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現代漢語“所”字之句法形式與功用研究

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中文摘要

本計畫探討現代漢語弱代詞爬升現象。我們比較弱代詞‘所’與羅曼語系弱代詞的爬升現象，進而提出雖然後者都發生於結構重組的情形，但前者須區分為實詞類與虛詞類。只有虛詞類帶有結構重組而實詞類帶有的是非結構重組的不定詞。本研究結果顯示，弱代詞爬升即使在同一語言中，都不應視為一統整的現象。同時，也確定漢語具有時態與非時態句的區分。

關鍵詞：弱代詞爬升、結構重組、‘所’字、不定詞

English abstract

Assuming the analysis of *suo* as a pronominal clitic comparable to clitics in Romance proposed by Ting (2003), in this project we examine and provide an account for various contrasts between clitic climbing in Mandarin Chinese and in Romance. We will argue that while clitic climbing in Romance applies in a restructuring context, clitic climbing of *suo* splits into the lexical type and the functional type. Only the latter involves restructuring infinitives whereas the former involves reduced non-restructuring infinitives, as labeled by Wurmbrand (2003). Clitic climbing thus should not be treated as a uniform phenomenon even within a language. It is also shown that a finite vs. non-finite clause distinction holds in Chinese.

Key words: clitic climbing, restructuring, the particle *suo*, infinitives

1. Introduction

Clitic climbing generally exhibits “restructuring” effects and is generally analyzed as an indication of a restructuring construction. This is well-known in Romance languages and also in other languages like Czech (see Rezac 2005). In this project, we show that clitic climbing does not have to be associated with restructuring based on the facts of Chinese. More specifically, clitic climbing in Chinese is not a uniform phenomenon but splits into two subclasses – functional restructuring vs. reduced non-restructuring. The former involves a mono-clausal structure whereas the latter involves a bi-clausal structures. In both cases, the clitic *suo* lands in an INFL domain. We support this analysis by comparing the differences and similarities between clitic climbing in Romance and Chinese. The step-wise head movement approach to cliticization is defended and an innovated analysis of derivation of *suo* is proposed.

2. Purpose of Research

Although the syntax of clitic climbing has been of great interest since the seminal work of Kayne (1975), there has been no previous research in this phenomenon in Chinese. This is partially due to the fact that no existence of a comparable clitic in Chinese was acknowledged in Chinese syntax. Assuming the analysis of *suo* as a pronominal clitic ((1)) comparable to clitics in Romance proposed by Ting (2003), it is thus important to investigate the clitic climbing phenomenon of *suo* in Chinese. This is because study of this phenomenon sheds light on the clause structure of Chinese as well as the mechanism of clitic movement.

(1) 李四所愛的人

3. Comparison between Clitic Climbing in Romance and in Mandarin Chinese

3.1 Clitic Climbing in Romance

First consider clitic climbing in Romance. In its broad sense, clitic climbing means that the clitic occurs in a position not associated with the verb by which it is selected but in a position in a higher clause. In French, clitic climbing is possible out of the VP complements to causative and

perception verbs ((3)) but not out of complements to a verb like ‘want’ ((4)). This leads Kayne (1975) to appeal to the Specific Subject Condition of Chomsky (1973). (cited from Uriagereka 1988: 387)

(3) French

Marie les aura présentés à Louis. (taken from Sportiche 1996: 215)

Marie them will-have introduced to Louis

‘Marie will have introduced them to Louis.’

(4) French

a. Jean_i veut [PRO_i le_j photographe_j e_j]

Jean wants him to-photograph

b. *Jean_i le_j veut [PRO_i photographe_j e_j]

This paradigm, however, is quite restricted to (modern) French. It is perfect in other languages in Romance such as Italian, Spanish, Portuguese and Catalan (Uriagereka 1988: 387). One such instance in Italian is illustrated in (5).

(5) a. Mario vuole [legger**lo**]

‘Mario wants to read it.’

b. Mario **lo** vuole [leggere ____]

‘Mario wants to read it.’

The pronoun *lo* can appear as a clitic either on the infinitival lexical verb *legger* ‘read’ or on the inflected matrix verb *volere* ‘want’. The latter is the type of clitic climbing we will focus on in this project.

Predicates that allow such patterns are generally referred to as ‘restructuring verbs’, which include modals (like English *want/will, must, can*), aspectuals (like *begin, continue*) and motion verbs (like *come, go, return*). (Burzio 1986, Li 1990, Cardinaletti et al. 2004). Those that do not belong to this class include verbs like *hate* ((6)) and *decide* ((7)).

(6) a. Mario lo vuole leggere

‘Mario wants to read it.’

b. *Mario lo odia leggere

‘Mario hates to read it.’

(Burzio 1986: 322-323)

(7) a. Piero deciderà di parlarti di parapsicologia.

‘Piero will decide to speak to you about parapsychology.’

b. *Piero **ti** deciderà di parlare di parapsicologia. (Rizzi 1982: 1)

It is well-known that clitic climbing is not possible out of clauses with specific subject. Therefore, object control infinitives ((8)) (Rizzi 1982, Kayne 1989b, Sportiche 1996), raising infinitives ((9)) (Rizzi 1982) and finite clauses disallow clitic climbing ((10)) (Rizzi 1982).

(8) French

a. Jean a laissé Pierre parler à Marie.

Jean has let Pierre to-speak to Marie

‘Jean let Pierre speak to Marie.’

b. *Jean lui a laissé Pierre parler.

Jean to-her has let Pierre to-speak

‘Jean let him speak to her.’ (Sportiche 1996)

(9) Italian

- a. Angela pareva averlo riaccompagnato a casa.
'Angela seemed to have taken him home.'
- b. *?Angela lo pareva avere riaccompagnato a casa.

(10) Italian

- a. Credo che Gianni la presenterà a Francesco.
'I believe that Gianni will introduce her to Francesco.'
- b. *La credo che Gianni presenterà a Francesco.
(Rizzi 1982: 3)

As the label 'restructuring verbs' indicates, the fact that a clitic apparently originates in the infinitival complement and lands in the main clause is described as being made possible in a 'restructuring' context. That is, this configuration displays certain 'transparency' properties of the embedded infinitives (for details, see Rizzi 1982). In addition to clitic climbing, another well-known property of 'restructuring' or clause union is auxiliary switch.

3.2 Basic Facts of Climbing of *Suo*

As in Romance, there is a finite vs. non-finite distinction with respect to licensing climbing of *suo* in Mandarin Chinese.

(11) Embedded infinitive clauses

- a. 李四要求阿 Q 所買的那本書 (taken from Chiu 1995)
- b. 李四所要求阿 Q 買的那本書

(12) Embedded finite clauses

- a. 我認識李四以爲阿 Q 所喜歡的那個女孩
- b. *我認識李四所以爲阿 Q 喜歡的那個女孩

Suo may occur either downstairs or upstairs when the embedded clause is an infinitive but is restricted to the embedded clause when it is finite. These paradigms indicate the existence of a similar clitic climbing phenomenon in Mandarin Chinese as well. A variety of contrasts, however, can also be observed.

First, although clitics in Italian may appear either downstairs or upstairs in the sentence exhibiting clitic climbing effects (cf. Cardinaletti et al.), *suo* does not show this distribution in all contexts. Although in subject control ((13)), object control ((14)) and raising ((15)) constructions, *suo* may occur either upstairs or downstairs, in modal constructions, *suo* is restricted to occur before the single instance of modals whether it involves epistemics ((16)) or deontics/dynamics ((17)).

(13) Subject control construction

- a. 我計畫明年所達成的目標
- b. 我所計畫明年達成的目標

(14) Object control construction

- a. 我要求李四所完成的任務
- b. 我所要求李四完成的任務

(15) Raising construction

- a. 他開始所認真學習的語言
- b. 他所開始認真學習的語言

(16) Epistemic modals

- a. 李四所應該讀過的那本書

b. *李四應該所讀過的那本書

(17) Deontic/dynamic modals

a. 張三(所)能(*所)回家的時間 (taken from Hsu (2005), Hsu and Ting (in progress))

b. 張三(所)肯(*所)唱的歌

Another property that distinguishes climbing of *suo* and clitic climbing in Romance is a lack of SSC effects in the former as shown in the object control construction as illustrated by the contrast between (14a) and (14b).

In addition, there are no specific semantic classes of verbs involved in allowing climbing of *suo*. It seems that all verbs that admit control and raising infinitives and all modals admit climbing of *suo*. This departs from the situation in Romance. For example, in French, clitic climbing is restricted to causative and perception verbs; in Italian and Spanish, it also applies to ‘restructuring’ verbs, which include modals, aspectual and motion verbs (cf. Rosen 1990). As pointed out in section 3.1, clitic climbing in Romance indicates a restructuring configuration. If it is also the case for *suo* in Chinese, then it means that the whole class of control/raising verbs and modals would possible be associated with a restructuring configuration when *suo* occurs upstairs.

In brief, clitic climbing in Romance and climbing of *suo* in Mandarin share similarities but meanwhile exhibit puzzling contrasts.

3.3 Approaches to Restructuring

There are many approaches to derive a ‘restructuring’ context. They can be classified as mono-clausal approaches and bi-clausal approaches (Wurmbrand 2003). The bi-clausal approaches used to gain the upper hand. The common property of these approaches is that embedded or restructuring infinitives start out as clausal CP or IP complements and that their clausal status is altered by some mechanisms, e.g. structure changing operations like a restructuring rule postulated by Rizzi (1982) or head movement proposed by Kayne (1989b, 1991), among others. The structure changing processes are often criticized for violating the Projection Principle. The head movement analyses, on the other hand, as pointed out by Wurmbrand (2003: 12), have to assume that “some verbal head of the infinitive moves (overtly or covertly) to the matrix predicate” and thus that the clause boundary is rendered transparent to clitics.

Putting aside some potential theoretical problems, the bi-clausal approaches also face empirical challenges raised by proponents of the mono-clausal approaches. The essential claim of these approaches, e.g. Rosen (1990) and Cinque (2001, 2003, 2004), is that the embedded or restructuring infinitives are treated not as a full clause but a base-generated VP. Cardinaletti et al. (2004), along this line of research, point out a paradigm of partial climbing, which, according to them, cannot be easily explained under the bi-clausal approaches. Arguing that the cyclic nature of the previous accounts in Rizzi (1982) and Kayne (1989b, 1991) under the bi-clausal approaches would incorrectly predicts the acceptability of partial climbing, they then propose to account for the facts of clitic placement as follows: a single clause contains two clitic positions, a clausal clitic position and a lexical clitic position. The latter can be made concrete by being assumed to be associated with an independent maximal projection above V in the lexical domain as schematized in (18).

(18) [_{FP} ... [_{FP} clitic [_{FP} ... [_{FP}... [_{FP} clitic [_{VP} [_{VP}]]]]]]]
functional domain lexical domain

Given the convincing arguments provided by Cinque and Cardinaletti et al, it is thus plausible to assume that restructuring effects in Romance arise due to what Wurmbrand (2003: 137) refers to as “a direct (and unavoidable) result of the architecture of a clause.” That is, with the clitic sitting high in the clause, the apparent bi-clausal structure is actually mono-clausal. This is the so-called

functional restructuring in the theory of Wurmbrand (2003). According to her, modal constructions in German also involve functional restructuring. She argues, however, that there is the other type of restructuring in German, referred to as the lexical restructuring: some lexical restructuring verbs such as *versuchen* 'try', *empfehlen* 'recommend' and *gestatten* 'permit' combining with a bare VP complement.

In brief, the approach to restructuring taken by Wurmbrand is a mono-clausal one involving a bare VP. But a distinction is made between the lexical type and the functional type. Lexical restructuring infinitives result from combining a lexical restructuring verb with a bare VP complement whereas functional restructuring infinitives result from the architecture of a clause. An important question we'd like to address is whether climbing of *suo* exhibits restructuring effects and thus involves a restructuring configuration.

4. Result and Discussion

Assuming that the analysis of *suo* as situated in the high portion of IP on a par with clitics in Romance is on the right track, then these facts indicate that modal constructions involve one INFL domain but control/raising constructions involve two INFL domains. The latter half of the claim is not surprising since control/raising verbs are typically analyzed as taking a clausal complement. But the state of affairs is not so obvious for modals. There are two major approaches to modals: a control/raising verb or an INFL category. In the former approach, *suo* in modal constructions is expected to occur either downstairs or upstairs, on a par with (13-15). The fact that *suo* is allowed only in a pre-modal position in (16-17) thus argues against treating modals as control/raising verbs but in favor of an analysis that treats modals as an INFL category. Under this approach, the facts now fall into two paradigms: control/raising constructions with *suo* adjoined to either the lower or higher I; modal constructions with *suo* adjoined to the only I position in the clause. That is, the embedded infinitives in the former have a clausal status (which we will argue is IP rather than CP) whereas the embedded infinitives in the latter are VPs. The two types of climbing of *suo* will be referred to as lexical non-restructuring and functional restructuring respectively (cf. Wurmbrand 2003).

In support of this dichotomy, recall that clitic climbing in Romance necessarily involves restructuring. If the proposed analysis is correct, then only modal constructions, but not control/raising constructions, with *suo* occurring upstairs show restructuring effects.

According to Wurmbrand, restructuring entails obligatory control, simultaneous tense and lack of an embedded subject on the grounds that long passives exhibit all these properties. We now show that climbing of *suo* in control/raising constructions does not display these effects but climbing of *suo* in modal constructions does.

We shall start with obligatory control. According to Wurmbrand (2003: 243), citing Williams (1980), collective predicates such as *to meet* and *to gather* can occur in certain infinitival constructions that involve a singular controller in the matrix predicate. Thus try-type control predicates require obligatory control whereas decide-type control predicates allow non-obligatory control.

- (21) a. *I will try to meet at 6.
b. I decided to meet at 6.

Based on the observation that restructuring predicates in German are obligatory control predicates and prohibit any form of non-obligatory control, Wurmbrand then argues that restructuring entails obligatory control. In other words, if some infinitival constructions can be shown not to involve obligatory control, then it entails that they are not restructuring constructions.

Turning to Chinese, we find counterparts of collective predicates such as "form a line", "meet in the woods", "surround the house", "gather in the hallway" and "carry the piano together"

(Williams 1980, Link 1983, Wurmbrand 2001). As illustrated by the contrast in (22), *weirao* ‘surround’ requires a plural subject or associate.

- (22) a. 那些士兵圍繞房子
b. *那個士兵圍繞房子

Like in English, *try*-type control verbs such as *jueding* ‘decide’ and *jihua* ‘plan’ in Chinese allow non-obligatory control as shown in (23b).

- (23) a. 那些將軍決定圍繞房子
b. 那個將軍決定圍繞房子

If climbing of *suo* is associated with restructuring and thus obligatory control, the embedded infinitives are expected to exhibit only obligatory control and (24b) should be ill-formed, contrary to fact.

- (24) a. 那些將軍所決定圍繞的房子
b. 那個將軍所決定圍繞的房子

On the other hand, modal constructions exhibit obligatory control as illustrated in (25). This is expected given the analysis that modal constructions involve a functional restructuring infinitive.

- (25) a. 那些士兵應該圍繞房子
b. *那個士兵應該圍繞房子

Furthermore, according to Wurmbrand, restructuring in German requires simultaneous tense. Long passives, argued to involve a restructuring context, do not allow future adverbials, which are assumed to be associated with future tense ((26a)). In contrast, future adverbials are possible in the absence of long passives. The impersonal passive example in (26b), which involves an independent future tense in the infinitive, is argued to involve a non-restructuring infinitive.

- (26) a. Dem Kind wurden nur Kekse (*morgen) zu essen erlaubt
the child-DAT were only cookies (*tomorrow) to eat allowed
‘The child was only allowed to eat cookies tomorrow.’
b. Dem Kind wurde erlaubt (?morgen) einen Kuchen/Kekse zu essen
the child-DAT was allowed (?tomorrow) a cake-ACC/cookies to eat
‘The child was allowed to eat a cake/cookies (tomorrow).’

Similarly, clitic climbing in Romance is also well-known in exhibiting what is called the ‘tense-merge’ phenomenon and clearly shows restructuring.

- (27) a. Oggi, vorrei finirlo domain
‘Today (I)-would like to finish-it tomorrow.’
b. ?? Oggi, lo vorrei finire domain
‘Today, (I)-would like to finish-it tomorrow.’

When we turn to Chinese, the infinitival complement of predicates like *jueding* ‘decide’ is allowed to contain a temporal adverbial like *jinnian* ‘this year’ as in (28a). If climbing of *suo* also involves restructuring, then different temporal adverbials in the embedded and in the matrix clause should not be allowed because this would result in tense conflict. But this predication is not borne

out as in (28b).

- (28) a. 我們去年決定今年一定要購買那本書
b. ?我們去年所決定今年一定要購買的書

In contrast, such conflicting temporal adverbials are not acceptable in modal constructions as in (29) although temporal adverbs may precede or follow modals as in (30). This indicates that modal constructions necessarily involve simultaneous tense.

- (29) 我們去年應該購買的書
我們應該明年購買的書
(30) *我們去年應該今年一定要購買的書

Another property that is associated with restructuring, according to Wurmbrand, is lack of an embedded subject. For her, this is due to a restructuring infinitive being a bare VP and thus an embedded subject fails to be licensed. The lack of an embedded subject in restructuring infinitives is also reflected by the well-known SSC effects of clitic climbing in Romance (see the discussion in section 3.1). Turning now to the case of climbing of *suo* in Chinese, we find that it is possible with an object control construction, which clearly presents a contrast with those languages suggested to involve restructuring. This indicates that such constructions do not involve restructuring.

- (31) 我所要求李四完成的任務

Given the above discussion, we conclude that in contrast to clitic climbing in Romance, which necessarily exhibits restructuring effects, climbing of *suo* in Chinese splits to two types: those involving control/raising constructions do not display restructuring effects whereas those involving modal constructions do. This follows from our analysis that the former constructions are bi-clausal structures and thus two INFL domains where *suo* may be situated whereas the latter constructions have only one INFL domain. The crucial structural difference between these two types of climbing of *suo* thus lies in adopting an INFL category analysis but not a control/raising verb analysis of modals. One such proposal is made by Hsu (2005) and Hsu and Ting (in progress).

A predominant analysis of modals in Chinese may be the one proposed by Lin and Tang (1995). According to them, epistemic/deontic modals are analyzed as raising verbs and dynamic modals are analyzed as control verbs. Hsu (2005) and Hsu and Ting (in progress), in contrast, argue that this analysis does not provide an adequate account for the facts of modals in Chinese. e.g. It is well-known that a strict ordering is indicative of functional categories rather than of lexical categories. The three types of modals in Chinese are shown to have a strict ordering among them. i.e. epistemics must precede deontics and deontics in turn precede dynamics. There is no such restriction imposed on the class of control verbs and of raising verbs. Consider (33), in which control verbs may precede raising verbs. The strict ordering among types of modals in (32) thus suggests that each type of modals constitute a functional projection in the split-INFL domain.

- (32) a. 張三可能可以會說三十種語言
b. 張三應該得敢唱歌 (不然怎麼參加歌唱比賽)
c. 張三應該可以能夠趕上這班車(還有三分鐘,而且張三跑得很快)
d. 張三應該得肯說阿拉伯語 (才有機會當外交官)
(33) He tried to appear to be heroic.

The relevant partial structure proposed by Hsu (2005) and Hsu and Ting (in progress) to capture the structural distinction among the three classes of modals is: TP > Epistemic P > Shi P > Deontic P > Dynamic P.

Returning to the discussion of the distribution of *suo* in the modal constructions, a natural question that arises under a split-INFL framework concerns the landing site of *suo*. Assuming that the N to I analysis of *suo* proposed by Ting (2003) is on the right track, then we are led to claim that *suo* must adjoin to a functional projection within the INFL domain. Let's label such a functional projection FP, following the term used for a clitic projection by Uriagereka (1995). Given the pre-modal position of *suo* in (16-17), then FP must be higher than the projection of epistemic modals in the clausal hierarchy of Chinese. In addition to this higher clausal position, it is necessary to note that *suo* may also occur before any of the modals in a string of them.

- (38) a. 他可能所應該會唱的歌
b. 他可能應該所會唱的歌
c. *他可能應該會所唱的歌
d. *他可能應該所唱的歌

In light of this, we are led to claim that FP, which *suo* adjoins to, may also be licensed by modals. A comparable situation arises in Italian, where, according to Cardinaletti et al. (2004: 541), besides default positions for clitics, semi-functional categories, i.e., motion verbs make an additional clitic position available. The exact nature of FP is being explored by Ting (in progress). The issues surrounding FP in Chinese are by no means trivial but due to limitation of scope of this project, they will be addressed in a separate paper.

Other findings of this project include, among others, (a) defending the head movement approach to clitic climbing proposed by Kayne (1989b, 1991) and his followers when applied to the Chinese facts, and (b) an innovated version of the derivation of *suo*: generated in D, *suo* undergoes successive cyclic head movement to adjoin to FP in the INFL while relativization takes place from the complement position of DP headed by *suo* (cf. Uriagereka 1989, 1995). (c) Contrary to Hu, Pan and Xu's claim (2003), Chinese exhibits finite/non-finite clause distinction. Due to space limitation, arguments cannot be provided here. The readers are referred to a fuller version of this report in Ting (to appear).

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Self-Evaluation of the Project Result

The main findings of this project have been summarized earlier. In the submitted proposal of this project, I proposed to investigate the mechanism of clitic movement and clause structure of Chinese. Given the results of this project and the proposed goals in the submitted proposal, I thus consider the major goals of this project have been achieved.

In terms of the academic value of these research results, some of them will be presented at the 2006 Annual Meeting of the Linguistic Society of America in Albuquerque, NM, on 5-8 January. I will then incorporate the comments and suggestions made by the audiences before submitting the results to academic journals.