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Is There a Difference between 'You' and 'I'? A Psycholinguistic Investigation of the Chinese Reflexive Ziji

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Abstract

We report two experiments examining first/second-person blocking effects on the Chinese long-distance reflexive *ziji* during on-line processing. Participants read sentences with varying matrix and embedded subjects (Exp1: 1st-person pronoun/3rd-person name; Exp2: 2nd-person pronoun/3rd-person name) and answered comprehension questions probing their interpretations of *ziji*. Work on English found that structurally inaccessible referents can cause competition at the reflexive, indicated by reading-time slowdowns (Badecker and Straub 2002). In Exp1, the 1st-person blocking condition (3rd-person matrix/1st-person embedded) exhibited slowdowns and a higher-than-expected rate of matrix-subject-interpretations, suggesting 1st-person blocking is not consistently effective. However, the subset of trials with effective blocking (local-antecedent interpretations) revealed no slowdowns. In Exp2, the 2nd-person blocking condition (3rd-person matrix/2nd-person embedded) showed consistent blocking and no significant slowdowns. Our results suggest that referents' ability to compete depends not only on prominence (Badecker and Straub 2002) but also how it is blocked (person-feature *vs.* syntactic barrier). Building upon Brunyé et al.'s (2009) finding that 2nd-person pronouns are more effective at triggering perspective-taking than 1st-person pronouns, we suggest that the difference between first- and second- person blocking may be attributable to perspective taking: Identifying with the 2nd-person addressee leads comprehenders to more consistently interpret the reflexive as referring to the local 2nd-person subject, resulting in a consistent blocking effect.

Is There a Difference between 'You' and 'I'?
A Psycholinguistic Investigation of the Chinese Reflexive *Ziji*

Xiao He and Elsi Kaiser[*]

1 Introduction

We report two experiments examining Binding-Theoretic (BT) effects on the Chinese long-distance reflexive *ziji* during on-line processing. Specifically, we focus on questions such as what constraints determine a referent's ability to compete in real-time anaphor processing and whether comprehenders' off-line interpretations of *ziji* are consistently determined by BT constraints.

Existing work on English produced mixed results regarding whether real-time anaphor resolution is fully determined by BT-constraints. Badecker and Straub (2002) argued that referents that are ruled out by BT (i.e., inaccessible/non-BT-licensed antecedents) are nevertheless temporarily activated during the early stages of processing and compete with accessible/BT-licensed referents. This contrasts with the findings of Nicol and Swinney (1989) and Sturt (2003) who argue that BT constraints are privileged and apply very early.

More specifically, Badecker and Straub (2002) examined sentences like (1) and found that referents that are structurally inaccessible according to BT-constraints (e.g., the matrix subject *John*) are nevertheless activated if they are sufficiently prominent in the local discourse. In (1) below, the matrix subject (*John/Jane*) is inaccessible to *himself* because BT constraints dictate that reflexives need to be bound by a local c-commanding subject (*Bill*), but the matrix subject is outside the local domain. However, Badecker and Straub found that reading times were significantly longer when the matrix subject (*John*) matched the reflexive *himself* in gender than when the matrix subject (*Jane*) did not match the reflexive in gender. Longer reading times are taken as an indication of *competition* between two possible antecedents (*John…Bill…himself*), which is not present when the matrix subject has a different gender (*Jane…Bill…himself*). The presence of a slowdown suggests that, during real-time processing of *himself*, comprehenders are sensitive to the matrix subject, despite its structural inaccessibility.

(1) {John/Jane} thought that <u>Bill</u> owed <u>himself</u> another chance to solve the problem.

2 The Chinese Reflexive *Ziji*

To further our understanding of the constraints that influence which referents are activated during the real-time processing of reflexives, we examined the Chinese long-distance reflexive *ziji* 'self', which is unmarked for gender and number. Unlike in English where interpretation of reflexives is determined by structural/syntactic constraints, interpretation of *ziji* depends on intervening referents' features. This phenomenon is commonly called the *Blocking Effect*. Specifically, (i) if the local subject is third person, the reflexive *ziji* can refer to either the long-distance or the local antecedent; (ii) If the local subject is a first/second-person pronoun, long-distance binding is blocked (e.g., Huang and Liu 2001, Pan 2001). For example, in (2a), the intervening local subject *Lisi* is third person, so *ziji* can refer to local subject *Lisi* or the long-distance, matrix subject *Zhangsan*, and no blocking is present. On the other hand, in (2b), the intervening local subject is the first-person pronoun *wo*; as a result, *ziji* can only refer to *wo* 'I' and is blocked from referring to the long-distance matrix subject *Zhangsan*.

(2) a. No blocking (Third person – Third person)
<u>**Zhangsan**</u>$_1$ *gaosu bieren* <u>**Lisi**</u>$_2$ *juede* <u>**ziji**</u>$_{1/2}$ *neng kaojin hao daxue.*
<u>**Zhangsan**</u>$_1$ tell others <u>**Lisi**</u>$_2$ feel <u>**self**</u>$_{1/2}$ able test-in good college.

(2) b. Blocking (Third person – First person)

*Zhangsan₁ gaosu bieren **wo₂** juede **ziji***₁/₂ neng kaojin hao daxue.*
Zhangsan₁ tell others **I₂** feel **self**₁/₂ able test-in good college.

Although these facts are standardly reported in the literature, native speaker judgments suggest that the blocking effects may be less absolute than often assumed. In the experiments reported in this paper, we aim to (i) probe the effects that person-feature based blocking has on referents' ability to compete during real-time processing, and also to (ii) test whether naïve Chinese speakers exhibit consistent Blocking Effects with first/second-person interveners.

To gain insights into the reasons underlying blocking, (iii) we also tested whether first-person blocking and second-person blocking differ. Existing research disagrees regarding the underlying reasons for Blocking. Factors that have been argued to be the source of Blocking Effects include perspective-taking, animacy, and feature-checking (see Huang and Liu 2001, Pollard and Xue 1998, Cole and Wang 1996). In our experiments, we explore a novel prediction related to perspective-taking, building on existing work by Brunyé, Ditman, Mahoney, Augustyn and Taylor (2009). In cognitive psychology research, unrelated to syntax, Brunyé et al. (2009) found that in three-sentence discourses, second-person pronouns were more effective at triggering perspective-taking than first-person pronouns. If we combine this finding with the idea that Chinese Blocking Effects are attributable to perspective taking – as argued by Huang and Liu (2001), then the prediction is that we may find stronger blocking when the intervening element is a second-person pronoun than when it is a first-person pronoun.

In sum, we use offline question-answer data and on-line reading time data to test (i) whether native Chinese speakers exhibit blocking consistently, (ii) whether an intervening first/second-person pronoun blocks long-distance referents from competing with local antecedents, and (iii) whether first-person blocking and second-person blocking are similar in consistency.

3 Experiment 1

3.1 Design and Procedure

We used self-paced reading to examine Blocking Effects during real-time processing. We created thirty-two target items where the person features of the long-distance, matrix subject and the local, embedded subject were manipulated (first-person pronoun *vs.* third-person name). This resulted in a total of four conditions as shown in (3) and also Table 1. In addition to the target items, we also created seventy-two filler items that did not contain the reflexive *ziji*.

(3) Sample target items

    a. **1p-1p**: Both the matrix subject and the embedded subject are first person. In this condition, there is only one possible referent:

      Wo₁ *gaosu bieren* **wo₁** *juede* **ziji₁** *neng kaojin hao daxue.*
      I₁ tell others **I₁** feel **self₁** able test-in good college.

    b. **1p-3p**: The matrix subject is first person and the embedded subject is third person; both referents are possible antecedents according to Blocking Effects:

      Wo₁ *gaosu bieren* **Lisi₂** *juede* **ziji₁/₂** *neng kaojin hao daxue.*
      I₁ tell others **Lisi₂** feel **self₁/₂** able test-in good college.

    c. **3p-1p:** The matrix subject is third person and the embedded subject first person. The matrix subject is inaccessible according to Blocking Effects:

      Zhangsan₁ gaosu bieren **wo₂** *juede* **ziji**₁/₂ *neng kaojin hao daxue.*
      Zhangsan₁ tell others **I₂** feel **self**₁/₂ able test-in good college.

    d. **3p-3p:** Both the matrix and the embedded subjects are third person. There are two available referents according to Blocking Effects:

      Zhangsan₁ *gaosu bieren* **Lisi₂** *juede* **ziji₁/₂** *neng kaojin hao daxue.*
      Zhangsan₁ tell others **Lisi₂** feel **self₁/₂** able test-in good college.

		Matrix Subject	
		First person	Third person
Embedded Subject	First person	*I…I…ziji* →one possible antecedent	*Zhangsan…I…ziji* → According to Blocking, only one possible antecedent
	Third person	*I…Lisi…ziji* →According to Blocking, two possible antecedents	*Zhangsan…Lisi…ziji* →According to Blocking, two possible antecedents

Table 1. Four experimental conditions.

We used a moving-window, non-cumulative self-paced reading paradigm. Twenty adult native speakers of Mandarin Chinese from the University of Southern California community read sentences in a word-by-word fashion by pressing a key. This method is commonly used in psycholinguistic research to investigate sentence processing because it has been shown that reading time is highly correlated with processing load (Badecker and Straub 1994, 2002).

One factor found to influence reading speed is the presence of competing alternatives. Existing studies on reference resolution have shown that extra processing cost, indicated by longer reading times, is needed to resolve a referential form that has more than one candidate antecedent, in comparison to a referential form with only one possible antecedent (Badecker and Straub 1994, 2002). Thus, multiple antecedent candidates competing with each other result in reading time slowdown. It is worth noting, however, that such slowdown effects do not necessarily emerge on the referential form itself and may instead arise on the following words, hence exhibiting a so-called *spillover* effect that is common in self-paced reading.

To ensure that participants would pay attention to the task and to get information about their final interpretations of the reflexive *ziji*, we included a two-option forced-choice comprehension question after each sentence (targets and fillers). Participants pressed appropriate keys to make a choice. For the thirty-two target items, the comprehension questions probed participants' off-line interpretations of *ziji*, as shown in (4). This way, we were able to collect naïve Chinese speakers' judgments of the Blocking Effects. Since there was only one referent (i.e., first-person pronoun) in the 1p-1p Condition, one of the two options for the comprehension questions in this condition was a referent unmentioned in the sentence as shown in (5).

(4) Sample comprehension question:
   Zhansan   gaosu bieren Lisi juede ZIJI   nenggou jin   hao   daxue.
   'Zhangsan told   others Lisi feel   SELF could   get-into a good college.'
   <u>Question</u>: *Shui   neng jin   hao   daxue*?
            Who can   get-in a good university?
            (A). Zhangsan   or   (B). Lisi
(5) Sample comprehension question for the 1p-1p Condition:
   Wo   gaosu bieren wo juede ZIJI   nenggou jin   hao   daxue.
   'I   told   others I   feel   SELF could   get-into a good college.'
   <u>Question</u>: *Shui   neng jin   hao   daxue?*
            Who can   get-in a good university?
            (A). Wo *'I'*   or   (B). Wangwu

3.2 Predictions

The main questions we tried to answer with Experiment 1 were (i) whether naïve Chinese speakers exhibit consistent Blocking Effects and (ii) whether first-person blocking fully prevents blocked long-distance subjects from competing with accessible local subjects.

For antecedent choices (as indicated by participants' answers to comprehension questions), we predict that if blocking determines comprehenders' interpretations of *ziji*, long-distance antecedents should be possible in the 1p-3p and the 3p-3p Conditions and crucially *not* in the 3p-1p/Blocking Condition where long-distance binding should be blocked by the intervening first-person pronoun.

For reading time patterns, we predict that at *ziji* and onwards, relative to the 1p-1p Condition, the 1p-3p and the 3p-3p Conditions should be read significantly more slowly due to the presence of two available antecedents in these two conditions. For the 3p-1p Condition, there are two possible predictions: If Blocking is strong enough to block inaccessible referents from competition, the 3p-1p Condition should not differ significantly from the 1p-1p Condition in reading time; alternatively, if Blocking is weak, the 3p-1p Condition should be read significantly more slowly than the 1p-1p Condition, indicating that inaccessible matrix subjects still compete with accessible embedded subjects.

3.3 Results

All participants scored at least 90% on the comprehension questions following filler items; hence, all participants were included in subsequent analyses.

To analyze participants' **antecedents choices**, we used Logistic Mixed-Effects regression (Bates, Maechler and Bolker 2011). See Jaeger (2008) for relevant discussions on the strengths of this statistical method. As mentioned earlier, since the 1p-1p Condition contained only one referent (the first-person pronoun), we excluded this condition when analyzing the antecedent choice data because any non-first-person choices in this condition would be due to participants' mistakes.

As can be seen in Figure 1, participants' antecedent choices reveal a significant preference for the local antecedent (the embedded subject) in all conditions (1p-3p: 95.92%; 3p-1p: 73.12%; 3p-3p: 85.67%). Strikingly, the condition with the lowest rate of local-antecedent choices and the highest rate of matrix subject choices is the 3p-1p/Blocking Condition. This condition has a significantly higher rate of matrix subject choices than the other two conditions (*ps* < .005) – even though according to Blocking, this is the one condition that should show the highest rate of local-antecedent choices and very few, if any, matrix subject choices
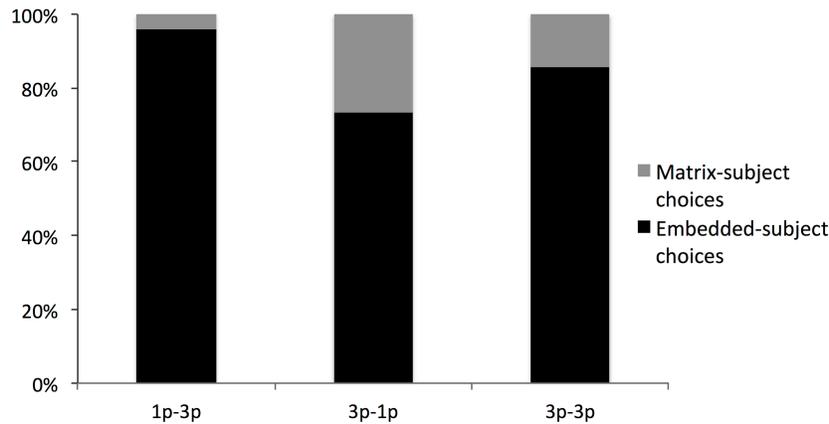

Figure 1: Antecedent choices for target items in Experiment 1.

Let's now turn to the **reading time data** (Figure 2). Following the standard trimming procedure, reading times below 100 *ms* were discarded, Additionally, reading times that were 3 standard deviations (SD) above or below the mean reading time of a given word position in a given condition were replaced with *mean + 3SD* or *mean – 3SD*. These procedures together affected less than 3% of data points. The remaining data was log-transformed and submitted to Linear Mixed-Effects Regression analyses (Bates, Maechler and Bolker 2011).

Our discussion of the reading time data focuses on the reflexive *ziji* and the spillover region following *ziji*. In the region prior to *ziji*, we found that sentences with third-person subjects were read significantly more slowly than sentences with first-person pronouns (Figure 2). Existing literature has shown that reading proper names incurs higher processing costs than reading reduced noun types such as pronouns (Warren and Gibson 2002). Thus, this finding is expected and is not the focus of our studies.

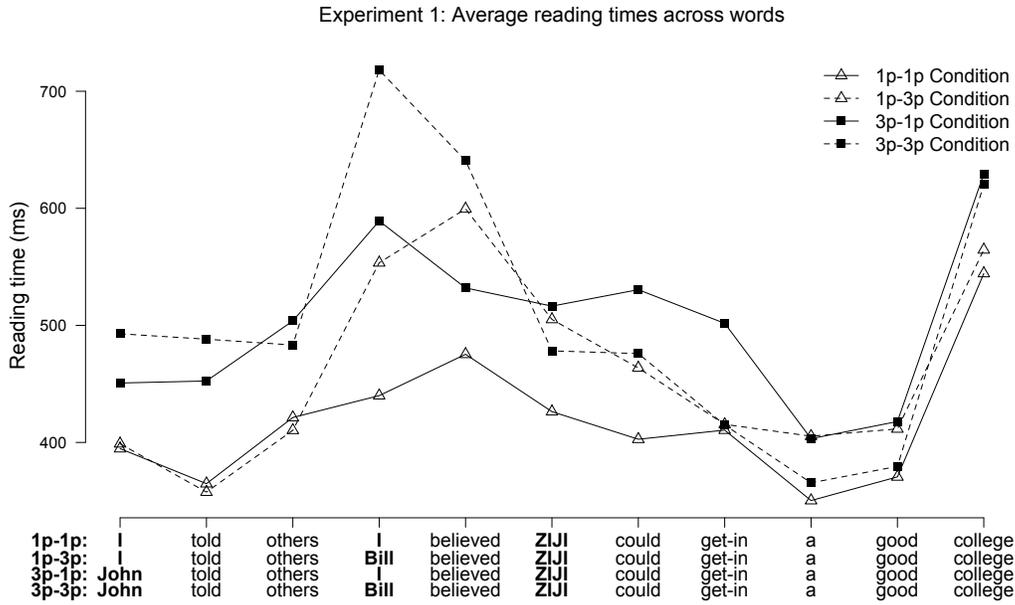Experiment 1: Average reading times across words

Figure 2: Average reading times across words in Experiment 1.

When we consider the reflexive and the spillover region, we see that sentences with third-person names as matrix subjects were read significantly more slowly than sentences with first-person matrix subjects (Figure 2). This result is expected given the findings of Warren and Gibson (2002). More importantly for our current purposes, we also observed significant reading time slowdowns in the 1p-3p, the 3p-1p, and the 3p-3p Conditions, relative to the 1p-1p Condition (Figure 2). While the significantly slower reading times in the 3p-3p and the 1p-3p Conditions were expected due to competition resulting from the presence of two accessible antecedents, the longer reading times in the 3p-1p/Blocking Condition are not predicted under the standard view of Blocking. In other words, if the presence of a first-person intervener blocks the matrix subject from being considered (as claimed by Blocking), we should not see any slowdowns in this condition. Instead, we found a slowdown here as well, suggesting that the matrix subject is not fully blocked and is also being considered. This finding lends support to Badecker and Straub's (2002) claim that inaccessible referents are activated during processing if they are sufficiently prominent (assuming that matrix subjects are prominent).

3.4 Response-Contingent Analyses

Despite the overall reading time pattern, it would be premature to conclude at this point that first-person blocking is not effective. Recall that on 26.88% of the trials in the 3p-1p Condition, participants chose the matrix subjects as the antecedents for *ziji*; in other words, participants failed to conform to the Blocking Effects almost 30% of the time. This unexpected result raises the question of whether the reading time slowdowns in the 3p-1p Condition (Figure 2) might have been caused by the subset of trials where *blocking was not effective*. To examine this possibility, we conducted response-contingent analyses by removing those trials in the 3p-1p Condition that violated Blocking. Thus, the analyses that are discussed in this section are based on all the data points from the 1p-1p, 1p-3p, and 3p-3p Conditions and the 73.12% of the trials in the 3p-1p Condition where participants interpreted the local, embedded subjects to be the antecedents of *ziji* (in other words, trials on which participants obeyed Blocking).

On the whole, these response-contingent analyses replicated the reading time pattern in the region preceding *ziji*. Again, target sentences with third-person subjects were read significantly more slowly than those with first-person subjects (*p's* < .05). However, at *ziji* and onward, although the 3p-1p Condition was still numerically slower, the slowdowns in this particular condi-

tion were no longer statistically significant.

Thus, our results from Experiment 1 suggest that contrary to what Blocking predicts, first-person blocking is not consistently effective and does not always constrain comprehenders' final interpretations of the reflexive *ziji* as reflected in the higher-than-expected rate of long-distance antecedent choices. However, our response-contingent analysis shows that when Blocking is at work, it can reduce competition from inaccessible matrix subjects.

4 Experiment 2

In Experiment 1, we found that first-person blocking is not consistently effective but that when it is effective, it can reduce inaccessible referents' ability to compete with accessible referents. In Experiment 2, we investigate blocking configurations that involve the second-person pronoun, to see whether they pattern the same as the first-person pronoun configurations we looked at in Experiment 1.

Existing literature on perspective taking suggests that relative to the first-person pronoun 'I', the second-person pronoun 'you' is more likely to influence comprehenders to adopt the perspective of the second-person addressee (Brunyé, Ditman, Mahoney, and Taylor 2011, Brunyé et al. 2009, Ditman, Brunyé, Mahoney, and Taylor 2010). For example, Brunyé et al. (2009) conducted an experiment examining how first-, second-, and third-person pronouns impact comprehenders' perspective taking differently. Participants in the experiment read multi-sentence discourses that described different actions. After each discourse, a picture was displayed depicting either the action described in the preceding discourse or an unrelated action. When a picture matched the preceding discourse, it depicted the action either from an observer's perspective or from the perspective of the agent of the action. Participants had to verify as quickly as possible whether a given picture matched the preceding discourse. Brunyé et al. found that after discourses with second-person pronouns, participants were faster at verifying agent-perspective pictures than observer-perspective pictures; on the other hand, with first- and third-person pronouns, participants were faster at verifying observer-perspective pictures than agent-perspective pictures.

Based on these results, Brunyé et al. (2009) argued that when a discourse is narrated as if it was directly addressed to comprehenders using the pronoun 'you', they are more likely to identify with and take the perspective of the second-person addressee of the discourse. Brunyé et al. further suggested that second-person pronouns are more likely to induce perspective taking.

If these results generalize to Chinese, we might expect that in Chinese, the first-person pronoun and the second-person pronoun also influence perspective taking differently. If Blocking Effects are sensitive to perspective taking as suggested by Huang and Liu (2001), we should expect first- and second-person pronouns to differ in how effective they are as 'blockers'. More specifically, we hypothesize that when comprehenders read sentences with the second-person pronoun, they may be more likely to identify with the addressee (i.e., second-person pronoun) and take the perspective of the second-person addressee. As a result, we should see a more consistent blocking effect with second-person pronouns compared to first-person pronouns.

4.1 Design and Predictions

Twenty-eight native speakers of Mainland Mandarin Chinese from the University of Southern California community participated. None of them took part in the previous experiment. We adopted the experimental design, material, and procedure of Experiment 1 with the exception that now all the first-person pronouns in the test sentences were replaced by second-person pronouns.

In Experiment 1, we found that first-person blocking is not consistently effective. In Experiment 2, if second-person blocking is similarly inconsistent, we should see matrix subject antecedent choices on a considerable portion of trials of the 3p-2p/Blocking Condition. Alternatively, if the effect of second-person blocking is consistent/stronger, participants should choose embedded subjects on (nearly) all the trials in the blocking condition. For the reading times, if second-person blocking is strong enough, the 3p-2p/Blocking Condition should not exhibit significant slowdowns.

4.2 Results

All participants were included in subsequent analyses due to high accuracies on the comprehension questions following filler items (90% and above). The trimming criterion for Experiment 2 was identical to that used in Experiment 1, affecting less than 3% of data points. Reading time data was log-transform before further analyses.

Paralleling Experiment 1, participants' **antecedent choices** exhibited a strong preference for local subjects (Figure 3). Participants chose local subjects on 96.78%, 93.52%, and 86.57% of the trials in the 2p-3p, the 3p-2p, and the 3p-3p Conditions, respectively. (Similar to Experiment 1, we excluded the 2p-2p Condition because there was only one referent – i.e., second-person pronoun – in this condition, and any non-second-person choices would be due to participants' errors.) We conducted Logistic Mixed-Effects Regression analyses on the antecedent choices and found that the 3p-3p Condition resulted in significantly more matrix subject choices than the 2p-3p and the 3p-2p/Blocking Conditions (p's < .05). In addition, by comparing the 3p-1p Condition with the 3p-2p Condition, we found that the 3p-2p Condition resulted in significantly *fewer* matrix subject choices (p < .0001). These results together suggest that the second-person pronoun more consistently constrains comprehenders' antecedent choices, as shown in the more consistent local subject choices in the 3p-2p/Blocking Condition.
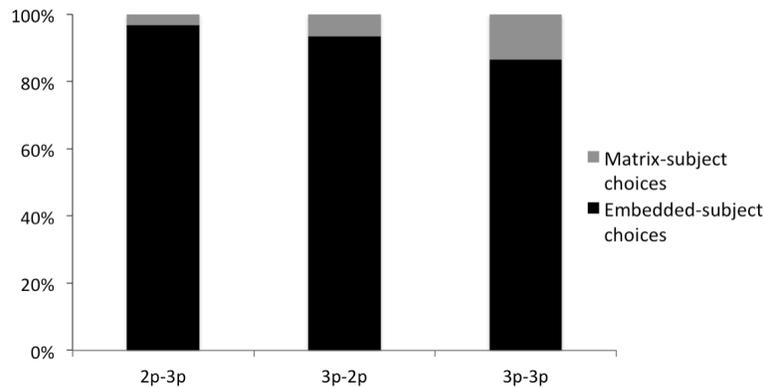

Figure 3: Antecedent choices for target items in Experiment 2.

We now turn to the **reading time data** (Figure 4). As with Experiment 1, third-person subjects again caused significantly longer reading times relative to second-person pronouns (p's < .05). This result is expected given earlier work showing that processing third-person names is more effortful than pronouns (Warren and Gibson 2002) (Figure 4). Crucially, reading times in the 3p-2p/Blocking Condition did not differ significantly from the 2p-2p Condition suggesting that second-person blocking can reduce inaccessible subjects' ability to compete. In other words, the presence of an embedded second-person subject seems to block access to the matrix subject.
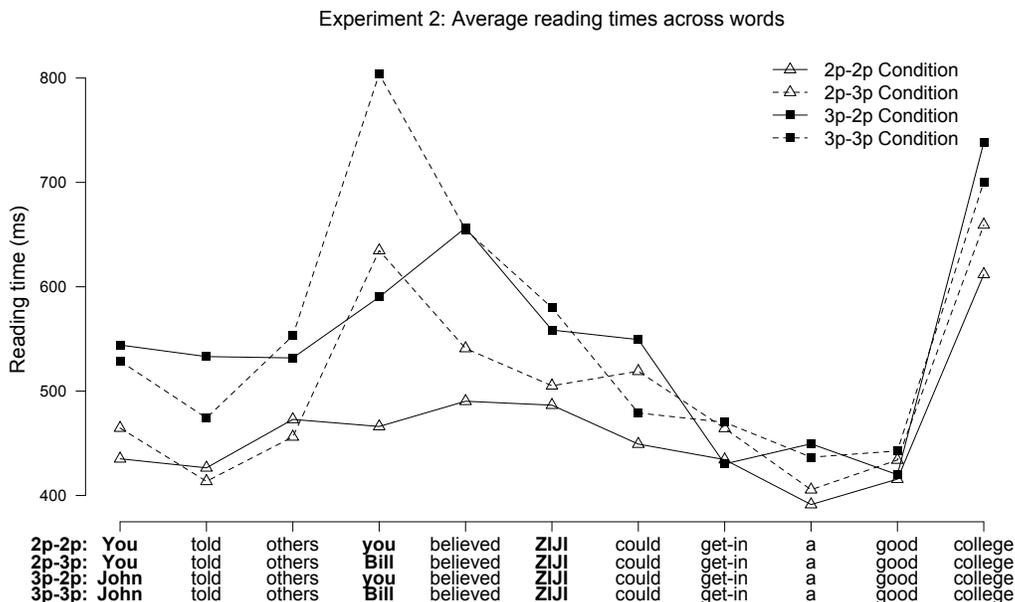
Experiment 2: Average reading times across words

Figure 4: Average reading times across words in Experiment 1.

5 Conclusions

The two experiments presented here show divergent antecedent choice and reading time patterns. In the first-person blocking condition in Experiment 1, despite what Blocking Effects predict, a considerable subset of trials showed matrix subject choices, suggesting that first-person blocking is not consistently effective – contra the current theoretical literature on the blocking phenomenon (Huang and Liu 2001, Pan 1997, 2001, Tang 1989, Xu 1993). On the other hand, the second-person pronoun exhibited consistently effective blocking.

The reading time data shows an equally interesting pattern. In Experiment 1, we observed slower reading times at the reflexive and onward in the 3p-1p/Blocking Condition compared to the 1p-1p Condition. This slowdown – indicative of increased processing effort – suggests that the matrix subjects, which should have been blocked, still competed with accessible/embedded subjects, in line with Badecker and Straub's (2002) claim that prominent but structurally inaccessible referents enter into the initial pool of antecedent candidates. These results also coincide with some recent crosslinguistic work on binding (Chen and Vasishth 2011, Patil, Vasishth, and Lewis 2011).

However, the higher-than-expected rate of matrix subject choices observed in the first-person blocking condition warranted more fine-grained analyses. We conducted response-contingent analyses by removing those trials in the 3p-1p Condition where participants chose matrix subject choices – that is, we looked at reading times of only those trials where participants followed Blocking. For this subset, the slowdown in reading time was no longer significant. This suggests that although first-person blocking is not consistently effective, when it is effective, it can reduce the matrix subject's ability to compete.

On the other hand, the antecedent choice data from Experiment 2 shows that the second-person pronoun is a more consistently effective blocker compared to the first-person pronoun. The reading time data in Experiment 2 suggests that an intervening second-person pronoun can reduce competition from inaccessible matrix subjects.

These results have several implications. First of all, our results support claims made in existing studies that comprehenders' antecedent choices do not necessarily follow binding-theoretic constraints strictly (Kaiser, Runner, Sussman, and Tanenhaus 2009, Runner, Sussman, and Tanenhaus 2006). In our case, these constraints are the person-feature-based Blocking Effects.

Secondly, the current study also provides additional insight into the factors that determine what antecedents are activated during real-time processing. Our experiments suggest that whether

or not an inaccessible referent competes not only hinges on the referent's prominence as suggested by Badecker and Straub (2002) but also depends on how it is blocked from being accessible. Badecker and Straub (2002) (see also Runner et al. 2006) examined reflexives in English where referents' accessibility is determined by the syntactic principles of Binding Theory. However, in Chinese, referents' accessibility is constrained by the person-feature-based Blocking Effects. The finding that the person-feature based blocking in Chinese can reduce competition suggests that this type of constraint may be stronger than the syntactic constraint based blocking in English.

A third finding emerging from our data is the different consistency in blocking between the first-person blocking and the second-person blocking. Based on existing theories on blocking, we should expect the first- and the second-person pronouns to pattern similarly. However, our experiments show a clear difference between the two pronouns. This difference may be attributed to the different impact that the two pronouns have on perspective taking – a phenomenon observed by Brunyé et al. (2009) and other relevant studies on perspective taking (see Brunyé et al. 2011, Ditman et al. 2010). Results from these studies suggest that different linguistic cues, such as different pronouns, influence comprehenders to take perspectives in different ways. Specifically, reading sentences that describe actions using the second-person pronoun *you* (e.g., 'you are peeling the cucumber' from Brunyé et al. 2011) encourages comprehenders to identify with the second-person addressee/performer in comparison to sentences using the first/third-person pronouns.

Building upon these findings, we suggest that an intervening second-person pronoun may encourage comprehenders to take the perspective of the second-person addressee more strongly than an intervening first-person pronoun, therefore resulting in a more consistent blocking effect.

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