

The Doubly Marked Reflexive in Chinese

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Abstract. We discuss an unusual reflexive construction in which the Chinese reflexive *ziji* appears twice, once before the verb and once after. We demonstrate that this is a distinct construct with its own rules of construal and interpretation; it is not, for example, a combination of a simple *ziji* reflexive and an adverbial intensifier. Notably, their locality properties are also different: Double *ziji* does not tolerate non-local readings. We argue that while *ziji* is (or can be) a logophor [1], double *ziji* is an ordinary Principle A anaphor with all the properties and restrictions that this implies.

Key words: Reflexives, Chinese, Binding theory

1 Introduction

The well-known Chinese reflexives *ziji* and *ta-ziji* are anaphors functioning as the internal argument of the reflexive, typically the object (1a).¹ But Chinese also allows an unusual variant, which to our knowledge has not been discussed in the theoretical linguistic literature to date, in which *(ta-)ziji* appears twice, preverbally as well as postverbally (1b,c).

- (1) a. Lisi hen ziji / ta-ziji
Lisi hate self / 3sg-self
'Lisi hates himself'
b. Lisi ziji hen ziji.
Lisi self hates self
'Lisi hates himself.'
c. Q: What's the matter with John?
A: Ta(-ziji) hen ziji.
3sg-self hates self
'He hates himself.'

As the above examples show, the double *ziji* construction can co-occur with an overt subject. *Ta-ziji* can be used instead of *ziji*, in one or both positions in various combinations.

While *ziji* can be used preminally as an intensifier (emphatic), we will show below that the construction in (1) is more than the simple co-occurrence of an

¹ For discussion of additional variants of *ziji* and their uses, see [2], [3].

intensifier and the ordinary reflexive *ziji*. The construction is unusual in that the reflexive is marked in two places (with an anaphor in object position and with an adverbial modifier), a pattern of reflexive marking which is relatively rare but not unattested; for example, Kannada reflexives are marked by means of both verbal morphology and an anaphor in object position [4]. But the binding options for the double *ziji* construction are also different: Unlike simple reflexive *ziji*, double *ziji* is obligatorily locally bound. We will show that while simple *ziji* is a typical logophoric anaphor, double *ziji* is an ordinary anaphor and behaves as predicted by Principle A of binding theory.

2 Syntax of the Double-*Ziji* Construction

As we have already seen, the double reflexive construction can be used in sentences either with or without an overt nominal subject. The following examples show that (a) a sentence can have a nominal topic doubled by a subject pronoun; (b-d) the *ta-ziji* form can be used pre- or post-verbally in various combinations, together with a nominal subject.

- (2) Q: What's the matter with John?
- a. Yuehan ta hen (ta-)ziji.
John he hate 3sg-self
'John hates himself.'
 - b. Yuehan hen (ta-)ziji
John hate 3sg-self
 - c. Yuehan ziji hen (ta-)ziji.
John self hate 3sg-self
 - d. Yuehan ta-ziji hen (ta-)ziji
John 3sg-self hate 3sg-self

The double reflexive can also be used with a null subject, or impersonally.

- (3) a. Q: What's the matter with John?
Ta(-ziji) hen ziji.
3sg-self hate self
'He hates himself.'
- b. Q: What is John doing?
Ziji da ziji.
self hit self
'He's hitting himself.'
- (4) a. Buyao ziji hen ziji.
Don't self hate self
'Don't hate yourself' (Imperative)

- b. Ziji hen ziji shi buhao de.²
 self hate self be not.good DE
 ‘It’s not good to hate one’s self’ (Impersonal)

The first occurrence of *ziji* is not a subject, but a VP-adjoined (“adverbial”) element appearing inside the verb phrase. This is evident since *ziji* appears to the right of auxiliaries and of the distributor *dou*, which marks the edge of the VP:

- (5) Xuesheng-men dou ziji biaoyang-le ziji.
 student-PL DOU self praise-Perf self
 ‘The students each praised themselves’

Since *ziji* can in fact be used as an intensifier, we need to address the question of whether this construction might be combination of an ordinary reflexive and an ordinary intensifier, comparable in status to the following English example:

- (6) Even John himself criticized himself.

Here the first instance of *himself* does not express any identity of participants, i.e., is not a reflexive, but is an “adnominal” intensifier. We follow the terminology of Gast [5] and classify intensifiers as *adnominal* and *adverbial*, depending on their syntactic attachment. Chinese *ziji* can have both functions:

- (7) (Source: Daniel Hole, TDIR)³
- a. “Adnominal” intensifier:
 Buzhang ziji hui lai huanying women.
 minister self will come welcome 1pl
 ‘The minister himself will welcome us’
- b. “Adverbial exclusive” intensifier:
 Nei-wei mingxing bing mei you ziji xie tade zizhuan.
 DEM-CL star PRT not have self write his/her autobiography
 ‘The movie star did not write his autobiography himself’

Adverbial intensifiers, like the preverbal part of double *ziji*, appear after the distributive element *dou*. This means that we cannot easily distinguish the two on the basis of syntactic position alone. (Cf. example (5)).

- (8) a. Xuesheng-men dou ziji zuofan.
 student-PL DOU self cook
 ‘Students cook by themselves (nobody else cooks for them)’
- b. Xuesheng-men dou ziji dasao fangjian.
 student-PL DOU self clean room
 ‘Students clean their rooms by themselves (not by others)’

² We “gloss” certain particles of Chinese as themselves, e.g., we gloss *de* as *DE*, *dou* as *DOU*, etc., since their analysis is both contested and irrelevant to our topic. Other non-obvious glosses used in this paper: CL = classifier; DEM = demonstrative; PRT = particle; Perf = perfective; Prog = progressive; PL = plural.

³ TDIR is the Typological Database of Intensifiers and Reflexives [3].

- c. * Xuesheng-men ziji dou biao yang-le Lisi.
 student-PL self DOU praise-Perf Lisi
 ‘The students praised Lisi by themselves’

We can show, however, that the double-*ziji* construction does not involve an intensifier. First, the meanings associated with intensifier uses of *ziji* are absent in a double-*ziji* example like (9), which does not mean “Zhangsan (by) himself praised himself.” (Lisa Cheng, personal communication).

- (9) Zhangsan ziji biao yang-le ziji
 Zhangsan self praise-Perf self
 ‘Zhangsan praised himself’
 [Does not mean “Zhangsan (by) himself praised himself.”]

Additionally, the double-*ziji* construction can be used in discourse contexts where an adverbial intensifier is ruled out, as in (A2) below; note that because the question is about Mulan, the intensifier in (A1) is ungrammatical.

- (10) Q: Mulan zai gan shenme?
 Mulan Prog do what
 ‘What is Mulan doing?’
 A1: Mulan zai (*ziji) mai tudou.
 Mulan Prog self buy potato
 ‘John (*himself) is buying potatoes.’
 A2: Mulan zai (ziji) da-ban ziji.
 Mulan Prog self dress.up self
 ‘Mulan is getting dressed up.’

2.1 Transitivity

In classifying reflexive constructions, an important distinction is between those that involve an anaphor with reflexive meaning (as in English) and those that involve a verbal morpheme or adverbial that creates an intransitive predicate [6]. We will term the former *argument reflexives* and the latter *verbal reflexives*⁴ For our purposes the important distinction is not whether the exponent of reflexivity is morphologically bound to the verb, but whether the reflexive predicate involves a transitive verb (whose object is occupied by the reflexive anaphor) or an intransitive one. In some cases, morphologically free reflexives are in fact detransitivizing operators, and should be classified as verbal predicates. The French reflexive clitic *se*, for example, appears to be a cliticized pronoun, hence an argument reflexive; but as [7] already showed, on closer inspection it turns out to be a verbal detransitivizer.

- (11) Jean se lave.
 John self washes
 ‘John washes’

⁴ [6] uses the name “NP reflexives” for the first category.

Conversely, [8] shows that the reflexive morpheme *dzi* in Chicheŵa, although morphologically incorporated in the verb (where it appears between the verb root and the tense marker), is in fact an incorporated pronoun rather than a detransitivizer. The reciprocal suffix *-ana*, on the other hand, is a detransitivizer.

Since the double *ziji* construction involves an adverbial modifier, then, we consider whether the construction (as a whole) may act as a detransitivizer. We will show that in fact it does not: Double-*ziji* reflexives are still syntactically transitive.

While there are numerous language-specific tests of transitivity, we use the object-comparative test of Zec [9], which has wide cross-linguistic applicability.⁵ We first illustrate the test in English. Consider example (12), which is ambiguous between a subject comparison reading (irrelevant to our purposes) and the object comparison reading in (b).⁶

- (12) John hates Bill more than George.
 a. Subject comparison (irrelevant to transitivity)
 John hates Bill more than George hates Bill
 b. Object comparison
 John hates Bill more than John hates George

If we construct a similar comparative with the reflexive *washes himself*, as in (13), the object comparison reading continues to be available. (Again we ignore the irrelevant subject comparison readings). But if we use the “covert reflexive” sentence *John washes*, as in (14), the object comparative reading disappears:

- (13) John washes himself more than George.
 a. Subject comparison, strict or sloppy
 John washes himself more than George washes John/himself
 b. Object comparison: Shows that *washes himself* is transitive
 John washes himself more than he washes George
 (14) John washes more than George.
 a. Subject comparison:
 John washes himself more than George washes himself.
 b. Object comparison: Impossible, showing that *washes* is intransitive.
 * John washes himself more he (John) washes George.

The reason is that object comparison requires a transitive antecedent (so that the properties of its object can be compared with the properties of *George*). The covert reflexive in (14) is evidently intransitive, and fails to give the object comparative reading. Equivalent results are found for the detransitivizing reflexives discussed above.

If we now apply this test to Chinese, we find that simple *ziji* reflexives, as well as double *ziji*, do not involve detransitivization. The object comparison reading is available with both of them.⁷

⁵ Zec’s test was adapted to Chicheŵa by Mchombo [8].

⁶ When applying this test to languages with morphological case, Accusative case on *George* may result in unambiguous object comparison.

⁷ We thank Meiyi Bao for providing judgements.

(15) **Transitives**

- Zhangsan hen Lisi bi Wangwu duo
 Zhangsan hate Lisi BI Wangwu more
 ‘Zhangsan hates Lisi more than Wangwu’
 a. ... more than Wangwu hates Lisi (subject comparison; irrelevant)
 b. ... more than Zhangsan hates Wangwu (object comparison)

(16) **Regular reflexives**

- Zhangsan hen ziji bi Wangwu duo
 Zhangsan hate self BI Wangwu more
 ‘Zhangsan hates himself more than Wangwu’
 Subject comparison (irrelevant to transitivity):
 a. * ... more than Wangwu hates Wangwu (sloppy)
 b. ... more than Wangwu hates Zhangsan (strict)
 Object comparison: Shows that *hen ziji* is transitive
 c. ... more than Zhangsan hates Wangwu

(17) **Double reflexives**

- Zhangsan ziji hen ziji bi Wangwu duo
 Zhangsan self hate self BI Wangwu more
 ‘Zhangsan hates himself more than Wangwu’
 Subject comparison:
 a. * ... more than Wangwu hates Wangwu (sloppy)
 b. ... more than Wangwu hates Zhangsan (strict)
 Object comparison: *ziji hen ziji* is transitive
 c. ... more than Zhangsan hates Wangwu

3 Locality Conditions

The best-studied aspect of the reflexive *ziji* are arguably the structural conditions on its acceptable antecedents. Simple *ziji* allows a range of long-distance and logophoric construals, as discussed in the following section. The double-*ziji* construction contrasts markedly with ordinary *ziji* reflexives.

3.1 Background: Locality and long-distance anaphora with *ziji*

In this short paper we focus on understanding of the double *ziji* construction; for the other Chinese anaphors we will take as our starting point the analysis of Huang and Liu [1], who give a nice summary of the literature concerning their patterns of locality and construal.

Chinese is generally acknowledged to have two reflexive anaphors based on *ziji*: The invariant anaphor *ziji* ‘self’, and *ta-ziji* ‘himself/herself’, which shows person and number agreement. *Taziji* is, broadly speaking, a normal Principle-A anaphor; it must be locally bound. *Ziji* allows long-distance and “logophoric” construals. This is shown in example (18a).⁸ The antecedent of *ziji* need not be

⁸ The examples in this section are from [1], unless otherwise noted.

the subject of the main clause, nor does it need to be in the clause immediately dominating the clause where *ziji* appears (example (18b)).

- (18) a. *Long-distance readings:*
 Zhangsan_Z renwei [Lisi_L hen ziji_{Z/L} / ta-ziji*_{Z/L}]
 Zhangsan think Lisi hate self / 3sg-self
 ‘Zhangsan_Z thinks Lisi_L hates himself_L / him_Z’
 b. Zhangsan_Z renwei Lisi_L zhidao [Wangwu_W hen ziji_{Z/L/W}]
 Zhangsan think Lisi know Wangwu hate
 ‘Zhangsan thinks Lisi knows that Wangwu hates Zhangsan/Lisi/Wangu’

Two other well-studied properties of long-distance *ziji* are subject orientation (19a) and its susceptibility to so-called *blocking effects*.⁹ As example (19b) shows, the presence of a potential antecedent with contrasting person features will block coreference with a compatible, but more distant antecedent.

- (19) a. *Subject orientation:*
 Zhangsan_Z song (gei) Lisi_L yi-zhang ziji_{Z/*L}-de xiangpian.
 Zhangsan give to Lisi one-CL self-DE picture
 ‘Zhangsan_Z gives Lisi_L a picture of himself_{Z/*L}.’
 b. *Blocking effects:*
 Zhangsan_Z renwei [ni_Y hen ziji*_{Z/Y}]
 Zhangsan think 2sg hate self
 ‘Zhangsan thinks that you hate yourself.’

For completeness, we mention here that the antecedent of *ziji* need not be overtly present. *Ziji* can also refer to the speaker, or to other sufficiently prominent discourse participants:

- (20) *Reference to the speaker:*
 Zhe-ge xiangfa, chule ziji, zhiyou sang-ge ren zancheng.
 this-CL idea besides self only three-CL people agree
 ‘As for this idea, besides myself, only three other people agree.’
 ([11]/[12], cited in [1])

3.2 Double *ziji* is not a long-distance anaphor

When we consider the allowable construals of the double-*ziji* construction, we find a very different pattern: The subject and object of the reflexive predicate (*da* ‘hit’ in the following) are obligatorily coreferential. The readings of sentence (21) are fairly straightforward: the antecedent of the reflexive can only be Lisi. In sentence (22), however, we have more construal options: this example might describe situations in which the hitter was Zhangsan, Lisi, or even a third person; but in all cases the hitter must be hitting himself (or herself).

- (21) Zhangsan_Z renwei Lisi_L ziji da-le ziji*_{Z/L}
 Zhangsan think Lisi self hit-Perf self
 ‘Zhangsan thinks Lisi_L hit himself_L’

⁹ See [10] for detailed discussion.

- (22) Zhangsan_Z renwei Lisi_L zhidao ta-ziji da-le ziji
 Zhangsan think Lisi knows 3sg-self hit-Perf self
 ‘Zhangsan_Z thinks Lisi_L knows that [Zhangsan/Lisi/X hit himself].’
 Ok: Z hit Z / L hit L / X hit X;
 Bad: *Z hit L / *L hit Z / *X hit Z / etc.

The reason is not some sort of unusual long-distance anaphora: In example (22), *ta* is apparently a pronoun rather than part of the reflexive; it can take any referent suitable for a pronoun in this position, but in each case the predicate *hit* must be reflexively construed.¹⁰ This is also supported by the fact that it is possible to insert a pause after the pronoun *ta*.

For comparison, we provide the readings of the equivalent simplex reflexive. The pronoun can be bound or unbound, and the reflexive takes the usual (well-documented) local or long-distance readings.¹¹

- (23) Zhangsan_Z renwei Lisi_L zhidao ta da-le ziji
 Zhangsan think Lisi knows he hit-Perf self
 ‘Zhangsan_Z thinks Lisi_L knows [Zhangsan/Lisi/X hit Z/L/himself]’
 (All combinations ok, except apparently for *‘Zhangsan hit Lisi’)

Our interpretation is also supported by the fact that such examples behave as if immune to blocking effects: Each of the following sentences can be about any available referent compatible with the phi-features of the pronoun, as long as the most embedded predicate is reflexive.

- (24) a. Zhangsan_Z renwei wo_i zhidao ta ziji da-le ziji.
 Zhangsan think 1sg know 3sg self hit-Perf self
 ‘Zhangsan thinks I know (Z hit Z) / (X hit X)’
 b. Zhangsan_Z renwei wo_i zhidao wo-ziji da-le ziji_{*Z/i}.
 Zhangsan think 1sg know 1sg-self hit-Perf self
 ‘Zhangsan thinks I know I hit myself/*him’

The explanation should be clear: The subject of the most embedded predicate is a pronoun, which serves as the local antecedent of the reflexive; hence there is no long-distance anaphora and no opportunity for intervention.

4 Explaining the Binding of Double *Ziji*

The binding behaviour of simple *ziji* is quite subtle and complicated, and much of it has been explained by appeal to blocking effects. Might not the behaviour of double *ziji* also be due to blocking effects? To answer this question, we begin with another construction involving two instances of *ziji*.

¹⁰ Alternately, we might consider this example to involve a null subject; but again the embedded predicate must be reflexively interpreted.

¹¹ A third-person pronoun blocks long-distance anaphora when it is used deictically; here, we assume a context that allows us to interpret the pronoun non-deictically.

4.1 Two possessive *ziji*'s

It is known ([13], cited in [1]) that sentences involving two independent possessor reflexives show interaction effects: In (25), the two instances of *ziji* may have different antecedents as long as at least one of them is locally bound.

- (25) Zhangsan renwei Lisi zhidao [Wangwu ba *ziji*₁ de shu song-gei le
 ZS think LS know WW BA self DE book gave-to Perf
*ziji*₂ de pengyou]
 self DE friend
 'ZS thinks that LS knows that WW gave *ziji*₁'s book to *ziji*₂'s friend'

Allowed readings:

- a. Both reflexives may co-refer to Zhangsan, Lisi, or Wangwu.
- b. If one *ziji* is local (= Wangwu), the other can have a long-distance reading (either Zhangsan or Lisi).
- c. It is ungrammatical for one *ziji* to refer to Zhangsan and the other to Lisi (in either order).

Note that these examples do not involve the double-*ziji* construction: We have to do here with a sentence containing two NP positions, both of them possessors, which are independently expressed in terms of a possessive. In other words, this example contains two instances of reflexivization, rather than one instance involving two overt markers.

Pan analyzes this as a case of blocking: A third-person NP (Lisi) blocks binding only when it is itself a long-distance binder of *ziji*. This must be contrasted with the usual cases of blocking, which involve an intervener with contrasting phi-features, or with deictic reference. For comparison, we repeat an example of ordinary blocking:

- (24b) Zhangsan_Z renwei wo_i zhidao wo-ziji da-le *ziji*_{Z/i}.
 Zhangsan think 1sg know 1sg-self hit-Perf self
 'Zhangsan thinks I know I hit myself/*him'

What kind of intervention account would account for the double reflexive? In Pan's account, the *antecedent* of one reflexive becomes an intervener, blocking an even higher NP from becoming an antecedent of the other reflexive. Local anaphora is never blocked. This mechanism cannot account for the construal of double *ziji*: With a double reflexive, the subject and object of the verb are necessarily coreferential; we can never have one local and another non-local one. If we were to assume that the first *ziji* has an antecedent (which is questionable, given that it is not the subject of the clause but an adverbial), we should still be able to obtain readings where the subject is local and the object takes a long-distance interpretation. But such readings are uniformly unavailable.

Since no potential intervener exists in the relevant examples, our only option would be to treat the first *ziji* itself as an intervener for the second, as suggested to us by Ken Safir (personal communication). Such a mechanism might descriptively make the right predictions, but it would be a completely new kind of intervention: There is no feature clash, and blocking would be triggered even

though the first *ziji* is not long-distance bound, and is not even in an argument position. We conclude that an analysis in terms of interveners, if not entirely untenable, is not particularly plausible.

4.2 Logophoricity

The double-*ziji* construction always expresses reflexive action of the local subject, even if this is a pronoun or even a null subject (PRO) with arbitrary reference. To better characterize its behaviour, consider the following construals available for the single and double reflexive when used with the grooming verb *daban* ‘dress up’.

- (26) *Mulan bu xihuan chuipeng ziji.*
 Mulan not like brag.about self
 a. $Mulan_i$ doesn’t like [PRO_i to brag about herself_{*i*}].
 b. $Mulan_i$ doesn’t like [(others= PRO_j) to brag about her_{*i*}].
 c. * $Mulan_i$ doesn’t like [(others= PRO_j) to brag about themselves_{*j*}].
- (27) *Mulan bu xihuan ziji chuipeng ziji.*
 Mulan not like self brag.about self
 a. $Mulan_i$ doesn’t like [PRO_i to brag about herself_{*i*}].
 b. * $Mulan_i$ doesn’t like [(others= PRO_j) to brag about her_{*i*}].
 c. $Mulan_i$ doesn’t like [(others= PRO_j) to brag about themselves_{*j*}].

The readings in (a) and (b) should come as no surprise: When the (null) subject of *chuipeng* ‘brag’ is coreferent with *Mulan*, either type of reflexive can be used; and when the subject is construed to mean other, arbitrary persons, simple *ziji* can still refer to *Mulan*, giving rise to a long-distance construal that is impossible with double *ziji*.

The readings in (c), however, show something new: Simple *ziji* cannot be used as a local reflexive in this context, but the double reflexive can. We propose that the reason for this is the arbitrary referent of the embedded subject in readings (b) and (c), combined with the fact that (simple) *ziji* in (26) is a logophor: The arbitrary referent is not sufficiently prominent to be a logophoric antecedent, and this reading is ruled out. We propose that double *ziji* is not a logophor at all, but an ordinary anaphor similar to the English reflexive. Ordinary anaphors do not impose prominence requirements on their antecedent, and the reading in (27c) is licit since PRO_j is a suitable antecedent for an ordinary anaphor.

5 Conclusion

We have seen that the double-*ziji* construction is an independent reflexive with its own distinctive properties, which to our knowledge have not previously been discussed in the theoretical literature. In addition to the double locus of marking, the construction differs from simple *ziji* reflexives in behaving like a plain anaphor (i.e., being subject to Binding Principle A), while *ziji* is a logophor.

This conclusion presupposes that anaphors and logophors are inherently different; it is not immediately compatible, for example, with the unified account of Reinhart and Reuland [14], who propose that a single class of referentially defective elements behave as anaphors when they appear in argument position, but as logophors (“exempt anaphors”) when they appear as adjuncts.

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