

Binding Theory and Beyond: An Investigation into the English Pronominal System

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BINDING THEORY AND BEYOND:
AN INVESTIGATION INTO
THE ENGLISH PRONOMINAL SYSTEM

DISSERTATION

Presented in Partial Fulfillment of the Requirements for

The Degree Doctor of Philosophy in the Graduate

School of The Ohio State University

By

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* * * * *

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ABSTRACT

This thesis investigates self-pronouns in English (*himself, herself, etc.*) from a number of angles, emphasizing empirical methods of data collection. The analysis of these data includes a new version of the binding theory principles in Head-Driven Phrase Structure Grammar (HPSG) which correctly predict the distribution of self-pronouns (spros, also known as "reflexives") with respect to personal pronouns (ppros) in virtually all linguistic environments. In addition, this thesis offers a new look at the emphatic use of spros, and shows how the present day use of spros can be better understood in a historical perspective.

The new binding theory principles take as their basis Pollard and Sag's original HPSG formulation, which correctly predict the syntactic restrictions on binding of spros and ppros. Based on data involving relational nouns, these principles are augmented to correctly predict binding constraints on a semantic level.

Grammaticality judgments on binding into a semantically contentful PP argument are controversial, but here they are tested with a survey of native speakers. Results show that the more physically involved the pronoun's referent is in the action denoted by the clause, the more likely it is to be reanalyzed as a direct argument of the verb. Attested data suggest that the same phenomenon occurs with pronouns in PP adjuncts.

Finally, a non-locally bound spro must be coindexed with a "cognizer," one who is aware of the information being presented; the binding theory principles are again revised accordingly. Outside the scope of the binding theory are the hypercorrective use of spros, and the literary uses of spros as logophors or pronominal emphatics.

The thesis then turns to a discussion of the adnominal and adverbial uses of emphatics. With a good grasp of their functions, it is possible to see how spros originated in Old English as a ppro followed by the emphatic word *self*. From a historical vantage point, the present day pronominal system comes into sharper focus.

Dedicated to my husband,

Mark Healy,

and to my father,

the original Dr. Golde

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1. 1999. A complete Principle A for English. To appear in Proceedings of the 34th Colloquium of Linguistics, University of Mainz.
2. 1999. Evidence for two types of English intensive NPs. In Boyle, John (ed.), Proceedings of the 35th Meeting of the Chicago Linguistic Society.
3. 1999. Tracing the functional expansion of the self-pronoun. In Joseph, Brian (ed.), Ohio State University Working Papers in Linguistics, Vol. 51.
4. 1995. Employing a multimodal logic in an approach to German pronoun fronting. In Dowty, David et al (eds.), Ohio State University Working Papers in Linguistics, Vol. 47.

FIELDS OF STUDY

Major Field: Syntax

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CHAPTER 1

INTRODUCTION

1. Statement of purpose

The driving force behind a theory of any phenomenon is the data collected about the phenomenon itself. This has always posed a dilemma for linguists developing hypotheses about the grammars of human language. While a native speaker of a particular language may deem certain utterances clearly acceptable or unacceptable, there are still many pieces of data whose status is not immediately apparent.

This is as true for cases of pronominal reference as for any other linguistic phenomenon. Nonetheless, there has been little effort to conduct empirical research on unclear examples. Data taken to be acceptable in one study are declared unacceptable in the next, with little or no justification given for the judgments. These data are then used to construct theories, which cannot be evaluated so long as the data themselves remain suspect.

These considerations have led me to make certain decisions about the form of this study. First, I have restricted my research to English. Although cross-linguistic research is essential to our ultimate goal of discovering the underpinnings of human language, the

amount of work I believe is necessary for investigating additional languages is beyond the scope of this thesis.

Second, I have been as rigorous as possible in collecting and evaluating data for which acceptability judgments seem unclear. To this end, I have made extensive use of a corpus of both written and spoken American English. I have also conducted experiments on acceptability judgments, using the latest methodological guidelines. These techniques have resulted in both clarification of the status of existing data, and in the unexpected revelation of new types of data.

Theories of pronominal reference have been a mainstay of syntactic and semantic research for the last several decades. Of particular interest is the distribution of personal pronouns (*him, her, it*) with respect to their “reflexive” counterparts (*himself, herself, itself*). The term “reflexive” is sometimes also used to refer to a reflexive function, in which two arguments of the same predicate corefer. Precisely because the entire range of functions of the latter type are at issue in this study, I will be referring to these words as *self-pronouns* (spros). The term “spro” makes it clear that it is the morphological form in all of its uses that concerns us. Personal pronouns will analogously be referred to as *ppros*.

As for an analysis of these data, the research of the last two decades can be characterized by two general approaches. The most common one has been to fit restrictions on these pronouns into the syntactic mold of the binding theory, first

proposed in this form by Chomsky (1980), whose Conditions A and B place structural constraints on the coreference possibilities of spros and ppros, respectively.¹

But there are also researchers who have sought to explain phenomena beyond the scope of syntax, most notably Cantrall (1974) and Kuno (1987). They have found that discourse factors, in particular logophoric factors like the point of view being represented, can influence a speaker’s choice of the spro over the ppro.

More recently, there have been attempts to integrate the insights gained from these two lines of research. Pollard and Sag (1992, 1994) propose a version of the binding theory in which the primary constraints on pronouns are syntactic, but which allows room for discourse effects on spros. As I will show, theirs is the most accurate formulation for English to date.

Building on the account Pollard and Sag develop in Head-Driven Phrase Structure Grammar (HPSG), I propose a formulation of the binding theory principles which accounts for syntactic, semantic, and discourse constraints on spros and ppros. While this analysis could conceivably be constructed in any number of theoretical frameworks, I have chosen to do so in HPSG because of the formal precision it allows.

While the binding theory accounts for the pronominal uses of spros, it does not account for its uses as an emphatic, i.e. as an adnominal (*the king himself did it*) or adverbial (*the king did it himself*). I will propose an account of these mainly for the purposes of better understanding the historical development of the spro. In Old English, spros did not yet exist; instead ppros were used regardless of whether they were locally bound. The simple form *self* was used apparently much as today’s emphatic spros are. As

¹ There is also Condition C, a constraint on the reference possibilities of full NPs. This will not be relevant

the emphatic fused with ppros to create spros, the modern picture began to develop. The binding theory principles can be seen as the syntacticization of a communicative strategy developed in Middle English, whereby atypical coreference between arguments of the same predicate was marked with an spro.

Thus this study offers a multifaceted view of the English pronominal system, a view which is firmly grounded in empirically tested data.

2. Organization of the study

I begin in Chapter 2 with the syntactic and semantic constraints on pronominal reference, framing my analysis in the architecture of HPSG. In HPSG, an obliqueness ordering is imposed on the arguments of a head according to their grammatical function. Thus, for example, subjects are less oblique than objects, which in turn are less oblique than other complements. First, I show that Pollard and Sag are correct in asserting that a ppro may not be coindexed with a less oblique argument of the same head, while an spro must be coindexed this way if a less oblique argument exists.

But coreference is not constrained merely among syntactic arguments; unexpressed thematic arguments analogously restrict the reference possibilities of spros and ppros. To account for this, I propose a method of ranking the thematic roles of a head so that these effects can be encoded in the binding theory principles, crucially ordered after the syntactic constraints.

In Chapter 3 I examine the distribution of pronouns in locative PP arguments and in PP adjuncts. Using a carefully designed experiment and a corpus of written and spoken

to this study.

American English, I determine that the objects of these PPs are more likely to be treated as direct arguments of the verb selecting (or modified by) them the more the referent of that object exhibits patient-like traits. When the object is pronominal, it is consequently more likely to be an spro than a ppro if it is coindexed with another argument of that verb.

In Chapter 4 I discuss those uses of pronominal spros selected by a head which has no less oblique syntactic or semantic arguments. These spros have already been shown in previous studies to be subject to logophoric effects. Since the nature of logophoricity is itself controversial, I begin the chapter with a review of some previous accounts. In order to predict the logophoric effects on English spros, I argue that the notion of a “cognizer” of events is sufficient, and propose it as a new feature on clauses.

In this way I am able to make final revisions to the binding theory principles so that they account for all of the pronominal uses of spros in spoken American English. I then review further data in which pronouns are free from a less oblique argument, namely contrastive predicates and picture NPs, and show that my version of the binding theory accurately predicts their distribution. I conclude Chapter 4 with a discussion of the hypercorrective use of first and second person spros, and of the special literary uses which have been observed by Zribi-Hertz (1989) and Baker (1995).

Chapter 5 shifts the focus onto emphatic spros, both adnominal and adverbial. I argue that there are two related but distinct uses of adnominal emphatics, the first of which contrasts a figure of high status with more ordinary figures, and the second of which contrasts a salient entity central to the discourse with more peripheral entities. The VP adverbial is shown to be very similar to the adnominal discourse emphatic, but it is not clear if they are in fact the same lexical item. The post-auxiliary emphatic, on the

other hand, seems to be free to appear after the NP subject without any change in meaning.

The results of Chapter 5 are useful in Chapter 6, where I trace the historical development of spros. Present day spros are the result of a combination of a non-nominative ppro and the emphatic word *self*. I begin by comparing the use of emphatic *self* in Old English with the picture of the present day emphatic put forth in Chapter 5. I then outline the morphological and phonological changes which led to the development of compound spro, followed by speculation on how the function of this spro expanded to include all of its present day uses.

CHAPTER 2

SYNTACTIC AND SEMANTIC CONSTRAINTS

ON PRONOMINAL REFERENCE

1. Introduction

In the most familiar paradigms illustrating pronominal reference, self-pronouns (spros) and personal pronouns (ppros) have a complementary distribution. This is the case for all of the data considered in this chapter. For example, as the direct object of a verb, the spro must be coindexed with the verb's subject, while the ppro may not be. While some researchers, such as Kuno (1987), have tried to develop a non-syntactic account for this pattern, I will show that purely syntactic constraints are both necessary and sufficient for making the right predictions for these data.

Further data revealing a similar complementary distribution with relational nouns show the need for a semantic constraint as well. A relational noun is defined here as any noun which assigns thematic roles to its arguments.² For example, *letter* has a WRITER and ADDRESSEE role associated with it, which may be assigned to the noun's

² The term "relational noun" is used in the same way in Barker and Dowty (1992) and Barker (1995), among other work.

possessive NP and PP object, respectively. Even if the WRITER role is not expressed as a syntactic argument, an spro in the PP must be coindexed with it. Thus there must be semantic constraints on the pronouns' reference parallel to the syntactic constraints. I will show that it is in fact necessary to refer to both syntax and semantics; neither set of constraints can be reduced to the other. Furthermore, they must be ordered with respect to each other in order to make the right predictions for the spro.

Section two of this chapter begins with the aforementioned syntactic data. To formalize the constraints on the pronouns, I adopt Pollard and Sag's (1992, 1994) binding theory, explaining it in detail in §2.2. The remainder of §2 is devoted to less common aspects of binding among verbal arguments, including pronouns as PP objects, with object antecedents, and in passive *by*-phrases. Pollard and Sag's binding theory is capable of accounting for all of these data, modulo a difficulty with the semantic interpretation of certain PP arguments.

In §3, I address relational nouns and the semantic constraints on their pronominal objects. Williams (1994) builds his binding theory to account for these data, but in §3.2 I show that it is problematic both in terms of its architecture and its ability to account for the data. Since Pollard and Sag do not address these data at all, in §3.2 I propose a revision to their binding theory which incorporates some of Williams' insights. This version is able to account for virtually all of the data in §2 and §3; there is one problem concerning the semantic interpretation of certain possessives for which I am only able to speculate on solutions.

2. Pronouns as verbal arguments

2.1 As direct objects

The following familiar paradigm illustrates the complementarity of spros and ppros when they are direct objects.

- (2.1) a. *John_i likes him_i.
 b. John_i likes himself_i.
 c. John_i knows that Mary likes him_i.
 d. *John_i knows that Mary likes himself_i.

As a direct object, the ppro cannot be coindexed with the subject of the verb selecting it, while the spro must be coindexed.

I will argue for a purely syntactic analysis for these data. While there have been attempts to derive this pattern in part or in whole from non-syntactic principles, they are ultimately unsuccessful. For example, Kuno (1987) posits a clause-mate condition on anaphor binding, augmented with the following semantic constraint:

- (2.2) *Semantic Constraint on Reflexives*: A [+reflexive] NP that ends with *-self-selves* can be used in English if and only if its referent is the direct recipient or target of the actions or mental states represented by the sentences.

The main purpose of this constraint is to predict the distribution of subject-bound spros and ppros in locative PPs, which I will discuss in detail in Chapter 3. Yet it is intended to be general enough to be consistent with all other subject-object binding as well. For example, the object of *like* in (2.1) would be interpreted as the target of the subject's

mental state. The wording is vague enough that Kuno's attempt almost succeeds—but there are still cases where it is difficult to see how the constraint holds.

- (2.3) a. John_i behaved himself_i.
b. John_i was unaware of himself_i.

With a verb like *behave*, the object does not play any discernable role at all, and whatever role the object of *unaware* plays, it could not possibly be a target. Regardless of a verb's meaning, if it selects a syntactic subject and object which are coindexed, the object must be an *spro*, and may not be a *ppro*.

2.2 An HPSG analysis

The facts in §2.1 are predicted by the binding theory conditions set forth by Pollard and Sag. Before discussing the conditions themselves, I will give a brief overview of syntactic argument structure in HPSG.

In HPSG, the syntactic arguments of a head are represented on three valence lists. The SUBJECT (SUBJ) feature takes as its value a list with the verb's subject as its only member, while the COMPLEMENTS (COMPS) list contains the rest of the verb's arguments. A noun also has a COMPS list, as well as a SPECIFIER (SPR) for its possessive argument.³ The valence list members take the form of *synsem* objects, which include all the linguistic information about the phrase except for its phonology.

³A predicative noun also has a SUBJ feature for the NP it is predicated on. See Pollard and Sag (1994:374-376) for arguments on why specifiers should be treated as distinct from subjects.

The members of the valence lists have an obliqueness ordering imposed on them according to their grammatical function.

- (2.4) The Obliqueness Hierarchy:
subject < primary object < secondary object < other complements

Based on this ordering, it is possible to define the relation *local obliqueness-command* between any two members of a valence list:

- (2.5) Let Y and Z be *synsem* objects with distinct LOCAL values, Y referential. Then Y *locally o-commands* Z just in case Y is less oblique than Z.⁴

All *synsem* objects have a *local* feature structure whose attributes include CATEGORY (CAT), and CONTENT (CONT).⁵ The CAT takes a feature structure with the attribute HEAD, which contains information about the lexical category, including the valence lists previously described.

The CONT of a noun takes a feature structure whose sort is a subsort of *nominal-object* (*nom-obj*). A *nom-obj* may be a *pronoun* (*pro*), or *nonpronoun* (*npro*). Pollard and Sag further divide *pro* into the subsorts *personal pronoun* (*ppro*) and *anaphor* (*ana*), with the latter having the maximal subsorts *reflexive* and *reciprocal*. However, I will diverge slightly in my assumptions. Since it is known that reflexives and reciprocals differ at least somewhat in their distribution (see, for example, Lebeaux (1983) and Dalrymple

⁴ Y and Z are required to have distinct LOCAL values so that this relation does not hold between a "moved" object and its trace.

(1998?)), for the purpose of this study I will not use the sort *ana*, but instead will assume that *pro* simply has the subsorts *ppro*, *self-pronoun* (*spro*), and *reciprocal*.

Any *nom-obj* feature structure has the attribute INDEX.⁵ It takes a feature structure of sort *index*, whose subsorts are *referential* (*ref*), *there* (for expletive *there*), and *it* (for expletive *it*). The referential feature structure has attributes which encode information about the person, number, and gender agreement features.

To give an example, below is a partial description of *herself* in the form of an attribute value matrix (AVM); the valence lists have been omitted, since they are all empty.

$$(2.6) \left[\begin{array}{c} \text{CAT} \\ \text{CONT} \end{array} \left[\begin{array}{c} \text{HEAD} \\ \text{INDEX} \end{array} \left[\begin{array}{c} \text{CASE } acc \\ \text{PER } 3rd \\ \text{NUM } sing \\ \text{GEND } fem \end{array} \right] \right] \right]$$

local *spro* *ref*

As this AVM shows, sort assignments on feature structures can be noted in italics at the bottom of the left bracket. It will not be necessary to show these in later examples.

In HPSG, coreference and binding relations among nominals are captured by structure sharing of INDEX values, such that the INDEX substructures of two (or more) nominals are token identical. As a consequence, *himself* cannot be coindexed with *Mary*

⁵ A third attribute is CONTEXT, which serves to place conditions on referents corresponding to presuppositions or conventional implicatures. It will not become relevant until Chapter 4.

⁶ Another attribute is the RESTRICTION. It has as its value a set of parameterized states of affairs (psaos) which place semantic conditions on the referent of the nominal expression. It will not be relevant to this study.

(assuming the name refers to a female person and is [GEND *fem*]), because their GEND attributes have different values.

The SYNSEM value of a nominal is often represented as *NP*, with the sort of its CONT value following a colon, and the INDEX value appearing as a subscripted *i, j, k*, etc. Thus the synsem value of *herself* might appear as “NP:*spro*”, as in the following example.

(2.7) a. *Mary_i likes herself_i.*

$$\text{b. likes} \left[\begin{array}{c} \text{SUBJ} \\ \text{COMPS} \end{array} \left[\begin{array}{c} \text{<NP:npro}_i\text{>} \\ \text{<NP:spro}_i\text{>} \end{array} \right] \right]$$

The instance of *likes* in (2.7a) has the valence lists in (2.7b).

Given this method of indexation, *local obliqueness-binding* can be defined as follows:⁷

(2.8) *Y locally o-binds Z* just in case Y and Z are coindexed and Y locally o-commands Z. If Z is not locally o-bound, then it is said to be *locally o-free*.

Now the restrictions on the distribution of pronouns discussed in §2.1 can be captured with the following constraints:

⁷ Pollard and Sag also define the more general case of o-binding which is used to formulate Principle C, the constraint on the reference of npros. Since this study does not concern Principle C, it is not necessary to give this definition here.

- (2.9) Principle A. A locally o-commanded spro must be locally o-bound.⁸
 Principle B. A personal pronoun must be locally o-free.

Consider the predictions these principles make for the sentences in (2.1), repeated below.

- (2.10) a. *John_i likes him_i.
 b. John_i likes himself_i.
 c. John_i knows that Mary likes him_i.
 d. *John_i knows that Mary likes himself_i.

In (2.10a) and (2.10b) the pronoun is locally o-commanded and locally o-bound by the *John*_i; thus the spro satisfies Principle A, and the ppro violates Principle B. In (2.10c) and (2.10d), the pronoun is locally o-commanded but not locally o-bound by *Mary*, so that the spro violates Principle A and the ppro satisfies Principle B.

As for the clause in Principle A that the spro be locally o-commanded, this is to allow for cases like (2.11) where the spro is locally o-free, and consequently need not be locally o-bound.

- (2.11) The picture of herself_i on the front page put Mary_i in a bad mood.

We will return to these and other examples of locally o-free spros in Chapters 3 and 4. For the time being, I will assume the binding theory as it is stated in (2.9) to be essentially correct. As I present new data, I will discuss whether any modifications to the

⁸ Pollard and Sag's Principle A refers to anaphors rather than spros.

principles is necessary. The final version of the binding theory will be presented in Chapter 4.

2.3 PP arguments

In most cases, when a verb selects a PP, the pronominal object of the preposition behaves no differently than it would if it were a direct object of the verb.⁹

- (2.12) a. John_i relies on *him_i/himself_i.
 b. Mary_i talks to *her_i/herself_i.
 c. Wendy_i is disgusted with *her_i/herself_i.

Here we see the same complementary distribution as with the direct object in (2.1). I will accept Pollard and Sag's analysis of these prepositions as semantically null case-markers. This is prompted by the observation that they do not seem to contribute any meaning of their own to the predicate. Thus their entire CONT value is shared with their object, including that object's INDEX value and its *nom-obj* sort. The valence lists of the grammatical version of (2.12a) appear as below.

- (2.13)
$$\begin{bmatrix} \text{SUBJ} & \langle \text{NP}_i \rangle \\ \text{COMPS} & \langle \text{PP}:\text{spro}_i \rangle \end{bmatrix}$$

This ensures that Principle B applies to rule out the ppro in this position, where it would be locally o-bound by the subject.

⁹ The notable exception is locative PP arguments, which often allow either pronoun to a certain degree, e.g. *John_i wrapped the blanket around him_i/himself_i*. We return to these examples in Chapter 3.

However, there is one set of verbs which pose a problem for this analysis. These are what Gawron (1983) calls verbs of campaigning: e.g. *campaign, fight, vote, wage (war)*. For these, the prepositional objects behave just like those in (2.12).

- (2.14) a. John_i voted for *him_i/himself_i.
 b. Mary_i voted against *her_i/herself_i.

Clearly the preposition is making some semantic contribution here, so its CONT value cannot be shared with its object. But this entails that the object's index does not appear on the verb's COMPS list, only on the preposition's. There it is locally o-free, since it is the preposition's only argument. Thus Principles A and B are both satisfied, and both pronouns are ruled in.

It is possible to come up with an ad hoc solution to this problem. For example, we could posit two lexical entries for *vote*, one which means *vote for* and selects the case-marking preposition *for*, and a second analogous entry for *vote against*. Or we could claim that the preposition has a SUBJ value structure-shared with that of the verb, to force the preposition's object to be locally o-commanded by the verb's subject. But neither of these solutions has any independent motivation.

In order to arrive at a satisfying solution, I believe it is first necessary to have an adequately fine-grained theory of prepositional semantics. Gawron makes some progress towards this goal, starting with the assumption that every preposition has some degree of meaning which must at least be compatible with that of the verb which selects it. He argues that any binary distinction between case-marking and predicative prepositions necessarily misses many generalizations about the distribution of the "case-marking"

type. Unfortunately, Gawron's is a monumental task, and he does not seem to arrive at a workable solution.

Nonetheless, something like Gawron's approach should lead us to an explanation of the pronominal patterns we see in (2.12) and (2.14). But until this is worked out, the matter of the verbs of campaigning will have to be left unresolved.

2.4 Pronouns with object antecedents

Less common, yet frequently discussed, is the case where the spro is coindexed with an object. In most such instances, coindexation is acceptable so long as the antecedent precedes the spro.

- (2.15) a. The therapist introduced the new Mary_i to herself_i.
 b. *The therapist introduced herself_i to the new Mary_i.

- (2.16) a. We sold the slave_i to himself_i.

[Wilkins (1988:206)]

- b. *We sold himself_i (to) the slave_i.

- (2.17) a. I recommended John_i to himself_i.
 b. *I recommended himself_i to John_i.

- (2.18) a. Mary assigned John_i himself_i.
 b. *Mary assigned himself_i John_i.

[Larson (1988), cited by Riezler (1995:9)]

Local o-command is assumed to correspond to the linear order of the arguments in (2.15) through (2.17), since objects are less oblique than other complements, including PPs. In (2.18), the indirect object must be construed as the primary object in order for it to be less

oblique than the direct object. With these obliqueness orderings, Principle A correctly rules in only the (a) versions of these examples.

However, there are also cases in which the reflexive follows its antecedent, and still does not sound acceptable.

- (2.19) a. Mary talked to John, about himself.
b. *Mary talked about John, to himself.

Pollard and Sag argue that the *to*-PP is less oblique than the *about*-PP, and thus it cannot contain an *spro* bound by an argument in the *about*-PP.

Reinhart and Reuland (1993) reject this analysis, arguing against the hierarchical approach in an analysis of the following examples. They use a *with*-PP where Pollard and Sag's examples have a *to*-PP, but the pronouns display the same coreference possibilities with either PP.

- (2.20) a. We talked with Lucie, about herself.
b. *We talked about Lucie, with herself.

The simplest explanation, they claim, is that the *about*-PP is an adjunct, and only the *with*-PP is an argument. Like the HPSG binding theory, their analysis predicts that an *spro* object must be bound by another argument of the same predicate if such an argument exists.¹⁰ However, a PP adjunct only selects an object, and so both the *spro* and

¹⁰ However, Reinhart and Reuland define a "predicate" to be an argument complex which includes a subject. This presents a problem for NPs such as *the letter from John to *him/himself*_i; because it does not have a subject, the *spro* is not required to refer to John, and the *ppro* is ruled in.

the *ppro* are possible without any syntactic restrictions on their antecedents. Thus the *spro* object of the *with*-PP must be coindexed with the subject (the only other argument of the verb), while the *spro* object of the *about*-PP has no such syntactic restrictions, much like the picture NP object in (2.11).

One piece of evidence Reinhart and Reuland give to support this argument is the following example, in which it is supposed to be possible for a *ppro* in the *about*-PP to be coindexed with the *with*-PP's object.

- (2.21) We talked with Lucie, about her_i.

If the *about*-PP is indeed an adjunct, Principle B should not rule out the *ppro* regardless of the coindexation with one of the verb's arguments.

For me data like (2.21) are difficult to make judgments on; I would prefer to test it with a survey of native speakers or with a large corpus before using it as evidence. The (un)acceptability of the following examples seems much clearer.

- (2.22) a. John_i talked with Lucie about *him/himself_i.
b. John_i talked about *him/himself_i with Lucie.

When the *ppro* is coindexed with the subject it sounds very unnatural. Yet according to Reinhart and Reuland's own assumptions, if the *about*-PP is an adjunct, it should be ruled in. Therefore Pollard and Sag must be right in treating the *about*-PP as an argument, meaning that *o-command* is in fact necessary to explain the coreference possibilities among the arguments of *talk*.

However, there is still more to be said about linear precedence. Based on obliqueness alone, Pollard and Sag's Principle A rules in the following spro.

(2.23) *We talked about herself_i with Lucie_i.

Since the *with*-PP locally o-commands the *about*-PP, *Lucie* does o-bind *herself*. But apparently because it precedes its local o-binder, the reference of the spro is difficult to calculate. I will assume that (2.23) is not ruled out by some syntactic or semantic constraint in the grammar, but rather is hard to interpret because of the processing necessary to identify the antecedent of the locally o-commanded spro. Linear order has a similar effect on the arguments of passive verbs, as we shall see in the next section.

2.5 Passives

Next we turn to the interaction of the passive *by*-phrase with other verbal arguments.

According to Pollard and Sag, it is possible for an spro to appear in a *by*-phrase.

Previously, Jackendoff (1972) and Cantrall (1974) had argued that such configurations were ungrammatical, but Pollard and Sag demonstrate that sufficient context renders them acceptable.

- (2.24) a. John_i was shaved by himself_i.
 b. John_i was hit by himself_i.
 c. The only barber who_i was shaved by himself_i was Figaro.
 d. The only pitcher who_i was ever hit by himself_i was Cy Young.
- [Pollard and Sag (1994:275-276)]

According to Riezler (1995), it is also possible for a *by*-phrase to have an object antecedent, and vice-versa.

- (2.25) a. The book was given to John_i by himself_i.
 b. The book was given by John_i to himself_i.

[Williams (1994), cited by Riezler (1995:9)]

This assertion is supported by the following attested example.

- (2.26) And then as a part of the instructions, though, the court is not able to give you any kind of a formula. It can suggest some questions to be asked by the jury, of themselves, in analyzing these factors...

[nic.10/13am.3435]

The only restriction seems to be that of linear precedence, a restriction we also saw among other PP objects.

- (2.27) a. ??The book was given to himself_i by John_i.
 b. ??the book was given by himself_i to John_i.

[Riezler (1995:11)]

Pollard and Sag's binding theory will account for these examples if we make certain assumptions about passive. The passive forms of verbs are usually analyzed in HPSG as the result of a passive lexical rule. This rule takes the member of the SUBJ list and puts it in an optional *by*-PP on the verb's COMPS list. It is apparent from the examples above that the *by*-PP need not appear at the end of the COMPS list, but may instead come before another complement. If the passive rule allows for this variation, then the *by*-phrase may or may not be the most oblique member of the COMPS list. Thus local

o-command corresponds with linear precedence in these examples; the *to*-phrase locally o-commands the *by*-PP in (2.25a) and (2.27a), and so the spro violates Principle A in (2.27a) by not being locally o-bound. Analogous results obtain for (2.25b) and (2.27b), where the *to*-phrase locally o-commands the *by*-phrase.

3. Relational nouns

3.1 Data

There are two types of nouns that concern this study: relational nouns and picture nouns. Relational nouns represent some event or state with one or more participants. Often they have verbal counterparts (e.g. *destruction*, *representation*), but sometimes they do not (e.g. *letter*, *message*). Picture nouns are those which involve some sort of image or representation.

All picture nouns can potentially be interpreted as relational nouns, since representations generally involve an event in which there is a representer and a representee. However, as I will show in Chapter 3, there is evidence that the agentive role is optional for picture nouns in a way that it is not for other relational nouns. To avoid confusion, in this section I will only discuss relational nouns which are not also picture nouns.

If a relational noun occurs with a possessive, any coindexed object is required to be an spro.

(2.28) a. A man's_i destruction of himself/*him_i is always sad to see.

[Bouchard (1985:121)]

b. Jill's_i messages to herself/*her_i are in the second drawer.

c. Max_i gave up on his_i hopes for himself/*him_i after the accident.

d. Brenda was frustrated by her husband's_i egotistical attachment to himself/*him_i.

This is already predicted by Pollard and Sag's binding theory. As with verbs, the arguments of a noun enter into local o-command relations with one another, and thus are subject to the binding theory principles. The instance of *destruction* in (2.28a) has the valence lists in the following AVM.

(2.29)
$$\left[\begin{array}{ll} \text{SPR} & \langle \text{NP}_i \rangle \\ \text{COMPS} & \langle \text{PP: spro}_i \rangle \end{array} \right]$$

The preposition *of* is considered a case-marker, structure sharing its CONT with that of its object. If the object is an spro, as in this example, then it is locally o-commanded by the noun's SPR value, and must be locally o-bound. Similarly, Principle B requires that a spro in this position be locally o-free.

In all of the examples in (2.28), the agentive role of the event is expressed as a possessive. "A man" is the destroyer in (2.28a), Jill is the writer of the messages in (2.28b), and so forth. However, as many have noted (e.g. Williams (1985), Bouchard (1985), Wilkins (1988), Reinhart and Reuland (1993), and Riezler (1995), among others), the agent need not be overt, but instead may be inferred from context. In this case, if the agent has the same referent as the patient expressed in the noun's PP complement, then the spro still seems to be obligatory.

- (2.30) a. A fear of himself, is John's, greatest problem. (fearer = John) [Bouchard (1985:118)]
b. Respect for oneself is important. (respector = respectee)
c. Admiration of him (admirer ≠ admiree) [Riezler (1995:1)]

- (2.31) a. *Max_i gave Lucie a lecture on him_i.
b. Max_i gave Lucie a lecture on himself_i.
- [Reinhart and Reuland (1993:689)]

As the examples in (2.30) show, the use of the spro implies that the role normally expressed by the noun's specifier is coindexed with the object, while the ppro forces the opposite interpretation. In (2.31) it is clear that the noun *lecture* has its agent role filled by Max. Thus the spro is required if the PP complement is to be coreferential with Max.

3.2 Williams (1994)

Williams' formulation of the binding theory, summarized in his 1994 book (but set forth in part in Williams (1985, 1987, 1989) as well), is prompted by data such as that in (2.30) and (2.31) above. First, he argues against positing a PRO-like "subject" for these NPs in order to account for their interpretations. The reason for this is that other elements can occupy this position without affecting the constraints on coreference.

- (2.32) yesterday's reminder to herself

Williams' formulation of the binding theory is stated purely at the level of thematic structure. It is theta roles themselves which refer; the NPs to which they are assigned simply constrain their reference. For example, the referent of *John* must satisfy the description "John(x)."

- (2.33) *X is th-bound* if there is a theta role c-commanding X and coindexed with X. [Williams (1994:209)]

It is not clear how theta roles enter into c-command relations; they are otherwise described as features on lexical items. If we want the agent role to theta-command the goal in (2.32), we might assume that this happens because the head noun, which retains the Agent role, c-commands the PP object, which has been assigned to the Goal. However, Williams does not explain this situation, and the use of c-command in this definition seems out of place in his theory.

in terms of relations among thematic roles, as we would expect, where two theta roles are “coarguments” if they are different arguments of the same predicate.

- (2.34) For two theta roles X and Y, X *th-commands* Y if X is a coargument of Y; or, if X th-commands B, B is assigned to Z, and Z th-commands Y.

[Williams (1994:213)]

However, this definition is uninterpretable as well.¹¹ The first clause defines th-command on theta roles. But in the recursive clause, Z must be an NP because the theta role B is assigned to it; therefore Z is not a th-role itself, and cannot enter into a th-command relation with Y as stated. Judging from later examples, Williams apparently intends for the last clause to read: “the head of Z assigns a th-role to Y.”

With a binding theory stated on thematic structure, some new definitions are needed to relate certain NP types to the theta roles assigned to them. A *th-anaphor*, *th-pronoun*, and *th-R-expression* are theta roles assigned to an anaphor, personal pronoun, and R-expression, respectively. The binding theory is then formulated as follows.

(2.35) *The th-binding theory*

- A. A th-anaphor must be th-bound in some domain.
- B. A th-pronoun must be th-free in some domain.
- C. A th-R-expression must be th-free.

[Williams (1994:210)]

Judging from Williams’ later discussion, the terms th-bound and th-free should actually be defined in terms of something like th-command, rather than follow the definition in

(2.33). In other words, a theta role X th-binds Y if X th-commands Y and is coindexed with it; a theta role is th-free otherwise. As for “some domain,” this is never clarified; Williams is content to leave his binding theory as stated in (2.35). In an earlier chapter, he does mention that maximal projections which include a subject are “opaque” to binding, but this idea is never incorporated into the binding theory principles.

Putting aside all of these problems for the moment, we turn to an example of how these principles are intended to work.

- (2.36) a. Pictures of himself upset Bill.
b. *Pictures of Bill upset himself.

[Williams (1994:215)]

In (2.36a), *Bill* th-commands *himself*; *Bill* is a coargument of the subject, whose head in turn assigns a theta role to *himself*. Thus the intended interpretation of the recursive part of the definition of th-command allows Condition A to be satisfied. Since *Bill* has no coarguments in (2.36b), it cannot th-command anything, and the th-anaphor violates Condition A.

Williams immediately concedes one problem with this analysis: “For many speakers, backward anaphora is restricted to the context of psych predicates, such as *upset* and *surprise*. This restriction does not follow from the definition of th-command.” (p.215) Oddly, he makes no attempt to remedy this situation, despite the fact that psych predicates with their atypical thematic role assignments are often considered prime

¹¹ Thanks to Bob Levine (p.c.) for pointing this out.

candidates for a thematic role-based analysis of binding. (See, for example, Grimshaw (1990:158), and Everaert and Anagnostopoulou (1995).)

There is also a more serious problem for this analysis, given that it has long been known that anaphors in picture NPs have their antecedents determined by discourse-related factors, not syntactic or semantic structure. This is an issue I return to in Chapter 4, but to give just one example, Williams makes the wrong prediction for the following:

(2.37) Pictures of himself ruined Bill's concentration.

Here the coreference is just as plausible as in (2.36a), yet *Bill* cannot th-command *himself* because it is not a coargument of the subject.

3.2.2 The necessity of a syntactic component for the binding theory

Even if we eliminate the recursive part of the definition of th-command in (2.34), the problem remains that binding conditions cannot be stated purely at the level of thematic roles as Williams claims. In this section, I review some evidence that syntax plays a crucial role in the binding theory.

First, there are those verbs which always take an spro object, regardless of the fact that the object does not play a role in the event in a thematic sense. This is illustrated by the verb's inability to appear with a non-coindexed object.

(2.38) a. John, behaved himself/*Mary.
b. Mary, perjured herself/*John.

Then there are raising-to-object verbs, where the object receives its thematic role from the embedded verb, yet is still expressed as a reflexive when coindexed with the subject of the matrix verb.

(2.39) a. John, believes *him/himself, to be clever.
b. Wendy, expects *her/herself, to be on time.

It must be the syntactic relation between the matrix subject and object which is responsible for this pronominal distribution.

Further evidence for the role of syntax comes from the effects of possessive NPs on the distribution of spros. Recall that Williams argues against positing a PRO specifier for an spro object to be coindexed with, because an overt possessive may appear in the same position. This is the case in (2.32), repeated below as (2.40a). However, there is nothing in Williams' theory that prevents other possessives from being analyzed similarly.

(2.40) a. yesterday's reminder to herself
b. *John's reminder to herself (Agent=Goal; John=possessor)

In other words, we should be able to interpret (2.40b) as a reminder in John's possession which was written by Mary and addressed to herself. Yet such an interpretation is impossible with an spro object, even with sufficient context:

(2.41) Jill, was asked by the Carnegie Museum and the Warhol Museum to give a talk about her eventful career as an artist, and so she sat down and wrote a lecture on herself. She then sent advance copies to the two museums, as they had requested. Unfortunately, the Carnegie's lecture on her, /*herself, got lost, so she had to send them another one.

Here *lecture* presumably has two roles, the lecturer and the subject matter, both of which are Jill. But introducing the Carnegie as the possessor makes the spro unacceptable.

These facts lead us to the conclusion that a syntactic constraint like Pollard and Sag's o-command is still necessary. If we assume that any locally o-commanded spro must be locally o-bound, then we have an explanation for (2.40b) and (2.41) that is not provided by a binding theory defined at a thematic level.

Of course, this still leaves us with the problem of what to do with (2.40a). Pollard and Sag define o-command so as to exclude non-referential elements such as *there* and *it*. We do not want to say that *yesterday* is non-referential, but perhaps it is exempt from participating in o-command relations for related reasons; like a non-referential item, it cannot function agentively in the NPs described above.

Thus no solution to Williams' original observation immediately presents itself. However, we can conclude that while Williams is correct that unexpressed arguments play a role in binding theory, his own analysis is greatly flawed, and it is not possible to discard syntactic binding conditions altogether.

4. A syntactic and semantic binding theory

In this section, I propose the first two additional clauses for Pollard and Sag's binding theory conditions. As we saw, it is necessary to retain the syntactic component; what is

needed now is a thematic component to account for the phenomena associated with relational nouns.

Principle A and B are revised as follows:

(2.42) Principle A (first revision)
Is the spro...

	locally o-commanded?	
yes		no
locally o-bound		thematically commanded?
	yes	no
	thematically bound	...

(2.43) Principle B (first revision)
A ppro is locally o-free and th-free.

The first level of the revised Principle A is equivalent to Pollard and Sag's Principle A; if the spro is locally o-commanded, then it must be locally o-bound. The difference is that if it is not locally o-commanded, then another factor comes into play—whether or not there is a higher thematic argument in the spro's predicate. This I refer to in terms of "thematic command," a term which I will now define.

Typically, the semantic CONT of a verb or relational noun has the feature NUCLEUS, in which thematic roles have values structure shared with the INDEX values of the corresponding syntactic arguments. For example, an instance of the relational noun *note* might have the following partial representation.

$$(2.44) \left[\begin{array}{l} \text{CAT} \\ \text{CONTINUEUS} \end{array} \begin{array}{l} \left[\begin{array}{ll} \text{SPR} & \langle \text{NP}, \rangle \end{array} \\ \text{COMPS} & \langle \text{PP}, \rangle \end{array} \right] \\ \left[\begin{array}{ll} \text{RELATION} & \text{note} \\ \text{WRITER} & i \\ \text{ADDRESSEE} & j \end{array} \right] \end{array} \right]$$

Thematic command (th-command) is defined in terms of th-outranking, a relation among the roles in a given nucleus. The *psoa* is the sort of the value of the NUCLEUS, as indicated in (2.44), and stands for *parameterized state of affairs*.

(2.45) For θ_1 and θ_2 roles of a *psoa* σ , θ_1 TH-OUTRANKS θ_2 iff θ_1 has more Proto-Agent entailments than θ_2 , and/or fewer Proto-Patient entailments than θ_2 .

The order imposed on the thematic roles of a given head is based on the number of Proto-Agent and Proto-Patient entailments satisfied by each role, as put forth in Dowty (1991).

The Proto-Agent entailments include properties typical of agents, such as volitional involvement in the event or state, sentience and/or perception, and causing an event or change of state in another participant. The Proto-Patient entailments include properties such as undergoing a change of state and being causally affected by another participant.

By defining the thematic hierarchy in terms of degree of agentivity and patienthood, we are freed from having to use the standard inventory of thematic roles, such as Agent, Patient, Goal, etc. As Dowty demonstrates, such a list is not adequate for capturing the fine-grained differences among roles. However, I will continue to use terms like "agent" informally where the intended meaning is clear.

We can then define th-command as follows:

(2.46) For X a valent of a word w with CONTINUEUS σ , X is TH-COMMANDED iff there exist roles θ_1 and θ_2 of σ such that
(i) θ_1 th-outranks θ_2 , and
(ii) the value of θ_2 is structure shared with X 's index.

Finally, th-binding is defined in terms of th-command:

(2.47) X is TH-BOUND iff there exist roles θ_1 and θ_2 of a *soa* σ such that
(i) θ_1 th-commands θ_2 , and
(ii) the values of θ_1 and θ_2 are structure shared with X 's index.

Now consider how Principle A applies to the *spro* in the following example.

(2.48) The detectives searched for clues to Mary's whereabouts. Notes to herself were found in Jim's desk drawer.

In (2.48), the NP has no specifier, so its representation will include the following AVM:

$$(2.49) \left[\begin{array}{l} \text{CAT} \\ \text{CONTINUEUS} \end{array} \begin{array}{l} \left[\begin{array}{ll} \text{SPR} & \langle \rangle \end{array} \\ \text{COMPS} & \langle \text{PP}, \rangle \end{array} \right] \\ \left[\begin{array}{ll} \text{RELATION} & \text{note} \\ \text{WRITER} & i \\ \text{ADDRESSEE} & i \end{array} \right] \end{array} \right]$$

Observe that the index of the *spro* is structure shared with both roles. The index of the ADDRESSEE role is th-commanded by our definition, and in accordance with Principle A, it is also th-bound. Since the most natural referent of the feminine pronoun is Mary,

the result is that the NP subject is interpreted as referring to notes written by Mary to Mary. Note that if the WRITER role had a different index in the representation of (2.48), (i.e. if the writer were interpreted as someone other than Mary), then the spro's index would be structure-shared with one that was th-commanded, but not th-bound, thus violating Principle A.

Now suppose that Mary writes notes to herself which she copies and hands out to her staff. We can refer to the copies she gives to John as *John's notes*. This NP in this context would have the following partial representation:

$$(2.50) \left[\begin{array}{l} \text{CAT} \\ \text{CONTINUEUS} \end{array} \left[\begin{array}{ll} \text{SPR} & \langle \text{NP}_j \rangle \\ \text{COMPS} & \langle \rangle \\ \text{RELATION} & \text{note} \\ \text{WRITER} & i \\ \text{ADDRESSEE} & i \end{array} \right] \right]$$

The binding theory principles do not apply to this example, since it does not include any pronouns.

However, we cannot refer to this same set of papers as **John's notes to herself*.

Now that an spro has been introduced, Principle A applies.

$$(2.51) \left[\begin{array}{l} \text{CAT} \\ \text{CONTINUEUS} \end{array} \left[\begin{array}{ll} \text{SPR} & \langle \text{NP}_j \rangle \\ \text{COMPS} & \langle \text{PP}:\text{spro}, \rangle \\ \text{RELATION} & \text{note} \\ \text{WRITER} & i \\ \text{ADDRESSEE} & i \end{array} \right] \right]$$

Even though the spro is th-bound, it violates Principle A because it is locally o-commanded but not locally o-bound. This shows that the two clauses of Principle A are crucially ordered. If we first checked for th-command, then Principle A would be satisfied and **John's notes to herself* would be incorrectly ruled in.

Finally, if the relational noun's object is a ppro rather than an spro, Principle B correctly predicts that the unexpressed agentive role cannot be coreferential with the ppro.

(2.52) Mary_i put notes to her_i in a drawer.

Mary may be interpreted as the writer of some of these notes but not all of them. If she were the sole author, then both the WRITER and ADDRESSEE roles would be assigned to Mary's INDEX value, and the ppro would be ruled out by Principle B for being th-bound.

CHAPTER 3

PRONOUNS IN PREPOSITIONAL PHRASES

1. Introduction

In Chapter 2 we saw verbs whose PP arguments behave like semantically null case-markers, so that a pronoun in a PP object is sensitive to binding theory constraints just as it would be if it were a direct object. We now turn to two types of prepositions with semantic content; those which head locative arguments and those which head adjuncts. The question I address is the extent to which a ppro or spro in such a PP is acceptable when it is coindexed with the subject of the minimal clause containing it.

In a locative PP argument, it is the degree to which the pronominal object's referent is physically involved in the action which determines the choice of pronoun. As originally suggested by Kuno (1987), a physically involved entity tends to be denoted by an spro. In order to check the sometimes subtle acceptability judgments, I conduct a survey whose results support this hypothesis.

In a PP adjunct, the spro is used when coindexation with the verb's subject results in what I term a "split interpretation" of their referent. Under normal circumstances the PP adjunct contains a ppro. However, the spro is required to the exclusion of the ppro if the object is referred to as a unified whole despite the fact that the physics of the situation

demand that it be in two places at once. This is similar to the locative PP argument phenomenon, insofar as the split interpretation can be seen as an extreme case of physical involvement.

The next issue is how to analyze these cases. Dowty (1991) observes that the more patient-like a verb's argument is, the more likely it is to be expressed as a direct object of that verb. Physical involvement is reflected in Dowty's list of Proto-Patient properties. This seems to explain the behavior of the subject-bound physically involved locative PP objects, insofar as being expressed as an spro mimics the behavior of a direct object of the verb constrained by Principle A.

That is, if the PP's object is reanalyzed as the direct object of the verb, then we would expect an spro to be ruled in by Principle A when coindexed with the verb's subject because it is locally o-commanded and o-bound. A ppro in the same environment would be ruled out by Principle B for being locally o-bound. I will show that this approach is supported by the need for a similar analysis of phrasal passives.

2. Locative PP arguments: Previous observations and hypotheses

Verbs that take a locative PP argument almost always allow either pronoun to be coindexed with the verb's subject. However, we find troubling discrepancies among judgments in different studies.

For example, Hestvik (1991) finds both pronouns acceptable in a variety of these environments.

- (3.1) a. The host, placed Mary next to him/himself.
 b. John, pulled the blanket over him/himself.
 c. The boy, pushed the girl away from him/himself.
 d. John, put the picture behind him/himself.
 e. John, put the sword down in front of him/himself.

[Hestvik (1991:462-3)]

Bouchard (1985), on the other hand, feels that the self-pronoun is unacceptable with the verbs *push* and *put*.

- (3.2) I pushed it away from me/*myself.

[Bouchard (1985:121-2)]

- (3.3) John, put it near him/*himself,

[Bouchard (1985:125)]

Cantrall disputes judgments such as these, claiming that "when the relation of the event is dramatic, that is, being relived by the speaker, or called to life for a reader, only the reflexive form seems appropriate." (Cantrall 1974:45) He offers the following sentences to illustrate his point.

- (3.4) a. I wanted desperately to push it away from myself.
 b. He, took the girl's hands and drew her to himself,

[Cantrall (1974:45)]

It could be that Cantrall has in mind the literary style in which spros are used to refer to a subject of consciousness, effecting heightened identification with that character and his or her feelings.

It is interesting to compare Cantrall's examples with the following courtroom testimony of an alleged victim.

- (3.5) a. And I tried to push him off me and I went to grab his hair and his hair lifted off, and he went to grab his hair and I ran out of the room.

[alb.1428.924]

- b. I pushed him away from me, and it was pretty apparent that nobody else was going to show up in the room, in the suite, so I just wanted to leave and he tried to talk me out of leaving.

[alb.2163.924]

Although the speaker undoubtedly has strong feelings about the events and wishes to convince the judge of her victimization, she twice uses the spro where, according to Cantrall, she could have used the spro to dramatize the situation. This suggests that the use of spros Cantrall refers to is in fact literary.

Finally, Kuno claims that the spro in such constructions must be a "target", formulating the constraint cited in §2.1 of Chapter 2, which is repeated below:

- (3.6) *Semantic Constraint on Reflexives*: A [+reflexive] NP that ends with *-self/-selves* can be used in English if and only if its referent is the direct recipient or target of the actions or mental states represented by the sentence.

[Kuno (1987:68)]

Without detailing the technical aspects of the definition here, an NP which is *+reflexive* is roughly one which is coindexed with an antecedent within the minimal clause containing it. The intended interpretation of "direct recipient or target" is less clear,

although Kuno does give several illustrations of this concept. For example, the pronoun's referent is said to be interpreted as a target in (3.7a), but not in (3.7b).

- (3.7) a. John_i hid the book behind himself_i.
b. John_i hid the book behind him_j.

With the choice of the spro in (3.7a), Kuno intends for his constraint to predict the implication that John is actually holding the book, while in (3.7b) the ppro implies that John is moving his body so that his back is to the book. In this case then, the referent is a target if it is physically involved in the action denoted by the sentence.

In other examples, Kuno interprets his constraint as limiting spros to contexts in which the action is performed intentionally.

- (3.8) a. John_i spilled the gasoline all over himself_i.
b. John_i spilled the gasoline all over him_j.

When the spro is used, the sentence is claimed to imply that John purposely drenched a large portion of his body with gasoline, while the ppro implies that John's body is an incidental location for a small spill. Thus a target in these examples seems to be one which is affected by an intentional action.

In a pilot study surveying twenty-three native English speakers, I tested acceptability judgments on dialogues containing the following sentences, and found that the intentionality of the action did not affect acceptability of either pronoun.

- (3.9) a. He_i spilled tomato juice all over him/himself_i at lunch, so he had to rush home and change first.
b. ...he_i likes to brag about how he gets out of paying the check at a restaurant. One of his tricks is he_i spills wine all over him/himself_i, and acts like the waiter made him do it.

- (3.10) a. He_i says he_i wakes up in the middle of the night panicked because he's_i wrapped the sheets around him/himself_i while he was dreaming, and he can't move.
b. ... she_i [a snake tamer] still gets a little nervous when she_i wraps the boa constrictor around her/herself_i.

In both of the (a) examples, the action is accidental, while in the (b) examples it is performed intentionally; if Kuno is right, then the spro should be preferred in the (b) examples. Unfortunately, these items are flawed in that they all represent a certain degree of physical involvement. In a later experiment which I will discuss in §3, results show that the more physically involved its referent is in the action, the more acceptability of the spro increases, while that of the ppro decreases. Thus the physical involvement effects might have masked any effects of intentionality in the above examples. For now I will leave the question of intentionality effects to future research, and turn to my experiment testing physical involvement.

3. Testing Kuno's hypothesis with a survey

3.1 Rationale for the survey method

By far the most common method of gathering grammaticality judgments in present work on syntactic and semantic theory is to simply use introspection and the intuitions of a few colleagues. Few linguists will champion this haphazard approach to data collection, and yet it continues to be widespread, even for data that require subtle judgments.

We have already seen from the examples in §2 that this is true for pronouns in locative PP arguments. Liejiong (1996) surveys work on the Chinese reflexive *ziji*, showing that a similar problem exists. In his comprehensive survey of the history of grammaticality judgment testing, Schütze (1996) cites further cases. For example, Lasnik and Saito (1984) claim that sentences like the following have two interpretations.

(3.11) Why do you think that he left?

On one reading, it questions the reason for the leaving, and on the other, it questions the reason for the thinking. Lasnik and Saito propose a new treatment of the Empty Category Principle based on the existence of the first reading where *why* has scope over the lower clause.

On the other hand, Aoun et al. (1987) argue for an alternative theory based on their belief that speakers who understand the first reading are simply ignoring the presence of the complementizer. Yet we have no basis for evaluating the claims of either study, since neither provides any empirical support for the data. And if we cannot determine what the relevant data are, there is no way to draw any conclusions about the two proposals. Recognizing such problems, linguists have explored various methods of collecting the judgments of native speakers in a systematic way. Schütze surveys such studies, including those in Quirk and Svartvik (1966), papers in Greenbaum (1977), Ross (1979), Bradac et al. (1980), and Carden and Dieterich (1981), to name a few.

For the most part, the results of these experiments are characterized by instability, both among different speakers, and among the judgments of a single speaker. Labov (1975, 1996) gives ample evidence for another problem, that speakers' judgments may be

at variance with their own observed speech. Furthermore, researchers have long been aware that extragrammatical factors will affect judgments in an experimental setting. Nagata (1987, 1988, 1989a, 1989b, 1989c, 1990, 1992) has tested the effects of such diverse factors as repetition of items, anchoring effects, field dependence of the subject, and self-awareness.

Because of these problems, it may seem impossible for experimental work to yield usable results. However, as Cowart (1996) points out, the goal is not to design a perfect experiment in which no outside factors affect judgments, but rather to test items often enough and with a large enough sample size that clear patterns start to emerge. He details several questionnaire-style experiments testing data relevant to current theoretical discussions, and shows that while judgments on a sentence type vary, they do so around a stable mean. Thus there is no reason not to do experiments as long as they are carefully constructed and administered.

3.2 Survey design considerations

Many of the guidelines offered by Schütze and Cowart have been incorporated into the construction and administration of the present survey, but the nature of the present task also requires certain innovations. For example, Cowart has his subjects rate long lists of isolated sentences on a five-point scale.¹² As a departure from this method, all items in the present survey consist of minimal pairs of dialogues. Each pair differs only in that the first dialogue contains a *pro* where the second one has an *spro*. Subjects were asked to

¹² But see also Bard et al. (1996) for an in-depth discussion of the less conventional technique of magnitude estimation, which frees subjects from having to choose from discreet points on a scale when judging acceptability.

rate how natural each dialogue sounded with respect to the other, rather than rating it on its own.

Below is an example of one of the items subjects encountered.

5

(a) Maria: Is your mom still out on the balcony? I'd have thought the mosquitoes would be getting to her by now.
Sally: Well, she said they haven't been bothering her as much since she put some citronella candles around her.

(b) Maria: Is your mom still out on the balcony? I'd have thought the mosquitoes would be getting to her by now.
Sally: Well, she said they haven't been bothering her as much since she put some citronella candles around herself.

1 (a) is natural-sounding, while (b) is not
2 (a) and (b) are both natural-sounding, but (a) is somewhat more natural than (b)
3 (a) and (b) sound equally natural
4 (a) and (b) are both natural-sounding, but (b) is somewhat more natural than (a)
5 (b) is natural-sounding, while (a) is not

Figure 3.1: Survey item

While this format may be unusual, I believe it is necessary in order to compensate for certain difficulties surrounding the task.

First, it is crucial to the experiment that the pronominal reference be interpreted as intended. Suppose we instead gave subjects a list of sentences like the following:

- (3.12) a. John put the blanket around him.
b. Mary put the candles around herself.

In evaluating the responses, there would be no way to tell whether a particular subject judged an item like (3.12a) on the interpretation where *John* and *him* are coreferential. Augmenting the items with indices might seem like a solution, but on the basis of my experience I believe this would make the task unduly confusing. Embedding the sentences in dialogues ensures the intended coreference without any complicated instructions for the participants. Furthermore, we know that discourse factors such as point of view and contrastive stress can influence the choice of pronoun in certain environments. Since it is not clear whether these examples are also affected, it is necessary to keep these factors constant.

Finally, speakers do not generally encounter language as an isolated phenomenon, but rather in a particular context. It has long been asserted that there is no such thing as a "null" context. Bolinger (1968) notes that sentences which sound anomalous in isolation may be vastly improved by context. Crain and Steedman (1985) show experimentally that the grammaticality rating of a particular garden path sentence greatly depends on whether preceding sentences support the interpretation of the correct parse. When there is no preceding context, they argue, subjects must devise one themselves, and thus the context is no longer controlled by the experimenter. Since the goal of the present experiment is to

test acceptability in informal speech, it makes sense to enable subjects to visualize the target sentence in use by speakers in everyday conversation.¹³

Two considerations prompted the decision to have subjects compare pairs of dialogues, rather than rate each one individually. First, because whole dialogues are longer than isolated sentences, a survey with such items can easily become too long and fatiguing for subjects. The use of comparison is one way to condense this task. More importantly, this arrangement ensures that it is the naturalness of the pronoun that subjects are responding to, rather than the naturalness of some other part of the dialogue.

It might be argued that having subjects focus on the relative acceptability of the pronouns makes the task too analytical, and thus too far removed from the way sentences are normally processed. If this is a problem, then it is a problem for all surveys of this kind, because the judgment task is by its very nature analytical. However, as Cowart has shown, testing acceptability judgments does lead to reliable results. There is no reason to believe this experiment would be any less revealing.

3.3 Survey administration

The survey was administered to sixty-one native speakers, all of whom were undergraduates in an introductory linguistics course. The survey itself consists of four sections. The first is a form for collecting demographic information; this was used mostly to ensure that results were collected only from native speakers.

¹³ Cowart similarly encourages his subjects to judge sentences based on their appropriateness in everyday conversation, but seems to frustrate his own efforts by using sentences like "Ironically, reform paved the way for a more radical political transformation." (p.172)

The second section is set of instructions, which explain that the survey's purpose is to gather information about English. The subjects were told that they would be asked to rate pairs of dialogues, differing from each other in only one word, in terms of how "natural" each sounds with respect to the other. A natural dialogue was defined as one they would expect to hear spoken by other speakers of English. Note that the subjects were not told to rate a dialogue in terms of whether it sounded like one they themselves would say, to avoid the self-reporting discrepancies discussed by Labov.

Subjects were also told not to take into consideration any "rules of grammar" they may be familiar with. The use of terms like "grammaticality," "acceptability," and "good" versus "bad" were not used in the administration of the survey, in order to avoid bringing into play any prejudices about language the subjects may have had.¹⁴

The second section introduces the format of the survey with three examples of the types of dialogues the subjects are asked to rate; each has the ppro/spro alternation found throughout the experiment, but does not contain the construction being tested. The administrator went through each of these with the subjects, asking for their impressions of the relative naturalness of each, and making sure that the directions were being interpreted as intended. At this time it was possible for the administrator to point out that answers may vary among subjects, and to reinforce the notion that there are no "right" or "wrong" answers. As Schütze suggests, this section provides subjects with the opportunity to become familiar with the form of the rest of the survey, helping to stabilize the response process.

¹⁴ Interestingly, Cowart has found in one experiment that giving "prescriptive instructions" in which subjects are told to rate sentences as an English professor would does not significantly change the results.

The final section consists of twenty dialogue pairs, whose contents are described in detail in the next section. Subjects were given as much time as they needed to complete the survey, although most took about ten to fifteen minutes. They were encouraged to go with their first instinct when answering, and not to go back and change previous answers.

3.4 Survey items

3.4.1 Overview

Of the twenty dialogue pairs, nine test physical involvement and eleven are filler items unrelated to the locative PP construction. The nine test pairs were drawn from a set of eighteen, and arranged in different orders, yielding four versions of the survey. This allowed for a wider range of examples to be tested without fatiguing subjects.

The filler items are meant to inhibit the tendency for subjects to develop a response pattern. This is especially a danger for these surveys, where all of the items involve a pronominal alternation. For example, a participant might start to feel that all of the spros are acceptable; a filler item which requires the ppro, such as *John brought it with him/himself*, is intended to break the pattern.

To optimize results, there must be certain constraints on the form of the test dialogues. All conversations are designed to sound as close to colloquial speech as possible, to avoid the "I wouldn't say it that way" reaction often encountered by linguists asking for judgments on their data. Other constraints are on discourse factors known to affect acceptability of the spro.

and doubts that subjects are able to consciously manipulate the criteria by which they give judgments.

As I will show in Chapter 4, an spro in a locally o-free and th-free environment is restricted to referring to a person who is cognizant of the information denoted by the minimal clause containing it. Since the correct syntactic and semantic analysis of these PP complements is partly what is at issue here, I have been careful to keep this factor constant. Thus the information in all of the sentences containing the pronoun in question is portrayed as being reported by the referent of that pronoun. For example, in the dialogue pair in Figure 3.1 above, *her* and *herself* are contained in a sentence with information originating from Sally's mother, the referent of the pronoun.

Note that this constraint might skew the context in favor of spros. This is not a problem, since what we are concerned with is the relative acceptability of the ppro and spro, all other factors being equal. We are still able to detect any influence physical involvement may have on pronoun preference.

Certain prosodic factors are also kept constant. None of the pronouns can be interpreted as contrastive in the given context, since this would enhance the acceptability of the spro as an emphatic. For example, in the following sentence the spro sounds preferable because its referent is being contrasted with another potential referent:

- (3.13) John was about to wrap the blanket around Mary, but instead he wrapped it around HIMSELF/?HIM.

The role of contrastive stress is another issue I will return to in Chapter 4.

There is also a potential problem with using first and second person spros, as they are sometimes interpreted as either formal or hypercorrective when used instead of a

However, the results could be different if different data were being tested, and so I have remained cautious.

ppro. For example, in the O.J. Simpson trial transcripts, there are many such occurrences in the speech of the attorneys and police officers, three of which are given below:

- (3.14) a. Now, at some point, you did tell Detective Vannatter and Detective Lange and myself about this conversation; is that correct?
[ojs.2/1.3007]
- b. Detective Phillips, this purports to be a telephonic communication between a deputy coroner by the name of Paul Willis and yourself, and I'll ask you if you recognize the voices at some point, okay?
[ojs.2/16.1891]
- c. As the Westec sergeant was passing myself, I stopped him and I said, "Is there anybody that's supposed to be at home now,"...
[ojs.3/10.1912]

As can be seen in (3.14a) and (3.14b), these spros often occur in coordinate NPs, although there are also some cases, such as (3.14c), where they can even occur as the direct object of a verb. Because this usage of first and second person spros is familiar to many speakers, only third person pronouns are used in the survey items.

3.4.2 Test items

Rather than make physical involvement a binary factor in this experiment, I have instead identified four degrees to which an entity may be physically involved in an event, and tested dialogues belonging to each category. In the most extreme case, an entity is physically involved in the process of the action, still involved as the end result of the action, and physically altered by the action. For example, if John spills juice all over

himself, then he is involved in the act of spilling, as well as in the end result where he is physically altered, having become wet.

In the second case, an entity is physically involved during and after the process, but is not physically altered. This is the situation in clothing and covering type events; if John puts the blanket around himself, then he touches the blanket throughout the process, but his body itself is not affected.

An entity may also be involved only in the process itself, without being affected by it. When Mary puts candles around her, then on the normal interpretation, Mary positions the candles nearby, but is not in contact with them as a final result. I have also included cases in this category where there is minimal contact, such as *hide the cigarette behind*, where there is distinctly less contact than in the clothing and covering events.

In the final case, none of the conditions hold, so that there is no physical relationship at all between the agent of the action and other entities involved. For example, if John hides a dent in the wall behind him by positioning his body in front of it, he does not actually touch the dent at any point.

The four degrees of physical involvement are summarized in the following table, together with the predicates incorporated into the survey items.

referent is...	physically involved in process	physically involved as end result	physically altered
1a <i>spill the juice all over</i>	√	√	√
1b <i>tattoo an angel on</i>	√	√	√
1c <i>pour beer into</i>	√	√	√
1d <i>get some coffee into</i>	√	√	√
2a <i>wrap the snake around</i>	√	√	x
2b <i>put the blanket around</i>	√	√	x
2c <i>pull the covers over</i>	√	√	x
2d <i>get the harness onto</i>	√	√	x
3a <i>put the candles around</i>	√	x	x
3b <i>pull the book over to</i>	√	x	x
3c <i>hold the toy above</i>	√	x	x
3d <i>hide the cigarette behind</i>	√	x	x
3e <i>push the glass away</i>	√	x	x
3f <i>get the wind behind</i>	√	x	x
4a <i>hide the dent behind</i>	x	x	x
4b <i>put the past behind</i>	x	x	x
4c <i>call the children around</i>	x	x	x
4d <i>get the ship above</i>	x	x	x

Table 3.1: Summary of test items

There are four versions of the survey, each incorporating half of the test items. Thus item (1a) appears in versions 1 and 3, item (1b) in versions 1 and 4, and so on. This distribution is summarized in Table 3.2 below.

survey version	test items used	subjects
1	1a,1b,2a,2b,3a,3b,3c,4a,4b	12
2	1c,1d,2c,2d,3d,3e,(3f),4c,4d	12
3	1a,1d,2a,2d,3a,3b,3f,4a,4d	18
4	1b,1c,2b,2c,3c,3d,3e,4b,4c	19

Table 3.2: Distribution of test items

This table also shows the number of subjects who completed each version of the survey. The uneven dispersal reflects in part the fact that some surveys could not be used because the demographics form showed that the subject was not a native speaker of English. Despite this, the fact that the items each appear in more than one survey ensured that each item received either thirty or thirty-one responses. The one exception is item (3f), which was accidentally left off of version two, and thus only received the eighteen responses from version three.

3.5 Survey results

The following table shows the ratings given to the dialogues in each of the four categories of physical involvement.

	category 1	category 2	category 3	category 4
rating 1	11	8	37	53
rating 2	13	14	24	34
rating 3	10	30	44	17
rating 4	16	30	28	6
rating 5	72	40	38	12
total	122	122	171	122

Table 3.3: Raw scores for survey items

Note that the number of responses sums to 122 for three of the categories, because the sixty-one subjects each judged two dialogues from each of those categories. Subjects were supposed to have judged three dialogues each from category three, resulting in 183 responses, but since item (3f) was left off of version two, the total responses amount to 171.

These ratings of relative acceptability are easier to interpret if they are converted into direct ratings of spros and ppros. Because subjects are rating two sentences simultaneously, the five-point scale in Figure 3.1 actually translates into two three-point scales, each having the choices of "natural," "dispreferred," and "unnatural." This is summarized in Table 3.4 below.

		1	2	3	4	5
(a) is...	natural	√	√	√		
	dispreferred				√	
	unnatural					√
(b) is...	natural			√	√	√
	dispreferred		√			
	unnatural	√				

Table 3.4: Conversion to three-point scale

Thus if a subject gives a dialogue pair a rating of "1," he or she is simultaneously rating dialogue (a) as natural and (b) as unnatural, and so on.

Below are the converted responses for the ppro, with the numbers in the first row corresponding to the categories identified in Table 3.4. The actual scores are given first, followed by the percentages for ease of interpretation, since the total number of responses differs in the third category.

	1	2	3	4	1	2	3	4
natural	34	52	105	104	28%	43%	61%	85%
dispreferred	16	30	28	6	13%	24%	16%	5%
unnatural	72	40	38	12	59%	33%	22%	10%
total	122	122	171	122	100%	100%	100%	100%

Table 3.5: Converted scores for personal pronoun

The percentage of natural ratings does in fact increase with increased physical involvement, while the unnatural ratings decline.

The ratings for the spros show an analogous pattern.

	1	2	3	4	1	2	3	4
natural	98	99	110	35	80%	82%	64%	29%
dispreferred	13	14	24	34	10%	11%	14%	28%
unnatural	11	8	37	53	9%	7%	22%	43%
total	122	122	171	122	100%	100%	100%	100%

Table 3.6: Converted scores for the self-pronoun

While the naturalness ratings of categories one and two are both around 80%, the other categories show dropping off of the acceptability of the spro as its referent becomes less physically involved.

From these results I conclude that Kuno's hypothesis about the effects of physical involvement is essentially correct. Furthermore, the preference for the spro and, to a larger extent, the unacceptability of the ppro are sensitive to the varying degrees of physical involvement.

A similar phenomenon can be observed when the direct object is coreferential with the PP complement's object, as in the following examples from Reinhart and Reuland.

- (3.15) a. *Max wrapped the wire, around it.
b. Max wrapped the wire, around itself.

Here the wire is being affected by itself; in this sense it is on the extreme end of a physical involvement scale.

There are also certain constructions with PP adjuncts which are similar to (3.15) in that one part of an object is physically affecting another part of the same object. The preposition *upon* is particularly common in describing this type of action.

- (3.16) a. And hardly had echo of that breath died away in the hollow of the heavens and the empty wombs of a million barren worlds, when the light, brightened again, and drawing in upon itself, became definite and took form...

[am.2608]

- b. ... an opening through which the sea, ran in long, surging sweeps, rolling back upon itself, in angry breakers that filled the aperture with swirling water and high-flung spume.

[bus.2863]

- c. You mean the wound, was turned in upon itself?

[ojs.3/13.4038]

- d. In a moment of time, too short to be measured, space, turned and twisted upon itself.

[2001.5716]

In both (3.15) and (3.16), replacing the ppro with the spro would imply disjoint reference with the subject. Again, this seems to be related to the affectedness of the object. In the next section, I will discuss more examples of pronouns in PP adjuncts, and demonstrate some similarities with the physical affectedness phenomenon.

4. PP Adjuncts

4.1 PPs with the personal pronoun

The examples I will consider in this section all involve a locative PP adjunct which has a pronominal object coindexed with the subject of the VP which it modifies. The most famous of these are the “snake” sentences. There have been a wide variety of judgments on these examples, although interestingly, researchers do not acknowledge their controversial nature.

- (3.17) a. John, saw a snake near him/*himself.
[Bouchard (1985:121), Wilkins (1988:197), Hestvik (1991)]
b. John, saw a snake near him/??himself.
[Safir (1992:34, fn.18)]
c. John, saw a snake near him/himself.
[Levinson (1991:119), Reinhart and Reuland (1993), Brinton (1995)]

For the most part, the explanation for these discrepancies can be found in the goals of the authors. Bouchard, Wilkins, and Hestvik focus on syntactic (or semantic) restrictions on binding, where the spro is always bound within the minimal predicate containing it. Safir concentrates on contrastive predicates, and does not make any predictions for (3.17); his judgment seems to be based on the ones given in the transformational literature to date.

As for the judgments in (3.17c), these researchers all discuss non-syntactic constraints on binding. They tend to treat snake sentences as part of a class of cases which generally admit both the spro and ppro; for example, Reinhart and Reuland and Levinson explicitly treat snake sentences as being on a par with examples with a locative PP argument.

- (3.18) He, wrapped the cloak around him/himself.

All of them assume that roughly the same discourse factors affect the acceptability of the spro in both (3.17) and (3.18).

The question remains, do speakers in fact find the spro acceptable in (3.17)? To answer this, we must first recognize that spros may appear in a wider range of syntactic environments in certain literary styles. Zribi-Hertz, for example, finds spros which are locally o-commanded but not locally o-bound in her corpus of literature. Therefore the spro in (3.17) may indeed be acceptable if the sentence is in a literary context. I will return to this topic in Chapter 4.

For now, I will restrict my attention to non-literary registers of English. Evidence from my corpus of spoken English suggests that the spro is in fact not used in this construction.

- (3.19) a. ...you had occasion to notice a dog ahead of you; did you not?
[ojs.2/8.3516]
b. A: Yeah. There are phone records, yes.
Q: You haven't looked at those?
A: No, I haven't seen them in front of me.
[ojs.3/20.4997]
c. Do you see that in front of you?
[mcv.3/31.951]

While I was able to find a number of examples of this type in courtroom trial transcripts, there was only one example with an spro.

(3.20) And he explained to Fortier that he would park there because he wanted to have a tall building between himself and the blast...

[nic.4/24am.1856]

However, this does not constitute a counterexample because the spro is in a coordinate NP. As I will show in Chapter 4, the individual conjuncts of a coordinate NP are always locally o-free, and spros are often used in this construction, perhaps in part because the longer form better accommodates contrastive stress among the conjuncts. Therefore I conclude that the spro is in fact unacceptable in snake sentences in colloquial speech.

The next issue is the syntactic and semantic structure of a snake sentence, and whether the binding theory principles I have formulated correctly rule out the spro. A snake sentence has two subtly different interpretations, which are better appreciated by considering the following variation.

(3.21) John saw a snake in the garden.

This sentence can mean either (i) John saw a snake which was in the garden, or (ii) the act of seeing a snake took place in the garden. In the first case, the PP is an NP modifier, and thus has a *snake* on its SUBJ list. In effect, they form a small clause. This also reflects the constituency of the NP and PP, as shown by the fact that they can be fronted in a cleft construction.

(3.22) It was a snake in the garden that John saw.

This means that the PP object is locally o-commanded by the verb's direct object. In (3.17), then, the spro is locally o-commanded by a *snake*, but is not locally o-bound, and thus is correctly ruled out.

On the second interpretation, the PP is a VP modifier. It does not form a constituent with the verb's object; this becomes clear when the direct object is a pronoun, since it then cannot be fronted with the PP in a cleft construction.

(3.23) a. John saw it in the garden.
b. *It was it in the garden that John saw.

Nonetheless, (3.21) still entails that the snake be in the garden. It cannot mean, for example, that John was standing in the garden and saw a snake which was across the street. Therefore, no matter what the analysis of VP modification, it is reasonable to conclude that the verb's direct object functions semantically as the "subject" of the PP. In other words, the direct object's INDEX is the value of the preposition's highest ranking thematic role, that of the theme-like argument. As such, the direct object th-commands the PP object; if the PP object is an spro, as in (3.17), then it is ruled out by Principle A for being th-commanded but not th-bound.

To conclude, Principle A as I have formulated it correctly rules out the spro in the snake sentences in (3.17). If the PP adjunct is an NP modifier, then its object is locally o-commanded by the verb's direct object, and if it is a VP modifier, then its object is th-commanded. In the first case, the spro is locally o-commanded without being locally o-bound, while in the second case it is th-commanded without being th-bound. Either way, the spro is ruled out by Principle A, while the ppro is admitted by Principle B since it is both locally o-free and th-free.

4.2 PP adjuncts with the self-pronoun

We have already noted in Chapter 2 that there are many verbs that take a PP argument, and that the PP's object must be an *spro* if it is coindexed with the verb's subject. In most cases, this can be predicted by analyzing the preposition as a semantically null case-marker. Recall that in this way, the PP object's index is shared with PP; the pronoun's index is thus on the same set of valence lists as the verb's subject.

However, there are also cases in which the PP is an adjunct, and yet the *spro* is still required if it is coindexed with the verb's subject. This is the case in the following examples; the first two excerpts are from trial transcripts, and the second two from movie scripts.

- (3.24) a. And as you sit there today, do you feel, looking as deep inside yourself as anybody can...

[nic.10/01pm.3821]

- b. When reasoned moral response is spoken of, it is really a handing over to you to reach very deep inside yourself to a place that you may not have visited before and to ask yourself as the conscience of the community what's required.

[nic.12/29am.1480]

- c. BARBARA: I started racing after my parents died. There was something about the speed, the danger, that took me out of myself, that made the hurt go away.

[bat.3090]

- d. BRIAN: It's like me, you know, with my grades...like, when I, when I step outside myself kinda, and when I, when I look in at myself you know?

[bre.3633]

All of these PPs are VP adverbs; the question again is their syntactic and semantic analysis. As an adjunct, the PP is assumed not to be on the verb's COMPS list. This makes it seem as if the PP's object must be locally o-free. However, if we adopted a Davidsonian analysis, the adverb would take the entire event which it modifies as an argument, along with its object. In this case, the PP object would at least be *th-commanded*.

I will not attempt to defend any particular analysis of these adverbs here. Instead, I will simply point out an interesting commonality. In all of the examples in this section, the PP object has what I will call a "split interpretation," in that it is necessary to assume that two parts of the same object are relevant to this situation, even though the object is referred to as a unified whole.

In the excerpts in (3.24), a person is treated as having a separate agentive self which is able to manipulate the rest of the self. There are also examples in which the *spro* indicates a literal and bizarre sort of split, where the referent is required to be in two places at once. The following novel excerpt describes a cult member's hallucination.

- (3.25) Rama was in the meditation room giving a talk beside a larger-than-life photo of an Indian guru. Rama, was at the same spot giving a talk beside himself.

[lax.8119]

Such cases are also constructed by Cantrall:

- (3.26) In his dream John, was seated behind/in front of/beside *him/himself,

[Cantrall (1974:147)]

Note that in all of these examples, if the spro were replaced with a ppro, it would have to be interpreted as non-coreferential with the verb's subject.

Compare the use of the spro in (3.24a,b) with structurally similar examples, in which the ppro is perfectly acceptable.

- (3.27) a. John_i looked behind him_i.
b. Mary_i reached in front of her_i.

With the change in the locative preposition, the pronoun refers to someone who is interpreted as a simple unified whole.

Thus it is the split interpretation which seems instrumental in forcing the use of the spro. This phenomenon is reminiscent of the situation in Middle English (ME). As we shall see in Chapter 6, spros in ME were not yet used as markers of syntactic or semantic reflexivity per se, but appeared as an object coreferential with the subject only when the self-directed nature of the relation was atypical. For example, verbs of grooming like *wash* had a ppro object (*he_i washed him_i*) because grooming is usually self-directed, whereas verbs of violence like *hang* had an spro object (*he_i hung himself_i*). Note that the aberrance of the situation depends on the hearer's knowledge of the world. If criminals were always forced to hang themselves during this time period in England, then coreference between the arguments of *hang* would not be marked, and the ppro would most likely have been used instead of the spro.

The use of the spro in the present set of examples is reminiscent of its ME function in that it marks atypical coreference, in this case atypical because a split

interpretation has been forced.¹⁵ Just as the spro object of *hang* in ME alerted the hearer to a marked case of coreference, so does the spro in the present case alert the hearer to the unusual interpretation of its referent.

In addition to these historical facts, we can also see a connection between this phenomenon and that of the locative PP arguments in the previous section. I will discuss this in the next section, and suggest a unified analysis for all of these pronominal PP objects.

5. Analysis of pronominal PP objects

If we step back and examine all of the data presented in this chapter, an interesting generalization emerges. We already saw that gradations of physical involvement correlate with the likelihood that an spro will be preferred to a ppro in a locative PP argument. The examples in (3.15) and (3.16), where one part of an object affects another part of the same object, typify an even more extreme case of involvement. From there it is only a small step to the split interpretation cases, where the action entails not a physical relationship between two parts of the same entity, but rather a complete split of that entity. In these last two cases, the spro is required to the exclusion of the ppro.

This view of the data in this chapter can be illustrated with the following figure.

¹⁵ In fact, I would be surprised if spros were not also used in ME for these cases of split interpretation, so that this is simply a continuation of that aspect of the spro's former function. Unfortunately, these cases are rare by their very nature, and I have not come across any instances in the literature about ME spros.

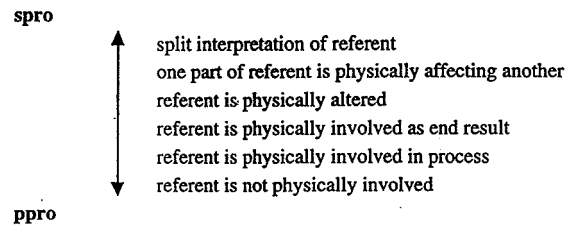


Figure 3.2: Degrees of physical involvement

At the top of the scale of physical involvement is the complete split of the referent, where the spro is required. As the degree of physical involvement lessens, the spro becomes less preferred, until at the bottom, the ppro is required.

Consider this in light of the conclusions reached in Chapter 2. There I determined that regardless of the semantics of a predicate, spros and ppros are sensitive to other syntactic and/or thematic arguments of the head selecting them. In all of the cases discussed in this chapter, the pronoun in question is selected by a semantically contentful prepositional head, yet depending on its referent's status as a participant in the event, that pronoun may be sensitive to the arguments of the verb. In other words, the higher up on the physical involvement scale it is, the more likely it is to behave like the verb's argument rather than the preposition's argument with respect to the binding theory principles. Thus if it is coindexed with the verb's subject or object, it is treated as locally o-bound or th-bound by that argument, and is expressed as an spro rather than a ppro.

Dowty's (1991) approach to thematic roles, previously discussed in §3.3 of Chapter 2, suggests an explanation for this phenomena. Both physical involvement and

the more abstract kinds of affectedness can be seen as a specific instance of the general properties of patient-like thematic roles. Two of the contributing properties Dowty lists for the Proto-Patient are "undergoes change of state" and "causally affected by another participant." These bear a certain similarity to the degrees of physical involvement of the locative PP argument's object, in that if a referent is physically involved in an action, it may undergo a change of state, and is usually causally affected.

Dowty further states that an argument which carries more of these Proto-Patient entailments tends to be instantiated as an object selected by the verb. Thus if speakers recognize a physically involved referent to be patient-like, they are also likely to expect that referent to be denoted by a direct argument of the verb.

What is striking about this result is that physical involvement has been found to play a role in other syntactic phenomena as well. Culicover and Wilkins (1984), (among other researchers), observe that the "affected" nature of an adjunct PP's object determines whether the structure can have a passive form.

- (3.28) a. John slept in the bed.
 b. The bed was slept in by John.

- (3.29) a. John slept in New York.
 b. *New York was slept in by John.

The bed is physically affected by the sleeping, while New York is not. Note that (3.28b) only sounds appropriate if the bed is still unmade; it is a comment on John's effect on the bed.

However, the affectedness of the passive subject need not be physical. Compare the following examples.

- (3.30) a. *This hotel was slept in by John.
 b. This hotel was slept in by George Washington.
 c. *Philadelphia was slept in by George Washington.

A hotel is not changed by the presence of ordinary guests, and so the passive form in (3.30a) sounds odd. On the other hand, a prestigious guest like Washington may change the status of the hotel; for example, the owners could use his occupancy as a marketing ploy. Thus (3.30b) is an improvement over (3.30a). A big city like Philadelphia is not affected in the same way as a hotel by Washington's visit, and so (3.30c) is odd just like (3.30a).

As in the PP constructions, the degree of affectedness cannot be encoded in the lexicon, but rather is determined by the language user's understanding of how events typically occur. Nonetheless, it is this factor which causes the PP object to behave more like an argument of the matrix predicate by appearing in a passive form. Similarly, the affectedness of the locative PP's object is what allows it to act like an argument of the verb and be licensed as an sPRO when coindexed with the verb's subject.

The next question is how this analysis would look in HPSG. In essence, a prepositional argument may be reanalyzed as a direct argument of the verb selecting (or modified by) the PP when its referent exhibits patient-like traits with respect to other participants denoted by the verb's arguments. Crucially, these patient-like traits cannot be encoded in the lexicon, but must be calculated on the basis of an understanding of how these events typically occur. Because of the complex issues surrounding prepositional and adverbial semantics, there is not enough space here to attempt to implement this account in HPSG. However, such an analysis would not require any revisions to the

binding theory itself as I formulated it in Chapter 2. In the next chapter, I will present another set of data relevant to the binding theory, and present Principles A and B in their final form.

CHAPTER 4

DISCOURSE EFFECTS

1. Introduction

So far we have seen pronouns in locally o-commanded and th-commanded positions which consequently respond to syntactic and semantic constraints. I now turn to spros which, because of their locally o-free and th-free status, are required instead to be interpreted as "logophoric." Since this term has been used to describe a number of subtly different concepts, it deserves extensive discussion.

Thus I begin this chapter with a summary of three approaches to logophoricity. Sells (1987) decomposes the concept, identifying three distinct roles occupying an implicational hierarchy. Kuno (1987) also offers a tripartite analysis, but with a different inventory of roles. Finally, Zribi-Hertz (1989) uses examples from literature to argue for the "subject of consciousness" as the sole determiner of logophoricity in English.

As for my own analysis, I argue that only one type of role need be identified, that of the *cognizer*, which refers to anyone who is aware of the information represented by a given proposition. As this implies, there may be more than one cognizer per clause. Thus I introduce the feature COGNIZER (COG) on clauses, which takes as its value a set of indices linked to the figures who are cognizant of the proposition expressed by that

clause. A speaker may use a locally o-free and th-free spro to refer to one of the members of the COG set; in doing so, the speaker shows empathy for that referent. I will refer to spros which are required to refer to a cognizer as "logophoric."

Having established this analysis, I examine further examples of logophoric spros, in particular those in contrastive predicates and picture NPs. I then turn to the hypercorrective use of spros, which can be seen as related to the logophoric use, but otherwise is outside of the scope of the binding theory principles.

Finally, I discuss the special uses of spros in literature, which have received conflicting analyses. While Zribi-Hertz argues that the only constraint on these spros is that they refer to the subject of consciousness, Baker (1995) claims that the spros are simply adnominal emphatics lacking an NP head. Thus they must be contrastive and discourse prominent, just like their headed counterparts (to be discussed in Chapter 5). Based on their data, it seems that both Zribi-Hertz and Baker are correct, and that what they are describing are distinct but overlapping phenomena. The spros described by Zribi-Hertz fit the notion of logophoricity as I have defined it, while Baker's spros do in fact seem to be headless adnominal emphatics as he claims.

2. Points of view on logophoricity

2.1 Sells (1987)

Sells (1987) rejects the idea of logophoricity as a unified force, and instead proposes three distinct roles which are properties of any given proposition. The SOURCE is the person providing the content of the proposition, the SELF is the person whose "mind" is being reported, and the PIVOT is the physical location with respect to which the proposition is evaluated.

For example, in a sentence of the form *p* distresses John, the SELF and PIVOT roles of the proposition *p* are predicated of John, since the information in *p* reflects John's consciousness and his physical perspective. The SOURCE is the unmentioned speaker of the sentence itself. On the other hand, in *John said p*, all three roles in *p* are predicated of John, because he is the one responsible for the content of *p*, including the mental state and space-time location from which *p* originates.

These roles occupy an implicational hierarchy; if John is the SELF of *p*, then he must also be the PIVOT, and if he is the SOURCE of *p*, then he must also be the SELF. Sells' reasoning is that the mind is within the body, so if John's mental perspective is taken, his physical perspective follows. And if John has communicated *p*, then he must also be conscious of *p*; hence SOURCE implies SELF.

Sells gives examples from Icelandic, Japanese, Ewe, and Italian to illustrate that logophoric expressions in different languages may be linked to different roles. For example, Japanese *zibun* must be bound to the PIVOT. But as Pollard and Xue (1998) point out, this may be true of the Japanese examples in (4.1), but (4.2) shows that the same does not hold for Chinese *ziji*.

(4.1) a. Takasi, wa Yosiko ga zibun, o tazunete-kita node uresigatta.
Takasi, was happy because Yosiko came to visit self.

b. *Takasi, wa Yosiko ga zibun, o tazunete-itta node uresigatta.
Takasi, was happy because Yosiko went to visit self.

[Pollard and Xue (1998:19)]

(4.2) a. Zhangsan, hen gaoxing yinwei Lisi yao lai kan ziji.
Zhangsan, is very happy because Lisi shall come to see him.

b. Zhangsan, hen gaoxing yinwei Lisi yao qu kan ziji.
Zhangsan, is very happy because Lisi shall go to see him.

[Pollard and Xue (1998:20)]

The deictic expressions *come* and *go* must be predicated of the PIVOT, the entity whose physical location provides the anchor for the proposition. The same appears to be true of *zibun*; in (4.1a) the embedded verb reflects Takasi's physical location, and *zibun* is allowed to refer to Takasi. But in (4.1b), the movement is from Yosiko's perspective, and *zibun* can no longer be used to refer to Takasi. Chinese differs in that *ziji* can be used regardless of whether its referent's location determines the use of the deictic expressions.

Pollard and Xue show that *ziji*'s reference can be determined by the subject of consciousness, as it is in (4.2). Under Sells' analysis, this means that *ziji* is linked to the SELF role. But because of his implicational hierarchy, Sells predicts that *ziji* must also be linked to the PIVOT, something which is clearly not the case given (4.2).

The behavior of non-locally bound English *spros* poses similar problems. Consider a situation in which Mary has commissioned a portrait artist, and is disappointed with the results.

(4.3) a. Mary, thought the artist had done a bad job, and was sorry her parents came all the way to Columbus just to see the portrait of herself.

b. Mary, thought the artist had done a bad job, and was sorry her parents went all the way to Columbus just to see the portrait of herself.

The spro is equally acceptable regardless of whether Mary's perspective or her parents' perspective is taken as the locus for the deictic expression. Thus Sells' implicational hierarchy of logophoric roles makes the wrong predictions for English as well as Chinese.

2.2 Kuno (1987)

Independently of Sells, Kuno also proposes a multifaceted approach to logophoricity. The speaker of a proposition is marked [+logo-1a], the experiencer is [+logo-1b], and the addressee is [+logo-2]. While the first two roles seem analogous to Sells' SOURCE and SELF, the identification of the addressee role is unique to Kuno.

The choice of roles is prompted in part by the acceptability of non-clause-bound spros in contrastive predicates, such as the following. The judgments given are Kuno's.

- (4.4) a. John said to Mary that physicists like himself were a godsend.
 b. √?Mary said to John that physicists like himself were a godsend.
 c. √?Mary heard from John that physicists like himself were a godsend.
 d. *Mary heard about John that physicists like himself were a godsend.
 e. *Mary said about/of John that physicists like himself were a godsend.
- [Kuno (1987:123)]

Kuno proposes a special constraint for this construction, using the term "reflexive" for spros. Other contrastive predicates have similar constraints.

- (4.5) *Constraint on NP Like X-self*: The NP like x-self pattern in a subordinate clause is acceptable if it is in a logophoric complement clause and if the antecedent of the reflexive is [+logo-1] with respect to the logophoric verb that takes the complement clause. It is acceptable, awkward, or marginal, subject to idiolectal variation if the antecedent is [+logo-2]. Otherwise it is unacceptable.
- [Kuno (1987:123-4)]

Thus the spro is licensed if it refers to the speaker of the information in the complement clause, as in (4.4a). If it refers to the addressee, as in (4.4b,c), then judgments are less clear, and if it refers to neither the speaker nor addressee, then it is ruled out entirely.

One problem with Kuno's inventory of roles is that [+logo-1b] serves an awkward purpose at best. Its main function is to account for the difference in acceptability between the following examples.

- (4.6) a. John told Mary that, as for himself, he wouldn't have to move.
 b. ?John heard from Mary that, as for herself, she wouldn't have to move.
- [Kuno (1987:131)]

First, Kuno must posit an ad hoc rule stating that subjects which are [+logo-1a] or [+logo-2] may "optionally" be marked [+logo-1b] as well. He does not explain why the speaker or addressee may also be interpreted as an experiencer precisely when it is a subject; the [+logo-1b] feature does not seem to correlate with any real property of the NP it marks.

Then the *as for X-self* construction receives its own four-part constraint which covers the various types of antecedents its spro object can have. Part of the constraint states that the spro is acceptable if it refers to a [+logo-1b] antecedent, but marginal if the antecedent is only [+logo-1a]. Thus, even though the spro refers to the speaker in both sentences in (4.6), it is only fully acceptable when the speaker is the subject.

A much simpler solution is available if we take into account the fact that the *as for* construction is usually found in direct discourse, not reported speech.

(4.7) a. "My son can do as he wishes," Joe declared. "But as for my daughter, I like to keep a closer eye on her."

b. ?#Joe told Mary that as for his daughter, he liked to keep a closer eye on her.

c. #Mary heard from Joe that as for his daughter, he liked to keep a closer eye on her.

If my intuitions on these data are correct, then *as for* always sounds more natural when it is in a direct or even an indirect quote. Thus (4.6a) sounds better because it is easier to attribute the embedded clause directly to the speaker when it is a complement of *say*. With *hear from*, it is not clear whether the embedded clause is a verbatim report or a paraphrase of the speaker's words. This means that the difference in acceptability between (4.6a) and (4.6b) can be attributed to the peculiarities of the *as for* construction itself, so there is no need to posit [+logo-1b] to account for it.

Not only is [+logo-1b] an ad hoc feature, but there is no need to make Kuno's distinction between the speaker and addressee. As I will show in the next section, a much less complicated understanding of logophoricity is better able to account for these spros. Thus while Kuno makes a great effort to give an accurate account of a variety of data, he ends up positing a plethora of features and constraints for phenomena that deserve a simpler explanation.

2.3 Zribi-Hertz (1989)

Zribi-Hertz uses the term *long distance bound reflexive* (LDBR) to refer to an spro which does not have an antecedent within the minimal clause containing it; these are the same spros which Kuno terms "logophoric." She collects examples of LDBRs from a variety of novels.

For Zribi-Hertz, an LDBR refers to the subject of consciousness (SC); the person whose thoughts or feelings are being represented. This seems to correspond to Sells' SELF role, although Zribi-Hertz does not cite Sells. However, the SC is also identified in part as the speaker or addressee, similar to Kuno's notion of logophoricity. It is not enough for the spro to refer to any SC; specifically, it must refer to the *minimal SC*, as defined below.

(4.8) The *minimal SC* is either:

- a. the nearest available NP or combination of NPs (split antecedent) which occurs in discourse to the left of the pronoun, and is read as logophoric; or
- b. the speaker or the addressee, or a group including either one or both (cf. plural pronouns), whether or not explicitly mentioned in discourse.

[Zribi-Hertz (1989:711)]

While it is not explicitly defined, an NP is apparently "read as logophoric" simply when it refers to the SC.

Furthermore, an spro may not be separated from its antecedent by a domain-point-of-view (DPV) boundary. A DPV minimally coincides with a clausal category (CC), i.e. any predicate with a subject, which may or may not be overt. In this sense as well, Zribi-Hertz's analysis is similar to Sells'; the SC, if any, is identified on each CC, just as Sells specifies for each proposition which figure(s) the SELF is predicated of.

Finally, a CC stands as an opaque domain for the spro if and only if it embodies an independent DPV. For example, if the SC of a matrix clause is not also the SC of an embedded clause, then a logophoric spro in the embedded clause could not refer to the SC of the matrix clause.

To see how this analysis is intended to work, consider the following examples.

- (4.9) a. (...) Slowly, strangely, consciousness changes, and Petworth, can feel the change taking place within himself.
 b. But Rupert, was not unduly worried about Peter's, opinion of himself.
 [Zribi-Hertz (1989:709)]

First, note that Zribi-Hertz's examples include locally o-commanded spros which are not locally o-bound. This is the case in (4.9b), where the spro is locally o-commanded by the possessive, yet is not coindexed with it. This is typical of a certain literary style, which we return to in §5. In both of these examples the spro is assumed to refer to the minimal SC, the most recently mentioned person whose feelings are being identified. The second clause in (4.9a) and the entire clause in (4.9b) are each a minimal DPV themselves, so that there is no DPV boundary intervening between the spro and its antecedent.

Already there is a problem with (4.9b). Zribi-Hertz claims that NPs always constitute a CC. Since Peter is identified as an opinion holder, there is reason to believe that he counts as an SC for that NP, and thus is the minimal SC to which the spro object ought to refer. By being coindexed with Rupert instead, the spro is apparently crossing a DPV boundary, in violation of Zribi-Hertz's conditions on LDBRs.

In the following example, a DPV boundary is supposed to come between the spro and its intended antecedent.

- (4.10) Today I had, with each of them [Miss Hernshaw and Miss Seelhaft] separately, gone through the painful business of telling them about my divorce. So gleefully fast does bad news travel. They, stood now by the door waiting without visible impatience [e, to see the last of me/*myself].
 [Zribi-Hertz (1989:712)]

According to Zribi-Hertz, the two minor characters (Miss Hernshaw and Miss Seelhaft) constitute the SC of the bracketed clause, and hence the minimal SC to which any logophoric spro in this clause must refer. Therefore the first-person spro is ruled out, even though that narrator is in fact the SC of both the paragraph and the novel in general.

This analysis is also somewhat suspect. First, Zribi-Hertz does not explain precisely how the minor characters come to be "read as logophoric" in the embedded clause. Also, the disjunctive definition of minimal SC in (4.8) seems to allow the first or second person to always be interpreted as the SC for any clause, whether or not it has an overt antecedent. Zribi-Hertz does not clarify why the first person cannot be construed as the minimal SC in this clause as well.

The same issues arise with regard to the following examples, cited in Zribi-Hertz (1989:720).

- (4.11) a. She, had rejected Rosedale's suggestion with a promptness, of scorn that [e, almost surprised {her/*herself,}],
 [wha.262]
 b. He, [Slangenbergh, Dutch general] added a reference, to Overkirk [another Dutch general] which [e, did himself, harm in Holland when the account was published].
 [chu.976]

The relative clause in (4.11a) is supposed to constitute an objective DPV, with no SC, while in (4.11b) the entire sentence is a DPV in which Slangenbergh is the SC. However, this is counterintuitive at best—the mention of surprise in (4.11a) would seem to reinforce the subjective nature of the information, while in (4.11b) the relative clause would indeed seem to an objective report of the facts.

To conclude, Zribi-Hertz's account of logophoricity in English requires too many vague assumptions in order to make the right predictions. Next, I turn to my own analysis of logophoricity in English, which is fundamentally different in its approach from the ones we have seen so far.

2.4 A new approach to logophoricity in English

In this section I will argue that the key determiner of the acceptability of the spro is the extent to which the proposition containing it is representative of an idea of which the spro's referent is cognizant. Consider again Kuno's examples in (4.4), repeated below.

- (4.12) a. John said to Mary that physicists like himself were a godsend.
 b. ✓/?Mary said to John that physicists like himself were a godsend.
 c. ✓/?Mary heard from John that physicists like himself were a godsend.
 d. *Mary heard about John that physicists like himself were a godsend.
 e. *Mary said about/of John that physicists like himself were a godsend.

[Kuno (1987:123)]

Kuno's judgments might be explained as follows. In (4.12a), the embedded clause is representative of what John said, and therefore of his thoughts (whether or not they reflect his true feelings). In (4.12b), Mary tells John the same information, but that does not entail that he heard what she said. Therefore the same embedded clause may or may not represent a proposition of which John is cognizant. The same is true in (4.12c); with *hear from* the sentence does not entail that the embedded clause is precisely what John told Mary, so the proposition of which John is aware might be slightly different. Finally, in (4.12d) and (4.12e) there is no evidence that John has had any access to the information at all.

The following examples provide further evidence that, pace Kuno, it is not the speaker and addressee roles per se that determine acceptability of the spro.¹⁶

- (4.13) a. The program, reported that versions older than it/*itself, would have to be upgraded.
 b. John told Fido, that dogs like him/*himself, needed to attend obedience school.

A computer program is not cognizant of what it does, even if it can be considered the speaker of some information. Similarly, dogs are not adept at processing complex English sentences, and so Fido is not likely to be cognizant of the proposition embedded in (4.13b). Thus the spro must refer to someone who is aware of the proposition in which it appears.

While up to this point we have been looking at examples in which the spro's antecedent appears within the same sentence, this is not a necessary condition. The spro is still licensed as long as it is made clear in some way that its referent is aware of the information.

- (4.14) You should have been at the meeting today. John, made a proposal which everyone derided, but thankfully Mary came to his defense. She said that physicists like himself, were a godsend, and that the rest of them should all be a little more humble.

As long as it is clear that John is aware of what Mary said, the spro can refer to him.

¹⁶ Thanks to Carl Pollard (p.c.) for suggesting (4.13b).

To account for these data, I propose that every clause has a COGNIZER (COG) as one of its CONTEXTUAL-INDICES (C-INDICES). Pollard and Sag (1994) propose the C-INDICES feature as an attribute of the CONTEXT, which is a LOCAL feature. The C-INDICES may serve to identify, for example, the speaker and hearer of an utterance in order to place restrictions on the use of honorific forms in languages like German and Japanese.

The COG feature is somewhat different from the features proposed by Pollard and Sag in that it takes a set of indices as its value. This is to account for the fact that in principle, any of the members of COG can be referred to with the spro. For example, the indices of both Mary and John are in the COG set of the embedded clause in the following example.

(4.15) Mary_i told John_j that physicists like herself/himself_{i/j} were a godsend.

When the clause is selected by another head, as in this example, then the value of COG may be lexically determined.¹⁷ Thus the entry for *tell* includes the following information:

(4.16) SUBJ <NP>
 COMPS <NP_i, S[COG {i, j}]>

¹⁷ There must also be a restriction on COG that its indices be linked to sentient speakers of the relevant language in order to rule out the spros in (4.13).

This correctly predicts that when the verb is negated, the direct object still refers to a COG. The negation seems to take wide scope with respect to the reference possibilities of the spro in examples like the following.

(4.17) Mary didn't tell John_j that physicists like himself_j were a godsend.

Even though John is not actually aware of the proposition in the embedded clause, the verb specifies that his index is in the COG set.

On the other hand, if a similar situation is described with the verb *say*, then it must be clear from the larger context that John is cognizant of the embedded clause.

(4.18) a. I know that Mary was buttering up John_j at lunch today. However, she never said that physicists like him/*himself_j were a godsend.
 b. Mary sure was buttering up John_j at lunch today. She even said physicists like himself_j were a godsend.

Since John is not an argument of *say*, he is not lexically specified as a cognizer, and thus cannot be referred to with the spro in (4.18a). When it is clear that John is being addressed, as in (4.18b), then both Mary and John have their indices in the COG set. Thus the COG set may be determined both lexically and contextually.

So far we have no explanation for why it is not possible to use an spro to refer to each of the members of the COG set.

- (4.19) a. John told Mary that geniuses like himself were easily frustrated by mediocre people like her.
 b. John told Mary that geniuses like him were easily frustrated by mediocre people like herself.
 c. *John told Mary that geniuses like himself were easily frustrated by mediocre people like herself.

Although an spro can be used to refer to either John or Mary, they cannot both be referred to this way in the embedded clause.

The reason for this stems from the implications of empathy the spro carries. Kuno offers the following definition of empathy:

- (4.20) *Empathy*: Empathy is the speaker's identification, which may vary in degree, with a person/thing that participates in the event or state that he describes in a sentence.
 [Kuno (1987:206)]

These spros can be considered empathy expressions, indicators of where the speaker's allegiances lie, so to speak. Thus in (4.19a) the speaker is taking John's perspective, but in (4.19b) is taking Mary's perspective. The fact that (4.19c) is ruled out is predicted by a constraint of Kuno's:

- (4.21) *Ban on Conflicting Empathy Foci*: A single sentence cannot contain logical conflicts in empathy expressions.

[Kuno (1987:207)]

Rather than being a grammatical constraint, I consider this to be a practical limitation on the use of empathy expressions. If a speaker chooses to use a logophoric spro rather than the more neutral ppro, then it signals to the hearer that the speaker wishes to convey a

sense of empathy with the ppro's referent, as opposed to other members of the COG's set. Referring to more than one person with a logophoric spro runs counter to this goal.

With this analysis, we can revise Principle A accordingly.

- (4.22) Principle A (final version)

Is the spro...

	locally o-commanded?	
yes		no
locally o-bound		thematically commanded?
	yes	no
	thematically bound	coindexed with a member of the COG list of the minimal clause containing it

If the spro in question is locally o-free and th-free, then it must be coindexed with a member of the COG list found on the minimal clause containing it, or else it is ruled out.

Principle B needs no revision. As long as a ppro is locally o-free and th-free, it is predicted to be acceptable.

- (4.23) Principle B (final version)

A ppro is locally o-free and th-free.

This correctly leaves the ppro free to be coindexed with a COG set member. Note that in all of the examples in this section, the spro could be replaced with the ppro without any change in truth conditional meaning. The difference is simply that the spro carries a connotation of empathy with its referent that the ppro does not.

It is useful to compare the COG set with Sells' SELF role. Both represent a way to identify the person in whose "mind" a proposition exists. However, the fact that COG takes a set as its value allows for the possibility that more than one person may be aware of the relevant information. In this sense, we can think of the COG set as containing the potential "SELFS" for a given clause.

My approach has at least one advantage. Sells agrees that a verb like *tell* may lexically determine the logophoric roles. However, as (4.19) shows, there are two arguments, the speaker and the addressee, which may act as the "SELF." Under Sells' analysis, the verb *tell* would have to be lexically ambiguous, with one entry where SELF is predicated of the speaker, and another entry where it is predicated of the addressee. My analysis avoids this problem by separating out the availability of cognizers and the act of showing empathy for a cognizer by referring to it with an spro. It also is an improvement over Kuno's analysis in that it offers a unified understanding of logophoricity in English.

3. More data with logophoric spros

3.1 Contrastive predicates

We have already seen some examples of spros in the previous section which appear in what Safir (1992) refers to as "contrastive predicates." He divides these into three types.

(4.24) a. Similarity Predicates

someone unlike/similar to/very dissimilar to/completely different from/such as himself

b. Comparatives

a woman taller/more generous/less wealthy than herself

c. Exclusion Predicates

no one apart from/but himself, everyone except himself, someone besides/other than/in addition to himself, Mary, rather than himself

[Safir (1992:3)]

In Safir's analysis, contrastive predicates provide a special licensing environment for spros. In essence, if the same entity occupies both roles of a contrastive predicate, then the resulting meaning is either a contradiction, as in (4.25a), or a tautology, as in (4.25b).

(4.25) a. John, is taller than himself.

b. Mary, is similar to herself.

Because the hearer assumes that the speaker does not intend to be uninformative, the spro is free to seek its antecedent outside of the contrastive predicate.

This correctly predicts that the contrastive predicates in (4.26) allow the spro whereas the non-contrastive predicates in (4.27) do not.

(4.26) a. John, wants to marry a woman similar to himself/him.

b. John, is attracted to women unlike himself/?him.

c. The women, consider Mary similar to themselves/them.

(4.27) a. John, wants to marry a woman proud of him/*himself.

b. John, is attracted to women angry at him/*himself.

c. The women, consider Mary hostile to them/*themselves.

[Safir (1992:5)]

The problem with this approach is that it predicts that the following examples should also be acceptable when the spro is coindexed with an argument outside of the contrastive predicate.

- (4.28) a. ~~John~~_i knows that Bill_j is taller than himself_{ij}.
 b. ~~Bill~~_j believes that John_i is similar to himself_{ij}.

The presence of the copula forces the spro to be bound within the contrastive predicate, despite the resulting contradiction or tautology. Therefore there must be some structural aspect of the contrastive in (4.26) which allows the spro object to be bound by the higher subject. Based on the data in Chapters 2 and 3, the likely difference is that the spros in (4.26) are locally o-free and th-free, while those in (4.28) are locally o-commanded.

This state of affairs is possible if we assume that comparatives and similarity predicates each have both a predicative and non-predicative lexical entry. For example, the non-predicative entry for *similar to* appears as below. The PREDICATIVE (PRD) feature naturally takes a negative value.

(4.29)

CAT	HEAD	[MOD N' _i]
	SUBJ	< >
CONT	COMPS	< PP _j >
	RELN	<i>similar</i>
	ARG1	<i>i</i>
	ARG2	<i>j</i>

The phrase modifies an N' category, shorthand for an NP lacking a specifier. This ensures that *similar to* cannot modify a full NP like *Mary* when it is non-predicative.

- (4.30) a. *John is attracted to Mary similar to Bill.
 b. John believes that Mary is similar to Bill.

Now the spros in (4.26) are locally o-free, and their only restriction is that they be coindexed with a member of the COG set.

One final restriction must be placed on the lexical entry in (4.29), in order to account for the fact that coreference between the modified N' and the PP object is categorically impossible.¹⁸

- (4.31) a. [John and Mary]_i know that people_j like them_{ij} are bound to succeed.
 b. [John and Mary]_i know that people_j like themselves_{ij} are bound to succeed.

Regardless of which pronoun is used, *people like X* cannot mean *people who are like themselves*. This interpretation can be ruled out by positing a path inequality between the values of ARG1 and ARG2 in the lexical entries of similarity predicates. In (4.29), for example, the stipulation *i ≠ j* is noted along with the CAT and CONT features.

The lexical entry for predicative *similar to* is the same as in (4.29), except that the MOD value is an NP, the PRD value is positive, and the SUBJ list has an NP coindexed with the MOD value. Also, there is no requirement that the subject and object be distinct

¹⁸ Thanks to Carl Pollard (p.c.) for pointing this out to me.

in reference. This means that the spros in (4.28) are locally o-commanded by the embedded subject, and thus are required by Principle A to be locally o-bound.

As for Safir's exclusion predicates, these already lack another argument to locally o-command or th-command their object. Thus an spro in this position is constrained only to be coindexed with a COG set member.

Another construction which Safir suggests is contrastive is the coordinate NP. It also allows an spro to be bound outside of its clause.

(4.32) a. And Nicole, had told you that nothing happened between herself, and Keith?

[ojs.2/3/95.1771]

b. In the courtroom, a large-screen television showed videotapes of Sharpton, on talk shows, excitedly naming Pagones, as an attacker and daring him, to sue Maddox, Mason and himself.

[Pittsburgh Post-Gazette, 2/10/98]

In each of these examples the spro refers to a person mentioned in the higher clause, whose index is a member of the COG set of the lower clause. The contrast seems to be among the various conjuncts.

Again, the spro is not subject to the first clause of Principle A because individual conjuncts of a coordinate NP are never locally o-commanded. In (4.32b), for example, it is the entire coordinate NP which is selected by *sue*; the SYNSEM values of the individual conjuncts do not appear on the verb's valence list. Similarly, because the verb does not assign a thematic role to the individual conjuncts, the spro is also not th-commanded. Thus it is free to be licensed by the last clause of Principle A.

An interesting consequence of this approach is that it predicts that the ppro should also be free of any constraints on its reference, even if it is in the direct object of a verb whose subject it is coindexed with.

(4.33) a. John, brought his dad and him, closer by taking an interest in model trains.
b. Mary, drove her, and John to the airport.

While these may seem slightly implausible out of context, the fact is that they are attested.

(4.34) a. I went on this trip with hopes of bringing my dad and me closer.

[ell]

b. Now, Nelson, is not only driving her, and her 5-year-old daughter around in the 1991 Mercury Tracer but supplying rides to another woman who left cash assistance to work at Everything 99 Cents.

[Pittsburgh Post-Gazette, 11/2/98]

Thus the analysis of NP conjuncts as locally o-free and th-free is supported by the coreference potential of both spros and ppros.¹⁹

¹⁹ Reinhart and Reuland (1993) propose (without empirical support) that the individual conjuncts form a semantic predicate with the verb and its other arguments precisely when the coordinate NP has a distributive reading. Thus they predict the ppro to be possible only on a collective reading. See Golde (1999a) for details of an experiment which does not show any difference in acceptability of the spro and ppro correlating with the distributive versus collective reading.

3.2 Picture nouns

Zribi-Hertz (1989) finds numerous examples of non-contrastive logophoric spros in literature, as we will see in §5.2. The question for the purposes of this section is whether they occur in non-literary styles as well.²⁰ Although the empirical evidence is not robust, it does seem that they occur as picture noun objects. First, I was able to find a few examples in the courtroom trial transcripts.

- (4.35) a. As his Honor told you, among all the thousands of people who live in and near Denver, your number came up by a chance process and you're here to give us a little more information about yourself.

[nic.9/30am.1885]

- b. Before coming to court today, did you see a photograph of yourself up on the ninth floor in the windows you've just pointed out for the jury?

[nic.11/17am.3305]

- c. You and your husband read an article in the Arizona Republic about yourselves that upset you, did you not?

[mcy.4/30am.3404]

- d. They fill out a subscriber agreement and give some information on themselves.

[mcy.5/7am.6713]

There are also examples to be found in written texts.

²⁰ For the rest of this section, I will assume that "acceptability" refers to the status of the spro in a non-literary style.

- (4.36) a. A typical dot.plan might start with a motto or a fave quote, such as, "In theory, there's no difference between theory and practice. But in practice, there is." Followed by as intriguing and flattering a profile of yourself as you can whomp together.

[gof.990]

- b. After the meeting, Rama, returned to his latest project: staging a national, six-month, six hundred and fifty thousand dollar "Zen" seminar promotional campaign. The effort included the placement of a two-page spread in the Sunday New York Times. One page was a photo of himself; the other advertised his free talk on Zen and success at Alice Tully Hall, Lincoln Center.

[lax.8461]

While these are written, the writing is not of the style that freely admits logophoric spros. The first excerpt is from a 1995 guide to the internet, and the second is from a 1993 autobiography, neither of which contains logophors elsewhere.

On a more intuitive level, the following constructed examples sound reasonably colloquial.

- (4.37) a. The picture of himself, in the paper upset John.
b. The reporter told Mary, that the article about herself, would appear in next month's issue.

Thus I will assume, pace Baker, that logophoric spros do appear in non-literary styles of English as picture NP objects.

The most familiar picture nouns are those denoting a manufactured representation, such as *portrait*, *statue*, or *book*. But any noun which denotes some aspect or image of a person's internal or physical self will qualify.

- (4.38) a. Mary, felt that a part of herself, would always remain in Toledo.
 b. Howard Hughes, was uncomfortable allowing reporters to catch so much as a glimpse of himself.

Relational nouns other than picture nouns cannot have logophoric spro objects.

Thus we have the following suprisingly robust contrast.

- (4.39) a. John, was getting tired of Mary's dirty campaign tactics. He was especially upset by the doctored photo of him/himself, she had printed in the paper.
 b. John, was getting tired of Mary's dirty campaign tactics. He was especially upset by the open letter to him/*himself, she had printed in the paper.

In (4.39b), *letter* is not a picture noun, and so the use of the spro implies that coreference is intended with the writer of the letter, Mary.²¹ In other words, the spro is locally th-commanded by the writer role without being th-bound, so it is ruled out by Principle A.

This implies that picture nouns do not have an "external" thematic role, an agentive role usually assigned to the possessive when it is expressed. This seems to be true in certain cases. For example, if the assignment of the agentive role is directly asserted in a sentence, then that role is apparently too salient to omit.

- (4.40) a. John, painted a picture of *him/himself.
 b. John, saw a picture of him/himself.

This is the case in (4.40a), where John is clearly assigned the agentive role in the picture NP.²² Thus the ppro is th-bound, and ruled out by Principle B. However, if the agentive role is not directly relevant to the situation, as in (4.40b), then both pronouns are free to appear, although the structure of the sentence is otherwise parallel to (4.40a).

Even if the creator of the picture NP's denotation is known, the agentive role of the picture NP seems to be optional.

- (4.41) Among 19th century artists, Milford, was famous for his etchings and oil paintings. But a statue of him, which stands on the family estate has recently gained more attention.

It is clear from the context that Milford must have created the statue because it is mentioned as an object of interest with respect to his other work. Nonetheless, a coindexed ppro can appear as an object without being ruled out by Principle B, lending support to the idea that picture nouns in general have optional agentive roles.

Just as when the spro is in a contrastive predicate, the spro in a picture NP must be coindexed with a member of the COG set. Consider (4.39a) again, this time in the following juxtaposition.²³

- (4.42) a. John, was getting tired of Mary's dirty campaign tactics. He was especially upset by the doctored photo of him/himself, she had printed in the paper.

²¹ Note that *letter* would be a picture noun if it had an *about*-PP as its object; in this case the NP would denote a representation of the referent of the PP object.

²² Carl Pollard (p.c.) points out that interestingly, the ppro would be acceptable in (4.40) on the reading where John takes an already painted picture of him and proceeds to deface it. Now that John is no longer the creator of the representation, the ppro object is th-free and admitted by Principle B.

²³ Pollard and Sag construct similar juxtapositions.

- b. Mary was going to get even with John. She was sure that she could regain the upper hand by getting a doctored photo of him/*himself, printed in the paper.

In (4.42a) John's feelings are being expressed, and it is clear from the use of the word *upset* that he is cognizant of the information in the PP containing the spro. On the other hand, in (4.42b) there is no reason to believe that John is aware of Mary's plans; therefore John's INDEX value does not appear on the COG list of the embedded clause, and the spro is ruled out by Principle A.

3.3 Processing effects on spro acceptability

As a referentially dependent expression, speakers must be able to identify the antecedent of an spro. If the spro is in the first or second person then this is not an issue, but the acceptability of the third person spro may be affected by the ease with which the antecedent can be found. In particular, problems arise if another potential antecedent intervenes between the spro and its intended antecedent, as in the following example.

- (4.43) Bill, remembered that Tom, saw a picture of himself_m in the post office.

Pollard and Sag note that in an example like this, the spro seems to be forced to refer to Tom rather than Bill.

However, as Pollard and Sag demonstrate, acceptability can be improved by replacing the human intervener with an inanimate one, or with a quantified or expletive NP. These interveners have been underlined in the following examples.

- (4.44) a. Bill, remembered that the Times had printed a picture of himself, in the Sunday edition.
 b. Bill, suspected that the silence meant that a picture of himself, would soon be on the post office wall.
 c. Bill, thought that nothing could make a picture of himself, in the *Times* acceptable to Sandy.
 d. Bill, knew that it would take a picture of himself, with Gorbachev to get Mary's attention.

[Pollard and Sag (1994:268)]

As long as the intervening NP is not a likely antecedent for the spro, coreference with the matrix subject is improved.

These processing effects are ones that affect anaphoric resolution in general. For example, Pollard and Sag show that interpretation of the unexpressed subject of a gerund in "Super Equi NP Deletion" constructions is subject to the same pressures. Thus this phenomenon is outside the scope of the binding theory, and it would be inappropriate to attempt to revise Principle A to account for it.

4. Hypercorrective spros

In Chapter 6 I will discuss evidence that spros have carried a connotation of formality throughout the history of English. That continues to hold true for many speakers today, as indicated by the prolific use of spros in formal setting like courtroom trials. Sometimes the spros can be analyzed as contrastive, as when they appear in a coordinate NP. This is the case in the first example below.

- (4.45) a. Detective Phillips, this purports to be a telephonic communication between a deputy coroner by the name of Paul Willis and yourself, and I'll ask you if you recognize the voices at some point, okay?

[ojs.2/16:1891]

- b. Q. Now, you said as one of the reasons for not imposing it [the death penalty] was a lack of evidence or a chance to bring new information to court. Can you explain to me what you meant by that?

A. If myself as a juror did not feel that there was enough evidence to bring upon the death penalty, then I wouldn't impose it.

[mcy.4/12:5572]

- c. As the Westec sergeant was passing myself, I stopped him and I said, "Is there anybody that's supposed to be at home now,"...

[ojs.3/10:1912]

Despite the fact that spros are not generally allowed in these positions, (4.45b) contains an spro as the subject of a finite clause, and in (4.45c) the spro is a non-coindexed coargument. I refer to this type of self-pronoun as "hypercorrective" since it runs counter to the usual binding theory constraints, and speakers seem to believe that it makes their speech sound more formal.

Hypercorrective spros may also be found in business correspondence, as in the following examples.

- (4.46) a. However, I am reporting to you today that the owners of your building have been working with myself to correct this problem.

[Letter from Fire Department Chief to apartment building residents (2/9/99)]

- b. If you would like to do this, please reply to myself...

[email received by Carl Pollard 10/99]

As these examples suggest, hypercorrective spros seem to be restricted to first and second person forms. This makes sense if we view them as related to logophoric uses; the indices of the speaker and addressee are always in the COG set, as long as they are both aware of what is being said. Hypercorrectives are like other logophoric spros except for the fact that they can be found in any syntactic location. Speakers who use them seem to have identified them as freely available, rather than subject to the binding theory principles.

Prescriptivists have noticed this phenomenon and of course decry it. William Safire admonishes us in his Washington Post editorial of 10/17/99 not to be the "myself" generation, and sheepishly admits that he himself is guilty of using them.

But even linguists can have a strong negative reaction to their use. Cantrall (1974:43) confesses, "I uncharitably attribute those people with false modesty, self-consciousness, ignorance of the standard dialect, or paranoia." Cantrall does not explore the possible source of the paranoia, but the use of *myself* may be related to what Brian Joseph (p.c.) has called the "avoid *me* constraint." Speakers who are unsure of whether a nominative or accusative pronoun is prescriptively correct may either use the nominative and risk being wrong (the "between you and I" phenomenon) or they may try to avoid the issue altogether by using the spro instead.

As hypercorrectives, these spros are used somewhat randomly; they are not constrained by grammatical principles, but rather by a speaker's desire to create a formal impression. Thus they need not be accounted for by the binding theory principles.

5. Literary styles: Baker (1995) versus Zribi-Hertz (1989)

As we saw in §2.3, Zribi-Hertz identifies the key constraint on the literary use of logophoric spros as relating to the SC. Baker (1995) takes issue with this analysis; in his

corpus of British novels, he identifies what he calls *locally free reflexives* (LFRs), and claims that they behave exactly like adnominal emphatics.²⁴ In other words, the LFR *himself* has just the same constraints as the emphatic NP *John himself*.

We will return in greater depth to the issue of adnominal emphatics in Chapter 5, but for now consider Baker's constraints:

- (4.47) Contrastiveness Condition: Emphatic NPs are appropriate only in contexts in which emphasis or contrast is desired.

[Baker (1995:77)]

- (4.48) Condition of Relative Discourse Prominence: Emphatic NPs can only be used to mark a character more prominent or central than other characters. (Such characters include figures with high external rank, directly responsible agents, directly affected patients, primary topics of concern, and subjects of consciousness.)

[based on Baker (1995:80,85)]

According to Baker, referring to an SC is neither a necessary nor sufficient condition for the use of an LFR. First, an LFR must be contrastive, and second, it must be discourse prominent, but there are several ways of being discourse prominent, of which referring to an SC is only one.

Baker seems to be correct that being an SC is not a necessary constraint on LFRs. In the following example, the SC is Elinor, but the LFR refers to another character.

²⁴ Baker uses the term "intensive" rather than "emphatic". This word has been changed in my citations of his conditions for the sake of consistency.

- (4.49) But at the same time, she could not help thinking that no one could so well perform it as himself. (SC=she (Elinor), LFR referent=Colonel Brandon)

[Baker (1995:68)]

While Baker does not explain how Colonel Brandon achieves discourse prominence in this example, presumably he is the primary topic of concern in some sense. It is clear, at any rate, that Zribi-Hertz's analysis would rule out this *spro* because it does not refer to the SC.

On the other hand, Baker's criticism of Zribi-Hertz entails that he must assert that all of her LDBRs are contrastive, including the one in the following excerpt.

- (4.50) Her acquaintances at Northram, she thought, would have considered such affection unnatural, and probably perverted, if not wholly insincere, and there was something in herself that could not help but suspect it.

[dra.117]

Baker admits that it is difficult to see a "clear contrastive import" in this example, and suggests that perhaps there is a "weaker requirement of simple prosodic salience" in those cases. (p.68, fn.7) There does indeed seem to be some contrast between the narrator's feelings and those of her acquaintances.

But Zribi-Hertz offers even clearer instances of non-contrastive LDBRs, as in the following.

(4.51) [Philip is starting an affair with Desiree, Zapp's wife] Whom he, [Philip] was supposed to be fooling, he couldn't imagine. Not the twins, surely, because Desiree, in the terrifying way of progressive American parents, believed in treating children like adults and had undoubtedly explained to them the precise nature of her relationship with himself.

[lod.170]

In this example it is clear that Desiree's relationship with Philip is not being contrasted with anything else. On the other hand, the spro does refer to the SC, in the sense that these musings can be attributed to the referent, Philip.

Thus Baker seems to be correct in asserting that his LFRs need not refer to the SC, but is incorrect in claiming that contrastiveness is a necessary condition for Zribi-Hertz's LDBRs. This leads me to believe that Baker's LFRs and Zribi-Hertz's LDBRs are two separate phenomena. The confusion apparently arises from the fact that there is a great deal of overlap between the two, since when the spro refers to an SC, it may or may not be contrastive.

That these are separate phenomena is also supported by the composition of the respective corpora. Zribi-Hertz's corpus contains exclusively 20th century writers, including those from Britain, the US, Canada, and South Africa. At least half of the work dates from the 1960's or later. Baker, on the other hand, draws mostly from the early 19th century work of Jane Austen, and to a lesser degree from the early 20th century work of another quintessentially British author, P.G. Wodehouse. Baker even specifies LFRs as belonging to British English, although the nature of his corpus suggests that the phenomenon might belong to a literary style of British English rather than to the language in general.

Although Baker's approach works well in accounting for these spros in literary British English, he ends up making the wrong predictions for American English by positing the following paradigm.

		Noncontrastive	Contrastive Emphatic
British English	subject	they	they themselves
	object	them	themselves
American English	subject	they	they themselves
	object	them	THEM

Table 4.1: Contrastive pronouns according to Baker (1995)

In both American and British English, contrastive emphatic pronouns are expressed with the adnominal emphatic when in subject position (e.g. *they themselves*). In object position, neither variety allows the combination **them themselves*; instead, according to Baker, British English uses the unheaded emphatic *themselves*, while American English uses the stressed pronoun *them*.²⁵

However, this leads to the wrong prediction in the case where a locally o-bound pronoun happens to be contrastive and prominent.²⁶

²⁵ We will return to the issue of pronominally headed emphatics in §3 of Chapter 5; I will argue that combinations like *them themselves* are ruled out for phonological reasons.

²⁶ Thanks to Carl Pollard (p.c.) for pointing out this problem.

(4.52) Peter, thought he, would vote for Mary, but instead he, voted for HIMSELF/*HIM.

Baker would predict that the stressed ppro is acceptable here in American English, simply because it is contrastive (with Mary), and prominent (since Peter is the subject of consciousness/primary topic of concern). But clearly the pronouns have the same distribution in this sentence as they would if they weren't contrastive. A simpler characterization of the differences is that American English does not allow headless emphatics per se; instead, all pronouns are subject to the binding theory principles regardless of contrastive stress.

To summarize, spoken American English is subject to precisely the binding theory principles given in (4.22) and (4.23), although some speakers use first and second person spros hypercorrectively. The literary style discussed by Zribi-Hertz is not strictly subject to Principle A; spros presumably may be licensed by being locally o-bound or th-bound, but they may also refer to a cognizer not denoted by a coargument, even when locally o-commanded or th-commanded. Baker identifies a different literary use of spros, where they are simply headless emphatics.

CHAPTER 5

EMPHATICS: WHERE IT ALL BEGAN

1. Introduction

It is commonly acknowledged that Present Day English (PDE) spros originated in Old English (OE) as a sequence of a ppro followed by the emphatic word *self*. In Chapter 6, I will examine the details of this process. However, this requires that we first have a thorough understanding of the nature of the emphatic. Ideally, we would want to examine a corpus of OE texts, and determine the precise constraints on the use of the emphatic. However, the lack of negative data makes it difficult to achieve the same sort of precision that is possible when studying a currently spoken language.

Therefore, I will begin by looking at the PDE emphatic, which can be either adnominal or adverbial. After determining its constraints in this chapter, we can then evaluate the OE data with respect to the PDE constraints in Chapter 6. This will aid us in hypothesizing the details of the development from the emphatic to the PDE uses of the spro.

Past work on English adnominal emphatics, including Edmondson and Plank (1978), Kemmer (1995), Baker (1995), and König and Siegmund (to appear), is characterized by treating the data in a uniform manner. While I will also argue for a

unified analysis, a close look at the data shows that there are actually two main types of usage which these previous analyses either overlook or obscure.

Both types of adnominal emphatics have two related conditions on their usage, but they differ in terms of how these conditions are met. First, the emphatic always refers to a familiar figure. For the type I term the “literal emphatic,” the referent is familiar in a cultural context. For the “discourse emphatic,” the referent is highly salient within the immediate context of the discourse.

Second, the adnominal emphatic establishes its referent as occupying a privileged position on some scale, and contrasts it with other members of the scale. For the literal emphatic, that scale is one of cultural importance, and the contrast is with more humble figures. The scale relevant to the discourse emphatic is established by the discourse structure; the emphatic’s referent is central in importance to the discussion, and is contrasted with more peripheral entities.

This distinction between two types of adnominal emphatics will prove to be noteworthy in Chapter 6. There we shall see that there is some evidence that the literal emphatic predates the use of the discourse emphatic.

As for adverbial emphatics, there has not been much previous work on the topic. I will review the findings of Edmondson and Plank and of König (1991), and discuss the features of adverbials which are common to other functions of the spro.

This chapter begins with an in-depth look into adnominal emphatics, starting with the literal type. My analysis of each draws on observations made by Edmondson and Plank and by Kemmer, but in the course of the discussion I will also show how each of these previous analyses is incomplete. I will also take a brief look at pronominally headed emphatics to see what kind of predictions my analysis makes for these NPs. The chapter

will end with a discussion of the different uses of the adverbial emphatics and their common characteristics.

2. The basic types of adnominal emphatics

2.1 Literal emphatics

We begin by looking at examples of emphatic NPs whose referents have some sort of high rank or prestige. (The emphatic NP will be underlined throughout this chapter for ease of reference; this is not intended to indicate stress.)

- (5.1) a. Whether he should aspire to great authority in the government, or choose to rule with the absolute powers of the Tsar himself these already vast possessions on the Pacific—to be extended indefinitely—would be decided by events.
[ath.1551]
- b. Lite said that [i.e. that Burns had no business being there] because he was not given the power to peer into the future, and so could not know that Fate herself had sent Robert Grant Burns into their lives.
[bow.2414]
- c. Cried one professor after a few months of Student Schiele’s tantrums and rebellion: “The devil himself must have defecated you into my classroom!”
[Brown 166871]

In each of these examples, a different discussion is underway: politics in (5.1a), the reason for Burns’ arrival in (5.1b), and Schiele’s bad behavior in (5.1c). Within these contexts, a figure is invoked which heads a relevant hierarchy; the Tsar as the most powerful political figure, Fate as the ultimate causer of events, and the devil as the epitome of evil. In each case, there is an implicit contrast between the head of the hierarchy and the more humble figures beneath it.

The figure referred to may also head a very specific hierarchy. In the following example from a book review, Jane Austen is invoked as epitomizing a type of old-fashioned woman author employing an ultimately optimistic tone.

- (5.2) For all its '90s-style kvetching about fat deposits and "fuckwittage," Helen Fielding's now infamous *Bridget Jones's Diary* ends with the kind of plucky, upbeat note that Jane Austen herself would have loved.

[Harper's Bazaar, 7/99, p.144]

Since this is the first sentence of the review, there has been no chance to establish the existence of this hierarchy or Jane Austen's place on it. Instead, the reader is left to infer the author's view on this matter; whether or not the reader agrees with this characterization of Austen is irrelevant to the emphatic's interpretation. Thus while still culturally situated, the hierarchy invoked may also be subjective to a certain degree, as long as the speaker believes it will make some sense to the addressee and knows the referent to be a familiar one.

Certain of these insights are reflected in Edmondson and Plank's characterization of emphatics.

- (5.3) It must be the case that:
- a. this person or thing mentioned
 - b. in this particular situation
 - c. is remarkable
 - d. in the eyes of the speaker.

[Edmondson and Plank (1978:379)]

The "remarkability" they make note of can be seen as stemming from the contrast between the head of a hierarchy and the figures beneath it. The fact that this remarkability must be grounded in a particular situation relates to the fact that the hierarchy itself must be relevant to the context. For example, in (5.2) Austen may not be remarkable in and of herself, but in the author's opinion, she holds a special place among women writers. Similarly the following type of utterance, noted by Edmondson and Plank, is appropriate only in certain contexts.

- (5.4) Caesar himself!

This might be uttered by a tourist from Gaul who catches a glimpse of Caesar in Rome, but not by a servant who brings Caesar his breakfast every morning. The contrast between the high status of Caesar and commonfolk is more notable to someone who is not used to dealing with the emperor on a daily basis.

However, the characterization in (5.3) is slightly inaccurate, in that the emphatic can also refer to a figure considered to have high status by the hearer or other person(s) whose point of view is being empathized with. For example, the following sentences could be uttered by an adult no longer impressed with Santa Claus.

- (5.5) a. Look children, Santa Claus himself!
b. The children were so excited to see Santa Claus himself at the mall.

Here the adult takes the point of view of the children, whether speaking to them directly or talking about them. Thus we have the following contrast:

- (5.6) a. The children saw Santa Claus himself at the mall.
b. #The teenagers saw Santa Claus himself at the mall.

Once children reach a certain age, we know that Santa Claus becomes demoted in their pantheon of heroes. Thus in (5.6b) the requirement of high status is not met, as long as the hearer is meant to empathize with the teenagers. This utterance might still be felicitous if it is said to a small child.

The fact that Edmondson and Plank's remarkability must stem from high status is illustrated by the following example. Suppose that John owns a snake named Fluffy who escapes from her cage. The next week, after having given up hope of finding her, John goes shopping at a nearby mall and sees Fluffy hiding behind a clearance rack. He is not likely to utter:

- (5.7) #Fluffy herself!

Despite Fluffy's unexpected appearance, she has no particular status on any hierarchy that is relevant to the situation.

Finally, the status of the emphatic's referent must be higher on the relevant scale than any other figure which is mentioned. In the following dialogue, the hierarchy is one of political importance.

- (5.8) Agatha: Guess who's going to be presenting the award for volunteer work?
Bernice: Who—Mayor Brown?
Agatha: No, Governor Davis himself!

Since Bernice mentions a figure lower in the political hierarchy than the state governor, it is appropriate for Agatha to name the governor as someone whose rank justifies the use of the emphatic.

But in (5.9), Bernice invokes a more extensive hierarchy by mentioning the president.

- (5.9) Agatha: Guess who's going to be presenting the award for volunteer work?
Bernice: Who—President Clinton?
Agatha: No, Governor Davis (#himself).

Now Agatha is no longer able to use the emphatic, since the governor is ranked lower on this hierarchy than the president.

To summarize, the literal emphatic marks a referent which is familiar to the interlocutors, and can be construed as heading a contextually relevant hierarchy. The referent is also contrasted, at least implicitly, with figures lower on that hierarchy. This is summarized in the following table.

identifiable referent	scalar contrast
referent is familiar in culture	between head of hierarchy and more humble figures beneath it

Table 5.1: Constraints on the literal emphatic

This table shows the two general constraints on the emphatic, that there be an identifiable referent and contrast on a scale, and how those constraints are met for the literal emphatic. In the next section I turn to the discourse emphatic, which meets the same constraints at the level of discourse structure.

2.2 Discourse emphatics

2.2.1 The phenomenon

With respect to the literal emphatic, the emphatics in the following examples refer to a more mundane person or entity.

- (5.10) a. [In a review of D'Albert's performance.] Works by Dohnanyi, Hubay, Mr. D'Albert himself, and Paganini indicated that the violinist [D'Albert] had some virtuoso fireworks up his sleeve as well as a reserved attitude toward a lyric phrase.

[Brown 180021]

- b. On each side of the motor well there's storage for battery, bumpers, line, and spare props with six-gallon gas tanks below. The well itself is designed to take two Merc 800's or 500's if you wish, and there's room for a 25-gallon long cruise gas tank below it.

[Brown 297323]

- c. Elinor could not but smile to see the graciousness of the women towards the very person who, unbeknownst to them, had caused them such harm; while she herself, who had comparatively no power to wound them, sat pointedly slighted by both.

[based on aus.239]

Although these are ordinary figures, each of them plays a prominent role within the context of the narrative. In the first two examples the emphatic refers to a concept central

to the discussion; the passage in (5.10a) is from a review of D'Albert's performance, and (5.10b) is from a paragraph describing a motor well. In (5.10c) Elinor is central to the narrative as a whole in that she is the subject of consciousness in Austen's novel.

Just as the literal emphatic contrasts the head of hierarchy with more humble figures, the discourse emphatic contrasts an entity central to the discourse with more peripheral entities. Furthermore, while the literal emphatic refers to a "famous" person or thing, the referent of the discourse emphatic must also be familiar, but instead through a high level of salience at the point in the discourse where it appears. This is summarized in the following table, which builds on Table 5.1.

	identifiable referent	scalar contrast
literal emphatic	referent is familiar in common culture	between head of hierarchy and more humble figures beneath it
discourse emphatic	referent is salient	between central and peripheral figures

Table 5.2: Constraints on literal and discourse emphatics

In the remainder of this section, I will elaborate on what it means for an entity to be salient, drawing on previous work by Kemmer (1995) and Kemmer and Barlow (1996), as well as concepts developed in Deane (1992). In the course of this discussion it will also become clear that the salient entity marked by the discourse emphatic must be understood as central, in contrast with more peripheral entities.

2.2.2 Kemmer (1995), Kemmer and Barlow (1996)

For Kemmer (1995) and Kemmer and Barlow (1996), the key to the acceptability of the emphatic is "prominence." This term refers to both the central orientation of the referent in the discourse and to its level of salience; these concepts seem to be treated as equivalent. Kemmer relates prominence to referential accessibility, as presented in Ariel (1988, 1990). This term refers to the degree of ease with which hearers can identify the referent of a given expression at a particular point in the discourse.²⁷

According to Ariel, a speaker has a choice of referring expressions, which signal to the hearer the level of accessibility of the referent. Full NPs are typical low accessibility signals, while pronouns and zero anaphora indicate high accessibility. Kemmer asserts that the morpheme *self* is in general a marker of high accessibility. Thus an emphatic NP is interpreted as referring to a highly accessible entity.

Kemmer identifies three discourse patterns in which the emphatic NP is used.

- (5.11) a. *return to topic*, where *-self* excludes subordinate conceptualizations that have achieved salience since the most prominent conceptualization (the topic) was first brought up.
b. *secondary topic*, where *-self* marks something which is not highly topical, but is contrasted with (thus excludes) other aspects of that entity that have meanwhile been invoked.
c. *implicit antecedent*, where the context invokes a scenario in which some part is understood to be "naturally prominent" (e.g. banquet \Rightarrow dinner).

First, the emphatic NP may refer to the topic of a discourse, which is by definition highly accessible. Kemmer draws on Langacker (1993) in describing a topic as a "prominent

²⁷ As we have seen, Baker also recognizes "prominence" as a condition on emphatics. However, rather than attempt to define the term as Kemmer does, Baker simply lists a number of contexts in which the condition is met in slightly different ways, as presented in (4.48). See again Golde (to appear) for further details.

conceptualization which acts as a kind of cognitive anchoring point." (Kemmer 1995:58)

While somewhat vague, this is probably an appropriate description of the emphatics' referents in (5.10a-c) above. D'Albert, as the performer being reviewed, the motor well, whose surroundings are described, and Elinor, as the subject of consciousness and the main character, all qualify as topics in this sense.

In the second discourse pattern the referent is a secondary topic, in that it is a prominent conceptualization, but not the most prominent one. This is the case in the following example.

- (5.12) ...silliest of all, Glenda and Glenys Kinnock pretending to build a wall together at the Blackburn Road Builders Training Centre. Photos show the two women crouched behind a palisade of brick and wet mortar, Glenda wielding trowel and spirit level, Glenys brandishing a supportive trowel of her own... Subsequent cross-examination of those at the training center revealed that the two G.s had laid only one brick between them, and that the wall itself, after the witnesses had gone, was to be demolished and reconstructed in a different shape.

['Letter from London' by Julian Barnes, *New Yorker* 5/4/92, p.81, =Kemmer's (6)]

Here Kemmer identifies the human participants as being the most topical, with the wall being subordinate to these conceptualizations. It is being set off from other aspects of the wall, such as the building event and the bricks, which have been mentioned as well.

Finally, in the third discourse pattern the emphatic NP refers to an entity which is "naturally prominent in an overall conceptualization that has been evoked." (Kemmer 1995:60) This is the case in the following constructed example, where the dinner is a focal point of the banquet.

(5.13) Although the banquet was held at the exclusive Duquesne Club, the dinner itself was rather ordinary.

A similar relation might hold, for example, between a tour group and the guide herself, or a fender and the car itself.

Thus Kemmer offers some useful generalizations concerning the discourse emphatic. However, on closer inspection there seems to be some ambivalence regarding the notion of accessibility. Kemmer notes that the emphatic signals exclusion of the more recently mentioned concepts, and that since the emphatic is supposed to refer to the most accessible concept, "we might hypothesize that recency is a relatively weak source of conceptual accessibility, easily overridden by other indications of prominence." (fn.2) On the other hand, in Kemmer and Barlow, which essentially follows Kemmer's analysis, they conclude that the "headed emphatic designates a highly prominent and hence easily accessible participant—but not necessarily the most immediately accessible one, which is often the referent just mentioned." (p.235)

Furthermore, Kemmer and Barlow name "unexpected reference" as one of the primary characteristics of emphatics. But this implies that the reference is to a concept which the hearer was not prepared to access, contradicting the claim that the concept is highly accessible.

I believe that these issues can be resolved by turning to the analysis of salience put forth in Deane (1992). Although Deane does not put this analysis to use to describe emphatics, it seems ideally suited to this purpose. The requirement that the discourse emphatic contrast a central figure with more peripheral ones is then treated as an independent constraint.

2.2.3 An alternative analysis of salience

Deane grounds his theories of discourse structure in general cognitive principles such as activation, salience, and entrenchment. Activation refers to the amount of attention a concept receives. A highly active concept is said to be salient, and is easily accessed for processing. This notion appears to be the same as Ariel's referential accessibility, but Deane does not cite Ariel. At any rate, Deane's description of how a concept becomes active is somewhat more detailed.

Naturally, a concept may be made salient by mentioning it explicitly, but there are other means as well, such as *convergent activation*. In this case, activation spreads from several adjacent concepts to a single related concept. For example, the mention of rooms, windows, and doors each will incrementally increase the activation of the concept of a building, so that it becomes salient as a result of this convergent activation, even if it is not referred to overtly.

On the other hand, activation is a limited resource which concepts must compete for. Therefore the more concepts that are mentioned, the less activation a given concept has. This is called *divergent activation*.

Finally, a concept may also be made salient by being *entrenched*, a term which Deane borrows from Langacker (1987). The more a concept is related to the here and now, the more entrenched it is. Concepts which are acquired early in life are highly entrenched, such as concrete objects and bodily interaction with the immediate environment. Similarly, egocentric and agentive concepts are typical of early childhood, since children tend to assume that their own actions cause events around them. Abstraction away from oneself and one's physical surroundings occurs later in childhood.

Thus convergent activation and entrenchment contribute to salience, while divergent activation detracts from salience. I will argue here that discourse emphatics serve to contrast a salient entity which is considered central with peripheral concepts of comparable salience.

There are a number of contexts in which this function can be utilized. In (5.10a,b) the emphatic NP's referent is made salient by being mentioned explicitly. This salience is, in one way, enhanced through convergent activation by mention of related concepts, namely, works played by D'Albert, and the surroundings of the motor well, respectively. On the other hand, these related concepts now compete for activation, achieving salience themselves. The result is that we have a central concept and one or more related concepts, all of which have achieved a certain degree of salience; the emphatic refers to the central concept, fitting Kemmer's "return-to-topic" pattern.

It is important to note that the most salient entity is not necessarily the most central one. At any given point in a discourse, there may be more than one entity which can be treated as central. Consider the following variation on (5.10a).

(5.14) a. Works by Hubay indicated that D'Albert had a reserved attitude toward a lyric phrase. On the other hand, compositions by D'Albert himself demonstrated the violinist's ability to communicate subtle shades of emotion.

b. Works by Hubay indicated that D'Albert had a reserved attitude toward a lyric phrase. In fact, Hubay himself was known for his disdain for flashy displays.

In (5.14a), D'Albert is identified as central, in contrast with Hubay who is peripheral in being one of the composers D'Albert plays. The same context in (5.14b) leads to Hubay

being picked out as a central concept which is contrasted with D'Albert, now relegated to a peripheral position as the performer of Hubay's work.

This second case is similar to Kemmer's "secondary topic" pattern. However, Kemmer is not explicit about what can qualify as a secondary topic. Simply having been mentioned cannot be sufficient, as the following example shows.

(5.15) #Works by Dohnanyi, Hubay, Paganini, and Mozart indicated that D'Albert had a reserved attitude toward a lyric phrase. In fact, Hubay himself was known for his disdain for flashy displays.

Hubay has to compete for activation with all of the other composers mentioned, and in the end is not salient enough to warrant the emphatic. My analysis has the advantage of predicting that it is degree of salience, rather than the more vague status as some sort of topic, that determines the appropriateness of the emphatic.

The emphatic may also refer to an entity which is not mentioned explicitly at all, but is nonetheless made salient through convergent activation. This is roughly the same situation that Kemmer describes as involving an "implicit antecedent." Again, the mention of a banquet in (5.13) above automatically makes the concept of a dinner salient. However, as (5.16) below shows, other aspects of the banquet may also be brought to attention with the emphatic, depending on how salient they are for the speaker.

- (5.16) a. The banquet's success was in part ensured by the celebratory mood of the guests themselves.
 b. The highlight of the banquet came when the guest of honor himself sang a soulful rendition of "My Way."
 c. #For the most part Agatha enjoyed the banquet, but she was disappointed with the flower arrangements themselves.

These examples show how figures such as the guest of honor and the other guests are also salient with respect to the overall banquet scene, while details like flower arrangements are usually not.

This last pattern is interesting in that it shows some overlap with the literal type of emphatic. In both cases, ease of identification depends to some extent on shared assumptions about the real world and the structures imposed on events and participants. However, while the referent of the literal emphatic need not have been evoked up to that point, the type of emphatic in (5.16) must denote a salient entity.

This is not to say that the two are always easily distinguished. For example, in (5.1a) it could be argued that the Tsar has been implicit in the overall conceptualization of political power. It would not be surprising to find that there are many cases in which high rank and salience correspond, each contributing to some degree to the overall "familiarity" of the referent.

The main difference between my approach and Kemmer's is that by adopting Deane's concept of entrenchment, it explicitly predicts that entrenched concepts are salient. This is especially relevant to the figures most important to the "here and now" of a discourse, the speaker and hearer. While Kemmer would require a concept to be "brought up" either directly or indirectly in order to be prominent, a first or second person pronoun always refers to an entrenched, and therefore salient, figure.

- (5.17) a. "...She went to the father and found he had hanged himself." Rachel paused. It was silent in the stone alley. Then she continued with energy, "I myself did not see her until a week after she had run off to find the father. No one saw her except the man Reuveni."

[Brown 1165319]

- b. The law begins with little things and spreads out until it covers everything. In every little thing there must be order, in the place where men work, in their clothes, in their thoughts. I myself must be orderly. I must learn that law.

[and.6630]

- c. He says that if he were to express to you, once again, his own profound determination to go to the Mainland, and his faith that that return is feasible, he would merely sound redundant. So you yourself must seek these objective data, and come to your own conclusions.

[Brown 162590]

Even if the speaker and hearer are not explicitly mentioned, they are always salient, and may be referred to with an emphatic NP at any point in a discourse, so long as there are other salient entities which may be considered peripheral with respect to the emphatic's referent.

Entrenchment also plays a role in texts written in style indirect libre, such as (5.10c), repeated below.

- (5.18) Elinor could not but smile to see the graciousness of the women towards the very person who, unbeknownst to them, had caused them such harm; while she herself, who had comparatively no power to wound them, sat pointedly slighted by both.

[based on aus.239]

Elinor is the subject of consciousness throughout most of the novel. Events are filtered through her eyes, so that she functions as a sort of substitute "self" for the reader. Thus she is entrenched in the same way that the first person in a dialogue is, and maintains a high level of salience.

However, the emphatic is not restricted to referring to the subject of consciousness, if there is one, a key component of Baker's analysis of "locally free reflexives," as we saw in §5 of Chapter 4. In the following example, the protagonist referred to simply as "the man" is the subject of consciousness, but the emphatic refers to a secondary character, his wife.

- (5.19) There was nothing the man could say to his wife, and the woman herself did not look as if she thought there could be anything said to her about what she knew was so true.

[arm.54]

Here there is a contrast between the man's thoughts about his wife and her own thoughts about the situation, as he perceives them.

Finally, it is worth noting that the peripheral entity need not be salient for the hearer at the point at which the emphatic is uttered.

- (5.20) Every soldier in the army has, somewhere, relatives who are close to starvation. The soldiers themselves cannot stage a successful rebellion, it is assumed: but will their discontent spread to the officer class?

[Brown 162918]

Here the contrast is between the soldiers and the officer class. With the emphatic, the hearer knows that contrast is intended with entities related to the soldiers, but must accommodate that implicature until the officer class is made salient through explicit mention.

Thus the discourse emphatic contrasts a salient entity treated as central to the issue at hand with other salient entities which are treated as being peripheral. In the next section, I will discuss the case where these emphatics are headed by a pronoun, and whether these are more or less common than emphatics headed by a full NP.

3. A note on pronominally headed emphatics

So far I have not explicitly discussed the cases where the emphatic appears with a third person pronominal head, such as in the following example.

- (5.21) In the year when Alice Hindman became twenty-five two things happened to disturb the dull uneventfulness of her days. Her mother married Bush Milton, the carriage painter of Winesburg, and she herself became a member of the Winesburg Methodist Church.

[and.4109]

These are interesting because the use of the third person pronoun, like the emphatic, depends in part on the salience of its antecedent. Unfortunately, I do not have room here to adequately explore this issue, since the use of ppros is itself a complex issue. However, it is still interesting to look at the frequency of pronominally headed emphatics and speculate on how the constraints on the respective parts of such an NP might interact.

Kemmer and Barlow address this issue, arguing that pronominally headed emphatics should be less frequent than their NP headed counterparts because "very high

topicality normally correlates with *high* likelihood of next mention, rather than unexpected mention of a less likely referent.” (p.236) In other words, a ppro refers to a topic, which the hearer expects to be mentioned more than once, while emphatics refer to an entity which is being contrasted with another referent, hence is “unexpected.”

The fault in this argument lies in the reliance on the vague notions of expectedness and topicality. In (5.21), we might assume that Alice is the topic, and therefore is referred to with a pronoun. But if she is the topic, then there is no apparent reason why reference to her in the second sentence is unexpected—unless perhaps the topic has actually shifted to her mother. But in that case, it should not be possible to refer to Alice with a pronoun in the first place.

Kemmer and Barlow support their position with the finding that pronominally headed emphatics are less common in their corpus of Present Day English. Looking at *himself* and *itself*, the most common occurrences, only 15/154 (19%) and 0/268 cases respectively involve a pronominal head.

However, these numbers are misleading for two reasons. First, it is known that speakers tend to disprefer the double use of the same phonological form, a stylistic principle sometimes referred to as *variatio delectat*. Thus a priori we would not expect to find such instances of emphatics as *it itself*, *him himself*, etc.²⁸ A more telling comparison

²⁸ However, I was able to find one instance of *it itself* in spoken English.

- (i) A. Burning will not actually detonate the ammonium nitrate itself.
Q. What do I have to do to it to make it explode?
A. You have to have some other high force that's applied to it in order for it itself to detonate.
[nic.12/1am.948]

is between NPs and pronouns in the positions where the pronominally headed emphatics do not involve this repetition.

To this end, I have compiled data on the emphatics in the Brown corpus, with the following results.

		Pro.	NP	Total
subject	him/herself	20	46	66
	itself	0	43	43
	themselves	5	17	22
object	him/herself	0	28	28
	itself	0	71	71
	themselves	0	15	15

Table 5.3: Distribution of third person emphatics

The shaded areas in the chart represent the forms that are predicted not to exist due to repetition of the pronoun in the emphatic. This leaves us with 30% (20/66) of third person singular nominative emphatics having pronominal heads, and 23% (5/22) of their plural counterparts being headed by *they*. Thus these cases are slightly more common than Kemmer and Barlow suggest.

More importantly, to interpret these figures we must also look at the overall frequency of lexical NPs and ppros. If lexical NPs generally outnumber ppros, then it

Apparently they are not completely impossible, just strongly dispreferred. This is consistent with the

should be no surprise if the same is true for their emphatic counterparts. In fact, the Brown corpus contains 264,704 non-possessive lexical nouns, compared with 22,324 third person ppros. This means that the ppros account for roughly 8% of the total, far less than their share of emphatic NPs. Given these numbers, it appears that a greater percentage of pronouns than NPs appear with an adnominal emphatic, a conclusion opposite to that of Kemmer and Barlow.

While I do not have an analysis of ppros in discourse, it seems reasonable to assume that since they convey less specific information, the referent must be easy for the hearer to identify, and hence must be highly salient. Since the emphatic also requires a highly salient referent, we would expect pronouns and emphatics to be very compatible, all else being equal.

Of course, it is doubtful that all else is in fact equal, but I will have to leave it to future research to discover the details of the phenomenon. Here I will simply conclude that pronominally headed emphatics are plentiful given the aforementioned phonological constraints on their appearance, and the overall relative frequency of pronouns versus lexical NPs. Furthermore, my analysis of emphatics appears to predict this distribution, although further study is needed to determine this.

4. Adverbial emphatics

While adnominal emphatics have not enjoyed extensive study, adverbial emphatics have received even less attention, despite the fact that they are arguably more mysterious. In fact, it is not clear if perhaps certain adnominals and adverbials should be treated as the

assumption that the constraint is phonological.

same lexical item. In this section, I briefly review previous discussions of these adverbials, my main goal being to highlight their features in order to compare them with other functions of the spro.

Edmondson and Plank again offer extensive discussion, identifying two types. One type, *himself*₃, will be discussed in §5. The other, *himself*₂, signifies direct agency or involvement, as opposed to delegated action or second-hand experience.²⁹

- (5.22) a. The question is whether the President erased the tapes himself.
 b. (My grandmother knows these things.) She is a witch herself.
 c. How could the pope speak of immortality when he knew he would die himself!
 [Edmondson and Plank (1978:383,384)]

It is not difficult to see a connection to the discourse emphatic, which modifies an NP whose referent is identified as central with respect to more peripheral entity. Similarly, the adverbial modifies a VP whose denoted action or state is identified as directly carried out or experienced by the subject's referent, as opposed to other possible agents or experiencers.

The difference is that the adnominal has the salience requirement on its referent as well. This means that not all sentences that can appear with the adverbial can also appear with the adnominal.

- (5.23) a. Every man fixed his car himself.
 b. *Every man himself fixed his car.

The problem with (5.23) seems to be that every man refers to a range of people, each of which must be interpreted as salient. But as we saw in §2.2, only a limited number of figures can be salient at a given time, before divergent activation detracts from the salience of each.

Edmondson and Plank interpret this kind of contrast as proof that the adnominal and adverbial should be treated as separate lexical items, rather than as the same item with two different modification possibilities. However, this conclusion rests on whether the salience requirement can be seen as determined for reasons independent of the basic meaning of the emphatic. For example, it might be that in order to identify a figure as central to the discourse, it must first be salient. I will not attempt to resolve this issue here.

König (1991) provides a few more insights into adverbial emphatics. He recognizes the type Edmondson and Plank identify as signifying direct involvement, but suggests that there is a related but distinct usage which can be glossed as "too" or "either."

- (5.24) a. I cannot lend you any money. I am a little short of cash myself.
b. The teacher asked me a very difficult question and/but he did not know the answer himself.

The VPs being modified in these examples represent states rather than actions, and therefore we would not expect the emphatic to signify direct agency. The "too/either" meaning is already predicted if we assume that the emphatic marks contrast; in this case

²⁹ Edmondson and Plank use *himself*_i to refer to the adnominal emphatic.

the contrast (or comparison) is between the state experienced by the VP's subject as opposed to a previously identified experiencer of the same state. Therefore this emphatic does not seem to represent a distinct usage.

Finally, there is another potential restriction on the use of the adverbial emphatic suggested in passing by Browning (1993), related to logophoricity.

- (5.25) A: Bill is always whining about that class. Yesterday he was just furious at the professor.

B: Well, John was pretty angry at the professor himself, and he doesn't usually complain.

[Browning (1993:85)]

She notes that such a use is not felicitous if this is John's first introduction to the discourse. This is especially apparent if we compare (5.25) to the same dialogue using the more neutral term *also* in place of the emphatic.

- (5.26) A: Bill is always whining about that class. Yesterday he was just furious at the professor.

B: Well, John was also pretty angry at the professor, and he doesn't usually complain.

[Browning (1993:85)]

My own reaction to this pair of dialogues is that in the first, John's state of mind must have been established as important to the speakers. In his statement in (5.26), B is presenting the facts from John's point of view, the same requirement that is placed on *spros* as picture NP objects.

On the other hand, if the adverbial had to refer to a cognizer, this would mean that it could not refer to an inanimate object, and the following example shows that this cannot be the case.

- (5.27) The campers dashed from the tent to the car when the downpour started, only to find that the car was rather leaky itself.

This is another puzzle that I will have to leave to future research.

To conclude, the adverbial emphatic seems almost identical in function to the adnominal, except for the fact that it modifies VPs, and that it does not have the same salience restrictions on its antecedent. I will leave the issue open as to whether they are in fact the same lexical item, and continue to refer to adverbials as distinct from adnominals.

5. The post-auxiliary emphatic

As we have seen, there is some doubt as to whether the adnominal discourse emphatic and the VP adverbial are the same lexical item. However, the emphatic that Edmondson and Plank refer to as *himself*₃ seems completely free to appear in two different syntactic positions while retaining the same meaning, although Edmondson and Plank themselves only recognize it as a post-auxiliary adverbial.

This emphatic contrasts its referent with a parallel entity which is cast explicitly or implicitly in an analogous role with respect to some event or other relation. For example, the following sentence is taken from a story in which Chandler, an officer, is trying to recruit Carroll to his division.

- (5.28) So Mel Chandler set out to sell him [Carroll] on the spirit of Garryowen, just as he himself had been sold a short time before.

[Brown 400659]

In the second clause, Chandler is contrasted with Carroll, the goal of the previous instance of *sell*. If the emphatic instead appears after the auxiliary, the meaning stays the same.

- (5.29) So Mel Chandler set out to sell him [Carroll] on the spirit of Garryowen, just as he had himself been sold a short time before.

It is also possible for the emphatic to refer to an agent, as in the following variation.

- (5.30) Chandler tried to convince Carroll of the weakness of the plan, not realizing that Carroll himself had already been trying to convince Cange.

Now the contrast is between Carroll and Chandler as the agents of a convincing event.

Edmondson and Plank also observe that the role reversal may be between overtly identical propositions, as in the previous examples, or may rely on a conventional implicature. This is the case in both of the examples in (5.31), where the speaker may assume that Officer Barbrady makes arrests, and thus is being contrasted with the people he arrests.

- (5.31) a. Officer Barbrady told his girlfriend Julie that he himself had never been arrested.
b. Officer Barbrady told his girlfriend Julie that he had himself never been arrested.

Under one interpretation, Julie has been arrested and the contrast is between Barbrady and his girlfriend. However, the contrast can also hold instead between Barbrady and the people he arrests.

It is possible to construct examples which rely on even more subtle implicatures.³⁰

- (5.32) a. Robert walked along the ancient paths of Oxford, thinking of his father, who himself had been a student there.
b. Robert walked along the ancient paths of Oxford, thinking of his father, who had himself been a student there.

Here the implicature is that Robert is a student at Oxford, and Robert's father is contrasted with Robert as the theme of "be a student." If the implicature is cancelled, then the emphatic is no longer felicitous.

- (5.33) a. Having some time off from bricklaying, Robert decided to head over to the Oxford campus, where the massive trees afforded some relief from the sun. As he walked along the ancient paths, he thought of his father, who (#himself) had been a student there.
b. Having some time off from bricklaying, Robert decided to head over to the Oxford campus, where the massive trees afforded some relief from the sun. As he walked along the ancient paths, he thought of his father, who himself had been a bricklayer.

In these examples Robert is identified as a bricklayer. Thus his father cannot be contrasted with him in the role of a student, but only in the role of a bricklayer.³¹

To summarize, what Edmondson and Plank identify as a post-auxiliary emphatic can also appear after the NP subject. As they point out, this emphatic contrasts its referent with other entities which are implicitly or explicitly cast in the same role with respect to a similar relation.

6. Conclusions

In this chapter I have surveyed a number of uses of the emphatic *spro*. There is the literal emphatic, which contrasts a familiar high-ranking referent with figures lower on the relevant hierarchy, and the discourse emphatic, which contrasts a salient entity considered central with other entities cast as peripheral. The VP adverbial emphatic serves a function very similar to that of the discourse emphatic, contrasting the denotation of a VP rather than an NP. These last two may actually be the same lexical item, depending on how we analyze the fact that the discourse emphatic differs in its need for a salient referent. Finally, the post-auxiliary emphatic has a more specialized function, in which it contrasts the role players in two similar events. Unlike the discourse emphatic and VP adverbial, it seems clear that this type is free to appear in more than one position, either after the NP subject or after the adverbial.

In the next chapter, I will look at how these characteristics relate to the historical development of the *ppro*-emphatic *self* sequence into today's *spro*. I will show evidence

³⁰ These are based on examples suggested by Carl Pollard (p.c.).

³¹ It seems that (5.33a) can be improved if equal stress is put on *himself* and *student*, creating a situation in which there is multiply focussed contrast. In this case the basis for comparison is occupations, and the contrast occurs both with the theme (Robert vs. his father) and the nature of the occupation (bricklayer vs. student).

that the discourse emphatic predates the other uses, and discuss the role of salience and contrastiveness in the overall process.

CHAPTER 6

HISTORICAL DEVELOPMENT OF THE SELF-PRONOUN

1. Introduction

It has long been accepted that Present Day English (PDE) *spros* arose from a combination of Old English (OE) *ppros* and the emphatic *self* or *sylf*. (See, for example, Penning (1875), Farr (1905), Mustanoja (1960:145-8), and Visser (1963:§448).) In OE, *ppros* could be coindexed with a higher argument in the same predicate; unlike in PDE, they could be locally o-bound.

- (6.1) he hine ðær hwile reste
he, rested (him,) there meanwhile

[Visser (1963:§432a)]

Spros had not yet developed. However, OE did have the free morpheme *self* which functioned as an emphatic.

- (6.2) ond he geseah þone haelend sylfne standan on his godþrymme
and he saw the(acc.) Lord self(acc.m.sg.) standing in his divine glory
[mart.8; cited by Keenan (1994:10)]

- (6.3) þa forborn þas cyninges heall mid callum his spedum, ond his sunu awedde, ond he sylf ahreofodee...
then the king's hall burned down with all his treasures, his son went mad, and he self(nom.m.sg.) became a leper

[mart.174; cited by Keenan (1994:11)]

- (6.4) ðæt hi hit selfe dydon
that they it self(nom.m.pl) did [=that they did it themselves]

[gcp.LV.427; cited by Keenan (1994:12)]

As these examples illustrate, *self* was declined to agree in number, case, and gender with the noun it modified. This is true for both the adnominals in (6.2) and (6.3), as well as the adverbial in (6.4).

The historical connection between emphatics and reflexives is by no means uncommon cross-linguistically. Morasvick (1972) notes that such diverse languages as Hungarian, Turkish, Gaelic, Persian, Hindi, Maasai, Finnish, and Loma all use the same word for the emphatic and the reflexive.

In this chapter I explore the details of the phenomenon in English, beginning in §2 with the use of the emphatic in OE. Here the results of Chapter 5 are useful for comparison. In §3 I outline the process by which ppros fused with emphatics to create a new set of pronouns. Finally in §4 I turn to the functions of these new pronouns, and how English arrived at the current set of binding theory principles, as set forth in Chapter 4.

2. The use of OE *self*

2.1 Adnominal functions

Although it is difficult to say with certainty, OE *self* appears to have had the same set of functions as the PDE emphatic, at least by the end of the OE period. Recall that in

Chapter 5 I concluded that the PDE adnominal emphatic has two related but distinct types, the literal emphatic and the discourse emphatic. There is some indication that OE adnominal *self* was originally used as a literal emphatic.

First, judging from extensive data collected by Keenan (1994), the literal emphatic was by far the most common in OE. In his corpus, he finds that among full NPs modified by an emphatic, almost all (74 out of 77) refer to the holy trinity, a superhuman figure, or a person of high rank.

- (6.5) ond he geseah flone haelend sylfne standan on his godflrymme
and he saw the Lord self standing in his divine glory

[mart.8; cited by Keenan (1994:10)]

- (6.6) menn fla gearwiath clane wununga on heor heortum Criste sylfum
men who prepare a clean habitation in their hearts for Christ self

[blh.VL73; cited by Keenan (1994:10)]

Furthermore, emphatic *self* seems to carry connotations of formality for speakers of OE. Keenan finds that locally bound ppros are much more likely to be marked with *self* in religious texts, and Peitsara (1997) confirms these findings in her corpus of ME. Peitsara believes this is related to the general use of periphrases in religious texts to affect a solemn tone. Other such periphrastic conceits found in these texts include the unemphatic do-periphrasis, pleonastic *that* with subordinators, and lengthened prepositions. Thus the use of spros was strongly linked to a sense of formality, consistent with the hypothesis that emphatic *self* had its start marking only literal prominence.

Interestingly, Keenan also finds that ppros, unlike full NPs, are marked with *self* regardless of the high rank or status of their referents.

referent		
has...	high status	ordinary status
full NP	74	3
pronoun	34	43

Table 6.1: Distribution of *self* in OE

If the primary function of *self* was to mark high status, then the question is why it would also be used in apposition with ppros with undistinguished referents. I will speculate that in using *self* with ppros whose referents had high status, another more utilitarian function emerged, that of clarification of reference.

- (6.7) *pa forborn þas cyninges heall mid eallum his spedum, ond his sunu awedde, ond he sylf ahreofodee...*
then the king's hall burned down with all his treasures, his son went mad, and he (him)self became a leper

[mart.174; cited by Keenan (1994:11)]

Note that the emphatic in this example not only marks the high status of the referent, but also alerts the reader that it is the king rather than the king's son who is being referred to. It would not be a very big step from there to the present use of adnominals. Rather than necessarily indicating high status, the emphatic would mark a pronoun whose referent is the most central figure in the discourse, contrasting it with more peripheral entities.

This is in fact already the case in (6.8).

- (6.8) *Abraham soðice ymbsnaðhys sunu Ismahel on þone ylcan daeg, swa swa God him behead. & he sylf wearð ymbsniden þa he wæs nygan & hundnygantig geara. Abraham verily circumcised his son Ishmael on the same day as God bade him, and he (him)self was circumcised when he was nine and ninety years old.*

[ægen 16.24; cited by Keenan (1994:13)]

All of the characters involved have special status as biblical figures, with God having the highest status. Yet it is Abraham as the main character whose pronominal representation is marked with *sylf*, in contrast with his son Ishmael.

From there the emphatic's function would extend to marking central characters denoted by full NPs. To summarize, the original function of the emphatic as a marker of literal prominence has remained, as in (6.5) and (6.6), contrasting its referent with those lower on the relevant hierarchy. The extended function has been to mark the contrast between central and peripheral entities. In both cases, if a pronoun was being modified in OE, it potentially had the ancillary function of disambiguating pronominal reference.

2.2 OE *self* as an adverbial

Many researchers have recognized the fact that nominative *self* can occur separated from the subject it agrees with. Mitchell (1985:§478), for example, cites several instances, but does not treat them any differently from cases where *self* is adjacent to the subject.

Keenan seems to be the first to recognize the adverbial nature of nominative *self* in the predicate. In addition to (6.4) above, he gives the following examples.

- (6.9) fla beoðswilce lareowas, swa swa Crist eft sylf cwaeth...
they are like those teachers of whom Christ also self (nom.m.sg.) said:...
 [=Christ also said himself]

[æo&n; cited by Keenan (1994:12)]

- (6.10) swa he hyne sylf stafode, be hys sunu wifunge.
as he, had asked him_i (him)_iself (nom.m.sg.), concerning his son's taking a wife.
 [ægen 24.9; cited by Keenan (1994:12)]

König and Siegmund (to appear) agree that *self* certainly functioned as an adverbial in OE. Yet they also point out that it can be difficult to distinguish between an adverbial and adnominal interpretation in certain contexts, since in some cases the meaning difference is slight. We already saw in Chapter 5 that the adnominal and adverbial *emphatic* have practically the same function, and that the only meaning difference may result from the different modifiers.

It could be that the similarity of the resulting meanings was what enabled the *emphatic* to be used as both an adnominal and an adverbial. Nonetheless, if Keenan's examples in (6.9) and (6.10) are any indication, OE *self* was in fact able to modify a VP as well as an NP.

3. The ppro+*self* sequence

It is clear that PDE spros must have originated from the sequence of a non-nominative ppro followed by *emphatic self*. But this sequence arises in more than one situation, so the question becomes, which one was involved in the development of the spro? Below I identify two possibilities. First, a verb's object may be emphasized by the adnominal *self*, which is inflected to agree with the object's case. Second, adverbial *self* often follows a pleonastic dative, and the resulting sequence is frequently cited as the source of spros. I

will argue that both situations were sources for spros; the former being a source for the pronominal spros subject to Principle A, and the latter being a source for *emphatics*.

3.1 Object+inflected *self*

In principle, any pronominal object in OE could be emphasized with *self*, which was inflected to agree with it. It made no difference if that object was not locally bound.

- (6.11) ...æappelbaere treow..., ðæs saed sy on him syluum ofer eorðan...
...the fruit tree..., whose seed is in itself upon the earth...
 [ægen 1.11; cited by Keenan (1994:13)]

But according to Keenan, in the majority of such cases, the object did in fact agree with the verb's subject. This occurred with both accusative and dative arguments, and the object could even be coreferential with an *emphatic* subject, as in (6.13).

- (6.12) swa swa se Haelend sealde hine sylfen for us, ...
just as the Lord gave him self (acc.m.sg.) for us...
 [æls.IV.11; cited by Keenan (1994:11)]

- (6.13) ...flaet hi sylfe magon hym sylfum wissian
...that they (them)selves might instruct them selves (dat.pl.)
 [æhom18.121; cited by Ogura (1989:47)]

In these examples, the sequence seems to behave much as PDE reflexives do. But Mitchell rightly warns us not to use our judgments as PDE speakers; at this point the primary function of *self* is to emphasize, not to mark local binding.

The emphatic function of *self* becomes more apparent when we consider the type of verb which most frequently had a locally bound object marked with *self*. Analyzing Ogura's (1989) data from her extensive study of reflexivity in OE, Keenan notes that the majority of the verbs had locally bound pronominal objects both with and without *self*. Yet there were ten verbs whose objects always appeared with *self*, and all of those verbs express personal harm. These include *acwellan* "to kill," *ahon* "to hang," and *fordon* "to destroy," as in the following example.

- (6.14) *ac heo lyfde sceand-lice, swa swa swin on meoxe, and mid healicum synnum hi sylfe fordyd...*
but she lived shamefully, even as swine on a dunghill, and by deadly sins destroyed her self(acc.f.sg.)...
 [æls.III.1.528; cited by Keenan (1994:11)]

In the prototypical situation, personal harm is inflicted on others, rather than oneself. When these verbs have coreferential arguments, the emphatic *self* serves to alert the hearer to this coreference. The discourse emphatic is well suited to this task, judging from its function as we identified it in Chapter 5. The emphatic picks out a highly salient entity; in this case it is the denotation of the verb's subject, which is unarguably salient. This entity probably also counted as a central figure in the discourse for the same reason; here, this means that other referents the ppro had been free to pick out are excluded, and the object is thus established as coreferential with the subject.³²

3.2 Pleonastic dative+nominative *self*

It has often been observed (e.g. by Mustanoja (1960:146), and Mitchell (1985:§488), among others) that nominative *self* in OE frequently follows a pleonastic dative. The pleonastic dative, unlike a referential dative argument, does not bear a thematic role assigned by the verb.³³ Visser suggests that instead it might have conveyed the sense that the subject (with which the pleonastic dative always agrees) is more directly involved in or affected by the event.

As the following examples show, the pleonastic dative appeared both with and without *self*.

- (6.15) *homward he him spedde*
he sped homeward
 [cha.359k]
- (6.16) *& he ys geworden nu...paera sceaðena ealdor, þe he him sylf gegaderode*
and he has now become...the leader of the robbers that he him(dat.m.sg.) self(nom.m.sg.) has gathered
 [æo&n 1108; cited by Keenan (1994:16)]

Mustanoja and Mitchell also agree that the type of sequence found in (6.16) is at least one source of PDE spros. However, König and Siegmund dispute the claim that pleonastic datives played a role in the development of spros. They argue that since the pleonastic dative and the adverbial emphatic are the product of two separate

³² This analysis is based on the one given in Golde (1999b), but modified to take into account the notion of salience as the defining factor for discourse prominence. It is also similar to the analysis arrived at independently by König and Siegmund.

³³ Certain uses of the pleonastic or ethical dative do seem to have a benefactive meaning, such as those in German. None of the studies I have consulted raise this possibility for OE.

constructions, there is no reason to expect that they would become associated with each other. Furthermore the sequence could not be the source of all spros, including pronominal ones, because pleonastic pronouns are by definition non-referential, and therefore could not be involved in the development of markers of coreference.

What König and Siegmund do not directly address is the possibility that this sequence is the source for adnominal emphatics, a position taken by Ogura. Given that pleonastic datives and adverbial emphatics appear together so frequently, and that both heighten involvement and/or affectedness, to me it does not seem unreasonable to suggest that they would come to be treated as parts of the same compound. Since they usually directly followed the subject, as in (6.16), this compound occupied the position of an adnominal.

As we will see in §3.3, once the two morphemes were reanalyzed as a single word the new spro was used both as an adverbial and an adnominal, eventually replacing *self* altogether in these functions. Again, as we saw in Chapter 5, the meanings of the adnominal and adverbial are very similar, especially in the way that they both convey contrast. Therefore this development is also not unexpected.

In the next section I will discuss the details of how this compound developed phonologically and morphologically.

3.3 Development of the compound spro

So far I have identified two sources of the spro: object+adnominal *self* and pleonastic dative+adverbial *self*. While these sequences have different morphological components, they soon came to look more similar on the surface, and underwent similar changes, probably reinforcing each other's development.

First, the two sequences became more similar when the dative forms of pronouns superseded the accusative forms in a process that began in the OE period and was completed by EME. This change is illustrated in Table 6.2, which is based on data from Visser (1963:§439) and Keenan (1994:6).

		OE	ME
1.sg.	dat	me	me
	acc	mec	me
1.pl.	dat	us	us
	acc	usic	us
2.sg.	dat	ðe	ðe
	acc	ðec	ðe
2.pl.	dat	eow	eow
	acc	eowic	eow
3.m.sg.	dat	him	him
	acc	hine	him
3.f.sg.	dat	hire	hire
	acc	heo/hie	hire
3.pl.	dat	him	him
	acc	hie/hi	him

Table 6.2: Dative and accusative pronouns in OE and ME

The change in the 3.m.sg. pronoun was the last to take hold, doing so during the EME period. With this, the distinction between accusative and dative pronouns was obscured.

Also during the EME period, case endings began to disappear, including those affixed to *self* when it agreed with a non-nominative (pro)noun. Peitsara finds that case markings largely disappeared by about 1250. Thus, for example, OE *hine selfne* became

him self in ME, identical in form to the pleonastic dative followed by the (uninflected) adverbial emphatic.

By this time, there is already evidence that the pronoun+*self* sequence is being treated as a compound. Ogura finds that in EME there is an increase of *he him self* together with a decrease of *he self*. We also begin to see N+*him+self* as a variant of N+*self*:

(6.17) *patt he wass Godd himm selff*
that he was God himself

[form 17505; cited by Ogura (1989:68)]

The compound nature of pronoun+*self* is confirmed in the 13th century with a sound change from /e/ to /i/ in the first and second person singular forms; *me self* and *ȝe self* become *miself* and *ȝiself*, so that the pronominal morpheme mimicked the possessive form. However, it is not likely that this change was motivated by a reanalysis of the sequence as possessive+N, contrary to the suggestion of Visser §446. Instead, this was part of a regular sound change. Mustanoja informs us that the change from /e/ to /i/ affected other open unstressed syllables, such as those in *beforen* and *betwene*. The change did not affect the accusative/dative pronouns *me* and *ȝe* when they appeared alone, indicating that they were prosodically weak in the sequences *me self* and *ȝe self*, and were probably analyzed as compounds.

This triggered analogical change in the plural counterparts of these compounds. According to Visser, (*o*)*ursel*f and *yursel*f replaced *us selfe* and *eow selfe* in the 14th century. The 3.f.sg. *hire self* already had a “possessive” pronoun, since the accusative and possessive forms of the pronoun were identical. In some dialects the change affected the

other third person spros as well, but this never became the norm. Today we only see forms like *hissel*f and *theirselves* in non-standard dialects.

The last change spros were to undergo was the addition of the plural morpheme to the plural forms. Mustanoja and Visser both assert that this change did not begin until the end of the 15th century, and Peitsara confirms these findings. In her corpus, the use of *-sel*ves with plurals became completely standardized between 1550 and 1570.

4. Development of the binding theory principles

Recall from Chapter 4 that I arrived at the following formulation of the binding theory for PDE:

(6.18) Principle A
Is the spro...

	locally o-commanded?	
yes		no
locally o-bound		thematically commanded?
	yes	no
	thematically bound	coindexed with a member of the COG list of the minimal clause containing it

(6.19) Principle B

A *ppro* is locally o-free and th-free.

In this section I will explore the issue of how these principles developed. More research is needed to probe the history of certain uses of *spros*, such as objects of picture NPs. I will base my hypotheses on existing research, but more is needed to answer many of the questions that arise.

4.1 Encoding local binding

As Principle A indicates, two of the three functions of PDE *spros* involve marking local binding, whether it is between syntactic or thematic arguments. As we saw in §3.1, the primary function of *self* in the OE period was still that of an emphatic, even though in certain cases it seems to mark local binding.

According to Peitsara, the situation remains roughly the same throughout the ME period. As objects, *spros* are most common with “accidentally reflexive” verbs, those which do not typically have coreferential arguments. These include the verbs of personal harm identified in §3.1, as well as ones denoting positive actions, such as *understand*, *offer*, and *overcome*. But reflecting the *spro*’s continued association with emphasis, context also plays a role. Locally bound arguments which refer to exalted figures, or which are contrastive, are more likely to be expressed as *spros*.

The locally bound bare *ppro* appears more often with “essentially reflexive” or “predominately reflexive” verbs.³⁴ The first type includes verbs with pleonastic objects, such as *go*, *bethink*, *repent*, *govern*, *obey*, and *busy*.

- (6.20) homward he him spedde
he sped homeward

[cha.359k]

- (6.21) This knight avyseth him and sore syketh
This knight pondered and sighed wretchedly

[cha.372w]

Most of these verbs, including the two above, have lost this pleonastic object in PDE.

The predominately reflexive verbs occur most frequently with coreferential arguments, but also allow a non-coreferential object. These include *shave*, *arm*, *clothe*, and *bless* (“cross oneself”).

- (6.22) And cladde him as a povre laborer
And [he] clothed him(self) as a poor laborer

[cha.551k]

At the end of the ME period, a drastic shift occurs. During 1420-1500, only 28% of all local binding in Peitsara’s corpus is expressed with an *spro*, a figure on a par with

³⁴ Peitsara uses the term “reflexive verb” as an abbreviation for “the reflexive use of a verb”; i.e. one in which the objects are coreferential. In the case of the essentially reflexive verbs, however, the object is pleonastic and thus not referring.

earlier centuries. But during 1500-1570, this figure jumps to 66.7%, and steadily increases until it reaches nearly 100% by the 18th century.

The primary reason for this shift is the disappearance of the pleonastic datives, making formerly “essentially reflexive” verbs become intransitive. Other constructions also could replace the pleonastic dative, and often more than one could be found with the same verb. Peitsara cites *delight* as particularly prolific; it could be intransitive with an infinitival VP complement, passive (*be delighted with*), or used as a noun in an analytic VP (*take (a) delight in*).

The result was that locally bound ppros quickly came to represent a smaller proportion of local binding in general. Spros in most cases did not replace the pleonastic dative; the disappearance of the pleonastic datives was in itself enough to give spros the upper hand. In the next section we will look specifically at how this led to the development of the PDE binding theory principles.

4.2 Constraints on spros and ppros

Given that spros were often locally bound objects, we can detect the origins of the binding theory at least from the beginning of the ME period. However, it would not be accurate to say that the principles were in effect at that time, since all evidence points to the marking of local binding as a derivative result of one use of the emphatic.

Instead, it was the change in distribution of locally bound pronouns that started the trends that led to the development of the binding theory principles. Spros came to be associated with local binding in general, rather than just marking atypically self-directed actions. This is evidenced by the increased use of spros to express reflexivity with all verbs, regardless of their meaning.

At the same time, Keenan finds that throughout the late ME and Early Modern English (EMnE) periods, spros as verbal objects are less and less likely to be non-locally bound. On the other hand, they remain quite common in the inherently contrastive predicates that we saw in §3.1 of Chapter 4, including coordinate constructions. Conceivably, since these were not positions in which the spros could be locally bound (there is no local o-commander), they continued to be used in this position. Furthermore, the retention of the adnominal and adverbial emphatic spro may have reinforced the use of the pronominal spro in contrastive predicates.

Unfortunately, there has been no specific research on the use of spros in other locally o-free environments such as picture NP objects. It is also difficult to determine the extent to which logophoricity played a role in constraining the distribution of locally o-free spros; this issue has not yet been addressed in the literature.

Nonetheless, we can see roughly how English speakers arrived at the current Principle A. As locally o-commanded arguments, spros came to be strongly associated with local binding, and this eventually developed into a syntactic constraint. Since the majority of verbs also assign theta roles to all of their arguments, this constraint was extended to the semantic level as well. What is not at all clear is why the remaining locally o-free and th-free spros have been restricted to referring to a cognizer; this will have to be left to future research.

Principle B apparently developed in tandem with Principle A. As locally o-commanded spros were increasingly locally o-bound, so ppros came to be interpreted as locally o-free. A rationale for this complementarity has been suggested in synchronic accounts of the PDE pronominal system in Reinhart (1983), and is elaborated on by

Levinson (1991). Simply put, the ppro is interpreted as locally o-free because if the speaker had intended coreference, the more specific spro would have been used.

In terms of the neo-Gricean maxims used by Levinson, this is a conversational implicature which can be calculated on the basis of the Quantity Principle, namely, that the speaker makes the strongest statement consistent with what he knows. Using the ppro does not a priori commit one to any particular reference; as an object it may refer back to the subject or to some other entity. Since the spro specifically signifies local coreference, its use commits the speaker to a stronger statement. Thus if the ppro is chosen over the spro, the hearer may conclude that the speaker was not willing to commit to the coreference of the object and subject, and thus must have intended for the arguments to be interpreted as disjoint.

This analysis relies crucially on the assumption that the ppro is in principle completely free in its reference possibilities. Its interpretation as locally o-free rests on a conversational implicature which may be overridden with further information. This seems to be true for the ME and EMnE periods, where ppros can still be locally bound in certain situations. But this is no longer the case in PDE, where a ppro is invariably locally o-free. Thus I differ with Levinson on the issue of whether this analysis applies to the PDE interpretation of ppros. It is probably an accurate description of how the ppros arrived at their present interpretation, but in PDE Principle B is an inviolable constraint, not the result of conversational implicature in its usual sense.

Finally, it is interesting to note that the last ppros to be locally bound were indirect objects, particularly benefactives. König and Siegmund offer the following example from a 1578 text.

- (6.23) Not so common as commendable it is, to see young gentlemen choose them such friends with whom they may seeme beeing absent to be present, being a sunder to be conuersant, beeing dead to be alive.

Furthermore, similar pronouns can still be found in certain dialects of PDE:

- (6.24) a. I'm gonna buy me a pick up.

- b. In North Carolina, way back in the hills,
Lived my pappy where he had him a still...

[whl]

Peitsara speculates that there may be prosodic reasons for the persistence of these ppros. Since the direct object is usually a full NP, stress is placed on it rather than on the indirect object. Being unstressed, the indirect object is preferably expressed with the shorter personal pronoun.

5. Conclusions

Although I have had to resort to speculation more than once in this chapter, I believe that a historical perspective on English pronouns is valuable for gaining insights into the binding theory principles in PDE. From this vantage point, we can see the role emphatics played, and understand why English (among other languages) has homophonous emphatics and locally bound pronouns. It also explains why we continue to have spros in inherently contrastive predicates; hopefully future research will reveal the origin of spros in picture NPs, and explain why all locally o-free and th-free spros must be logophoric.

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