1. Introduction

What is Binding Theory (henceforth BT) a theory of? A popular answer to this question is that BT is a theory which constrains when two expressions can and cannot be identified via some formal relation. Recent work in BT has aimed at clarifying what this relation is. Reinhart (1983) has claimed that for condition B at least the relevant notion is that of a pronoun acting as a bound variable. Higginbotham (1983) in contrast argues that the relevant notion is one of dependency, where one expression is dependent upon another if it receives its interpretation from the other. Fiengo and May (1994) distinguish between a notion of formal dependency and formal identity arguing that it is the latter which is constrained by BT, with formal identity determining referential identity. All of these theories assume a division between types of expressions -- anaphors, pronouns and R-expressions -- with the binding properties of each type largely independent of those of the other types. I will argue against all of these accounts that BT properly conceived comes apart into two separate restrictions. The first restricts the occurrence of expressions which are overtly indicated through deaccenting to be semantically identical. This restriction differs from those imposed by standard formulations of BT in two important respects. First, standing in a certain structural configuration is a necessary but not a sufficient condition for violating the restriction, and second, pronouns and R-expressions stand on a par. The second restriction constrains the perspective from which an expression can be presented. This restriction I will argue largely shares the standardly assumed domains of application of BT, setting pronouns for example off from R-expressions. However, it differs from standard treatments of BT in being independent of variable binding, semantic dependency and Fiengo & May style syntactic identity.

To make the argument that restrictions on semantic identity do not conform to standard analyses of BT, it will be convenient to distinguish between two distinct types of relations that can potentially be identified as holding between a pronoun and its antecedent. A pronoun can act as a variable bound by a quantificational antecedent (such antecedents potentially including names), in which case I will say that the pronoun stands in a Quantificational Antecedence (QA) relation with its antecedent. A pronoun used with the express purpose of indicating the same individual(s) as some other expression I will say stands in a relation of Referential Antecedence (RA)
with that expression. Pronouns standing in the former relation to an antecedent I will refer to as QA pronouns, and those in the latter as RA pronouns. A distinction between QA and RA relations has been exploited widely in the literature, and is used in particular in several analyses of strict and sloppy identity readings for pronouns in deletion contexts (cf. Sag (1976, 1977), Williams (1977) among others). I assume as is standard that a name can stand at most in an RA relation, and never a QA relation, with an antecedent.¹

Together with these two distinct relations that a pronoun can enter into with its antecedent come several distinct potential analyses of the role that BT Conditions can play in grammar. BT conditions can potentially be analyzed either as direct restrictions on one or both of the two relations of antecedence (QA or RA), or alternatively as a restriction on relations of identity determinable through one or both of these relations. I will argue below that none of these potential analyses of BT Conditions is adequate.

Consider first an analysis in which BT is taken to restrict relations of QA, as in the analysis of Reinhart (1983). On such an analysis, the only conditions that belong to a syntactic BT are (suitable versions of) Conditions A and B, prohibiting anaphors and pronouns respectively from acting as bound variables in certain syntactic positions. Condition C effects are given a pragmatic explanation -- never use a name to do the work that a bound variable pronoun or anaphor could be used to do. Higginbotham (forthcoming) argues forcefully that such a position is untenable, since a focused pronoun can not only have a referential antecedent in a canonical Condition B violation configuration as in (1a,b) but can equally be interpreted as a bound variable in such a position, as illustrated in (1c).

(1) a. John Smith admires HIM.
   b. HE admires HIM.
   c. Every professor admires HIM.
On an analysis in which all and only QA relations are restricted by BT, facts such as those in (1c) can only be dealt with by stipulation.

Higginbotham himself proposes to account for the acceptability of the examples in (1) by eliminating focused expressions from the domain of expressions to which BT applies, be they potential bound expressions or potential antecedents. However, a simple modification of these examples clearly shows that this approach cannot be maintained generally. If instead

¹ Higginbotham (1983) argues that names are never dependent upon other expressions for their interpretation, hence the qualification “at most”. I will be arguing below than names can stand in a type of dependency-like relation which is grammatically restricted, though I will not be arguing against Higginbotham’s position in doing so, since the dependency relation will be seen to be not one of referential dependency but of predicational dependency.
of focusing the pronoun we focus the subjects as in (2) and leave the pronoun deaccented (to borrow a term from Oehrle (19??)), the sentences, taken context initially, once again have the flavor of full-fledged BT violations. (Here and throughout, deaccented expressions are written in small italics.)

(2) a. *JOHN SMITH admires him
   b. *HE admires him
   c. *EVERY PROFESSOR admires him

A modification of Higginbotham’s proposal could perhaps be entertained according to which focused expressions still participate in BT Conditions as antecedents but are exempt from these conditions as bound expressions. However, such a proposal would be far from straightforward given data like the following.

(3) a. Most people dislike JOHN SMITH, but JOHN admires him
   b. Most people dislike JOHN SMITH, but HE admires him
   c. *No administrator envies HIM, but EVERY PROFESSOR admires him

The examples in (3a,b) (modeled on examples from Evans (1980) to be considered in more detail below) show that it is possible to avoid a BT violation with RA pronouns while still intending the pronoun to be coreferential with its closest c-commanding subject. The example in (3c) shows that QA pronouns cannot avoid a BT violation in the same manner. Focus alone clearly does not suffice to make the necessary distinctions here, since the focus structure of the second conjuncts in all three examples in (3) are identical, and are furthermore the same as is found in the context initial examples in (2). These data pose an equally recalcitrant problem for Reinhart’s analysis, even if modified to take into account the focus considerations urged by Higginbotham. On such an analysis, it would be necessary to assume that the pronouns in (3a,b) need not be bound by their nearest potential antecedents John and he respectively, an assumption made plausible by the fact that these pronouns need not function semantically as bound variables in order to be interpreted as coreferential with their respective subjects. However, a modification along such lines would be inadequate since it would leave unexplained the data in (2a,b). If the pronouns do not have to be interpreted as bound variables in order to obtain the desired coreferential reading in (3a,b), there is no reason to assume that such a reading depends on a bound variable interpretation of the pronouns in the case of (2a,b) either.

It is perhaps possible to overcome the problem posed above for standard analyses of BT with a sufficient enrichment of technical machinery. However, even if this is so, on conceptual grounds I would like to argue that such an approach would be misguided. The reason for this derives from the interpretations allowed of the sentences in (1). While it is incontrovertible that these sentences can acceptably be uttered with the intention that the focused pronouns be coreferential with ((1a,b)) or quantificationally bound by ((1c)) their subjects, and while this latter relation in particular appears to require
that the pronoun be semantically identified with the variable inherent in its quantificational antecedent (cf. Fiengo and May (1994),...), the interpretation of the pronoun is still not entirely unconstrained. In particular, the pronouns all still lack a particular construal that is available with a suitably embedded pronoun, be it focused or deaccented, such as with any of the third person pronouns in (4) below. (For the moment, we can think of this construal as a self-oriented interpretation of the pronoun.)

(4) a. John Smith thinks I admire him
    b. John Smith thinks I admire HIM
    c. Every professor thinks I admire him
    d. Every professor thinks I admire HIM.

While a theoretical understanding of how such a construal comes about has not to my knowledge been reached (though see below for one analysis), it is clear on an intuitive level that a difference exists between the ways in which the pronouns can be taken in (1) and in (4). Indeed, this distinction would appear to form part of the core data that Binding Theory was originally developed to account for, since the same distinction arises equally between the unacceptable sentences in (2) and the acceptable ones in (4). If we were to take the acceptability of the sentences in (1) to argue that (1) and (4) should be set off against (2) for the purposes of BT, we would be left without an explanation of the restrictions on construal of the pronouns in (1), since these restrictions separate (1) and (2) from (4).

If we accept the argument from (1)-(4) that BT should not be based upon the relation of QA, we must equally conclude that BT should not be based upon the relation of RA. This conclusion follows on either of two assumptions. First, if the pronouns in (2) are assumed to be quantificationally bound directly by their respective subject expressions, then the pronouns will not themselves refer and the relation of RA will simply not obtain, making an RA based BT useless for excluding these examples. If in contrast we follow Fiengo and May (1994) and take the antecedent of a bound variable pronoun to be the trace of QR, and if we further label this antecedence relation referential in the relevant sense, then it is in principle possible to account for the unacceptability of the examples in (2) by an RA based BT. The unacceptable relation in these examples would then be that of the pronoun taking the subject (2a,b) or the trace of QR (2c) as its referential antecedent. However, assuming such an analysis to exclude the unwanted examples in (2) would still leave unsolved the problem of why the same explanation should not also apply to (1), where the coreferential reading excluded

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2 I would like to thank Joe Emmonds (p.c.) for stubbornly insisting that the examples in (1) are ungrammatical. It was this insistence which led me to see the need of distinguishing clearly between questions of identity of semantic interpretation and questions of perspective. The conclusions reached here are not necessarily endorsed by him, however.
in (2) surfaces as acceptable. And once again, even if such an analysis of BT is modified so as to allow coreference in the cases in (1), the resulting analysis would still need to be supplemented with an explanation of why the most natural (self-oriented) construal for the pronouns in (4) is disallowed uniformly in (1) and (2) alike.

It should at this point be clear that no way of construing BT as it is standardly conceived will simultaneously account for (i) the fact that a coreferential/bound variable interpretation is available for the pronouns in (1) and (4) but not for those in (2), and (ii) the fact that the most salient construal of the pronouns in (4) is equally unavailable in both (1) and (2). An analysis of BT as a restriction on any single relation, be it RA, QA or something else, is in principle incapable of making the required distinctions -- there are two separate questions that need to be answered, the question of when coreference and variable binding are possible, and the question of when a certain type of construal is possible. Since the variable binding and construal possibilities for pronouns vary independently, no BT which restricts a single relation will be able to answer both questions simultaneously.

The above argument has been aimed at clarifying the nature of relations that can hold between a pronoun and some other expression within the same sentence, and hence to identify what it is that a binding theory is needed to explain. The argument proceeded by assuming a binding relation to be necessary for a bound variable interpretation of a pronoun, and then showing that the conditions under which such a pronoun can be bound differ from those under which the pronoun can be construed in a certain way (roughly as self-oriented). This shows minimally that BT Condition B needs to be split into two principles, though it does not yet say anything about Conditions A or C. Questions concerning Condition A I will not address in this paper.\(^3\) Condition C can be shown to have to be split into two

\(^3\) Binding of anaphors in a local domain poses somewhat of a problem for an approach to binding like that to be argued for below. The basic analysis developed there is that two expressions within a certain domain cannot be forced to be identified via deaccenting. The problem that arises with anaphors is that it is perfectly natural, indeed preferred, for an anaphor to be deaccented in a position in which a pronoun could not be, as in (i) below.

\[ \text{i: John Smith punched } \text{himself} \]

*Himself* in (i) occupies the same structural position as *him* in (2) above. If the distinction in acceptability between these is not to be attributed to an inherent (say, featural) distinction between pronouns and anaphors, it would appear under the approach being argued for in this paper that (i) should be excluded by the same principle that excludes (2), a highly undesirable result. This problem can be overcome if it can be shown that *him* in *himself* is a separate expression from *self*,

...
separate conditions as well. To make the argument, I will employ anaphoric epithets, whose properties are argued by Lasnik (1989) to necessitate inclusion of a Condition C like principle in BT. Since anaphoric epithets are obligatorily deaccented, it is impossible to use them to construct an example parallel to (2), since such an example would require that a bound epithet be focused. However, as argued by Higginbotham (1986?), anaphoric epithets can be quantificationally bound. Exploiting this with each part deaccented independently, following the leading idea of Pica (1987) in treating complex anaphors as composed expressions whose parts play distinct roles in grammar. Working out such an analysis in detail will unfortunately have to await an appropriate opportunity, though it is clearly required for the analysis presented here to ultimately be sustainable.

4 This requirement is not quite correct in that expressions such as the bastard, the bitch, the twerp, etc. can all be accented as epithets when used contrastively in contexts like the following in which the epithets already appear in the preceding discourse.

i: John’s mother told Mary’s mother that the bitch hates the bastard.

THE BASTARD, however, loves THE BITCH.

The requirement should thus be restricted to first occurrences of an epithet in a given context. Such accented occurrences of expressions having the same form as an epithet, however, act simply as definite descriptions, not as epithets. If the first occurrences of the bitch and the bastard are accented in (i), these expressions no longer serve solely to express the speakers derogatory attitude toward the people referred to with the expressions. The distinction can be seen in the fact that in order for an epithet-like expression to be accented it is necessary that the speaker take other people to concur in the applicability of the description used to the individual referred to, a restriction completely lacking when the expression is deaccented.

5 Higginbotham’s examples involve binding by a non-c-commanding antecedent. i: In Scarsdale, every student’s mother sent the twerp to summer camp.

Sentences like (i) clearly push intuitions somewhat, as do examples like (5). This could perhaps be related to the difficulty of obtaining de re types of interpretations in such environments -- with training such interpretations become easy to obtain, though to the non-initiated a de dicto interpretation is clearly preferred. Such a connection between anaphoric epithets and de re interpretation could be made more plausible by analyzing anaphoric epithets as obligatorily de re expressions (or better as anti-de dicto expressions), though turning this into a full analysis depends on showing that de re interpretation reduces to interpretation of an expression from the perspective of a person other than the person whose beliefs etc. are being presented. While intuitively appealing,
property, it can be shown that perspective effects and binding effects obey different constraints in the case of R-expressions as well as in that of pronouns using the following example.

(5) Every one of my students thinks I admire the invertebrate
In this example, the epithet the invertebrate can be quantificationally bound by the matrix subject QP every one of my students. However, the invertebrate cannot be given a self-oriented interpretation. That is, the sentence can be uttered with the intention of denigrating one's students by labelling each an “invertebrate”, but it strongly disallows a construal according to which each individual student denigrates himself by taking himself to be “the invertebrate”. The need for separate constraints for restricting the identity of interpretation needed for variable binding and the construal possibilities of expressions is driven home even further by the observation that the potential for an anaphoric epithet to be quantificationally bound varies independently of the construal possibilities for the epithet. This can be seen in the fact that, like the pronoun in (2c), an anaphoric epithet can never be locally quantificationally bound within a simple clause.

(6) *Every one of my students admires the invertebrate
While the prohibition against being self-oriented remains, the possibility of being quantificationally bound disappears.

**Summary**

I take the above discussion to establish the following main point: (i) questions of when a coreferential or bound variable interpretation is available for an expression need to be kept separate from questions of when a particular type of construal is available for an expression. I further take the distinction between (1) and (4) versus (2) to indicate that (ii) focus plays a role in determining when an RA or QA relation can obtain. Finally, I take the distinction between (1) and (2) versus (4) to show that (iii) focus does not affect when a self-oriented construal of a pronoun like that available in (4) can obtain. This leads to a natural division of the domain of relations formerly thought to be constrained by BT into one concerned with focus and referential relations and another concerned with manners of construal. The former domain relates to questions of identity of semantic interpretation addressed in the literature both from the perspective of Binding Theory (Lasnik (1976, 1981, 1989), Chomsky (1980, 1981) Higginbotham (1980, 1983)) and quantification (Frege (), Evans (1977, 1980), May (1977, 1985) Reinhart (1983), Fiengo and May (1994)), though the connection with focus is still relatively unexplored (although cf. Tancredi (1992) and Higginbotham (forthcoming)). The latter domain is less well understood, though I will suggest below a way in which it can be connected with questions of indexicality and belief adequately developing such an analysis is a project that would take us too far afield from the main concerns of the present paper, and will have to be saved for another occasion.
2. **Focal Antecedence**

As we have seen in (1) and (2), focus affects the possibility of a pronominal object being either coreferent with or quantificationally bound by a clausemate subject. I take this as *prima facie* evidence that focus properties of a sentence play a role in determining the interpretations available for a pronoun. I take the central question that needs to be addressed then to be that of how focus structure affects what QA and RA relations can obtain. To answer this question, I will adopt the perspective on focus structure and its interpretational effects argued for in Tancredi (1992).

Simplifying somewhat, Tancredi (1992) argues that focus structure affects interpretation indirectly through (at least) a constraint on deaccented expressions. An expression which is deaccented is argued to require the presence of a syntactically identical expression\(^6\) in the preceding discourse. For present purposes, we can call this relation one of Focal Antecedence, or FA. I illustrate acceptable instances of FA relations in (7) and unacceptable instances in (8) below, restricting examples to those involving only deaccented pronouns with R-expressions as their focal antecedents. In each case, I take the context given to be exhaustive. The focal antecedent I write in **BOLD** and the deaccented expressions whose deaccenting is licensed by the focal antecedent I write in *small italics*.

(7)  
- a. **John** said that he won.
- b. Many people believe someone to hate *them*.
- c. Where’s **Professor Smith**? He isn’t in *his* office.
- d. People who know **John Smith** consider *him* a genius.

(8)  
- a. *John Smith* likes *him*.
- b. *Many people* believe *them* to hate someone.
- c. **Professor Smith** is strange. *He* was just talking to *him* on the phone.
- d. *People who know *him* consider **John Smith** a genius.

Since deaccenting of an expression is only acceptable when there is another expression with which it is identical already present in the context, deaccenting of the pronouns in these examples in essence serves to force the pronoun to be interpreted as identical with some preceding expression. If the examples are taken context initially, in all cases except for (8d) this will make the identity between the deaccented pronouns

\(^6\) I put off the question of just what it is that is identical, though I will return to this question below. This question was not directly addressed by Tancredi (1992), though consideration of the data presented there leads to the natural conclusion that the identity in question is identity of predication, in a sense to be made precise. Cf. Williams (1994) for some relevant considerations.
and their intended antecedents obligatory. I propose that it is in precisely this situation, i.e. when two expressions are forced to be identical through FA relations, that restrictions such as those seen in (2) are found. To make the proposal as general as possible, let us first introduce some vocabulary. Consider a sequence of expressions $a_1, \ldots, a_n$ having the following properties: (i) for all $i,j$ such that $i<j$, $a_i$ precedes $a_j$; (ii) $a_1$ is accented; and (iii) for all $i$ such that $2\leq i \leq n$, $a_i$ is deaccented and its deaccenting is licensed by $a_1$. I will call such a sequence a focus chain. The central proposal of this section can then be stated in the following form:

(9) **Focus Principle 1 (FP1):** For all pairs of expressions $x, y$, if $x$ and $y$ are both immediate constituents of the same domain $D$, then $x$ and $y$ cannot be elements of the same focus chain.

The question of how to characterize domain $D$ I will consider further below. For illustrative purposes, I will tentatively take $D$ to be a Complete Functional Complex (CFC) (cf. Chomsky (1986)).

Before turning to further examples which motivate this proposal and turning it into a formally precise account, it is useful first to see how this proposal will account for the unacceptability of the sentences in (8) as well as for the contrast between the sentences in (1) and (2). The requirement that deaccented expressions have an antecedent in the preceding discourse context I translate as a requirement that all such expressions must be a member of some focus chain. Since the head of a focus chain must be accented, this requirement cannot be met trivially by identifying a deaccented expression as a one-membered focus chain. In (8a), the pronoun is deaccented and thus must form a focus chain with some preceding expression. The only expression which can potentially serve as antecedent being *John*, the focus chain formed will be (*John, him*). However, the pronoun in this chain violates FP1 with respect to the expression *John* in the same chain since *John* and *him* are in the same CFC, and so the sentence is unacceptable. Similar comments apply in (8b), in which the relevant focus chain is (*Many People, them*). In (8c), we see the need for the analysis to cover chains with more than two members. Here, the relevant focus chain is (*Professor Smith, He, him*), in which *him* violates FP1 with respect to *He*.

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7 By the term “accented” I intend that the expression is not deaccented, leaving open the question of whether it is explicitly focused. Whether an expression is accented or not shows up most clearly in English when the expression occurs at the end of a sentence, since in this position accented expressions generally receive nuclear stress (cf. Chomsky and Halle (1968))). For exceptions to this generalization, see Schmerling (1976?) and Ladd (1980?).
While all of (8a-c) are analyzed as violations of FP1, (8d) clearly does not violate this principle, since even if him and JOHN SMITH were to be included in the same focus chain, since they are not immediate constituents of the same CFC no violation of FP1 would result. Nonetheless, as a context initial utterance (8d) is fairly degraded. The source of the unacceptability of this example on the current analysis comes from the impossibility of forming any well-formed focus chain at all containing the pronoun him. The only expression with which the pronoun agrees in person, number and gender features is the R-expression JOHN SMITH. However, this expression does not precede the pronoun, and hence cannot head a focus chain containing the pronoun. This leaves the pronoun without any focus chain, in violation of the general constraint on deaccented expressions adapted from Tancredi (1992).  

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8 It should be noted that examples like (8d) are not as unacceptable as the present explanation appears to predict. On a construal in which the name is contrastively focused, clearly the pronoun cannot be involved in a co-contrast relation of any sort. Such an interpretation is I take it what has been analyzed as the focus counterpart of crossover violations. However, on a construal in which the name is used simply to introduce a certain person into the discourse (in Rochemont’s (1986) terms, in which John Smith is presentationally but not contrastively focused), the sentence is actually fairly acceptable, and when both the name and the pronoun are deaccented the acceptability increases. This acceptability can be accounted for within the analysis of Tancredi (1992) adopted here by taking the name to be formally accommodated, i.e. added to (or presupposed to be part of) the context preceding the sentence. In the case in which the name is deaccented, this accommodation can be seen as facilitated by the deaccenting since it is independently the case that only if there is a suitable antecedent expression in the context can a name be deaccented. In the case in which the name is presentationally focused, motivation for accommodation would appear to lie purely in the deaccenting of the pronoun. Unless independent evidence can be found that accommodation does take place in this case, the acceptability of the sentence with the name presentationally focused could be taken as a counterexample to the analysis of Tancredi (1992) since the deaccented pronoun clearly precedes the apparent source for the deaccenting. A possible way around this problem would be to treat presentationally focused expressions as topics which are syntactically fronted at LF, and which therefore formally precede the remainder of the sentence they occur in. Under such an approach, the exclusion of a co-contrast reading of the pronoun as a crossover violation when the focused expression is taken as contrastive would have to be given a separate account not based purely on the structural relation that obtains between a pronoun and a semantically identical expression which has been moved over the pronoun.
Turning to the contrast in (1) and (2), it should be clear how the analysis accounts for these minimal pairs. In each of the examples in (2) the pronoun is deaccented and hence must be part of a non-trivial focus chain. The only expressions which can potentially license the deaccenting and hence head such a chain are the subjects of the respective sentences. However, taking the subject as the head the focus chain in each case yields a chain in which him and the other member of the chain violate FPI, since in each case the two expressions are immediate constituents of the same CFC. In (1) in contrast, no non-trivial focus chains need to be formed at all since there are no deaccented expressions in the sentence. This makes it possible in each case for the only focus chains containing the pronoun him to be the trivial chain (HIM), and with respect to the sole member of this chain FPI is trivially satisfied.

2.1 Intended Coreference and Focal Antecedence

So far I have been concerned mainly with presenting and illustrating the proposal in (9). The only piece of evidence given which motivates the proposal is the contrast in (1) and (2). One need not look far, however, to find further evidence in support of the analysis. The first such pieces of evidence come from examples brought to light by Evans (1980). Evans used examples similar to those in (10) and (11) below to argue that BT cannot be construed directly as a constraint on coreference per se, or even on intended coreference.9 In these examples, each of the underlined expressions can readily be used to refer to the same individual with the intention of so referring despite the fact that him and HE stand in a canonical Condition B violation configuration.

(10) If anyone likes OSCAR, HE likes him/Oscar.
(11) A: Nobody likes OSCAR.
     B: That’s not true. HE likes him/Oscar.

Despite the fact that these data have been around for a long time, they continue to pose a problem for nearly all current analyses of BT. Consider for example the analysis of Fiengo and May (1994), which allows for interrelations among expressions in separate sentences to play a role in determining relations subject to BT. For Fiengo and May the only way to capture the fact that identity is intended between the underlined expressions in (10) and (11) is for those expressions to all be coindexed. However, then the coindexing of HE and him should stand as a direct violation of BT Condition B. The relevant sentences should thus not have a reading in which the pronouns are intended identically, contrary to fact.10

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9 Evans' actual examples involve only names in apparent Condition C violation configurations, though the points made there all carry over to pronouns and Condition B.
10 Fiengo and May relegate such cases of coreference to a supposed mathematical metafragment of English, though it is
Interestingly, the pronominal versions of these sentences pose an equally intractible problem for Higginbotham’s (1983) linking analysis despite the fact that its design was largely influenced by Evans’ original (non-pronominal) examples. The problem comes from the fact that each of the pronouns in these examples is equally dependent upon the preceding occurrence of Oscar for its interpretation and so must presumably be linked to that occurrence. For (10), this leads to the representation given in (10’).

(10’) If anyone likes Oscar, HE likes him

The reason this is problematic for Higginbotham is that he explicitly argues against allowing such representations, an argument which was necessitated by the presumed unavailability of such dependency relations in (12) (deaccenting not in original).

(12) John said he saw him.

Since the notion of dependency employed by Higginbotham is that of referential dependency, and since this relation obtains equally in the case of focused pronouns and in that of deaccented pronouns, Higginbotham is left without the means of distinguishing the acceptable examples in (10) and (11) from the unacceptable example in (12).

While the data in (10) and (11) are problematic for virtually all current analyses of BT, they do not pose a problem for the analysis given in (9). The reason for this is simple. Consider (10). In this example, the pronoun him is deaccented and hence must be contained in a focus chain headed by some other, fully accented expression. In the context given, there are two expressions which could qualify as such an antecedent, Oscar and HE. Taking the latter as head of the chain will obviously directly violate FP1. However, taking the former as the head of the chain will make it possible to satisfy this principle. Within the focus chain (OSCAR, him), no two expressions are contained within the same CFC, and hence the chain is well-formed with respect to FP1. The pronoun HE, not itself being deaccented, need not be included in this same focus chain, and being accented can head a chain of its own. Since FP1 does not apply to pairs of expressions in distinct focus chains under the present proposal, by analyzing (HE) as a trivial focus chain, (10) will not violate any principles of grammar and will correctly be predicted to be acceptable. This same analysis can be applied equally to (11), again yielding the correct predictions.

unclear what makes these sentences “mathematical”, and Fiengo and May themselves offer no indication of how to determine when a sentence belongs in the proposed metafragment and when it does not. In the absence of clear criteria for determining membership in this metafragment, Fiengo and May’s solution can only be seen as a stipulation of the facts.
The contrast between (2) on the one hand and (10) and (11) on the other illustrates the possibility of escaping a potential FP1 violation when there are two accented expressions in the context either of which can be analyzed as the focus antecedent of a given pronoun. The present analysis makes a clear prediction, then, that when there is only one accented potential antecedent in the context it should not be possible to escape such a violation. We have already seen examples in (2), (8c) and (12) which indicate that this is a correct prediction. The examples in (13a) and (14a) serve to further illustrate the point.

(13) a. *If anyone likes OSCAR, he HATES him.
    b. If anyone likes OSCAR, HE HATES him.

(14) a. A: No one likes OSCAR.
    B: That’s true. *In fact, he HATES him.
    b. A: No one likes OSCAR.
    B: That’s true. In fact, HE HATES him.

In each of the (a) examples, there is a single (relevant) focus chain (OSCAR, he, him), the second and third members of which directly violate FP1. The sentences are thus correctly excluded under the present analysis. The analysis of the (b) examples, in contrast, is identical to that of (10) and (11), these examples serving to form minimal pairs with their corresponding (a) examples.

The above examples show that pronouns are constrained in a way that depends on the expression taken as the focus antecedent of the pronoun. They furthermore show that the question of whether the pronoun is intended as coreferent with some preceding expression is only potentially relevant when the pronoun is identified with that expression via deaccenting. A parallel case can be made for R-expressions as well with the following examples.

(15) a. *If anyone likes OSCAR, he HATES the bastard/Oscar.
    b. If anyone likes OSCAR, HE HATES the bastard/Oscar.

(16) a. A: No one likes OSCAR.
    B: That’s true. *In fact, he HATES the bastard/Oscar.
    b. A: No one likes OSCAR.
    B: That’s true. In fact, HE HATES the bastard/Oscar.

From these examples together with the examples considered earlier in (5) and (6), I conclude that constraints on what expressions can be included in the same focus chain are independent of whether the expressions in question are pronouns or R-expressions. These two types of expressions function alike with respect to constraints on focal antecedence.

2.2 Formalizing the Analysis

The above analysis constitutes a conceptual break from past treatments of binding related phenomena in that first it is explicitly restricted to determining when identical semantic interpretations of expressions are possible, and second it takes identity relations imposed by focus structure to be the only
relations which are restricted. Restrictions on construal of the type seen to differentiate the examples in (1) and (2) from those in (4) are relegated to a separate domain altogether, to be addressed below. While FPI is stated as a syntactic constraint (with domain D taken as a CFC), the analysis developed is clearly not purely syntactic in the same way that, for example, Chomsky’s (1981) BT is, since the expressions whose distribution FPI constrains are those contained within discourse-derived focus chains. While the analysis is well-motivated, this hybrid character of the analysis raises both technical and conceptual problems when it comes to formal implementation. In this section I will attempt to address some of more serious of these problems within the general framework of Chomsky’s minimalist program.

2.2.1 Focus Principles, and Strict and Sloppy Identity

The first issue the above analysis raises concerns the nature of the relation that needs to obtain between elements of the same focus chain. So far I have assumed three conditions on focus chain formation, summarized in (17) below.

(17) Conditions on focus chains:

**Focus Principle 2 (FP2):** All deaccented expressions must be contained in some well-formed focus chain.

**Focus Principle 3 (FP3):** The first element of a focus chain cannot be deaccented.
(Corollary: If x is deaccented, then x cannot head any focus chain, including the trivial focus chain (x).)

**Focus Principle 4 (FP4):** The linear order of elements in a focus chain reflects their linear order in discourse.
(Corollary: If x is deaccented and its deaccenting is licensed by y, then y must precede x in the discourse in order to generate a legitimate focus chain (y, x).)

Whatever the merits of these principles, they say nothing yet about the question of what expressions can and what expressions cannot be contained in the same focus chain. Tancredi (1992) argued for an extreme position which in terms of the current paper requires syntactic identity between all members of a focus chain. In order for such an analysis to be testable, the notion of syntactic identity needs to be made precise. In particular, it must be specified whether an R-expressions, for example, can or cannot count as syntactically identical with a pronoun, and if so under what conditions.

Perhaps the first proposal that comes to mind is to allow two R-expressions and/or pronouns to count as syntactically identical if and only if they are grammatically determined to corefer, for example by being coindexed. However, such a
proposal is clearly too strong, as can be seen from consideration of the behavior of indefinites and bare plurals. As demonstrated immediately below, these expressions exhibit the same contrasts in acceptability in contexts parallel to those considered earlier with pronouns, names and epithets, and yet with indefinites and bare plurals there is no question of their being intended as coreferential.

The examples in (18) show that it is in general possible for bare plurals and indefinites to be deaccented, licensed by the presence of an identical bare plural or indefinite in the discourse context.

(18) a. Men from Chicago are intriguing. Therefore, people like men from Chicago.

b. A man from Chicago called me yesterday. Today, I met a man from Chicago.

Under the present proposal, this would be most naturally explained by including the two occurrences of the relevant expressions in the same focus chain. As can be seen in (19), inclusion in the same focus chain is restricted for these expressions just as it is with pronouns, names and epithets.

(19) [I’ve heard many things about America. For example,]


b. *A man from Chicago killed a man from Chicago.

Furthermore, as with pronouns etc., bare plurals and indefinites can occur in clauses identical to those in (19) provided that there is a separate occurrence of an expression in the preceding discourse which can license their deaccenting, as seen in (20).

(20) a. Although many people dislike men from Chicago, men from Chicago admire men from Chicago.

b. According to a man from Chicago, a man from Chicago killed a man from Chicago.

Finally, two bare plurals or two indefinites which are both deaccented, each licensed by the same antecedent, need to obey the same restrictions as any two expressions in the same focus chain, blocking sentences like those in (21).

(21) a. *Although many people dislike men from Chicago, men from Chicago admire men from Chicago.

b. *According to a man from Chicago, a man from Chicago killed a man from Chicago.

The contrasts in (18) through (21) indicate that identity of reference (or of whatever determines reference) is not a necessary condition for co-membership in a focus chain. This leaves us with our original question of what it is that members of a single focus chain must share. A second obvious answer to

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11 The inclusion of contextual information here is not strictly necessary. However, without the context there is a fairly strong tendency for speakers to accommodate, in essence inserting a discourse context which will license the deaccenting of the bare plural/indefinite. The presence of an explicit context appears to block such accommodation. (Thanks to Edwin Williams (p.c.) for help with constructing the actual example.)
propose would be to require identity of predication, in the sense in which this term is employed in Williams (1994). In the cases just considered, this requirement is clearly satisfied -- since all members of the relevant focus chains are type-identical, they all involve identical predication relations. Since identity of predication does not entail identity of reference, non-identity of reference for co-members of a focus chain is unproblematic.

While the solution just outlined works well in the case of focus chains consisting entirely of bare plurals or indefinites, extending the solution to definite descriptions leads to difficulties deriving from the fact that predication does not determine reference. With indefinites this fact was crucial for deriving the correct conclusion that indefinites contained in the same focus chain need not corefer. With definites, however, a parallel conclusion is unwarranted. In particular, it is not possible for a deaccented definite description to have its deaccenting licensed by an expression without having to be coreferent with that expressions, though simply requiring identity of predication among members of a focus chain would leave non-coreference as an available option. Thus, if no more is said regarding the relation between deaccenting, definiteness and reference, we wrongly predict that the man in (22) should be able to refer to John, with its deaccenting being licensed by inclusion in the focus chain (A man, the man).

(22) A man came today. John talked to the man.

Whereas the examples in (18)-(21) show that identity of reference is not a necessary condition on focus chain membership, (22) shows that mere identity of predication is not a sufficient condition.

A third potential solution is to take deaccenting of an R-expression to impose identity on domains of quantification.

To see what is at issue, consider the following context initial discourse.

(23) a. JOHN thinks Mary likes him.
   b. BILL thinks Mary likes him too.

In order for the deaccenting of him in (23a) to be licensed, the pronoun must presumably be part of a focus chain containing John as its head. Thus, we must take the pronoun to be identical to John in the relevant respects. The pronoun in (23b), too, being deaccented, must be part of a focus chain. This restriction could be met in either of two ways -- by adding the pronoun to the focus chain (John, him) from the first sentence, or by including it in a separate focus chain with the matrix subject of its own sentence, (Bill, him). However, the VP in which this latter pronoun is contained, itself being deaccented, must also be part of a focus chain, for which the corresponding VP in (23a) must be the head (cf. Tancredi (1992)). From this it follows that regardless of whether the second pronoun is analyzed as contained in a chain with Bill, it will have to be
identical with the pronoun in the preceding sentence according to the same criteria by which *him* and *John* are identical.

When it is realized that the pronoun in (23b) can be given either a strict or a sloppy interpretation, it becomes clear that the problems imposed by this restriction are non-trivial. If we were to assume that R-expressions and pronouns all receive a unique referential index, it would be straightforward to account for the strict identity reading by taking the identity imposed by deaccenting of a referential expression to be identity of referential index. However, such an analysis would make it impossible to account for the sloppy identity reading, since the pronoun in (23b) could not simultaneously be coindexed with *Bill* and with the occurrence of *him* in (23a) without *Bill* and *John* ending up coindexed. Adopting an analysis like that of Fiengo and May (1994), though intended to address this problem, in fact does nothing to alleviate the problem. According to their analysis, pronominal indices come in two types -- independent occurrences (*α*-occurrences) and dependent occurrences (*β*-occurrences). Identity for the purposes of deaccenting according to their analysis minimally requires identity of indexical type. Since R-expressions obligatorily bear *α*-occurrences, for *John* and *him* in the first sentence to be identical in the relevant respect, the pronoun too must bear an *α*-occurrence of its index (in fact of the same index). However, a sloppy identity reading for this example can only be generated under their analysis if the pronouns in each of the two sentences bear *β*-occurrences of their respective indices. Since no expression can simultaneously bear two types of index, it follows that a sloppy identity reading cannot be generated for the second sentence.12

The key to solving this problem lies in distinguishing between the types of relations that can hold between a pronoun and its antecedent, in particular between RA relations and QA relations. This can be done syntactically, following Heim (1997), by assigning multiple indices to expressions -- inner indices which determine what an expression will refer to or what it will be (quantificationally) bound by, and outer indices which determine what an expression will (quantificationally) bind. A sloppy identity reading for the second sentence in (23) can then be accounted for with the representation in (24) below.

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12 Fiengo and May’s analysis could be remedied here by abandoning the restriction that expressions bearing *α*-occurrences of an index cannot count as identical to expressions bearing a *β*-occurrence of that same index. However, such a modification would completely undermine their analysis of the eliminative puzzles of ellipsis, for which this restriction is obligatory. Since the ability to analyze these puzzles constitutes one of the sole empirical motivations for their analysis, abandoning this restriction is paramount to abandoning the analysis itself.
together with one modification to the original analysis and one restriction on indices.

(24) a. $[\text{JOHN}_2]_1$ thinks Mary likes $[\text{him}_1]$.  
    (interp: for $x_1 = \text{John}_2$, $x_1$ thinks Mary likes $x_1$)

    b. $[\text{BILL}_3]_1$ thinks Mary likes $[\text{him}_1]$ too.

The modification is to allow expressions to be contained in the same focus chain when either (i) they bear the same inner index, or (ii) the inner index of the one is identical to the outer index of the other. The restriction on indices is that multiple occurrences of the same inner index must be interpreted uniformly, either all as variables when identical with the outer index of some other expression as in (24), or all referentially, as in the representation for the strict identity reading of (23) given in (25) below.

(25) a. $[\text{JOHN}_1]_1$ thinks Mary likes $[\text{him}_1]$.  

    b. $[\text{BILL}_2]_1$ thinks Mary likes $[\text{him}_1]$ too.

This analysis makes it possible for the focus chains in (24) to be $([\text{JOHN}_2]_1, [\text{him}_1]), ([\text{him}_1])$ and $([\text{BILL}_3]_1)$ while still requiring that the occurrence of $\text{him}$ in (24b) be bound by $\text{Bill}$ -- if such binding fails to obtain, $\text{him}$ will be a free variable and hence left without a determinate interpretation.

According to the analysis developed earlier, an expression cannot be in the same CFC as any other expression contained in the same focus chain. We also saw that it is possible for one expression to be coreferential with another expression in the same CFC provided that the two expressions can be assigned to distinct focus chains. If we apply the analysis developed for predicting coreference directly to expressions acting as bound variables, then we predict that it should be possible for a pronoun to be interpreted as a variable bound by a (c-commanding) expression in the same CFC provided that the pronoun and its binder are contained in distinct focus chains. We have already seen in (1c) that this prediction is borne out for pronouns which are focused. However, when we consider deaccented pronouns we find that this prediction is falsified. To see how, consider the following examples.

(26) a. i. $\text{JOHN}$ thinks Mary likes $\text{him}$.

    ii. $\text{BILL}$ doesn’t like $\text{him}$.

    b. i. Every professor admires $\text{HIM}$.

    ii. #No administrator admires $\text{him}$.$^{13}$

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$^{13}$ Here it becomes necessary to make a subtle distinction in pronunciation. If we take the hallmark of deaccenting to simply be a flat intonation contour, then the example in (26b) can be made more or less acceptable by lengthening the pronoun. I take such lengthening to be an indication that the pronoun is not entirely deaccented. (See Rooth (1992?) and references therein for similar comments.) The intended deaccenting is brought out best by eliding the /h/ of $\text{him}$ altogether and reducing the /i/ to a schwa. Under this pronunciation, the contrast between (23) and (26) is clear.
If we accept the representations given in (24) as necessary for producing the sloppy identity reading of (23), then by parity of reasoning the sentences in (26) should have the representations in (27), similarly generating sloppy identity readings.

(27) a. i. \([\text{JOHN}_2]_1\) thinks Mary likes \([\text{him}]_1\).
ii. \([\text{BILL}_3]_1\) doesn’t like \([\text{him}]_1\).

b. i. \([\text{Every professor}]_1\) admires \([\text{HIM}_1]\).
ii. \([\text{No administrator}]_1\) admires \([\text{him}]_1\).

This follows since according to the analysis of (24) given above, it is possible for the deaccented pronoun in the second sentence to be contained exclusively in the focus chain \(\{\text{JOHN}_2, \text{[him]}_1, \text{[him]}_1\}\), with the subject of the second sentence constituting the independent focus chain \(\{\text{BILL}_3\}_1\). Applying this same reasoning to the representations in (27), it should be equally possible for the sentences in (27a) to have the exact same focus chains as (24), while in (27b) it should be possible for the focus chains to be \(\{\text{Every professor}\}_1\), \(\{\text{HIM}_1, \text{[him]}_1\}\) and \(\{\text{No administrator}\}_1\). Since all of these focus chains are well-formed with respect to focus principles FP1-FP4, the representations in (27) are predicted to be well-formed, and the sloppy identity readings they represent are thus predicted to be available, a prediction which goes strongly against intuition.

While it is possible to stipulate a solution to the problems posed by (26) by requiring bound expressions which are deaccented to be contained in the same focus chain as their binder, it is difficult to find a principled justification for doing so. Requiring bound expressions generally to be contained in the same focus chain as their binders is clearly not an acceptable solution, since this would leave the bound variable interpretation of the focused pronoun in (1c) unexplained. Requiring deaccented pronouns to be contained within a focus chain with some other expression within the same sentence is also not an option since this would deprive us of a solution to Evans’ examples in (10) and (11). Within the analysis developed, it would appear that the solution stipulated above is the only option. Whether a more principled solution can be offered for this problem I leave for future research.

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14 An expression is bound under present assumptions just in case its inner index is identical to the outer index of some c-commanding expression.

15 While having to stipulate a solution to the problem posed by (26) is somewhat unsatisfactory, it should be noted that the problems posed by these examples cannot be explained in a principled fashion within any other theory proposed to date. For the analysis of Fiengo and May (1994) which accounts for the bound variable interpretation of the focused pronoun in (26bi) by stipulating such sentences to be included in a mathematical metafragment of English these examples are particularly problematic, since there is no principled reason for not also including the sentence in (26bii) within this same metafragment
2.2.2 Syntax, Semantics or Pragmatics?

The second issue that needs to be addressed regards the status of the analysis developed. In particular, where does the restriction on focus chains stated in FP1 (repeated here) apply?

(9) **Focus Principle 1 (FP1):** For all pairs of expressions \(x, y\), if \(x\) and \(y\) are both immediate constituents of the same domain \(D\), then \(x\) and \(y\) cannot be elements of the same focus chain.

Within a minimalist approach to language such as that developed in Chomsky (1993), restrictions on representations can only be stated at interface levels. If we take domain \(D\) in the characterization of FP1 to be the syntactic construct CFC as we did earlier, then it will follow that FP1 needs to be a constraint on syntax, presumably stated at LF. However, focus chains were defined earlier in such a way that they can (and in fact need to be able to) include expressions from distinct sentences. If FP1 is a syntactic constraint, then it follows that focus chains must be construed as syntactic objects, and hence that intersentential relations must in principle be statable within the syntax. If deaccenting were only possible with expressions which could be claimed to be syntactically identical, then inclusion of focus chains formed from deaccenting relations would be unproblematic. However, as shown in detail in Tancredi (1992), deaccenting is not restricted to cases in which the deaccented expression is syntactically (or semantically) identical with some antecedently occurring expression. In a sentence like (28), for example, the (bare plural) *movies* is deaccented, presumably licensed by the presence of *Jaws* in the preceding context.

(28) John wants to watch *Jaws* tonight, but Mary doesn’t like *movies*

The coherence of discourses of this kind can readily be explained by taking deaccenting of *movies* to force accommodation of *movies* into the context in order to give rise to a licit focus chain (movies, movies), such accommodation being acceptable to the extent that the previous discourse can be taken to be about movies. However, this explanation crucially involves knowledge about the world (e.g. that *Jaws* is a movie) of a type not plausibly included in the computational syntactic component. It would thus appear -- at least on the surface -- that such an explanation would be incompatible with FP1 being stated as an LF constraint.

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since the deaccented pronoun of this sentence will presumably have to be identical to the focused pronoun in the preceding sentence. Higginbotham (forthcoming) is similarly unable to account for these examples, since the sloppy identity reading is equally excluded even when the potential binder of the pronoun in the second sentence is focused.
There are at least two ways around this problem within the confines of the general framework being assumed. The first is to retain the syntactic nature of FP1 and to relax conditions on focus chain formation, in particular abandoning the requirement that all expressions of a focus chain need to be syntactically identical. This would appear plausible in any event since whatever identity relation there is that might hold between a name and a pronoun or an epithet, it is not an identity of syntactic form, and yet these are the prototypical types of expressions which need to be contained within the same focus chain in the above analysis. Abandoning syntactic identity as a constraint on focus chain formation does not mean that anything goes, of course. There are real constraints on what can and what cannot plausibly be deaccented licensed by what. For example, *movies* and *Jaws* cannot readily be switched in (28) above with *movies* accented and *Jaws* deaccented as in (29).

(29) John wants to watch *movies* tonight, but Mary doesn’t like *Jaws*

Since the deaccentability of one expression licensed by another depends on all sorts of world knowledge, clearly part of the explanation of these effects belongs with our post-syntactic reasoning faculties. These restrictions could be implemented formally by requiring that the reasoning faculty be able to interpret syntactic focus chains as “holding together” pragmatically.

While such an explanation can be made to work technically, it is incompatible at least with the spirit of the Minimalist Program in syntax. The reason for this is that such an analysis would introduce a truly random element into the formation of LF representations -- the grouping of expressions into focus chains. Even if such grouping is taking to be motivated featurally by (at least) whatever feature gives rise to the phonological deaccenting of an expression, this would still leave the choice of antecedent completely undetermined. If the computational syntactic component is taken to be an encapsulated input system in the sense of Fodor (1983), then the only way of obtaining the desired restrictions on focus chains would be to generate every conceivable focus chain within the syntactic component and to then eliminate within the reasoning component all those chains which fail to hold together in the required way. If we are to maintain that the syntactic component is autonomous, i.e. encapsulated and separate from the reasoning component, there is no way of directly restricting representations in the former component by constraints applying within the latter. In particular, the requirement that focus chains hold together pragmatically cannot be stated or otherwise mimicked within the syntactic component at LF. This would make for an unprecedented degree of ambiguity in the syntax which could not be considerably reduced by appeal to economy
considerations, so that an input at PF, say, would not even come close to determining a unique LF output.\footnote{A parallel argument is made by Kempson (1997) (Kempson and Gabbay (1997)?) who concludes that island effects found in Bare Argument Ellipsis (BAE) must be accounted for by general processes of reasoning. If such arguments go through, they largely undermine the need for stating any constraints within the syntactic component, since even the most purely syntactic constraints -- movement constraints -- will have to be duplicated within the reasoning faculty. In Tancredi (1993) I argued against this analysis of the BAE facts, claiming that the best analysis of the facts makes crucial use of the syntactic component in generating representations for BAE sentences, though I am now somewhat more open to Kempson’s analysis. In both the case of BAE and the case given above, it is argued that if understanding another speaker’s intentions proceeds via creating a syntactic representation whose interpretation captures their intentions, the input is far too impoverished to determine a single such representation. Capturing a speaker’s intentions thus cannot be reduced to producing a syntactic representation of her statement. Furthermore, since treating utterances as syntactically massively ambiguous does nothing to help in the task of capturing another speaker’s intentions, assuming such massive ambiguity is otiose at best, and of little or no utility in explaining restrictions on the range of potential intentions associated with another speaker’s statements. These arguments can be defused if one assumes that utterances potentially get associated with syntactic representations twice -- once automatically via the syntactic processing of the utterance (the syntactic component acting as an input system in Fodor’s (1983) sense), and once after understanding the utterance, the latter representation generated by the same mechanisms by which intentions are in general turned into speech. Deficiencies in the syntactic representations associated with other people’s utterances as direct inputs can then be overcome in the representations reproduced after recovering the other speaker’s intentions. Differences in the two representations will only be able to arise under such a view to the extent that they can be filled in by processes of reasoning which make reference only to whatever syntactic information is present in the input representation. To the extent that such an analysis is plausible, it will remain possible in principle to explain the unacceptability of illicit focus chains within the syntax without resorting to modifications of the type considered immediately below.}

If we take this argument as sufficient for abandoning a syntactic analysis of restrictions on focus chains, then we would appear to have no further choice but to state the analysis within the post-syntactic reasoning faculty. Restricting the expressions which can conceptually be connected within a focus chain can then be done straightforwardly. However, the domain
restriction stated in FP1 then becomes more problematic. Taking the relevant domain to be a CFC has as a direct result that ECM subjects are predicted to behave with respect to the subject of their ECM verb in the same way that a direct object of a normal verb behaves with respect to its subject. This has the desirable consequence of making it possible to account for the parallelism between examples such as (30a,b) -- in both cases, deaccenting of the pronoun is predicted to be blocked since such deaccenting would force the pronoun to be in the same focus chain as the immediately preceding subject, and in both instances such identity would be blocked because that expression is in the same relevant domain (CFC) as the pronoun.

(30) a. *JOHN SMITH likes him.
    b. *John Smith believes him to be late.

If we take FP1 to apply in the reasoning faculty, however, then on the assumption that the symbols manipulated by the reasoning faculty are distinct from those manipulated by the syntactic component, the CFC cannot be appealed to as the relevant domain restriction within FP1. A parallel construct must be created within the reasoning faculty.

We can create such a parallel construct by assuming that the mapping from (syntax internal) LF representations onto (reasoning faculty internal) “semantic” representations is sensitive not only to thematic relations but also minimally to case marking relations. If we take the representations of the sentences in (30) at the interface from within the reasoning faculty to be equivalent to the representations in (30′), then restrictions on focus chain formation can be stated directly on these latter representations, preventing “co-arguments” of a single predicate from being contained in the same focus chain.

(30′) a. like(John Smith,him)
    b. believe(John Smith,him,λx.hate(x,Mary))

The apparent syntactic nature of the restriction on deaccented expressions under such an analysis would then follow from an assumed parallelism between syntactic representations and reasoning faculty representations. Whether this implementation of the analysis given earlier can ultimately stand up will depend upon a far wider range of considerations than can be addressed within this paper, though within the assumptions of

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17 The verb believe need not be treated as ambiguous for this analysis to go through. Giving it a uniform semantic analysis as a two place relation holding between an individual and a proposition merely forces us to assume that the interface representation given in (30′b), for example, must undergo some further changes within the reasoning faculty, with him combining with the property-denoting expression λx.hate(x,Mary) to form the propositional constituent hate(him,Mary). (In the examples in (30′), I ignore the important question of what the representation of a pronoun should look like from within the reasoning faculty.)
the Minimalist Program adopting an analysis which follows the broad outlines of that given here is virtually necessary. 

[One other possibility, namely that supplementation of LF representations by reasoning simply adds to the total number of sentences represented at LF, and chains are constructed from these. I don’t right now see why this can’t be made to work.]

3. Construal

I argued above that questions of reference and variable binding should be kept separate from questions of what I loosely referred to as construal. As we saw, the former relation, which can be analyzed as a type of identity relation, does not fall within the range of phenomena restricted by traditional Binding Conditions. The domain in which an expression is prohibited from being interpreted identically with another expression is determined in part by the focus properties of the two expressions and the context in which they occur, whereas Binding Conditions as traditionally conceived are purely structural. Furthermore, the constraints argued for above on identical interpretation treat pronouns and R-expressions alike, whereas Binding Theory traditionally makes a principled distinction between these two types of expressions. This leads naturally to the question of how, if at all, construal of an expression relates to traditional conceptions of Binding Theory. This can be broken down into three questions. First, what does the relevant notion of construal consist in? Second, what determines when this construal is possible? Third, how are restrictions on this construal related to Binding Conditions?

In this section I will argue based on Castañeda (1966, 1967a, 1967b, 1968), Perry (1979) and Richard (1983) that the answer to the first question relates to the interpretation of the indexical expression I -- the construal in question is itself a variation on the essentially indexical interpretation of this pronoun. For ease of exposition, I refer to this construal as an I-construal. I will then argue that an I-construal is in principle only available for pronouns, and then only in the presence of an appropriate embedding verb or in certain types of narrative discourse. I will finally show that under this way of looking at the problem, the “perspective effects” associated with Binding Conditions B and C fall out as a natural consequence without these conditions needing to be stipulated anywhere in the syntax. These Binding Conditions will thus be seen to be eliminable entirely from the grammar, since they will be unnecessary for constraining relations of identity as well as for constraining relations involving perspective.

I start with consideration of Condition C effects. These have been claimed by Lasnik (1986) to arise with anaphoric epithets in sentences like (31), preventing (in his terms) the invertebrate from being bound by John.

(31) John thinks I admire the invertebrate
While this claim is made within a framework in which the notion of binding plays a well-defined syntactic role, Lasnik does not identify what it means interpretationally for the invertebrate to be bound by John. If we accept the division between relations of identity and relations of I-construal urged in the present paper, we can identify two possible ways of interpreting Lasnik’s claim semantically: (i) that the invertebrate cannot be (intended as) coreferent with John, and (ii) that the invertebrate cannot be given an I-construal from the perspective of John. The first of these possible claims is clearly false -- as long as the only person passing judgment on John is the speaker, it is perfectly acceptable for a speaker to use the expression the invertebrate to (intentionally) refer to and thereby express his attitude toward John with the sentence in (31). This leaves open the possibility of construing Lasnik’s claim as in (ii). However, such an approach raises intractable difficulties within the framework of assumptions on which Lasnik’s analysis is based.

The source of the difficulties for construing Lasnik’s claim as in (ii) above derive from the independent role that binding is assumed to play in relating bound variable expressions to their quantificational antecedents. Within the framework of assumptions Lasnik adopts, semantic interpretation of an expression as a variable bound by a quantified antecedent is possible only if that expression is syntactically bound by the quantified antecedent. The problem this raises is that an expression like the invertebrate can act as a bound variable in a sentence structurally parallel to (31), as illustrated in (32), provided again that the only person whose judgment toward the boys in question is being presented is the speaker.

(32) Every boy in my class thinks I like the invertebrate.

If the invertebrate in (32) must be syntactically bound in order to be interpreted semantically as a bound variable, and if we additionally assume that syntactic binding results in an I-construal of the bound expression from the perspective of the person denoted by the binding expression (the relation prohibited in (31)), we predict contrary to fact that an I-construal relation should be not merely possible but in fact required in (32) when the invertebrate is interpreted as a bound variable. The fact that we get the same restrictions on construal in (32) that we have in (31) argues strongly that the same syntactic relation cannot be implicated in generating both I-construals and semantic bound variable interpretations. To the extent that syntactic binding is required for bound variable interpretation, it follows that syntactic binding is independent of questions of construal of the type at issue here.

I have so far made use of the notion of I-construal without making that notion precise. This was done to leave as much room as possible for interpreting the notion in a manner favorable to Lasnik’s analysis of (31). However, once it is recognized that the restrictions on construal -- whatever they may be -- arise even in (32) in which syntactic binding is obligatory, it
becomes evident that Lasnik’s analysis is untenable regardless of how the relevant notion of construal is formalized. Since our main goal here is not merely to argue against binding theory as a syntactic constraint but rather to replace this theory, it is now necessary to pin down a particular proposal for the notion of construal in question. Noting that the invertebrate in (31) can never be used to indicate John’s view of himself, I suggest that the construal effects should be related not to reference or binding, but to attitude.  

This doesn’t do it. Self-orientation needs to be kept separate from evaluation. Impossibility of self-orientation does not in itself entail the impossibility of evaluation from one’s own perspective, and neither does the reverse entailment hold. The fact that both self-orientation and evaluation from one’s own perspective are impossible thus remains in need of explanation.]

To put the proposal as succinctly as possible, I propose that construal effects derive from the impossibility of interpreting an R-expression in a manner derived from the interpretation of an essentially indexical occurrence of the pronoun I (cf. Castañeda (1968), Perry (1979), Richard (1983)). This way of viewing the problem of construal effects in Condition C can be seen as the flip side of the problem of understanding beliefs characterized with indexical expressions addressed by Perry (1979). Before giving justification for this view, it is thus worthwhile to take a sizable detour and consider the problem of indexicals and belief first.

3.1 Belief States and Propositions Believed

Perry noted that certain beliefs characterizable using the indexical expression I appear not to be characterizable in any terms not using I (or one of its variants me, my, mine, myself). This can best be seen by considering one of his examples. Suppose Perry is walking down the aisle of a supermarket, pushing a cart that contains a torn bag of sugar, and soon discovers a trail of sugar on the supermarket floor. He could well have a belief at that point which he would characterize as:

(33) a. The person with a torn bag of sugar in his cart is making a mess.

Were he to observe the mess-making in a mirror he might further form a belief he would characterize as:

(33) b. That person (pointing to his reflection) is making a mess.

Adding a dimension from Castañeda, he could even in a state of amnesia overhear people nearby talking about what’s happening and, forgetting his own name, come to have a belief he would characterize as:

(33) c. John Perry is making a mess.
As long as he remains ignorant that he himself is the person with the torn bag of sugar in his cart, the person he is pointing to in the mirror, or John Perry respectively, none of these beliefs would be cause for him to lean down and check in his own cart for the suspect bag. In contrast, his coming to have the belief he would characterize as:

(33) d. I am making a mess

would be cause for him to do so. This difference in his potential behavior would appear to call for an explanation in terms of differences in the beliefs he could hold as indicated by the sentences he is willing to assert.

Viewing the matter in this way raises a problem for a certain range of externalist semantic theories in which the meaning of members of a certain class of expressions -- the directly referential expressions -- is taken to be the real world object(s) which those expressions denote. The problem is that the beliefs characterized by each of the sentences in (33a-d) would appear to be at least potentially different, and yet this difference cannot be explained in terms of corresponding differences in the world, since the subjects of each of the sentences in (33a-d) refers in the context imagined to the same individual. And while (33a) contains a definite description which could be argued not to be directly referential, the name, pronoun and demonstrative in subject position in (33b-d) are all central examples of directly referential expressions which, in the context envisioned, have identical intensions as well as extensions. And while they do differ at the level of characters in the sense of Kaplan (1977), in direct reference theories there is nothing inherent in the character of a sentence containing the expression I as opposed to that containing the name John Perry or the expression that person which makes the former type of sentence but not the latter two appropriate for expressing an inherently self-oriented belief. Each of the three expressions functions to pick out an individual in a different way, but all ultimately identify the same individual in the above context.

Perry proposes to get around this problem by distinguishing between a proposition believed and the belief state(s) a person is in by virtue of which he believes that proposition. In the above example, according to Perry each of the sentences in (33b-d) denotes in the context given one and the same proposition, that person x is making a mess, but each characterizes a different belief state. Furthermore, while any individual can believe the proposition expressed by the three sentences in the context given, and while anyone can similarly be in any of the belief states indicated by those sentences, only John Perry could believe that proposition by virtue of being in the belief state represented by (33d).

While the distinction between beliefs held and belief states in virtue of which they are held is a useful one, merely distinguishing between these two does not yet solve the problem of interpreting belief statements, since making this distinction
does not alone establish how to correlate belief states with sentences or utterances. Consider for example the following sentences, to be imagined uttered by Perry in the supermarket.

(34) a. I believe that that person (pointing to himself in the mirror) is making a mess.
    b. I believe that I am making a mess.

Only the latter of these sentences appears to indicate that Perry is in a belief state which would lead him to look into his cart to fix a torn sugar bag. Similarly with the sentences in (35), to be imagined uttered by an observer.

(35) a. John Perry believes that that person (pointing to Perry) is making a mess.
    b. John Perry believes that he is making a mess.

Upon hearing the first sentences, one would hardly expect to soon find Perry leaning into his cart, whereas upon hearing the second this would be a perfectly reasonable expectation. In both cases, it would appear that Perry’s belief state, and not merely the proposition he believes, needs to be recoverable from the sentence uttered in order to explain (our expectations regarding) his behavior. But this cannot be accomplished via a compositional semantics in which referring expressions are associated merely with characters, intensions (contents) and/or extensions. Such a semantics at best derives as the meaning of the complement clause the proposition believed, but Perry’s central thesis is that belief states cannot be determined by such propositions, and hence in the present case differences in the proposition believed cannot give us the means to make the necessary distinctions between the belief states indicated by (34a,b) and (35a,b). The problem thus remains of how these belief states come to be identified at all.  

We can come a long way toward solving this problem by rejecting the premises (i) that propositions relate words directly to possible states of the world and (ii) that certain expressions of a language are directly referential in the sense of directly picking out a real world referent. We then reinterpret the notions of a proposition and of direct reference in purely mentalistic terms. To do so, I distinguish along the lines of Fodor between an encapsulated language faculty and a higher level of reasoning having access to the output of this faculty. Adapting this to the general framework of Chomsky (1992), I assume that the symbols internal to the language faculty can be related to symbols manipulated by processes of

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18 The problem we are faced with here is reminiscent of the problem of accounting for de dicto beliefs. However, there is a crucial difference between typical de dicto beliefs and those of the type in (35). With de dicto beliefs, the words that occur within a sentence embedded under a propositional attitude verb are intended to be understood as they would be interpreted by the person denoted by the subject of that verb. In the case of (35), however, this would lead to the absurd view that John Perry views himself as “he”.

reasoning only at the interface between the two. Importantly, neither the language faculty nor higher processes of reasoning directly manipulate the symbols used by the other -- the two sets of symbols are related only by a translation or mapping procedure. By making this distinction, it becomes immediately apparent that if there is a faculty in which any two of the sentences in (33) share an identical representation, it is not within the language faculty. There, the symbols associated with the person with a torn bag of sugar in his cart, that person, John Perry and I are not the same.\textsuperscript{19} If any two of these are taken to be used to refer to the same individual, such an identity of reference can only be made within the (higher) faculty of reasoning.

On the view just outlined, symbols of the language faculty are not associated directly with individuals. Rather, they are associated with symbols of the faculty of reasoning. We can preserve many (perhaps all) of the desirable features of a direct reference theory of names and indexicals by assuming that the symbols associated with them in the two different faculties are related by a direct mapping. A language faculty symbol associated with a name used by John Perry, for example, will be mapped directly onto a reasoning faculty symbol associated with that name used by John Perry. While other information may well be associated with either of these two symbols -- grammatical information of number and gender etc. in the one case, real world knowledge and beliefs about an individual in the other -- that information plays no role in the mapping process. It is purely auxiliary.

Does this view give us the means to distinguish between a proposition believed and the belief state in virtue of which a proposition is believed? It does. Rather than taking propositions to correspond to (possible) states of the real world, the mentalistic view proposed here takes them to

\textsuperscript{19} Actually, this statement needs to be tempered somewhat. If the language faculty or some part therein deals purely with syntactic symbols in generating LF representations, then it is conceivable that these symbols lack any lexical content at this level, and it is thus possible for representations associated at a higher level with distinct lexical items to nonetheless be syntactically identical at LF, a possibility exploited recently by Halle and Marantz (1992?) and Marantz (1994). However, under such a view of LF, LF representations so radically underdetermine the (intuitive) content of sentences that identity of representation at this level would be irrelevant for determining identity of the referents ultimately associated with (parts of) that representation. The LF representation of “Mary came” would under this view be identical with that of “Sue left”, though there is no sense in which these two sentences are assumed by anyone to be associated with the same proposition, or in which “Mary” and “Sue” are taken to thereby be identified as the same individual.
correspond to (possible reasoning faculty internal) conceptions of the world, idealizable as relations among symbols of the faculty of reasoning. Consider again the example of John Perry in the supermarket, willing to assent to (33b) (repeated here as (36a)) but not willing to assent to (33d) (repeated here as (36b)). For purposes of exposition, let us assume that Perry actually asserts (36a) and denies (36b).

(36) a. That person (pointing to himself in the mirror) is making a mess.
   b. I am making a mess.

If propositions are objects of the reasoning faculty, it is necessary to conclude that the proposition expressed for Perry by (36a) differs from that expressed for Perry by (36b). In Perry's mind the person he is pointing to and he himself are nowhere equated, so whatever mental object is associated with the one will be different from that associated with the other. Put differently, the symbols of Perry's language faculty associated with I and with that person are mapped on this occasion of use onto distinct symbols in his reasoning faculty, and so the relations between symbols of the reasoning faculty related to these two sentences cannot be the same. If the propositions believed and denied in (36) differ, then the states of believing or denying these propositions also differ.

If the above remarks are on the right track, then Perry's problem can be taken as an argument for an internalist semantics. At least, that is how I will take it. Are we ready then to return to our original problem of accounting for perspective restrictions on R-expressions like the invertebrate? Not yet. We have one more problem to address. In discussing the examples in (33), I adopted Perry's (1979) conclusion that the belief states represented by these sentences were different. The analysis sketched for accounting for these differences in belief state rested on the assumption that the subject expressions in each of the sentences were associated with distinct symbols of the reasoning faculty, making for a difference in the (internalized) propositions associated with each sentence. While this analysis left the question open of just what symbols occur in the relevant propositions, assuming the symbols to be distinct seemed plausible enough given the situation as it was described. But in order to face the problem of the invertebrate, we need to address an additional question: supposing the analysis sketched to be correct in rough outline, is it possible for Perry to use each of the four sentences in (33) to directly indicate the same belief state? Put differently, is it possible for Perry to map one symbol from his reasoning faculty onto four symbols of his language faculty (or vice versa)?

It is clear that in a situation in which Perry is in a belief state he could describe by uttering (33d) it would be misleading for him to choose instead to utter one of (33a–c). However, it is equally clear that as long as he recognizes himself to be that person, John Perry, the person with a torn
bag of sugar in his cart, either utterance would properly describe the situation that he takes himself to be in. What does this say about the propositions associated with each of the sentences in (33)? Not much. The facts allow of at least two accounts depending on what it means for Perry to recognize himself to be the person he refers to with the various phrases in subject position. We can either take such recognition to consist in (i) his mapping each of the distinct symbols associated with I, that person etc. in the language faculty onto one and the same symbol in the reasoning faculty, or (ii) his mapping them onto distinct symbols in the reasoning faculty and annotating one (or more) of these latter symbols with the property of identifying the same individual as (some of) the others.

While either of the above options can in principle be adopted, the option chosen has consequences for what it means to be in a given belief state. Consider first option (i). Under this option, there is nothing inherent in the proposition believed which counts as Perry’s recognition of the fact that he is the person he is pointing to, etc. Since this recognition constitutes part of Perry’s total belief state, it must itself be represented. However, if we assume that there is only one symbol of his reasoning faculty which is multiply associated with symbols of the language faculty, this aspect of his belief state cannot be adequately characterized. Certainly a reasoning faculty representation (e.g. a proposition) in which that unitary symbol is related to itself via some identity type relation will not serve to distinguish a state of recognition from a state of non-recognition. The analysis of the difference in the recognition and non-recognition belief states would have to make reference to the mapping procedure between objects of the language faculty and objects of the reasoning faculty. That is, belief states on this view could not be reduced to a relation between an individual and a proposition. Under the view outlined in (ii), in contrast, an analysis of belief states as relations between an individual and a proposition can be maintained. This is so since under that view it is possible to associate with each of the subject expressions a distinct symbol of the reasoning faculty, any two of which either can or can fail to stand in a relation of identity. Recognition that he is pointing to himself could then be represented as Perry’s standing in the belief relation to that proposition characterized as an identity relation holding between the reasoning faculty symbol associated with I and that associated with that person on a particular occasion of use. While this distinction does not itself constitute a sufficient reason for adopting the latter view over the former, doing so facilitates distinguishing between aspects of a proposition determined by rule governed mapping principles between the language and reasoning faculties and aspects of a proposition determined by beliefs about the world, and hence I will adopt the latter view without further argument.
It is worth stressing the fact that on the view being adopted here, the reasoning faculty symbol Perry associates with his own name is distinct from that which he associates with his use of the expression *I*, even when he recognizes and/or intends both expressions to refer to himself. This distinction makes it possible to account for the difference between his beliefs about himself which are self-oriented and those which are non-self-oriented in terms of the reasoning faculty symbols which comprise the propositions believed, a difference made necessary by consideration of cases of amnesia such as the famous war hero cases of Castañeda. The mapping between symbols of the language faculty and symbols of the reasoning faculty we can take to be rule governed, with any two occurrences of the same name always mapped onto the same reasoning faculty symbol. The reasoning faculty symbol associated by an individual with his own use of the word *I* has a privileged status, in that the individual can get to that symbol from the language faculty in only a highly restricted number of ways, perhaps only via his own use of *I* and via an occurrence of *you* in an utterance addressed to him.

I will call this symbol the Self. On the assumption that the rules mapping between symbols of the language faculty and symbols of the reasoning faculty simply are the semantic rules of language interpretation, and on the further assumption that occurrence of the Self in a proposition is a necessary condition for a proposition to be interpreted as self-oriented, the claim that accessibility to the Self is restricted amounts to a semantic claim about the possibility of self-oriented interpretation for non-embedded English sentences.

Within the framework of assumptions just outlined, we are now ready to take our first step toward accounting for Condition C like effects that arise with names and with expressions like the invertebrate. We start with the conclusion reached above that the Self is directly accessible only via the expressions *I* or *you* in the proper contexts -- the semantic rules of English do not permit a name, anaphoric epithet, or other expression distinct from *I* or *you* to map directly onto the Self, and so no sentence excluding one of these pronouns can ever be semantically associated directly with a self-oriented interpretation for non-embedded English sentences.

20 The symbol associated with a persons use of *I* differs in this regard from that associated with his use of a name, which allows for a distinct type of expression to pick out the same symbol. Contrast, for example, Bill’s utterance of “Bill think’s he’s intelligent” with his utterance of “I think he’s intelligent”. The *he* of the former sentence can easily refer to the subject Bill attributing a de se belief to the referent of that subject, which Bill himself may or may not recognize to be himself. However, the *he* of the latter sentence cannot get back to Bill in this same way via identification directly with the subject, here *I*, and thus the latter sentence can never be used by Bill to indicate a de se belief of his that he’s intelligent. A more detailed discussion of these cases will be given below.
proposition. From this we derive the semantic fact that no occurrence of a sentence such as (37) will ever map directly onto a self-oriented proposition.

(37) Mary likes the invertebrate

This does not, as we saw above, prevent Mary from using (37) to express such a proposition she has about herself (that she likes someone she refers to as the invertebrate) in a sort of sly, deceptive manner. Similarly, it does not prevent someone else, say Bill, from using the sentence to express a similar proposition about himself (that Mary likes him) in such a manner. However, in such cases, connecting the sentence and the proposition requires more than just the semantic rules of English -- it requires the additional information that the Mary that Mary is referring to is herself, or the invertebrate Bill is referring to is himself. The non-automaticity of this connection I take to be the source of Condition C like effects. Note in passing that the fact that these effects arise in sentences like (37) making it awkward for Mary or Bill to use the sentence to convey information about themselves cannot be explained in terms of a restriction on the language faculty representation of the type typically assumed in Binding Theory accounts of Condition C effects since in (37) there is patently no antecedent expression coindexing with which could result in a violation of such a condition. This effect with (37) is identical in kind and in severity with the more standard type of Condition C effects observed in (31), suggesting that a unified account for the two cases is in order. Extending a syntactic explanation of the type pursued by Chomsky (1982), Lasnik (1986) and others to the type of case in (37) would appear to be impossible. The opposite approach -- extending the account given for (37) to (31) -- would look to be more promising. It is this task to which I turn next.

3.2 Attribution of Belief States

The analysis sketched above takes first person reference to be mediated by a notion of Self. I have not yet specified, however, what this mediation consists in. In order to extend the analysis to cases involving third person pronouns in the proper contexts, this mediation needs to be made precise. I will follow Evans (1982) in rejecting an analysis in which a Self is an object of reference of a completely different kind from normal individuals. I instead take Self to denote a psychological perspective of an individual on the world, and hence to be relational. In order for first person pronominal reference to be mediated by Self, the reference must be restricted to an individual whose psychological perspective is being represented. To make this restriction, I propose building Self into first person pronouns directly. In particular, I propose that a first person pronoun has the following form.

(38) \[ [DP D [NP self ]] \]
The semantics for this expression I model after that of -er nominals and of definite descriptions, the D playing both the -er like role in binding the individual denoting argument of Self and the determiner role of converting the predicate into a referring expression. This will make the DP in (38) an expression that refers to an individual having a psychological perspective on the world, as desired.  

If we admit the possibility of other people having such a perspective, as indeed we must in order to understand other people's utterances containing first person pronouns in addition to our own, it becomes clear that treating the first person pronoun as in (38) does not yet do the job required -- it leaves open the unwanted possibility of the referent being someone completely unrelated to the person whose evaluative perspective the sentence containing the pronoun is presented from. To overcome this shortcoming, the analysis needs to be supplemented by something along the lines of Kaplan's (1977) analysis of indexical reference. Kaplan analyzes first person reference as reference to the Agent of a context, a characterization I will adopt here. Uniting Kaplan's view with the view being espoused here, the role of the features identifying a pronoun as first person can then be seen as that of identifying the Agent with a perspective holder. In the case where the Agent is the speaker of a simple assertive utterances, a first person pronoun will refer to the speaker as one whose psychological perspective is being presented.

The separation of an Agent from a psychological perspective may appear to be an unnecessary extravagance if one limits one's attention to the interpretation of first person pronouns. However, when we consider the use of a wider range of pronouns, the need for this distinction becomes apparent. As has been widely documented throughout the literature, first person pronouns

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21 It is an open question what to do about the second thematic role of self. An exactly parallel question arises with additional thematic roles not bound by -er in -er nominals. Since a baker is a person who bakes something, it would be natural to suggest that the unbound thematic roles get closed off by something akin to existential closure. Whatever the proper account of this phenomenon is for -er nominals, it is reasonable to assume that the same account can be extended to self-based pronouns.

22 A related suggestion can be found in Sells (1987), who argues that a separation of the roles he labels Source, Self and Pivot is necessary for teasing apart distinct effects that have been thrown together under the heading of logophoricity. The role of Self in the current paper is closely related to Sells' use of Self, though Sells treats Self as a primitive denoting expression rather than as a relational term. The Source and Pivot roles are irrelevant to the concerns of the present paper, though it should be noted that I do not take either of these roles to cover the function of Agent.
pronouns in direct discourse environments refer unambiguously to the person being quoted, whereas those outside of direct discourse environments refer unambiguously to the individual producing the expression. Suppose we try to account for this fact by using a single element, say *self*. We can do this by positing that a separate perspective can only be introduced into direct discourse environments, never into indirect discourse environments, and then requiring that the referent of a first person pronoun be the nearest perspective holder.

The analysis just outlined can account for the facts outlined above in a straightforward fashion. However, it makes it impossible to account for parallel distinctions found with third person pronouns. For just as a first person pronoun can generate a self-oriented proposition, a third person pronoun too can generate such a proposition in the proper environment. Furthermore, in neither case can the pronoun be replaced by an R-expression without thereby obliterating the self-orientation. This can be seen in the following paradigm.

(39) a. I am happy.
   b. Chris is happy.
   c. Chris said that he is happy.
   d. Chris said that Chris is happy.

Accounting for this paradigm would appear to require introduction of a new perspective holder into indirect discourse environments. The self-orientation of (39c) can then be accounted for in the exact same fashion as is that of (39a), by extending the analysis of *I* in (38) to *he*. However, such an analysis is precluded under the proposed account of first person pronominal reference in direct and indirect discourse environments. That analysis depended on there not being a perspective introduced in indirect discourse, whereas the account offered of the paradigm in (39) crucially depends on there being such a perspective. Taking first person reference to be mediated solely by an Agent relation rather than by a Self does nothing to alleviate the problem, since as we saw at length above, without a Self the distinction between (39c) and (39d) becomes unexplainable.

The problem just illustrated is easily solved once we allow two distinct relations to play a role in the interpretation of pronouns. The Agent relation can be used to determine the reference of first person pronouns in direct and indirect discourse environments in the manner outlined above (cf. Kaplan), leaving the perspective relation to function independently in generating self-oriented propositions with first and third person pronouns. Both direct and indirect discourse environments on this view introduce a new perspective, that of the person whose speech (or thought) is being presented. Only direct discourse environments, however, additionally introduce a new Agent.
(Person and number agreement is required between the pronoun and the Self(s) being represented.

Reference to the Self is possible wherever there is a Self to refer to. The normal case is with embedding under a propositional attitude verb, though narrative discourse gives rise to representations of the Self without embedding. In narrative discourse, Condition C effects arise just as they do in 26, and for the same reason.)

4 Focus Chains and the Internalist Semantics Picture

5 Empirical Predictions and Extensions

5.1 Crossover

5.2 Against Focus Raising

6 Conclusion


