Pan's (2001) puzzle revisited

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Abstract

The notion of logophoricity has long played a crucial role in understanding the co-referential relations between certain anaphoric expressions cross-linguistically, especially for long-distance anaphors violating a locality constraint and syntactic prominence conditions within the framework of pure syntactic accounts. However, Pan (2001) has shown that the long-distance binding of Chinese *ziji* should not be treated with the logophoric accounts in some aspects. This paper revisits Pan's (2001) puzzle, which arises from the ability of *ziji* to serve as a logophor, in order to call attention to what the alternative to this view might be, and proposes a solution to it through the notion of empathy, in Kuno and Kaburaki's (1977) sense of the term, so that long-distance anaphors, which are not fully covered in terms of logophoricity, can be reconciled with other East Asian languages, such as Japanese *zibun* and Korean *caki*, in terms of a unified treatment.

1 Introduction

It has been widely noted that what licenses the long-distance binding is closely related to the logophoric property of reflexives. More specifically, since Sells' (1987) logophoric approach on Icelandic and Japanese, many researchers (Yoon 1989, Huang and Liu 2001, among others) have argued that the binding behaviors of long-distance anaphors, such as those in Korean and Chinese, are attributed to the logophoric use of reflexives and that they carry the de facto identical function.

Huang and Liu (2001) point out that the three distinct roles in discourse, which are **source**, **self**, and **pivot** originally coined by Sells (1987), for the logophoric use of the Chinese long-distance *ziji* are a necessary but not a sufficient condition for long-distance anaphors. For this reason, they suggest that the notion of attitude *de se* be introduced to the long-distance anaphor *ziji*.[1]

However, despite a close link between the long-distance anaphor and logophoricity as a licensing condition for the referent it refers to, it has been repeatedly observed that logophoric accounts of long-distance anaphors have not been fully successful, facing a variety of counterexamples. In addition, in contrast to logophoric accounts for *ziji* binding, Pan (2001) strongly argues that the long-distance anaphor *ziji* should not be treated with logophoric accounts since some properties of *ziji* are not compatible with logophoricity. Pan's view is not incorrect. Indeed, the definition that lies at the heart of logophoricity is not satisfactory to cover every aspect of long-distance anaphors, especially in Chinese, since they are used as a versatile tool.

This paper revisits Pan's (2001) puzzle, which arises from the ability of *ziji* to serve as a logophor, in order to call attention to what the alternative to this view might be, and proposes a solution to it through the notion of empathy, in Kuno and Kaburaki's (1977) sense of the term, so that the long-distance anaphors, which are not fully covered in terms of logophoricity, can be reconciled with other East Asian languages, such as Japanese *zibun* and Korean *caki*, in terms of a unified treatment.

The structure of this paper is as follows. We discuss Pan's puzzle in Section 2, describing which kinds of binding behaviors in Chinese are not compatible with the properties of logophoricity. Section 3 argues that the term empathy should be accepted in order to complement the logophoric accounts of

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[1] Pan (1997) first proposed that the Chinese long-distance anaphor *ziji* can be treated as a *de se* anaphor, resulting in an obligatory *de se* construal.

the long-distance bound anaphor *ziji*. Section 4 revisits Pan's puzzle and describes that his claim is partly the case in certain environments, and that it can be accounted for with the empathic accounts. Thus, we argue that the long-distance anaphor *ziji* in Chinese should be divided into two categories of logophor and empathy. Finally, we conclude our work in Section 5.

2 Pan's (2001) puzzle

Following logophoric analysis, many scholars have tried to account for the peculiar phenomena of long-distance anaphors cross-linguistically. It has been observed in the literature (Clements 1975, Sells 1987, Kuno 1987, Stirling 1993, Pearson 2013, among others) that a logophoric pronoun commonly manifests the three properties listed in (1).

(1)   a. It can always have the **source** as its antecedent.
      b. It cannot have the first person pronoun as its antecedent.
      c. It does not exhibit the blocking effect.

(Pan 2001: 290)

Interestingly, Pan (2001) proposes the above properties as evidence against the treatment of *ziji* as a logophor. More specifically, if *ziji* functions as a logophor in a certain reported discourse context, it should exhibit the three properties which are the characteristics of a logophoric pronoun. However, it genuinely seems to be the case that the binding behaviors of *ziji* do not show any of them. To illustrate this point, this section reviews Pan's puzzle for logophoric *ziji*.

2.1 Source

According to Pan (2001), *ziji* co-referential with the long-distance antecedent cannot always have the noun phrase carrying the role of **source** as its antecedent, though logophoric pronouns can. The following examples illustrate this point.

(2)   a. Ama$_i$ se   tso   Kofi$_j$ gbɔ be
      Ama hear from Kofi side that
      yè$_{i/j}$-xɔ   nunana.
      Log-receive gift
      'Ama$_i$ heard from Kofi$_j$ that she$_i$/he$_j$ had received a gift.'
    b. Me$_i$-se   tso   Kofi$_j$ gbɔ be yè$_{*i/j}$-xɔ
      Pro-hear from Kofi side that Log-receive
      nunana.
      gift

'I$_i$ heard from Kofi$_j$ that *I/he$_j$ had received a gift.'   (Clements 1975: 158-9)

(3)   a. Lisi$_i$ shuo Zhangsan$_j$ de shu
      Lisi say Zhangsan DE book
      hai-le   ziji$_{i/j}$.
      hurt-Perf self
      'Lisi says that Zhangsan's book hurt him/himself.'
    b. Zhangsan$_i$ cong Lisi$_j$ nar   tingshuo
      Zhangsan from Lisi there hear
      naben shu hai-le   ziji$_{i/*j}$.
      that-CL book hurt-Perf self
      'Zhangsan heard from Lisi that that book hurt himself.'   (Pan 2001: 291)

While the logophoric pronoun *yè* in Ewe, one of the West African languages, in (2a) can be co-referential with either the matrix subject *Ama* or oblique *Kofi*, which functions as the **source** of the given reportive context, that in (2b) can only refer to *Kofi* with the thematic function of **source**, but not the first person pronoun *me* 'I'. That is, the sentence in (2b) is unacceptable when the first person pronoun *me* 'I' is an antecedent of the logophoric pronoun *yè* because the referent of a logophoric pronoun should be in the third person. Similarly, the matrix subject *Lisi* in (3a) is understood as the **source** of the reported speech and thus can be a candidate for the possible antecedents of *ziji* as well as possessive *Zhangsan* in the complement clause. In contrast to (2a), on the other hand, the oblique *Lisi* in (3b) cannot be the antecedent of *ziji* in spite of its **source** role in the reported discourse. The following sentence is compatible with this idea.

(4)   Wo$_i$ cong Lisi$_j$ nar tingshuo laoshi
    I   from Lisi there hear   teacher
    ma-le   ziji$_{i/*j}$.
    criticize-Perf self
    'I heard from Lisi that the teacher criticized me.'

Ziji in (4) is co-referential with the first person pronoun *wo* 'I' rather than with the **source** *Lisi*. Therefore, the long-distance bound *ziji* cannot always refer to a **source** of communication, as in Sells' (1987) system, and thus in this case logophoric *ziji* does not seem to be a sufficient condition to independently license its antecedent, unlike logophoric pronouns.

2.2 First person pronoun

Pan (2001) recognizes that *ziji* can refer to the first person pronoun *wo* 'I' at a long-distance with ease in a given discourse context, but this is an entirely different property from that which logophoric pronouns exhibit, as exemplified in (5).

(5) a. Wo$_i$ zhidao Lisi$_j$ bu xihuan ziji$_{?i/j}$.
I know Lisi not like self
'I knew that Lisi did not like me/himself.'
b. Wo$_i$ yizhi yiwei Zhangsan$_j$ xihuan ziji$_{i/j}$,
I so-far think Zhangsan like self
keshi wo cuo le.
but I wrong Perf
'I always thought that Zhangsan liked me/himself, but I was wrong.'
c. Wo$_i$ bu xihuan Lisi$_j$ guan ziji$_{i/j}$ de
I not like Lisi interfere self DE
shi.
Matter
'I don't like Lisi interfering in my/his (own) business.'
d. Ni$_i$ xihuan Lisi$_j$ guan ziji$_{i/j}$ de shi
You like Lisi interfere self DE matter
ma?
Q
'Do you like Lisi interfering in your (own) business?' (Pan 2001: 283)

According to Pearson (2013), the logophoric pronoun *yè* in Ewe preferentially refers to a third person as its antecedent, whereas referring to a first or second person antecedent is degraded, as illustrated in (6) and (7).

(6) a. *M xɔse be yè nyi sukuvi nyoe de.
Pro believethat Log Cop student good Art
'I believe that I am a good student.'
b. M xɔse be m nyi sukuvi nyoe de.
Pro believe that Pro Cop student good Art
'I believe that I am a good student.'

(7) a. *O xɔse be yè nyi sukuvi nyoe de.
Pro believethat Log Cop student good Art
'You believe that you are a good student.'
b. O xɔse be o nyi sukuvi nyoe de.
Pro believethat Pro Cop student good Art
'You believe that you are a good student.'
(Pearson 2013:449-50)

Clements (1975) also claims that logophoric pronouns in Ewe mainly appear to introduce indirect speech when referring to the attitude holder with respect to the propositional complement clause, though they can be replaced by the first person pronoun *I* in direct discourse. Moreover, the logophoric pronouns are complementary with first person pronouns in direct speech, which means that the logophoric pronouns are restricted to having third person antecedents, and cannot have first person pronoun antecedents. This point can be illustrated by the following sentences.

(8) Kofi gblɔ na wo be yè-a-dyi ga-a
Kofi speak to Pro that Log-T-seek money-D
na wo.
for Pro
'Kofi$_i$ said to them that he$_i$ would seek the money for them.'

(9) Kofi gblɔ na wo be: ma-dyi ga-a
Kofi speak to Pro that I-seek money-D
na mi.
for Pro
'Kofi$_i$ said to them: "I'll seek the money for you."' (Clements 1975: 152)

The sentences in (8) and (9) have shown that the Ewe language makes a sharp distinction between indirect speech and direct speech. In other words, the logophoric pronoun *yè* is exclusively used in the reportive context, as in (8), and the first person pronoun *ma*, which is the complex form consisting of the first person pronoun *me* and tense marker *a-*, as in (9), is normally used to refer to the external speaker in direct speech.

2.3 Blocking effect

The long-distance binding of *ziji* exhibits the blocking effect in which first and second person elements block the long-distance binding of *ziji* by all the possible third person antecedents, while the long-distance anaphors in the other languages, such as Japanese[2] and Korean respectively, do not, as exemplified in (10) through (12).

(10) a. Zhangsan$_i$ renwei Lisi$_j$ neiyang zuo
Zhangsan think Lisi that-way do
dui ziji$_{i/j}$ buli.
to self not-beneficial
'Zhangsan$_i$ felt that Lisi's$_j$ acting that way didn't do him$_{i/j}$ any good.'

[2] It has long been noted that there is no blocking effect in Japanese *zibun* binding. However, Nishigauchi (2014) indicates that the blocking effect can be observed even in Japanese, when the addition of a first person pronoun results in conflicting Empathy Foci.

b. Zhangsan$_i$ renwei wo/ni$_j$ neiyang   zuo
Zhangsan think   I/you that-way do
dui ziji$_{*i/j}$ buli.
to self   not-beneficial
'Zhangsan$_i$ felt that my/your$_j$ acting that
way didn't do him$_{*i}$/me/you$_j$ any good.'

(Pan 2001: 281)

(11)   a. Taroo$_i$-wa boku-ga zibun$_i$-o but-ta
Taroo-Top I-Nom   self-Acc hit-Past
koto-o   mada urande-i-ru.
fact-Acc still   resent-Asp-Pres
'Taroo$_i$ still resents that I hit him$_i$.'

b. Taroo$_i$-wa boku-ga zibun$_i$-ni okane-o
Taroo-Top I-Nom   self-Dat money-Acc
kasi-ta   koto-o   sukkari
lend-Past that-Acc completely
wasure-ta   rasii.
forget-Past seem
'Taroo seems to have completely forgotten
that I had loaned self money.'

(Kuno 1978: 212-213)

(12)   a. Chelswu$_i$-nun nay$_j$-ka caki$_{i/*j}$-lul
Chelswu-Top I-Nom self-Acc
Piphanhay-ess-tako sayngkakha-n-ta.
criticize-Past-Comp think-Pres-Decl
'Chelswu thinks that I criticized him/*my-
self.'

b. Na$_i$-nun Chelswu$_j$-ka   caki$_{*i/j}$-lul
I-Top   Chelswu-Nom self-Acc
Piphanhay-ess-tako sayngkakha-n-ta.
criticize-Past-Comp think-Pres-Decl
'I think that Chelswu criticized *me/him-
self.'

As a matter of fact, the blocking effect is not the
property of logophoric pronouns, since logophoric
pronouns are necessarily construed as referring to
the reported speaker who is the attitude holder and
this attitude holder is preferentially occupied by a
third person. The key evidence from Ewe is shown
in (13).

(13)   a. Kofi$_i$ xɔ   agbalẽ tso gbɔ-nye$_j$ be
Kofi receive letter   from side-Pro that
yè$_{i/*j}$-a-va   me kpe na m.
Log-T-come cast block for Pro
'Kofi$_i$ got a letter from me saving that he$_i$
should come cast blocks for me.'

b. Me$_i$-xɔ   agbalẽ tso Kofi$_j$ gbɔ be
Pro-receive letter   from Kofi   side that
ma$_i$-va   me kpe na yè$_j$.
Pro/T-come cast block for Pro
'I$_i$ got a letter from Kofi$_j$ saving that he$_i$

should come cast blocks for me$_i$.'

(Clements 1975: 159)

In addition, the notion of logophoricity cannot account for the long-distance bound *ziji* observed in extensional contexts, though it can partly explain the occurrences of *ziji* in intensional contexts such as attitude reports or reported propositions, as shown in (14).

(14)   Zhangsan$_i$ mingling Lisi$_j$ [$_S$ PRO gei ziji$_{i/j}$
Zhangsan order   Lisi   to self
guahuzi].
shave
'Zhangsan ordered Lisi to shave him/himself.'

(Pan 2001: 291)

Based on the evidence of the above example, Pan (2001) strongly argues that the long-distance bound *ziji* cannot be fully covered in terms of logophoricity. The next section is devoted to resolving this puzzle.

3   Solution through empathy

We consider that the theory of empathy plays an important role in many aspects of the interpretation of long-distance anaphors observed in Chinese. The underlying assumption is that linguistic expression may capture the speaker's attitude toward its participants in describing a state of affairs. The concept of empathy was first introduced into linguistic analysis by Kuno and Kaburaki (1977), and the notion has been developed to account for a host of linguistic phenomena that otherwise defy unified explanation within the framework of formal linguistics (Kuno 1978, 1987, Yokoyama 1980, Oshima 2004, 2007, Wang and Pan 2014, 2015, among others).

3.1   Notion of empathy

Kuno and Kaburaki (1977) vividly describe the term empathy with respect to the camera angle chosen by a director when shooting a scene. Similarly, a speaker makes the same kind of decision when s/he describes an event or state. For instance, in describing a hitting situation involving a man named *John* and his wife *Mary*, the speaker can say it in numerous ways, depending on the different positions which s/he takes, some of which are shown in (15).

(15)   a. John hit Mary.
b. John hit his wife.
c. Mary's husband hit her.

(Kuno and Kaburaki 1977: 627)

According to Kuno and Kaburaki (1977), these sentences differ from each other in reference to the speaker's view point or camera angle, though all the examples have the same logical content. In other word, in (15a), the event is being described objectively. That is, the camera is placed at equal distance from both *John* and *Mary*. However, the speaker is describing the event with his standpoint closer to *John* in (15b) and closer to *Mary* in (15c), respectively.

Kuno (1987) defines the notion of empathy, as illustrated in (16).

(16) Empathy is the speaker's identification, which may vary in degree, with a person/thing that participates in the event or state that he describes in a sentence.
Degree of Empathy: The degree of the speaker's empathy with *x*, E(*x*), ranges from 0 to 1, with E(*x*)=1 signifying his total identification with *x*, and E(*x*)=0 signifying a total lack of identification.

(Kuno 1987: 206)

To see how the empathy works in the sentence, consider the following examples in Japanese.

(17) Taroo-wa Hanako-ni hon-o   yat-ta.
Taroo-Top Hanako-Dat book-Acc give-Past
'Taroo gave Hanako a book.'

(18) Taroo-wa Hanako-ni hon-o   kure-ta.
Taroo-Top Hanako-Dat book-Acc give-Past
'Taroo gave Hanako a book.'

As noted by Kuno (1987), Japanese has a built-in mechanism for overtly specifying what the speaker's standpoint is when an event is described, which includes special verbs such as giving verbs *yaru* and *kureru* which express the empathy relationship. The speaker describes (17) from *Taroo*'s standpoint and (18) from *Hanako*'s point of view. In other words, the agent-centered verb *yaru* is used when the speaker empathizes more with the referent of the subject, whereas the beneficiary-centered verb *kureru* is used when the speaker empathizes more with the referent of the dative object rather than with that of the subject object.

Assuming that the verbs such as *hear from* and *receive from* in English require that the speaker's empathy be placed on the referent as the goal occurring in subject position, rather than the agent in object position of the preposition *from*, the sentences

in (19) and (20) seem highly compatible with empathy-based accounts.

(19) John told Mary that Bill was sick.
(20) Mary heard from John that Bill was sick.

(Kuno and Kaburaki 1977: 645)

The two sentences in (19) and (20) fundamentally deliver identical situations in their logical content, but they seem to differ from each other in the standpoint from which the speaker has intentionally chosen to describe the events, and empathize more with a specific person. Thus, it can be easily presupposed that the speaker empathizes more with *John* than with *Mary* in (19), while the speaker empathizes more with *Mary* than with *John* in (20).

3.2 Japanese *zibun* as an empathy locus

Given the fundamental notion of empathy we have discussed so far, Kuno (1987) has further formalized some possible empathy relationships within a sentence, based on semantic or pragmatic scales, where a higher ranked participant tends to be much more empathized with than a lower ranked one, as shown below.

(21) Surface Structure Empathy Hierarchy: It is easier for the speaker to empathize with the referent of the subject than with the referent of other NPs in the sentence.
E(subject) > E(other NPs)

(22) Speech Act Empathy Hierarchy: The speaker cannot empathize with someone else more than with himself/herself.
E(speaker) > E(others)

(23) Ban on Conflicting Empathy Foci: A single sentence cannot contain logical conflicts in empathy relationships.

(24) Animacy Empathy Hierarchy: It is easier for the speaker to empathize with animate objects than with inanimate objects.[3]

(Kuno 1987: 207-212)

Kuno and Kaburaki (1977) remark that Japanese reflexive pronoun *zibun* can be characterized as an empathy expression, namely an empathy locus referring to the participant with which the speaker represents his or her high degree of empathy, as shown in (25) and (26).

(25) *Taroo$_i$-wa Hanako-ga   zibun$_i$-ni
Taroo-Top Hanako-Nom self-Dat
yat-ta   hon-o   yon-da.
give-Past book-Acc read-Past

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[3] This is the revised version offered by Oshima (2006: 169).

'Taroo$_i$ read the book Hanako gave to him$_i$.'

(26) Taroo$_i$-wa Hanako-ga   zibun$_i$-ni kure-ta
     Taroo-Top Hanako-Nom self-Dat give-Past
     hon-o   yon-da.
     book-Acc   read-Past
     'Taroo$_i$ read the book Hanako gave to him$_i$.'
                                    (Oshima 2006: 174)

As mentioned earlier, according to the Ban on Conflicting Empathy Foci, proposed by Kuno and Kaburaki (1977), the empathy relationships within a single sentence must be consistent with each other. We have observed that the giving verbs, such as *yaru* and *kureru*, in Japanese can overtly specify the speaker's empathy with different participants in his or her description of events or states produced in a given context. Hence, the use of *kureru* indicates the relatively higher degree of the speaker's empathy with the recipient, but the use of *yaru* represents empathy with the agent. The reflexive form *zibun*, on the other hand, can also function as representing the empathy locus by empathizing with its referent. More specifically, the speaker is allowed to use *zibun* to refer to its antecedent *Taroo* as his or her empathy locus in both (25) and (26). In this connection, the speaker's empathy locus of *zibun* in (26) is compatible with that of *kureru*, but not that of *zibun* in (25). Based on this fact, (26) is acceptable, but (25) is unacceptable. Eventually, the conflicting empathy foci in a single sentence yield the contrast between (25) and (26).

At this point, it is necessary to mention that the speaker's empathy can play a leading role in the way that it provides a lucid explanation of the long-distance anaphors, especially in East Asian languages such as Chinese *ziji*, Japanese *zibun*, and Korean *caki*. Moreover, Oshima (2004, 2006, 2007) claims that the concepts between logophor and empathy should, strictly speaking, be distinguished in terms of the licensing conditions of each use. Such a subtle distinction could be explained by the following expression.

(27) ɖɛvi-a$_i$ xɔ   tohehe   be
     child-Det receive punishment so.that
     yè$_i$-a-ga-da   alakpa ake   o.
     Log-T-P-tell lie   again not
     'The child$_i$ received punishment so that he$_i$
       wouldn't tell lies again.'
                                    (Clements 1975: 160)

Clements (1975) accounts for the use of logophoric pronoun *yè* in (27) with an extended logophoric use

such that *yè* represents the intention of its antecedent. That is to say that the child voluntarily received punishment to prevent future wrongdoing. However, it is worth noting that there is no attitude predicate in (27). Consider the related examples in East Asian languages, repeated here in (29) from (26).

(28) Zongtong$_i$ qing wo$_j$ zuo zai ziji$_{i/*j}$ de
     president ask I   sit at   self DE
     shenbian. (Chinese)
     side
     'The president$_i$ asked me$_j$ to sit beside
       him$_i$/myself$_{*j}$.'   (Xu 1993: 136)

(29) Taroo$_i$-wa Hanako-ga   zibun$_i$-ni kure-ta
     Taroo-Top Hanako-Nom self-Dat give-Past
     hon-o   yon-da. (Japanese)
     book-Acc   read-Past
     'Taroo$_i$ read the book Hanako gave to him$_i$.'

(30) Chelswu$_i$-nun Younghee$_j$-ka   caki$_i$-eykey
     Chelswu-Top Younghee-Nom self-Dat
     cwu-n   chayk-ul   ilk-ess-ta. (Korean)
     give-Abn book-Acc read-Past-Decl
     'Chelswu$_i$ read the book Younghee gave to
       him$_i$.'

Considering the notion of logophoric pronouns, which are always co-referential with the author of a secondary discourse associated with an intensional context, the reason that the expressions observed in (28) through (30) are accounted for, in terms of a linguistic device similar to logophoricity, is not a proper explanation. These expressions are more empathy-loaded than logophoric.

4   Pan's (2001) puzzle revisited

This section revisits Pan's (2001) puzzle, which arises from the ability of *ziji* to serve as a logophor and proposes a solution to it through the notion of empathy.

Given the semantic nature and discourse effects of the empathy relation in a given discourse context, it is expected that languages other than Japanese may make use of similar mechanisms to encode linguistic representation of the empathy relation, though in what domains and how they are postulated in syntax may differ within and between languages. Recall that the logophoric pronouns can show up only in the scope of an attitude predicate, since the expressions in question are a sort of variable that is obligatorily bound by the attitude holder associated

with such a predicate. However, in reality, the behaviors of the long-distance anaphor *ziji* are much more extensive than expected.

4.1 Source

As we saw earlier, *ziji* bound by a long-distance antecedent cannot always have the noun phrase carrying the role of **source** as its antecedent, though logophoric pronouns can.

(31) a. Zhangsan$_i$ cong Lisi$_j$ nar   tingshuo
        Zhangsan from Lisi there hear
        naben shu hai-le   ziji$_{i/*j}$.
        that-CL book hurt-Perf self
        'Zhangsan heard from Lisi that that book
         hurt himself.'   (Pan 2001: 291)
    b. Wo$_i$ cong Lisi$_j$ nar   tingshuo
        Zhangsan from Lisi there hear
        laoshi ma-le   ziji$_{i/*j}$.
        teacher criticize-Perf self
        'I heard from Lisi that the teacher criticized me.'

While the logophoric pronoun *yè* in (2a) can be co-referential with either *Ama* or *Kofi,* that in (2b) may refer only to *Kofi* with the thematic function of **source**, but not the first person pronoun *me* 'I'. On the other hand, Chinese *ziji*, as shown in (31a) and (31b), can only refer to the matrix subject other than the **source** of the reported discourse regardless of person. In this regard, we can employ the Surface Structure Empathy Hierarchy, which shows that the speaker's empathy with the referent of the subject is ranked higher than any other individual, to account for this sort of behavior of *ziji*. In addition, another advantage is that the use of long-distance anaphors in extensional contexts may be compatible with the empathic interpretation, as shown in (14).

The logophoricity account for *ziji* cannot be postulated here because the distribution of the logophoric pronoun is strictly restricted to the scope of attitude predicates, as exemplified in (32).

(32) a. *Kofi wɔ be Marie yè dzo.
        Kofi do that Mary Log leave
        'Kofi caused Mary to leave.'
    b. Kofi wɔ be Marie dzo.
        Kofi do that Mary leave

'Kofi caused Mary to leave.'

(Pearson 2013: 445)

The sentence in (32a) shows that when the verb which subcategorizes a clause complement is not an attitude predicate, the logophoric pronoun such as *yè* cannot be used to refer to the referent as an attitude holder. Thus, (32a) is unacceptable, but (32b) is acceptable because there is no logophoric pronoun in the sentence.[4]

4.2 First person pronoun

Accounting for the distribution of logophoric pronouns may be able to offer a vital clue in solving the puzzle of the qualification of *ziji* to perform as a logophor, posed by Pan (2001). It has generally been noted that logophoric pronouns always refer to the agent of reported utterance or thought. In addition, as Yoon (1989) points out, the use of a logophor to indirectly report the thoughts or feelings of a first person, who is the speaker, or a second person, who is the addressee, seems to be highly unnatural.[5] For this reason, logophoric pronouns in Ewe mainly appear to introduce indirect speech when referring to the attitude holder with respect to the propositional complement clause, though they can be replaced by the first person pronoun *I* in direct discourse, as shown in (8) and (9).

As we can see from the examples above, the role of logophoric pronouns and first person pronouns somewhat resemble each other with respect to being used as first person forms except that while first person pronouns refer to the actual speaker in direct discourse, logophoric pronouns refer to the reported speaker in indirect discourse. If this is correct, it can be said that logophoric pronouns are in complementary distribution with first person pronouns and thus the two forms never occur in exactly the same environment, but in mutually-exclusive environments.

Given the properties of the distribution of logophors observed so far, it seems unreasonable to conclude that the following sentences can be correctly predicted according to the licensing condition on logophoricity. Consider the examples of (5c) and (5d).

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[4] A reviewer points out how we can explain the ambiguity in the co-referential relations: given the distinction between logophoric and empathic use, we assume that the long-distance *ziji* refers to either the internal speaker as the attitude holder or the external speaker's empathy locus in the discourse context.

[5] Yoon further argues that the binding behaviors of Korean *caki* fit nicely into the notion of logophoricity since *caki* is not compatible with first or second person antecedents.

In these examples, *ziji* can take the matrix subjects *wo* 'I' and *ni* 'you' at a long-distance as its antecedents. However, note that they are not construed as referring to the attitude holder because the verb such as *like* is not an attitude predicate. Rather, these sentences seem to be more readily accounted for in terms of empathy relation rather than logophoricity. If the empathy locus is anchored to the speaker, then *ziji* can be co-referential with the first person pronoun *wo* 'I' referring to the external speaker, as in (5c). If the empathy locus is anchored to the addressee, then *ziji* can refer to the second person pronoun *ni* 'you' referring to the addressee, as in (5d). Therefore, this empathy relation is compatible with the Speech Act Empathy Hierarchy.

4.3 Blocking effect

Recall that Pan (2001) claims that there is no reasonable way to explain the blocking effect of the long-distance binding *ziji* by means of the property of logophoric use. This is because what appears to be the blocking effect in Chinese is due to the presence of a first person pronoun in the sentence. From the discussion thus far, however, it can be said that the logophoric pronoun is not used to refer to a first person pronoun in the reported discourse. The incompatibility with the blocking effect in the logophoric environment is confirmed by the sentences in (13). There are no blocking effects though first person pronouns, referring to the external speaker, occur either in the complement clause or in the matrix clause, since the logophoric pronoun *yè* only refers to the third person rather than the first person pronoun.

Moreover, it is worth making a contrast between the logophoric and empathic use of Japanese *zibun*, as exemplified in (33) and (34).

(33) Taroo$_i$-wa boku-ga zibun$_i$-o but-ta
     Taroo-Top I-Nom   self-Acc hit-Past
     koto-o   mada urande-i-ru.
     fact-Acc still   resent-Asp-Pres
     'Taroo$_i$ still resents that I hit him$_i$.'

(34) *Taroo$_i$-wa boku-ga zibun$_i$-ni kasi-ta
     Taroo-Top I-Nom   self-Dat lend-Past
     okane-o   nakusite-simat-ta rasii.
     money-Acc lose-end.up-Past it.seems
     'It seems that Taroo$_i$ lost the money I lent to
     him$_i$.'   (Kuno 1978: 212-3)

Kuno (1978) points out that *zibun* occurring in the scope of the purely logophoric environment, as in (33), can be construed as referring to the attitude holder, even though it conflicts with what empathy locus constraints require within the propositional complement clause. In contrast to (33), on the other hand, the sentence in (34) does not occur in the logophoric environment. Thus, the unacceptability of (34) is not due to the presence of the first person pronoun but due to the conflicting empathy foci. In other words, there are two empathy loci in a single sentence. One is the first person *boku* 'I' by using an agent-centered verb *kasu* 'lend' and the other is *zibun* referring to the matrix subject *Taroo*. According to the Ban on Conflicting Empathy Foci, a single sentence cannot contain logical conflicts in empathy relationships.

Conflicting empathy foci trigger the blocking effect in Chinese as well. In other words, the blocking effect is not attributed to the person feature mismatch, but to the empathy relationship between the participants in a given discourse context. Therefore, we propose that the blocking effect of *ziji* does not exist in logophoric environments, but occurs in empathy environments. This analysis can unify the blocking effect observed not only in Chinese but also in Japanese and Korean, and more clearly accounts for why there is a blocking effect in these languages.

5   Conclusion

Adopting the view from Oshima (2004, 2007) and Wang and Pan's (2014, 2015) arguments, we propose that the long-distance anaphor *ziji* should be divided into two categories: logophor and empathy. By doing so, we can properly reconcile the seemingly different binding behaviors in East Asian languages, such as Chinese *ziji*, Japanese *zibun*, and Korean *caki*, with a unified treatment through the empathy theory.

Acknowledgments:

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