

A COGNITIVE-FUNCTIONAL APPROACH TO CATAPHORA IN ENGLISH

**A COGNITIVE-FUNCTIONAL APPROACH TO  
CATAPHORA IN ENGLISH AND CHINESE DISCOURSE**

**英汉下指的  
认知功能研究**

本研究从认知功能的视角对英汉叙事语篇中出现的人称代词下指现象进行了对比分析。

● 高军 / 著

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## PREFACE

The present study is a contrastive analysis of cataphora in English and Chinese discourse from a cognitive-functional perspective.

In accordance with the research purposes, we have raked through 5 English and 3 Chinese novels and gleaned in each language 200 authentic instances of cataphora. Furthermore, with a view to obtaining an overall picture of cataphora used in these two languages, a bi-directional translationally equivalent corpus is built up, containing both the English and Chinese originals with their translation in the other language.

In this study, the following four types of analyses have been carried out, and interesting results have been obtained:

Firstly, based on the defining nature of cataphora and a detailed examination of our data, we find that zero pronoun, null in form and information value, can function as cataphor in both English and Chinese. By adopting 许余龙、贺小聘's (2007) system of classification of cataphora, we have also conducted a quantitative analysis of the three types of cataphora, namely discourse cataphora, local discourse cataphora and sentential cataphora, in our English and Chinese corpora. The statistical results show that English and Chinese share a similar distributional pattern of cataphora in terms of frequency of occurrence, with sentential cataphora being the most frequently used one and discourse cataphora the least frequently used one.

Secondly, the basic patterns and prototypical configurations of cataphora in English and Chinese narrative discourse have been described in detail. It is shown that four patterns of cataphora can be identified in the English data, namely  $\emptyset$  + NP, P + NP,  $\emptyset$  + indefinite expression and P + definite expression. In the Chinese data, however, we can only find two patterns of cataphora, i. e.  $\emptyset$  + NP and  $\emptyset$  + demonstrative expression. As for cataphora configurations, in the English data a large majority of cataphoric pronouns (including

zeros) occur in non-finite clauses, and some occur in prepositional phrases and adverbial clauses. In the case of Chinese, cataphora configurations are more varied. Cataphoric pronouns predominantly occur in *-le* clauses, and much less so in unmarked verb clauses and *-zhe* clauses.

Thirdly, by adopting the linguistic and content criteria for distinguishing foreground and background information in narrative discourse, we have made an exhaustive analysis of the aspect and syntactic markers in the cataphora instances in our English and Chinese data and found that narrative backgrounding is the crucial factor that motivates the use of cataphora. The verification tests based on our bi-directional translationally equivalent data also provide support for the backgrounding status of the construction types in which cataphoric pronouns appear in narrative discourse.

Fourthly, based on Chafe's Activation Cost theory, we offer an account of the rarity of cataphora in general and the distributional pattern of each type of cataphora. We argue that the cognitive cost involved in interpreting different types of cataphora is in inverse proportion to the frequency of their occurrence. The exhaustive analysis of the prominence asymmetry between cataphor and its postcedent in our cataphora instances also corroborates van Hoek's Reference Point account of cataphora and this asymmetry instructs the reader to construe the zero pronoun or pronoun in the sentence initial position as the current topic or as a signal for the termination of the current topic and the start of a new one.

# 序 言

本研究从认知功能的视角对英汉叙事语篇中出现的人称代词下指现象进行了对比分析。

基于此研究目的,我们从5篇英文小说和3篇中文小说中分别收集了200个人称代词下指实例。此外,为了对下指现象有一个更加全面的了解,我们建立了双向翻译对等语料库,即同时包括了英汉语的原文及其对应的译文。

在本研究中,我们进行了四种类型的分析并得出如下分析结果:

第一,基于下指的定义特点和对语料的详尽分析,我们发现形式和信息量皆为零的零形代词在英语和汉语中都可以充当下指语(cataphor)。参照许余龙、贺小聃(2007)关于下指的分类体系,我们对语料中出现的三种下指现象,即语篇下指、局部语篇下指和句内下指进行了定量分析。分析结果表明英汉两种语言中各类下指在出现频率方面呈现出相似分布特征,即句内下指出现频率最高,而语篇下指的出现频率最小。

第二,我们对英汉叙事语篇中的下指型式和典型构型进行了详尽的分析。分析结果表明,英语下指主要体现为四种型式:零形代词+名词短语,代词+名词短语,零形代词+无定词语以及代词+有定词语。汉语下指主要有两种型式:零形代词+名词短语以及零形代词+指示词语。在构型方面,英语中的下指语(包括零形代词)大多出现在非限定从句以及介词短语和状语从句结构中;汉语中的下指构型比较多样,下指语主要出现在-了小句中,出现在无标记动词小句和-着小句的下指语较少。

第三,运用叙事语篇中区分前景和背景的语言学标准和内容标准,我们对英汉语料中下指实例的体标记和句法标记进行了穷尽性分析。分析结果表明叙事背景化是出现下指现象的主要动因。基于双向翻译对等语料的分析同样证明了英汉叙事语篇中下指语所在结构的背景化功能。

第四,根据Chafe的激活代价理论,我们对下指的罕见性和各类下指的分布特征进行了深入的探讨。研究表明,理解各类下指付出的认知代价和它们的出现频率成反比。我们对语料中下指语及其后行语(postcedent)的突显的不对称性分析进一步支撑了van Hoek的参照点理论对下指现象的阐释。我们的分析表明这种不对称性提示读者出现在句首的零形代词或代词将成为当前主题或标志着当前主题的结束以及另一个新主题的开始。

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## INTRODUCTION

### 1.0 The Notion of Cataphora

Cataphora is “the use of a word or phrase which refers forward to another word or phrase which will be used later in the text or conversation.” (Richards *et al.* 2003 :65)

Take (1.1) for illustration,

(1.1) When I met her<sub>i</sub>, Mary<sub>i</sub> looked ill.

In this example, the pronoun *her* and nominal phrase *Mary* are coreferential, i. e. ,*her* refers forward to the sentence subject *Mary*; or we can say that they are assigned the same referential value.

As can be seen from (1.1), in cataphora, the following word or phrase provides the information necessary for the interpretation of the preceding one. In contrast to backward referring anaphoric pronouns which are clearly linked with previously mentioned entities in the discourse, cataphoric pronouns are forward referring devices, i. e. their function is to anticipate some aspect of the discourse which follows their occurrence. As noted by Greenberg, “in anaphora there is coreferentiality between the anaphoric substitute and the antecedent which precedes and is therefore identified. If we reverse this, the cataphoric substitute cannot be coreferential at the moment it is used because we do not yet know what it refers to. After the cataphor has been mentioned we can then in retrospect say that it is coreferential or that when the substitute is used it is proleptically cataphoric.” (Greenberg 1985 : 283)

This may explain partially why cataphora, in comparison to anaphora, has not been extensively explored by linguists. Even in grammar textbooks, the distinction between anaphora and cataphora is rarely examined. For this, Quirk

*et al.* (1985: 351) offer the following explanation, “cataphoric reference occurs less frequently [than anaphoric reference], and under limited conditions. Where it does occur, anaphoric reference is also possible, so that we can equate two synonymous sentences such as (1.2a) and (1.2b) in which the positions of pronoun and antecedent are reversed.”

(1.2a) cataphoric: Before he<sub>i</sub> joined the Navy, Gerald<sub>i</sub> made peace with his family.

(1.2b) anaphoric: Before Gerald<sub>i</sub> joined the Navy, he<sub>i</sub> made peace with his family.

It should be noted that this explanation takes sentence as an isolated linguistic unit and takes no account of the fact that in natural discourse a sentence may not stand alone but occur in co-text and thus may realize some discourse functions. Indeed, some prescriptive grammarians have gone so far as to condemn the practice of cataphora for reasons of clarity and, more blandly, “good style”, as declared by H. W. Fowler “the pronoun should seldom precede its principal”. (cited from Wales 1996:37) This has led to problems in the study of cataphora. A case in point is the borrowing of terminology. Sometimes anaphora is used as an umbrella term including both anaphora (referring up) and cataphora (referring down) (eg. Crystal 1997; Matthews 1997). For instance, in TG and GB theory, anaphora is assumed to be the “norm”. Within this model, cataphora is often conceived of as the counterpart of anaphora and is referred to as “backward anaphora” (Mittwoch 1983; Reinhart 1984; Carden 1982), presumably meaning something like “anaphora in reverse”. Some other terms like “backward pronominalization” are adopted by Kuno (1972). However, these terms are quite confusing to anyone who is assuming that the preceding expression is forward dependent upon the following expression. Another oddity is that, for cataphora there are no such correspondent terms as anaphor or antecedent in an anaphoric relation. To characterize such a cataphoric relation, cataphoric word (Crystal 1997) and antecedent (Quirk *et al.* 1985) are used to denote the preceding expression and the following expression respectively.

For ease of discussion, the term cataphora is adopted in the present study unless otherwise noted, for instance, in quotations. And cataphor and postcedent are employed respectively for the two co-referential expressions in a cataphoric relation, by analogy with the terms anaphor and antecedent.

A cataphoric relation may involve cataphor and postcedent which occur within the same sentence or across sentences, as illustrated in (1.3) where the postcedent “follows” in the same sentence; and (1.4) where the postcedent occurs across sentences.

(1.3) Before he<sub>i</sub> joined the Navy, Gerald<sub>i</sub> made peace with his family.

Ø<sub>i</sub> 参加海军之前, 哲罗德<sub>i</sub> 与家人言归于好。

(1.4) My reasons<sub>i</sub> are as follows: One, I don't...<sub>i</sub>

我的理由<sub>i</sub> 如下: 其一, 我不……

In the latter type such as (1.4), cataphors are represented by demonstratives, the neutral pronoun *it* or a noun phrase.

In the present study the first type, i. e. cataphoric use of third person pronoun will be our focus of interest, henceforth it will be referred to simply as cataphora. For this cataphoric relation, a syntagmatic coreferential model can be suggested as follows:

(1.5) 3PP → NP

Here the 3PP is deemed to derive its semantic information from a NP yet to appear in the following discourse.

## 1.1 A Brief Literature Review

### 1.1.1 Related studies in English

It is not an exaggeration to say that linguistic theory has devoted relatively little attention to the syntactic and semantic properties of cataphora in comparison to its more familiar anaphoric counterparts. The difficulty of finding true examples of cataphora and the commonplace nature of anaphora suggest unmarked status of the latter and marked status of the former, which is probably related to the fact that scarce research work is done on cataphora.

Generally speaking, the few existing literature on cataphora are mostly conducted in the field of anaphora study, when exploration is made on the various constraints governing the distribution and semantic interpretation of different types of nominal expressions. The major approaches that are adopted in cataphora studies are therefore broadly classified into three types as those of anaphora studies, namely syntactic approach, functional approach and

cognitive approach.

The syntactic approach to the study of cataphora is mainly done within TG and GB framework, where cataphora has been discussed primarily as a sentence phenomenon. Langacker (1969), for instance, put forward *precede-and-command condition* in his analysis of pronominalization:

*The pronoun* ( $NP^P$ ) can not both precede and command its lexical antecedent ( $NP^a$ )

The possible cases of pronominalization are as follows:

$NP^a$  may pronominalize  $NP^P$  if:

(i)  $NP^P$ : [-prec, -comm]

John<sub>i</sub> believes that he<sub>i</sub> is a genius.

(ii)  $NP^P$ : [-prec, +comm]

When John<sub>i</sub> passed the test, he<sub>i</sub> was happy.

(iii)  $NP^P$ : [+prec, -comm]

When he<sub>i</sub> failed the test, John<sub>i</sub> felt depressed.

And no coreference is possible if

(iv)  $NP^P$ : [+prec, +comm]

\* She<sub>i</sub> was surprised that Mary<sub>i</sub> passed the test.

But Langacker's *precede-and-command condition* could not provide a satisfactory explanation for the following sentence:

(1.6) In her<sub>i</sub> office, Mary<sub>i</sub> worked day and night.

In (1.6), *her* and *Mary* are coreferential though *her* does precede and command *Mary*.

Based on Langacker's *precede-and-command condition*, Reinhart (1983) put forward her *c-command* theory:

*A c-commands B iff* (= if and only if)

*the first branching node that dominates A also dominates B.*

Let us re-examine the example (1.6). The first branching node PP (*In her office*) that dominates *her* does not dominate *Mary*, so *her* does not c-command *Mary* and coreferential is possible.

But look at the following two sentences,

(1.7) a. \* His<sub>i</sub> mother loves Peter<sub>i</sub>.

b. His<sub>i</sub> mother thinks Peter<sub>i</sub> is smart.

According to c-command, coreferential is possible in these two sentences

since *His* does not c-command *Peter*. However, the fact is that coreferential relation in (1.7a) is not acceptable.

From the above discussions, we can see that it is far from enough to approach anaphora or cataphora only from syntactic perspective. As Xu (1995:4) remarks, "First, it [formal approach] is largely limited to the formal aspects of anaphora. And second, it is largely limited to the exploration of such formal properties of noun phrases within a sentence." Other factors such as functional and pragmatic ones also come to play in the coreference between noun phrases.

From Functional Sentence Perspective, Karttunen (1968), Kuno (1972, 1975) and Delisle (1973), among others, have put forth what Carden (1982) calls "The Forwards-Only Hypothesis", which requires that a pronoun must always have an antecedent preceding it in the discourse, such a relation can be represented schematically as follows:

...true antecedent...[s...pronoun...apparent antecedent...]s<sup>①</sup>

" 'The Forwards-Only Hypothesis' therefore implicitly predicts that if we take a corpus large enough to have a reasonable number of examples of backwards anaphora, almost all of them should have met the requirement." (Carden 1982:381)

Based on observations from a corpus of naturally occurring texts, however, Carden (1982) finds over 100 cases where *backwards pronoun* (cataphor, in our term) is the first mention of the referent in discourse, for example:

(1.8) a. After his<sub>i</sub> recent election as Republican national chairman, Bill Brock<sub>i</sub> said...

(*New York Times*, NYT, 28 Jan. 77)

b. The students noted that before Ø<sub>i</sub> entering his plea, each defendant<sub>i</sub> was advised by Judge Doyle of his rights...

(*Advertisement*, summer 76)

A large majority of examples collected by Carden (1982) involve a single structural type, where a genitive pronoun or a Ø in a preposed adverbial

---

① As noted by Kuno (1975:287): "writers sometimes violate (the requirement on Backward Pronominalization) intentionally to give a dramatic effect." Such stylistically-motivated cataphora is not the concern in this study.



refers to the subject of the following main clause, as shown in (1.8). These counter-examples indicate that the use of cataphora is not constrained by a predictability requirement. Carden further suggests that “sentence-level rules equivalent to the classical rules for cataphora will be needed even in a discourse grammar.”

Mittwoch (1983) is the first to argue that cataphora is a feature of discourse structure requiring to be analyzed pragmatically, “whatever constraint is here involved is not a rule of sentence grammar but a pragmatic rule for the appropriate use of sentences”. Because of the difficulties of seeking “generalizations about syntactic or semantic features that correlate with one clause becoming pragmatically subordinated to another”, Mittwoch notes that certain contributing factors are “based on the examples that readily occurred to me, and are therefore inevitably subjective”.

With a careful examination of Mittwoch's examples, Macleod (1984) comes up with the observations that cataphora permits a separation of the nominal functions of existential assertion and denomination and that specific cases of cataphora may be instances of a very general feature—the avoidance of pronominal forms in topical or peak sentences or clauses (Macleod 1984: 321). Mittwoch and Macleod's account of cataphora from the pragmatic perspective has offered valuable insights into cataphora study though no empirical research has been conducted by them.

Ariel (1990) and van Hoek (1997) probe into cataphora from a cognitive perspective. Guided by her Accessibility Theory, Ariel (1990) suggests an explanation to cataphora. She believes that there are actually two types of cataphora, each allowed under different circumstances. When the referent is a New entity, dependency of cataphor on postcedent is crucial. However, when the entity is Given, the dependency is not needed at all, what determines is not different from Accessibility considerations. A full nominal form, i. e. a Low Accessibility Marker, is used because of distance and low cohesion. In other words, distance and unity are the determining factors for use of cataphora.

In her book *Anaphora and Conceptual Structure*, a revision of her dissertation, van Hoek argues that “the constraints on pronominal coreference can be accounted for without appeal to autonomous-syntactic notions such as