Dream Report Pronouns, Local Binding, and Attitudes *De Se*

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1. Introduction

In our dreams we can unmoor ourselves from reality: from time, from space, from who we take ourselves to be. As Lakoff (1972) pointed out, our dreams can even support at least two counterparts of the dreaming self, one bodily, the other mental:

(1)   I dreamt I was Brigitte Bardot and I kissed me. (Lakoff 1972)

Within contemporary understanding of attitude reports, the possibility of a single proform referencing either counterpart would appear to be simply another manifestation of the *de re-de se* distinction (Lewis 1979), as well as its attendant linguistic ambiguities. However, as first noted by Percus and Sauerland (2003b), there is a striking asymmetry in the possible counterparts for the pronouns in (1) – a reading where the the bodily counterpart kissing the mental counterpart is unacceptable.

(2)   [George]: I dreamt I was Brigitte Bardot and I kissed me.

    a.   Attested reading: In the dream, Brigitte kisses George.

    b.   Unattested reading: In the dream, George kisses Brigitte

Importantly, this asymmetry vanishes when we consider other attitude predicates, as in the examples below with *hope* and *pretend*.[1]

(3)   *John comes late one night, drunk and without his keys. Undeterred, he smashes through a window and goes up to bed. By morning, he has forgotten the incident, and is shocked to see the back window in pieces. Fearing that he is being robbed, he runs upstairs to check his safe.*

    John$_i$ hoped that he$_i$ [*qua* robber] hadn't yet found his$_i$ [*qua* mental counterpart] safe.

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[1]The suppositionals *imagine* and *suppose* show this asymmetry. Suppositional *say* seems not to.

(i)   *My mother is lying in the hospital after a serious surgery. My brother is constantly urging me to visit her, but I am too swamped with work. Finally, in exasperation, he starts lecturing me.*

    My brother: {#Suppose, #Imagine, Say} that you$_{mom}$ were mom and you$_{me}$ won't visit you$_{mom}$! How do you think that would make you feel after all those years of sacrifice?

(4)   *My cat, Hobbes, has a particular response that he makes when I call his name.*

        I pretended that I_{Hobbes} was Hobbes and I_{me} had just called me_{Hobbes}.

This asymmetry bears a striking resemblance to a puzzling interaction Adesola (2005) noticed between logophoric and non-logophoric pronouns in Yoruba. In addition to a series of ordinary pronouns (the *o* forms), in the 3rd person Yoruba also possesses a series of logophoric pronouns (the *òun* forms), which are licensed in the scope of certain attitude predicates (logophoric environments).[2,3] In such environments, logophors are obligatory *de se* anaphora – they refer to the attitude- holder and require a *de se* construal; they are thus of a type with long-distance anaphora and obligatorily controlled PRO (Chierchia 1989). Logophoric and ordinary pronouns may co-occur within a logophoric environment, subject to a constraint Adesola discovered: logophoric forms cannot be c-commanded by **co-referental** ordinary pronouns.

(5) Olu_i so pé $\mathbf{o}_{*i,j}$ r´ɨ bàbá **òun**$_i$
        Olu say that o see father oun-gen

        'Olu_i said that $he_{*i,j}$ has seen his_i father. (Adesola 2005: ex. 59a, 213)'

Trading logophoric pronouns for mental counterparts and ordinary pronouns for bodily counterparts, Adesola's and Percus and Sauerland's puzzles seem much the same. In section 2, I will argue that they are the same, namely the following:

(6)   *de re* BLOCKING EFFECT
        No obligatory *de se* anaphor can be c-commanded by *de re* counterpart.

        Why does this constraint hold? And why (in English) in dream environments and not others? In sections 3 and 4 I will take up these questions. I will argue that the non-universality of the blocking effect itself diagnoses that multiple routes to *de se* construal exist. The literature on *de se* ascription has seen two kinds of proposals: a conservative approach (Boer and Lycan 1986, Reinhart 1990, Schlenker 2005), which sees *de se* ascription as *de re* ascription with a special acquaintance relation of self-identity; and a "radical" approach (Chierchia 1989, Schlenker 1999, Huang and Liu 2001, Stechow 2002), which argues that *de se* ascription involves a specialized LF configuration, where an operator binds the *de se* pronoun.

(7)   Kaplan wants to put out the fire.

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[2]Predicates that show this include *dunnu* 'rejoice', *gbà* 'agree', *bèèrè* 'ask', *so* 'say', *n´ɨ* 'say', *fi èhónú hán* 'protest', *mò* 'know', *fé* 'want', *n´irèt´ɨ* 'hope', *dàhùn* 'answer', *kabamò* 'regret', *gbó* 'hear', *ro* 'think', *gbàgbó* 'believe', *gbàgbé* 'forget', *lér´ɨ* 'boast', and, interestingly for us, *alaa* 'dream'.

[3]*Òun* forms are allowed outside of logophoric environments, referring to a topical discourse referent. This compatible with an enrichment of the analysis given in this paper, in which at the matrix level the logophoric operator is evaluated with a topical referent. See Anand and Hsieh (2005), Adesola (2005) for discussion.

      a.   SELF-IDENTITY ACQUAINTANCE RELATION
           Kaplan$_i$ wants of himself$_j$, under self-identity, [$_{CP}$ he$_j$ puts the fire].

      b.   BINDING BY AN OPERATOR
           Kaplan$_i$ wants [$_{CP}$ OP$_j$ PRO$_j$ to put out the fire].

I will argue that both proposals are correct, but for different cases. Ordinary pronouns are interpreted by a self-identity acquaintance relation. Obligatory *de se* anaphora, in contrast, are operator bound, giving rise to the *De Re* Blocking Effect.[4] Being syntactically-bound, *de se* anaphora obey the syntactic preference for **local binding** (Fox 2000). I will argue (following Anand and Hsieh 2005) that the cause of the *De Re* Blocking Effect is intervention by a pronoun between the operator and the anaphor, resulting in a local binding configuration that prevents the anaphor from being bound by its operator, and hence licensed. Local binding, whose competitors must be semantically identical, will be argued to be insensitive to *de se* interpretation.

      But why not then simply use two ordinary pronouns? At the close of section 4, I will tackle this question. Considering data from Mandarin, I will propose that certain attitude predicates themselves prohibit ordinary pronouns from using the relation of self-identity, and that *dream* in English is one such. This, I will suggest in closing, is what is behind traditional cases of anti-logophoricity (Koopman and Sportiche 1989), and not a global competition effect.

2. The Data

This section serves to flesh out the empirical paradigm. I first demonstrate that the relevant constraint prohibits any *de se* pronoun from being in the c-command domain of any *de re* pronoun. I then show that this constraint can be obviated by a focus sensitive-operator. Before continuing, a word on this data. I have encountered many speakers for whom the blocking effect does not apply. The best diagnostic I have found to differentiate groups is to choose a *de se* element that is utterly incapable of any action, as in the following:

(8)   a.   # I dreamt I was a little mouse and I startled me.

        b.   # I dreamt I was a carrot and I was chopping me up for dinner.

        c.   # I dreamt I was a roaring fire and I sat down to watch my flames play in the darkness.

      The above dreams are somewhat exotic but possible (and surely, in the land of children's cartoons, commonplace). The data reported below are the judgments of 15 English speakers for whom the above examples are simply ungrammatical (or,

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[4] I have argued elsewhere (Anand 2006, Anand and Nevins 2004) for another way of deriving obligatory *de se* anaphora involving diagonalization of the context parameter. This method will not be subject to the *De Re* Blocking Effect. For evidence that both the operator binding and the diagonalization method are needed, see Chapters 2 and 3 of Anand (2006).

pragmatically odd). For the 10 additional speakers who did not report this contrast, with a rich enough context all of of the examples show full ambiguity. For these speakers, there is nothing special about dream reports.

2.1. The De Re Blocking Effect

Building on the interpretive asymmetry surrounding (1), Percus and Sauerland (2003b) demonstrate that when the *de re* pronoun is further embedded, ambiguity results:

(9) a. I dreamt I was Brigitte Bardot and I kissed me. (Lakoff 1972)
                                    Brigitte   George

   b. I dreamt I was Brigitte Bardot and my mother kissed me.
                                    Brigitte/George   George/Brigitte

Based on this, observation, Percus & Sauerland propose that some *de se* pronoun to be outside the c-command domain of all *de re* pronouns. I will now show that this is too weak – all *de se* pronouns must be *de re*-free.

   The first counterexample is sentence (1) itself, where the first conjunct possesses a *de se* pronoun that is *de re* free. To forestall appeals to conjunction reduction, I present structurally similar examples: disjunction (10) and temporal adjunction (11), as well an instance where the *de re* free form is in the same clause as the *de re* pronoun (12). For perspicuity, the *de se* forms have been bolded.

(10) *I am a guard at a local jail who is known for his harsh treatment of prisoners. One night, I am plagued (perhaps by a just God) with dreams that I am one of the prisoners, and I learn just how terrible I can be.*

   a. # I dreamed that **I** had to keep my mouth shut or I_{dere}'d beat **me**.

   b. I dreamed that **I** had to keep my mouth shut or [my$_{dere}$ shiftmates] would beat **me**.

(11) *I am going through a messy divorce with a prominent actor, who is being highly uncooperative. One of my friends suggests that I simply start some bad PR for her, but another (more ethical) friend is unsure: "How would you feel if it were you?" Later that night, I dream that am I my wife, and that I hear rumors about my PR campaign.*

   a. # I dreamed that before **I** could even get to a reporter, I_{dere} had already spread all sorts of lies about **me** all over the Internet.

   b. I dreamed that before **I** could even get to a reporter, [my$_{dere}$ contacts] had already spread all sorts of lies about **me** all over the Internet.

(12) *Last night, my "friend" had me over for a gala and sat me next to her. All she talk about how much her foundation needs responsible donors. When I got home, filled with suspicions, I went right to bed, and promptly starting dreaming that I was her, planning last night's party.*

a. #I dreamed that **I** placed me$_{dere}$ next to **me** only so as to squeeze some money from me$_{dere}$.

b. I dreamed that **I** placed [my$_{dere}$ namecard] next to **mine** only so as to squeeze some money from me$_{dere}$.

The contrast between the pairs above indicate that the *de re* pronoun c-commanding the lower *de se* pronoun is actually a culprit, even though another *de se* form is *de re* free. This indicates that the status of all *de se* pronouns is at issue.

Precisely the same set of facts holds for ordinary pronouns and logophors in Yoruba. This was shown earlier in (5) with one pronoun-logophor pair. With an additional logophor outside the c-command domain of the ordinary pronoun, the ordinary pronoun still cannot refer to the attitude holder of the logophor:

(13) a. Olu$_i$ so pé òun$_i$ ro   pé Ade$_j$ sèlér`ɨ fún o$_{*i}$ pé Mary lo k`ɨ
       Olu say that oun think that Ade promise to o that Mary go see
       bàbá òun$_i$
       father oun.gen

       'Olu$_i$ said that he$_i$ thought that Ade promised him$_{*i,j}$ that Mary would visit his$_i$ father.'

       'Olu$_i$ said that he$_i$ thought that Ade$_k$ promised him$_{i,j}$ that Mary would visit his$_k$ father.'

   b. Olu$_i$ so pé òun$_i$ ro   pé Ade$_j$ sèlér`ɨ fún `ɨyá rè$_i$ pé Mary
       Olu say that oun think that Ade promise to mother o.gen that Mary
       lo k`ɨ bàbá òun$_i$
       go see father oun.gen

       'Olu$_i$ said that he$_i$ thought that Ade promised his$_{i,j}$ mother that Mary would visit his$_i$ father.'

       'Olu$_i$ said that he$_i$ thought that Ade$_k$ promised his$_{i,j}$ mother that Mary would visit his$_k$ father.'

Finally, we can replicate these facts in Mandarin with ordinary pronouns and the long-distance anaphor *ziji* (Zushi 2001, Anand and Hsieh 2005), which also is obligatorily *de se* (Pan 1995).[5]

(14) a. John$_i$ renwei Bill$_j$ gei ta$_i$ ziji$_{*i/j}$-de shu
       John thinks Bill give he self-POSS book

       'John$_i$ thinks that Bill$_j$ gave him$_i$ his$_{*i/j}$ book.'

   b. John$_i$ renwei Bill$_j$ gei ta$_i$-de mama ziji$_{i/j}$-de shu
       John thinks Bill give he-POSS mother self-POSS book

       'John$_i$ thinks that Bill$_j$ gave his$_i$ mother his$_{i/j}$ book.'

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[5]In fact, many Mandarin speakers do not show this contrast, revealing another pattern of *de se* anaphora which behaves of a type with Zazaki shifted indexicals (Anand and Nevins 2004). See Anand (2006) for details.

Thus we see the same constraint in three languages, each dealing with a *de se* form and an ordinary pronoun. In English, the two forms are morphologically identical, but in Yoruba and Mandarin the *de se* form is an obligatory *de se* anaphor. Unlike pronouns in these languages, the logophor and long-distance anaphor must be interpreted *de se*. These facts suggest the following generalization:

(15)   *de re* BLOCKING EFFECT
        No obligatory *de se* anaphor can be c-commanded by *de re* counterpart.

The term "*de re* counterpart" is self-explanatory for dream pronouns in English, but it also covers Yoruba and Mandarin ordinary pronouns that are interpreted *de se* (which, recall, is in general possible). Thus, even if the *o* and *ta* forms in (13) and (14) are construed *de se*, co-reference with the logophor or long-distance anaphor is still blocked. Thus, the *De Re* Blocking Effect owes not to how the *De Re* form is construed, but to what kind of item it formally is (namely, not an obligatory *de se* anaphor). In English, however, this fact is obscured by morphological syncretism between *de se* anaphora and ordinary pronouns.

2.2. Obviating the Effect

The *De Re* Blocking Effect predicts that no obligatory *de se* anaphor can be c-commanded by a *de re* counterpart. This appears to be true, except for one systematic exception – when the *de re* form is focus-marked and in the scope of a focus-sensitive operator. Thus, a blocking effect (16a) can be eliminated when the *de re* form is the correlate of *only* (16b).

(16)   *John, Bill, and Sam are competing for Mary's affection. One night, John has a dream where he is Mary. In the dream, the men try to convince Mary of how well they know her by trying to guess her favorite color. Only John guesses correctly.*

        a.   * John dreamt that he$_{dere}$ guessed **his** favorite color.
        b.   John dreamt that only he$^F_{dere}$ guessed **his** favorite color.

A similar obviation of the blocking effect can be seen in Mandarin; the use of *lian...dou* 'even' with the ordinary pronoun experiencer allows the long-distance *ziji* and the pronoun to co-refer:

(17)   a.   John$_i$ renwei Mary gen ta$_i$ jiang-le Bill$_j$ da-le   ziji$_{*i/j}$
              John thinks Mary with him tell-PERF Bill hit-PERF self

              'John$_i$ thinks that Mary told him$_i$ that Bill$_j$ hit {himself, *him$_i$}.'

        b.   John$_i$ renwei Mary lian gen ta$_i$ dou jiang-le Bill$_j$ da-le   ziji$_{i/j}$
              John thinks Mary even with him DOU tell-PERF Bill hit-PERF self

              'John$_i$ thinks that Mary told even him$_i$ that Bill$_j$ hit {himself, him$_i$}.'

Thus, although there is a constraint requiring all obligatory *de se* anaphora in English, Mandarin, and Yoruba to be free of ordinary pronoun/*de re* forms, this constraint is suspended in specific circumstances.

3. Why the Blocking Effect?

Having established the character of the blocking effect, in this section I will attempt to locate its source. I will first consider two alternatives that have been presented in the literature, Percus & Sauerland's original account in terms of Superiority, which captures the wrong generalization, and Hardt's (2003) account in terms of Centering Theory, which I will argue predicts interpretive consequences that are not apparent. I will then lay out my own proposal based on Fox's (2000) claim that binding is sensitive to locality considerations. The section closes with a discussion of the potential relevance for Principle A of a constraint advanced in this proposal.

3.1. A Superiority Account

Firmly in the *Binding by an Operator* school of *de se* ascription, Percus and Sauerland (2003b) postulate that the configuration in (7b) arises via Movement of a semantically vacuous pronoun to a head H high in the embedded CP. This in turn, in line with the translation rules for movement of Heim and Krazter (1998), creates the relevant operator-variable chain. Additional *de se* pronouns are then simply bound by the CP-level lambda operator.

  The blocking effect Percus & Sauerland analyze as an instance of superiority: a *de re* c-commander serves as a closer potential Goal for the Probing head H, and hence Movement of the lower *de se* pronoun is blocked by the system.[6] Here is a schematic of the desired LF and associated syntax:

(18)   a.   I λf dreamed [$_{CP}$ **me** λx H I$_f$ kissed t$_x$]   desired LF

    b.   I   dreamed [$_{CP}$ **me**$_x$ H I   kissed t$_x$]   syntactic scheme

  Percus & Sauerland's proposal captures their constraint, which was shown in section 2.1 to be too weak. It is not clear how proposal could be extended to cover the *De Re* Blocking Effect without serious modifications to syntactic assumptions.[7] Additionally, the proposal would require extension to account for obviation of the blocking effect by focus sensitive operators.[8]

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[6]This system requires the both pronouns to be indistinguishable from the Probe's perspective. Percus and Sauerland (2003b) argue that this is evidenced by their morphological identity. Regardless of the merits of this evidence for English, note that it will not carry over to Yoruba or Mandarin.

[7]One possibility would be that the lowest *de se* forms moves through all intermediary positions; cases where *de se* forms are not in a c-command relation could be a form of ATB without parallelism.

[8]Focus-marking might featurally distinguish the *de re* and *de se* forms. However, obviation also occurs when the focus-marked item is an additional c-commanding *de se* form:

(ii)   *Scenario in (16). The men are as of yet unaware of who has guessed correctly.*

   John dreamt that (at that moment) only **he** knew that he$_{dere}$ had guessed **his** favorite color.

3.2. A Centering Theoretic Approach

Hardt (2003) links the blocking effect to discourse salience properties as tracked within the Centering Theory framework (Grosz et al. 1995). Hardt assumes that any assignment *g* compatible with a discourse is defined at designated index *C* and maps C to the discourse center. The system has two further principles: a **Centering Requirement**, mandating that all pronouns referring to the center be marked with C; second, a **Centering Preference**, preferring pronouns marked with C. Hardt demonstrates that this system can derive the basic facts of Dahl's Puzzle regarding VP ellipsis containing two pronouns Dahl (1973). The restriction is quite similar to the *De Re* Blocking Effect – no strict pronoun can c-command a sloppy pronoun (Fiengo and May 1994, Fox 2000):

(19)   John said he saw his mother.
        Bill did to ⟨say he saw his mother⟩.

    a.   Bill said {John, Bill} saw John's mother.

    b.   Bill said {*John, Bill} saw Bill's mother.

(20)   John said his mother saw him.
        Bill did to ⟨say he saw his mother⟩.

    a.   Bill said {John, Bill}'s mother saw John.

    b.   Bill said {John, Bill}'s mother saw Bill.

      Hardt proposes that sloppy identity arises when the center shifts between the antecedent and elided clauses, changing the reference of C-marked forms. Strict-sloppy pairings are blocked by the Centering Requirement. To allow them, Hardt proposes that a syntactic expression containing the strict pronoun is moved out of the antecedent clause, leaving behind its own proform in the VP. Thus, for the Bill-John pair in (19a), it is the constituent [John's mother], while for the Bill-John pair for (20a), it is the VP [saw John]:

(21)   a. $\text{John}_1^{John \mapsto C}$ [his_C mother]$_3$ said he$_C$ saw e$_3$.

    b. $\text{Bill}_2^{Bill \mapsto C}$ said he$_C$ saw e$_3$.

(22)   a. $\text{John}_1^{John \mapsto C}$ [saw him$_C$]$_4$ said [his$_C$ mother]$_3$ e$_4$.

    b. $\text{Bill}_2^{Bill \mapsto C}$ said [his$_C$ mother]$_5$ e$_4$.

In contrast, the strict-sloppy pair in (19b) cannot be derived because there is no referring expression containing only the subject pronoun. In dream reports the center shifts to the *de se* self, and the illicit LF is available, but blocked by the Centering Preference:

(23)   a. $\text{I}_1^{[I \mapsto C]}$ dreamed$^{[x_{dese} \mapsto C]}$ I$_C$ was B.B. and I$_1$ kissed me$_C$ *Centering Preference

    b.   I$_C$ [my$_C$ mother]$_3$ dreamt$^{x_{dese} \mapsto C}$ I$_C$ was B.B. and t$_3$ kissed me$_C$.

      This theory accurately predicts that all *de se* forms must be *de re* free, but via LF movement for which there is no semantic evidence. (For simplicity, I present

VP ellipsis cases.) First, as the XP containing the strict pronoun is moved outside the intentional domain of the attitude verb, it should be interpreted *de re* (barring individual concept-type traces); however, *de dicto* readings are possible:

(24) *Mary and Jane, unmarried sisters, are reminiscing about how they thought life would turn out like when they were teenagers. Mary loved dating high school boys her sister's age.*

When they would talk about life fifteen years in the future Mary$_1$ would always say that her$_1$ husband would be older than her$_1$.
Jane$_2$ would too ⟨ say that her$_1$ husband would be older than her$_2$.⟩.

Similarly, the moving XP may contain a variable bound by a quantifier within the elided VP; that is, it fails to be scope trapped. In the case below, the plural pronoun *they* must remain in the scope of the quantifier *every lobbyist*; this should serve to block the containing relative clause's scoping out, and hence block a strict interpretation of the non-lobbyist writer, contrary to fact.

(25) Mary$_1$ said that [every lobbyist]$_2$ thought that the article they$_{1+2}$ wrote praised her$_1$ too much. John$_3$ did too ⟨say that [every lobbyist]$_2$ thought that the article they$_{1+2}$ wrote praised him$_3$ too much⟩.

Finally, Hardt's proposal does not address the obviation effects for Dahl's Puzzle discussed by Fox.

3.3. A Binding Economy Approach

While I disagree with Hardt's proposal, I agree with him that there should be a unifying mechanism for both the *De Re* Blocking Effect and Dahl's Puzzle. One important piece of evidence in this direction is that both can be obviated by a focus-sensitive operator, as discussed in section 2.2. I will suggest that Fox's (2000) own account of the obviation can be carried over to the blocking effect, as long as we make it insensitive to *de se* interpretive effects.

Fox argues that Dahl's Puzzle follows from a theory of binding that enforces locality under truth-conditional equivalence. Consider the unavailable John-Bill pair in (19a). This reading requires *his* to be bound by *Bill*, which by VP ellipsis parallelism requires its correlate in the antecedent to be bound by *John*. Thus, the illicit reading's status comes down to whether *John* can bind *his* across the co-referential *he*. The status of this claim rests on the following two representations:

(26) a. John λx said that he$_x$ λy likes his$_x$ mother.   non-local binding

b. John λx said that he$_x$ λy likes his$_y$ mother.   local binding

As the first pronoun is bound by *John*, these two representations are truth-conditionally equivalent. Fox (2000) proposes that in such cases, a principle of the Binding Theory rules out the non-local configuration:

(27) **Rule H**: A variable, x, cannot be bound by antecedent, α, in cases where a more local antecedent, β, could bind x and yield the same semantic interpretation. (Fox 2000: 111)

When there is a truth-conditional difference, however, the local representation is not a competitor for the non-local representation, and hence we should expect obviation, as indeed occurs.

(28) John believes that only he likes his mother. Bill does too ⟨believe that only John likes Bill's mother⟩.

I would like to pursue this line of explanation. Following Schlenker (1999), Stechow (2002), I will assume that obligatory *de se* anaphora are marked with the requirement that they be bound by an operator (this will be indicated with a superscript *log*); thus *de se* anaphora follow the structure in (7b).[9] The status of the unavailable readings are thus determined by the competition between the following two representations:

(29) I dreamt I kissed me.

a.   I dreamt OP^{log} λx I λy kissed me$^{log}_x$ non-local binding

b.   I dreamt OP^{log} λx I λy kissed me$^{log}_x$ local binding

Local binding is possible, and hence non-local binding is ruled out. However, local binding does not meet the syntactic requirements of the *de se* anaphor, and so that to is ruled out (this latter step derives the ungrammaticality of logophors and long-distance reflexives in the same configuration). all is as with Dahl's Puzzle; even obviation works the same. But for one snag. Given that the intervening *de re* form is not the product of the same ascription relation, the two representations above are not semantically equivalent; in one, the lower pronoun is read *de se* and in the latter it's not. Thus, according to Rule H, the local binding configuration is simply not a competitor for the non-local representation.

Rather than dooming the enterprise, I take this problem to be teaching us something rather important about the relationship between *de se* interpretation and binding competition – they do not interact. There are two natural explanations that could be provided for this. First, perhaps the *de se* distinction isn't truth-conditional, as Higginbotham (1992) has suggested. However, I am not certain how this could be made to work, given that the distinction carves out a coherent class of scenarios. Another potential account, along the lines of Kehler (1993) and Schlenker (2005), would be to suggest that it is not truth-conditional equivalence that matters, but denotational equivalence. Assuming, in line with the SELF-IDENTITY ACQUAIN-TANCE RELATION camp, that *de se* and *de re* readings differ solely in the acquaintance relation, *de se* and *de re* forms pick out the same person and thus local and

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[9]This is not completely precise. Cases of *de se* anaphora c-commanded by other *de se* anaphora are licit. I assume that the anaphora require binding by an operator with certain features (and vice versa), and that binding serves to transmit the relevant features to binders that head the sister of the bound variable; see Schlenker (1999) for an instantiation of such an algorithm.

long-distance representations would compete. However, this competition would be divorced from the acquaintance relations for the relevant pronouns, and thus would treat *de se* and *de re* forms entirely the same. Depending on the status of the local binding configuration, mixed *de se*/*de re* readings would be either be possible or not, regardless of which one c-commanded the other.[10]

I believe there is something right in the latter potential account, namely that the two representations are competitors because as far as the matrix world is concerned, the *de se* and *de re* forms do refer to the same person. That is, they are both Lewis-counterparts of the attitude holder. At this point I will reluctantly raise this to the level of an axiom, with the hope of deriving it in future research. The particular instantiation of this claim, due to Danny Fox (p.c.), is that Rule H is evaluated in models where the Lewis counterpart relation L_w is injective:

(30) **Rule H-mod *de se***: A variable, x, cannot be bound by antecedent, α, in cases where a more local antecedent, β, could bind x and yield the same semantic interpretation within any model $M \in \Xi$. (after Fox 2000)
$M \in \Xi$ iff $\forall x, y, z \in D_e \forall w \in D_s [(xL_w y \wedge xL_w z) \rightarrow y = z]$

This will suffice for the purpose of binding competition treating both the *de se* and *de re* forms as denotationally equivalent, even though other modules of grammar would not.

3.4. Some Suggestive Facts

While the above modification to Rule H is admittedly stipulative, I believe its scope is worth exploring. Below I will consider one additional rule of grammar that appears to be sensitive to it – Principle A. As Heim (1994) notes, dream counterparts need not be be pronouns; one may be an anaphor, as in the following case that naturally reports a dream in which a *de se* Jesus forgives a *de re* Lakoff:[11]

(31) Lakoff dreamt he was Jesus and forgave himself all his sins. (Heim 1994: ex. 15)

Heim (1994) proposes that *de se* subjects do not count as accessible SUBJECTS for Principle A, and hence that the domain for anaphors is extended to include the matrix clause; hence, anaphors are bound by the matrix subject. However, counterpart split with anaphora occurs even when there isn't a syntactically present element in the matrix clause to bind the anaphor. To set this up, first note that although obligatorily-controlled PRO is *de se* in attitudinal contexts, it may antecede an anaphor that is itself *de re* interpretation of anaphor bound by PRO:

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[10]Relatedly, Schlenker's (2005) analysis of obviation cases, based on non-identical acquaintance relations, would require revision if the asymmetry in the simpler cases were derived.

[11]Heim notes that with 1st person antecedents, the reflexive forms are degraded with mixed readings; Arregui (2007) agrees with intuition. I am unsure, given wildly different results from my informants. I leave this to future research; see Arregui (2007) for a proposal that restricts the possibilities of *de se* LFs to 1st person.

(32)   *John declares, "I'm going to kill the man kissing my girlfriend in that blurry*
        video!" That man is him. John$_i$ wants PRO$_j$ to kill himself$_i$.

      Rizzi (1986) points out cases of object control where the object is not syn-
tactically present, such as *say to*. If Heim is right then such cases should only permit
anaphora to receive *de se* interpretations, as there is no overt potential binder. How-
ever, they fully allow *de re* interpretations:

(33)   a.   **S**$_1$: *John says to Luca, "Speak about yourself!"*

           S$_2$: *John says to Luca, "Speak about Luca!"*

           Gianni (a Luca$_c$) ha   detto   [di PRO^c_i parlare   di se stesso$_i$]
           Gianni (to Luca$_c$) have say-PERF [to PRO^c_i speak-INF SE self$_i$]

           'Gianni said (to Luca$_c$) PRO^c_i to speak about himself$_i$.' [✓S$_1$, ✓S$_2$]

I take such facts as evidence against Heim's proposal. Instead, I would like to
suggest that Principle A is, like Rule H, invariant to the *de se*/*de re* contrast.[12]

4. A Final Note on Obviation

According to the theory presented in the previous section, obligatory *de se* anaphora
require operator-binding to receive their interpretation. In contrast, I have suggested
that ordinary pronouns read *de se* do not. This raises two immediate questions.
First, how then are they read *de se*? Second, if ordinary pronouns may be read *de
se*, and they are not sensitive to the blocking effect, why does it arise at all in English
dream reports, since two ordinary pronouns could produce mixed readings? In this
section, I will address each question in turn. I will argue that ordinary pronouns
receive *de se* interpretation exactly as they receive *de re* interpretation, but that in
certain environments the *de se* acquaintance relation is unavailable. I will suggest
that the complement of *dream* is one of these, and that it thus fits into a larger class
of anti-logophoric environments.

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[12]Given the theory of *de re* assumed in section 4, for this to work anaphora must provide their
own *de re* relation, which can hold between *de se* center and attitude-holder.

(iii) $\lambda i\, i$ John$_n$ wants PRO $\lambda D\, \lambda k\, \lambda i'\, i'$ to kill [[himself$_k$ D] i'],
      where $D(k)(i') \neq k$.

That is, the concept-generator maps the *de se* individual in the world to the relevant (i.e., non-self-
identity) *de re* concept. While this might make one squeamish, I cannot determine any incorrect
predictions this approach makes. Note that allowing *de re* concepts of *de se* terms is also potentially
necessary to allow local binding between OP^{log} and a *de re* intervener without forcing the intervener
to be read *de se*.

4.1. A Theory of De Re

In the classic theory of Russell (1905), *de re* ascription follows as the result of scope-taking of the *de re* term outside of the relevant intensional domain. Quine (1956), however, noted that such a theory predicts inconsistency when faced with instances in which an attitude holder – say Ralph, acquainted with some individual – Ortcutt – in multiple ways, thinks that each acquaintance is actually to a different person. Ralph enters thereafter into beliefs about $Ortcutt_1$ and $Ortcutt_2$, eventually forming beliefs that would be contradictory were he to learn that the two Ortcutts are the same. In reaction to this puzzle, Kaplan (1969) reified the acquaintance relations directly into the LF of *de re* belief, turning attitude predicates into tripartite relations between an acquaintance relation, an attitude holder, and the *res* the attitude is about (Ortcutt). In a modern cast, Kaplan's proposal amounts to claiming the existence of an individual concept *f* which evaluates to the *res* in the matrix world, but which might evaluate very differently in the worlds of the attitude. That is, *de re* ascription à la Kaplan is *de dicto* ascription where the *de dicto* description is covert and happens to evaluate to the *res* (the *de re* condition).

(34)   a.   Ralph believes that Ortcutt is a spy.

      b. $\lambda w.\exists f_{se}[f(w) = \text{Ortcutt} \wedge \forall w' \in DOX_{Ralph,w}[spy(f(w')) = 1]]$

      Within such a system, it is not entirely clear what a *de se* individual concept would be; Reinhart (1990) suggests that it is the indexical 'I', but that will not necessarily evaluate to the attitude holder in the matrix context. Instead, following Lewis (1979), Cresswell (1990), Schlenker (1999), I will assume the basic intensional type is not worlds, but indices (Lewis 1970, Scott 1970), type κ, where $D_\kappa = D_e \times D_\tau \times D_s$. This allows us to center worlds on correlates of the attitude state/event as follows:

(35) $\langle y, t, w \rangle \in DOX_{x,i_0}$ iff. *w* is compatible with *x*'s beliefs at $\text{TIME}(i_0)$ in $\text{WORLD}(i_0)$, *y* is who *x* takes himself to be in *w*, and *t* is the time *x* takes it to be in *w*.

      This technical movement allows us to finally define the *de se* acquaintance relation f_{self} as that concept AUTH such that $\text{AUTH}(\langle y, t, w \rangle) = y$. However, $\text{AUTH}(i@)$ will still be the speaker following conventions for truth (the matrix index will be copied from the context), not the attitude holder, *att*. To prevent this, we must check the *de re* condition not at the matrix index $i = \langle y, t, w \rangle$ but a derived index $i' = \langle att, t, w \rangle$, which I will designate as $i[\text{AUTH}(i)/att]$.

4.2. Introducing Compositionality

While the above complications allow us to capture *de se* ascription as a species of *de re* ascription, they unfortunately do not solve the thorny problem of the Kaplanian program that it is rather hard to make compositional. After all, it involves divorcing the *res* from its clause, making it the argument of the attitude predicate, and replacing it with a covert concept. It is not clear how to do all of that and still ensure that

a *de re* ordinary pronoun intervenes syntactically between the *de se* anaphor and its operator.

      I will adopt the proposal of Percus and Sauerland (2003a), in which the *de re* acquaintance relation (i.e., concept) is provided by combining a *de re* pronoun with a "concept generator," a function from individuals to individual concepts. Given that *de re* concepts are exhaustive, this function is a bijection, hence a conceptual cover in the sense of Aloni (2000). Here is a schematic of *de re* ascription, where G is the concept generator.

(36)
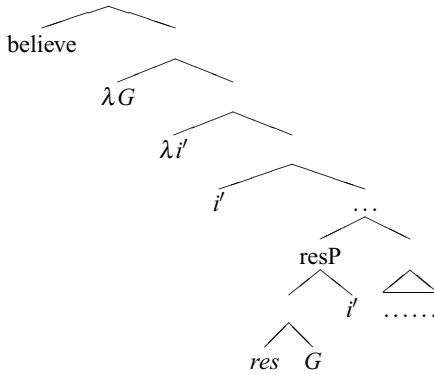
      Note that G is abstracted over; attitude predicates plug in their own conceptual covers, allowing attitude predicates to pick their own types of conceptual covers. This will be exploited in the next section. Concept generators must satisfy the *de re* condition for every individual in their domain. This includes items read *de se*, which require a derived index. Hence for each attitude holder, *att*, a *de se* concept generator $G_{att}(att) = \text{AUTH}$. We may thus generalize the concept generator over attitude holders as in (37), leading to the lexical entry for attitude verbs in (38) (note that in the latter AUTH(i') saturates the position of OP^{log}):[13]

(37) $\forall x \in D_e, \forall i \in \kappa, \Gamma \in D_{\langle e,\kappa \rangle, ese}$ is in CG iff.
        $\forall y \in dom(\Gamma(x)(i))\ \Gamma(x)(i)(y)$ is a concept f such that $f(i[\text{AUTH}(i)/x]) = y$.

(38) $[\![\text{believe}]\!]^g = \lambda P_{\langle ese \rangle, e\kappa t} \lambda att_e \lambda i_\kappa.$ 1 iff.
        $\exists \Gamma \in CG[\forall i' \in DOX_{att,i}[P(\Gamma(x)(i))(\text{AUTH}(i'))(i') = 1]]$.

4.3. On Anti-logophoricity

If pronouns can be read *de se* and non-*de se*, and in ways that are not governed by the *De Re* Blocking Effect, then shouldn't two pronouns be able to produced the unavailable dream report cases. In principle, yes, and that is precisely what I

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[13]This is also required to capture Kaplan's acquaintance and suitability constraints (elided in the main text), which are obviously attitude holder dependent.

assume occurs in other attitude predicates. How is *dream* different? Somehow in its scope ordinary pronouns lose their ability to refer *de se*.

This is not a problem peculiar to pronouns in dream reports. Alongside logophoricity, many languages show so-called "anti-logophoric" effects, prohibitions on non-logophors referring to the attitude holder, as indicated in the examples from Ewe and Abe below:

(39)   a.   kofi be yè-dzo   [Ewe]
            Kofi say LOG-leave
            $Kofi_i$ said he_i left. (Clements 1975: ex. 1, 160)

       b.   kofi be e-dzo
            Kofi say 3S-leave
            $Kofi_i$ said $she/he_{*i,j}$ left. (Clements 1975: ex. 3, 160)

(40) $yapi_i$ hE   kO $O_{*i/j}/n_{i/j}$ ye sE   [Abe]
       Yapi said kO he   is handsome

       '$Yapi_i$ said that he_i is handsome.' (only possible with n) (Koopman and Sportiche 1989: ex. 66b, 580)

These are reported as ungrammaticalities, but I suspect they show that the ordinary pronouns must be interpreted non-*de se* (non-obvious scenarios, to be sure). Let us provisionally assume this is true, subject to more careful fieldwork. Now, one influential proposal (Huang 1994, Schlenker 1999, Safir 2005) would analyze these as cases of lexical blocking – as there exists in these contexts a more specialized form (the *de se* anaphor) to cover *de se*, the more general form cannot. However, this suggestion simply cannot be cross-linguistically valid, since Yoruba and Mandarin pronouns do not show anti-logophoric effects.

I would like to propose that what is interfering here is the relevant attitude predicate. One piece of evidence for this idea comes from the interpretation of ordinary pronouns in Mandarin rationale clauses. Mandarin rationale clauses are optionally headable by the directional *qu* 'go.' When they are, pronouns in the rationale clause must be read strictly non-*de se*. Thus, in the example below, Bill must believe the man he is hitting is not his father:

(41) S_1: *Bill deliberately hit his_{dese} father last night.*

      S_2: *Bill hit his father with a chair (he thought he was hitting the father of that guy).*

      $Bill_i$ na   yizhi qu da ta_i de baba
      $Bill_i$ take chair GO hit he DE father

      'Bill took a chair to hit his father [# S_1, ✓ S_2] (non-*de se*).'

This suggests that the attitude predicate *qu* (a teleological modal) heading the rationale clause specifies that no pronoun may refer via a self-identity acquaintance relation. Within the theory of *de re* ascription presented in the previous section, attitude predicates quantify over concept generators, and hence may impose

restrictions on their nature. *Qu*, it seems, requires a condition that self-identity is out:

(42) $\forall x \in D_e, \forall i \in \kappa, \Gamma_C \in CG$ is in $CG_{selfless}$ iff.
         $\Gamma(x)(i)(x) \in C \setminus \{\text{AUTH}\}$, where C is salient acquaintance relations.

    If this is true for Mandarin rationale clauses, perhaps it is more generally what is responsible for anti-logophoricty effects, such as those in Ewe, Abe, and English *dream*.

(43) $[\![\text{dream}]\!]^{c,i,g} = \lambda P_{\langle e\kappa e\rangle, \kappa t} \lambda x_e. 1$ iff. $\exists \Gamma_C \in CG_{selfless}[\forall i' DOX_{x,i}[P(\Gamma(x)(i))(i') = 1]]$.

    A classic test for lexical blocking accounts is to construct a situation where the specialized form cannot apply, such as cases where one element satisfies the specialized form and another does not, and then test whether quantification over the relevant position allows the general form. The concept generator constraint account predicts that in English dream reports we should not get ambiguity with quantificational subjects. The facts require further study. While ellipsis seems to force either universal *de se* or *de re* interpretation (44a), a similar judgment for quantificational subjects (44b) seems less sure with explanatory postscript (44c).

(44)   *John, Bill, and Sam, three losing candidates, watch George get sworn in.*
         They each fall asleep. John dreams that he is George, and sees himself down
         in the stands, watching the inauguration. Sam dreams that he is a member
         of Sam's campaign, and watches as Sam wins the Presidency. His dream
         closes with him looking on as he[de re] gets sworn in. Bill has a similar
         dream.

    a.   Sam dreamed he was President. {Bill, *John} did too.

    b.   * Each of them dreamed that he was voted President.

    c.   ?? How egomaniacal of them! Each of them dreamed that he was voted
           President, but at least Bill and Sam had the decency not dream it in
           the first person.

    A more serious worry comes from cases with logophors. In general, logophoric cases are only 3rd person (Schlenker 2003). However, the concept generator constraint account predicts that anti-logophoricity should also hold for 1st and 2nd person elements:

(45)   I said that I was the best diver. [should be strictly non-*de se* in Ewe or Abe]

This is highly unlikely. While it is possible to argue English-like syncretisms for 1st and 2nd person in these languages, we would then be left requiring explanation for an overwhelming morphological tendency.[14]

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[14]Functionally, one account might be that *de se* and *de te* are simply the most common uses of 1st and 2nd person forms, hence less of a need for a distinction along such lines in the morphology.

5. Conclusion

This paper's main empirical concern was a parallel between restrictions on pronouns in English dream reports, Yoruba logophoric environments, and Mandarin long-distance reflexivization. I argued that these environments all requires special *de se* forms to be outside of the c-command domain of any ordinary pronoun (the *De Re* Blocking Effect), subject to potential obviation by a focus-sensitive operator. This obviation effect, shared with Dahl's Puzzle, led me to propose that the *De Re* Blocking Effect arose as a result of binding competition à la Fox (2000). Such an account in turn led me to propose that binding competition is insensitive to the *de se* distinction, a property which I suggested it shares with Principle A.

The account resulted in a split between ordinary pronouns and obligatory *de se* anaphora, a split I argued was motivated by the lack of blocking effects with two regular pronouns. The difference between English dream reports and other attitude environments I suggested lay in the peculiarities of the predicate *dream*, which I suggested prohibits pronouns in its scope from making use of a self-identity acquaintance relation, and not global computations over most optimal forms. This last piece of the puzzle is especially vexing, since it would seem on first blush that there would hardly be the training data to cause so many to converge on such a complex analysis. Future research, I hope, will shed light on what the learning theory of these facts is.

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