Repairing Binding Principle effects

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1 Puzzle

The presence of binding principle effects in ellipsis has been taken to be evidence that ellipsis involves syntactic representations (Fiengo & May 1994; Hestvik 1995; Kennedy 2003; a.o.). For example, the sentence in (1a) strongly disfavors a strict interpretation, in which Sterling also blames Doug for the band's collapse. This can be explained if (1a) is derived from (1b): the strict reading would violate Binding Principle A, which requires a reflexive pronoun to find its antecedent locally (Kennedy 2003; cf. Fiengo & May 1994). In this paper the elliptical elements are represented between "⟨" and "⟩".

(1)   a.   Doug blamed himself for the band's collapse, and Sterling did, too.
       b.   Doug blamed himself for the band's collapse, and Sterling did ⟨ blame himself for the band's collapse ⟩, too.

Likewise, the disjoint reference effect in (2a) is a direct consequence of Binding Principle B, which rules out coreference between a pronoun and a co-argument, as shown in (2b).

(2)   a.   * Kim takes care of him₁ because he₁ won't.
       b.   * Kim takes care of him₁ because he₁ won't ⟨ take care of him₁ ⟩

In Mandarin, binding principle effects are also observed in VP ellipsis, as exemplified by the following examples.

(3)   *Binding Principle A*

       Libai hui piping   ziji, dan Dufu bu hui.
       Libai will criticize self but Dufu not will

       a.   'Libai₁ will criticize himself₁, but Dufu₂ won't criticize himself₂.'   Sloppy reading
       b.   # 'Libai₁ will criticize himself₁, but Dufu₂ won't criticize him₁.'   Strict reading

(4)   *Binding Principle B*

       *Libai₁ hui piping   ta₂, dan ta₂ dangran bu hui.
        Libai will criticize him but he certainly not will

       Intended 'Libai₁ will criticize him₂, but certainly he₁ won't criticize himself₁.'

(5)   *Binding Principle C*

* Libai$_1$ hui piping Dufu$_2$, dan Dufu$_2$ dangran bu hui
     Libai will criticize Dufu but Dufu certainly not will

     Intended 'Libai$_1$ will criticize Dufu$_2$, but certainly Dufu$_2$ won't criticize himself$_2$.'

Interestingly, violations of Binding Principles B and C can be repaired by adding a reflexive pronoun to the subject in the clause with VP ellipsis, as in (6).

(6) a. Libai$_1$ hui piping   ta$_2$, dan ta$_2$ **ziji** dangran bu hui.
         Libai will criticize him but he self certainly not will
         'Libai$_1$ will criticize him$_2$, but certainly he$_1$ won't criticize himself$_1$.'
     b. Libai$_1$ hui piping   Dufu$_2$, dan Dufu$_2$ **ziji** dangran bu hui
         Libai will criticize Dufu   but Dufu self certainly not will
         'Libai$_1$ will criticize Dufu$_2$, but certainly he$_2$ won't criticize himself$_2$.'

According to the parallelism requirement of VP ellipsis, the underlying structure of the above two sentences should be represented as (7). However, these representations violate Binding Principles B and C. The surface forms corresponding to these representations are in fact ungrammatical. These sentences indicate that the violation of binding principles cannot be rescued in a non-ellipsis environment by adding a reflexive.

(7) a. * Ta$_2$ **ziji** dangran bu hui piping   ta$_2$.
           he   self certainly not will criticize him
           Intended 'Certainly, he won't criticize himself.'
     b. * Dufu$_2$ **ziji** dangran bu hui piping   Dufu$_2$
           Dufu   self certainly not will criticize Dufu
           Intended 'Dufu won't criticize himself.'

    The repairing effect is not only observed in Mandarin. Cross-linguistically, it is also found in Japanese, as exemplified in (8), and in English, as exemplified in (9).

(8) a. * Taro-wa Hanako-o$_1$ hihansita ga, Hanako$_1$-wa [e] si-na-katta.
           Taro-TOP Hanako-Acc criticized but, Hanako-TOP   do-NEG-PAST
           Intended 'Taro criticized Hanako$_1$, but Hanako$_1$ didn't criticized herself$_1$.'
     b. Taro-wa Hanako-o$_1$ hihansita ga, Hanako$_1$ **jisin**-wa [e] si-na-katta.
         Taro-TOP Hanako-Acc criticized but, Hanako self-TOP   do-NEG-PAST
         'Taro criticized Hanako$_1$, but Hanako$_1$ didn't criticized herself$_1$.'

(9) a. * John will criticize Bill$_1$, but he$_1$ certainly never would [e]
     b. John will criticize Bill$_1$, but he$_1$ **himself** certainly never would [e]

As the same as their Mandarin counterparts, Japanese and English reflexives cannot repair the binding effects when VP is not deleted, as shown in the following examples.

(10) a. * Hanako$_1$ **jisin**-wa Hanako-o$_1$ hihansita si-na-katta.
           Hanako self-TOP Hanako-Acc criticize   do-NEG-PAST
           Intended 'Hanako didn't criticize herself.'

b. * he[1] **himself** certainly never would criticize Bill[1]

It is not very surprising that ellipsis can repair some ungrammatical constructions. For example, it is well known that sluicing can repair island violations (Merchant 2001). However, we have to explain why VP ellipsis can ameliorate binding principle effects only when a reflexive pronoun is present. Although there have been a large amount of studies focusing on Mandarin reflexive pronouns (Cole et al. 1990; Huang & Tang 1991; Pan 1997; Huang & Liu 2001; Anand 2006; a.o.), this phenomenon remains a unaddressed.

The current study will discuss three approaches to binding effects in ellipsis, i.e., Vehicle Chang (Fiengo & May 1994); D-bound anaphors (Kratzer 2009; Safir 2014) and movement of reflexives (Huang & Tang 1991; Li 2011), showing that they fail to account for the puzzle of repairing binding effects. In section 4, I propose a possible solution, which relies on Rooth's (1985; 1992b) focus semantics and treats the reflexives in the target sentences as emphatic intensifiers.

This paper is organized as follows. Section 2 demonstrates that the reflexives in the target sentences share many properties with intensifier reflexives. Section 3 devotes to the discussion of the existing approaches. My proposed solution is laid out in section 4, and the paper is concluded in section 5.

2 Intensifier reflexives

At first glance, the reflexives in (6) look like intensifiers, such as adnominal *self* pronouns in English (Kemmer 1995; Baker 1995) and *selbst* in German (König & Siemund 1996; Eckardt 2001). In Mandarin, *ziji* can indeed be used as an intensifier (Hole 2008; Wang 2011). Briefly speaking, Mandarin intensifying *ziji* as a subject-oriented adverbial is adjoined to a verb-like phrase like ModP, as shown below (Tsai 2005). Additionally, the intensifying *ziji* is not an adnominal particle, since it can be separated from its antecedent by other adverbials, as in (11).

(11) Libai (kending) [ModP **ziji** [ModP bu hui piping Dufu]].
Libai certainly self not will criticize Dufu
'(It is certain that) without outside force, Libai will not criticize Dufu.'

Apparently, the reflexives in (6) have the same distribution as the intensifying *ziji*. Moreover, the reflexives in (6) resembles the meaning of intensifiers. Compare the reflexives in (12) with intensifiers in (13). Both can express the meaning 'alone/without assistance' or 'without outside force'.

(12) a. Libai **ziji** neng zhaogu ta erzi.
Libai self can take.care he son
'Libai can take care of his son <u>alone</u>.'

b. Libai **ziji** hui piping ta erzi.
Libai self will criticize he son
'Libai will criticize his son <u>without outside force</u>.'

(13) a. Libai neng zhaogu Dufu[1], qishi ta[1] **ziji** jiu neng [*e*].
Libai can take.care Dufu in.fact he self just can
'Libai can take care of Dufu, and in fact he can take care of himself <u>alone</u>.'

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b. Libai hui piping   Dufu$_1$, dan [zhe jiahuo]$_1$ kending **ziji** bu hui [e].
Libai will criticize Dufu   but   this guy   must   self not will
'Libai will criticize him, but <u>without outside force</u>, this guy must not criticize himself.'

Like intensifiers, the reflexives in ellipsis constructions expresses some kind of focus on a particular participant of an event. For example, the reflexive in (13) functions to exclude any potential alternatives to the subject *Libai*.

In addition, Japanese also provides evidence to prove that the reflexives in the target sentences are intensifiers. In Japanese, there are two reflexive morphemes, i.e., *jisin* and *jibun*, but only *jisin* can be used as intensifiers. Correspondingly, only *jisin* can occur in our target sentences, as shown below.

(14)   Taro-wa   Hanako-o$_1$ hihansita ga, Hanako$_1$ **jisin/*jibun**-wa [e] si-na-katta.
Taro-ᴛᴏᴘ Hanako-Acc criticized but, Hanako   self/self-ᴛᴏᴘ   do-ɴᴇɢ-ᴘᴀsᴛ
'Taro criticized Hanako$_1$, but Hanako$_1$ didn't criticized herself$_1$.'

Although it is evident that the reflexives in (6) are intensifiers, treating them as intensifiers cannot help us resolve the puzzle of repairing binding effects. This is because intensifying *ziji* alone cannot save sentences from violating binding principles without ellipsis, as demonstrated in the following examples.

(15)   a.   * Libai$_1$ **ziji** hui piping   ta$_1$/Libai$_1$
Libai   self will criticize him/Libai
Intended 'Libai will criticize himself without outside force.'

    b.   * Libai$_1$ hui **ziji** piping   ta$_1$/Libai$_1$.
Libai   will self criticize him/Libai
Intended 'Libai will criticize himself alone.'

Certainly, if we assume that the elliptical sites of (6a-b) contain argument reflexives, as in (16), no binding effects are expected.

(16)   a.   Libai$_1$ hui piping   ta$_2$, dan ta$_2$ **ziji** dangran bu hui ⟨ piping   **ziji** ⟩.
Libai   will criticize him but he self certainly not will   criticize self
'Libai$_1$ will criticize him$_2$, but certainly without outside force he$_1$ won't criticize himself$_1$.'

    b.   Libai$_1$ hui piping   Dufu$_2$, dan Dufu$_2$ **ziji** dangran bu hui ⟨ piping   **ziji** ⟩
Libai   will criticize Dufu   but Dufu   self certainly not will   criticize self
'Libai$_1$ will criticize Dufu$_2$, but certainly without outside force he$_2$ won't criticize himself$_2$.'

However, this assumption does not really resolve the puzzle, as it merely reframes the research question. Let me explain why. Under this assumption, it is in theory possible for the sentences in (4) and (5) to have argument reflexives in their elliptical sites, as shown in (17).

(17)   a.   * Libai$_1$ hui piping   ta$_2$, dan ta$_2$ dangran bu hui ⟨ piping   **ziji** ⟩.
Libai   will criticize him but he certainly not will   criticize self
Intended 'Libai$_1$ will criticize him$_2$, but certainly he$_1$ won't criticize himself$_1$.'

b. *Libai$_1$ hui piping   Dufu$_2$, dan Dufu$_2$ dangran bu hui ⟨ piping   **ziji** ⟩
    Libai   will criticize Dufu   but Dufu certainly not will   criticize self
    Intended 'Libai$_1$ will criticize Dufu$_2$, but certainly Dufu$_2$ won't criticize himself$_2$.'

As a consequence, binding effects should not appear in these examples, contrary to fact. Our research question now becomes "why argument reflexives can be used to avoid violating Binding Principle B and C in the environment of ellipsis only if there are intensifier reflexives appearing in the remnants?".

As far as we can see, only assuming reflexives in (6) as intensifiers does not lead to an adequate explanation of repairing binding effects. The following sections take up other approaches to binding effects in ellipsis. Anticipating the discussion, it will be demonstrated that all of them fail to account for the puzzle. In section , we will return to the "intensifier reflexive" assumption, showing that it indeed hints at a possible solution if we combine the focus property of intensifier reflexives with Rooth's (1992a) focus condition of ellipsis.

3   Three existing approaches

3.1   Vehicle Change

In fact, it has been observed in 1990s that binding effects can be repaired in ellipsis. For example, the coindexation of *John* and *he* in (18) does not result in the violation of Binding Principle C in the second clause.

(18)   Mary admires John$_1$, and he$_1$ thinks Sally does [e], too

To address the issue about repairing binding effects, Fiengo & May (1994) develop a well-known mechanism called "Vehicle Change." Roughly speaking, Vehicle Change allows an elided name in an elliptical structures to reconstruct as a "pronominal correlate," bearing an index (in their system) that corresponds to the one the name would have. Thus, we can account for why Binding Principle C is alleviated in (18), as illustrated in (19).

(19)   Mary admires John$_1$, and he$_1$ thinks Sally does [e], too.
    ⇒ Mary admires John$_1$, and he1 thinks Sally ⟨ admires [him$_1$]$_{reconstruct}$ ⟩, too.

Unlike Binding Principle C violations, it is predicted that Binding Principle B violations cannot be repaired by Vehicle Change. For example, in (20), there is a pronoun in the reconstructed structure, so Binding Principle B still emerges to rule out the coindexation.

(20)   *Mary admires John$_1$, and he$_1$ does [e], too.
    ⇒ Mary admires John$_1$, and he$_1$ ⟨ admires [him$_1$]$_{reconstruct}$ ⟩, too.

Although Vechicle Change indeed has explanatory power, it cannot account for why binding principle effects are not available in the our target sentence (21). The proper name in the first clause can be reconstructed as a pronominal correlate in the elliptical site, but we have seen in the last section that the reconstructed structure still induces a violation of Binding Principle B.

(21)   Libai hui piping   Dufu$_1$, dan [zhe jiahuo]$_1$ **ziji** dangran bu hui [e]
    Libai will criticize Dufu   but this guy   self certainly not will
    ⇒ Libai will criticize Dufu$_1$, but this guy$_1$ himself will not ⟨ criticize [him$_1$]$_{reconstruct}$ ⟩

3.2   D-bound anaphors

Recently, a minimal pronoun theory has become more prominent to account for the bound variable interpretation of pronouns. This theory originates from Kratzer (1998), being developed in Kratzer (2009). Based on this, Safir (2014) further proposes a D-bound anaphor approach, which takes all bound anaphora, whether they are bound locally or at a distance, to be achieved by a single, universally available, grammatical form, called a D-bound. A D-bound is a true syntactically sensitive anaphor. When D-bound is bound by a local (phase-internal) antecedent , it is spelled out as a local morphological shape, i.e., a reflexive; whereas, when D-bound is bound by a long-distance (phase-external) antecedent, it is spelled out as a long-distance morphological shape, i.e., a pronoun. Consequently, reflexives and pronouns can just be different morphological shapes of one anaphor. Under the elliptical environment where morphology is neutralized, locality does not figure in the well-formedness of D-bound. Hence, binding principle effects are expected to disappear when a pronoun is interpreted as D-bound. Consider the sentence in (22). If we assume that the object of *promote* is D-bound by the trace of *who*, copying it into the parallel position in the elliptical VP results in a reflexive reading, rather than a Binding Pinriple B violation. This is because in the elliptical site this D-bound anaphor is locally bound.

(22) He_1's the sort of star athlete who believes that no agent can [promote him_1] any better than he_1 can $\langle$ promote $himself_1$ $\rangle$

The D-bound approach is very attractive, but it cannot account for the contrast between (23a) and (23b). According to the D-bound approach, the elliptical sites of these two sentences should include argument reflexives. As a result, neither of them would violate binding principles.
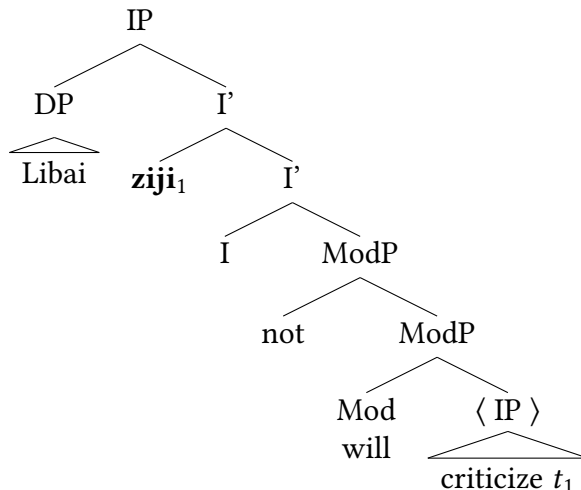
(23)   a.   * $Dufu_1$ renwei Libai hui piping ta_1, [zhe jiahuo]$_1$ dangran bu hui [e].
            Dufu think   Libai will criticize him this guy   certainly not will
            $\Rightarrow Dufu_1$ thinks $Libai_2$ will criticize him_1, and certainly this guy_1 will not $\langle$ criticize $himself_1$ $\rangle$

       b. $Dufu_1$ renwei Libai hui piping ta_1, [zhe jiahuo]$_1$ **ziji** dangran bu hui [e].
            Dufu think   Libai will criticize him this guy   self certainly not will
            $\Rightarrow Dufu_1$ thinks $Libai_2$ will criticize him_1, and certainly this guy_1 himself will not $\langle$ criticize $himself_1$ $\rangle$

3.3   Movement of reflexives

An alternative analysis that directly addresses this puzzle can be found in an earlier work of mine (Li 2011). This study relies on the classical approach to long distance binding of Mandarin reflexives, i.e., the movement approach (Cole et al. 1990; Huang & Tang 1991; Huang & Liu 2001; a.o.). Specifically, this analysis attribute the binding effects repair to the movement of reflexive pronouns. In particular, the underlying structure of the elliptical site [e] in (24) contains a reflexive pronoun, which undergoes movement out of the elliptical site, as shown in (25). In this structure, no binding principle is violated.

(24) $Libai_1$ hui piping ta_2, dan ta_2 **ziji** dangran bu hui [e].
       Libai   will criticize him but he self certainly not will
       '$Libai_1$ will criticize him_2, but certainly he_1 won't criticize $himself_1$.'

(25)

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                          IP
                    ┌──────┴──────┐
                   DP             I'
                   /\        ┌────┴────┐
                 Libai     ziji₁       I'
                         ┌───┴───┐
                        I        ModP
                             ┌────┴────┐
                            not       ModP
                                   ┌───┴───┐
                                  Mod    ⟨ IP ⟩
                                  will    /\
                                      criticize t₁
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It has been argued by many studies that Mandarin reflexives undergo covert movement. Following the copy theory of movement (Chomsky 1995; Fox 2002), this work argues that the covert movement of reflexive pronouns can behave like an overt movement in ellipsis. In the copy theory of movement, movement is decomposed into copy and re-merge. The covert movement is also conducted in Narrow Syntax like the overt movement. The difference between these two types of movement is that the covert movement spells out the copy in the base generated position, while the over movement spells out the re-merged item. Adopting this view, I derived the covert movement of *ziji* as (26), in which the copy of *ziji* is spelled out. By contrast, the copy in the base-generated position cannot be spelled out in the VP ellipsis, so *ziji* has to be spelled out at the moved position.

(26) $[_{IP}$ Ta $[$**ziji** $[_{ModP}$ not will $[_{VP}$ criticize $ziji_{copy}$ $]$ $]$ $]$ $]$

Obviously, this analysis fails to predict the similarity of the reflexive in (24) and intensifying reflexives, which has been discussed in section 2. Additionally, the movement of *ziji* is not supported by the island test, as the movement does not observe island conditions. This can be visualized in (27).

(27)   Libai hui piping [Dufu₁ xie   de shu], [zhe jiahuo]₁ **ziji** dangran bu hui ⟨ piping
       Libai will criticize Dufu write DE book this guy   self certainly not will   criticize
       [$ziji_{copy}$ xie   de shu] ⟩
       self   write DE book
       'Libai will criticize the book that Dufu₁ wrote, and this guy₁ won't criticize the book that he₁ wrote.'

4   Focused reflexives

The binding effects repair that we focus on indeed poses a problem for our current understanding of binding within ellipsis, as no existing approaches can offer a satisfactory analysis for this puzzle. Nevertheless, in this section, I point out a possible direction to address the issue. Specifically, the reflexives that repair binding effects in ellipsis should be analyzed as intensifiers, whose focus feature is the key to demistifying the problem.

I suggest that the elliptical site of the sentence in (28a) contain an argument reflexive. Therefore, no binding principles are violated. However, as we have seen in section 2, a problem that immediately arises is why the sentence in (28b) is ungrammatical.

(28) a. Libai$_1$ hui piping Dufu$_2$, dan [zhe jiahuo]$_2$ **ziji** dangran bu hui ⟨ piping **ziji$_2$**⟩
          Libai will criticize Dufu   but this guy   self certainly not will   criticize self
          'Libai$_1$ will criticize Dufu$_2$, but certainly without outside force this guy$_2$ won't criticize himself$_2$.'

      b. *Libai$_1$ hui piping Dufu$_2$, dan [zhe jiahuo]$_2$ dangran bu hui ⟨ piping   **ziji$_2$** ⟩
          Libai will criticize Dufu   but this guy   certainly not will   criticize self
          Intended 'Libai$_1$ will criticize Dufu$_2$, but certainly this guy$_2$ won't criticize himself$_2$.'

The ill-formedness of (28b) is not very surprising—the elliptical VP involves a reflexivized predicate, but the antecedent VP does not. This difference makes it impossible for VP ellipsis to be licensed, as demonstrated by (29), which is the LF representation of (28b) (with the negation adjusted to take wide scope).

(29)
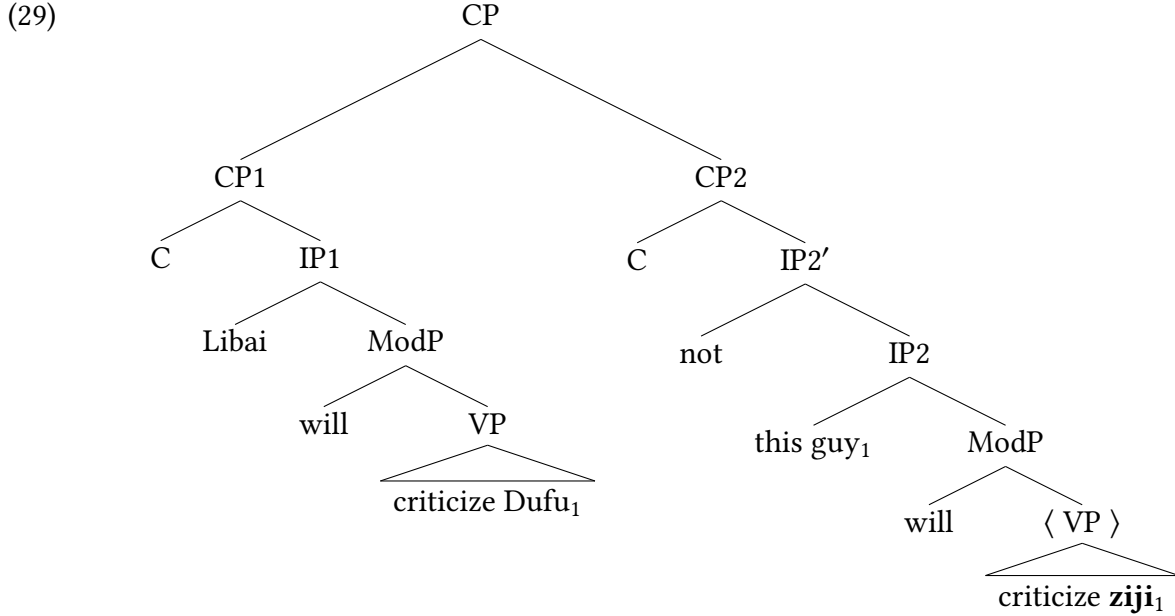
Following the standard assumption, I posit that the argument reflexive denotes a function that reflexivizes a two-place predicate, as in (30).

(30) $[\![\text{ziji}]\!] = \lambda Q_{\langle e,et\rangle}\lambda x[Q(x)]$

In LF structure (29), the subject of CP2 *this guy* contrasts with the subject of CP1 *Libai*. Following Rooth's (Rooth 1985, 1992b) focus semantics, I assume that *this guy* evokes a focus value, i.e., a set of alternatives, as given in (31a). Hence, the focus values of IP2 can be derived via replacing the ordinary value of *this guy* with it focus value, resulting in sets of propositions, as shown in (31b).

(31) a. $[\![\text{this guy}]\!]^f$ = {Libai, this guy}

b. $[\![IP2]\!]^f = \left\{ \begin{array}{l} \text{Libai will } \lambda x.\textbf{criticize}(x)(x) \\ \text{This guy will } \lambda x.\textbf{criticize}(x)(x) \end{array} \right\} = \left\{ \begin{array}{l} \text{Libai will criticize himself} \\ \text{This guy will criticize himself} \end{array} \right\}$

As a consequence, the ordinary value of IP1, i.e. the proposition 'Libai will criticize Dufu', is not contained in the focus value of IP2. Rooth's (1992a) focus condition as stated in (32) is not obeyed. Thus, the VP ellipsis in (28b) is not licensed.

(32) *Focus condition on VP ellipsis*
A VP α in XP_E can be deleted only if there is an XP_A, where the ordinary value of XP_A is or implies an element of the focus value of XP_E.

Now, let's turn to (28a). The reflexive in the remnant part is an intensifier. It has been argued in many studies (Kemmer 1995; Baker 1995; König & Siemund 1996; Eckardt 2001; Hole 2008; Wang 2011) that intensifiers in sentences function as an emphatic element, behaving like focus (see section 2). On the basis of Eckardt's (2001) proposal, I assume that the intensifier *ziji* consists of a free variable and an identity function as its ordinary value, as in (33a), while its focus value is a set of alternative functions, each of which takes an individual as an argument and returns one of its alternative, as in (33b).

(33)   a. $[\![\text{ziji}]\!] = \lambda x.\text{ID}(x)$
       b. $[\![\text{ziji}]\!]^f = \{\lambda x.\text{ALT}_1(x), \lambda x.\text{ALT}_2(x)\}$

In (28a), which has an LF structure like (34), the focus value of the elliptical clause is determined by the intensifier *ziji*, rather than the subject *this guy*.

(34)
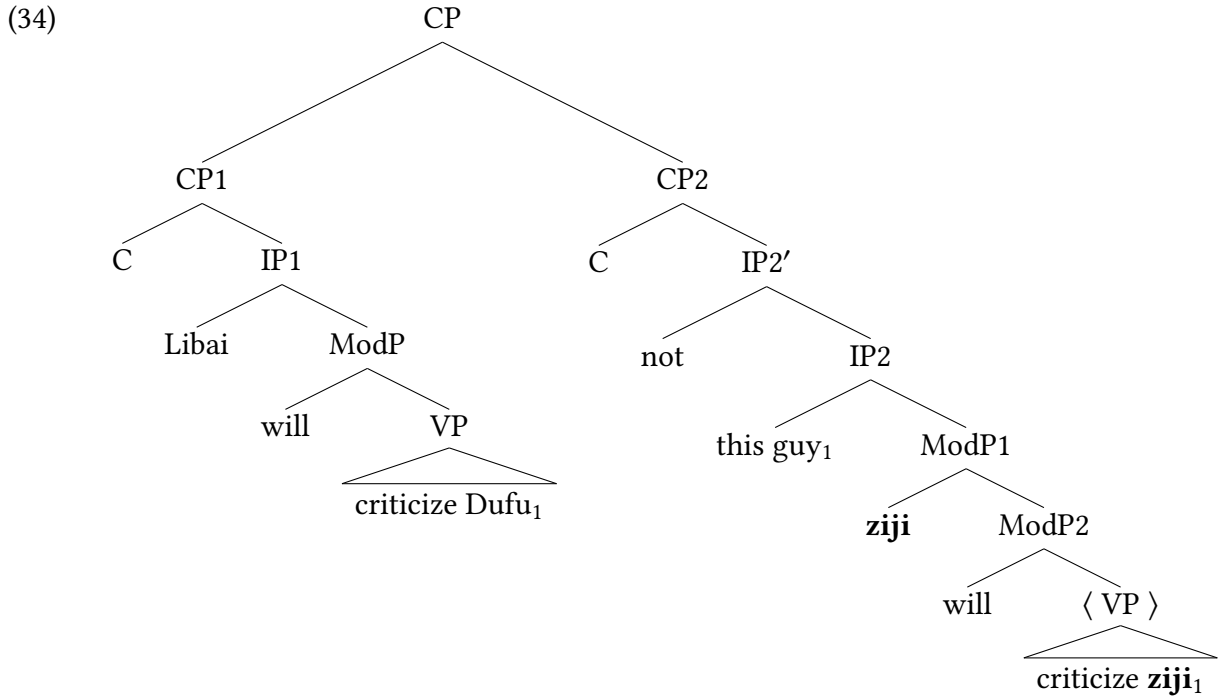
In order to derive the meaning of this LF structure, I have to posit a lifted version for the argument *ziji* and the intensifier *ziji*, as given in (35).

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(35) a. The lifted intensifier *ziji* (Eckardt 2001)
        $\llbracket \text{Lift}(ziji) \rrbracket = \lambda P_{\langle et \rangle} \lambda y [P(\text{ID}(y))]$

   b. The lifted argument *ziji* (Szabolcsi 1989)
        $\llbracket \text{Lift}(ziji) \rrbracket = \lambda Q_{\langle e, et \rangle} \lambda R_{\langle \langle et \rangle, \langle et \rangle \rangle} \lambda x [R(Q(x))(x)]$

The ordinary value of IP is compositionally derived as (36b). Crucially, its focus value is induced based on the intensifier *ziji*, rather than the subject *this guy*, as in (36c). It is clear that the ordinary value of IP1 in the first clause belongs to the focus value of IP2. Thus, the focus condition is satisfied, and hence VP ellipsis is licensed.

(36) a. $\llbracket \text{VP} \rrbracket = \lambda R_{\langle \langle et \rangle, \langle et \rangle \rangle} \lambda x [R(\lambda y [\textbf{criticize}(x)(y)])(x)]$

   b. $\llbracket \text{ModP1} \rrbracket = \lambda x [\textbf{will-criticize}(x)(\text{ID}(x))]$

   c. $\llbracket \text{IP2} \rrbracket = \textbf{will-criticize(this guy)}(\text{ID}(\textbf{this guy}))$

   d. $\llbracket \text{IP2} \rrbracket^f = \left\{ \begin{array}{l} \textbf{will-criticize(this guy)}(\text{ALT}_1(\textbf{this guy})) \\ \textbf{will-criticize(this guy)}(\text{ALT}_2(\textbf{this guy})) \end{array} \right\}$

   $= \left\{ \begin{array}{l} \text{Libai will criticize Dufu} \\ \text{Juyi will criticize Dufu} \end{array} \right\}$

5 Conclusion

This paper has discussed a puzzle of repairing binding effects. Intensifier reflexives can save an elliptical clause from violating Binding Principle B and C. Moreover, I have shown that this puzzle cannot be accounted for by the three existing approaches to repairing binding effects. Finally, based on focus semantics, I suggest a plausible solution to this puzzle. Briefly speaking, an elliptical clause with an intensifier reflexive can contain a deleted reflexivized VP, which does not induce any violation of Binding Principle Bs or C. The focus feature of intensifier reflexives play a very important role, i.e., it guarantees that the reflexivized VP satisfies the focus condition of ellipsis (Rooth 1992a).

My proposed solution supports the focus semantics approach to intensifier reflexives (Eckardt 2001; Hole 2008). For some languages, such as Mandarin, argument reflexives have received much attention, while intensifier reflexives are not explored very deeply. The current work shows that focus semantics is a very useful tool to study the meaning and function of intensifier reflexives.

References

Anand, Pranav (2006). *De de se.* Ph.D. thesis, MIT, Cambridge, Mass.

Baker, C. Lee (1995). Contrast, discourse prominence, and intensification, with special reference to locally free reflexives in British English. *Language* 71:1, 63–101.

Chomsky, Noam (1995). *The minimalist program.* MIT Press, Cambridge, Massachusetts.

Cole, Peter, Gabriella Hermon & Li-May Sung (1990). Principles and parameters of long-distance reflexives. *Linguistic Inquiry* 21:1, 1–22.

Eckardt, Regine (2001). Reanalysing *selbst. Natural Language Semantics* 9:4, 371–412.

Fiengo, Robert & Robert May (1994). *Indices and identity.* MIT Press, Cambridge, Massachusetts.

Fox, Danny (2002). Antecedent-contained deletion and the copy theory of movement. *Linguistic Inquiry* 33:1, 63–96.

Hestvik, Arild (1995). Reflexives and ellipsis. *Natural Language Semantics* 3:2, 211–237.

Hole, Daniel (2008). Focus as identity: The dark side of *ziji*. *Linguistic Review* 25, 267–295.

Huang, C.-T. James & Chen-Sheng Luther Liu (2001). Logophoricity, attitudes and Ziji at the interface. Cole, Peter, Gabriella Hermon & C.-T. James Huang (eds.), *Syntax and Semantics: Long Distance Reflexives*, Academic Press, New York, 141–195.

Huang, C.-T. James & C.-C. Jane Tang (1991). The local nature of the long-distance reflexive in Chinese. Koster, Jan & Eric Reuland (eds.), *Long-distance Anaphora*, Cambridge University Press, Cambridge, 263–282.

Kemmer, Suzanne (1995). Emphatic and reflexive -self: Expectations, viewpoint, and subjectivity. Stein, Dieter & S. Wright (eds.), *Subjectivity and Subjectivism*, Cambridge University Press, Cambridge, 55–82.

Kennedy, Christopher (2003). Ellipsis and syntactic representation. Winkler, Susanne & Kerstin Schwabe (eds.), *The syntax-semantics interface: Interpreting (omitted) structure*, John Benjamins Publishing Company.

König, Ekkehard & Peter Siemund (1996). Emphatische reflexiva und fokusstruktur: Zur syntax und bedeutung von "selbst". Rosengren, Inger (ed.), *Sprache und Pragmatik*, Gleerup, Lund, Sweden, 1–42.

Kratzer, Angelika (1998). More structural analogies between pronouns and tense. Strolovitch, Devon & Aaron Lawson (eds.), *Proceedings of SALT VIII*, CLC Publications, Cornell University, Ithaca, NY, 92–110.

Kratzer, Angelika (2009). Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40:2, 187–237.

Li, Haoze (2011). Chinese VP ellipsis and Binding Principles B and C: A view from single cycle model. Gao, Mingle (ed.), *Universal and Variation: Proceedings of GLOW in Asia VIII*, Beijing Language and Culture University Press, Beijing.

Merchant, Jason (2001). *The syntax of silence: sluicing, islands, and the theory of ellipsis*. Oxford University Press, Oxford.

Pan, Haihua (1997). *Constraints on Reflexivization in Mandarin Chinese*. Garland, New York.

Rooth, Mats (1985). *Association with Focus*. Ph.D. thesis, University of Massachusetts, Amherst.

Rooth, Mats (1992a). Ellipsis redundancy and reduction redundancy. Berman, Steve & Arild Hestvik (eds.), *Proceedings of the Stuttgart Ellipsis Workshop*, Stuttgart.

Rooth, Mats (1992b). A theory of focus interpretation. *Natural Language Semantics* 1:1, 117–121.

Safir, Ken (2014). One true anaphor. *Linguistic Inquiry* 45, 91–124.

Szabolcsi, Anna (1989). Bound variables in Syntax: Are there any? Bartsch, R., Johan Van Benthem & P van Emde Boas (eds.), *Semantics and Contextual Expression*, Dordrecht, 295–318.

Tsai, Wei-Tien Dylan (2005). Causality, comitativity, contrastivity, and selfhood. *The 3rd Theoretical East Asian Languages Workshop*, Harvard University.

Wang, Lin (2011). *Intensifiers and reflexive pronouns in English and Mandarin Chinese*. Ph.D. thesis, Free Universitate Berlin, Berlin.