

# Binding Local Person Pronouns Without Semantically Empty Features

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## 1. The Prevailing View and its Weaknesses

The sentence in (1) is ambiguous, admitting of either the reading in (1a) or (1b).

- 1) Only I talk to my father.
  - a. I talk to my father, and no one else talks to my father.
  - b. I talk to my own father, and no one else talks to their own father.

I shall refer to the reading in (1b) as the ‘bound reading’ of sentence (1), and to the reading in (1a) as the ‘strict reading’ of (1).

The availability of the bound reading in (1) and sentences akin to it has garnered a healthy amount of attention in recent years (Heim 1991, Kratzer 1998, Heim 2002, Rullmann 2003, Schlenker 2003, von Stechow 2003, Kratzer 2005, Schlenker 2005). The *prima facie* interest of such sentences is that they seem to suggest that local person pronouns can be bound, contrary to the so-called ‘Fixity Thesis’, famously embodied in the proposals of Kaplan (1977).

### 2) Fixity Thesis: (Schlenker 2005)

The semantic value of an indexical is fixed solely by the context of the actual speech act, and cannot be affected by any logical operators.

Indeed, the Fixity Thesis has been challenged on a number of grounds, including the ability for plural local person pronouns in English to be ‘partially bound’ (Partee 1989) and, most famously, the ability for local person pronouns in some languages to ‘shift’ their reference in certain embedded contexts (Schlenker 2003, Nevins & Anand 2004, Schlenker 2005).

Strangely, despite the accumulating evidence against the Fixity Thesis, the prevailing view regarding the ‘bound reading’ of sentence (1) is that – contrary to appearances – it does not truly witness binding of local person pronouns in English. Rather, the more-or-less standard position is that the bound reading of sentences like (1) involves a pronoun exhibiting only *morphological agreement* with the local person argument binding it; the local person features of the bound pronoun are not present in the logical representation of the sentence. Under this analysis, the logical form of the bound reading of (1) might be represented as in (3).

- 3) [ Only I ] [  $\exists x$  . x talk to [ *pro*<sub>x</sub> ’s father ] ]

Individual authors differ regarding how, precisely, the surface form in (1) is mapped to the logical representation in (3). There is a general agreement, however, that the bound pronoun originates in the derivation of the sentence as ‘underspecified’ in some way,

gaining local person features via an ‘agreement’ relation between it and its binder. This ‘agreement’ relation is, however, purely morpho-phonological, and so the features passed to the bound pronoun from its binder do not appear in the logical form of the sentence.

Some version of this ‘prevailing view’ can be found in all the recent discussions of sentences like (1); it is more-or-less the analysis proposed in Heim 1991, Kratzer 1998, Heim 2002, Rullmann 2003, Schlenker 2003, von Stechow 2003, Kratzer 2005, and Schlenker 2005. This ‘prevailing view’ is even adopted by authors, such as Schlenker, who reject the general truth of the Fixity Thesis. Despite its popularity, however, the empirical motivation for the prevailing view is rather thin. In general, authors motivate the notion that the bound pronoun lacks semantically interpreted person features simply on the grounds that the pronoun is bound. The following quotes from Rullmann (2003) are representative.

“The person feature of the second occurrence of [ the first person pronoun ] in (1) does not seem to play a role in its semantic interpretation; it is there merely because of agreement with its antecedent *only I*.” (Rullmann 2003; p. 2)

“In all the cases discussed in this section, the morphosyntactic person and number features of the bound-variable pronouns do not seem to have any semantic import. These data suggest that bound-variable pronouns have the person and number features they do solely because they must agree with their antecedent for purely syntactic reasons.” (Rullmann 2003; p. 4).

The argument seems to be that, since the bound pronoun in sentences like (1) is not interpreted as the speaker of the discourse, but as a bound pronoun, the local person features of the pronoun must not be interpreted semantically. Thus, those features must be absent from the logical representation of the sentence.

Note, however, that this reasoning simply begs the question of whether local person pronouns can be bound by operators in English. As I will show in this paper, the fact that the second first-person pronoun in the bound reading of sentence (1) is not interpreted as the speaker at the context of utterance is *entirely consistent* with its local person features being visible to the semantic interface. Indeed, it simply follows from the fact that the local person pronoun is *bound* in the reading in question.

To be, perhaps, more fair, it should be noted that writers often analogize the interpretation of the bound pronoun in sentence (1) to that of the bound pronoun in sentence (4), below.

4) Only Mary brought her book.

Under its bound reading, the sentence in (4) may quantify over both women and men within the domain of discourse. Thus, it seems that the typical presupposition that the referent of ‘her’ be female is overcome when the pronoun is bound. A quite common and natural conclusion is that presuppositional features such as gender simply aren’t present in the logical representation of bound pronouns. If the feature ‘first person’ were also presuppositional, the availability of the bound reading of sentence (1) would follow from the feature’s absence from the logical form of the sentence. Moreover, given that

mechanisms effecting the absence of presuppositional features from the logical representation of bound pronouns are independently required by sentences such as (4), it would seem parsimonious to suppose that the bound reading in (1) is also effected by such mechanisms.

Although this train of thought is well taken, one should also bear in mind that the bound reading of sentence (1) would follow simply from the ability for local person pronouns in English to be bound. Unlike presuppositional features such as gender, the feature ‘first person’ actually presents no obstacles to quantification over the entire domain of discourse. As I will show, all that is required for such quantification is that lambda operators be able to target the ‘speaker parameter’ within the semantic assignment function. There is, then, little reason to categorize local person features as ‘presuppositional’, and it seems wrong for them to be ‘removed’ from the logical form of a sentence by whatever mechanisms generally target presuppositional features. To see the point, note that under the bound reading of (4), the pronoun ‘her’ does not co-refer with ‘Mary’, even though they share indices. No one, of course, considers this fact problematical, as it follows simply from the pronoun being bound by a lambda operator. For this reason, no one would propose that there is some syntactic manipulation of the feature structure of the pronoun needed to free ‘her’ from its co-reference with ‘Mary’, despite the fact that such manipulations are independently required to relieve the pronoun of its presuppositional features. Of course, the parity here with the bound reading in (1) is not perfect, as binding of local persons in English does require an extension (and therefore weakening) of the theory of lambda-abstraction in natural language. Throughout this discussion, however, I take it that such extensions are independently needed for the other violations of the Fixity Thesis noted above. Thus, it is far from clear that one approach is more parsimonious than the other, which is all I mean to argue here. Moreover, the treatment I offer for the bound reading of (1) will inspire a reanalysis of the bound reading of (4), in which mechanisms of ‘gender agreement’ between binders and pronouns are eliminated; this more general system is developed in section 5.<sup>1</sup>

A separate motivation for the ‘prevailing view’ can be found in Schlenkar 2005. The Fixity Thesis is argued by Schlenkar not to be a valid cross-linguistic principle. Thus, the ability for the second first-person pronoun in (1) not to refer to the speaker is not in-and-of-itself a motivation for the prevailing view. However, English notably differs from languages such as Amharic in that it never allows local person pronouns to ‘shift’ their reference in indirect speech reports. Schlenkar’s analysis of this difference between Amharic and English entails that local person pronouns in English can, in fact, *never* be bound. Thus, although Schlenkar (2005) abandons the Fixity Thesis as a valid cross-linguistic principle, he maintains that it is accurate as far as English is concerned.

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<sup>1</sup> It should also be noted that it is highly questionable – even under a standard semantics for bound pronouns – whether the bound reading of (4) requires any operation of pronominal gender neutralization. As pointed out in footnote 14, the perception that it does seems based in a confusion between the *ontic* sex of a meta-language variable and its *linguistic* properties in the meta-language. More generally, the issue raised by bound pronouns such as in (4) is not that they do not carry their usual gender presuppositions, but that they can refer to the meta-language variable ‘x’, and hence *be bound at all*.

For this reason, Schlenkar (2005) must adopt the ‘prevailing view’ of the bound reading of (1).<sup>2</sup>

It is unclear, however, why Schlenkar (2005) places the locus of variation between English and Amharic in the pronominal systems of the language. After all, given the bound reading of (1), it seems *prima facie* that the difference between English and Amharic rests in the type of embedded clauses the languages have. More technically, the inability for embedded clauses in English to shift the reference of local person pronouns might follow from the inability for words in English to take full contexts as arguments. That is, English and Amharic may differ regarding the *logical type* of their clausal arguments: clausal arguments in English are classical intensions, while clausal arguments in Amharic are Schlenkarian contexts. It is far from clear that this latter proposal is unattractive for any reason. Indeed, in its technical detail, it is quite similar to the proposal actually put forth in Schlenkar (2005)<sup>3</sup>.

An interesting argument for the prevailing view can be found in the works of Kratzer (1998) and Kratzer (2005). Kratzer (1998) observes that there seem to be ‘locality conditions’ on bound local person pronouns. Kratzer reports that bound readings of the second first person pronoun are unavailable in the following sentences.

- 5) a. Only I got a question that you thought I could answer.  
b. Only I think that Mary won’t come if I invite her.  
c. They only asked ME whether you thought I could answer the question.

The sentences in (5) contrast with those in (6), for which bound readings are readily available.

- 6) a. Only I got a question I could answer.  
b. Only I will leave if you ask me.  
c. They only asked ME whether I could answer the question.

The primary difference between the sentences in (5) and those in (6) is whether the bound local person pronoun is separated from its binder by more than one clause. Such locality conditions would be difficult to explain under the simple view that local person pronouns in English can be bound. However, Kratzer (1998) demonstrates that they might follow from a particular analysis in which bound local person pronouns enter the derivation as ‘empty elements’ akin to PRO, and receive their pronounced features via some morpho-phonological agreement process.

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<sup>2</sup> More accurately, Schlenkar (2005) proposes that the bound reading of (1) is effected via ‘vehicle-change’ under VP-ellipsis. However, the view of vehicle change under ellipsis that Schlenkar adopts places his proposal rather close to the prevailing view, in that it relies upon morpho-syntactically underspecified pronouns in the logical form of the sentence.

<sup>3</sup> Schlenkar (2005) derives the inability for English local person pronouns to be bound from a more basic stipulation that they can only take as complements a privileged contextual pronoun, *c\**, which always denotes the context of actual utterance. Thus, in its technical details, the proposal of Schlenkar (2005) is logically akin to an analysis in which it is the *embedding heads* of English that are restricted in the type of complements they may take.

Further evidence for the prevailing view is offered in Kratzer (2005). Kratzer notes that bound readings of local person pronouns are available in German only where agreement syncretism renders local person agreement homophonous with third person agreement. Kratzer attributes to Heim (2005) the observation that the German sentence in (7) does *not* admit of the bound reading in (7b).

- 7) Ich bin hier die einzige, die zuzugeben bereit ist, dass ich unrecht habe.  
I am here the only one who to admit ready is that I wrong am.  
a) I am ready to admit that I am wrong, and no one else is ready to admit that I am wrong.  
b) I am ready to admit that I am wrong, and no one else is ready to admit that they are wrong.

Kratzer reports, however, that the German sentence in (8) *does* possess the bound reading represented in (8b).

- 8) Wir sind hier die einzigen, die zuzugeben bereit sind, dass wir unrecht haben.  
we are here the only ones who to admit ready are that we wrong are  
a) We are ready to admit that we are wrong, and no one else is ready to admit that we are wrong.  
b) We are ready to admit that we are wrong, and no one else is ready to admit that they are wrong.

Such a contrast would be quite difficult to explain in a system where local person pronouns are freely permitted to be bound. Kratzer (2005) argues, moreover, that it might follow from a particular theory of how semantically vacuous morpho-syntactic features are ‘passed’ to bound pronouns from their binders. Of course, such an analysis would expect similar effects to be found in English, and Kratzer (2005) contends that they are. According to Kratzer’s English informants, the bound reading for sentence (9a) is more difficult to obtain than that for (9b).

- 9) a. I’m the only one around here who is willing to admit that I’m wrong.  
b. I’m the only one around here who will admit that I could be wrong.

Although the data considered in Kratzer (1998) and (2005) are interesting and should be returned to, it is unclear what they ultimately demonstrate, and they do not in the end make a strong case for the prevailing view. Although it may be comparatively difficult to assign bound readings to the sentences in (5), they are not, as Kratzer (1998) reports, “unavailable”. Indeed, structurally parallel sentences seem to readily admit bound readings of the local person pronouns.

- 10) a. Only I got an e-mail you thought I would like. (Everyone else got bad news.)  
b. Only I think it’ll fall if I let go. (After all, I have the firmest grip on it.)  
c. Only I asked if you said I was lazy. (No one else heard anything about your insults.)

The comparable difficulty of assigning bound readings to the sentences in (5) is possibly due to such poorly understood factors as presence of the overt complementizer, topicality of the subordinate subject, or simply the ability to imagine a context of use. This is not to suggest that the contrast between (5), (6) and (10) could not ultimately be due to syntactic differences, only that the structural distance between the binder and the pronoun is most likely *not* the source.

In judging the availability of bound readings for the sentences in (5), it is useful to contrast the sentences in (5) with that in (11), which rather clearly lacks the bound reading represented in (11b).

- 11) I met the only person who talks to my father.
- a. I met the person with the property that they talk to my father and no one else talks to my father.
  - b. I met the person with the property that they talk to their own father and no one else talks to their own father.

Whereas it is ‘awkward’ to construe the sentences in (5) with a bound reading, the sentence in (11) is not even distantly imaginable as possessing the bound reading represented in (11b). Thus, it seems unproductive to characterize the difficulty of the bound readings in (5) as an ‘unavailability’ akin to the absence of the bound reading in (11). In this context, it should also be noted that sentence (12) *does* possess the bound reading represented in (12b).

- 12) I am the only person who talks to my (own) father.
- a. I am the person with the property that they talk to my father, and no one else talks to my father.
  - b. I am the person with the property that they talk to their own father, and no one else talks to their own father.

Observe that the contrast in availability of the bound reading between (11) and (12) cannot be easily characterized in terms of the structural distance between the bound pronoun and its binder, nor in terms of the elements which ‘intervene’ between the two. Thus, the one case where there is a clear contrast in the availability of a bound reading is not analyzable in terms of the mechanisms proposed in Kratzer (1998) or Kratzer (2005). I will show, however, that this contrast will follow rather naturally from a theory in which local person pronouns can be bound.

The contrast between the German sentences in (7) and (8) provides a curious analytic puzzle that should be returned to in future work. Again, however, there are many conclusions one could draw from these data which are consistent with English having the ability to bind local person pronouns. Perhaps the most banal would be the proposal that the analysis of Kratzer (2005) is correct for German, though incorrect for English; German and English happen to differ in whether local person pronouns can be bound by lambda operators, just as English differs from Amharic in the ability for subordinate CPs to denote full contexts. Some probative leads into the nature of this German-English contrast, stated within the terms of the analysis developed here, will be provided in section 6. That German and English *do* contrast with respect to the

syncretism effects noted by Kratzer (2005) is, upon further investigation, rather clear. Although the English informants relied upon by Kratzer (2005) report a contrast between (9a) and (9b), neither I nor any speakers I've consulted with can detect it. Moreover, one should note that the acceptability of the bound reading for sentences (12), (38a), (39a) and (42a) further demonstrates that agreement syncretism is not necessary for bound readings of local person pronouns in English.<sup>4</sup>

We have considered three motivations for the 'prevailing view' that bound local person pronouns in English do not possess semantically interpreted local person features. In each case, we have found the motivation for the prevailing view less than compelling. Moreover, we have seen that the contrast between sentences (11) and (12) is not readily analyzable in terms of the commonly held assumption that bound local person pronouns receive 'vacuous' local person features via a morpho-phonological agreement process. For these reasons, it is worth taking seriously the notion that local person pronouns in English can be bound by lambda operators. In the remainder of this paper, I will develop a system which pursues this notion. Within this system, the bound reading of sentences such as (1) crucially depends upon the local person features of the bound pronoun being visible to the semantic interpretation function. Moreover, the bound reading does not rely upon any co-indexation of the local person pronoun with the binder, a welcome result given that local person pronouns do not otherwise seem dependent on the pronominal assignment function 'g' for their interpretation. Besides its comparable simplicity to alternative accounts, the analysis will be shown to make a number of interesting and correct predictions regarding the distribution of bound local and third person pronouns in English.

## **2. Bound Local Person Pronouns in English: The Mechanics**

In this section, I introduce the three primary components to my analysis of bound local person pronouns in English: the semantics of local persons and their traces, the structural effects of movement, and the interpretation of lambda abstraction over the index 's'. The reader will find, I think, that the proposals made below are technically rather trivial, the simplicity of the overall analysis revealing the extent to which the 'prevailing view' served only to misdirect earlier work on this subject.

### **2.1 The Interpretation of Local Person Pronouns and Their Traces**

I assume that the semantic interpretation assignment function "[[ . ]]" is associated with a variety of parameters relating to the world and time the sentence is uttered in, as well as the author and addressee of the utterance. Thus, this function will be represented in the standard way as "[[ . ]]<sup>w, t, g, s, a</sup>". Moreover, I assume that the values of local person

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<sup>4</sup> There may, of course, be an 'awkwardness' contrast between (9a) and (9b) akin to that between the sentences of (5) and (10), one that is too slight for either me or the others I've consulted with to detect. Such 'awkwardness' contrasts are certainly linguistic properties we should seek to understand, but I feel it 'cuts the pie the wrong way' to categorize bound readings for (9a) and (5) as 'impossible' – particularly given the data in (10), (12), (38a), (39a) and (42a). At the very least, if one wishes to categorize the bound readings of the former sentences as 'impossible', then the data in the latter sentences shows that their impossibility cannot be for the structural reasons proposed by Kratzer (1998, 2005).

pronouns such as “I” and “you” depend upon the parameters ‘s’ and ‘a’ in the standard way represented in (13).

- 13) a.  $[[ I ]]^{w, t, g, s, a} = s$   
 b.  $[[ you ]]^{w, t, g, s, a} = a$

Throughout the remainder of this paper, I will restrict my attention to free and bound *first*-person pronouns. The phenomenon of bound second-person pronouns is understood to receive an analysis straightforwardly comparable to that provided here for the first-person pronouns. Consequently, I will represent the semantic assignment function as bearing only the indices ‘w’, ‘t’, ‘g’ and ‘s’.

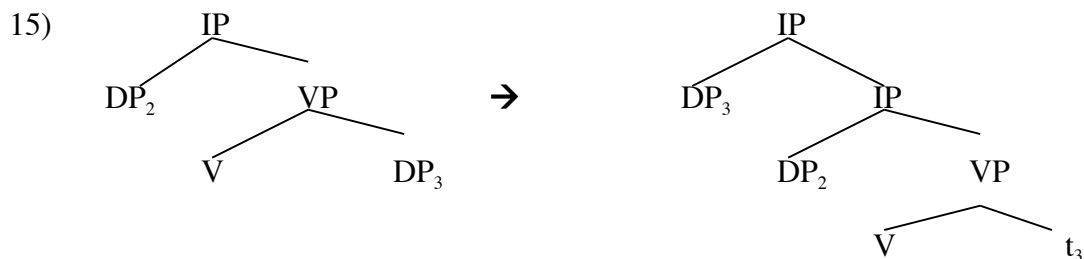
As explained in the following section, I assume that first person pronouns differ from third person pronouns in the nature of the ‘trace’ they leave after movement. Movement of a first person pronoun can leave either a trace ‘t<sub>s</sub>’ indexed with the special syntactic index ‘s’, or a trace ‘t<sub>1</sub>’ indexed with the ‘privileged’ pronominal index 1. The interpretation of these traces is as stated in (14).<sup>5</sup>

- 14) a.  $[[ t_s ]]^{w, t, g, s} = s$   
 b.  $[[ t_1 ]]^{w, t, g, s} = g(1)$

Thus, the interpretation of the trace ‘t<sub>s</sub>’ in a context with speaker s is simply s, while the interpretation of the trace ‘t<sub>1</sub>’ in a context with the pronominal assignment function g is simply g(1).

## 2.2 The Structural Effects of Movement

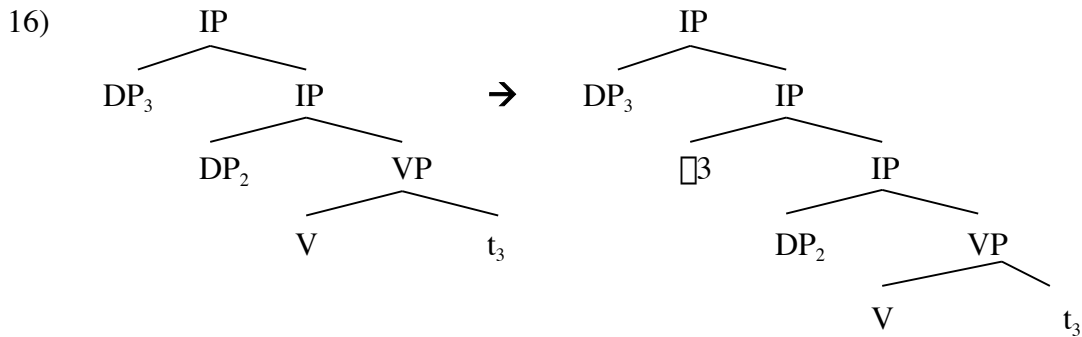
For third person DPs, I assume a theory of the structural effects of movement akin to that articulated in Heim & Kratzer (1998). I assume that the movement of a third-person DP bearing index i results in a trace ‘t<sub>i</sub>’ bearing the index i being left in the position earlier occupied by the DP.



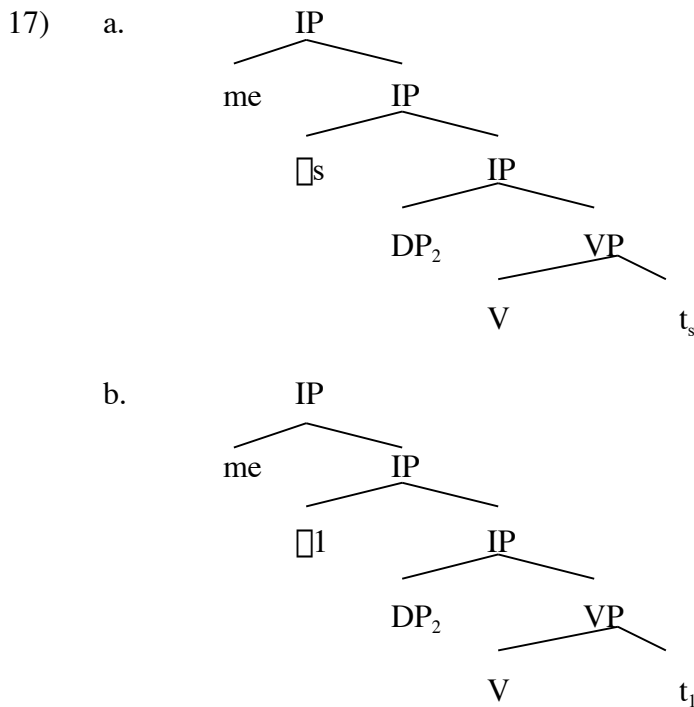
Moreover, I assume that movement of any DP to a position sister to X requires the insertion of a lambda operator immediately dominated by X. This lambda operator,

<sup>5</sup> As the terminology and notation can be confusing, it is important to bear in mind the distinction between the syntactic index ‘s’ and the semantic index ‘s’. The latter is a parameter associated with the semantic assignment function, which serves to provide semantic values for particular lexical items. The former is a purely syntactic object. Thus, in a context where the speaker is John, the trace left by movement of “I” would be “t<sub>s</sub>”, not “t<sub>john</sub>” or anything akin to it, although the assignment function would be “[[ . ]]<sup>w, t, g, john</sup>”.

moreover, must be indexed with the index of the trace left by the DP.



An interesting issue arises for first person pronouns within this system. As first person pronouns are not dependent upon the pronominal assignment function ‘g’ for their semantic value, it makes little sense to assign them indices visible to that function.<sup>6</sup> Of course, it is apparent that first person pronouns are subject to movement operations like any other, and so it must be that their traces and the lambda operators which bind them bear *some* index. I assume that there are exactly two syntactic indices that can be born by these items: the index ‘s’ and the index ‘1’. The structural output of movement of a first person pronoun is therefore either that represented in (17a) or that represented in (17b).



<sup>6</sup> Of course, the same can be said of fully referential third person DPs, which weakens the conceptual motivation for the notion that traces left by local-person pronouns have ‘special’ indices. However, other conceptual motivations are imaginable, including the possibility that local person features differ from third person features in that they might optionally remain upon the traces of movement. Leaving such features on the trace might be one way to represent the trace ‘t<sub>s</sub>’.

The syntactic indices ‘s’ and ‘1’ were introduced in the previous section, and the interpretation of traces bearing these indices is given in (14). The next section will provide a semantics for lambda operators bearing these indices. One should always bear in mind the distinction between the syntactic index ‘s’ and the semantic index ‘s’. The latter is a parameter of the semantic evaluation function, and serves to provide the interpretation of certain syntactic structures of English. The former is a syntactic object, and can be roughly thought of as denoting the present value of the semantic parameter ‘s’. Thus, in a sense, the syntactic index ‘s’ is nothing more than a first person pronoun, and it would be interesting to explore the notion that the trace ‘t<sub>s</sub>’ arises from the first-person features of the pronoun remaining at the position of the trace.

The index ‘1’ is assumed to simply be a pronominal index; thus its interpretation depends upon the assignment function ‘g’, as indicated in (14b). Although ‘1’ is a pronominal index, it is assumed to be ‘privileged’, in the sense that *only the traces of first person pronouns may bear it*. That is, the index ‘1’ can only be introduced into a sentence via movement of a first person pronoun, and thus it can only appear on a trace left by movement of such a pronoun. The same is, of course, assumed for the index ‘s’. It therefore follows that all the following syntactic representations are ill-formed.

- 18) a. Dave<sub>1</sub> came over today.  
 b. John<sub>2</sub> brought his<sub>1</sub> dinner to Tom<sub>s</sub>.  
 c. Only I talk to his<sub>1</sub> father.

As the mention of sentence (18c) suggests, the restriction of indices ‘1’ and ‘s’ to the traces of first person pronouns will derive many effects attributed under the prevailing view to obligatory morpho-phonological person agreement between a pronoun and its binder. In section 5, I briefly explore a system in which gender agreement in third person pronouns is effected via similar mechanisms.

### 2.3 The Semantics of Lambda Abstraction

For lambdas indexed with pronominal indices, I assume the standard semantics represented in (19).

$$19) \left( \left( \begin{array}{c} \text{XP} \\ \diagup \quad \diagdown \\ \boxed{i} \quad \text{YP} \\ \quad \triangle \\ \quad \dots t_i \dots \end{array} \right) \right)^{w, t, g, s} = \boxed{x} . \left( \left( \begin{array}{c} \text{YP} \\ \triangle \\ \dots t_i \dots \end{array} \right) \right)^{w, t, g^{i/x}, s}$$

The semantics in (19) directly provides us the interpretation of lambda operators indexed with the ‘privileged’ syntactic index 1.

$$20) \left( \left( \begin{array}{c} \text{XP} \\ \swarrow \quad \searrow \\ \boxed{i} \quad \text{YP} \\ \quad \quad \triangle \\ \quad \quad \dots t_1 \dots \end{array} \right) \right)^{w, t, g, s} = \boxed{x} . \left( \left( \begin{array}{c} \text{YP} \\ \triangle \\ \dots t_1 \dots \end{array} \right) \right)^{w, t, g^{1/x}, s}$$

The semantics in (19) also demonstrates what the semantics for lambda operators indexed with ‘s’ should be. Note that the definition in (19) states that a structure whose root node immediately dominates an object-language lambda operator with the index ‘i’ and a phrase YP is interpreted at a context *c* as a meta-language lambda operator with the variable *x*, followed by the interpretation of the structure YP in a context just like *c* except that all the pronominal entities bearing the index ‘i’ are interpreted as the meta-language variable ‘x’. Consider, then, the definition in (21).

$$21) \left( \left( \begin{array}{c} \text{XP} \\ \swarrow \quad \searrow \\ \boxed{s} \quad \text{YP} \\ \quad \quad \triangle \\ \quad \quad \dots t_s \dots \end{array} \right) \right)^{w, t, g, s} = \boxed{x} . \left( \left( \begin{array}{c} \text{YP} \\ \triangle \\ \dots t_s \dots \end{array} \right) \right)^{w, t, g, x}$$

Given the semantics provided in (14a) for traces bearing the index ‘s’, the definition in (21) effectively states that a structure whose root node immediately dominates an object-language lambda operator with the index ‘s’ and a phrase YP is interpreted at a context *c* as a meta-language lambda operator with the variable *x*, followed by the interpretation of the structure YP in a context just like *c* except that all the pronominal entities bearing the index ‘s’ are interpreted as the meta-language variable ‘x’. Thus, although (21) is technically a different definition from (19), a uniform semantics of lambda abstraction underlies the two definitions. Moreover, it will be demonstrated in the next section that the semantics in (21) permits the bound readings associated with sentences such as (1).<sup>7</sup>

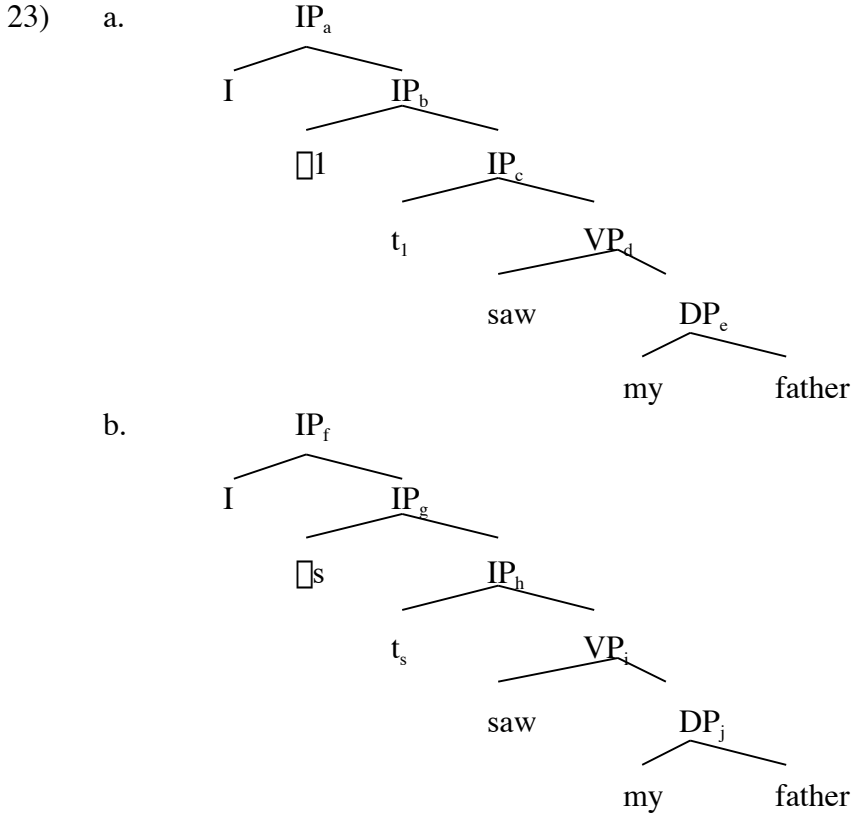
### 3. Deriving the Bound and Strict Readings

To demonstrate the adequacy of the theory put forth in section 2, let us first consider sentences in which first person pronouns do not appear to be bound. The sentence in (22) is univocal; in a context where John is the speaker, the sentence means John saw John’s father.

22) I saw my father.

<sup>7</sup> It should also be noted that, given the semantics in (21), object-language lambda abstraction over the index ‘s’ *in no way* introduces *any* new semantic types into our semantic theory of English. Every constituent whose root node immediately dominates an object-language lambda abstractor ‘ $\boxed{s}$ ’ is mapped uniformly to an <et> function in the meta-language.

Assuming that the subject pronoun moves in (22), our theory generates two syntactic structures for the sentence.



Let us determine the value which the semantic theory in section 2 assigns to each of these structures in a context where John is the speaker. The computation for structure (23a) is given below in (24).

- 24)
- a.  $[[ IP_a ]]$  <sup>w, t, g, john</sup> = (function application)
  - b.  $([[ IP_b ]]$  <sup>w, t, g, john</sup>  $( [ [ I ] ]$  <sup>w, t, g, john</sup>  $)$  = (13a)
  - c.  $([[ IP_b ]]$  <sup>w, t, g, john</sup>  $( john )$  = (19)
  - d.  $([ \lambda x . [ [ IP_c ] ]$  <sup>w, t, g(1/x), john</sup>  $)( john )$  = (function application)
  - e.  $([ \lambda x . ([ [ VP_d ] ]$  <sup>w, t, g(1/x), john</sup>  $( [ [ t_1 ] ]$  <sup>w, t, g(1/x), john</sup>  $)))( john )$  = (14b)
  - f.  $([ \lambda x . ([ [ VP_d ] ]$  <sup>w, t, g(1/x), john</sup>  $( x )))( john )$  = (function application)
  - g.  $([ \lambda x . ([ [ see ] ]$  <sup>w, t, g(1/x), john</sup>  $( [ [ DP_e ] ]$  <sup>w, t, g(1/x), john</sup>  $( x )))( john )$  = (lexicon)
  - h.  $([ \lambda x . ([ \lambda y . [ \lambda z [ z \text{ see } y ] ]$   $( [ [ DP_e ] ]$  <sup>w, t, g(1/x), john</sup>  $( x )))( john )$  = (function application)
  - i.  $([ \lambda x . ([ \lambda y . [ \lambda z [ z \text{ see } y ] ]$   $( [ [ my ] ]$  <sup>w, t, g(1/x), john</sup>  $[ [ father ] ]$  <sup>w, t, g(1/x), john</sup>  $)))( x ))( john )$   
= (13a)
  - j.  $([ \lambda x . ([ \lambda y . [ \lambda z [ z \text{ see } y ] ]$   $( john [ [ father ] ]$  <sup>w, t, g(1/x), john</sup>  $( x )))( john )$  = (lexicon)
  - k.  $([ \lambda x . ([ \lambda y . [ \lambda z [ z \text{ see } y ] ]$   $( john's \text{ father} )( x )))( john )$  = (lambda conversion)
  - l.  $([ \lambda x . ([ \lambda z [ z \text{ see } john's \text{ father } ] ]$   $( x )))( john )$  = (lambda conversion)
  - k.  $([ \lambda x . ( x \text{ see } john's \text{ father } ))( john )$  = (lambda conversion)
  - m. john see john's father

As the derivation in (24) demonstrates, our theory correctly predicts that one reading of sentence (22) in a context where John is the speaker is the proposition that John saw John's father. To walk through the derivation cursorily, note in (24b,c) that the first person pronominal subject is interpreted relative to a context where John is the speaker; thus the semantics in (13a) derives that the first person subject of (22) is interpreted as John. As the lambda operator in (23a) bears the index '1', its complement is interpreted relative to a context identical to the starting one, but where pronominals bearing the index '1' are interpreted as the meta-language variable 'x'. Thus, the pronoun 'my' in structure (23a) is interpreted as 'john'. Moreover, the trace 't<sub>1</sub>' of movement of 'I' is interpreted as 'x'. We therefore derive as the meaning of the complement of the lambda operator the proposition 'x see john's father'. This open formula is bound by the lambda operator denoted by the object-language lambda operator, and then combines with the object 'john' via lambda conversion. The result is that (23a) is interpreted as the statement 'John saw John's father' in a context where the speaker is John.

Let us now consider the structure in (23b). The derivation in (25) computes the semantic value our analysis assigns to it in a context where John is the speaker.

- 25)
- a.  $[[ IP_f ]]^{w, t, g, john} =$  (function application)
  - b.  $([[ IP_g ]]^{w, t, g, john})([[ I ]]^{w, t, g, john}) =$  (13a)
  - c.  $([[ IP_g ]]^{w, t, g, john})(john) =$  (21)
  - d.  $(\lambda x . [[ IP_h ]]^{w, t, g, x})(john) =$  (function application)
  - e.  $(\lambda x . ([[ VP_i ]]^{w, t, g, x} ([[ t_s ]]^{w, t, g, x} )))(john) =$  (14a)
  - f.  $(\lambda x . ([[ VP_i ]]^{w, t, g, x}(x)))(john) =$  (function application)
  - g.  $(\lambda x . ([[ see ]]^{w, t, g, x} ([[ DP_j ]]^{w, t, g, x}(x))))(john) =$  (lexicon)
  - h.  $(\lambda x . (\lambda y . \lambda z [ z \text{ see } y ] ([[ DP_j ]]^{w, t, g, x}(x))))(john) =$  (function application)
  - i.  $(\lambda x . (\lambda y . \lambda z [ z \text{ see } y ] ([[ my ]]^{w, t, g, x} [[ father ]]^{w, t, g, x} ))(x)))(john) =$  (13a)
  - j.  $(\lambda x . (\lambda y . \lambda z [ z \text{ see } y ] (x [[ father ]]^{w, t, g, x} ))(x)))(john) =$  (lexicon)
  - k.  $(\lambda x . (\lambda y . \lambda z [ z \text{ see } y ] (x's \text{ father}))(x)))(john) =$  (lambda conversion)
  - l.  $(\lambda x . (\lambda z [ z \text{ see } x's \text{ father } ] (x)))(john) =$  (lambda conversion)
  - k.  $(\lambda x . (x \text{ see } x's \text{ father} ))(john) =$  (lambda conversion)
  - m. john see john's father

As the derivation in (25) demonstrates, our theory correctly predicts that one reading of sentence (22) in a context where John is the speaker is the proposition that John saw John's father. As the structures in (23a,b) are the only ones our theory provides for the sentence in (22), our analysis correctly predicts that in a context where John is the speaker, sentence (22) univocally means that John saw John's father.

To elucidate the derivation in (25), let us walk through it quickly. Note, again, that in (25b,c) the first person pronominal subject is interpreted relative to a context where John is the speaker; thus the semantics in (13a) entails that the first person subject of (22) is interpreted as John. Thus far, the derivation proceeds as in (24). When we come to the interpretation of IP<sub>g</sub> in line (25c,d), however, we find that the lambda operator bears the index 's'. Thus, following the semantics in (21), the complement of that lambda operator is interpreted relative to a context identical to the starting one, but where the semantic speaker index is the meta-language variable 'x'. Thus, the pronoun

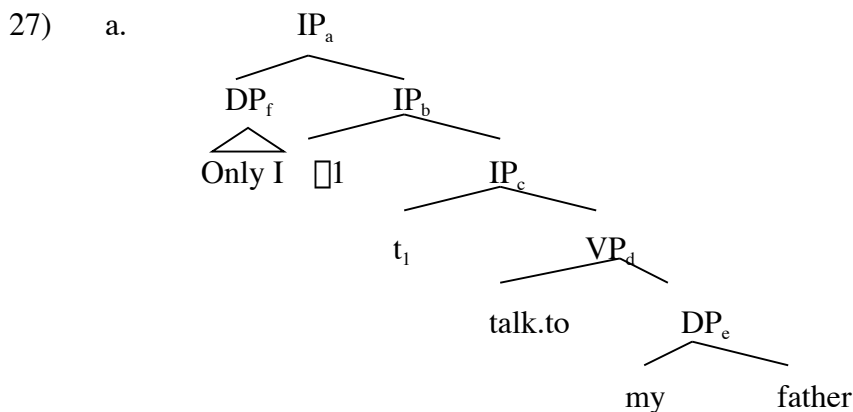
‘my’ in structure (23b) is interpreted as ‘x’. Moreover, the trace ‘t<sub>s</sub>’ of movement of ‘I’ is interpreted as ‘x’. We therefore derive as the meaning of the complement of the lambda operator the proposition ‘x see x’s father’. This open formula is bound by the lambda operator introduced by the object-language lambda operator, and then combines with the object ‘john’ via lambda conversion. The result is that the structure in (23b) is interpreted as the statement ‘John saw John’s father’ in a context where the speaker is John.

The reader will no doubt have noticed that in derivation (25), the first person pronoun ‘my’ becomes semantically bound by the meta-language lambda operator taking scope above it. Indeed, whenever the lambda operator generated by movement of the first person pronoun bears the index ‘s’, all first person pronouns within its scope will be interpreted as bound variables. Therefore, in this system, the ability for a first person pronoun to become a bound variable crucially depends upon its possessing first person features at the interface where the structure is interpreted. If the first person features were not present on that pronoun upon its being input into the semantic assignment function, there would not be any way for it to be interpreted as bound by the lambda operator induced by movement of the first person pronoun. After all, that operator can only bear the index ‘1’ or ‘s’, and these indices are only licensed on the traces of first person pronouns. This feature will be shown to derive the inability for the sentence in (26) to carry the bound reading characterized in (26b).

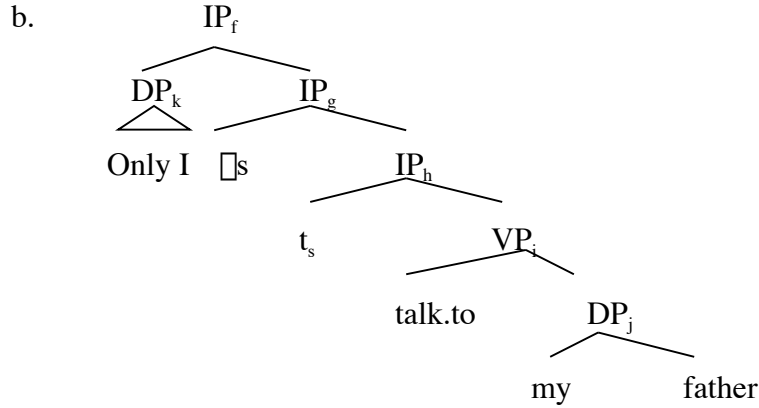
26) Only I talk to their father.

- a. I talk to their father, and no one else talks to him.
- b. I talk to my father, and no one else talks to their own father.

Before we come to the data in (26), however, let us demonstrate that our system correctly predicts both the bound and the strict readings of sentence (1). Our syntactic theory in section 2.2 assigns two possible structures to the sentence in (1); these are illustrated in (27) below.<sup>8</sup>



<sup>8</sup> For purposes of expositional simplicity, I assume that English possesses a verb ‘talk-to’.



Let us first ask what interpretation our theory assigns to the structure in (27a) in a context where the speaker is John. As the derivation in (28) demonstrates, our semantics predicts this structure to receive the strict reading of sentence (1).

### 28) Semantic Computation for (27a) in Context Where Speaker is John

- a.  $[[ IP_a ]]^{w, t, g, john} =$  (function application)
- b.  $( [[ DP_f ]]^{w, t, g, john} ) ( [[ IP_b ]]^{w, t, g, john} ) =$  (function application)
- c.  $( [[ Only ]]^{w, t, g, john} ( [[ I ]]^{w, t, g, john} ) ) ( [[ IP_b ]]^{w, t, g, john} ) =$  (13a)
- d.  $( [[ Only ]]^{w, t, g, john} (john) ) ( [[ IP_b ]]^{w, t, g, john} ) =$  (lexicon)
- e.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john) ) ( [[ IP_b ]]^{w, t, g, john} ) =$  (19)
- f.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john) ) ( \lambda x. [[ IP_c ]]^{w, t, g(1/x), john} ) =$  (function application)
- g.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john) ) ( \lambda x. ( [[ VP_d ]]^{w, t, g(1/x), john} ( [[ t_1 ]]^{w, t, g(1/x), john} ) ) ) =$  (14b)
- h.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john) ) ( \lambda x. ( [[ VP_d ]]^{w, t, g(1/x), john} (x) ) ) =$  (function application)
- i.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john) ) ( \lambda x. ( [[ talk.to ]]^{w, t, g(1/x), john} ( [[ DP_e ]]^{w, t, g(1/x), john} (x) ) ) ) =$  (lexicon)
- j.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john) ) ( \lambda x. ( \lambda y. \lambda z [ z talk.to y ] ( [[ DP_e ]]^{w, t, g(1/x), john} (x) ) ) ) =$  (function application)
- k.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john) ) ( \lambda x. ( \lambda y. \lambda z [ z talk.to y ] ( [[ my ]]^{w, t, g(1/x), john} [[ father ]]^{w, t, g(1/x), john} (x) ) ) ) =$  (13a)
- l.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john) ) ( \lambda x. ( \lambda y. \lambda z [ z talk.to y ] ( john [[ father ]]^{w, t, g(1/x), john} (x) ) ) ) =$  (lexicon)
- m.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john) ) ( \lambda x. ( \lambda y. \lambda z [ z talk.to y ] ( john's father )(x) ) ) =$  (lambda conversion)
- n.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john) ) ( \lambda x. ( \lambda z [ z talk.to john's father ] (x) ) ) =$  (lambda conversion)
- o.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john) ) ( \lambda x. x talk.to john's father ) =$  (lambda conversion)
- p.  $( \lambda P_{\langle e, t \rangle}. [only'(john)(P)] ) ( \lambda x. x talk.to john's father ) =$  (lambda conversion)
- q.  $only'(john) ( \lambda x. x talk.to john's father )$

I follow the convention that the meta-language formula “only’(x)(P)” is to be understood as expressing the proposition “only x has the property P”. Thus, the derivation in (28) demonstrates that our semantics assigns to structure (27a) in a context where the speaker is John the interpretation “only John has the property of talking to John’s father”. Therefore, we see that our theory assigns the strict interpretation of sentence (1) to the structure in (27a), correctly predicting the strict reading to be available for sentence (1).

The assignment of the strict reading to the structure in (27a) follows from the lambda operator in this sentence bearing the index ‘1’. Since the index of the lambda operator is ‘1’, the complement of the operator is interpreted in a context exactly like the starting one, but in which the value of pronominal elements bearing the index ‘1’ is the meta-language variable ‘x’. Thus, the first person pronoun ‘my’ in this context is interpreted as John, and is not interpreted as bound by the lambda operator.

As the derivation in (29) demonstrates, a very different result occurs when our semantic system is given as input the structure in (27b).

### 29) Semantic Computation for (27b) in Context Where Speaker is John

- a.  $[[ IP_f ]]$  <sup>w, t, g, john</sup> = (function application)
- b.  $( [[ DP_k ]]$  <sup>w, t, g, john</sup> )  $( [[ IP_g ]]$  <sup>w, t, g, john</sup> ) = (function application)
- c.  $( [[ Only ]]$  <sup>w, t, g, john</sup>  $( [[ I ]]$  <sup>w, t, g, john</sup> )  $( [[ IP_g ]]$  <sup>w, t, g, john</sup> ) = (13a)
- d.  $( [[ Only ]]$  <sup>w, t, g, john</sup> (john))  $( [[ IP_g ]]$  <sup>w, t, g, john</sup> ) = (lexicon)
- e.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john))$   $( [[ IP_g ]]$  <sup>w, t, g, john</sup> ) = (21)
- f.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john))$   $( \lambda x. [[ IP_h ]]$  <sup>w, t, g, x</sup> ) = (function application)
- g.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john))$   $( \lambda x. ( [[ VP_i ]]$  <sup>w, t, g, x</sup>  $( [[ t_s ]]$  <sup>w, t, g, x</sup> ) ) ) = (14a)
- h.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john))$   $( \lambda x. ( [[ VP_i ]]$  <sup>w, t, g, x</sup> (x) ) ) = (function application)
- i.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john))$   $( \lambda x. ( [[ talk.to ]]$  <sup>w, t, g, x</sup>  $( [[ DP_j ]]$  <sup>w, t, g, x</sup> (x) ) ) ) = (lexicon)
- j.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john))$   $( \lambda x. ( \lambda y. \lambda z [ z talk.to y ]$   $( [[ DP_j ]]$  <sup>w, t, g, x</sup> (x) ) ) ) = (function application)
- k.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john))$   
 $( \lambda x. ( \lambda y. \lambda z [ z talk.to y ]$   $( [[ my ]]$  <sup>w, t, g, x</sup>  $( [[ father ]]$  <sup>w, t, g, x</sup> (x) ) ) ) ) = (13a)
- l.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john))$   
 $( \lambda x. ( \lambda y. \lambda z [ z talk.to y ]$   $( x$   $( [[ father ]]$  <sup>w, t, g, x</sup> (x) ) ) ) ) = (lexicon)
- m.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john))$   
 $( \lambda x. ( \lambda y. \lambda z [ z talk.to y ]$   $( x$ 's father)(x) ) ) = (lambda conversion)
- n.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john))$   $( \lambda x. ( \lambda z [ z talk.to x$ 's father ] (x) ) ) = (lambda conversion)
- o.  $( \lambda y. \lambda P_{\langle e, t \rangle}. [only'(y)(P)](john))$   $( \lambda x. x talk.to x$ 's father ) = (lambda conversion)
- p.  $( \lambda P_{\langle e, t \rangle}. [only'(john)(P)]$   $( \lambda x. x talk.to x$ 's father ) = (lambda conversion)
- q.  $only'(john)$   $( \lambda x. x talk.to x$ 's father )

Following our convention for the interpretation of the meta-language formula “only(x)(P)”, the derivation (29) demonstrates that our semantic system assigns to the structure in (27b) in a context where the speaker is John the interpretation “only John has the property of talking to one’s own father”. Therefore, we see that our theory assigns the bound interpretation of sentence (1) to the structure in (27b), correctly predicting the bound reading to be available for sentence (1). Moreover, as structures (27a) and (27b) are the only ones our theory assigns to the sentence in (1), we see that our analysis predicts that sentence (1) is exactly two-ways ambiguous between the strict reading and the bound reading.

The assignment of the bound reading to the structure in (27b) follows from the lambda operator in this sentence bearing the index ‘s’. Since the index of the lambda operator is ‘s’, the complement of the operator is interpreted in a context exactly like the starting one, but in which the value of the semantic speaker parameter is the meta-language variable ‘x’. Thus, the first person pronoun ‘my’ in this context is interpreted as ‘x’, and is therefore interpreted as bound by the meta-language lambda operator.

The derivations in (24), (25), (28) and (29) demonstrate that the formal system developed in section 2 is well-defined, and can derive both the bound and the strict readings of sentences such as (1). In the next section, I will explore some further interesting consequences of this semantics.

#### **4. Further Consequences of the Semantics**

Besides deriving the ambiguity of sentences such as (1), the account offered in section 2 correctly predicts that sentence (26) should lack the bound reading represented in (26b).

26) Only I talk to their father.

- a. I talk to their father, and no one else talks to him.
- b. I talk to my father, and no one else talks to their own father.

As adumbrated in our prior discussion, the impossibility of reading (26b) follows from our syntactic assumptions regarding the traces left by movement of local person pronouns. In order for (26) to receive a bound reading, the pronoun ‘their’ must bear the same index as the lambda operator induced by movement of the sentential subject. However, given the assumptions of section 2.2., such an operator can only bear either the index ‘s’ or the index ‘1’. Thus, a bound reading of (26) requires that the pronoun ‘their’ bear either of these indices. However, the assumptions of section 2.2 entail that only traces left by movement of first person pronouns can bear these indices. Thus, the pronoun ‘their’ cannot introduce a variable bound by the lambda operator created by moving ‘only I’, and so the sentence cannot receive a bound interpretation.

Similar reasoning explains why, despite the bound reading of (1), local person pronouns cannot *generally* introduce bound variables. That is, our account provides a rather straightforward explanation of the inability for sentence (30) to carry the bound reading represented in (30b).

- 30) Every boy talks to my father.
- a. Every boy has the property that they talk to my (the speaker's) father.
  - b. Every boy has the property that they talk their own father.

In order for (30) to receive the bound reading in (30b), the local person pronoun 'my' must be interpreted in a context in which the speaker parameter is a variable bound by a meta-language lambda operator. Such a context only occurs, however, when there exists a c-commanding object-language lambda operator bearing the index 's'. However, in order for such a lambda-operator to exist, a c-commanding local person pronoun must undergo movement. Since there is no such local person pronoun in (30), the bound interpretation cannot be derived. More generally, we find our theory to correctly predict that local person pronouns can only be bound when there is a c-commanding local person pronoun.

Sentences (26) and (30) demonstrate cases where a bound pronoun can only be either first or third person. There are, however, some structures in which a bound pronoun is free to be *either* local person or third person. Note that use of either a third or a first person possessive pronoun in (31) permits the bound reading represented in (31c).

- 31) I am the only person who talks to (my / their ) father.
- a. I talk to my father, and no one else talks to him.
  - b. I talk to their father, and no one else to talks to him.
  - c. I talk to my own father, and no one else talks to their own father.

We would like for our theory to fit into an account of the non-complementarity between local and third person bound pronouns attested in (31). Let us first develop one view regarding the possibility in (31) of a bound local person pronoun. The following idea is partly inspired by the mechanisms of co-indexation familiar from theories of predication such as Williams (1980). Let us suppose that in predicative nominative constructions such as (31), the predication of the subject by the DP induces an 'identification' of the subject with the DP. This 'identification' will be represented with superscripts. Thus, the sentence in (31) with a local person possessive pronoun might be represented in (32).

- 32) I<sup>1</sup> am the only person<sup>1</sup> who talks to my own father.

Let us furthermore assume that modification of an NP by a relative clause induces an 'identification' between the relative clause operator and the NP that the clause modifies. Thus, structure in (32) would be more completely represented as that in (33).

- 33) I<sup>1</sup> am the only person<sup>1</sup> who<sup>1</sup> talks to my own father.

Finally, I will assume that when a DP is 'identified' with a first person pronoun, its trace may optionally bear either the index 's' or the index '1'; this is the only instance in which an element that is not the trace of a first person pronoun can bear these indices.

Given these assumptions, the following are potential LFs for the sentence in (31) containing a local person possessive pronoun.

- 34) a.  $I^1 [ \lambda s t_s \text{ am the only person}^1 \text{ who}^1 [ \lambda s [ t_s \text{ talks to my own father } ] ] ]$ .  
 b.  $I^1 [ \lambda 1 t_1 \text{ am the only person}^1 \text{ who}^1 [ \lambda 1 [ t_1 \text{ talks to my own father } ] ] ]$ .

The reader is invited to confirm that the LF in (34a) will be assigned the bound reading of (31) represented in (31c), while the LF in (34b) will be assigned the strict reading of (31) represented in (31a). Of course, since it is only optional for the trace of ‘who’ in (34) to be assigned the indices ‘1’ or ‘s’, the LF in (35) might also be assigned to sentence (31) containing a local person possessive pronoun.

- 35)  $I^1 [ \lambda s t_s \text{ am the only person}^1 \text{ who}^1 [ \lambda 3 [ t_3 \text{ talks to my own father } ] ] ]$ .

The reader is invited to confirm that the LF in (35) will be assigned the strict reading represented in (31a). As the lambda operator in (35) does not bear the index ‘s’ or the index ‘1’, it should now be possible for a third person pronoun to be bound by that operator. That is, the LF in (36) is predicted to be a well formed structure, one which can serve as the LF of sentence (31) containing a third person possessive pronoun.

- 36)  $I^1 [ \lambda s t_s \text{ am the only person}^1 \text{ who}^1 [ \lambda 3 [ t_3 \text{ talks to their}_3 \text{ own father } ] ] ]$ .

The reader is invited to confirm that the LF in (36) will also be assigned the bound reading represented in (31c). When the third person pronoun is not co-indexed with the lambda operator, we produce the LF represented in (37); the reader is invited to confirm that this LF receives the strict reading represented in (31b).

- 37)  $I^1 [ \lambda s t_s \text{ am the only person}^1 \text{ who}^1 [ \lambda 3 [ t_3 \text{ talks to their}_4 \text{ own father } ] ] ]$ .

The assumption that the trace of an operator ‘identified’ with a local person pronoun might optionally bear the indices ‘1’ or ‘s’ has thus been found to correctly derive the ability for either a local or a third person possessive pronoun to be bound in (31). Note, moreover, that our system predicts the bound reading of a local person pronoun in (31) to depend upon the ability of the operator ‘who’ to leave a trace bearing the index ‘s’. Thus, the availability of a bound local person pronoun in (31) is held to depend upon the DP containing that pronoun being *predicated* of the local person subject. Our theory therefore predicts that a bound reading of the local person pronoun should be unavailable when the DP containing it is *not* predicated of the local person subject. This prediction is born out. The reader will recall that sentence (11) cannot receive the bound reading represented in (11b).

- 11) I met the only person who talks to my father.  
 a. I met the person with the property that they talk to my father and no one else talks to my father.  
 b. I met the person with the property that they talk to their own father and no one else talks to their own father.

Moreover, our theory predicts that a predication relation between a DP and a local person subject is *sufficient* for local person pronouns within that DP to receive a bound reading. As long as a DP predicates a local person subject, our theory predicts that local person pronouns within a relative clause modifying that DP should receive a bound interpretation. Thus, for predicative DPs, the presence of the focus-sensitive operator ‘only’ is not truly necessary for local person pronouns within it to receive a bound interpretation. This fact is confirmed by the following sentences.<sup>9</sup>

- 38) a. I’m the doctor who comes when you call me.  
b. In kindergarten, I was the kid who couldn’t keep my fingers out of my nose.  
c. I am the fool who signed my own death warrant.

For each of the sentences above, the most salient interpretation is one in which the local person pronoun is ‘bound’ by the relative operator. For example, the most salient interpretation of sentence (38a) can be unambiguously expressed with the sentence “I’m the doctor who comes when you call him.” More generally, the most salient interpretation of each of these sentences is one that is unambiguously expressed by a sentence identical to it, but in which the local person pronoun is replaced with a third person pronoun. The availability of bound local person pronouns in sentences such as these has not, to my knowledge, been previously noted in the literature, but follows directly from the predication-based analysis offered here.

The predication-based analysis also predicts the unavailability of the ‘fully-bound’ readings of (40) and (41), represented in (40a) and (41a).

- 39) I am the only person who tells my father to hug me.  
a. I am the only person who tells their father to hug them.

- 40) I am the only person who tells my father to hug them.  
a. I am the only person who tells their father to hug them.

- 41) I am the only person who tells their father to hug me.  
a. I am the only person who tells their father to hug them.

In order to obtain the ‘fully-bound’ reading of (40), the lambda operator induced by movement of ‘who’ must bear the same index as the pronoun ‘them’. Thus, this operator cannot bear either the index ‘1’ or the index ‘s’. Thus, this operator cannot also simultaneously bind the first person possessive pronoun in (40), and so the ‘fully-bound’ reading cannot be derived. A similar argument proceeds regarding the absence of the ‘fully-bound’ reading in (41). The absence of the ‘fully-bound’ readings of (40) and (41)

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<sup>9</sup> It should be noted, however, that there are nominal predication sentences whose bound readings of local person pronouns seem quite awkward without the operator ‘only’. For example, it is rather difficult to construe the local person possessor in (i) as being bound; compare to sentence (31).

(i) I am the person who talks to my father.

Why this contrast exists unclear to me at present. The structurally parallel sentences in (38) all readily admit bound readings of their local person pronouns, and I can think of no interesting difference between them.

might at first seem to support an agreement-based theory of bound local person pronouns, but we have seen that it equally well follows from the semantic, predication-based analysis offered here.

Finally, I will note in passing that the predication-based analysis predicts the observed contrast in meaning between the sentences in (42a) and (42b).

- 42) a. I am the biographer who writes about my own father.  
b. I am the biographer of my own father.

Sentence (42a) has as its most salient reading the proposition “I am the biographer who writes about his own father.” Such a bound interpretation is not available for sentence (42b).<sup>10</sup> The felicity of sentence (42a) depends upon there being no other biographers who write biographies of their own fathers. The felicity of sentence (42b) does not depend on such a condition, only on the condition that there not be any other biographer of the speaker’s father. The predication-based analysis predicts this contrast to follow from the presence of the *wh*-operator in (42a), and the absence of such an operator in (42b). It should be observed that the contrast in (42) would not easily follow from an ‘agreement-based’ theory of bound local person pronouns.<sup>11</sup>

In this section, we have seen that the assumptions put forth in section 2, when combined with the theory of ‘identification under predication’ briefly sketched above, can derive several subtle features of the distribution of bound local and third person pronouns. Most of the facts shown to follow from this analysis have, to my knowledge, not yet been noted in the literature on bound local person pronouns. This feature of the proffered analysis greatly increases its plausibility, and proves it to be a productive analysis of the phenomenon in question.

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<sup>10</sup> A bound interpretation of sentence (42b) does, however, become possible (though ‘awkward’) when adjectival ‘only’ modifies the predicative DP. That is, a bound reading of the first person pronoun in the following sentence is marginally possible.

- (i) I am the only biographer of my own father (at this conference).

I do not presently understand the contrast between this sentence and sentence (42b). As the reader will have concluded by now, judgments regarding the availability and ‘awkwardness’ of bound local person pronouns provide a highly complex empirical domain. Nevertheless, there is a clear ‘structure’ to the facts, a structure which, in my own view, is not one that would be expected from a morpho-phonological phenomenon.

<sup>11</sup> Given an independently supportable analysis of *wh*-based free relatives, the predication-based analysis correctly predicts the absence of a bound reading of the local person pronoun in the following sentence.

- (i) I am whoever signed my (? own) death warrant.

The sentence in (i) – which is rather ill-formed with ‘own’ – does not have an interpretation akin to that of sentence (ii).

- (ii) I am whoever signed his own death warrant.

Given the proffered analysis of the sentences in (38), this follows from the theory of *wh*-based free relatives independently developed in Cable (2005a, b). Under the analysis developed there, *wh*-based free relatives do not contain any NP modified by the overt CP. Rather, they are bare CPs which denote definite descriptions. Their external syntax follows from the ‘transparency’ of their CP projection, which follows, in turn, from more basic principles regarding the nature of the interrogative ‘Q’ feature.

It should also be observed here that the contrast between (i) and (38c) is difficult to understand under a purely agreement-based theory of bound local person pronouns.

## 5. Extension to Gender Agreement in Third Person Pronouns

The reader will no doubt have noticed that the inability for sentence (26) to receive the bound reading in (26b) is rather similar to the inability for sentence (43) to receive the bound reading represented in (43b).<sup>12</sup>

26) Only I talk to their father.

- a. I talk to their father, and no one else talks to him.
- b. I talk to my father, and no one else talks to their own father.

43) Only Mary talks to his father.

- a. Mary talks to his father, and no one else talks to him.
- b. Mary talks to her own father, and no one else talks to their own father.

Moreover, as observed in section 1, the bound reading of sentence (4) lacks the presupposition that the possessor is female, and many authors have noted that this fact is similar to the bound reading of sentence (1) lacking the ‘requirement’ that the possessor be the speaker.

1) Only I talk to my father.

4) Only Mary brought her book.

Similarities such as these strongly suggest that bound readings of local person pronouns are effected by the same mechanisms that bring about gender agreement between pronouns and their binders. Indeed, for this reason, they are the strongest argument for the ‘prevailing view’ that bound local person pronouns simply agree morpho-phonologically with their antecedents, and do not truly possess local person features. Therefore, if we are to pursue the theory of bound local person pronouns developed in section 2, we should also develop a theory of gender agreement in third-person pronouns that employs the same basic mechanisms and logic. In this section, I will flesh out such an approach to gender agreement.

Given that the mechanics of the system developed in section 2 should by now be clear, I will proceed rather quickly through the following technical hypotheses. Each of these is logically akin to a component hypothesis of section 2.

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<sup>12</sup> Of course, the following sentence also does not permit the bound reading in (43b).

- (i) Only Mary talks to their father.

The impossibility of a bound reading for (i) is rather mysterious, given the possibility of a bound reading in sentence (ii).

- (ii) Every girl talks to their father.

Thus, the absence of a bound reading in (i) is mysterious even under an agreement-based approach to the bound reading in (4). One account of the contrast between (i) and (ii) is that quantificational DPs like ‘every girl’ can optionally bear either the gender of their NP complements or a default ‘neutral’ gender. As ‘only’ is an adjunct, and not a quantificational D head, the percolation of gender features in (i), (4) and (43) is obligatory. Note that an account such as this would also be available to an agreement-based theory of (i), (4) and (43).

I will first assume that semantic assignment function “ $[[ \cdot ]]$ ” carries, in addition to the parameters ‘w’, ‘t’, ‘g’ and ‘s’, two *infinite* sequences of parameters, FEM and MASC. FEM is an infinite sequence of parameters  $\langle fem_1, fem_2, fem_3, \dots \rangle$ . The sequence MASC is an infinite sequence of parameters  $\langle masc_1, masc_2, masc_3, \dots \rangle$ . Moreover, it is assumed that all the elements of FEM are female, while all the elements of MASC are male.<sup>13</sup> Paralleling the sequences FEM and MASC, I assume there exist two infinite sets of syntactic indices, FeM and MasC. The set FeM is the infinite set  $\{ fem_i : i \in \mathbf{N} \}$ ; the set MasC is the infinite set  $\{ masc_i : i \in \mathbf{N} \}$ .

I assume that pronominal elements bearing the syntactic indices ‘ $masc_i$ ’ and ‘ $fem_i$ ’ have the expected semantics, defined in (44) below.

44) For any X which is either a pronoun or a trace:

- a.  $[[ X_{fem_i} ]]$ <sup>w, t, g, s, MASC, FEM</sup> =  $fem_i$ , where  $fem_i$  is the  $i^{th}$  element of FEM
- b.  $[[ X_{masc_i} ]]$ <sup>w, t, g, s, MASC, FEM</sup> =  $masc_i$ , where  $masc_i$  is the  $i^{th}$  element of MASC

I assume that a syntactic index from the set FeM can only appear on a pronominal element X if either X bears the morphological gender feature ‘feminine’ or X is the trace of a DP bearing the morphological gender feature ‘feminine’. Similarly, I assume that a syntactic index from the set MasC can only appear on a pronominal element X if either X bears the morphological gender feature ‘masculine’ or X is the trace of a DP bearing that morphological feature. Finally, if a DP bears the index ‘ $fem_i$ ’, then the trace left by movement of that DP must also bear the index ‘ $fem_i$ ’, and if a DP bears the index ‘ $masc_i$ ’, then the trace left by movement of that DP must also bear the index ‘ $masc_i$ ’.

Given that the syntactic indices ‘ $fem_i$ ’ and ‘ $masc_i$ ’ may appear on traces, our syntactic assumptions in section 2.2 entail that they also appear on lambda operators. I propose the following semantics for lambda operators bearing the indices ‘ $fem_i$ ’ and ‘ $masc_i$ ’.

$$45) \left( \left( \begin{array}{c} \text{XP} \\ \swarrow \quad \searrow \\ \square_{fem_i} \quad \text{YP} \\ \quad \quad \triangle \\ \quad \quad \dots t_{fem-i} \dots \end{array} \right) \right)^{w, t, g, s, M, F} = \square_x \cdot \left( \left( \begin{array}{c} \text{YP} \\ \triangle \\ \dots t_{fem-i} \dots \end{array} \right) \right)^{w, t, g, s, M, F^*}$$

where  $F^*$  is identical to  $F$ , except that the  $i^{th}$  element of  $F^*$  is the variable  $x$ .

<sup>13</sup> It is unclear how this analysis might be applied to languages, such as German, where grammatical gender does not perfectly correspond with natural ontological classes such as ‘male’, ‘female’, ‘non-human’, etc. Such an account would seem to entail the absurdity that there *does* exist some ontological class that grammatical gender in these languages unexceptionally corresponds to. For such languages, however, it may be that the account proposed here for pronominal gender agreement simply does not hold. I speculate in the following section that this might be the locus of variation between English and German with respect to whether syncretism is required for bound readings of local person pronouns.

$$46) \left( \left( \begin{array}{c} \text{XP} \\ \swarrow \quad \searrow \\ \boxed{\text{masc}_i} \quad \text{YP} \\ \quad \quad \quad \triangle \\ \quad \quad \quad \dots t_{\text{masc-}i} \dots \end{array} \right) \right)^{W, t, g, S, M, F} = \boxed{x} \cdot \left( \left( \begin{array}{c} \text{YP} \\ \triangle \\ \dots t_{\text{masc-}i} \dots \end{array} \right) \right)^{W, t, g, S, M^*, F}$$

where  $M^*$  is identical to  $M$ , except that the  $i^{\text{th}}$  element of  $M^*$  is the variable  $x$ .

The hypotheses above constitute the proffered analysis of pronominal gender agreement in English. In a moment, it will be shown to derive several facts which are commonly thought to result from a morpho-phonological apparatus whereby semantically uninterpreted gender features are ‘assigned to’ or ‘checked off from’ a pronoun via its binder. It should be noted that the system developed here employs no such ‘assignment’ or ‘checking’ operations. Under this system, gender features do not introduce presuppositions, and they are not morpho-phonologically passed from a binder onto the pronoun it binds. Instead, a gender feature determines the type of syntactic index that may be born by a pronominal element or a trace, and therefore, what semantic index/parameter it may refer to. Due to the constraints placed by the gender features on the type of index a pronoun can bear, the gender features of a binding DP *must* match the gender features of the pronominal element it binds. If the gender features of the DP and the pronominal do not match, then the pronominal cannot bear the index born by the lambda operator induced by movement of that DP, and so cannot be semantically bound by that operator.

To put the logic of this analysis into concrete form, let us consider the LFs our analysis assigns to the sentence in (4).

- 47) a. Only Mary  $\boxed{\text{fem}_3} t_{\text{fem-3}}$  brought her<sub>fem-3</sub> book.  
 b. Only Mary  $\boxed{\text{fem}_3} t_{\text{fem-3}}$  brought her<sub>fem-4</sub> book.

As the subject ‘only Mary’ bears the gender feature ‘feminine’, its trace may bear the index ‘fem<sub>3</sub>’; thus the lambda operator immediately dominated by the sister of ‘only Mary’ bears this index as well. Given the semantics in (45), it follows that the complement of this lambda operator will be interpreted relative to a context identical to the starting one, but in which the 3<sup>rd</sup> element of the sequence FEM is the meta-language variable ‘ $x$ ’. Thus, given the semantics in (44), it follows that the complement of the lambda operator in structure (47a) will be interpreted as the open sentence ‘ $x$  brought  $x$ ’s book’. This open sentence is bound by the meta-language lambda operator denoted by the object language operator ‘ $\boxed{\text{fem}_3}$ ’, and our system derives as the interpretation of structure (47a) the proposition ‘Only Mary has the property of talking to one’s own father.’ Thus, structure (47a) is predicted to admit the bound reading of sentence (4), and so our theory correctly predicts sentence (4) to possess such a reading. The reader is invited to confirm that structure (47b) might represent the strict reading of sentence (4), and that strict readings may be more generally obtained via the usual mechanisms of ‘accidental co-reference’.

It should be noted that the present account straightforwardly predicts the bound reading of sentence (4) to lack the presupposition that the possessor is female. That is, under its bound reading, sentence (4) quantifies over the entire domain of individuals, and not simply those that might be referred to using the pronoun ‘her’. This is effected not through feature deletion, but via the semantics in (45). Under this semantics, the pronoun ‘her’ is interpreted as the meta-language variable ‘x’. Being a variable, one might suppose that ‘x’ bears the ontic properties of both male-ness and female-ness, and so may easily be an element of either the set FEM or MASC. However it is that the variable ‘x’ is permitted as a referent of ‘her’, given that ‘x’ is a meta-language variable, it lacks the gender-attachments of the English pronoun ‘her’. Thus, the resulting meta-language proposition may freely quantify over the entire domain of entities.<sup>14</sup>

We find, then, that the ability for the bound reading of (4) to quantify over the entire domain of discourse needn’t be the result of semantically vacuous gender agreement. Similarly, the unavailability of the bound reading in (43b) needn’t follow from an operation of ‘gender agreement’ obligatorily holding between bound pronouns and their binders.

43) Only Mary talks to his father.

- a. Mary talks to his father, and no one else talks to him.
- b. Mary talks to her own father, and no one else talks to their own father.

In order to obtain the bound reading in (43b), the pronoun ‘his’ must be co-indexed with the lambda operator resulting from movement of the subject “only Mary”. However, since “only Mary” bears the grammatical gender feature ‘feminine’, that index must be an element of the set FeM. Since the pronoun “his” bears the grammatical gender feature ‘masculine’, it cannot bear an index from the set FeM, and so it cannot be bound by that lambda operator. Thus, the unavailability of the bound reading in (43b) could follow from the constraints that grammatical gender features place upon the indices born by DPs and their traces.

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<sup>14</sup> Note that an approach similar to the one stated here might be developed under the standard theory of bound pronouns, within which they bear pronominal indices. What is required for either account is simply the notion that the variable ‘x’ can serve as a referent for masculine and feminine gender-bearing pronouns.

More generally, all that is really needed for either account is the notion that a meta-language variable can be a referent of ‘her’ without sharing its gender presuppositions. Upon further consideration, this seems, in fact, to be the *null hypothesis*, there not being any conceptual or independently known empirical link between an object’s real-world sex and its linguistic properties. The common perception that the bound reading of (4) requires some sort of ‘gender-neutralization operations’ confuses the ontic properties of the meta-language variable that ‘her’ must refer to in the bound reading with the linguistic properties of that variable in the meta-language. Thus, the ability for bound pronouns not to quantify only over entities they can refer to when free is not, in the end, a problematical phenomenon, even for the standard semantics of bound pronouns.

There is, nonetheless, a largely technical issue raised by the bound reading of (4): the ability for the English pronoun ‘her’ to refer to the meta-language variable ‘x’. To my mind, this is a rather trivial technical issue, as there are no compelling conceptual or empirical arguments regarding the ontic sex of meta-linguistic variables. Thus, regarding the variables denoted by ‘her’ as female and the variables denoted by ‘him’ as male seems an unremarkable technical solution to the issue, one that’s far less remarkable than the now mundane notion that pronouns in English can denote variables.

We find, then, that the analysis sketched in this section can derive the facts in (4) and (43) in a manner akin to the way the theory in section 2 derives the similar facts in (1) and (26). It should be noted, moreover, that this ‘semantic analysis’ of pronominal gender agreement predicts that there should be *no syntactic locality constraints* holding of the relation between a pronoun and the binding DP agreeing with it in gender. Happily, this prediction appears to be the case. Nothing seems to constitute a ‘barrier’ or ‘intervener’ for the gender agreement which occurs between a pronoun and the quantificational DP which binds it.

48) [Every boy]<sub>i</sub> thinks Mary wonders whether John bought a book that his<sub>i</sub> father read.

The structural relation between these two entities can pass unscathed through whatever syntactic obstacles one wishes to put in its way. All that really seems to be required is that the agreeing DP c-command the pronoun, which is a trivial consequence of the independent structural conditions on binding. The absence of any locality conditions on the relation between the pronoun and the DP agreeing with it in gender casts a fair degree of doubt on any syntactic treatment of pronominal gender agreement, and quite strongly supports the semantic account proposed above.

## 6. Conclusions and Direction for Future Work

In this paper, I have argued at length that English violates the Fixity Thesis in (2): lambda operators in English may effectively bind the semantic speaker parameter ‘s’. One might, however, recoil at such a weakening of our semantic theory of English. After all, if local person pronouns can truly be bound in English, why are there so few contexts in which this can be observed? Why, for example, does English not possess an adverb with the semantics of the hypothetical operator ‘I-maybe’, defined below.

49)  $[[ [ \text{I-maybe XP} ] ] ]^{w, t, g, s} = \lambda x [[ \text{XP} ] ]^{w, t, g, x}$

For a language possessing ‘I-maybe’, a sentence of the form “I arrived I-maybe” would be equivalent to “Someone arrived.” Surely, as operators of this form do not exist in either English or any other natural language, our semantic theory should predict their impossibility, and thus the Fixity Thesis must be maintained.

Although the absence of ‘I-maybe’ from the languages of the world is a consideration in support of the Fixity Thesis, sufficient evidence has been marshaled against that thesis for researchers to adopt the working assumption that it is false. Given the falsity of the Fixity Thesis, some other principles of linguistic structure must account for the absence of ‘I-maybe’. More generally, a necessary and quite worthwhile empirical project would be the investigation of what sorts of indexical-shifting ‘monsters’ do *not* exist across natural languages. Such a project would hopefully discover generalizations regarding the domain of indexical-shifting operators akin in their empirical and theoretical interest to the typological generalizations regarding Generalized Quantifiers discovered in the early 1980s.

A more pressing concern for the view that English violates the Fixity Thesis is the absence in English of indexical-shifting operators which *do* exist in other languages. For

example, it was noted in section 1 that languages such as Amharic possess propositional-attitude verbs that shift the reference of local person pronouns. Schlenkar (2005) attributes the lack of such verbs in English to the local validity of the Fixity Thesis in that language. It was noted in section 1, however, that this strong view taken by Schlenkar is not the only empirically plausible one. The locus of variation between English and Amharic might well lie within the range of logical types the languages allow their verbal complements to take. *Prima facie*, both are interesting proposals, and deserve to be investigated more completely. As regards typological variation between English and other ‘indexical-shifting’ languages more generally, it goes without saying that differences between these languages might be due to more specific parameters of variation than the general ability for indexicals to be bound.

In this context, it is interesting to recall the difference between English and German with respect to whether agreement syncretism is required for bound readings of local person pronouns. As noted in section 1, the availability of the bound reading in sentence (8) but not sentence (7) suggests that bound local person pronouns are only possible in German when agreement syncretism results in the verbal form not distinguishing between a first person or a third person subject.

7) Ich bin hier die einzige, die zuzugeben bereit ist, dass ich unrecht habe.

I am here the only.one who to.admit ready is that I wrong am.

- c) I am ready to admit that I am wrong, and no one else is ready to admit that I am wrong.
- d) I am ready to admit that I am wrong, and no one else is ready to admit that they are wrong.

8) Wir sind hier die einzigen, die zuzugeben bereit sind, dass wir unrecht haben.

we are here the only.ones who to.admit ready are that we wrong are

- c) We are ready to admit that we are wrong, and no one else is ready to admit that we are wrong.
- d) We are ready to admit that we are wrong, and no one else is ready to admit that they are wrong.

The availability of a bound reading for sentence (9a), however, demonstrates that such an effect does not hold in English.

9) a. I’m the only one around here who is willing to admit that I’m wrong.

Given its subtlety, the above difference between English and German should be derivable as a consequence of some more general and visible difference between the two languages. The following sketches the beginning of such an account, one consistent with the analysis offered here for bound local person pronouns in English.

Note that the contrast between (7) and (8) is precisely the sort of datum that the ‘prevailing view’ expects regarding bound local person pronouns across all languages. Let us suppose, then, that the prevailing view *does* represent one state that the linguistic system may enter into. The semantic account developed here represents another such state. Moreover, let us suppose that the semantic account represents a parametric default,

while the ‘prevailing view’ is only adopted by a learner when evidence rules out the semantic account.

Recall that the ‘basic facts’ regarding bound readings of local person pronouns and bound readings of gender-bearing third person pronouns are superficially quite similar. It is this striking surface similarity that requires both the ‘agreement account’ and the ‘semantic account’ to analyze bound readings of both sorts of pronouns using the same mechanisms. Given the well-known epistemic parity between learner and analyst, let us suppose that learners must also assume that the same basic mechanisms underlie both pronominal gender agreement and bound readings of local person pronouns. Interestingly, this is sufficient to derive the targeted difference between German and English.

It was observed in footnote 13 that the ‘semantic analysis’ of pronominal gender agreement proposed here for English is not directly applicable to pronominal gender agreement in German. The difficulty is that morphological gender in German does not correspond to any semantic properties of the entities referred to. Masculine gender does not hold of all and only ‘male’ entities; feminine gender does not hold of all and only ‘female’ entities. Thus, the fact that masculine pronouns in German can only take as antecedents DPs bearing masculine gender can not be due to a requirement that the parameters targeted by masculine pronouns all be male. Indeed, it seems that no inherent ‘semantic’ property of the DP can be identified as determining its morphological gender. Moreover, no inherent property of the entity referred to can be identified as determining the morphological gender of the pronoun denoting it.

The semantic analysis of pronominal gender agreement developed in section 5 is therefore inapplicable to the phenomenon of gender agreement in German, chiefly because grammatical gender in German does not correspond to any real-world properties of the referents. Let us now consider the position of a child learning German, and in the default state where they entertain the ‘semantic account’ of bound local person pronouns. Upon the discovery that grammatical gender does not correspond to any real-world properties of the referents, the learner concludes that a ‘semantic account’ of pronominal gender agreement in German is incorrect. Thus, pronominal gender agreement in German must be due to morpho-phonological mechanisms of feature assignment. At this point, however, the learner must revise their views regarding bound local person pronouns as well. Since learners must assume that the same basic mechanisms underlie both pronominal gender agreement and bound local person pronouns, the learner *now* has evidence against the default ‘semantic account’ of bound local persons. The learner subsequently enters into a state where they entertain the ‘prevailing view’; bound local person pronouns are the result of morpho-phonological feature agreement between binder and bindee. As a result, the syncretism effects noted in (7) and (8) hold for all German speakers.

Finally, let us consider the position of a child learning English. As the morphological gender features of English *do* correspond to inherent properties of the referents of those pronouns, nothing requires the English-acquiring child to give up the default assumption that bound local person pronouns (and also pronominal gender agreement) are the result of the semantic system developed in sections 2 and 5. As a result, the syncretism effects noted in (7) and (8) for German do not hold for any speakers of English.

Although it seems to derive the targeted difference between English and German, there remains much to work out in the account sketched above. Happily, though, it does make empirical predictions regarding further differences between English and German, ones which could and should be tested. For example, it was noted in section 5 that the contrast holding between (11) and (12) presents an interesting challenge to the ‘prevailing view’. It would nicely support the parametric theory outlined above to find that the German sentences corresponding to (11) and (12) do not show the contrast found in the English sentences.

Finally, I wish to mention in passing one last empirical domain that bears upon the proffered semantic account of bound local person pronouns. Starting with Partee (1989), it has been observed by a number of authors that sentences such as the following witness a ‘partial binding’ of the first person plural pronoun.

50) If someone comes over, we usually have tea.

The most salient reading of sentence (50) is one that might be paraphrased as ‘most people who come over are such that *I and that person* have tea.’ It appears, then, that under the most salient reading of (50), the extension of the pronoun “we” is *shifted* by the adverbial operator ‘usually’. Notably, the speaker parameter does not shift under this reading of (50), only the identity of the *other* entities comprising the denotation of “we”. This phenomenon of partial binding of local person pronouns has been analyzed within a number of different semantic systems (Rullmann 2003, Schlenkar 2005). It would be a necessary and worthwhile enterprise to determine the extent to which currently existing analyses of this phenomenon may be consistently combined with the proposed semantic analysis of the bound reading of (1).

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