspectives. According to traditional linguistics, ellipsis is the grammar means that avoids repetitions, abandons the old information, highlights key words, and makes the context connected tightly. At the same time, its usage is also stressed that saving words is an important rhetorical principle.

People have conducted a large of researches on ellipsis generation, form and reason. It is found that ellipsis has a lot of common characteristics, such as the universality of ellipsis, the complexity of ellipsis and the jumpiness of ellipsis and so on. Ellipsis is considered as a grammatical device to achieve the coherence of a text. In all forms of discourse, no matter whether it is daily language and literary language, there is the existence of ellipsis. It can be said that ellipsis exists in all forms of discourse. The universality of ellipsis indicates the research on the nature of ellipsis is necessary (Langacker, 1999).

Ellipsis phenomenon is common in language, and it has already existed in ancient Chinese literature. At that time, however, ellipsis studies were mainly shown when the scholars made notes for the scriptures, and they called the ellipsis phenomenon in the book as words omission. We broaden the concept of this ellipsis to include both syntactic and semantic omission. Researches are not systematic, only with sporadic descriptions and fragments. The research purpose is only to translate the classical works, or how to write, read books, but not to analyze ellipsis itself. Therefore, this stage belongs to the research period of logical semantics, and the relevant studies of ellipsis are only kept in the notes of these books.

In recent years, along with the introduction of transformational-generative grammar, discourse linguistics, text linguistics and systemic functional grammar, the research on ellipsis are prosperous.

After surveying some definitions of ellipsis from different perspectives, we have worked out our own definition which in our opinion is more appropriate and elaborated. Ellipsis also called default information is an universal language phenomenon, it refers to the omission of information in the discourse of language communication. In the following sections our brief review on the study of ellipsis will start from the cognitive view. A further concept that adds to the flexibility of ellipsis is the notion of weak ellipsis. In this paper we use the term weak ellipsis to account for the possibility to unify ellipsis and cognitive linguistics. Weak ellipsis analysis was spurred on by the development of Cognitive Semantics. The sense of an ellipsis is the lexical component, viewed as an algorithm which transforms default information into the form of zero. In weak ellipsis, the missing words cannot be found in the context. Since traditional grammar has not given adequate accounts for the process of ellipsis, this paper expounds the metonymy between ellipsis and weak ellipsis from the perspective of Cognitive Linguistics (Langacker, 1987).

II. CATEGORIES OF ELLIPSIS

Ellipsis can be divided into strong ellipsis and weak ellipsis. The default information of strong ellipsis can be found in the discourse. The definition of "weak ellipsis", as we have analyzed thoroughly here, does not refer to a newly proposed cognitive or pragmatic term. Instead, it seems to be a useful notion to refer in a summarizing way to the default information based on common sense or background information instead of discourse. the description of "ellipsis" as well as "week ellipsis" differ greatly among scholars, and research into the impact of discourse in ellipsis has only begun. Concerning default semantics, the default semantics theory is widely known for its account for similarity-creating understandings of the same default information but it does not analyze exactly how the new

similarities can emerge, nor does it clarify what constrains the cognitive process. Weak ellipsis mainly means the omitted part can only be derived according to information, and then the omitted content can be realized. This aspect of the ellipsis mainly includes semantic association ellipsis and cultural cognition ellipsis.

In 1950s, Chinese Grammar Textbook nearly includes all of ellipsis of the previous works, and ellipsis can be divided into eight categories: dialogue ellipsis, self-report ellipsis, bringing-forward ellipsis, caring-backward ellipsis, generalization ellipsis, judgment ellipsis, habit ellipsis, preposition ellipsis.

Some scholars divided ellipsis into three categories, including semantic ellipsis, grammatical ellipsis and pragmatic ellipsis. Meaning omission belongs to the scope of semantics. Structural omission was called grammatical ellipsis, belonging to the scope of syntactic. Communicational omission is called pragmatic ellipsis, belonging to the scope of pragmatics. The ellipsis on the different levels should be distinguished, otherwise it will cause the confusion of understanding.

Clipping is a kind of ellipsis in word formation. It refers to the language phenomenon that some parts of a word are omitted. Shortening belongs to clipping such as flu from influenza. This kind of Clipping can be described in details in terms of morphological units named morphemes.

There are many reasons entail ellipsis. There are "avoiding repetition", "language emergency", "structural vacancy", "information default", etc. The means of ellipsis analysis are various, including traditional grammar, descriptive grammar, structural grammar, functional grammar and cognitive grammar, etc., have different descriptions of ellipsis. The complexity of ellipsis shows the study of ellipsis content has great significance (Lakoff & Johnson, 1980).

Grammatically incorrect omissions usually occur in cross languages of unskilled language learners. It is the improper leaving out of syntactic elements which is not grammatical. Ellipsis can be used in all aspects of discourse, such as syllable missing on the aspect of pronunciation, truncated method or acronym on the aspect of vocabulary, various composition ellipses on the aspect of grammar, semantic connotation on the semantic aspect, dialogue ellipsis on the pragmatic aspect, etc. Omissions may be strictly described as grammatically correct omission, in contrast to some ungrammatically correct omissions which occur also on syntactic level. Ellipsis is a structural vacancy but the language form in the meaning. So we may say that ellipsis includes syntactic ellipsis, which is grammatically correct, and the improper omissions of syntactic elements, which is grammatically incorrect. In the following discussion we will name ungrammatically correct omission as non-grammatical omission.

Ellipsis can appear in discourse with different forms and different styles, written or spoken discourse, practical style, such as telegraph, advertisement, couplets, science and technology text, official text, news, letter, etc., or literary genres, such as poem, novel, drama, dialogue, monologue, etc. No matter what the style of discourse is, there is the existence of this kind of language phenomenon, ellipsis.

Ellipsis is one of the main language points, which is not only reflected in written form, but also very common in spoken English. Language originates from life, and reflects life, service life. And also it is a part of life, and always changes with the change of the society, so the result is that sentences tend to be simplified and more concise, which is mainly due to ellipsis. All redundant information or secondary information in discourse is eliminated to avoid duplication and highlight the key words, which is a compulsory lesson for disclosure organizer. A fewer words are used to express rich content and improve the efficiency of communication, which is the goal that each communicator pursue.

III. ELLIPSIS AND CONTEXT

Context may help to identify specified meanings when ellipsis form is general. Metonymy, which also plays an irreplaceable role in the mechanism of ellipsis, has been attached great importance. The relation between ellipsis and metonymy is a new topic for cognitive linguistics, since more and more scholars realize the fact that metonymy has a strong impact on ellipsis, and metonymy plays a irreplaceable role in the interpretation of ellipsis like PART FOR WHOLE. Context is not easy to describe, some characterization of context seems critical unless one wants to claim that context is whatever in background information. Without doubt, the operational mechanisms should associate with other aspects, such as rhetorical, semantic and syntactic.

We will survey the previous accounts of ellipsis in this paper. As long as ellipsis does not damage the grammatical structure, or produce ambiguity, the words that can be omitted shall be omitted. Structural linguistics holds that ellipsis is a kind of structural vacancy. Psychological linguistics focuses on the generation process and mode of ellipsis, and the activation of brain neurons to knowledge. Critical linguistics holds that the choice of language form depends on the consciousness, and the use of ellipsis in discourse implies a speaker's intention. Cognitive linguistics explores ellipsis from the cognition of the world.

Ellipsis is embodied in the form, and constructed in the discourse. Ellipsis is a kind of cohesive devices, and the discourse construction is the purpose of cohesion. They are the relation between form and content, means and purpose. Discourse achieves a variety of functions by ellipsis, and ellipsis is the important element of the discourse construction. Therefore, studying ellipsis in the discourse is one of the important tasks of discourse linguistics.

By using ellipsis, people can spend less effort in saying a sentence. Writers can write quickly by using abbreviation of words. Semantic association ellipsis is a form of ellipsis that the realized item does not appear in the discourse, causing the disconnection of cohesive tie, and decoders can realize the omitted content only by association. This kind of ellipsis cannot make use of the information provided by discourse to find out the omitted contain but judge the omitted

information or composition according to the association or deduction, therefore, the ellipsis produced by semantic association is also called recessive ellipsis. This kind of ellipsis exists in both in English and Chinese.

IV. ELLIPSIS AND DEFAULT SEMANTICS

Recent research in ellipsis has proposed the term default semantics which was formerly associated with semantics to apply to a number of default information instances in the study of oral language in which there is mismatch between the semantics of a syntactic frame and the semantics of lexical items found in it. The default semantics arouses a lot of scholar's interest. Most of the scholars try to analyze it with their own methods. Some of these instances illustrate areas which could well be expressed as extensions of boundaries in which the harmony between strong ellipsis and weak ellipsis aspect has been penetrated; others describe differences between them.Language cognition study aims to build a model to simulate the language system, and the simulation language system has the ability to process language information and grasp the process, so as to explain this language phenomenon (Warren, 1999).

For a long time, the understanding of the concept of ellipsis is always a difficult problem in the ellipsis study, especially on the aspect of the generation and interpretation of weak ellipsis. This kind of phenomenon is the reflection of non-categorization of ellipsis, which is a kind of semantic lack, and it is the words phenomenon that is unable to be accurately found from context one by one. The understanding of it must be based on "unclear knowledge", and the semantics can be perceived according to these knowledge, therefore, it must be explained accurately by cognitive linguistics. This paper advances in this direction as it links the notion of ellipsis with central terms of Cognitive Linguistics.

We should distinguish three different concepts which are easy to be confused. They are linguistic context, cognitive environment and cognitive context. Linguistic context defines the words preceding or following a certain word in the same text, while cognitive environment is the facts that the speaker and hearer can perceive. Different from cognitive environment, cognitive context refers to the cognitive information which is connected to the interpretation of the speaker and the hearer to utter and to perceive the utterances explicitly or implicitly.

Structure theory is based on the syntactic structure of the sentence, with standard sentence to judge whether it is omitted. This kind of standard sentence means the components of a sentence structure is complete, for example, the main components such as subject, verb and object are complete, so this sentence is standard. If there is absence, it is ellipsis. Essential components of the structure do not appear under the condition of certain grammar, which can be deemed ellipsis. Ellipsis is relative to non-ellipsis, and any kind of ellipsis has a corresponding complete type. In normal circumstances, if there is no corresponding complete type, it is not ellipsis.

Cognitive Linguistics assumes that the constructions of ellipsis are not just a series of missing words but are cognitive background information or common sense based. Omission is a linguistic phenomenon existing broadly in human natural language. It plays an important role in linguistic communication. Eliipsis evidence indicates that people do not necessarily analyze the different possible meanings of a ellipsis either before or simultaneous to figure out what the speaker intends. Human beings noticed omission quite a long time ago and have made a rather profound study of its structure and functions from the point of views of syntax and pragmatics. Similar or different understandings of the same ellipsis can be motivated by their already existed cognition (Leech, 1983).

Idioms in discourse are sometimes omitted. This kind of ellipsis belongs to cultural cognition ellipsis or cognitive ellipsis. The background of cultural cognition ellipsis is based on the people's knowledge structure. If there is a default of this structure in the discourse, it is only extracted from people's knowledge repository because this knowledge has been already internalized in the process of extraction. It requires being arranged and positioned, to know the missing ingredients.

We propose that not just context item can be used into ellipsis analysis. Background information can also be used into ellipsis analysis because both the speaker and the hearer share the background information. In weak ellipsis, the default information apparently cannot be found in the discourse. However, the default meaning can be understood in cognitive schema. Ellipsis is a common phenomenon in language, and its final purpose is for the convenient communication needs. As is known to all, the unit that can independently accomplish certain communicative task with complete meaning is discourse, therefore, only if ellipsis is applied to the discourse and serves discourse, it is the only way to achieve communication, so such kind of ellipsis has practical significance (Mittwoch, 1971). No matter whether ellipsis occurs in daily oral English or in written form, such as couplet, poetry, artistic languages of novels, etc., they all occur in specific discourse, and ellipsis cannot exist without discourse. Discourse is the main attribute of ellipsis. The construction of discourse requires ellipsis, and discourse cannot exist without ellipsis.

V. PROMINENCE THEORY ANALYSIS OF ELLIPSIS

In order to explore default information, we postulate prominence theory and thus background information as well as highlights may be accounted for. To a certain degree, we may say that default semantics theory's impact on ellipsis is a promising field that needs to be more cultivated. Using the prominence theory of cognitive linguistics, weak ellipsis can be analyzed in the information absence of the phenomenon. Weak ellipsis is motivated to the degree that its structure is inherited from other constructions in common sense. Ellipsis in different discourses performs different functions, and

these functions mainly are reflected in three aspects: grammatical function, rhetoric function and cohesive function (Massam, 1992). Grammatical function can avoid repetition; Rhetoric function can make language concise and create beauty with deep connotation. Cohesion function implements semantic coherence, grammatical coherence, contextual coherence and logical coherence. No matter what kind of function that ellipsis plays in discourse, it is in service for discourse construction with an important position in the discourse.

We make discussions on different omission elements which are mainly on the omission of subject and verb. Whereas, there are few passages on attributes, adverbial modifiers and complements, many scholars avoid discussing about them although these elements are also mentioned. The attribute, adverbial modifier and complement belong to non-frame element and the coordinative role of non-frame elements determine the existence of attribute, adverbial modifier and complement whose uncertain existences determine the difficulty of the judgments of omission.

In the past, the study on omission in the Chinese grammar circle is mainly centered on the descriptions on omission elements and omission types. These descriptions draw us the general outline of the omission of syntactic elements in the modern Chinese and are of great reference value to our study in the future. But we should notice the faults of these descriptions as the study objects are only limited to single sentence; actually omission is usually a kind of discourse phenomenon and omissions in different types are different from each other.

Grammatical circle not only deepen the recognition and study on ontology, but also logically and historically views the omission so as to make longitudinal comparisons on the omission of Chinese from past to today. For example, the book Comparative Grammars on Chinese from Past to Today is edited by Zhang Jing. Meanwhile, linguists also horizontally compare omissions in different languages. We make comparative studies on omissions between Chinese and English and between Chinese and French.

This thesis attempts to study and discuss the problems concerning elliptical sentences using three-plance theory and linguistic theories. Deepening the discussion on the elliptical sentences in modern Chinese can impose and deepen the study on omission. This analysis is beneficial for us to explore more grammatical phenomenon and reveals more grammatical rules; omission is hard to master for the students from foreign countries, while this analysis and study are available to better promote the development of overseas Chinese teaching; as computer cannot be able to complete omissions like human beings when they understand and translate the natural Chinese language.

Its largest contribution lies in the end type analysis and classified collection on the distribution of elliptical sentences in various types. The clarification of the reasons on elliptical sentences distribution difference in various types and its pragmatic functions help us to initiatively understand the relation between elliptical sentences and types.

There should be a standard to judge whether a sentence is elliptical or not. Judgment on omission is very sophisticated, as omission itself turns out to be an expression which is tentative instead of being regulative. This determines that omission judgment is rather difficult. A feasible judgment standard should be made before making analysis. The judgment standard is as follows: Firstly, having a clear recognition on the characteristics of elliptical sentence, which is the most basic primary condition for the judgment of elliptical sentence. Omission is not only the reduction of syntactic element form on the level of syntactic structure; actually, omission belongs to the category of speech, which is a speech behavior. And we could not better understand and master elliptical sentences unless we enter the communication of speech (Allerton, 1975).

The communications between social members should not be realized without entering dynamic, concrete and flexible speech sentences. One of the judgment standards is the fruit of the ontology study on modern Chinese in which the condition omission appears. In the study of ontology, some conditional and restrictive factors that lead to the occurrence of omission in Chinese have been described in many aspects. For instance, we poses two judgments references on elliptical sentences on which grammatical circle have reached a consensus. We analyze the three basic conditions on the existence of omission. This proposal is more precise and scientific and is strongly explanative and persuasive. Referring to the study fruits of predecessors, this thesis concludes the conditions when elliptical sentence appears which is feasible for the judgment of elliptical sentence. With these restrictive conditions, we can better judge the elliptical sentences.

When making judgment on the elliptical sentences in concrete sentence examples, especially in written works, we don't refer to other sentence structures. We should refer to the corresponding syntactic structure of the deep syntactic structure of this sentence for the omission. When analyzing corpus, we should try our best to speculate the true meaning of the sentence so as to judge whether somewhere is omitted or not by putting it into certain context (Hiliday & Hasan, 1976).

The corpus of this thesis mainly originates from two types of examples, one from the numerous sentence examples being involved and studied in the past various literatures, the other from the sentences made by the author according to her language sense. As to the elliptical sentences' distribution in various types and their pragmatic functions, we mainly survey the corpus in oral type and written type, this paper makes a type analysis on these corpuses.

For the convenience of reading, this thesis uses regular scripts to express corpus and rarely delete the elliptical sentences in corpus while trying to maintain the origin appearance of the corpus being quoted. Use zero elements to express the omission elements and underline the elements which could not be omitted. Most of the elliptical sentences in common grammar works are the omission of major elements like subject, predicative and objective. Yet few people talk about the omission of preposition. In the Eight Words in Modern Chinese, usually omitted syntactic expletives are

regarded as one of the features in Chinese grammars, the Chinese expletives being mentioned in the work can be omitted, including the preposition. For instance, based on this, the analysis about the elliptical sentences with omitted preposition, which mainly include situations that preposition can be omitted, preposition cannot be omitted, factors restricting preposition omission and the pragmatic meaning of preposition omission (Lehrer, 1970).

Preposition phrase in the beginning of sentence which expresses place, time, object, interference and preposition can generally be omitted. Prepositions in these preposition phrases in the beginning of sentence can always be omitted so as to emphasize the focus of speech and outstand the major information. Numerous examples above indicate the popularity of preposition omission in the modern Chinese. In the text below, we will analyze the factors that restrict preposition omission from three aspects of syntactic, semantics and pragmatics based on the above situations on preposition omission (Croft & Cruse, 2004).

Numerous examples above indicates that preposition in preposition phrase representing time and place at the beginning of a sentence is usually omitted, the most omission neither influence the meaning of the preposition phrase nor change the property of a word or the syntactic function of the phrase which means that the relations between other elements in the nominal clause (or nominal phrase) are not changed. For instance, although the prepositions in preposition phrases are omitted, these phrases can still perform as the adverbial modifiers, while syntactic ambiguity doesn't exist. That is to say, the structure with omitted preposition has the same syntactic function with the original preposition phrase. They all assume the same position in sentences and indicates the matter being explained or involved, they are all in the beginning of the sentence and the starting point of a sentence narration while perform as the topic. However, prepositions representing comparison and dependence in preposition phrases cannot be omitted.

Syllable structure can restrict the omission of preposition. For instance, the idiom and four character structures will become non-four-character structure when being completed with a preposition and it will not read smooth; it's evident that an idiom cannot be called an idiom if it has to be completed with a preposition. In sentence, preposition omission always forms behind monosyllabic verb.

However, preposition omission can also possibly arouse the change of word property in the original sentence. When the preposition is omitted, the phrase structure type behind the preposition will change into a subject-predicate phrase from the original preposition phrase. After the preposition omission, people always consider the noun behind the preposition as a verb. These are only changes on superficial syntactic structure which don't influence our expression at all. However, if the syntactic functions before and after omissions are different, preposition could not be omitted. Omission of preposition also depends on the clarity of the semantics of the omission type and the original type. Pragmatically, preposition omission mainly depends on the pursuit on precise utterance in the economy principle of language. From the aspect of language use and accepter, omission is the best choice if it's possible. Being influenced by the preceding text, the preposition can be omitted in advance, that is to say, a preposition can control several objects

VI. CONCLUSION

This paper deals with problems of interaction between default information and context with the focus on weak ellipsis. These interactions are described via the notions of default semantics, discourse and context. The overall aim, to which this article contributes a first step, is to develop a format for modeling the prominent stages in cognitive process of analyzing default information.

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