

## Long-distance anaphora: comparing Mandarin Chinese with Iron Range English<sup>1</sup>

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### 1 Introduction

Syntacticians have long cataloged a difference in behavior between referring (R) expressions (that is, proper names and referring NPs), pronouns (for example, *she*, *he*, *mine*, *it*, etc) and anaphora (that is, reflexives and reciprocals). While all these NPs can refer to other NPs within the same sentence, each type of NP, traditionally, has locations in the sentence where they can and, conversely, cannot appear. In addition to locations, there are also co-indexations with other NPs in the sentence that an anaphor may or may not have. The following three sentences show these three types of NPs in grammatical locations as well as with grammatical indexation (the type of NP is noted before the sentences and the relative NP is underlined):<sup>2</sup>

- (1) R-expression: John<sub>i</sub> walked with Mike<sub>j</sub>
- (2) Pronoun: John<sub>i</sub> walked with him<sub>j</sub>
- (3) Anaphor: John<sub>i</sub> walked with himself<sub>i</sub>

Conversely, the following example shows that these NPs in other locations in the sentences and with other co-indexations create ungrammatical sentences:

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<sup>1</sup> The Iron Range is a strip of land bordering the iron ore deposits in the Arrowhead region of Minnesota. An Iron Ranger is someone who lives on the Iron Range.

<sup>2</sup> Note that the first John in each R-expression in examples (1) – (5) are grammatical; Identifying specific characteristics of these differences will be looked at later in this squib.

- (4) R-expression: \*John<sub>i</sub> walked with John<sub>i</sub>
- (5) Pronoun: \*John<sub>i</sub> walked with him<sub>i</sub>
- (6) Anaphor: \*Himself<sub>i</sub> walked

The above data shows that the three types of NPs do, indeed, act differently. These NPs cannot always appear in the same location in a sentence or with the same types of co-indexation as each other; some of these phrases can appear in the same location as other phrases, but their co-indexation is different.<sup>3</sup> Following this data, one would assume that there is a grammatical difference between all of these forms.

However, once we look at some judgments from a few Iron Range speakers, we see that the line between a Standard English pronoun and an Iron Range long-distance anaphor are blurred; an anaphor can have the same co-indexation and place as a pronoun does in Standard English.<sup>4</sup> How does the analysis of long-distance anaphora found on the Iron Range compare to pronouns and anaphors in Standard American English? Furthermore, how does the long-distance anaphor compare to other long-distance anaphors in other languages?

This paper will begin by examining the standard interpretation of how anaphors work in English. Next, is a short segment comparing what type of judgments this interpretation of anaphors will predict compared to the judgments made by myself, a speaker of the Iron Range dialect. The fourth section will look at what it means to call an NP a long-distance anaphor. In the fifth section, the Iron Range long-distance anaphor will be compared to the long-distance reflexive reported in Mandarin Chinese, and some similarities as well as some dissimilarities will be looked at. Following this, in section six, is a commentary of what type of information would better inform this squib and how this information could, in turn, inform syntactic theory. Finally, the squib concludes that long-distance anaphora does exist in English, but that it is difficult to know how similar this type of long-distance anaphora is to that reported in Mandarin Chinese by Huang & Tang (1991).

## **2 Describing anaphora**

As we saw above, R-expressions, pronouns and anaphors act differently within a sentence. To better define this difference, let us look at the Binding Theory as it is stated in Chomsky and Lasnik (1995). As you can see there are three Principles, and each Principle refers to a different type of NP:

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<sup>3</sup> More on how this theory of NPs, Binding Theory, works is in the next section “Describing Anaphora.” There is a special focus on anaphors and how an anaphor differs from other NPs

<sup>4</sup> An example of this is in section 3, “Predicted judgments and Iron Range Judgments.”

- (7) Binding Theory  
Binding Principle A: an anaphor must be bound in its Complete Functional Complex<sup>5</sup>  
Binding Principle B: a pronoun must be free in its CFC  
Binding Principle C: a r-expression must be free

To understand the implications of this theory, let us look at the definition for “bound,” “free,” and “Complete Functional Complex.” First, let us look at the conditions that must be met for an NP to be bound.

- (8)  $\alpha$  binds  $\beta$  iff:  
 $\alpha$  is co-indexed with  $\beta$   
 $\alpha$  c-commands  $\beta$

Conversely, free means “not bound.” Lastly, let us look at Chomsky’s (1986a) definition of a CFC, as Ouhalla (1999) reports in his textbook:

- (9) Complete Functional Complex  
A CFC is a domain where ‘all grammatical functions compatible with its head are realized in it—the complements necessarily, but the projection principle, and the subject, which is optional, unless required.

Therefore, according to these definitions, an anaphor (in English) must obey Binding Principle A. That is, an anaphor must be co-indexed with another NP as well as be c-commanded by that same NP. Furthermore, all this must take place within an area that only includes the anaphor, its subject and its governor (case assigner).

Armed with this theory, let us look at how anaphors work in a grammatical Standard English sentence. We will see that they, indeed, are c-commanded by and are co-indexed by the referring NP in the sentence.<sup>6</sup> For example,

- (10) Mary<sub>i</sub> looked at herself<sub>i</sub>

In (10), we see that *Mary* and *herself* are co-indexed. Furthermore, we see that *Mary* c-commands *herself*. Thus, *herself* is bound by *Mary*. However, *herself* must be bound by *Mary* within its CFC. *At* is the governor of *herself*; and the subject (which is required) is *Mary*. Thus, the Complete Functional Complex is: *Mary*

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<sup>5</sup> CFC will be used interchangeably with Complete Functional Complex throughout this squib.

<sup>6</sup> Note, also, that the r-expression is free everywhere for nothing is higher than it in the sentence.

*looked at herself*. Thus, *herself* is bound within its CFC. The grammaticality of this sentence is predicted, according to the theory presented above. Now, let us look at more complex sentences and compare the predictions of grammaticality that Binding Theory makes concerning anaphors compared to the intuitions of some speakers from the Iron Range.<sup>7</sup>

### 3 Predicted judgments and Iron Range judgments

Furthermore, under these definitions, one would expect the following native speaker judgment where only an NP that is within the CFC of the anaphor can be the antecedent of the anaphor.

- (11) \* The boys<sub>i</sub> told the girls<sub>j</sub> [PRO stories about each other<sub>i</sub>]<sup>8</sup>  
(12) The boys<sub>i</sub> told the girls<sub>j</sub> [PRO stories about each other<sub>j</sub>]

We can predict these intuitions of Standard English speakers because (11) shows that the only subject within the CFC of *each other* is PRO, according to Ouhalla (1999), is subject controlled. That is, the subject *the boys* controls PRO in (11). Therefore, *the boys* is the antecedent of *each other*. *Tell* has allowed long-distance anaphora to surface in English. Contrastively, in (12), while *the girls* is co-indexed with *each other*, PRO is not controlled by *the girls*. Therefore, the long-distance anaphora is restricted for speakers to the root subject. Therefore, this sentence, which co-indexes *the girls* with *each other*, is predicted to be ungrammatical.

Contrary to what these definitions predict, I do not share these judgments. Rather, *each other* can, for me, refer to the NP that controls PRO within the CFC of *each other* as well as to the other NP outside of this CFC. The following are my judgments:

- (13) The boys<sub>i</sub> told the girls<sub>j</sub> stories about each other<sub>i</sub>  
(14) The boys<sub>i</sub> told the girls<sub>j</sub> stories about each other<sub>j</sub>

These judgments do not follow the predictions made by the literature on English anaphors. Rather, where (12) was ungrammatical for a speaker of Standard English, the same sentence (namely (14)), is grammatical for me. These data show that my anaphors do not have a local domain, but, instead, can operate as

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<sup>7</sup> At this point, the intuitions of three native speakers of the Iron Range dialect have been looked at. I am one of the informants; I am a female in my twenties. The other two informants are males in their fifties.

<sup>8</sup> The verb (*told*) was used on purpose as some literature (Ouhalla 1999, Chomsky 1986) suggest that this verb does not block long-distance anaphora in the same way that *heard* would.

long-distance anaphors. That is, in ungrammatical (12), we could see that *the girls* not only lies outside the CFC of *each other*, but also does not control the PRO. According to the theory, the same reasoning should make (14) ungrammatical. However, this is not the case. Instead of being restricted to a local domain, my anaphor is not controlled by the subject-controlled PRO. Rather, either NP outside of the CFC can be the antecedent of *each other*. This is an example of long-distance anaphora in English.

Moreover, while *tell* allows for a certain type of long-distance anaphora in even standard dialects of English, the verb *hear* does not *Hear*, in contrast to *tell*, does not allow for a PRO. Therefore, the exact opposite grammaticality judgments are predicted according to the literature. Now, *the girls* is the subject within the CFC instead of PRO. Therefore, *the girls*, not *the boys*, is predicted to be the antecedent of each other, as illustrated in (15) and (16):

- (15) The boys<sub>i</sub> heard the girls'<sub>j</sub> stories about each other<sub>j</sub>  
 (16) \*The boys<sub>i</sub> heard the girls'<sub>j</sub> stories about each other<sub>i</sub>

In contrast to this prediction is the judgment that a speaker of IRE would have. Rather than the girls being the sole possible antecedent of the reciprocal each other, for a speaker of IRE, the boys can also be an antecedent of each other. This is shown in (17) and (18).

- (17) The boys<sub>i</sub> heard the girls'<sub>j</sub> stories about each other<sub>j</sub>  
 (18) The boys<sub>i</sub> heard the girls'<sub>j</sub> stories about each other<sub>i</sub>

Here, both sentences are grammatical for speakers of IRE, regardless if *each other* is co-indexed with *the boys* or *the girls*. This is a second instance of long-distance anaphora in English. This time, however, the verb *heard* never allows for long-distance anaphora in English. Thus, that *the boys* can be the antecedent of *each other* is not predicted by the previous analysis of English anaphors.

#### 4 Long-distance anaphora and Mandarin Chinese

A long-distance anaphora “exhibits possibilities of having a[n] antecedent apparently outside of its governing category [or CFC].” Since some speakers from the Iron Range can reference an anaphor to an antecedent outside its CFC, let us refer to this type of anaphor as a long-distance anaphor.

Select Iron Range speakers are not the only people to exhibit this type of anaphor. Mandarin Chinese speakers have also been shown to exhibit long-distance anaphora (Huang & Tang 1991). According to their work, a long-distance anaphor in Mandarin Chinese must be a “bare” reflexive. They cite *ziji* as

the bare reflexive. *Ziji* is a bare reflexive since it carries no overt gender; it does, however, carry overt person and number ranking. Therefore, *ziji* simply means “self” (third person singular) in Mandarin Chinese. This anaphor can have an antecedent within its same CFC, or, should the following conditions be met, outside its CFC.

One of these conditions is that the bare reflexive must agree in number and person to all intervening NPs in the sentence. That is, if an intervening NP does not agree in number and person to both *ziji* and the possible antecedent located higher in the sentence, the reflexive cannot cross over this NP, and, therefore, *ziji* must refer solely to the structurally closest NP. Note that the bare reflexive does not need to agree for gender, for Huang and Tang (1991) posit that a bare reflexive carries no gender specification to be matched with at the level of Surface Structure. Therefore, should *I*, or *wo* in Mandarin Chinese, be the NP between a third person NP and *ziji*, *I* will block the anaphor from referring to the highest NP. Thus, all NPs in the sentence must agree in number and person for long-distance anaphora to occur.

Another condition for this phenomenon to occur in Mandarin Chinese is that no inanimate NP that c-commands the reflexive may act as the antecedent of the anaphor. That is, (19), which has the inanimate subject *yanjing*, or *the glasses*, would be ungrammatical for a Mandarin Chinese speaker (Huang & Tang 1991’s (7)):

- (19) \* *Yanjing*      *diao-dao*      *dishang,*      *dapo-le*      *ziji*  
          *Yanjing*      *drop-to*      *floor*      *break-ASP*      *self*  
          ‘The glasses dropped on the floor and broke.’

Here, the inanimate NP *yanjing* cannot be the antecedent of *ziji* because it is an inanimate NP. Therefore, this sentence is ungrammatical

The analysis that Huang and Tang (1991) use to account for phenomenon is that a bare reflexive is  $\phi$ -index licensed at S-structure, but receives reference at LF, when it can covertly raise. This would mean that at S-structure, *ziji* receives number and person marking, but does not receive gender marking until LF, when it also receives reference. That is, the motivation for *ziji* to raise in a sentence, according to Huang and Tang (1991), is that it is raising to receive gender information. Since *ziji* already denotes both third person and singular, the only other attribute that an anaphor must have is gender. *Ziji* raises at LF to obtain gender. Huang and Tang further stipulate (20) (their (35)):

- (20) The indices licensed by the Binding Theory at S-structure cannot be undone in LF

In this manner, long-distance anaphors could not be able to cross an NP that does not agree in  $\phi$ -features with it. This explains why a NPs that do not agree in number and gender necessarily block long-distance anaphors; the number is given at S-structure and cannot be undone at LF. Furthermore, no inanimate NP can give person information, which must be gotten at S-structure. Huang and Tang clarify how their analysis of licensing works for R expressions, pronouns, and anaphors:

R-expressions have inherent  $\phi$ -features and inherent referential features A pronoun has inherent  $\phi$ -features and may have independent reference or inherent reference from its antecedent. A compound reflexive like *himself* also has inherent  $\phi$ -features, but must acquire its reference by inheritance. Finally, a bare reflexive does not have inherent  $\phi$ -features nor inherent reference, and must rely on the antecedent for both these features (Huang & Tang 1991)

Therefore, we see that a bare reflexive, in Mandarin Chinese, does not acquire its reference by inheritance, but rather can position itself in LF to receive varied reference. Apparently, in Mandarin Chinese, only bare reflexives, not compound reflexives (which are gender marked), are able to move in LF for a variety of references.

In order to better understand how—and if—the long-distance anaphora that I exhibit is similar (or dissimilar) to Mandarin Chinese, I have compared my grammaticality judgments and those of two males in their fifties from the Iron Range to the findings that Huang and Tang report in their 1991 article, *The local nature of the long-distance reflexive in Chinese*.

## 5 Comparisons

Since there is no bare reflexive in English, I used both reciprocals (*each other*) and reflexives such as *himself* and *themselves* that agreed with all other NPs for number, person and, in the case of *himself* in English, gender. In this way, I was able to, at times, take out gender from the equation. At other times, however, I did not wish to burden the sample sentences with too many plural NPs, as this seems to make giving judgments a more demanding process. Some examples of sentences with plural and singular NPs are below.

Let us see if the intuitions that Huang and Tang (1991) report for Mandarin Chinese speakers are comparable to the intuitions of Iron Range English speakers. In order to give voice to all three informants, three intuitions are

before each sentence.<sup>9</sup> First, we see that Iron Range speakers do have restrictions on long-distance anaphora when it comes to the condition that all intervening NPs agree with the anaphor in number and person as well as with each other, however these restrictions are unlike those in Mandarin Chinese. It appears that a non-person agreeing pronoun resists being the referent in favor of the referring NP serving as the referent for the anaphor.<sup>10</sup> Compare (21) to (22).

(21) ?? The players<sub>j</sub> told them<sub>i</sub> stories about each other<sub>i</sub>  
 The players<sub>i</sub> told them<sub>j</sub> stories about each other<sub>i</sub>

(22) ? \* \* The players<sub>j</sub> told us<sub>i</sub> stories about each other<sub>i</sub>  
 The players<sub>i</sub> told us<sub>j</sub> stories about each other<sub>i</sub>

Here, we see that the *us* seems to resist being the antecedent of *each other*. In Mandarin Chinese, *each other* would have needed to refer to *us*, since it is the closest NP and, furthermore, *us* does not agree in person with the NP *the players*, for *us* is first person and *the players* is third person. For some speakers from the Iron Range, however, the NP that does not agree in person does not block the long-distance anaphor, but rather resists referring to it. This is not predicted by the analysis of bare reflexives in Mandarin Chinese. Therefore, while the non-agreeing NP does affect long-distance anaphor in Iron Range English, it seems to enhance it rather than block its ability to refer to NPs outside of its CFC. This could be due to the fact that *each other* is a reciprocal and not a reflexive. However, *each other* may have stronger connotations to third person than first person. Therefore, the unsuitable first person pronoun is disfavored when compared to the third person NP. Another explanation may lie in that the anaphor searches out a referring NP to reference rather than a pronoun, if it has the option

The article also cited that the following sentence is grammatical in Mandarin Chinese since all three referring NPs agree in number and person and *ziji* is the bare reflexive (Huang & Tang 1991, their (4)):

(23) Zhangsan<sub>i</sub> shuo [Wangwu<sub>j</sub> zhidao [Lisi<sub>k</sub> chang piping ziji<sub>i/j/k</sub>]]  
 Zhangsan<sub>i</sub> said that [Wangwu<sub>j</sub> knew that [Lisi<sub>k</sub> often criticized self<sub>i/j/k</sub>]]  
 'Zhangsan<sub>i</sub> said that Wangwu<sub>j</sub> knew that Lisi<sub>k</sub> often criticized self<sub>i/j/k</sub>.'

<sup>9</sup> Note that this may, at times, look like some intuitions have been left out. That is, if one speaker deems the sentence as grammatical, there will be no overt marking for that person's judgment next to the sentence.

<sup>10</sup> We will see later that these NPs and anaphor may also need to agree in gender, as *himself* is able to be a long-distance anaphor as well.

Comparing this to a similar sentence<sup>11</sup> in English, we see that some of the Iron Ranger speakers have mixed intuitions here. *Himself* is not able to refer to the middle NP, but may skip over that to refer to the highest NP:

- (24) a ? ? \* Bill<sub>i</sub> said that John<sub>j</sub> knew that Mike<sub>k</sub> often criticized himself<sub>i</sub>.  
 b \* \* \* Bill<sub>i</sub> said that John<sub>j</sub> knew that Mike<sub>k</sub> often criticized himself<sub>j</sub>.  
 c Bill<sub>i</sub> said that John<sub>j</sub> knew that Mike<sub>k</sub> often criticized himself<sub>k</sub>.

Here, we can see that (18c) is grammatical for all three informants. This follows what previous literature on English anaphors predicts as well as the intuitions of Mandarin Chinese speakers, namely that the anaphor can refer to its nearest referring NP. What is interesting is that (24b) is judged to be ungrammatical by all three speakers while (24a) is questionable for two of the speakers and grammatical for the third. There may be a couple of reasons for this divide. First, note that the example uses a non-bare reflexive, *himself*, that carries number, person, and gender, unlike the bare *ziji* that carries no gender. This may play a role in the acceptability of (24a) and (24b), since a gender marked anaphor may not be able to move as freely as a non-gender marked anaphor.

Furthermore, there may be something about the verb *said* that allows the reflexive to refer back to its subject NP rather than the subject of *knew*. So, this example shows us that English long-distance anaphora can occur, but that in (24b) something is blocking it from referring to *John*, where in Mandarin Chinese nothing blocks *ziji* from referring to the middle R-expression *Wangwu*. In addition to these arguments, *himself* may be able to refer back to the subject in the matrix clause in sentences such as (24). Now, let us look at another pair of examples from Mandarin Chinese and Iron Range English.

In Mandarin Chinese, a bare reflexive can refer to any of the three previous referring NPs in the sentence; therefore, the following judgments can be made (their (4)):

- (25) Zhangsan<sub>i</sub> shuo [Wangwu<sub>j</sub> zhidao [Lisi<sub>k</sub> chang piping ziji<sub>i/j/k</sub>]]  
 Zhangsan<sub>i</sub> said that [Wangwu<sub>j</sub> knew that [Lisi<sub>k</sub> often criticized self<sub>i/j/k</sub>]]  
 ‘Zhangsan<sub>i</sub> said that Wangwu<sub>j</sub> knew that Lisi<sub>k</sub> often criticized self<sub>i/j/k</sub>.’

Looking at a similar sentence in English, we see that the reciprocal *each other* cannot refer back to the first NP, *the Browns*.

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<sup>11</sup> Note that the main difference in the English sentence from the Chinese sentence is that while the Chinese sentence has the completely bare reflexive *ziji*, I used the "not bare," but rather gender marked reflexive *himself*. This may confuse the results we get from the Iron Range English speakers.

(26)

- a \* \* \*The Browns<sub>i</sub> complained that the Smiths<sub>j</sub> often said that the Nelsons<sub>k</sub> do not like each other<sub>i</sub>.
- b ? \* The Browns<sub>i</sub> complained that the Smiths<sub>j</sub> often said that the Nelsons<sub>k</sub> do not like each other<sub>j</sub>.
- c The Browns<sub>i</sub> complained that the Smiths<sub>j</sub> often said that the Nelsons<sub>k</sub> do not like each other<sub>k</sub>.

Here, the reciprocal *each other* cannot, for any of the speakers refer to *the Browns*. The reciprocal can, however, refer to either *the Smiths* or *the Nelsons* (26a) and (26c) follow the predictions made by Binding Theory in English, while (26b) does not. Furthermore, (26c) and (26b) follow the predictions of how a long-distance anaphor acts, according to the Mandarin Chinese data, while (26a) does not (26b) seems to be acting more like the Chinese long-distance anaphor, in that *each other* may skip over the intervening NP *the Nelsons*, since it agrees in number and gender, to be able to refer to *the Smiths*. However, *each other* cannot jump all the way up to refer to *the Browns*. Perhaps this is due to some difference between the verb *said* and the verb *complained*. The verb *complained* may be too many syllables long to make skipping it an easy task. On the other hand, *complained* may not have the same connotations as *said*, and is therefore treated differently from *said* when long-distance anaphor occurs. *Said* not blocking long distance anaphor, but other verbs (such as *complain* or *whisper*) blocking it is a pattern that can be seen not only in the example above, but also in (18), reproduced below as (27).<sup>12</sup>

- (27) a ? ? \* Bill<sub>i</sub> said that John<sub>j</sub> knew that Mike<sub>k</sub> often criticized himself<sub>i</sub>.
- b \* \* \* Bill<sub>i</sub> said that John<sub>j</sub> knew that Mike<sub>k</sub> often criticized himself<sub>j</sub>.
- c Bill<sub>i</sub> said that John<sub>j</sub> knew that Mike<sub>k</sub> often criticized himself<sub>k</sub>.

Next, let us look at an example that uses a bare reflexive rather than a non-gender marked reciprocal in a sentence that parallels (26) and (27). Now, the reflexive can refer to the middle r-expression, where in (26) it could not, since the verb *complain* may have been blocking its movement in a manner that *say* does not block movement (26) is reproduced below as (28):

(28)

- A ? ? \*The Browns<sub>i</sub> complained that the Smiths<sub>j</sub> often said that the Nelsons<sub>k</sub> do not like themselves<sub>i</sub>
- b ? \* The Browns<sub>i</sub> complained that the Smiths<sub>j</sub> often said that the Nelsons<sub>k</sub> do not like themselves<sub>j</sub>

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<sup>12</sup> Say is often referred to as a bridging verb.

- c \* The Browns<sub>i</sub> complained that the Smiths<sub>j</sub> often said that the Nelsons<sub>k</sub> do not like themselves<sub>k</sub>

Here we see that (28a), (28b), and (28c) all have some level of grammaticality for this group of speakers. Interestingly, now *themselves* can refer to *the Browns*, where as in (27a) *each other* could not refer to *the Browns*. This example better follows Huang & Tang's examples (1991) in that they looked at bare reflexives, not bare reciprocals. In this way, we would expect a difference between reciprocals and reflexives and their ability to be long-distance anaphors. What may lead to the use of (?) instead of a full acceptability judgment in (28a) and (28b) is the plurality of the NPs in these examples. Plurality must be used to eliminate gender from the reflexive. However, this tactic seems to make judgments more taxing. Finally, it is interesting that one speaker marked (28c) as incorrect. This is never predicted by Binding Condition A.

Interestingly, a gender marked reflexive can behave as a long distance anaphor. This is not predicted fully by the analysis of Mandarin Chinese's *ziji*, which does not receive reference information until LF, since it is non-gender marked. Evidently, gender information may be able to be assigned at SS while still allowing the anaphor to function as a long-distance anaphor at LF.

## 6 Suggestions for further research

The number of informants for this squib was very small: three. Furthermore, while I am a female in my twenties, the other two informants were males in their fifties. This may account for some of the variation in our responses. Often, sociolinguistically, young females are the first to adopt a linguistic change. The fact that the Iron Range dialect does seem to exhibit long-distance anaphora, however, is exciting. Furthermore, generalizations were able to be made concerning long-distance anaphora even with the small sample number and the gender and age variations within the sample number. However, some adjustments should be made in the sample sentences to get a better understanding of how similar this type of long-distance anaphora is to Mandarin Chinese. For instance, more sentences in English that use *themselves* as a bare reflexive should be looked at. Moreover, eliciting bare reciprocals in Mandarin Chinese would be useful to compare to the samples with *each other*. It would also be interesting to see if other dialects of English exhibit any of these same qualities and what their restrictions are.<sup>13</sup>

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<sup>13</sup> A woman in the department who is in her 20's and from Milwaukee, WI, asked what I was working on one day, so I showed her a blank judgment sheet. She marked her own judgments. Whenever the pronouns *their* or *them* interceded between two other NPs marked for the same number, person, and gender, the sentence exhibiting long-distance anaphora was marked as either grammatical or "?". This follows, in part, the reported intuitions of Mandarin Chinese speakers.

Unfortunately, the fact that English has no clear counterpart to *ziji* makes comparing the two languages difficult. On the other hand, this has also show that gender marked anaphors (both reflexives and reciprocals) can undergo the same type of phenomenon as non-gender marked reflexives. This may contradict the idea that some features are licensed at SS and others at LF. Perhaps gender in Mandarin Chinese is also licensed at SS, regardless of where it raises to in LF, as in the Iron Rangers' English. Therefore, it would also be interesting to know how speakers of Mandarin Chinese classify some compound reflexives, that is, reflexives marked for gender, as well as non-gender marked reciprocals, which were also used in the English sentences.

Also, Huang and Tang (1991) posit that Chinese reflexives and *wh-in-situ* are both opposite of English. That is, reflexives get information at LF and *wh-in-situ* can be disambiguated at LF, unlike English which uses only SS. If, however, some dialects of English use long-distance reflexives, but continue to exhibit *wh-raising*, this hypothesis of Chinese simply disambiguating more types of NPs and NP like phrases at LF also needs further investigation.

## **7 Conclusion**

Thus, we have seen that some speakers of English do, in fact, exhibit long-distance anaphor. Moreover, though the sample sentences looked at in this paper are not able to be directly compared to Chinese (for they are at times marked for gender or are reciprocals) we can still see some comparisons between the intuitions of these speakers and the three Iron Rangers. If this is so, we need to look into how Huang and Tang's 1991 analysis of long-distance anaphora works not only for this dialect of English, but also more standard dialects of English that are already reported in the literature on the Binding Theory. It should be our goal to develop a theory that can explain both "short-distance" anaphora and long-distance anaphora without losing the intuitions that native speakers have regarding their conditions. The purpose of this squib has been to show that, for some native speakers of English, a traditional view of Binding theory is not enough. Rather, we must account for speakers who have and use long-distance anaphora. Lastly, we see that the analysis of Mandarin Chinese does not fully explain some of the grammaticality judgments of Iron Range speakers. Therefore, while the two dialects exhibit long-distance anaphora, they seem to be functioning slightly differently. We saw these differences in the intervention of non-person agreeing NPs as well as some types of verbs, and perhaps some plural NPs, that anaphors cannot seem to cross over. In short, long-distance anaphora exists in English, but how it functions is not yet fully understood.

## References

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