Control, Binding, and the Statue vs. Identity Interpretation*

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Abstract: English obligatory control constructions, as well as ECM structures with locally bound reflexives, only allow de se construal. Hornstein and Pietroski (2010) attribute this fact to movement. They hold that PRO and reflexives in these structures are non-distinct copies of their antecedents, and as such they function as vehicles for de se interpretation. This argument for non-distinctness as a result of movement is challenged by the fact that, given enough context (e.g. the so-called “Madame Tussaud context”), PRO and the reflexive may receive a statue interpretation that is distinguishable from the identity interpretation of their antecedents. I present the relevant statue data and show that they do not pose a challenge for the movement approach to control and binding. I suggest that the statue interpretation is the result of property shift – rather than reference shift – brought about by overt or covert free as-adjuncts that function as stage-level predicates.

1. **De Se Interpretation in Control and Binding**

Hornstein and Pietroski (2010), building on Hornstein’s (2001) project of reducing control and binding construal to movement, present semantic evidence to show that locally bound reflexives (LBR) and obligatory control PRO (OC PRO) are the outcome of copying rather than co-indexing. The focus is on the two verbs, expect and believe, used in sentences like (1a–b) and (2a–b) in reference to an amnesiac war hero who accidently came across information about his brave and heroic feats. The authors observe that, unlike (2a–b), (1a–b) may not be used in reference to the amnesiac war hero, even if they were uttered after the war hero had recovered from his amnesia.

1. a. The unfortunate expected to get a medal.
   b. The unfortunate believed himself to be brave.

2. a. The unfortunate expected that he would get a medal.
   b. The unfortunate believed that he was brave.

This observation was first made in reference to control structures in Morgan (1970). Similarly, Chierchia (1989) holds that control structures like (1a) entail that the matrix subject has access to himself/herself in two ways, both (i) as the unfortunate and (ii) as a war hero. While the same access is also available in (2a), (1a) contains an extra feature that is only optionally available in

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(2a), which can be described as “self-ascriptivity” or an awareness of self-identity on the part of the matrix subject.

Chierchia adds that “self-ascriptivity is simply the semantic aspect of what linguists call control” (1989:18). Building on Fodor (1975) and Williams (1977), he argues that control structures only allow a de se reading because they contain subordinate clauses that are unsaturated structures. That is, they are properties rather than propositions, and PRO is only a form of ‘self,’ associated with an abstractor or operator that binds it. See also Anand (2007), who considers obligatory de se interpretation as the outcome of operator binding.

Chierchia mentions ECM constructions with reflexive pronouns like (1b). However, he considers the enforced/strongly preferred de se interpretation in such structures as unexpected and refrains from offering an explanation.

Hornstein and Pietroski (hereafter H&P) provide a unified analysis of both control structures and ECM structures with LBR. They hold that sentences (1a–b) are strictly de se reports that are appropriate only if the unfortunate war hero knows that “he is the object of his own thoughts,” which he does not (p. 69). Sentences (2a–b), however, are appropriate in this context. Although they allow a de se interpretation, they may also be used to “ascribe thoughts that are not self-directed” (p. 69). That is, although the matrix and subordinate subjects refer to the same entity, the unfortunate, the sentences allow a reading whereby the unfortunate is/was not aware that he is the war hero he just learnt about.

Like Chierchia and Anand, H&P argue that the reason behind the aforementioned semantic distinction is syntactic. Unlike Chierchia and Anand, however, H&P maintain that sentences (1a–b) involve copying rather than binding. That is, both OC PRO and the LBR are construed as the unfortunate as a result of movement, whereby OC PRO/LBR and the unfortunate are non-distinct copies of the same element in the numeration. The pronouns in (2a–b), on the other hand, are related to the matrix subjects through co-indexing/antecedence rather than movement. That is, the unfortunate and he in (2) are copies of distinct elements in the numeration, and they happened to coincide.

H&P’s analysis accounts for the relation between syntax and semantics. To them, movement results in semantic identicalness in a way that co-indexing/antecedence cannot. However,

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1 See, however, Anand (2006:14–15) for ECM structures similar to (1b) with non-de se interpretation. For the purpose of this paper, however, I will consider (1b) as strictly de se, especially since verbs like believe and think strongly lean towards such interpretation, as Kier Moulton (p.c. in Anand 2006:15, fn. 5) observes.

2 Note incidentally that H&P’s analysis of the sentences in (2) as the outcome of co-indexing rather than movement goes against Kayne’s (2002) account. According to Kayne, sentence (2a) may have the derivation in (i). The matrix subject, the unfortunate, undergoes first merge with the embedded subject, he. This merge accounts for their coreferentiality. Later in the derivation, the unfortunate moves to the matrix clause while he is stranded. H&P seem to dismiss this option.

(i) The unfortunate expected that [de the unfortunate [i he]] would get a medal

Alternatively, Kayne’s and H&P’s accounts may be combined, allowing for the four-way distinction in (ii). (iia) and (iib) are the outcome of movement, which explains the availability of the de se reading. (iic), on the other hand, is the result of co-indexing, or what Morgan (1970:385) calls “accidental identity,” which is why the same sentence allows the free variable interpretation in (iid).

(ii)

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<tr>
<td></td>
<td>John expected John to win.</td>
<td></td>
<td>movement: de se reading</td>
</tr>
<tr>
<td>a.</td>
<td>John expected [John he] would win.</td>
<td></td>
<td>movement: de se reading</td>
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<tr>
<td>b.</td>
<td>John, expected that he, would win.</td>
<td></td>
<td>coindexing: de re reading</td>
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<tr>
<td>c.</td>
<td>John, expected that he, would win.</td>
<td></td>
<td>free variable</td>
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the argument that OC PRO and LBR are semantically identical is challenged by the availability of the so-called statue interpretation in structures like (1a–b).

In this article, I would like to show that the availability of the statue interpretation in the structures under examination does not compromise the movement analysis of control and binding. Section 2 spells out the details and presents the relevant data. In section 3, I tentatively suggest that these data do not pose a problem for the movement approach. Section 4 is a conclusion.

2. Statue vs. Identity Interpretation in Control and Binding

H&P’s analysis gives rise to an important question. As observed by Reuland (2001) and Lidz (2001) for Dutch and Kannada respectively, a complex self anaphor, unlike its simplex se counterpart, may be distinguishable from its antecedent. Reuland (2001) offers example (3), in which Marie walks into Madame Tussaud and looks in a mirror. In this context, the expression Marie saw herself, with the complex anaphor, may have two interpretations: Marie saw her own reflection or Marie saw (the reflection of) her statue.

(3) Dutch “Madame Tussaud” context:
Marie is beroemd en liep bij Madame Tussaud’s binnen.
Marie is famous and walked at Madame Tussaud’s inside
‘Marie is famous and walked into Madame Tussaud’s.’
Ze keek in een spiegel en …
she looks in a mirror and
‘she looked in a mirror and …’
a. ze zag zich in een griezelige hoek staan.
she saw SE in a creepy corner stand
‘she saw herself standing in a creepy corner.’
Favored interpretation: Marie saw herself.
b. ze zag zichzelf in een griezelige hoek staan.
she saw herself in a creepy corner stand
‘she saw herself standing in a creepy corner.’
Favored interpretation: Marie saw her statue.
(= Reuland 2001:483, ex. 89)

This observation is probably less problematic under a binding approach because the LBR and its antecedent are assumed to be coreferential through co-indexing rather than copying, which arguably may accommodate a less than complete identity interpretation between the two coreferential elements. Under the movement approach, however, the two copies are coreferential because they are non-distinct copies of the same token in the numeration. According to H&P, LBR is “semantically identical” to its antecedent “in a way that no bound variable can be” (2010:77, fn. 7). Therefore, a complete identity is expected in conjunction with the de se interpretation.

Another question is whether the statue interpretation is available in control structures as well. If the answer to this question is no, then the assumption that binding and control are both derived in a similar fashion – that is, by movement – becomes questionable. If it is yes, then again an explanation is needed as to how two non-distinct copies may enforce a de se interpreta-
tion, yet receive distinct interpretations. Otherwise, identicalness as used by H&P becomes limited to self-ascriptivity rather than to coreference.

In an attempt to test whether the statue reading is available in structures with OC PRO and LBR, I presented thirteen native speakers of American English with the following situation and with sentences (4a–f).

- **Context:**
  You walk into a museum where there is a statue of yourself standing in a dark spot. There is a contest tomorrow for selecting the prettiest statue. You and the curator are standing in front of your statue.
- **Question:**
  Given the above context, would the following sentences be something you would say in reference to the statue – or expect someone in the same situation to say? Politeness or the lack of it is not an issue!

(4)  
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<tbody>
<tr>
<td>a.</td>
<td>I don’t like myself in this dark spot.</td>
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<tr>
<td>b.</td>
<td>I don’t like seeing myself standing in this dark spot.</td>
</tr>
<tr>
<td>c.</td>
<td>I prefer to be in the spotlight.</td>
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<tr>
<td>d.</td>
<td>I would like to be placed in the spotlight.</td>
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<tr>
<td>e.</td>
<td>I expect to be clean and ready for tomorrow’s contest.</td>
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<tr>
<td>f.</td>
<td>I expect to impress all the museum visitors tomorrow.</td>
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Eleven native speakers reported that sentences (4a–f) are sentences they would personally say and/or they would expect someone else to say in the given context. Out of the remaining two native speakers, one reported that he would use the sentences if he were ‘joking around’ with the curator, while one found them completely bizarre.

In order to control for a potential difference between 1st and 3rd person pronouns (see, for example, Bhat 2004), I also presented seven of the eleven native speakers who found (4a–f) appropriate with the following context and sentences (5a–f). All seven speakers found the sentences appropriate.

- **Context:**
  Let’s say your name is Sue. Later in the day, the curator you talked to stands in front of your statue with a co-worker and reports the following sentences to him.
- **Question:**
  Would these be good sentences in this context?

(5)  
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<tbody>
<tr>
<td>a.</td>
<td>Sue doesn’t like herself in this dark spot.</td>
</tr>
<tr>
<td>b.</td>
<td>She doesn’t like seeing herself standing in this dark spot.</td>
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<tr>
<td>c.</td>
<td>She prefers to be in the spotlight.</td>
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<tr>
<td>d.</td>
<td>She would like to be placed in the spotlight.</td>
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<td>f.</td>
<td>She expects to impress all the museum visitors tomorrow.</td>
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The sentences in (4) and (5) are problematic to the movement approach to control and binding because they involve instances of OC PRO and LBR that are referentially distinct from their antecedent. The antecedent refers to the speaker/Sue while OC PRO and LBR refer to a statue of the speaker/Sue, as (6a–b) illustrate.

(6) a. \( \tilde{\text{speaker/Sue}} \) don’t like myself \( \tilde{\text{statue}} \) in this dark spot.
    b. \( \tilde{\text{speaker/Sue}} \) expect PRO\( \tilde{\text{statue}} \) to impress all the museum visitors tomorrow.

3. The Syntax of Structures with the Statue Interpretation
The semantic analysis of the \textit{de se} reading in (1a–b) put forth by H&P includes the beginning of a solution to the problem highlighted in the previous section. I quote:

Let’s start by introducing a singular concept, \( C_j \), of a certain John […] Only our John falls under \( C_j \) […] But of course, John may fall under many singular concepts, each of which is such that only he falls under it. And if John falls under both \( C_j \) and the logically independent singular concept \( C_{j^*} \), there is no guarantee that a rational thinker who judges that John falls under \( C_j \) will also judge that John falls under \( C_{j^*} \). Indeed, even John might make a mistake about himself, especially if John is unfortunate. He might judge that John falls under \( C_j \) without judging that John falls under \( C_{j^*} \).

(H&P 2010:77)

This quote suggests that the speaker/Sue in (4) and (5) falls under two independent singular concepts: \( C_{\text{person}} \) and \( C_{\text{statue}} \). The question is how this information is encoded syntactically. In section 3.1, I will suggest that the statue interpretation is the result of a property shift brought about by overt or covert free as-adjuncts that function as stage level predicates. Section 3.2 presents the derivation of these adjuncts.

3.1. Property vs. Reference in the Statue Interpretation
The above quote by H&P implies that sentences (4a–f) may be understood as (7a–f).

(7) a. I don’t like myself, as a statue, in this dark spot.
    b. I don’t like seeing myself, as a statue, standing in this dark spot.
    c. I prefer, as a statue, to be in the spotlight.
    d. I would like, as a statue, to be placed in the spotlight.
    e. I expect, as a statue, to be clean and ready for tomorrow’s contest.
    f. I expect, as a statue, to impress all the museum visitors tomorrow.

What is special about the \textit{as a statue} phrase in (7a–f)? Stump (1985:87–88), as well as Fernald (2000) and Jäger (2003), analyzes \textit{as} \textit{X} phrases of this type as free adjuncts that categorically function as stage level predicates. As Landman (1989:729, see also Carlson 1977) observes, “people have rich characters with many aspects; restricted individuals enter the stage.” Free \textit{as}-adjuncts make this possible. They allow us to say sentences like (8a–b). In both sentences, Sue and Tom are aware that the boss and the father in question have the same referent, Tom.

(8) a. Sue has known Tom as a boss and as a father.
    b. Tom likes himself as a boss, but he is not so proud of himself as a father.
According to Jäger (2003:559–560), there are three readings available in a free as-adjunct, namely a “costume reading,” a “picture reading,” and “an ordinary spatio-temporal part of the world reading.” For example, sentence (9) may have any of the three readings (9a–c), depending on the situation.

(9) Sue saw Tom as a pilot for the first time last week
   a. Costume reading: Tom is an actor in a movie in which he plays the role of a pilot, and Sue watched the movie for the first time last week.
   b. Picture reading: Tom has a picture in his house in which he is dressed as a pilot (probably just for fun), and Sue saw the picture for the first time last week.
   c. Real-world spatio-temporal reading: Tom is a pilot, but Sue had never seen him as one until she ran into him wearing his uniform in the airport last week.

The statue examples in (4) and (5) above fall under the picture reading. At the same time, OC PRO and LBR may be used in a stage reading or a real-world spatio-temporal reading. For example, Tom may have the following attitudes towards himself as a pilot under all three readings:

(10) a. I like myself as a pilot.
     b. I always expect to impress my viewers/visitors/passengers as a pilot.

According to Jäger (2003:559–561), free as-adjuncts make it possible “to ascribe conflicting properties to one and the same individual if the predication is appropriately qualified.” For example, while sentence (11a) is pragmatically awkward and unexpected, sentence (11b) with the free as-adjuncts is perfectly acceptable.

(11) a. Tom looks attractive and unattractive.
     b. [Context: Tom is an actor who played these roles in two movies.] Tom looks attractive as a pilot but unattractive as a bank manager.

This idea was probably first introduced by Landman (1989) who observed that in a situation where John is both a judge and a hangman, if the judges but not the hangmen are on strike, then John is and is not on strike at the same time: He is on strike as a judge but not on strike as a hangman.

Landman (1989) puts forth eight conditions – or what Jäger (2003) calls “axioms” – regarding the interpretation of free as-adjuncts. The most relevant condition for our purposes is Condition 1, which Landman illustrates with the following example:
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(12) John as a judge still is John.
Landman (1989:732, ex. 32)

This condition indicates that the speaker/Sue as a statue in (4) and (5) is still the speaker/Sue, and thus the speaker/Sue and OC PRO/LBR may still be considered coreferential. The distinctness is at the level of properties depicted by the stage level predicates as a statue vs as a person.

Before placing free as-adjuncts within the derivational history of structures that contain OC PRO and LBR, it is important to note that there are cases in which Landman’s axiom as stated in (12) may not apply. The reason is not the nature of the free as-adjunct as a stage level predicate but rather the nature of the subject that saturates it. Namely, if the subject is a 1st or 2nd person pronoun, a shift in reference alongside the shift in property is possible, in which case a free pronoun may be licensed where normally a (OC PRO or LBR) copy is.

To elaborate, Bhat (2004) observes that 1st and 2nd person pronouns I/me and you – or what he calls personal pronouns – are different from 3rd person pronouns in that they are dissociated from their referent and are only sensitive to speech roles. In other words, I/me will always refer to the person speaking regardless of her/his identity. Similarly, you will always refer to the hearer regardless of her/his identity. This is why languages tend to use appositives for identifying the referents of I/me and you; for example, I, Jean Do, ... (Bhat 2004:10, 38–40).

Given this volatile nature of 1st and 2nd person pronouns, when a personal pronoun – in the sense of Bhat (2004) – saturates a free as-adjunct, it should be possible for it, not only to take on a situational stage-level property, but also to take on a new reference. (13) through (15) show that this is indeed possible. As the information in the square brackets indicates, me and you are used where myself and yourself are expected.

(13) a. If I were you I would fall for me [instead of myself]
Keep every promise, answer my calls. (from If I Were You lyrics – Jason Castro)
b. I as you would fall for me as me.

(14) a. Context: 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: Say that you were mom and you won’t visit you [instead of yourself]!
How do you think that would make you feel after all those years of sacrifice?
(adopted from Anand 2007:1, fn. 1)
b. You as daughter won’t visit you as mom.

(15) a. If I were you I would want for me [instead of myself] to succeed.
b. I as you would want for me as me to succeed.

The (a) sentences in (13) through (15) are not possible with 3rd person pronouns, as Webelhuth and Dannenbergen (2006) observe. The reason is that 3rd pronouns are inherently demonstrative with fixed reference. They may readily experience a shift in property, but they may not as readily experience a shift in reference.
3.2. **The Derivation of Free as-Adjuncts**

According to Jäger (2003:571), free as-adjuncts may be considered as adnominal as-PPs à la Landman (1989), cf. (16a), or as adverbial constructions à la Fox (1993), cf. (16b). The two are synonymous.

(16) a. John as a judge is corrupt.

b. As a judge, John is corrupt.

(= Jäger 2003:571, ex. 39a–b).

Derivationally, given the premises of the movement approach, it can be assumed that the subjects in (16a–b) start out in the free as-adjunct before they move – or sideward move (Nunes 2004) – to the matrix clause. After movement and other structure-building business take place, two options are available: (i) *As a judge* adjoins to the subject DP *John* (16a), or (ii) *as a judge* adjoins to the matrix predicate (16b).

Back to the control and binding structures under examination. For the purpose of these structures, I assume that free as-adjuncts are adverbial constructions, although they can very well be adnominal PPs. This means that sentence (17) has the following derivation: The adjunct and subordinate vP form independently (17a), and *Sue* copies out of the adjunct and merges in Spec,vP. The two phrasal structures undergo merge (17b). In (17c), the whole structure projects, with a copy of *Sue* merging in the matrix clause. (17d) is the PF representation in which all but the highest copy of *Sue* are deleted.

(17) Sue expects to impress the museum visitors, as a statue.

a. [adjunct Sue as a statue] [vP Sue impress the museum visitors]

b. [vP [vP Sue impress the museum visitors] [adjunct Sue as a statue]]

c. [CP [IP Sue expects [IP Sue to [vP [vP Sue [vP Sue impress the museum visitors] [adjunct Sue as a statute]]]]]]

d. PF:

[CP [IP Sue expects [IP Sue to [vP [vP Sue [vP Sue impress the museum visitors] [adjunct Sue as a statue]]]]]

Sentence (18) has a similar derivation: The adjunct and matrix VP form independently (18a), and *Sue* undergoes sideward movement, copying out of the adjunct and merging in the object position in matrix VP. The adjunct and VP undergo merge (18b), after which matrix vP projects, and *Sue* moves to Spec,vP, then to Spec,IP (18c). After all business is done in narrow syntax, the structure converges at PF as (18d). In this case, two copies of *Sue* are pronounced, one as *Sue* and one as a reflexive pronoun, *herself*.

(18) Sue likes herself as a statue.

a. [adjunct Sue as a statue] [vP likes Sue]

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3 For movement accounts – with different flavors – as to why *Sue* in the object position is pronounced as a reflexive pronoun, see Hornstein (2001), Kayne (2002), Grohmann (2003), and Haddad (2011b).
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b. \([VP [VP \text{likes Sue}] [\text{adjunct Sue as a statue}]]\)

c. \([CP [IP \text{Sue [VP Sue [VP [VP \text{likes Sue}] [\text{adjunct Sue as a statue}]]]]]}\)

d. PF:
\([CP [IP \text{Sue [VP [VP \text{likes herself}] [\text{adjunct Sue as a statue}]]]}]\)

A question that follows is: Why don’t free as-adjuncts show up all the time? In other words, why is the statue reading in (4) and (5) available despite the absence of the adjunct as a statue? I suggest that this is the case because free as-adjuncts are presuppositional topical adverbials, as Jäger (2003) describes them, sharing the same situation with the main predicate (matrix or embedded). Therefore, they are usually implied, and pronouncing them or not may be considered a matter of economy. In this respect, they are similar to if-adjuncts in structures like (19). Such structures are pragmatically used as advice, and the if-adjunct is usually implied.

(19) I would talk to the manager (if I were you).

4. **Conclusion**

The reduction of construal to movement as proposed in Hornstein (2001) has received considerable attention over the last decade. In the realm of control, it has helped account for cases that other non-movement approaches have not been able to accommodate yet, namely, backward and copy control. See, for example, Polinsky and Potsdam (2002), Potsdam (2009), Haddad (2009), (2011a).

H&P set out to provide further support for the movement approach to control and binding. According to the authors, the movement approach captures the semantic identicalness between OC PRO/LBR and the antecedent in a way that coindexing cannot. However, the availability of the statue interpretation in structures with OC PRO and LBR presents a challenge to the claim of semantic identicalness as a result of copying. In this paper, I suggest that the availability of the statue reading is not problematic to the movement approach and does not compromise H&P’s analysis. The reason is that the statue interpretation is brought about by a stage level predicate, an overt or covert free as-adjunct, that highlights a stage, picture, or real-world spatio-temporal property of OC PRO/LBR without altering its reference.

**References**


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