

CHINESE EVIDENCE FOR A VERBAL COMPLEMENTIZER

Jya-Lin Hwang

University of Hawaii, Manoa

0 Introduction

Nylander (1984 & 1985) has proposed a verbal complementizer theory for Krio *se* 'say/that' to solve a problem raised for ECP (Empty Category Principle in GB theory) which subsumes the that-trace filter. This paper presents evidence from Mandarin Chinese for a complementizer also violating ECP at LF paralleling that in Krio. We show that this complementizer which is homophonous with the full verb *shuo* 'say' is also a verbal complementizer, namely a category intermediate between verbs and complementizers, possessing properties of both and that the ECP problem can also be salvaged by Nylander's theory.

Treating and reanalyzing the item *shuo* 'say' as a verbal complementizer can salvage the above problem raised for ECP and further imply that there exists a Null COMP position in Mandarin Chinese.

1 ECP effects in GB theory and a problem in Chinese

In GB theory, the Empty Category Principle which subsumes the that-trace filter is defined as follows:

Empty Category Principle (ECP) (Chomsky 1986)

[α e] (traces) must be properly governed

A properly governs B iff A theta-governs B or A antecedent-governs B

Government

A governs B iff

- (i) A is a governor,
 - (ii) A m-commands B,
 - (iii) no barrier intervenes between A and B
 - (iv) minimality is respected
- where governors are: (i) heads

(ii) co-indexed Xps

Minimality

A governs B iff there is no node Z such that

- (i) Z is a potential governor for B
- (ii) Z m-commands B
- (iii) Z does not m-command A

The above ECP effect which subsumes the that-trace filter can account for the contrast between the following two examples in English

(1) a *Who do you think (CP t_i that (IP e_i is coming ?))

(1) b Who do you think (CP t_i (IP e_i is coming ?))

In (1a) the presence of *that* in COMP position prevents t_i from properly governing e_i, violating ECP. However, now consider the following Chinese examples

(2) a DS (ni zhenwei (CP shuo (IP shei hui lai ?))
 you think say/that who will come
 'Who do you think will come?'

(2) b LF (shei_i (ni zhenwei (CP t_i (shuo (IP e_i hui lai ?))
 who you think say/that will come

Sentence (2b) -which is the Logical Form of (2a)--is written as (3) below for convenience of discussions

(3) (shei_i t_i ni zhenwei (CP t_i (shuo (IP e_i hui lai ?))
 who you think say/that will come
 'For which X you think that X will come?'

According to Huang (1982), Wh-movement in Chinese occurs at LF while ECP still has to be obeyed. In the above example (3), the wh-item *shei* 'who' moves from its embedded subject position to the intermediate Spec-Comp position at first step and finally to the matrix Spec-Comp position at LF, leaving traces e_i and t_i respectively.

In the above example (3) Chinese *shuo* 'say' acts like English complementizer *that* and its presence in COMP prevents t_i from properly governing e_i, violating ECP. However, this LF formation in Chinese is supposed to be well-formed. That is, ECP wrongly predicts that (2b) or (3) should be ill-formed. At this moment, there are only two possibilities to explain this problem with regard to ECP. On the one hand, we can claim that Chinese WH-movement does not necessarily obey ECP at LF. On the other hand, we can also claim that this is not a real ECP.

violation and other properties with respect to Comp should be examined. At this moment we are now prepared to examine the lexical characteristics of the item *shuo* 'say' in Chinese.

2. The lexical characteristics of Chinese *shuo* 'say'

2.1. *Shuo* as a full verb

In Chinese, the above *that*-complementizer *shuo* is homophonous with the verb *shuo* 'say'. This verb *shuo* 'say' can take aspectual markings like the regular verbs do as shown below.

- (4) Zhangsan shuo guo hen duo gushi
 Zhangsan say ASP very many story
 'Zhangsan has said many stories.'
- (5) Zhangsan juotian shuo guo Lisi jintian bu hui lai
 Zhangsan yesterday say ASP Lisi today NOT will come
 'Zhangsan has said yesterday that Lisi will not come today.'

As a main verb *shuo* 'say' can also introduce direct speech as in (6) in which the exact words of the speaker are quoted.

- (6) Zhangsan juotian shuo Lisi jintian bu hui lai
 Zhangsan yesterday say Lisi today NOT will come
 'Zhangsan has said yesterday, 'Lisi will not come today'''

Sentences (4), (5) and (6) show that *shuo* 'say' has several particularities. For one thing, it retains the literal meaning of 'say'. It can also occur as a main verb in a simple predicate as (4) and (6) show us. In both cases, this *shuo* 'say' functions as a regular full verb by taking an aspectual marking just like the regular full verbs do.

2.2 *Shuo* as a *that*-complementizer

On the other hand Chinese *shuo* can also occur as a complementizer introducing a clausal complement. In this case, it cannot take an aspect marker and lose the literal meaning of 'say' as examples (7) and (8) show to us. Moreover, the verbs which can precede this *shuo* 'say' are limited to verbs of mental action or perception such as *think*, *know*, *believe*, or verbs of communication such as *inform*, *tell* and so on.

(7) Ta zhidao (shuo) (*le/guo) Lisi da le/guo gou
 s/he know (SHUO/that) (*ASP) Lisi beat ASP dog
 'S/he believes/knows that Lisi has beaten the dog.'

(8) Ta tongzhi Lisi (shuo) (*le/guo) Mali mingtian bu hui lai
 S/he inform Lisi (SHUO/that) (*ASP) Mali tomorrow NOT will come
 'S/he informs Lisi that Mary will not come tomorrow.'

Sentences (7) and (8) show that the item *shuo* appears to lose verbhood in that it does not retain the literal meaning of 'say' and cannot take an aspectual marking like a verb and its function is to introduce a clausal complement.

However Li & Thompson (1981) suggest that the above constructions (8) consisting of *shuo* 'say' in Mandarin Chinese should be treated as a form of indirect discourse with the optional occurrence of the verb *shuo* 'say' before the object clause representing the reported words. Based on the above analysis, we claim that this *shuo* is in fact a *that*-complementizer.

On the other hand, although it was claimed that *shuo* is an optional occurrence as in (7) and (8) as indicated by the parenthesis, this item tends to be an obligatory occurrence in some other syntactic formations such as passivization. For example:

(9) Lisi bei laoshi jinggao (shuo) shangke bu shu cho yan
 Lisi PASS teacher warn (SHUO/that) in-class NOT allow smoke cigarette
 'Lisi was warned by the teacher that smoking will not be allowed in class.'

Verbs which can occur in these passivized formations and followed by *shuo* belong to the prohibitive verbs including *wen* 'intimidate', *louhe* 'harass' and so on.

The above sentence (9) shows that *shuo* tends to be an obligatory occurrence in passivization formations.

2.3. *Shuo* as a conditional clause introducer

In addition, *shuo* can also follow a conjunction such as *ruguo* 'if', *yaoshi* 'if' *jiaru* 'assuming' to introduce a conditional clause. The conditional clause can occur in sentence-initial position as in (10).

- (10) *Ruguo shuo* ('*le*/*guo*) *ni yuanyi wo hui ban ni mang*
 if SHUO ('ASP') you wish I will help you help
 If you wish I will help you.'

Similarly *shuo* in sentence (10) does not retain the literal meaning of 'say' and cannot take an aspect marker. Instead, the function of *shuo* is a grammatical marker which can only follow some certain conditional conjunctions to introduce a conditional clause.

The above discussions provide evidences for us to claim that Chinese *shuo* is a category which possesses both the properties of a verb and complementizer. When *shuo* occurs as a full verb, it retains the literal meaning of 'say' and can take an aspect marker like the full verbs do. In contrast, when *shuo* occurs as a complementizer or conditional clause introducer, which is homophonous with the full verb *shuo* 'say', *shuo* has been reanalyzed as a grammatical marker introducing a clausal complement after verbs of communication or verbs of mental action or perception or conditional conjunctions. In the process of reanalysis, the verb *shuo* has lost semantic and syntactic properties and survives as a grammatical morpheme marking the relationship between clauses.

3. Null COMP

As we have claimed, *shuo* possesses both the properties of a verb and complementizer. However, when *shuo* occurs as a full verb, another *shuo* functioning as a complementizer cannot co-occur with it. In this way, the ambiguity caused by the same *shuo* is thus avoided, as (11) illustrates.

- (11) Zhangsan shuo (*shuo) Lisi mingtian bu hui lai
 Zhangsan say (*SHUO/that) Lisi tomorrow NOT will come
 'Zhangsan has said that Lisi will not come tomorrow'

The above sentence (11) indicates that the full verb *shuo* 'say' cannot co-occur with the homophonous complementizer *shuo* as shown below in (12)

- (12) Zhangsan shuo (CP +shuo (IP Lisi mingtian bu hui lai))

Zhangsan says (CP $\left[\begin{array}{c} \text{'that'} \\ e \end{array} \right]$ (IP Lisi tomorrow NOT will come))

Zhangsan has said that Lisi will not come tomorrow'

In (12), it was indicated that when the matrix verb is *shuo* 'say', the position of COMP in the embeded clause has to remain empty and cannot be filled by the homophonous complementizer *shuo*

In other words, the non-co-occurrence of the homophonous verb and complementizer *shuo* indicates that *shuo* 'say' is a verb which permits (COMP e) namely a null COMP (Stowell 1982)

In contrast, other verbs permit the COMP position to be filled either obligatorily as in (13) or optionally as in (14)

- (13) Lisi bei laoshi jinggao (CP³ (shuo) (IP shangke bu shu cho yan))

Lisi PASS teacher warn (CP $\left[\begin{array}{c} \text{that} \\ e \end{array} \right]$ (IP in-class NOT allow smoke cigarette))

Lisi was warned by the teacher that smoking will not be allowed in class

(14) Ta zhidao (CP (shuo) (IP Lisi da le/guo gou))

s/he know (CP [(that)] (IP Lisi beat ASP dog))
e

'S/he knows that Lisi has beaten the dog '

4 Shuo as a verbal complementizer

Based on the above analysis, we can claim that *shuo* can be treated either as a full verb or complementizer. Being a full verb *shuo* has the meaning of 'say' and can take an aspectual marking.

In contrast, while *shuo* occurs as a complementizer, it has lost the semantic interpretation of 'say' and syntactic properties by failing to take an aspect marker. However, the metaphorical sense of the verb meaning 'say' is still retained. As has been claimed, this complementizer always follows verbs of mental action or perception (i.e. *zhenyi* think, *xinxi* believe, or *zhidao* know) indicating people tend to say what they believe or what they say. In addition, when this complementizer follows the verbs of communication (i.e. *tongzhi* inform, *pinggao* warn) the spoken words is introduced which corresponds to what is believed or thought. These indicate that the pragmatic distance between saying, thinking, believing, and knowing is small, as suggested by Lord (1993). For this reason, it is reasonable to claim that *shuo* still retains the verbal properties while it occurs as a complementizer.

In this spirit, there is one basic difference between Chinese *shuo* as a complementizer and English *that*-complementizer in that English complementizer *that* is a true complementizer which is a functional category [-N -V].

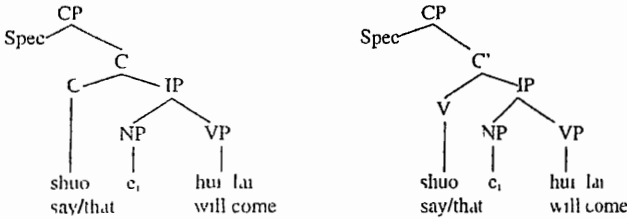
By contrast, Chinese complementizer *shuo* is an intermediate category between verbs and complementizers which possesses properties of both. As we have claimed, since Chinese *shuo* as a complementizer still retains the verbal properties with regard to the meaning of 'say', it should be treated as a verbal complementizer (a term borrowed from Nylandt 1985). Namely, Chinese *shuo* should be treated as a lexical category [+N +V] instead of a functional category. Since *shuo* is a lexical element, it can be a proper governor.

Thus, the problem raises for ECP as we have pointed out at the beginning of this paper as in (15) can be solved ((3) is repeated as (15))

- (15) (shei_i (n_i zhenwei (C_P t_i (shuo (IP e_i hui lai ?)
 who you think SHUO/that will come
 'For which X, you think that X will come'

In (15), the item *shuo* is reanalyzed as a verb, namely a lexical category and hence a proper governor, as illustrated in the following trees (16)

(16)



In (16) the item *shuo* is reanalyzed as a verb. Thus, since *shuo* is a lexical element and a proper governor, *e_i* is properly governed by *shuo* and the problem raised for ECP is salvaged

5 Parallelism in non-related languages

In many languages in the world, including many of the Kwa languages of West Africa, a that-complementizer is historically developed from the verb 'say' (Lord 1976 1993). The same phenomenon is also found in the Creole and Southeast Asian languages (Nylander 1984 & 1985, Matisoff 1991)

Similarly when the homophonous items occur as complementizers they lose the full literal meaning of say and syntactic properties such as failing to affix like the full verbs do

For example, in Twi, the *that*-complementizer is homophonous with the verb 'say' as in (17)

- (17) o-n-se biribi
 he-NEG-say something
 'He said nothing' [Ruis 1854:228]

- (18) akura ho o-se oienom nsu na wanna bi
 village there he-say he-drink water CONJ he-NEG-get some
 'In that village he thought to drink water, but he got none' [Christaller 1875:156]

In (17), the verb *se* 'say' occurs as a main verb. In (18), the homophonous item *se* occurs as a quotative morpheme or complementizer which introduces thoughts or intentions.

Similarly, in one Southeast Asian language Khmer, the item *thaa* can occur as a full verb meaning 'say' as in (19) and a quotative *that*-complementizer introducing a quotative clause while it follows verbs of utterance or cognition as in (20) (Matisoff 1991)

- (19) look thaa mɔc
 2sg say how
 'What did you say?'
- (20) knom kit thaa look qayuc pɪθhael mɔpɔɔy-pianɪ
 1sg think say/that 2sg age about twenty-five
 'I think that you're about 25 years old.'

The same phenomenon is also found in Krio (Nylander 1984 & 1985) as the following examples show to us

- (21) Wetn I bin se '
 what he PASR say
 'What did he say?'
- (22) a bin yeɪɪ se una sɪk
 I PAST hear say/that you be-sick
 'I heard that you were sick'

In (21), *se* meaning 'say' occurs as a main verb while in (22) it occurs as a *that*-complementizer

Similarly, the homophonous item *se* is treated as a verbal complementizer which salvages an ECP violation as illustrated in (23) (Nylander 1984 & 1985)

(23) *uda una memba (s t, se (s e, de kam ?))*
 who you think say/that will come

The ECP violation in (23) parallels (15) in Chinese as we have claimed. Consequently, the theory of treating and reanalyzing Chinese *shuo* 'say' or Krio *se* 'say' as verbal complementizers proposed by Nylander (1984 & 1985) can account for both Chinese and Krio and salvage the ECP violations in each language.

6 Concluding remarks

In this article I have argued for the following major conclusions:

(A) The *that*-complementizer in Chinese paralleling English *that*-complementizer is the item *shuo* which is homophonous with the full verb *shuo* 'say'.

(B) At first glance, it appears that Chinese *that*-complementizer violates ECP at LF. But, after examining its lexical properties, we can claim that this item still retains some verbal properties in that it can only follow verbs of certain types (i.e. verbs of mental action or perception or verbs of communication). In addition, the pragmatic distance between these verbs and the literal meaning of 'say' for this item is not very far. Thus, we treat and reanalyze Chinese *shuo* as a verbal complementizer as proposed by Nylander for Krio *se*.

(C) Since Chinese *shuo* is a verbal complementizer, it should be treated as a lexical element [-N +V]. In contrast, English *that*-complementizer should be treated as a genuine complementizer and functional element with [-N -V].

(D) Since many other languages in the world -- i.e. West African languages or Creole languages -- also use the homophonous items of 'say' to be *that*-complementizers, the above analysis and exploration lead to a typology of complementizer types.

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