

Null Subject Revisited

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This study starts from a previously unnoticed observation on Chinese null subjects, which does not fit in with what has been perceived about the identification of them. Specifically, an interesting contrast on the presence/absence of overt topic phrases with respect to island effects for the null subjects brings out the main thread. We suggest that such distribution can be easily accounted for by assuming a [+Top] feature at the matrix C-head which has to be checked either by merging an overt topic phrase to CP or by the covert (or feature) movement of the null subject to CP when no overt topic phrase is available.

1. Introduction

It is well known that Chinese, being a topic-prominent language, allows empty subjects as in (1)) whose referents can be identified either by an overt topic phrase or by a null one as long as it is prominent in the discourse.

- (1) (Zhangsan_i a), e_i lai le.
Zhangsan Top come Perf.
'(Zhangsan_i), (he_i) has come.'

Since Huang's (1984) pioneering work on the distribution and reference of empty pronouns in Chinese, there have been debates over the status of the null object (Xu & Langendoen 1985, Xu 1986, Hunag 1989, 1991, Liu 2004, Li 2007). Nonetheless, it is generally agreed that the categorical status of the null subject remains stable. That is, it can be either a pronominal or a variable. As (2)) shows, the embedded null subject can be coindexed with the matrix subject, a property of A-bound pronominal, while it can also be coindexed with an empty topic, a property of A'-bound variable, referring to a pragmatically salient referent in the discourse.¹

¹ Because our main concern here is the null subjects, we won't discuss the null objects and leave them to further research.

- (2) Zhangsan_i suo [_{e_{i/j}} bu renshi Lisi].
 Zhangsan say not know Lisi
 ‘Zhangsan_i said (he_{i/j}) did not know Lisi.’

However, an interesting distribution observed below shows that there is more to it than what we previously perceived about Chinese null subjects. In (3)) when a null subject is embedded within a complex NP, the sentence is illformed (cf. (1))).

- (3) a. *[_{DP} xuduo [_{CP} e xie] de shu] dou mai de hen hao.
 many write DE book all sell DE very well
 ‘Many books that (he) writes sell very well.’
 b. *[_{DP} [_{CP} e xihuan nanren] de yaoyan] man-tien fei.
 like man DE rumor full-day fly
 ‘The rumor that (he) likes men is everywhere.’

The empty subject in (3)) can in principle be a pronominal which is immune to island effects as its overt counterpart shows in (4)). This suggests that the null subject and its overt realization do not only differ in their phonetic content.

- (4) a. [_{DP}xuduo [_{CP} ta xie] de shu] dou mai de hen hao.
 many he write DE book all sell DE very well
 ‘Many books that he writes sell very well.’
 b. [_{DP}[_{CP} ta xihuan nanren] de yaoyan] man-tien fei.
 he like man DE rumor full-day fly
 ‘The rumor that he likes men is everywhere.’

Such an observation is puzzling since we have no idea why the pronominal status of the null subject is gone in the island construction. Even if there is a salient referent in the previous discourse, the sentence is still awkward as the following examples show.

- (5) Speaker A: Zhangsan_i hen you tianfen.
 Zhangsan_a very have talent
 ‘Zhangsan is very talented.’
 Speaker B: *Shi a, [_{DP}xuduo [_{CP} e_i xie] de shu] dou mai de hen hao.
 be Top many write DE book all sell DE very well
 ‘Yes, many books that (he_i) writes sell very well.’

- (6) Speaker A: Zhangsan_i zuijin jiehuen le.
 Zhangsan recently marry Perf.
 ‘Zhangsan got married recently.’
- Speaker B: *Keshi, [_{DP} [_{CP} e_i xihuan nanren] de yaoyen] haishi man-tien fei.
 but like man DE rumor still full-day fly
 ‘But, the rumor that (he_i) likes men is still everywhere.’

This study will center upon this issue and try to bring forth a solution to it. Section 2 discusses cases of identification violation as predicted by Huang (1984) and shows that with careful inspection there are still some other cases that need further exploration. Section 3 observes the definiteness requirement of the null subject and how it may be derived syntactically. Section 4 suggests that the puzzling cases can be attributed to the checking of the [+Top] feature on the matrix C-head, as is inspired by the definiteness requirement of the null subject. Section 5 concludes the discussion.

2. Movement vs. Non-movement

To identify the null subject, particularly the subject *pro*, Huang proposes the Generalized Control Rule:

- (7) The Generalized Control Rule (GCR, Huang 1984, 1989, Huang, Li, & Li 2009)²
 Coindex an empty pronoun with the closest nominal element.

In a construction like (2)), when the null subject is a *pro*, it is coindexed with the matrix subject, being the closest nominal element by GCR; when the null subject is a variable, it is not subject to GCR and is coindexed with a zero topic, hence the ambiguity.

Huang’s GCR further accounts for the following contrast when an empty subject within islands refers to an overt topic phrase. Take (8)) for illustration. In (8)a) the coindexation between the null subject and the topic phrase is possible because the latter is the closest nominal element.³ In (8)b), however, the coindexation is blocked by an intervening nominal element, leading to ungrammaticality.

- (8) a. Zhangsan_i, [_{DP} xuduo [_{CP} e_i xie] de shu] dou hen changxiao.
 Zhangsan many write DE book all very well.sell
 ‘Zhangsan_i, many books that (he_i) wrote sell very well.’

² In Huang (1989), he has a revised version as in (i) from his (1984) work to include the occurrence of arbitrary PROs and to exclude the obligatory require for a *pro* to be controlled everywhere in Chinese as denoted by the (1984) version. In this study we adopt the version in Huang (1984) for simplicity.

(i) An empty pronominal is controlled in its control domain (if it has one).

³ The variable status is blocked by the island constraint.

- b. *Zhangsan_i, wo du-le [DP xuduo [CP e_i xie] de shu].
 Zhangsan I read-Perf. many write DE book
 ‘Zhangsan_i, I have read many books that (he_i) wrote.’

Likewise, the following examples are also ruled out due to GCR violation. That is, the coindexation between the null subject and the empty discourse topic is blocked by a closer NP: (see also Aoun & Li 2008)

- (9) a. *Laoshi_j [yinwei e_i mei lai shangxue] hen shengqi.
 teacher because not come go.to.school very upset
 ‘Because (he_i) didn’t come to the school, the teacher_j was very upset.’
 b. *Women_j [meidang e_i du shu shi] dou bu neng chu sheng.
 we whenever read book then all not can make noise
 ‘Whenever (he) is studying, we cannot make noise.’

Nonetheless, we find that even if the GCR violation is carefully avoided, these sentences are still illformed. As the examples in (10)-11) show, no intervening element would block the coindexation between the null subject and the discourse topic (being empty here) and these examples are still ruled out.

- (10) a. *[Yinwei e_i mei lai shangxue], laoshi_j hen shengqi.
 because not come go.to.school teacher very upset
 ‘Because (he_i) didn’t come to the school, the teacher_j was very upset.’
 b. *[Meidang e_i du shu shi], women_j dou bu neng chu sheng.
 whenever read book then we all not can make noise
 ‘Whenever (he) is studying, we cannot make noise.’
- (11) a. *[DP xuduo [CP e xie] de shu] dou mai de hen hao. (= (3)a)
 many write DE book all sell DE very well
 ‘Many books that (he) writes sell very well.’
 b. *[DP [CP e xihuan nanren] de yaoyan] man-tien fei. (= (3)b)
 like man DE rumor full-day fly
 ‘The rumor that (he) likes men is everywhere.’

This is quite puzzling because the null subject should in principle be able to refer to a null topic as in (12)) (see also (1)).

- (12) [Null Topic]_i, e_i lai le.
 come Perf.
 ‘(Someone) came.’

Long-distance licensing from the null topic is also possible:

- (13) [Null Topic]_i, [wo jide [Lisi shuo [e_i hui lai]]].
 I remember Lisi say will come
 ‘I remember Lisi said (he_i) would come.’

Therefore, the ungrammatical examples in (10)-11)) seem to have something to do with islands. Now, if a topic is overtly realized, the sentence turns out to be fine:

- (14) a. Zhangsan_i a, [DP xuduo [CP e_i xie] de shu] dou hen changxiao.
 Zhangsan Top many write DE book all very well.sell
 ‘Zhangsan, many books that (he) wrote sell very well.’
 b. Zhangsan_i yinwei e_i mei lai shangxue, laoshi_j hen shengqi.
 Zhangsan because not come go.to.school teacher very upset
 ‘Because Zhangsan didn’t come to the school, the teacher was very upset.’

In sum, the null subject investigated in this section exhibits the following nature:

- 1) With the overt topic phrase, the null subject is like a pronoun and no island effect is observed (see (14))). This amounts to saying that no movement is involved.
- 2) Without the overt topic phrase, the null subject somehow needs to “escape” the island when embedded in island constructions (see (10)-11))), a property of movement.

3. Definiteness

One interesting observation on null subjects is that their referents are typically definite. For a modal construction like (15)a) where the subject is exclusively nonspecific (Tsai 2001), a follow-up utterance with a null subject referring to the previous nonspecific referents as in (15)b) is pretty much weird.

- (15) a. San-ge ren tai-de-chi yi-tai gangqin.
 three-Cl person lift-DE-up one-Cl piano
 ‘Three men can lift up one piano.’
 b. #Xia-ci e yao tai kache.
 next-time will lift truck
 ‘Next time, (they) will lift a truck.’

In Chinese there are at least two ways to syntactically derive the definiteness. One is by way of object fronting. It has been suggested that object fronting targets somewhere between TP and vP and the fronted object denotes a strong sense of definiteness (Diesing 1992, Shyu 1995, 2001, Paul 2002).

- (16) a. Ta huan shu le.
 he return book Perf.
 'He has returned the/a book.'
 b. Ta shu_i [_{vP} huan e_i] le.
 he book return Perf.
 'He has returned the book.'

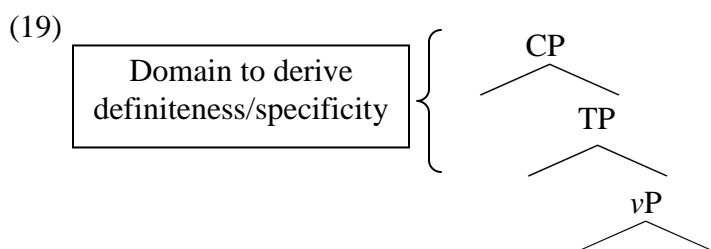
The other is via topicalization which targets CP. Either the object or the subject can be topicalized.

- (17) a. Shu_i ta huan e_i le.
 book he return Perf.
 'He returned the book.'
 b. Lisi_i, Zhangsan suo e_i xihuan Wangwu.
 Lisi Zhangsan say like Wangwu
 'Lisi, Zhangsan said (he) liked Wangwu.'

Meanwhile, the subject itself also exhibits a strong sense of definiteness/specificity.⁴

- (18) a. Ren lai le.
 person come Perf.
 'The person came.'
 b. Gou zai jiao.
 dog Prog. bark
 'The dog is barking.'

The above demonstration shows that the definiteness has much to do with the functional layers above vP as shown in (19)). Given this, the null subjects should also have some connections with this domain so that they exhibit the same definiteness requirement.



⁴ We do not distinguish the difference between these two notions. What is crucial is that the referents have to be mentioned and remain salient in the discourse.

4. Checking the [+Top] Feature

4.1 Null subjects with overt topic phrases

According to the paradigm illustrated above, when an overt topic phrase is present, no island effect is observed and the null subject behaves like a pronoun. In fact, with evidence from the lack of strong crossover effects in Chinese, Huang (1984) has shown that the Chinese null subject should be considered as a “zero pronoun”, i.e., *pro*.

- (20) a. *John_i, he_i said *e_i* saw Bill.
 b. *Who_i did he_i say *e_i* saw Bill?
- (21) Zhangsan_i, ta_i shuo *e_i* mei kanjian Lisi.
 Zhangsan he say no see Lisi
 ‘Zhangsan_i, he_i said that (he_i) didn't see Lisi.’

Independent evidence from anaphoric binding also suggests that the null subject should be a *pro* so that only the strict reading is allowed in (23)):

(data from Miyagawa (2009) handout, due to Audrey Li’s work)

Empty Object

- (22) Zhangsan hen xihuan ziji de mama, Lisi bu xihuan *e*.
 Zhangsan very like self Poss mother Lisi not like
 ‘Zhangsan likes self’s mother, Lisi does not like *e* (=self’s mother)’

Empty Subject

- (23) Zhangsan yiwei [ziji de haizi xihuan yingwen]; Lisi yiwei [*e* xihuan fawen]
 Zhangsan think self Poss child like English Lisi think like French
 ‘Zhangsan thought that self’s child liked English; Lisi thought *e* liked French.’

(*e* ≠ self’s child)

Now, since the null subjects are strongly related to the definiteness, I suggest that they be also licensed in the function domain of CP. More specifically, I suggest that the definiteness requirement be due to the [+Top] feature at the matrix C-head which is very much speaker-oriented and related to discourse topics. Furthermore, since there is no island effect observed for the null subject with an overt topic phrase, it is plausible that the topic phrase should be directly merged to CP, checking the [+Top] feature at C.

4.2 Null subjects without overt topic phrases

When no overt topic phrases available for the checking of the [+Top] feature at C, we have two alternatives. The first one is to assume that the [+Top] feature at C may be

further transferred to T in a feature inheritance fashion (Chomsky 2005, 2008). In fact, Miyagawa (2009) suggests that following the same vein of Chomsky (2005, 2008) the functional relation established by the C-to-T feature inheritance system in the agreement languages can also be applied to the agreementless, discourse configurational languages such as Japanese, only that in the former it is the phi-features that are at work whereas in the latter it is the topic/focus feature that serves the purpose. The island effect occurs when the [+Top] feature at the matrix C is passed down to the island.

One problem arises with this approach if we apply it to Chinese. That is, the feature inheritance should be “local” in the sense that it operates within the domain of C-to-T. This may explain the island effects observed before. Yet, the “non-local” licensing of the embedded null subject as in (24)) will be “from the matrix C to the embedded T, which seems to be undesirable if we assume the C-to-T feature inheritance framework.

- (24) [Null Topic]_j, Zhangsan_i shuo *e_j* bu xihuan Lisi.
 Zhangsan say not like Lisi
 ‘Zhangsan_i said that (he_j) didn't like Lisi.’

Or we may further assume that the null topic itself introduces another null topic to the embedded CP so that further C-to-T inheritance may be substantiated.

The second alternative is simply to assume that the [+Top] remains at C (Miyagawa 2009 also suggests so for Chinese). When no overt topic phrase is available, the null subject, then, has to move to CP to check the [+Top] feature at C-head. The island effects hence follow from this and the long distance licensing in (13)) is also possible under this approach (in the same vein of *wh*-movement).

5. Concluding Remarks

Huang (1984, 1989) clearly addresses the GCR in regulating the empty pronouns in Chinese. In this study, we find cases of island effects where no GCR is violated whereas the sentences are still ruled out. We suggest that the GCR is irrelevant in these cases. What is at issue here should be the checking of [+Top] feature at C. More specifically, we attribute the above cases of island effects to the [+Top] feature at C which can be checked either by directly merging an overt topic to it or by attracting the subject *pro* upward (or transferring the [Top] feature downward) when no overt topic is available. The latter derivation, hence, triggers island effects.

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