A Study of Empty Category in Pivotal Sentence in *A Dream in Red Mansions*

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Abstract—The study of the explanatory power of Government and Binding Theory for Chinese is popular. It's worth noting that Empty Category constitutes an integral part in the Government and Binding Theory proposed by Chomsky. Taking the Empty Category Theory as the example, referring to *A Dream in Red Mansions* as the data, this paper is going to research the existing, distributing and inherent laws of Empty Category in pivotal sentence. Theta theory is the theoretical foundation for Empty Category that exists in the pivotal sentence. The empty category, which is produced from D-structure, is classified into proforma in the pivotal sentence.

Index Terms—*A Dream in Red Mansions*, empty category, pivotal sentences, Semantic orientation

I. INTRODUCTION OF *A DREAM IN RED MANSIONS*

A Dream in Red Mansions is a masterpiece of Chinese vernacular literature and one of China's Four Great Classical Novels. The novel is believed to be semi-autobiographical, mirroring the fortunes of Cao's own family. As the author details in the first chapter, it is intended to be a memorial to the women he knew in his youth: friends, relatives and servants.

The novel is remarkable not only for its huge cast of characters and psychological scope, but also for its precise and detailed observation of life and social structures typical of 18th-century Chinese aristocracy. And in this thesis the data is mainly the part of Yuanchun see her families.

II. EMPTY CATEGORY

In the study on contemporary Chinese grammar, Pivotal Sentence is a hot topic. Researchers have put more attention on the definition, yardstick and necessity of the use of this term. Moreover, pivotal sentences have been annotated quite differently in different annotation schemes. Dong Lu, Qiu Likun and Chen Xiujuan indicated that up to date, the determination and differentiation standard for Chinese pivotal sentences are still open topics [1]. In pivotal sentences, empty categories cannot be ignored.

In Chomsky's words, the study of these elements can help us understand the "determining property of syntactic representations and the rules that form them" [2]. Since the concept of empty category occurred in Government and Binding Theory in the 1980s, a lot of scholars both at home and abroad have studied on it.

Liu Hui [3], Tian Qilin & Shan Weilong [4] counted the giving double-object pivotal sentence as purpose clause and serial verb construction respectively, which fails to cover other relevant language data.

There are various pivotal sentences in General Syllabus for International Chinese Language Teaching [5], HSK examination Syllabus [6] and Chinese Proficiency Grading Standards for International Chinese Language Education [7].

A. *Introduction and Definition of Empty Category*

Lobeck believes that the principle of empty categories can be used to explain the empty categories generated by traces, empty pronouns, and component ellipsis [8]. This concept is very insightful, but the principle of empty categories relies on technical means such as "jurisdiction", which lack conceptual inevitability and have been abandoned in the minimalist program. Correspondingly, the principle of empty categories no longer exists in the minimalist program. Therefore, the issue of permission for empty categories urgently needs to be reinterpreted.

Under the framework of the minimalist approach, many scholars have conducted in-depth researches on the phenomenon of empty categories. For example, Wang Shilong [9] replied on Boskovic's [10] phase theory and provided a meaningful exploration of empty categories in ellipsis structures.

There are a lot of researches showing that categories choosing is very important, which is the basis of empty categories [11]. Then we can believe that the features of categories choosing play an essential role in the language analysis. In Tian's analysis, even though enough attention has been paid to the argument augmentation construction, one phenomenon has not been given a unified account yet, which is, the theme argument in this construction cannot be topicalized, relativized or elided. There is a detailed analysis of this phenomenon is carried out under the framework of the labeling theory. It is found that in the v*P domain of the argument augmentation construction, there is a non-core argument introducer which does not serve as a phase head. Due to the existence of this argument introducer, the theme argument cannot be topicalized, relativized or elided. If the theme argument undergoes the above mentioned syntactic operations, it will be unable to have the theta-role feature matching with the weak head when the labeling algorithm starts to work. The result is that its empty category will be located in an unlabeled structure and thus cannot be properly interpreted [12].

Empty Categories refer to those non-overt NPs with no phonetic forms. Though phonetically null, Empty Categories play a significant role in syntactic structures and semantic interpretation. In Chomsky's view, NPs include overt NPs and non-overt NPs, and the latter can be further classified into four types (NP traces, pro, wh-traces and PRO) in terms of the feature [±Anaphoric] and [±Pronominal] [2].

For Chomsky [13], PRO is distinct from pro in that it is assumed to be a pronominal anaphor and is limited to the subject position of non-finite clause. Different from PRO, the null subject pro is a pure non-overt pronoun and usually occurs in the subject position of finite clause and the use of pro is often referred to as pro-drop. However, what is particularly noteworthy is that English and French refute a null subject pro within finite clauses, while it is acceptable in languages such as Chinese, Italian, and Spanish etc.

There is no dispute over the existence of pro in Chinese, but here arises the question whether PRO can occur in the Chinese language. Although no definite agreement has been reached on the distinction of Chinese finite and non-finite clauses, we can still find evidence in real Chinese language to prove the existence of PRO.

B. Theoretical Framework

1) Government theory

The concept of government has a kind of unifying role [14], it brings many subsystems of TG theory together, such case theory, theta theory and so on. According to Chomsky, α governs β if α c-commands β and there is no category γ that "protects" β from government by α, γ protects β in this sense if it is c-commanded by α.

Then we can know:

(a) γ is a barrier dominating β.

(b) γ intervenes between α and β.

There are two main categories of government to be considered: antecedent government of α, and head government of α by a head. These categories can be referred to as proper government. In MP, "minimize" and "economy" are the principle and Chomsky eliminates the intervention condition above in favor of a general condition on economy of derivations, restricting the definition of government as α governs β if α c-commands β and there is no barrier for β c-commanded by α.

2) Binding theory

In Binding theory, the relation between an NP and its antecedent was renamed. According to Chomsky, there are three syntactic constraints to interpret overt NPs [14].

- An anaphor must be bound in a local domain.
- A pronoun must be free in a local domain.
- An R-expression must be free.

3) Control Theory

Control theory is concerned with the question of how PRO is assigned an interpretation. The theories about control reveal many different uses of the terms obligatory and non-obligatory control, the representative works are Predication [15], Lectures on Government and Binding [2], etc. and the distinction between obligatory control structures and non-obligatory control structures was first proposed by Williams [15]. Although they have different opinions about the scope of control theory, they agreed on and proposed that there are at least two different varieties of control: obligatory control and non-obligatory control.

III. EMPTY CATEGORY IN PIVOTAL SENTENCE IN *A DREAM IN RED MANSIONS*

A. Evidence of the Existence

In the pivotal sentence, the evidence of the existence of empty category is the theta theory in the Government and Binding Theory. Theta theory is concerned with the assignment of thematic roles (agent-of-action, patient-of-action, goal and theme) and thematic hierarchy (the order of thematic relation).

The principle of theta theory is:

Each argument bears one and only one theta role, and each theta role is assigned to one and only one argument.

Chomsky defines the word that can function as a theta as the argument, which fairly is the subject or the object in the syntactic structure. That is to say that principle can be understood as this way: if a subject is the agent, then it cannot be an object; if the only agent functions as the patient, then it cannot be the agent. Therefore, this principle obviously doesn't accord with the specific fact that the pivot word functions as two constituents. Therefore, the only solution is the assumption that the existence of empty category in pivotal sentence and the ellipsis of one argument. Then, at the same time, theta theory is effective in the precondition of the Universal Grammar.

B. Way of Determining Empty Category

As we already know, the evidence of the existence of empty category in pivotal sentence is the theta theory in Government and Binding theory. Then, how to determine empty category in pivotal sentence?

Firstly, let's read some specific examples:

Group A:

(1) 请凤姐开库。

(Please ask Wang Xifeng to open the library.)

(2) 又请贾母等进园。

(Invited Jia's mother and others into the garden.)

(3) 前日家政闻塾师背后赞宝玉偏才尽有。

(The day before yesterday, the private tutor praises Baoyu's talent secretly.)

Group B:

(4) 请开库。

(Please open the library.)

(5) 又请进园。

(Into the garden.)

(6) 前日家政闻塾师背后赞偏才尽有。

(The day before yesterday, the private tutor praises secretly.)

The Group A is pivotal sentence, and Group B is non-pivotal sentence in which N_2 were omitted from Group A. The structure is as the following:

Group A: $N_1+V_1+N_2+V_2$

Group B: $N_1+V_1+V_2$

The meaning of V_1 is agreed, that is to say, whether there is N_2 or not, in the level of semantics, V_2 needs an agent. Thus, in Group B, the actor or participant of V_2 is not clear. In the example (1), obviously the patient of V_2 "开库" is "凤姐". However, the patient of example (4) is unclear. In the example (2), the patient of V_2 is "贾母等". But the patient of example (5) is not clear, either. In the example (3), the patient of V_2 is "宝玉", but the patient of V_2 in example (6) is, if there is no determined context, any student. Therefore it's not clear.

In the analysis of traditional grammar, V_1 in Group A, at the first place, must be transitive verb, which needs to

collocate with the object. In this way, N_2 is the patient of V_1. V_2 is the second predicate; the agent is N_2, too. So, N_2 not only is patient, but the subject of V_2. That's why we say "pivot word".

According to the principle of theta theory, each argument bears one and only one theta role, and each theta role is assigned to one and only one argument. Taking the pivotal sentences as the example, in the case of V_1 assigns the argument to N_2; V_2 cannot assign the argument to N_2. But in the D-structure V_2 must have an independent argument which is the agent. This is true in Group A and Group B. Therefore, we can determine the existence of the empty category before V_2 in the pivotal sentence. We can take it as "P", and the structure is:

$N_1+V_1+N_2+ (P) +V_2$

C. Characters of the Empty Category in Pivotal Sentences

Chomsky classifies the empty category as two main kinds: one emerges from D-structure. As the independent theta, in the governing category, it is free. And this kind includes PRO and pro; the other emerges from S-structure because of movement. The argument is not independent, and is bound by NP after movement, and they must refer to the same one. This kind includes NP-trace and Wh-trace. Then let's see the empty category in pivotal sentence.

From the examples in Group A we can see the existence of empty category before V_2 and it belongs to the independent argument. V_2 assigns theta to the empty category P. Therefore, it emerges from the D-structure, not emerges from the movement because of the transformational rules. And V_2 needs an agent or patient, so the empty category must be the empty pronoun.

Shen Yang [16] indicates that, elliptical empty category can be replenished in certain context; however the implicit empty category cannot be replenished in any context.

For example:

(7) 当日既送我到那不得见人的去处。

(On that day, I was sent to the place where meeting you is so difficult.)

(8) *当日既送我我到那不得见人的去处。

(9) 贾母等让贾妃归座。

(Jia's mother and others let Jia Yuanchun sit down.)

(10) *贾母等让贾妃贾妃归座。

Obviously, example (8) and (10) are not grammatical. And in any case the replenishment of agent is not grammatical, either. So, we can know, the empty category in pivotal sentence belongs to the implicit one.

Then we can get the conclusion: The character of empty category in pivotal sentence is:

1) The empty category in pivotal sentence emerges from D-structure, and it's the empty pronoun element.

2) The empty category in pivotal sentence is the implicit one.

D. Semantic Orientation of Empty Category in Pivotal Sentences

As we already know, in the pivotal sentence, empty category is the semantic element in D-structure and independent. It is before V_2 and has the relation of agent. Now let's see the semantic orientation. There are two main kinds:

1. Empty category P is the co-reference with V_1.
The structure is:
$N_i+V_1+N_j+P_j+V_2$
(10) 前日贾政闻塾师背后赞宝玉偏才尽有。

(The day before yesterday, the private tutor praises secretly.)

In this example, the subject of "赞" is "塾师"(N_1), and "宝玉" is the object of "赞" (N_j). The agent of "偏才尽有" (V_2) is the empty category P, which is the same as the subject of V_1 "宝玉", Their mark are the same one "$_j$". As the following structure:

前日贾政闻塾师i背后赞宝玉j[Pj偏才尽有]。

2. The semantic orientation of empty category P is the sum of N_1 and N_2. The structure is:
$N_i+V_1+N_j+P_{i+j}+V_2$

In this kind of structure, N_i is the subject of the whole sentence and the agent of V_1. N_j is the object of V_1. P is the agent of V_2, and the semantic orientation is the sum of N_i and N_j.

(11) 又有巡察地方总理关防太监等，带了许多小太监出来。

(Local Premier and eunuchs who are responsible for patroling sent a lot of other enunchs out.)

The subject is "巡察地方总理关防太监等", and the object of "带了" (V_1) is "许多小太监". The agent of "出来" (V_2), that is to say, the empty category P concludes both "巡察地方总理关防太监等" and "许多小太监". As the following structure:

又有巡察地方总理关防太监等i，带了许多小太监j[Pi+j出来]。

IV. CONCLUSION

In this thesis, the empty category is analyzed in pivotal sentence in *A Dream in Red Mansions*. Firstly, the evidence of the existence of empty category in pivotal sentence is the theta theory; at the same time, this kind of empty category is the implicit empty category, emerging from D-structure. Then the empty category is analyzed in pivotal sentence. Finally, the semantic orientation of the empty category is clear.

From this thesis, we solve the problem of the reasonable existence of the pivotal sentence. And from the perspective of generative grammar, the existence of the implicit empty category has the powerful evidence. As a result, learners can better study Chinese and understand Chinese literature.In the future, the author hope more classic Chinese literature can be investigated from field of the empty category.

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