

ON THE SYNTAX OF THE *SUO* CONSTRUCTION IN CLASSICAL CHINESE

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ABSTRACT

This paper investigates the *suo* construction in Classical Chinese and attempts to provide a proper syntactic analysis of it by comparing it with its modern Chinese counterpart. I extend and modify Ting's (2003a) analysis of the modern *suo* construction to account for the Classical *suo* construction. Like its counterpart in modern Chinese, the Classical *suo* is a clitic in overt syntax, raising from N^0 to I^0 in overt syntax. This explains its fixed position with respect to other elements in the clause, as well as the fact that it may stand for grammatical object, location, but not grammatical subject. The reason why it may stand for manner and reason as well as grammatical object of a preposition, in contrast to the modern *suo*, is due to different categorial status of coverbs in modern and Classical Chinese; namely, that modern Chinese prepositions are in fact verbs in Classical Chinese. Unlike the modern *suo*, which is a variable, the Classical *suo* undergoes further movement from I^0 to C^0 at LF to fulfill its operator status. I argue that this explains why *suo* is optional in modern Chinese, but obligatory in Classical Chinese. This analysis echoes the conventional wisdom, which may be traced back to Ma (1898) that the classical *suo* is a relative pronoun. But crucially I argue that *suo* is such a pronoun, not in the overt syntax, but at LF.

1. INTRODUCTION

Studies of relative clauses in Mandarin Chinese have long noticed the optional occurrence of the particle *suo* before a transitive verb in relatives (Chao (1968), Li (1947), T. Tang (1977), among others), exemplified in (1).

- (1) renmin suo chi de sumi
people SUO eat DE barley
'the barley that people eat'

This usage of *suo*, in fact, is a remnant from Classical Chinese, as illustrated by the underlined *suo* sequences in (2).

- (2) 民所食之粟 (adapted from (孟子、滕文公))
min suo shi zhi su (adapted from Mengzi.Tengwengong)
people SUO eat ZHI barley
'the barley that people eat'

In this article, which compares the classical *suo* with its remnant in modern Chinese, I'm taking an approach along the lines of Ma's (1898), i.e. the classical *suo* is a relative pronoun, but contra his in two important respects: first, *suo* behaves like a relative pronoun, not in the overt syntax, but at LF; second, *suo* is an X^0 pronominal element, rather than simply a pronoun. This analysis is an extension of Ting's (2003a) analysis of the modern *suo*. More specifically, I propose that *suo* in Classical Chinese is an X^0 pronominal element, heading an NP in the corresponding theta-position of the head noun of the relative clause in the overt syntax, and that it is a relative operator at LF, technically characterized as bearing a [+wh] feature. Due to a morphological requirement, *suo* undergoes subsequent raising to I^0 in the overt syntax and then further raises to C^0 at LF in order to check off the [+wh] feature. This analysis will be shown to provide a proper analysis of *suo* in Classical Chinese and account for its syntactic behavior which would be otherwise left mysterious in previous analyses. This article is organized as follows: Section 2 presents basic facts of the classical *suo* and previous analyses of it. Section 3 lays out more patterns of the classical *suo* construction and suggests they also involve a relative clause structure. Before arguing that the classical *suo* also undergoes N^0 to I^0 movement like its modern counterpart in Section 5, I review the A'-bound clitic analysis of the modern *suo* put forth by Ting (2003a) in Section 4. Section 6 presents arguments for the further I^0 to C^0 movement of the classical *suo* at LF, which contrasts with requirement of the modern *suo* to stay in the I^0 position. Section 7 then deals

with some apparent problems of the proposed LF operator analysis of *suo* in Classical Chinese relatives and points out a promising approach to *suo* in Classical Chinese passives. Section 8 concludes this article.

2. BASIC FACTS AND PREVIOUS ANALYSES

The modern *suo* and classical *suo* are like and unlike each other in many respects. Consider the similarities first. Like the modern *suo*, which is most typically licensed in a relative clause modifying a nominal, the classical *suo* also occurs in a nominal.² The nominal status of the classical *suo* construction is generally agreed on (e.g. Qi (1992, p. 6) and Yi (1989, p. 196), as evidenced by its distribution as a regular nominal phrase. For example, like a regular nominal phrase, it may be a grammatical subject (3a), nominal predicate (3b), grammatical object of a verb (3c) and of a preposition (3d), or a nominal modifier followed by *zhi* (3e). (The examples below taken from Yi (1989))

(3) a. 其所厚者薄，而其所薄者厚，未之有也。（礼记、大学）

qi suo hou zhe bo er qi suo bo zhe hou wei zhi
his SUO thick ZHE thin ER his SUO thin ZHE thick not ZHI
you ye (Liji.Daxue)
have YE

‘Treating what is close to him unimportant, but treating what is far from him precious, there is no such thing.’

b. 此六子者，世之所高也。（庄子、盗拓）

ci liu zi zhe shi zhi suo gao ye
this six person ZHE world ZHI SUO admire YE

‘These six people *(are) people the world admire.’ (Zhuangzi.Daotuo)

c. 行法志坚，好修正其所闻，以矫饰其情性。（荀子、儒效）

xing fa zhi jian hao xiuzheng qi suo
behavior legitimate will determined like correct he SUO
wen yi jiaoshi qi qingxing (Xunzi.Ruxiao)

hear YI modify his nature

‘His behavior is reasonable and his will is determined; he likes to correct what he heard in order to modify his nature.’

d. 以其所受，悖其所辞，则能禁之矣。（荀子、正名）

yi qi suo shou bei qi suo ci ze neng jin zhi yi
with his SUO bear violate his SUO words so can forbid ZHI Yi
(Xunzi.Zhengming)

‘He uses what he receives to contradict what he speaks, so it is possible to rid him of this weakness.’

- e. 凡说者之务，在知饰所说之所矜，而灭其所耻。（韩非子、说难）

fan shuo zhe zhi wu zai zhi shi suo shuo zhi suo
all persuade ZHE ZHI tip exist know modify SUO say ZHI SUO
jin er mie qi suo chi (Hanfeizi.Shuonan)

proud ER eliminate his SUO shame

‘The tip of persuading depends on knowing to boast (for him) what he feels proud of and cover what he feels ashamed of.’

Given the closely similar interpretations between (1) and (2), I tentatively assume that the classical *suo* construction, as a nominal, is also modified by a relative clause, which licenses the occurrence of *suo*, just like its modern Chinese counterpart. Later in Section 3, I will elaborate on this suggestion.

Moreover, *suo* in both modern and Classical Chinese may be licensed in a clause, where a grammatical object, location, but not grammatical subject, is relativized.

(4) Modern Chinese:

- a. Lisi suo ai de ren (grammatical object)

Lisi SUO love DE person

‘the person that Lisi loves’

- b. Lisi suo fuwu/gongzuo de jigou/difang ; women suo

Lisi SUO serve/work DE organization/place ; we SUO

shengcu de shehui (location)

live DE society

‘the organization/place where Lisi serves/works; the society that we live’

- c. *suo ai Lisi de ren; *suo meiyou touzou naxie

SUO love Lisi DE person; SUO haven’t steal:away those

shoushi de xiaotou (grammatical subject)

jewelry DE thief

‘the person that loves Lisi; the jewelry that wasn’t stolen by the thief’

(5) Classical Chinese:

- a. 良人者所仰望而终身也，今若此！（孟子、齐人有一妻一妾）
liang ren zhe suo yangwang er zhongshen ye jin ruo ci
good person ZHE SUO admire and all:life YE now like this
(Mengzi.Qiren you yi qi yi qie) (grammatical object)
‘Good person *(is) someone that one admires and relies on for the
whole life; now it is like this.’
- b. 其北陵，文王所避风雨也。（左传、僖公三十二年）(location)
Qi bei ling Wen wang suo bi feng yu ye
that north mountain WEN king SUO avoid storm rain YE
(Zuozhan.Xigong sanshier nian)
‘That mountain in the north *(is) where King Wen sheltered from the
storm.’
- c. * 所耕田之牛；*所食粟之民 (grammatical subject)
suo geng tian zhi niu; suo shi su zhi min
SUO plow field ZHI cattle; SUO eat barley ZHI people
‘the cattle that plowed the rice field; the people that eat the barley’

Another similarity between the modern and classical *suo* is its position with respect to other elements in the clause. As pointed out by Chiu (1995), *suo* in modern Chinese must occupy a position lower than NP-subjects and sentential adverbs, but higher than negation, manner adverbs and verbs, as indicated in (6a) with the example in (6b).

- (6) a. NP-subject S-level-adv SUO Neg manner-adv verb NP-object (Chiu (1995, p.84))
- b. [Lisi (*suo) dagai suo meiyou (*suo) henhende (*suo)
Lisi SUO probably SUO not-have SUO severely SUO
piping [e]] de naxie ren
criticize DE those person
‘the people that Lisi probably didn’t severely criticize’
(adapted from Chiu (1995), (30, 31), p. 84)

Likewise, *suo* in Classical Chinese and the verb may be intervened by adverbs (7a), negation markers in (7b), auxiliary verbs in (7c), or preposition phrases (7d), and may be preceded by temporal adverbs, a type of sentence-level adverb, in (8).

(7) a. 和氏璧，天下所共传宝也。(史记、廉颇蔺相如列传)

He shi bi tianxia suo gong chuan bao ye
HE surname jade the:world SUO together recognize treasure YE
(Shiji.Lianpo Linxiangru Liezhuan)

‘The jade Heshi *(is) the treasure that is unanimously recognized by the world.’

b. 死亦吾所恶，所恶有甚于死者，固患有所不避。(孟子、告子上)

si yi wu suo wu suo wu you shen yu si zhe gu
death also I SUO hate SUO hate have more YU death ZHE so
huan you suo bu bi (Mengzi.Gaozishang)

fear have SUO not avoid

‘Death is what I hate. But there is something that I hate more than death. Thus, when disaster comes, I don’t avoid it.’

c. 如使置十叶焉，则中不中非臣所能必矣。(郁离子、求道)

ru shi zhi shi ye yan ze zhong bu zhong fei chen suo
if make place ten leaves YAN ZE hit not hit not I SUO
neng bi yi (Yulizi.Qiudao)

can certain YI

‘If the leaves are placed there, in that case whether to hit the target or not is not what I am certain of.’

d. 法者，天子所与天下公共也。(汉书、张释之传)

fa zhe tianzi suo yu tianxia gonggong ye
law ZHE emperor SUO with the:world share YE
(Hanshu.Zhangshizhi zhuan)

‘The law *(is) what the king shares with the world.’

(8) 伍子胥初所与俱亡 (史记、伍子胥列传)

Wuzixu chu suo yu ju wang (Shiji.Wuzixu liezhuan)

Wuzixu early SUO with together die

‘the people that Wuzixu died with earlier’

Despite these similarities, the modern and classical *suo* also contrast in several respects. First, the modern *suo* does not occur in a clause where reason (9a), manner (9b) or grammatical object of a preposition (9c), is relativized, in contrast to the classical *suo* in (10), (11) and (12).

- (9) a. *[Lisi suo piping Zhangsan] de yuanyin (reason)
 Lisi SUO criticize Zhangsan DE reason
 ‘the reason that Lisi criticized Zhangsan’
- b. *[Lisi suo zuo shi] de fangfa (manner)
 Lisi SUO do thing DE method
 ‘the way that Lisi does things’
- c. *[jian suo cong ___ diaoxialai] de difang
 sword SUO from fall:down:come DE place
 (grammatical object of a preposition)
 ‘the place which the sword fell down from’
- (10) 邪秽在身，怨之所构。(荀子、劝学) (reason)
 xie hui zai shen yuan zhi suo gou (Xunzi.Quanxue)
 evil dirtiness exist body grudge ZHE suo constitute
 ‘The evil and dirtiness are in the body. This is the reason why hatred is accumulated.’
- (11) 他日，子夏、子张、子游以有若似圣人，欲以所事孔子事之。
 tari Zixia Zizhang Ziyou yi Youruo si shengren
 the:other:day Zixia Zizhang Ziyou because Yourou resemble saint
 yu yi suo shi Kongzi shi zhi (孟子、滕文公) (manner)
 want with SUO serve Confucius serve he(Mengzi.Tengwengong)
 ‘The other day, Zixia, Zizhang and Ziyou wanted to serve Yourou in the way they served Confucius because he resembled him.’
- (12) a. 未有知其所由来也 (荀子、正论)
 wei you zhi qi suo you lai ye (Xunzi.Zhenglun)
 not have know it SUO from come YE
 ‘No one knows where it came from.’
- b. 是吾剑之所从坠。(吕氏春秋、察今)
 shi wu jian zhi suo cong zhui (Lushichunqiu.Chajin)
 is my sword ZHI SUO from fall

‘It is the place where my sword fell from.’

Another difference between *suo* in Classical and modern Chinese concerns its optionality. In modern Chinese, the occurrence of *suo* is optional, as shown by the well-formedness of (13).

- (13) renmin (suo) chi de sumi
people SUO eat DE barley
‘the barley that people eat’

In contrast to its optionality in modern Chinese (see Dong (1998) for similar remarks), *suo* is obligatory where it is licensed in Classical Chinese, as shown in (14) (see Yao (1998)), (15) (see S. Xu (1963)) and (16).

- (14) 民*(所)食者
min suo shi zhe
people SUO eat ZHE
‘what people eat’
- (15) 民*(所)食之粟
min suo shi zhi su
people SUO eat ZHI barley
‘the barley people eat’
- (16) 民*(所)食
min suo shi
people SUO eat
‘what people eat’

The proper analysis of the *suo* construction in classical Chinese has long been a controversial issue. There have been two main approaches: *suo* as a pronoun of some sort and *suo* as a construction particle (i.e. *jie gou zhu ci*). The former is taken by Ma (1898), according to whom *suo* is a *jie du dai zi* “connective pronoun”, *ding jie qian wen* “connecting to the previous text”. This analysis is further developed by Liu (1937) to be that *suo* is an equivalent of relative pronouns such as *who* or *which* in English. Likewise, L. Wang (1958),

Yi (1989) and S. Zhou (1993), among others, also consider *suo* a special pronoun. The latter approach, on the other hand, is pursued by F. Zhou (1961), S. Lu (1974), K. Wang (1982), D. Zhu (1983),³ Yang and He (1992), Ye et al. (1992), among others, who all regard *suo* as a particle of some sort preceding verbs or verb phrases to form nominal constructions, referring to the object of the predicate. In addition to these two main approaches, *suo* is considered to be an affix by Yang (1955) and Xu (1966). Along this line of reasoning, it must be the case that *suo* attaches to either a verbal stem or a preposition stem in the lexicon. Those facts in (8) and (12), however, indicate that *suo* cannot be derived this way. If *suo cong zhui* in (12b) is a lexical word, it means *suo* is affixed to *cong zhui* in the lexicon, but it is not clear what lexical rule may link *cong* and *zhui* together in the lexicon. Also, in spirit with the (extended) lexical hypothesis, put forth by Jackendoff (1972), no syntactic rules have access to formation of words. Thus, a *fast employ-ee* does not have the intended meaning that the person was employed fast, with *fast* modifying *employ*. Given this, it then looks surprising that an adverb in (8) may modify the verb in the *suo* string, which should not be allowed if the *suo* string is a word formed in the lexicon. I will thus dismiss the affix approach.

In this article, then, which compares the classical *suo* with its remnant in modern Chinese, I'm taking an approach along the lines of Ma's (1898), i.e. the classical *suo* is a relative pronoun, but contra his in two important respects: first, in my view *suo* behaves like a relative pronoun, not in the overt syntax, but at LF; second, *suo* is an X⁰ pronominal element, rather than simply a pronoun. This analysis, an extension of Ting's (2003a) analysis of the modern *suo*, will be shown to provide a proper analysis of *suo* in Classical Chinese and account for its syntactic behavior which would be otherwise left mysterious in previous analyses.

3. STRUCTURES OF A RELATIVE CLAUSE INVOLVED

In this section, I propose that the classical *suo* construction also involves structures of a relative clause, like its modern Chinese counterpart. To begin with, consider relatives with an empty head noun in modern Chinese, the other type of relative clause where *suo* is licensed:

(17) ni suo zuo de
you SUO do DE
'what you did'

The head noun of the relative clause in (17) is not overtly expressed, thus constituting a parallel with free relatives like in English (18).

(18) [What people eat] is not expensive.

Taking into consideration the optionality of *suo* in modern Chinese, we get the basic patterns in (19):

(19) (N) (suo) V de (N)

Next, consider more patterns where the classical *suo* is licensed. We have seen the *suo* V sequences containing a *zhi* NP illustrated in (2). The particle *zhi*, actually, need not occur, as in (20). The presence of *zhi* is noted by Qi (1992) to emphasize the nominal following it. According to Yi (1989), this pattern, not common in the pre-Qin period, did not get popular until the Han dynasty.

(20) 彼显有所出事，而乃以成他故。(韩非子、说难)
bi xian you suo chu shi er nai yi cheng ta
that obviously have SUO out thing ER thus with accomplish other
gu
reason (Hanfeizi.Suonan)
'He apparently achieved things that he did, yet then using it to accomplish
other things.'

The *suo* V sequence may also consists of only *suo* and a verb in (21).

(21) 所损益可知也。(论语、为政)
suo sun yi ke zhi ye (Lunyu.Weizheng)
SUO lose gain can know YE
'What is lost and gained can be known.'

Furthermore, the *suo* V sequence may be preceded by a nominal standing for the agent,⁴ with an optional *zhi* in between, as in (22). This is noted by Qi (1992) as a rather typical pattern of the *suo* construction in Classical Chinese.

(22) 吏之所诛，上之所养也。(韩非子、五蠹)

li zhi suo zhu shang zhi suo yang ye (Hanfeizi.Wudu)
officials ZHI SUO kill top ZHI SUO keep YE
'The people that the officials want to kill *(are) those the king keep.'

Another type of element that may follow the *suo* V sequence is *zhe*, a pronoun according to Pulleyblank (1995). In this case, the occurrence of *zhi* between *suo* and *zhe* is not attested. This pattern, as Qi (1992) notes, is rare in the literature.⁵

(23) 君大怒曰：所求者生马，安事死马，而捐五百金？(战国策、燕策)

jun da nu yue suo qiu zhe sheng ma an shi si ma er
king big rage say SUO ask ZHE living horse where buy dead horse ER
juan wubai jin (Zhanguoce.Yance)
lose five:hundred money
'The king said with rage, "I asked for a living horse. Why did you buy dead horses? And I lost five hundred Jin.'

The above-mentioned elements which may precede or follow the *suo* V sequence in the *suo* construction may occur simultaneously.

(24) 易牙先得我口之所嗜者也。(孟子、告子上)

a. Yiya xian de wo kou zhi suo shi zhe ye
Yiya first get my mouth ZHI SUO like ZHE YE
'Yiya got what my mouth likes first.' (Mengzi.Gaozishang)

b. 仲子所居之室，伯夷之所筑乎？(孟子、滕文公下)

Zhongzi suo ju zhi shi Boyi zhi suo zhu hu
Zhongzi SUO live ZHI room Boyi ZHI SUO build HU
(Mengzi.Tengwengongxia)

‘the room that Zhongzi lives, the place Bouyi built?’

c. 独籍所杀汉军数百人。(史记、项羽本纪)

du Ji suo sha Han jun shu bai ren

only Ji Suo kill Han army several hundred person

(Shiji.Xiangyu benji)

‘The Han soldiers that were killed by Ji alone are a few hundred.’

Taking into consideration the obligatory occurrence of *suo* we have mentioned in Section 2, the basic patterns of the classical *suo* are summarized in (25):

(25) (N (zhi)) suo V (zhe)
((zhi) N)

Given the close similarity in terms of interpretation, it is thus reasonable to postulate that the *suo* construction in Classical Chinese also has the structure of relative clauses. More specifically, I propose the (partially relevant) structures in the overt syntax as in (26):

(26) a. [NP [CP 民所食] (之) 粟]

[NP [CP min suo shi] (zhi) su]
people SUO eat ZHI barley

‘the barley that people eat’

b. [NP [CP pro 所 食] pro]

[NP [CP pro suo shi] pro]
SUO eat

‘what someone eats/what some people eat’

c. [NP [CP 民 所 食] pro]

[NP [CP min suo shi] pro]
people SUO eat

‘what people eat’

d. [NP [CP 民所食t] 者]

[NP [CP min suo shi t] zhe]
people SUO eat ZHE

‘what people eat’

Instances like (26a) have an explicit head noun *su* ‘barley’ and *min suo*

shi is in a CP modifying the head noun. I assume the optional *zhi* to be inserted at PF.⁶ Instances like (26b-d), on the other hand, involve relative clauses with an interpretation of free relatives as in English (18) above. According to Alexiadou, Law, Meinunger and Wilder (2000), it has been generally agreed that the *wh*-phrase in free relatives occupies Spec CP; contra the early proposals to take the *wh*-phrase as the head in a Case-marked position (Bresnan and Grimshaw (1978)), they claim that the structure with an abstract head is conceptually favored. For the purpose of concreteness, I adopt the pro-head hypothesis (Borsley (1984), Harbert (1983), Suner (1985).) Thus, free relatives (26c) and (26d) have an empty pronoun *zhe* and an overt pronoun as the head noun of relatives respectively. Finally, the free relative (26b) has both an empty head noun and an empty subject in the relative clause.

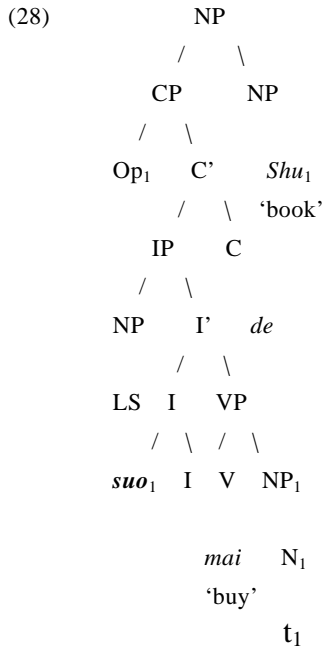
Having established that the *suo* construction in Classical Chinese, like its modern Chinese counterpart, also has a structure of relative clauses, I will extend and modify the analysis of the modern *suo* proposed by Ting (2003a) to account for the similar and contrasting behaviors of the classical *suo*. It is, therefore, necessary for us to consider the facts and analysis of the modern *suo* put forth in Ting (2003a), where *suo* is analyzed as an A'-bound resumptive clitic.

4. THE A'-BOUND RESUMPTIVE CLITIC ANALYSIS OF THE MODERN *SUO*

The existence of such elements in natural languages can be found in colloquial Czech (27), taken from Comrie (1981).⁷

(27) muz co ho to devce uhodilo
 man that him that girl hit
 'the man that that girl hit'

Now consider the structure in (28) which I suggest underlies a relative clause containing *suo*. Since *de* is obligatory even in free relatives, I assume, with Sybesma (1999), D. Xu (1997), that it is a complementizer.



Here *suo* is base-generated as the head of the NP in the complement of verb position, and bound by a null operator base-generated in SpecCP. Assuming that a head and its maximal projection share the same set of features, *suo* carries the same index as the null operator and is thus A'-bound. Due to a morphological requirement, *suo* undergoes cyclic movement out of the NP it heads and adjoins to I⁰, just as Romance clitics do (Burzio (1986), Kayne (1989) and Pollock (1989), among others, cf. Baltin (1982)). Such movement will importantly be subject to the Head Movement Constraint (29) (Travis (1984), which can be reduced to the Empty Category Principle as in Chomsky (1986) and Baker (1988)(30):

(29) Head Movement Constraint (HMC)

An X⁰ may only move into the Y⁰ which properly governs it.

(30) Empty Category Principle (ECP)

- a. Traces must be properly governed.
- b. A properly governs B iff A lexically governs or antecedent-governs B.

For ease of presentation, the intermediate steps to I^0 are not indicated. And note that *suo* moves by itself without taking the adjoined heads along with it, just as French VP-related clitics do. Possible accounts for such a phenomenon include Y. Li (1990) and Roberts (1991). Note further that in structure (28), the modern *suo* is A'-bound by a null operator in the overt syntax (and at LF). More arguments in favor of this A'-binding structure are to be given in Section 6.

This A'-bound clitic analysis of the modern *suo* explains a wide range of its features. Those relevant to the current discussion are reviewed below.

First of all, the A'-bound clitic analysis immediately accounts for the fixed position of *suo* in the clause in (6a), as observed by Chiu (1995), illustrated in (6b). Assuming that there is no overt V-to-I movement in Chinese unlike languages such as French (J. Tang (1990), Cheng and Li (1991), S. Tang (2001)), and that sentential adverbs and manner adverbs are respectively licensed by the I projection and a functional category immediately dominating VP (J. Tang (1990, 2000), Bowers (1993) cf. (Travis (1988))), the surface position of *suo* as indicated in (6) can be taken to correctly reflect that of I^0 .

The A'-bound clitic analysis of *suo* in modern Chinese also accounts for the asymmetry that the modern *suo* may stand for locative (4b), but for reason or manner expressions (9a, b), or for the grammatical object of a preposition (9c-e). This asymmetry arises because the locative (and temporal) phrases are selected by the predicate, whereas the reason and manner phrases, as well as a prepositional phrase, are not. The former thus do not constitute a barrier for the head movement of *suo* to I^0 , but the latter do. Evidence in support of the selectional contrast among these adjuncts is based on the paradigm in (31): locative and temporal phrases (31a, b) pattern on a par with argument NPs (32) (cf. (Huang (1982))), but in contrast with reason and manner phrases (31c, d), in that they are capable of moving to the sentence-initial position from inside an indirect question.

- (31) a. ?(Zai) neiyi tian₁, ta xiang zhidao [shei t₁ shu-le qiu]
 at that day he want know who lose game
 ‘On that day, he wonders who lost the game.’
 b. Zai neige difang₁, ta xiang zhidao [shei t₁ zuo-le henjiu]

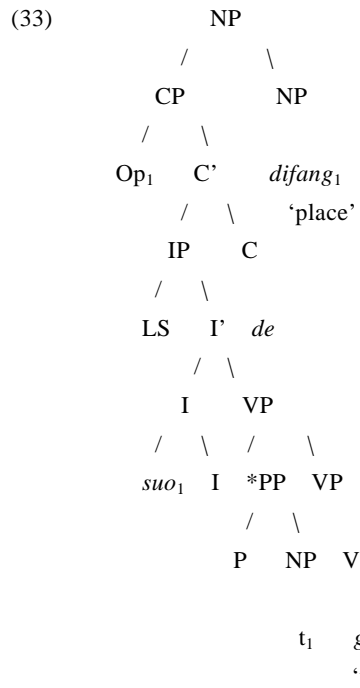
at that place he want know who sit-ASP for-a-long-time
 ‘At that place, he wonders who sat for a long time.’

c. *Yinwei neige yuanyin₁, ta xiang zhidao [shei t₁ ku-le
 because that reason he want know who weep-ASP
 henjiu]
 for-a-long-time

‘Because of that reason, he wonders who wept for a long time.’

d. ?*Yong neige fangfa₁, ta xiang zhidao [shei t₁ jiejie-le nanti]
 with that method he want know who solve-ASP problem
 ‘With that method, he wonders who solved the problem.’

(32) Neige ren₁, ta xiang zhidao [shei piping-le t₁]
 that person he want know who criticize-ASP
 ‘That person, he wonders who criticized [him].’



In the structure (33), if *suo* is base-generated in a selected PP (headed by an empty P), its extraction from the PP and movement to I⁰ will not violate the

ECP. Reason and manner expressions, on the other hand, are not selected and will introduce barriers for the trace of an extracted *suo*, so that raising of *suo* to I^0 in such cases will be ill-formed. This explains why *suo* in modern Chinese may stand for locative expressions, but not manner and reason expressions.

Another fact that follows from the A'-bound clitic analysis of the modern *suo* is its failure to stand for a grammatical subject: the so-called subject/object asymmetry as illustrated by the contrast between (4a) and (4c). Syntactic cliticization in the sense of Kayne (1975, 1983), as a sub-case of head movement, shows subject/ object asymmetry. Thus there are object and dative clitics, but no syntactic subject clitics in French (Kayne (1983: 123-24)) and in Italian (Rizzi (1986: 392)). The subject/object asymmetry in fact holds generally for head movement, e.g. noun incorporation in Baker (1988).

The above arguments are thus in favor of an A'-bound clitic analysis of the modern *suo*. Given the close semantics between the *suo* construction in modern and Classical Chinese, it will be desirable if the analysis of the modern *suo* can be extended to the classical *suo*. I will suggest that this expectation is fulfilled only partially. Like its modern counterpart, the classical *suo* also occurs in structures of a relative clause (discussed in Section 3) and undergoes N^0 to I^0 movement in the overt syntax (to be discussed in Section 5); but unlike in modern Chinese, *suo* further moves from I^0 to C^0 at LF to realize its operator status (to be discussed in Section 6).

5. N^0 TO I^0 MOVEMENT OF THE CLASSICAL *SUO* IN OVERT SYNTAX

I now extend the A'-bound clitic analysis of the modern *suo* to account for the facts of the classical *suo*. If *suo* in Classical Chinese raises from an NP it heads to the I^0 position, like its modern Chinese counterpart, we immediately account for two types of facts of it; namely, that it may stand for grammatical object (5a), location (5b, c), but not grammatical subject (5d), as well as its position with respect to other elements in the clause, exemplified in (7) and (8). The facts of the classical *suo* exactly parallel those of the modern *suo*. The N^0 to I^0 movement analysis of *suo* in the overt syntax thus readily carries over to its counterpart in classical Chinese.

It may, however, appear surprising that the classical *suo*, in contrast to its modern Chinese counterpart, may stand for manner/reason phrases in (10) and

(11) and the grammatical object of a preposition in (12). I will argue that these facts also follow from the clitic analysis of *suo* if a certain independent syntactic difference between the Classical and modern Chinese is taken into consideration; namely, that prepositions in modern Chinese are actually of the verbal status in Classical Chinese. The so-called prepositions in Classical Chinese, a closed class of morphemes also termed as coverbs, are claimed to be transitive verbs at earlier stages of the language, according to Li and Thompson ((1974), citing L. Wang (1958)). (The following examples are quoted from Li and Thompson (1974)).

(34) 必操尔杖以从之 (礼记)

bi cao er zhang yi cong zhi. (Li ji)
 must use your stick to follow (it)
 'You must wield your stick to follow it.'

Although as one of the reviewers points out, not all the prepositions in Classical Chinese behave uniformly, there is good reason to think that at least some of them behave like verbs. I will present two arguments. The first is based on the fact that the objects of coverbs like *yi* (以), *wei* (為) and *yu* (與), which may be inferred from the context, can be dropped ((Yi, (1989), Q. Xu (1997)) in (35). This is a behavior of verbs in (36) (Yi, (1989)).

(35) a. 小人有母，皆尝小人之食矣，未尝君之羹，请以__遗之。(左传、隐公元年)

xiaoren you mu jie chang xiaoren zhi shi yi
 small:person have mother all taste small:person ZHI food YI
 wei chang jun zhi geng qing yi wei ZHI
 not:yet taste king ZHI soup ask with give zhi

(Zuozhuan.Yingong yuannian)

'I have a mother, who eats my food all the time and hasn't tasted your majesty's soup. I'm asking you to give *(it) to her.'

(36) 司马牛忧曰：人皆有兄弟，我独亡__。(论语、颜渊)

Simaniu you yue ren jie you xiongdi wo du wu
 Simaniu worry say person all have brother I only no

‘Simaniu said worriedly, “people all have brothers, but I don’t have
*(brothers).’ (Lunyu.Yanyuan)

Coverbs also behave on a par with verbs in that they require their
interrogative pronominal object to be preposed before them in (37), a behavior,
again, of verbs, as shown in (38).

(37) 子归，何以报我？（左传、成公三年）

zi gui he yi bao wo (Zuozhuan.Chengong sannian)

you return how YI reward I

‘When you go back, how are you going to pay me back?’

(38) 吾谁欺？欺天乎！（论语、子罕）

wu shui qi qi tian hu (1Lunyu.Zihan)

I who cheat cheat sky HU

‘Who did I deceive? I deceived the heaven.’

Given that coverbs belong to the category of verbs in Classical Chinese,
now it should be clear why *suo* may stand for the object of a preposition in
Classical Chinese. The structure is exactly on a par with the structure with *suo*
moving from the complement position of a verb. Consider the representation in
the overt syntax in (39).

(39) [[吾剑之所₁从 t₁ 坠] pro₁]

[[wu jian zhi suo₁ cong t₁ zhui] pro₁]

my sword ZHI SUO from fall

‘the place where my sword fell from’

The trace left by the head movement of *suo* in the object position of the
preposition can be properly governed, and thus licensed.

This property of coverbs behaving as verbs in Classical Chinese is also
crucial to explain the contrast why *suo* may stand for reason and manner in
Classical Chinese, but not in modern Chinese. According to L. Wang (1976, p.
68), K. Wang’s (1982, p. 92) and Yi’s (1989, p. 199) observations, all the
instances of *suo* standing for manner, reason or locative can be followed by an

appropriate coverb, and may be interpreted as containing a dropped coverb. Given that coverbs belong to the category of verbs in Classical Chinese, I will translate the dropped coverb to be an empty verb. These instances at issue can thus be analyzed on a par with those where *suo* stands for grammatical object of the predicate, as in the representations in (40).

- (40) a. [[法之所₁ V_E t₁ 无用] pro₁] 也 (reason)
 [[fa zhi suo₁ V_E t₁ wu yong] pro₁] ye
 law ZHI SUO no use YE
 ‘the reason why the law is of no use’
- b. 大官大邑 , [[身之所₁ V_E t₁ 庇] pro₁] 也 (manner)
 da guan da yi [[shen zhi suo₁ V_E t₁ bi] pro₁]
 big official big territory body ZHI SUO shelter
 ye
 YE
 ‘High rankings and big territories *(are) what the life is sheltered by.’

6. I⁰ TO C⁰ MOVEMENT OF THE CLASSICAL *SUO* AT LF

We are now left with the last and also a crucial difference between *suo* in modern and Classical Chinese, namely, that it is optional in the former, but obligatory in the latter. To account for this fact, I propose that the classical *suo* undergoes further movement from I⁰ to C⁰ at LF.⁸ Since it lands in an operator position, it has an operator status. The modern *suo*, in contrast, stays in I⁰ and is A'-bound by a null operator in overt syntax, and thus a variable.

Let's first consider how we are led to such a proposal by considering the (non)-optionality contrast of *suo* in modern and Classical Chinese. In Modern Chinese, both movement and binding of null operator operation are available in the derivation of relative clause, as illustrated in (41).

- (41) a. [Op₁ [renmin chi ___₁]]de sumi₁ operator movement
 b. [Op₁ [renmin suo₁ chi ___₁]] de sumi₁ operator binding
 c. [Op₁ [___₁ chi sumi]] de ren₁ operator movement
 d. *[Op₁ [___₁ suo₁ chi sumi]] de ren₁ clitic movement not allowed

take a different approach, still along the line of having the representation containing *suo* in (42b) blocking that without *suo* in (42d), but this time from the perspective of fundamental difference between the nature of *suo* in modern and Classical Chinese. Suppose that instead of staying in I^0 , the classical *suo* is an operator and has to further move to C^0 at LF to realize its operator status. The two-stage derivation is illustrated in (43).

- (43) a. Before Spell-out: $[_{CP} [_{C'} \text{民所}_1 \text{食} t_1] [_{C^0}]] \text{之粟}_1$
 $[_{CP} [\text{min } suo_1 \text{ shi } t_1] [_{C^0}]] \text{zhi } su_1$
 people SUO eat ZHI barley
- b. At LF: $[_{CP} [\text{min } t_1 \text{ shi } t_1] [_{C^0} \text{suo}_1]] su_1$

Now how does the further LF movement of *suo* from I^0 to C^0 in (43b) block the overt null operator movement in (44)?

- (44) $[_{CP} \text{Op}_i [_{C'} \text{民食} t_1] [_{C^0}]] \text{之粟}_1$
 $[_{CP} \text{Op}_i [_{C'} \text{min } shi } t_1] [_{C^0}]] \text{zhi } su_1$
 people eat ZHI barley

Since both *suo* and the null operator move into CP, they qualify as operator of some sort. The crucial difference between them is that *suo* is a head and moves at LF, while the null operator is an XP and moves in the syntax. According to the economy principle (Chomsky (1991)), overt syntactic movement is more costly than LF movement. Let's further assume that moving a phrase is more costly than moving a head. This assumption is not unreasonable: whenever one can move a head, one would never move a phrase because phrasal movement always "pied-pipes" more stuff with it, and is thus less economical. As a result, the derivation in (43b) that involves head movement at LF blocks the derivation in (44), which involves XP movement in the syntax.

The modern *suo*, in contrast, stays in the I^0 position in the overt syntax and at LF. Being A'-bound by the null operator, it is a variable. The optionality of the modern *suo* follows from its variable status. To see this, let's assume Chao and Sells' (1983) and Sells' (1984) analysis that Hebrew-type resumptive pronouns are true variables, but English-type resumptive pronouns are not, but

E-type pronouns (following Evans (1980)). The former, but not the latter, may alternate with gaps and not restricted within islands (45), and in addition may have a quantificational NP as head noun of the relative clause (46).

- (45) a. Hebrew: ze ha-?is se (?oto) ra?iti ?etmol
 this the-man that him saw-I yesterday
 “This is the man that I saw (*him) yesterday.”
 b. English: I’d like to meet the linguist that Mary couldn’t remember if she had seen *(?him) before.
- (46) a. Hebrew: kol gever se dina xosevet se hu ?ohev et rina
 every man that Dina thinks that he loves Rina
 “Every man that Dina thinks loves Rina.”
 b. English: *I’d like to meet every linguist that Mary couldn’t remember if she had seen him before.

It is clear that the proposed resumptive clitic *suo* behaves on a par with the Hebrew-type, but not the English-type, resumptive pronouns. As shown in (47), *suo* may be optional and have a quantificational head noun. These facts support the proposed analysis of the resumptive clitic *suo* in modern Chinese as a variable.⁹

- (47) meiyige Lisi (suo) jiao-guo san nian de xuesheng
 every Lisi SUO teach-ASP three year DE student
 ‘Every student that Lisi taught (*him) three years.’

To reiterate, the modern *suo* is a variable, staying in I⁰ (after raising from N⁰), A’-bound by a null operator; the classical *suo* is an operator and must undergo further movement to C⁰ at LF to realize its operator status. In the latter case, the relative containing *suo* does not contain a null operator base-generated in SpecCP; so it is the further movement of *suo* to C⁰ that establishes an operator-variable relation for interpreting the structure as a relative. Moreover, the further movement of *suo* is also forced by its being an operator: it must move to an A’-position in order to bind a variable like any other operator. This analysis, in a sense, echoes the conventional wisdom which may be traced back to the idea

of “connecting pronoun” in Ma (1898). Liu (1937), pursuing Ma’s insight, treats *suo* as a relative pronoun like *who* or *which* in English. My analysis here crucially differs from such a line of reasoning in that *suo* is such a pronoun, not in the overt syntax like English, but at LF. This difference can be seen by comparing the classical *suo*, which has been argued to be a relative operator at LF, with the English relative pronoun, a relative operator in the overt syntax:

- (48) a. 此乃[吾听闻[李四所食]]
 ci nai wu tingwen Lisi suo shi
 this is I hear Lisi SUO eat
 ‘This is what I heard that Lisi ate.’
 b. *此乃[吾所听闻[李四食]]
 ci nai wu suo tingwen Lisi shi
 this is I SUO hear Lisi eat
 c. This is the thing which [I heard [Lisi ate]]

As shown in (48a), *suo* must remain in the clause containing the gap and cannot occur in a higher clause in (48b). This behavior clearly differs from the syntactic relative pronoun in English, which must move to a higher clause, as shown in (48c).

7. FURTHER DISCUSSION

In this section, I’d like to first consider some apparent counterexamples for the proposed analysis of *suo* in Classical Chinese and then examine the possibility of extending this analysis to *suo* in classical passive constructions. The first set of counterexamples concern the instances where a grammatical object is seemingly relativized without the occurrence of *suo*, as in (49).

- (49) a. 有不速之客三人来。(易经、需篇)
 you bu su zhi ke san ren lai (Yijing.Xupian)
 have not invite ZHI guest three person come
 ‘There are three guests that were not invited coming.’
 b. 有罪者必诛，诛者不怨上，罪之所生也。(韩非子、难三)

you zui zhe bi zhu zhu zhe bu yuan
 have crime ZHE must kill kill ZHE not hate
 king zui zhi suo sheng ye (Hanfeizi.Nansan)
 shang crime ZHI SUO reach YE
 ‘People who get the blame must be killed and they don’t hate the king,
 because their offenses caused it.

Examples with *zhe* in (49b), taken from D. Zhu (1983), are regarded by him as problems for his analysis that the particle *zhe* is used to “extract” subject, while the particle *suo* is used to “extract” object, since in these examples an object is “extracted” but the concurring particle is *zhe*, instead of *suo*.¹⁰ These examples and the one with a *zhi* NP in (49a) also pose problems for my analysis that *suo* must be obligatory in clauses with object relativized. I will argue that in these examples, the relativized elements in fact start from the grammatical subject position, not the grammatical object position. As L. Wang (1958) (also see Qi, (1989, p. 213) (cf. D. Zhu (1983), Dan Xu (2002)) points out, the same verbal forms can be employed to convey passive sense, as in (50).

- (50) a. 谏行言听。(孟子离娄下)
 jian xing yan ting (Mengzi.Liluo xia)
 advice follow words hear
 ‘When I was in the country, the advice I gave to the king was followed
 and the comments I made were heard.’
- b. 鲁酒薄而邯郸围。(庄子)
 Lu jiu buo er Handan wei (Zhuangzi)
 Lu wine mild ER Handan siege
 ‘The Lu wine was mild and the Handan city got under siege.’

As shown in (50), the patient NP is in the grammatical subject position and the verb does not carry any passive markers. Given this fact, there is good reason to believe that the examples in (49) both involve relativization from the subject position, but not from the object position. If they involved object relativization, the occurrence of *suo* would be required. This analysis predicts relative clauses which have an overt grammatical subject and have the

grammatical object relativized, but do not contain *suo* to be ill-formed. This is exactly what we see earlier in Section 5 and 6. That is, forms like [NP V zhe] and [NP V zhi NP] (with the intended meaning of *zhe* and *zhi* NP standing for the patient argument) are never attested.¹¹

Another set of potential counterexamples are concerned with examples in (51).

(51) 问女何所思，问女何所忆。(木兰辞)

wen nu he suo si wen nu he suo yi (Mulanci)

ask woman what SUO think ask woman what SUO remember

‘I asked the woman what she thought of and what she recalled.’

Such examples seem to pose problems for the proposed analysis in that if the question word is the grammatical object of the predicate preceded by *suo*, it would have to compete with *suo* for the same grammatical object position to be generated in, and thus we’d expect their ill-formedness, contrary to fact. This problem, however, may receive a reasonable explanation if we adopt Qi’s (1989, p. 55) and K. Wang’s (1982, p. 96) suggestion that the question word *he* ‘what’ is a nominal predicate, fronted before [*suo* V], which is the subject of a judgment construction. Therefore, the sequence [*he suo* V] in (51) actually is derived from [*suo* V (*wei*) *he*]. Such a sequence as [NP (*wei*) *he*] is well attested, as in (52), taken from Liu (1937).

(52) 元年者何？君之始年也。(公羊传、隐公元年)

yuan nian zhe he jun zhi shi nian ye

first year ZHE what king ZHI start year YE (Gongyang, Yingong yuannian)

‘What’s the first year? It is the beginning year of the king. What’s spring?’

It’s the beginning of a year.’

If, instead, *he* in the sequence [*he suo* V] were an object, then its occurrence before the nominal [*suo* V] would be mysterious, because (grammatical) object question words, after the Han period, may optionally come before a verb, but never before a nominal (see, for example L. Wang (1976) for discussion). We thus conclude that the sequence [*he suo* V] does not pose problems for the proposed analysis of the classical *suo*.

In addition to its presence in a relative-type construction, *suo* is also well-known to have optionally occurred in classical passive constructions, most notably the *wei* passives since the Han period according to Wang (1958) as shown in (53a), and (53b).

(53) a. 卫太子为江充所败。(汉书、霍光传)

Wei taizi wei Jiangchong suo bai (Hanshu.Huoguang Zhuan)

Wei prince WEI Jiangchong SUO defeat

‘Prince Wei was defeated by Jiangchong.’

b. 岱不从，遂与战，果为所杀。(三国志、魏书、武帝纪)

Dai bu cong sui yu zhan guo wei suo sha

Dai not follow then with fight indeed WEI SUO kill

(Sanguozhi.Weishu.Wudiji)

‘Dai didn’t follow the order, then fought with (him) and indeed got killed.’

Given the optionality of *suo* in Classical *wei* passives, we are led to the conclusion that *suo* in classical passives should be analyzed as a variable on a par with *suo* in modern Chinese, rather than as an operator like *suo* in classical relatives. In other words, *suo* in classical passives is a resumptive clitic, which is not required to undergo further I^0 to C^0 raising at LF. Using the distribution of *suo* as an important clue, I compare the structural differences between the classical passive constructions and the modern Chinese *bei*-constructions that I studied in Ting (1998) in a separate paper (see Ting (in preparation) for details).

8. CONCLUSION

In this article, I have compared the distribution of *suo* in modern and Classical Chinese and argued that *suo* is a variable in modern Chinese, but an operator in Classical Chinese. As a clitic, it undergoes N^0 to I^0 movement in the overt syntax in both modern and Classical Chinese. But in contrast to modern *suo* staying in the I^0 position, the classical *suo* undergoes further movement from I^0 to C^0 to realize its operator status at LF. This analysis is argued to account for all the similarities and contrasts between the modern and classical *suo*.

NOTES

* I'd like to express my gratitude to Yafei Li for his support, comments and suggestions on various versions of this article. I'd also like to thank Alain Peyraube for kindly giving me references on the classical *suo* with which I could start this study and for the enlightening discussion as well. For valuable comments I wish to thank the anonymous referee. Earlier versions of this article were presented at the 14th North American Conference on Chinese Linguistics, University of Arizona, Tucson, 2002, as well as at colloquiums at National Taiwan Normal University and at National Chengchi University, 2002. I thank the audiences for their questions and comments. I'd also like to thank Shengli Feng for encouraging support. Lastly, my gratitude goes to the Academic Paper Editing Clinic, National Taiwan Normal University. Mistakes are exclusively my own. Research for this article was supported by NSC grant # 89-2411-H-003 -029.

1. According to X. Zhu (1996) (cf. F. Zhou (1961)), the bone oracle and the bronze inscriptions do not have the word *suo* but instead *you* (攸) of the same usage. The occurrence of *suo* is seen as early as in *jing shu* 'classical texts' and may originate at the time around the early Warring States period (*Chunqiu*) with the meaning "sound of chopping wood" as stated in *Shuo Wen* and was later borrowed to mean "location."

(i) 献于公所 (诗经、郑风)

xian yu gong suo (Shijing.Zhengfeng)

serve YU king place

'serve it at the king's place'

Later, a different usage of *suo*, which is the concern of this paper, was further developed.

2. Due to space limit, examples are suppressed in order to accommodate the maximum length of discussion. The readers are referred to Ting (2002) for more examples.

3. Zhu actually considers *suo* to be a nominalization marker. Since he rejects the pronoun approach, I classify his analysis under the category of construction particles.

4. But note that *zhi* may also introduce a temporal adverb, as in instances like (i).

(i) 吾尝终日而思矣，不如须臾之所学也。(荀子、劝学)

wu chang zhong ri er si yi bu ru xuyu zhi suo
I once all day ER think YI not like moment ZHI SUO
xue ye
learn YE

(Xunzi.Quanxue)

‘I once contemplated all day long, but it is not better than a moment of learning.’

5. As Yi (1989) notes, this pattern needs to be distinguished from that involving *zhe* indicating a pause in the judgmental construction, e.g. in (i). But see D. Zhu (1983) for arguments against making such a distinction.

(i) 国之所存者，幸也。(孟子、离娄)

guo zhi suo cun zhe xing ye (Mengzi.Lilou)
country ZHI SUO survive luck YE

‘The country’s surviving is luck.’

6. According to Yi (1989, p. 250), the presence of *zhi* does not make any grammatical difference, but just out of prosodic consideration.

7. Additional instances with resumptive clitics are reported by Zribi-Hertz (1984) in French, as in (ib), which occurs as an alternative to the form in (ia). Since one of the reviewers does not accept (ib) and I cannot find native speakers of French to verify its well-formedness, I will leave validity of such examples for future study.

- (i) a. Voici l’homme_i à qui_i Marie a parlé t_i
here is the man to whom Marie has talked
b. Voici l’homme_i que Marie lui_i a parlé
here is the man that Marie to him has talked

8. This idea of analyzing a resumptive pronoun as a LF operator is also proposed by Demirdache (1991) to account for Hebrew resumptive pronouns. She argues that a relative clause containing a resumptive pronoun has the structures at S-structure and LF, respectively below (from Demirdache (1991, p. 32)).

(i) a. S-structure

ze ha-?is [c⁰ se] [ra?iti ?oto ?etmol]
this the-man that saw-I him yesterday

‘This is the man that I saw yesterday.’

b. LF

ze ha-ʔis [C⁰ ʔoto₁] [raʔiti t₁ ʔetmol]
this the-man him saw-I yesterday

‘This is the man that I saw yesterday.’

Since the complementizer *se* has no semantic content, its deletion is allowed at LF and permits the movement of the resumptive pronoun into Comp. The LF movement of resumptive pronoun is forced for two reasons (Demirdache (1991, p. 32)): first, to create an open sentence to be predicated of the head by moving an operator into the Comp; second, since the resumptive pronoun is an operator, it must move to an A'-position in order to bind a variable like other operators. This analysis of Hebrew resumptive pronouns, however, is faced with several problems, one of which is as follows. It is suggested that the LF movement of resumptive pronouns is in the same fashion of resumptive pronoun fronting in overt syntax. Only an X⁰ element like *ʔoto* ‘him’ or a pronominal PP like *ʔit-o* ‘with-him’ is allowed to take the place of the highest complementizer *se*; maximal projections like *ʔax-iv* ‘his brother’ in overt syntax cannot do so. The fronting of maximal projections is analyzed as topicalization (p. 27). On this analysis we will predict that at LF maximal projections containing obligatory resumptive pronouns like ‘his brother’ may also move as far as the highest IP-adjunction position. This would fail to create an open sentence with an operator in Comp to be predicated of the head.

9. With respect to a resumptive pronoun like *ta* ‘he’ in modern Chinese, it appears that the alternation between a gap and a pronoun is not as free as in Hebrew, since the former is preferred. But it is necessary to note that even in Hebrew-type languages, it is not clear whether gaps and resumptive pronouns truly alternate. See Shlonsky (1992) and Aoun, Choueiri and Hornstein (2001) for arguments that resumption is a last resort.

10. The relevant differences between Zhu’s analysis and mine are as follows: first, he is vague about the syntactic status of *suo* and *zhe*, only stating that both are nominalization markers with *suo* “extracting” an object and *zhe* “extracting” a subject and that *zhe* can convey a *zhuan-zhi* “derivative-reference”, as in *sha ren zhe* “the one who killed” and *zi-zhi* “self-reference”, as in *Qin gong liang zhe* “the fact that the Qin country attacked the Liang country”, while *suo* can only convey the former. *Zhe* is thus analyzed differently with respect to whether it

occurs alone or with *suo*. It conveys derivative-reference in the former, but self-reference in the latter. The current analysis, in contrast, treats *zhe* in both cases as the same, namely, an overt pronominal manifestation of a relative head noun. The examples which Zhu deals with under the category of self-reference, however, are not handled here.

11. This analysis couches on the claim that in Classical Chinese the preverbal patient NP in passives not explicitly marked is in grammatical subject position. Sentences of a similar word order in modern Chinese are argued to be a type of middle sentences as those in English by Ting (2003b), an analysis hopefully to be extended to Classical Chinese.

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古汉语所字結構之句法分析

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本文研究古汉语所字结构，希望藉由与现代汉语所字结构之比较，对其提出一个合理的分析。本文延伸及修改丁（2003a）对现代汉语所字结构的分析，以解释古汉语与现代汉语所字结构句法表现的不同。如同现代汉语的所，古汉语的所为一粘着性代词，在句法操作层面由 N^0 提升至 I^0 。这可解释其在句中的固定位置，及可指代及物动词宾语、地点但非主语等语言事实。但古汉语的所，与现代汉语不同，可指代方式、原因及介词宾语，这是由于现代汉语的介词在古汉语其实是动词之故。而所字在古汉语与现代汉语另一不同之处在于现代汉语可省略所字，但古汉语不容许省略。这是由于古汉语的所会在逻辑形式进一步由 I^0 提升至 C^0 。因此我主张现代汉语的所为变量，而古汉语的所则为运符。这个分析呼应马建忠认为所为接读代字的主张，不同之处在于本文认为所在逻辑形式，而非句法操作层面，才成为接读代字。