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Reflexivization: A Study in Universal Syntax

By

Leonard M. Faltz

B.S. (The City College of the City University of New York) 1961
M.A. (Harvard University) 1962
C.Phil. (University of California) 1974

DISSERTATION

Submitted in partial satisfaction of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Linguistics

in the

GRADUATE DIVISION

of the

UNIVERSITY OF CALIFORNIA, BERKELEY

Approved:

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Larry M. Hyman

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DEGREE CONFERRED JUNE 18, 1977

To Maureen

Foreword

In October of 1974, having passed my doctoral examinations some eleven months previously, and having gone through what I am told is the usual process of depression and a long period of indecision, I finally set about to find a dissertation topic. By December of that year I had not only settled upon a universal study of reflexives as the topic, but had collected enough guiding ideas to present myself to prospective employers as one who had the dissertation "almost finished". More than two years have passed since then. Now, the dissertation is really "almost finished", and I am still presenting myself to prospective employers. But if the externals of my life seem to have changed little, I have at least learned something about reflexives. What I have learned can, I hope, be found in the succeeding pages.

The organization of the dissertation follows a fairly elementary progression. The basic definitions in Chapter I lead to a discussion of morphological types in Chapter II. Chapter III contains discussions about syntax; it is in this chapter that most of the results of my study are to be found. Chapter IV consists of speculations on the historical origins and destinies of the various kinds of reflexives. The general underlying point of view is that a grammar may be thought of as providing strategies for carrying out various linguistic functions. Reflexivization is taken as one particular function, and the strategies found in various languages to carry it out are examined. In fact, the functions of the different reflexivization strategies discussed are not coincident; but this just adds spice to the flavor of grammatical variety in which the universal grammarian wishes to indulge himself.

A few principles (what are called these days "universals") emerge, in Chapter III mostly. But the real value of a study like this is to shed light on the opposing sensations of strangeness and familiarity which arise in the course of exposure to new languages. The avowed task of universal grammar as a discipline might be stated as the reduction of the points of familiarity to a complete set of laws; but surely the points of strangeness, that is, the ways languages really differ from one another, are also governed by principles. The "universals" given in Section III.4 can be regarded as examples of the latter. But do not raise your hopes too high: the paltry content of those universals is a far cry from the richness of the variety of real grammar. We have a long way to go.

One problem facing a study such as this is the matter of obtaining data of uniform scope from many languages. Since written grammars vary widely in what they will give, I have had to rely on informants for much of my data. The availability of informants has been in general good; but still some language families (e.g. Mayan, Nilo-Saharan, etc.) are not represented. In addition, the difficulties of arranging personal schedules has not always allowed me to see an informant as much as I would have liked. Nevertheless, there is quite a bit of data to be found here, even if not to a uniform depth for each language. My hope is that there is enough data to insure that the generalizations drawn are not spurious. It would be a true service to the study of universal grammar to produce a test which would insure that a set of languages was broad enough to serve as the basis for a generalization. Unfortunately, I know of none, other than the obvious one that languages representing families, geographic areas, word-order types, etc.

of the greatest variety possible should be used.

A work of this scope owes its existence to many people besides its author. There are, firstly, those who provided me with information about particular languages, either those that they spoke, or else those that they had themselves studied. For such services I wish to thank Katsue Akiba (Japanese), Saeed Ali (Hindi), Raimo Anttila (Finnish), Dauda Bagari (Hausa), Eva Brown (Lakhota), Sarah Effiong (Efik), Baruch Elimelech (Yoruba), Eser Erguvanli (Turkish), Barnabas Forson (Akan), Andrés Gallardo (Spanish), Michèle Gans (French), Amnon Gordon (Hebrew), Masayoshi Hirose (Japanese), Jean-Marie Hombert (French), Edward Hope (Lisu), Alexandre Kimenyi (Kinyarwanda), Dorothy Lannon and her friend (Tuscarora), Martine Mazaudon (French), Dick Mowrey (Vietnamese), Pam Munro (Mojave), Jeanne van Oosten (Dutch), Velma Pickett (Isthmus Zapotec), Tina Porcuna (Tagalog), Etheleen Rosero (Pima), Jilali Saib (Tamazight), Alice Schlichter (German), Midori Shimizu (Japanese), Michael C. Smith (Irish), Yero Sylla (Fula), Sandra Thompson (Wappo), Eric Zee (Cantonese), Karl Zimmer (Turkish, German).

Secondly, there are other linguists who were kind enough to discuss various ideas with me, who read portions of the dissertation, or who made suggestions or corrections. For such help I wish to thank Wallace Chafe, Joe Emonds, Charles Fillmore, Paul Garvin, David Hays, Gary Holland, Joan Hooper, Larry Hyman, Ed Keenan, George Lakoff, Buffalo Bill Pagliuca, Maureen Schmid, Sandra Thompson, and Karl Zimmer. I am also grateful for the opportunity of presenting portions of the study to the Syntax and Semantics Seminar and to the Colloquium of the Linguistics Department at UCLA, and to the Linguistics Department at SUNY Buffalo at one of their Colloquium Series talks.

Thirdly, I wish to thank Teddy Graham for her excellent job of typing the manuscript.

Fourthly, my thanks to the Phillips Fund of the American Philosophical Society, and to the Academic Senate of the University of California at Los Angeles, for money to pay for portions of the research whose results are contained herein.

Finally, I am grateful to my many friends for their encouragement (many of those listed above are in this group, too). I especially thank my wife Maureen and my stepchildren Danny and Laura for hitting the right balance between restraint and nagging me to get the damn thing written.

If I have left anyone off the above listings, my sincere apologies to them.

It has become customary for the author of a piece of research to accept all responsibility for errors contained in it. I prefer to think that you, dear reader, are not the sort who goes around fixing blame for the lapses from perfection which abound in earthly life. However, if you do have that unfortunate habit, feel free to blame me. I care?

Encino, California
All Fool's Day, A.D. 1977

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CHAPTER I

What are Reflexives?

Before settling in to an examination of a phenomenon in many different languages, it is necessary to have some language-independent idea of what that phenomenon is, so that we know what to begin to look for. The term _reflexive_ must therefore be provided with some universal content. However, to give an airtight definition of the term at the outset would defeat the purpose of the whole investigation; we expect languages to differ amongst themselves in ways not predictable until the study is completed, and we hope to understand and explain these differences. Moreover, even within a single language the range of phenomena to be regarded as cases of reflexivization may be unclear. Consider, for example, the following English sentences:

(1) John saw himself in the mirror.

(2) John killed himself.

(3) John was pleased when a picture of himself appeared in the morning newspaper.

(4) This book was written by John and myself.

(5) John cooked supper by himself.

(6) John himself cooked supper.

(7) John cooked supper himself.

Obviously, reflexivization in English involves words like _himself_ and _myself_, but are all of the sentences (1)-(7) to be considered cases of reflexives? In private discussions, sentences of all these types were suggested to me by various people as worthy objects of study in connection with reflexivization. On the one hand, a correct exact statement of the grammar of words like *himself* would indeed be interesting not only in itself, but for the light it would shed on the process of reflexivization in English at least, if not in language in general. On the other hand, the range of syntactic and semantic contexts illustrated in (1)-(7) cannot be used to define reflexivization universally, if only because, in contrast to English, other languages do not handle them in a uniform way. For example, Japanese uses different patterns to translate (1) and (2).

(8) John wa kagami de zibun o mita
John TOP mirror LOC REFL ACC see+PAST

(9) John wa zisatu-sita.
John TOP commit-suicide+PAST

In (8), the reflexive pronoun *zibun* is used, but in (9) a special lexical item absorbs the reflexive. As another example, Russian uses different morphemes for the "emphatic" reflexive in (6) and for the object pronoun reflexive in (1):

(10) Džon uvidel sebja v zerkale.
John+NOM see+PERF+PAST REFL+ACC in mirror+PREP

(11) sam Džon prigotovil obed
"self" John+NOM prepare+PERF+PAST dinner+ACC

Conversely, there are contexts in which English uses an ordinary nonreflexive pronoun but another language will use what we will want to call a reflexive form. Such a case is the German sentence

(12) John sah eine Schlange neben sich/*ihm.
John see+PAST a snake near REFL/3MSG+DAT

which requires the use of the reflexive pronoun *sich* (the nonreflexive *ihm* is grammatical if it is not intended to be coreferent with *John*, of course) in contrast to the English equivalent:

(13) John saw a snake near him/?*himself.

which is most natural with a nonreflexive pronoun, even when that pronoun is intended to be coreferent with John.

We could of course just collect all the contexts that are handled by reflexives in at least one language and then claim that the universal process of reflexivization is defined by that set of contexts. Then we would say that in (13) English requires a nonreflexive pronoun for this particular reflexive context, or, that in Japanese, the reflexive is lexicalized in (9). However, in order to collect these reflexive contexts, we have to have a place to start. For example, how do we know that the German pronoun sich, whose required presence in (12) was interpreted as signalling a reflexive context, is in fact a reflexive pronoun?

My approach will be to give an archetypical reflexive context which can be examined in any language. This context will provide the starting point for deciding what grammatical devices will be considered reflexives in the language in question.

Specifically, I assume that, given any language, we can isolate a class of simple clauses expressing a two-argument predication, the arguments being a human agent or experiencer on the one hand and a patient on the other. Such clauses will consist of a verb, denoting the predicate, two noun phrases, referring to the arguments, and any tense-aspect, modal, agreement, or other grammatical material required by the syntax. (Of course, one or both of the noun phrases may be reduced to a pronoun or deleted entirely (depending on the language) if the reference is anaphoric, deictic, or unspecified.) Now, if the language has a grammatical device which specifically indicates that the agent/experiencer and the patient in such clauses are in fact the same referent,[1] then that grammatical device will be called the primary reflexive strategy of that language.

Let us take English as a straightforward example, and, to keep things simple, consider only clauses with the main verb see, such as:

(14) $\left.\begin{array}{l}\text{John}\\\text{Mary}\\\text{he}\\\text{I}\end{array}\right\}$ saw $\left\{\begin{array}{l}\text{Bill.}\\\text{him.}\end{array}\right.$

(15) $\left.\begin{array}{l}\text{John}\\\text{he}\end{array}\right\}$ saw himself.

I saw myself.

The subject and object noun phrases[2] are coreferent if and only if the object noun phrase consists of one of the words myself, ourselves, yourself, yourselves, himself, herself, itself, oneself, or themselves. In traditional transformational grammar this has been described by saying that a rule of reflexivization changes the object noun phrase into the appropriate reflexive pronoun if it is coreferent with the subject.[3] The presence of these reflexive pronouns in object position to mark coreference with the subject thus constitutes the primary reflexive strategy for English.

Just to illustrate a reflexive with a somewhat different surface appearance, let us look at some sentences in Lakhota, a Siouan SOV language:

(16)	John thiobleca aeyokas'in.	"John peeked at the tent."
	(John tent peek-at)	
	John Mary aeyokas'in.	"John peeked at Mary."
	John aeyomakas'in.	"John peeked at me."
	John aeyowakas'in.	"I peeked at John."
	aeyomayakas'in.	"You peeked at me."

(17) John aeyoic'ikas'in. "John peeked at himself."

aeyomic'ikas'in. "I peeked at myself."

In this language, non-third-person subject and object pronouns appear as prefixes or infixes on the verb. Several of these are illustrated in (16). However, just in case the subject and object referents are identical, an infix -ic'i- is inserted, together with a non-third-person pronoun, if necessary, as in (17). This reflexive infix is therefore the primary reflexive strategy for Lakhota.

Behind the definition of primary reflexive strategy given above there lurk some hidden assumptions which I would like now to examine.

Firstly, it has been tacitly assumed that a language will have just one primary reflexive strategy. This is certainly not necessarily the case, as the definition is at present formulated. Still, upon examining many languages, it might turn out to be empirically true, which would be a fact interesting in itself. On the other hand, different strategies used to mark reflexives may not have equal status. Consider the following English sentences:

(18) a. John washed the baby.
b. John washed up.
c. John got washed.
d. John washed himself.

(19) a. John shaved Bill.
b. John shaved.
c. John shaved himself.

(20) a. John bathed the baby.
b. John bathed.
c. John took a bath.
d. John bathed himself.

In (18b/c), (19b), and (20b/c), it is clear that a reflexive reading is intended, that is, that John is both agent and patient of wash, shave, and bathe, respectively. It might therefore seem that four new "primary reflexive strategies" are illustrated here: (i) deletion of the object noun phrase in (19b) and (20b); (ii) deletion of the object noun phrase with concomitant addition of the verb particle up in (18b); (iii) use of get and the past participle of the verb with the noun phrase as subject in (18c); (iv) use of the dummy verb take with a noun form of the verb as object in (20c). It is apparent, however, that the use of each of these four devices to mark reflexives is restricted to a small number of lexical items. This alone is enough to show that we are dealing with lexical rather than grammatical devices. In addition, though, each of these devices are impressed into service for quite nonreflexive purposes as well. Thus, deletion of the object noun phrase may signal an unspecified object:

(21) John ate and drank to his heart's content.

This very type of deletion may be combined with the addition of the verb particle up, denoting completion, as in:

(22) John finished up.

The use of take with a verb-derived noun is not necessarily reflexive:

(23) John took a swim.

Finally, the use of get with the past participle yields the so-called get-passive. Unlike the other devices, which are lexicalized even in their nonreflexive uses, the get-passive is a productive, grammatical nonreflexive process. In fact, (18c) is ambiguous between its lexicalized reflexive meaning and its get-passive sense.

At any rate, it is clear that these four devices are not primary reflexive strategies: they are not grammatical devices which specifically indicate subject-object coreference. It appears, therefore, that the use of reflexive object pronouns is the unique primary reflexive strategy for English. To close the issue, we note that it is possible to use the reflexive pronouns as objects of verbs like wash, shave, or bathe, as in (18d), (19c), and (20d). However, this use of the reflexive object works best either when the subject-object coreference is to be called attention to by means of contrastive stress (presumably in order for the stress to have something to fall on)[4] or else when the speaker wishes to detach from the event its status as a common sociocultural phenomenon. For example, (18d) would be quite appropriate if John were a cat; in the same circumstance, (18b) or (18c) would sound odd, suggesting perhaps that a personified cat was preparing himself for a meal with the family. In contrast, if John is a human being, (18d) calls attention to the physical act of cleaning. It is the very fact that such activities are commonly performed reflexively by people which makes the lexicalized forms the ones normally preferred.

This has important consequences when dealing with other languages. The elicitation of a sentence with wash oneself may yield a formation other than a primary reflexive strategy.[5] Since a primary strategy is necessarily productive, and, presumably, unmarked (in the sense of being used when special semantic features which would trigger special formations are absent), it is best hunted for by checking verbs which take human or nonhuman objects indifferently, whose use with human objects is not semantically (socially? culturally?) distinguished from its use with nonhuman objects, and whose reflexive use is likewise not specially distinguished from its nonreflexive use. A favorite verb in this investigation is see, but limited sources of data will sometimes force us to use others.

However, if we must guard against the mistake of basing our study of reflexivization in any given language on verbs expressing commonly reflexive actions such as washing oneself, we must also avoid the opposite error of narrowly restricting our attention only to the syntactically productive format, neglecting the lexical or semiproductive devices used with common lexical items. I will refer to such devices collectively as _middle strategies_. Four candidates for middle strategies in English were suggested above. Let us again look at each of them briefly to see if we can understand how they can function to express a reflexive predication.

We can quickly dispose of the case of _wash up_ as involving the strategy of object noun phrase deletion, to be discussed further below, plus the addition of the particle _up_, itself having nothing to do with reflexives. In fact, it is perfectly acceptable, if slightly less colloquial, to say "John washed", without the particle. The highly lexicalized use of _up_ with _wash_ probably involves a vague idea of perfectivity or completion, really the same as in (22).[6]

The use of _take_ with a noun derived from a verb appears to be restricted to intransitives. Thus, _take a bath_ is dependent on _bathe_ already having become intransitive by having its reflexive object deleted. Interestingly, the formation with _take_ never seems to occur with verbs that become intransitive by means of unspecified object deletion: one cannot *take a read or *take an eat. But even among reflexively intransitive or true intransitive verbs, the construction is highly lexicalized. One can take a bath, but one cannot *take a shave or *take a wash. And although one can take a walk or a swim, one cannot *take a run, and not even an angel can *take a flight.

Because the use of the verb particle up with wash and the construction with take do not themselves convey reflexive meaning, and are in fact dependent on the strategy we shall discuss next, namely object deletion, I would not want to call them middle strategies. However, object deletion can be seen to be directly connected to the notion of a reflexive. For, object deletion is a strategy which permits the patient of a transitive predicate not to be referred to. In the case of verbs like eat, drink, read, write, paint, etc., we are interested in describing the activity of the agent, the patient being an irrelevant member of a restricted class of objects determined by the verb (edibles, potables, written matter, etc.). But in the case of wash, shave, bathe, dress, undress, etc., the patient need not be referred to in the very common case when it (he?) is identical to the agent. Thus, although object deletion does not signal a reflexive by itself, it does do so when it is applied to a particular subset of the verbs which can undergo it, namely these commonly reflexive verbs. Therefore, I consider object deletion to be a middle strategy in English.[7]

Finally, we come to the construction involving get with the past participle of the verb. Unlike the other constructions we have discussed, this one occurs in English as a completely productive syntactic process, the get-passive. An object noun phrase is made the subject of get, followed by the past participle of the original verb; the agent may be optionally specified by means of a by-phrase. Thus, from

(24) The Police arrested John.

we can form

(25) John got arrested (by the police).

The meaning of (25) is very similar to that of the ordinary passive:

(26) John was arrested (by the police).

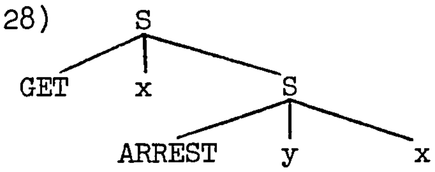
At least, the gross logical structure of (25) and (26) are the same, being both equivalent to the gross logical structure of (24), namely that *John* is the patient and *the police* the agent of an event of arresting.[8]

Some people can use (25) in a different sense in which John agentively instigates the event of his own arrest. With this meaning, the logical structure of (25) is equivalent to that of

(27) John got himself arrested (by the police).

This logical structure might be diagrammed thus:

(28)



& x = *John* & y = *the police*

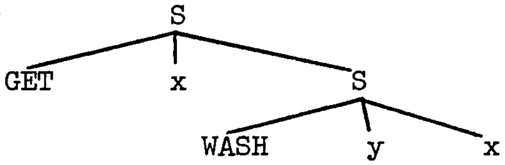
Of course, the reflexive in (27) is the result of raising the patient of the lower predicate into object position in the higher clause, perhaps after being made the subject by passivizing the lower clause.[9] The important thing to note about (27) (and (25) for those speakers who can understand *John* to be an agent in that sentence) is that even if the agent of the arresting is not specified, *John* cannot be understood to be that agent. That is, in both (25) and (27), if the phrase *by the police* is omitted, the sentences cannot be understood to involve the event *John arrested himself*.

Now, if we compare this with (18c), repeated here:

(18c) John got washed.

we immediately notice the difference: unlike either of the productive *get*-passive readings, (18c) does involve the reflexive *John washed himself*.[10] The situation, then, is that for a small number of special lexical items like wash, dress, undress (but not shave, bathe, or shower!) the pattern of the get-passive is impressed into service to denote a reflexive. Perhaps the process is that, starting from the agentive get-passive reading of (18c), which would be

(29)



& x = John (& y = ?)

the usual requirement of nonreflexiveness, namely that $y \neq x$, is idiosyncratically lifted for the verbs in question. The situation is analogous to that of object deletion: although the get-passive construction does not in itself signal a reflexive (and, in fact, usually bars a reflexive interpretation), it does do so in the usual reading when applied to certain verbs. Thus, I will also consider the get-passive a middle strategy in English.

Before leaving the matter of middle strategies for now, it will be interesting to see an example of one in another language. A clear case is afforded by Russian. The primary reflexive strategy in that language consists in replacing the object noun phrase by the pronoun sebja when the object and subject are coreferent. Thus:

(30) a. Ivan uvidel Mariju /ego /ee v
Ivan+NOM see+PERF+PAST Mary+ACC/3MSG+ACC/3FSG+ACC in
zerkale
mirror+PREP
"Ivan saw Mary/him/her in the mirror."

b. ja uvidel Mariju/ego/ee v zerkale
1SG+NOM
"I saw Mary/him/her in the mirror."

(31) a. Ivan uvidel sebja v zerkale
REFL+ACC
"Ivan saw himself in the mirror."

b. ja uvidel sebja v zerkale
"I saw myself in the mirror."

Similarly,

(32) Ivan ljubit Mariju/ee
"Ivan loves Mary/her."

versus

(33) Ivan ljubit sebja.
"Ivan loves himself."

However, if we examine sentences with wash, a different pattern shows up:

(34) Ivan moet rebenka
Ivan+NOM wash+PRESS child+ACC
"Ivan is washing the child."

(35) Ivan moetsja
Ivan+NOM wash+PRESS+sja
"Ivan is washing."

Just as object deletion (or more generally argument deletion; see Note 7) and the get-passive construction are processes of considerable scope in English which signal reflexive meaning when applied to certain verbs, so the suffixation of -sja to verbs in Russian. Interestingly, the range of functions served by -sja and those served by the English middle strategies overlap considerably, yet do not exactly coincide. Some examples:

Passive (but only inanimate patients occur in this construction in Russian):

(36) dom stroitsja
house+NOM build+PRES+*sja*
"The house is being/getting built."

Inchoative:

(37) dver' otkrylas'
door+NOM open+PERF+PAST+*sja*
"The door opened."

Reciprocal:

(38) my vstretilis' na ulice
we+NOM meet+PERF+PAST+*sja* on street+LOC
"We met on the street."

Facilitative:

(39) èti stakany legko b'jutsja
these glass+NOMPL easily break+PRES+*sja*
"These glasses break easily."

Generic Activity:

(40) èta sobaka kusaetsja
this dog+NOM bite+PRES+*sja*
"This dog bites (is a biter)."

In addition, Russian has many little semantic areas assigned to the -*sja* suffix which do not correspond to any particular grammatical or lexical device in English. An interesting one is its use with intransitive verbs which are inflected impersonally, the erstwhile subject noun phrase now appearing in the dative case or else deleted, to express ability or emotional proclivity:

(41) mne ne spitsja

1SG+DAT NEG sleep+PRES+sja

"I can't get to sleep."/"I'm not sleepy."

(42) tam xorošo rabotaetsja

there well work+PRES+sja

"One can work well there."/"One feels like working there."

Other examples of special areas of usage of this suffix may be found, say, in Townsend 1970. Finally, the suffix is idiosyncratically required by certain verbs. Thus, "he is afraid of the teacher" comes out

(43) on boitsja učitelja

3MSG+NOM (verb) teacher+GEN

but there is no sentence such as "*on boit", without the -sja.

Although the middle strategies of English and Russian differ in many details in their range of applicability, there is one feature which they have in common: they are all intransitivizing devices. In fact, there is a clear connection between reflexivization and intransitivity. Namely, by coreferentially tying together the agent and patient of a transitive predicate, the reflexive renders that predicate a function of one argument only, hence equivalent to an intransitive. Diagrammatically, we may say that, when the transitive predicate P(x,y) is used reflexively, it becomes

(44) $P(x,x) = P_R(x)$

The two sides of the equal sign in (44) suggest two ways a grammar can mark a reflexive. On the one hand, the subject-object coreference can be shown in the subject and/or object noun phrases themselves. On the other hand, the verb can be modified as a signal that it is being used reflexively, the modified verb (or "reflexive verb") now participating in an intransitive clause structure. The first option, which I will henceforth refer to as an NP-reflexive, is illustrated by the primary reflexive strategies of English and Russian, in which a special pronoun is used as the object NP to signal its coreference with the subject. The second option, which I will call a verbal reflexive, is illustrated by the Lakhota reflexive (see (16) and (17) above), as well as by the reflexive use of the middle strategies of English and Russian: the -sja suffix and the get-passive inflection are modifications of the verb permitting it to appear in an intransitive clause; and object deletion is a fortiori an intransitivization, although no overt marking appears on the verb. The distinction between NP-reflexives and verbal reflexives is fundamental to the typology of reflexive grammar, and should be kept in mind throughout the rest of this study. Detailed examples will be discussed in Chapter II, where we will see that the distinction is ultimately hard to draw precisely, and should possibly be viewed as a continuum rather than a discrete partition. It is nevertheless a useful distinction to be able to refer to in analyzing both synchronic and diachronic phenomena of various sorts.

Incidentally, we have just used our NP-versus-verbal typology on the middle strategies in English and Russian. Since middle strategies are just devices which can signal a reflexive meaning in certain circumstances, they can be typologized the same way as reflexives by simply looking at how they function when marking a reflexive. One might want to introduce the terms NP-middle and verbal middle; but we will see that reflexives and middles are intimately connected, and therefore we will permit ourselves the imprecision of calling the morphological types NP-reflexives and verbal reflexives, even when middles are being discussed.

The English and Russian examples should not lead us to think that all languages have separate middle strategies for verbs indicating commonly reflexive activities. In French, for example, the primary reflexives strategy is used for verbs like wash, dress, etc., as well, and is even used in certain nonreflexive intransitive contexts, suspiciously of a typically middle type. The strategy, operative in the third person only, consists in putting the special clitic se into the object clitic position. Examples:

(45) Jean voit Marie.
"Jean sees Marie."

(46) Jean me/le/la voit.
"Jean sees me/him/her."

(47) je le/la vois.
"I see him/her."

But:

(48) Jean se voit. Je me vois.
"Jean sees himself." "I see myself."

With commonly reflexive verbs:

(49) Jean lave l'enfant. Jean le lave.
"Jean is washing the child." "Jean is washing him."
Jean se lave.
"Jean is washing up."

An inchoative example:

(50) Jean ouvre la porte. Jean l'ouvre.
"Jean is opening the door." "Jean is opening it."
la porte s'ouvre.
"The door is opening."

A generic passive example:

(51) Jean ne prononce pas ce mot.

"Jean is not pronouncing this word."

Jean ne le prononce pas.

"Jean is not pronouncing it."

l'f dans le mot "clef" ne se prononce pas.

"The f in the word clef is not pronounced."

Thus, in French, the same strategy covers all reflexives plus some of the territory often taken by middles in other languages.[11]

Returning to the question of the uniqueness of the primary reflexive strategy in any language, we see that English, Russian, and French do have unique primary strategies; alternate reflexive strategies were at best semantically keyed to special subclasses of verbs, if not downright idiosyncratically applicable, and usually covered nonreflexive territory as well. Since a primary strategy, by its very definition, is a grammatical, hence productive, process, it must apply freely to all verbs not especially usurped by a middle.[12] In what way could there be, say, two primary strategies? There are three possibilities I would like to suggest.

One possibility is that all verbs (or all unmarked or nonmiddle verbs) are divided idiosyncratically and unpredictably into two groups, each requiring a different reflexive device. It might be argued that only one of these devices would apply to newly-coined verbs in the language and hence be truly productive. However, it is not unimaginable that more than one verb-coining process should exist, say, involving compounding with already existing verbs from both reflexive camps. Although this situation appears possible, I do not have any example of a language illustrating it.

A second way in which a language might have two primary reflexives would be if there was a free choice as to which device to use for all (unmarked) verbs. Again, reasonable as this possibility seems, I do not have any example. What we would want would be something comparable to the two reciprocals in English:

(52) John and Mary saw $\left\{\begin{array}{l}\text{each other.}\\ \text{one another.}\end{array}\right\}$

Although there is a slight stylistic difference between the two (at least for me, the reciprocal in *each other* being the more usual one in colloquial usage) both are completely productive over the range of reciprocals.[13] Alternate expressions for the reciprocal can be found in other languages as well,[14] but I know of no comparable case for reflexives.

A third possibility would be the case of a language with two distinct productive reflexive devices *both* of which *must* apply on the class of (unmarked) verbs. For such a situation to obtain there would have to be some kind of evidence that the two devices in question were indeed distinct, since one would be tempted to claim that their combined application to denote the reflexive really constituted just one device. An intriguing example of just this situation will be discussed in Chapter II; the language is Dutch.

Conversely, it is conceivable that a language might have no primary reflexive at all, or that it might have a unique but optional primary reflexive. In the latter case, one would suspect that the "reflexive" strategy actually served to mark some other function, such as emphasis. I know of no clear-cut case of the former. As to the latter, it appears that Old English and perhaps Middle English are examples. Thus, in Old English it is possible to have a clause like

(53) swa hwa swa eadmedaþ hine
whoever humiliate+PRES 3MSG+ACC
"whoever humiliates himself"

with a plain object pronoun even though coreferent with the subject, along side of

(54) ac wundorlice swyðe geeadmedde Crist hine sylfne.
but wondrously much humiliate+PAST Christ 3MSG+ACC "self"
"But Christ humiliated himself greatly."

in which the reflexive is marked by appending a form of self to the object pronoun. Presumably, (53) is ambiguous between the reflexive reading and the reading "whoever humiliates him..." And perhaps in (54) the reflexive is emphasized.

Middle English examples with reflexively intended plain pronouns tend to be more frequent with verbs denoting normally reflexive activities:

(55) he cladde hym as a poure laborer.
"He dressed as a poor laborer."

which suggests that the usage with self may already be obligatory with semantically unmarked verbs, as in

(56) him self he hynge.
"He hanged himself."

In general, my feeling is that the case of a truly optional primary reflexive is rare. Unfortunately, I do not have data from a currently living language of this type to serve as a basis for investigating what conditions control the usage of an optional reflexive.[15]

We have already seen that reflexive devices can show up in a variety of situations other than the archetypical one of subject-object coreference. Recall (1)-(7) above. Of these English examples, sentences (6), (7), and probably (5) can be distinguished from the others by the fact that the reflexive pronoun in them does not by itself perform an act of reference. Rather, the reflexive serves to emphasize _John_ in some way. In the other sentences, however, the reflexive acts as a fully referencing noun phrase. Similarly, _sich_ in (12) is a full noun phrase performing an act of reference by itself, in this case in a syntactic position which does not usually take a reflexive in English. In all these cases, the use of the reflexive is required by the fact that the referent in question is identical to that of some other noun phrase in the utterance, usually (but not always) the subject of the clause in which it appears.[16]

Now, some languages have devices applicable only to oblique noun phrases (that is, noun phrases other than subject or object of the main verb) which signal the kind of coreference that other languages handle by means of the primary reflexive strategy extended to that position. As an example, consider the following English and French sentences:

(57) John$_i$ thought about him$_{*i/j}$

(58) Jean$_i$ pensait à lui$_{*i/j}$

(59) John$_i$ thought about himself$_{i/*j}$

(60) Jean$_i$ pensait à lui-même$_{i/*j}$

The primary reflexive strategy of English (the use of a reflexive pronoun) has been extended to the case of object of the preposition _about_ in (59). In the corresponding French sentence, however, the primary reflexive strategy cannot be used in this position, since that strategy involves a clitic. Another strategy is brought into play: the form -*même* is suffixes to the pronoun when it is coreferent with the subject.[17] Thus, the opposition between the plain pronoun and the suffixed pronoun mimics the nonreflexive-reflexive distinction exhibited by English in this position. For this reason, we will consider -*même* a reflexive suffix in French. Devices such as these, which signal a reflexive-like coreference in oblique noun phrases, will be called *secondary reflexives*.

By definition, secondary reflexives are necessarily of the NP-reflexive type. The definition also requires that the kind of coreference signalled be "reflexive-like". To state exactly what this means will have to wait until we can survey the range of contexts reflexives handle in various languages. A general first principle is this: if the antecedent of an anaphoric noun phrase is restricted syntactically to certain positions in the sentence, the anaphoric device in that noun phrase is a candidate for being a secondary reflexive. On the other hand, if the antecedent is restricted by means of deictic, conversational, or pragmatic features, it definitely is not a reflexive. Thus, demonstratives are excluded from consideration. However, if we compare the Lakhota sentence

(61) John Bill okiyaki na iye Berkeley ta yin kta hécha.
John Bill say-to and 3sg-pronoun Berkeley to go FUT has-to
"John$_i$ told Bill$_j$ he$_{i/*j}$ has to go to Berkeley."

with the formally similar English

(62) John$_i$ told Bill$_j$ (that) he$_{i/j}$ has to go to Berkeley.

we see that the antecedent of the Lakhota pronoun *iye* is restricted to the subject noun phrase of the higher sentence, whereas the referent of the English pronoun he could be either John or Bill, or even some third person. This syntactic restriction on the antecedent of iye makes it a candidate for being a secondary reflexive. In fact, since iye is used this way primarily in a subordinate clause, we prefer to call it a subordinate reflexive. Thus, the term secondary reflexive will be restricted to nonprimary NP reflexives which typically appear in oblique NP's in the same clause as their antecedents. We will defer consideration of subordinate reflexives until Chapter IV.[18]

Returning to English sentences (6) and (7), we see that the English reflexive pronoun can be used to emphasize noun phrases. We also saw in (11) that Russian conveys a similar emphasis by means of a special morpheme added to the noun phrase. Morphemes of this type will be called NP-emphatics. We will have to refer to them occasionally in our study, since they are a prime historical source for NP-reflexives.

To recapitulate, we will be dealing with five kinds of grammatical features: primary reflexives, middles, secondary reflexives, subordinate reflexives, and NP-emphatics. The synchronic-comparative relationship among them is such that there are contexts in which different languages employ different ones of these devices, so that their scope as grammatical devices overlap. Thus, certain normally reflexive verbs are marked with a middle in English and Russian ((18b), (35)) but with the primary reflexive in French ((49)); the primary reflexive in English (59) corresponds to the secondary reflexive in French (60); the primary reflexive in English (6) corresponds to the Russian NP-emphatic in (11); etc. The diachronic relationship between these five kinds of devices will be discussed in Chapter IV. But first, let us examine the synchronic morphology and syntax of reflexives more closely.

Notes to Chapter I

[1] Or, more precisely but less felicitously: if the subset of such two-argument clauses for which the agent/experiencer and the patient referents are identical coincides with the subset in which a certain grammatical device is manifested...

[2] I shall permit myself the use of the terms *subject* and *object* without defining them, when such usage is well-established and clear. A universal definition of these notions has been the elusive goal of much recent work; see Keenan (1974; 1975), Schachter (1975), for example. The universal relevance of subject and object is postulated in the theory of relational grammar of Postal and Perlmutter.

[3] Or perhaps: the reflexivization rule replaces a variable in the object noun phrase by a reflexive pronoun when the subject noun phrase contains the same variable; or, the rule interprets a freely generated reflexive pronoun in object noun position as coreferent with the subject; etc. I shall ignore here the matter of person-number-gender marking on these pronouns.

[4] This is similar to the sentences

(i) John expected to win.
(ii) John expected himsélf to win.

If we wish to contrast the subject of *win*, that subject cannot be equied as in (i). Rather, it must be raised as in (ii), so that the contrastive stress has something to fall on.

[5] As an example, consider the following sentences from Modern Hebrew:

(i) Xanan raxac et ha- tinok
John wash+PAST ACC the baby
"John washed the baby"

(ii) Xanan hitraxec.
"John washed himself."/"John got washed."

From (ii), we might conclude that the primary reflexive involves prefixing *hit-* to the verb and changing a vowel in the verb stem. Actually, the strategy in (ii) is applicable only to verbs denoting commonly reflexive actions. The productive format is seen illustrated in

(iii) Xanan raa et acmo
John see+PAST ACC REFL+3MSG
"John saw himself"

in which the object NP slot is filled with a special reflexive form. See also the Russian examples (30)-(35) below.

[6] But, in

(i) John dressed up.

there is an additional sense of a special result: John ends up by being carefully dressed in a manner appropriate to, say, a festive occasion. As in the case of *wash*, the simple form "John dressed" is acceptable but not colloquial. Since *dress up* has its own special meaning, the usual colloquial substitute for reflexive *dress* is *get dressed*.

[7] English has a variety of contexts in which the number of arguments of a verb is reduced by one. Besides object deletion applied for the purpose of non-referral to an object, there are lexical transformations creating the following:

Inchoatives (always passive)

(i) The window broke. (< x broke the window)

Facilitatives (always passive and generic)

(ii) This shirt cleans easily. (< for x to clean this shirt is easy)
(iii) This pen writes well. (< x can write well with this pen)
(iv) This book sells for five dollars. (< x sells this book for five dollars)

Generic Activity

(v) This dog bites. (< This dog bites x)

Instrumentals

(vi) The rock broke the window. (< x broke the window with the rock)

???

(vii) Five dollars buys this book. (< x can buy this book for five dollars)

Inchoatives, Facilitatives, and Generic Activities are often covered by middle strategies, as is the kind of relationship illustrated by

(viii) ?*John returned Bill home. → Bill returned home.
John returned the book ← *The book returned to the
to the library. library.

Similar to object deletion indicating a reflexive object, object deletion can indicate a reciprocal object:

Reciprocals

(ix) John and Mary met. (<John and Mary met each other.)

also a typical client for a middle strategy.

I do not know how to regard the pair:

(x) John behaved himself. John behaved.

since *himself* in the first sentence already does not refer (it cannot be replaced by a noncoreferent noun phrase, it cannot take contrastive stress, it cannot be elicited by a WH-question, etc.)

Finally, note that *wash*, without an object, is actually ambiguous between reflexive-deletion and unspecified-object-deletion. With the latter reading, however,

(xi) John is washing.

seems unaccountably to have to refer to washing clothes, rather than dishes or the car, say.

[8] To be sure, there is a meaning difference between (25) and (26), involving *John* being a preexistant topic in (25) but not (26). See R. Lakoff 1971. The difference is not relevant to the discussion at hand.

[9] Details of the logical structure (28) and of the derivation are arguable, of course. For example, maybe there should be a copy of *y* in the upper clause as well as the lower one, in which case the lower one would get equied. The issue is fortunately not relevant here.

[10] Just because the *get*-passive is productive, (18c) is actually ambiguous between the *get*-passive reading(s) and its more normal reflexive meaning.

[11] It would be interesting to know if a language could have a strategy used only to mark reflexivity of verbs denoting commonly reflexive activities. Such a language would have not only a distinct primary reflexive, but a distinct strategy (or distinct strategies) for nonreflexive middle-type contexts, such as the ones listed in Note 7.

[12] The primary reflexive may also be usurped by special lexical items like *commit suicide*; see also sentence (9) above.

[13] For some speakers of English, *each other* and *one another* are not interchangeable. The former is used only when exactly two referents are involved and the latter only when more than two are involved. For those speakers, (52) is grammatical only with *each other*.

[14] For example, in Modern Hebrew, "Chanan and Moshe saw each other" can be phrased as

(i) Xanan u- Moše rau $\underbrace{\text{ze et ze}}_{\text{RCIP}}$
Chanan and Moshe see+PAST

or as

(ii) Xanan uMoše rau $\underbrace{\text{exad et hašeni}}_{\text{RCIP}}$

As in English, there is a stylistic difference, (i) being much more usual in colloquial speech.

[15] However, it is easy to find contemporary cases of emphasizing morphemes appearing together with reflexives, as in German:

(i) Hans sah sich. "Hans saw himself."

versus

(ii) Hans sah sich selbst. "Hans saw *himself*."

The relationship of such emphasizers to reflexives is discussed briefly in Chapter IV.

[16] That the antecedent of a reflexive does not actually have to appear as another noun phrase in the sentence is illustrated by (4), repeated here:

(4) This book was written by John and myself.

Such a sentence could be taken as evidence for the higher-performative analysis: the antecedent of myself would be an argument of the performative. Interestingly, the sentence

(i) The book was written by John and herself.

is acceptable in contexts where the antecedent of herself plays one of a class of special roles with regard to the rest of the sentence. For example, if the context made it clear that the book in question was a biography of Mary, then (i) is acceptable with herself referring to Mary. Thus, in sentences of this type, a reflexive may be used when its referent is inferrable from the context; first and second persons are deictic, hence inferrable always (Larry Hyman, personal communication).

But even setting such examples aside, it is often not the case that a reflexive has as antecedent the subject of the clause in which it appears. The study of the reflexive-antecedent relationship will be a major preoccupation in Chapter III.

[17] Actually, lui in (58), without the suffix, can be coreferent with Jean, but only when there is an additional idiomatic meaning present: "John thought of himself rather than others" (i.e. "John was selfish"). This is particularly natural with the word only:

(i) Jean ne pensait qu'à lui.
"John only thought of himself" (i.e. was inconsiderate of others)

The indices given in (58) are valid when the sentence is intended literally, that is, non-idiomatically.

[18] The grammatical device of equi is also a candidate for being a secondary reflexive, since the antecedent of the missing noun phrase is syntactically controlled. Thus, to take English and Lakhota again:

(i) John Bill okiyaki na Berkeley ta yin kta hécha.
John Bill say-to and Berkeley to go FUT has-to
"John$_i$ told Bill$_j$ he$_{*i/j}$ has to go to Berkeley."

(ii) John told Bill to go to Berkeley.

In both sentences, the antecedent of the missing noun phrase in the lower clause is the object of the higher verb. Now, there are languages which use their primary reflexives in subordinate clauses to mark coreference similar to that marked by the Lakhota pronoun iye. Thus, the Latin version of (62) might be

(iii) Iohannis$_i$ Gulielmo$_j$ dixit se$_{i/*j}$ Berkleium
John+NOM William+DAT say+PAST REFL+ACC Berkeley+ACC
ire debere
go+INF must+INF

True, se in (iii) is, probably, not in a subordinate clause; but its function is the same as that of iye in (62). However, I do not know of any language which uses its primary reflexive strategy to mark the kind of coreference handled by equi languages like English. Thus, it seems natural to consider iye a reflexive, whereas to call equi a reflexive strategy seems odd. I will not consider equi any further in this study.

CHAPTER II

The Morphology of Reflexives

II.1 Introduction

Having outlined in Chapter I the scope of the phenomena we will be considering, we can now begin our study of reflexives in earnest. Our approach will be to start in this chapter with the more superficial aspects and then work down to the deeper levels later. By deeper levels I actually mean two things. Firstly, I mean the interaction of reflexives with other areas of the synchronic gramaar, that is, the syntax of reflexives. And secondly, I mean the historical origins and development of reflexives. These deeper studies will shed light on the superficial categories that will emerge here. Conversely, examining the surface forms that reflexives take in various languages will provide perspective, not to mention data, for the syntactic and historical investigations. We will build up a stock of examples that will help give content to the more abstract discussions to follow later.

Recall that in Chapter I we distinguished between NP-reflexives and verbal reflexives. Thus, we want to see how subject-object coreference can be marked in the subject and/or object noun phrases themselves. In fact, it turns out that it is always the object or patient noun phrase which exhibits any special marking for reflexivization. The significance of this will be probed in Chapter III;[1] here, we simply take note of this fact. Its relevance to our examination of data is that it enables us to narrow our attention to one noun phrase. Therefore, what we are now asking is just this: how is a reflexive object noun phrase constructed?

II.2 Head reflexives

Many languages provide a special nominal morpheme to act as the head of a reflexive noun phrase. Whatever devices the language uses to indicate the case relations of ordinary noun phrases--word-order, case particles, inflection--are routinely applied to this reflexive head. I will refer to this subtype of NP-reflexive as a head reflexive.

An example of a head reflexive is the primary reflexive in Japanese, an SOV language in which case relationships are marked by postposed particles. The reflexive head is zibun. We thus have sentences like:

(1) a. Taroo wa Ziroo o mamotta
Taroo TOP Ziroo ACC defend+PAST
"Taroo defended Ziroo."

b. Taroo wa zibun o mamotta.
"Taroo defended himself."

(2) a. boku wa Ziroo o mamotta.
1SG
"I defended Ziroo."

b. boku wa zibun o mamotta.
"I defended myself."

Another example of a head reflexive is provided by Hindi, also an SOV language. The primary reflexive noun phrases are constructed around the head apnā. Case relationships are marked by a combination of postpositions and modification of the final vowel of nouns. An example:

(3) is pārṭī nē apnē kō mazbūt-kiyā.
this party ERG REFL ACC/DAT strengthen+PAST
"This party strengthened itself."

A very common variation on the head reflexive theme is for the reflexive head to be modified by a redundant pronominal possessive agreeing with the subject. This is exemplified by the primary reflexive in Turkish, an SOV language in which pronominal possession and case are both marked by suffixes. The reflexive head is kendi-:

(4) a. Hasan Orhan aynada gördü.
Hasan+NOM Orhan+ACC mirror+LOC see+PAST
"Hasan saw Orhan in the mirror."

b. Hasan kendini aynada gördü.
REFL+3SGPOSS+ACC
"Hasan saw himself in the mirror."

(5) a. Orhana yeni bir palto alacağım.
Orhan+DAT new one coat buy+FUT+1SG
"I'll buy Orhan a new coat."

b. kendime yeni bir palto alacağım.[2]
REFL+1SGPOSS+DAT
"I'll buy myself a new coat."

In the VSO language Tagalog, the reflexive head is sarili. Case is indicated by a combination of preposed particles and voice-marking on the verb. There are two formats for pronominal possession in more or less free variation, illustrated in the (b) and (c) sentences below:

(6) a. nakita ni Juan ang ahas sa salamin.
see+PAST+GF AGT Juan TOP snake DAT mirror[3]
"Juan saw the snake in the mirror."

b. nakita ni Juan ang kaniyang sarili sa salamin.
DAT+3SG+LINK
"Juan saw himself in the mirror."

c. nakita ni Juan ang sarili niya sa salamin.
3SG
"Juan saw himself in the mirror."

(7) a. nakita ko ang ahas sa salamin.
ISG
"I saw the snake in the mirror."

b. nakita ko ang aking sarili sa salamin.
DAT+1SG+LINK
"I saw myself in the mirror."

c. nakita ko ang sarili ko sa salamin.
"I saw myself in the mirror."

Modern Hebrew is an SVO language with a head reflexive based on the stem acm- to which pronominal possessive endings are suffixed:

(8) a. Moše raa et Šaul.
Moshe see+PAST ACC Shaul
"Moshe saw Shaul."

b. Moše raa et acmo.
REFL+3MSG
"Moshe saw himself."

(9) a. raiti et Šaul.
see+PAST+1SG
"I saw Shaul."

b. raiti et acmi.
REFL+1SG
"I saw myself."

In some languages with head reflexives, the reflexive nominal stem is identical to some ordinary noun stem, suggesting that the ordinary noun has been impressed into special service as a reflexive head. Commonly found used this way are noun roots meaning "body", "soul", and "head" (hence another motivation to call this type a head reflexive!). For example, the SOV ergative language Basque makes use of the word buru "head" together with a redundant pronominal possessive as its primary reflexive:

(10) a. aitak bere semea hil du.

father+ERG 3SGPOSS son+NOMDEF kill have+3SG→3SG

"The father killed his son."

b. aitak bere burua hil du.

head+NOMDEF

"The father killed himself."

Note that the word buru really is the ordinary word for "head", as in

(11) bere buruan txapela ipiñi du.

3SGPOSS head+LOCDEF cap+NOM put have+3SG→3SG

"He put the cap on his head."

Similarly, Fula uses hoore "head" with a possessive suffix as a reflexive (Fula is SVO):

(12) a. mi gaañi Demba.

1SG+NOM wound+PERF Demba

"I wounded Demba."

b. mi gaañi hooreqam.

head+1SGPOSS

"I wounded myself."

That hoore can mean "head" in the ordinary sense is shown by:

(13) tawo hooreqam na muusa.

then head+1SGPOSS COP hurt+IMPERF

"At that time I had a headache."

In the VOS language Malagasy we find tena "body" used as a reflexive without a possessive:

(14) namono tena Rabe.

kill+PAST body Rabe

"Rabe killed himself."

Examples could easily be multiplied. Historically, we can imagine a development as follows. First, there is a stage in which the language lacks a primary reflexive. Then, the word for "body", "head", "soul", or some such, is used as the basis for a reflexive noun phrase. In this second stage, the word in question has two distinct semantic functions. On the one hand, it retains its original lexical meaning of "head" or whatever; but in addition it has the new grammatical function of indicating reflexive coreference as a result of weakening (hence widening) of the specific lexical meaning. Basque, Fula, and Malagasy are currently in this stage. Sentence (12b) will thus be ambiguous between "I wounded myself" (in any part of my body) and "I wounded my head". In contrast, since it is pragmatically odd to kill someone's head, sentence (10b) will be unambiguous. Indeed, (10b) clearly demonstrates the loss of the specific meaning "head". A third stage would be the loss of the lexical meaning entirely, or, less drastically, the phonological separation of the reflexive from the lexical meanings, so that we end up with an exclusively reflexive stem in the language. Modern Hebrew is perhaps on the way to this third stage: the reflexive stem may be related to the still-used word for "bone", or possibly to a form meaning "essence" or one meaning "power"; but it is clearly a different stem from these in the current language. It is tempting to suggest that other head-reflexives, such as the ones we have seen in Tagalog or Turkish say, may have had the same origin.[4,5]

Other examples of head reflexives will crop up from time to time in the course of this study. But now, let us turn to a different formation and examine it a bit.

II.3 Adjunct reflexives

Since the essence of a reflexive is coreference, and since pronouns are those elements whose chief reason for being is to mark coreference, we might expect that some languages would enlist their pronouns in building reflexive noun phrases. Some of the head reflexives we have looked at already illustrate this: a possessive pronoun is added to the reflexive head. However, some languages construct their reflexives in just the opposite way: to a pronoun head, a special reflexive morpheme is added to indicate that that pronoun is coreferent with the subject, say. I will call this formation an adjunct reflexive.

An example of a language whose primary strategy is an adjunct reflexive is Irish. The word féin added after a pronoun indicates that that pronoun is reflexive:

(15) a. ghortaigh Seán Séamas.
hurt+PAST Sean Seamas
"Sean hurt Seamas."
b. ghortaigh Seán é.
"Sean hurt him."
c. ghortaigh Seán é féin.
"Sean hurt himself."

Another example of an adjunct reflexive may be furnished by Old English. We saw in Chapter I that that language did not have an obligatory primary reflexive; recall cases like

(16) swa hwa swa eadmedaþ hine.
whoever humiliate+PRES 3MSGACC
"whoever humiliates him/himself"

But reflexively-used pronouns were optionally marked as such by placing after them the word sylf which, interestingly, took adjective-like endings for gender, number, and case in agreement with the pronoun it was associated with. Some examples:

(17) ac wundorlice swyðe geeadmedde Crist hine sylfne.
but wondrously much humiliate+PAST Christ 3MSGACC REFL
"But Christ humiliated himself very much."

(18) understandað eow sylfe.
"Understand yourselves."

(19) þe silfne ne hera.
"Do not praise yourself."

It will be instructive to briefly examine here what happened later to the Old English system. In the Middle English period, two changes occurred. Firstly, gender and case agreement on self (the descendant of Old English sylf) disappeared, although number agreement mostly remained, as it does to this day. Secondly, in the first and second persons, the object form of the pronoun was replaced by the possessive form, which made self look like the head noun of the construction rather than an added morpheme. Examples:

(20) him self he hynge.
"He hanged himself."

(21) thou might thy self amende.

(22) oure awn self we sal deny.

"We shall deny our own selves."

The new head-noun status of self is particularly evident in (22) where self is preceded by the adjective awn separating it from the possessive pronoun. It is interesting that this reinterpretation as a head reflexive started in the deictic first and second persons; in fact, it never really affected the third person, although we do occasionally find examples like

(23) þai þat wil commend þer selfe vnto þe devull.

What happened is that before the reinterpretation could spread to the third person, the pronoun (objective in the third person, possessive in the deictic persons) and self fused together to create the new reflexive pronoun series found in Modern English.

II.4 Head reflexive versus adjunct reflexive

The distinction between head-reflexives and adjunct reflexives depends on the notion "head of a noun phrase". In the case of head reflexives, the reflexive morpheme is the head of the noun phrase, with the pronominal element, if present, as a modifier. The adjunct reflexive, on the other hand, has the pronoun element as the head, with the reflexive morpheme as some kind of adjunct. The assumption is that given a language in which a reflexive noun phrase consists of a pronominal part and a reflexive part, we can always tell which of these two is the head. In the examples given, this has not been a problem because the languages illustrated have all had pronominal possessives distinct from object pronouns. Other cases may be more difficult to analyze. For example, in Cantonese, a reflexive noun phrase consists of a pronoun followed by the reflexive morpheme ji gei, as in:

(24) John juŋ yi kӧi ji gei.
John like 3SG REFL
"John likes himself."

Now, we would like to decide whether the head of kӧi ji gei is the pronoun kӧi, or whether that pronoun is a modifier of ji gei. If we look elsewhere in the language, we discover that the obvious kinds of evidence that would decide this are lacking. For example, looking at other examples of pronominal possessives, we see that they usually take the form of the pronoun plus the special morpheme ge, which we may think of as a genitive marker. Thus:

(25) kӧi ge hei če
3SG GEN car
"his car(s)"

However, there are certain classes of possessive expressions in which the ge is absent, such as when the possessed noun is one of certain terms of personal relationship:

(26) kӧi ӧk kei
3SG family
"his family"

or one of certain spatial relationship terms:

(27) ŋo čin bin
1SG front
"in front of me"

Therefore, it seems reasonable that the ge might be dispensed with in the case of the reflexive as well. The absence of ge in the reflexive noun phrase is thus no evidence against ji gei being the head.

An argument that ji gei is an adjunct reflexive might be the following. Since the reflexive morpheme in an adjunct reflexive is an adjunct to a pronoun, one might expect that it could occur by itself as an adjunct to other nominal heads as well. As a matter of fact, reflexives often do occur as adjuncts to a noun phrase, either as NP-emphatics or else as morphemes meaning "even" or some such. A head reflexive so used would be expected to appear with its redundant pronominal possessive, as we indeed find in Modern Hebrew:

(28) Moše acmo raa et Šaul.
Moshe REFL+3MSGPOSS see+PAST ACC Shaul
"Moshe himself saw Shaul."

and in Turkish:

(29) biz kendimiz öyle bir vaziyeti beǧenmezdik.
1PL+NOM SELF+1PLPOSS such one situation like+AORNEG+1PL
"We ourselves would not like such a situation."

In (28) and (29) the reflexives are being used as NP-emphatics on the subject noun phrase; we see that they still carry the possessive suffix. However, the following Irish example shows the reflexive morpheme appearing alone as such an adjunct:

(30) bhí an t-easpag féin i láthair.
be+PAST the bishop REFL present
"The bishop himself was present"
or "Even the bishop was present."

The surface form an t-easpag féin is completely parallel to é féin "himself": in both cases féin is added to a nominal head.

Now, in Cantonese, the form ji gei by itself, without the pronoun, can be used as an NP-emphatic:

(31) John ji gei lai

John REFL come

"John himself came."

So it would appear that Cantonese has an adjunct reflexive.

The problem with this argument is that there are counterexamples to the alleged correlation between the reflexive subtype and the appearance of the pronoun when the reflexive is used as an NP-emphastic. For example, Finnish has a clear head reflexive built on the stem itse. An example:

(32) Marja puhuu aina vain itsestään.

Marja+NOM speak+PRES always only REFL+EL+3SG

"Marja always speaks only about herself."

As an NP-emphatic, itse may precede or follow the head noun. When it precedes, it carries no inflection at all, neither case suffix nor pronominal possessive:

(33) itse pääministerillä on ollut vaikeuksia opposition kanssa.

REFL prime-minister+AD has-been trouble+PART opposition+GEN with.

"The Prime Minister himself has had trouble with the opposition."

When it follows, it carries the usual case and possessive markers:

(34) pääministerillä itselläänon ollut vaikeuksia opposition kanssa.

REFL+AD+3SG

"The Prime Minister himself has had trouble with the opposition."

Exception: when following a noun in the nominative case, itse appears uninflected:

(35) pääministeri itse oli samaa mieltä.
prime-minister+NOM REFL be+PAST same opinion+PART
"The Prime Minister himself was of the same opinion."

One could claim that preposed itse is a different word from the reflexive; but that would still leave the problem of the uninflected postposed nominative form. Alternatively, preposed and postposed itse could together be regarded as different from reflexive itse; indeed, this would probably be the case at the deeper levels of a generative grammar of Finnish. But to say they are different on the surface is just equivalent to saying that we cannot rely on the surface forms to establish the correlation between true reflexive noun phrases and NP-emphatics which we want to apply to the Cantonese case. Viewed either way, the Finnish situation undercuts the argument that the lack of a redundant pronoun in sentences like (31) supports the analysis of the Cantonese reflexive as an adjunct reflexive.

The situation gets even worse if we look more closely at Irish. For, in addition to formations like the one illustrated in (30), we also find the reflexive morpheme with the pronoun used as an NP-emphatic:

(36) an t-easpag é féin
the bishop 3MSG REFL
"the bishop himself"

So it appears that no argument can be constructed for typing the Cantonese reflexive on the basis of the sentences we have looked at.

It is possible that the distinction between head reflexive and adjunct reflexive is not universally definable. This would be tantamount to saying that the notion "head of a noun phrase" is not universally definable. Of course, the indeterminacy of the Cantonese case (or any other such case) might be ultimately resolvable by a deeper look at the syntax. Still, I find such an indeterminacy uncomfortable. My preferance is to say that Cantonese has a head reflexive, for the following reason. Although adjunct reflexives are fairly common as secondary reflexives, their occurrence as primary reflexives seems to be quite rare. In fact, Irish is the only unproblematic example of it I have found. Typically, what looks like it is going to be a primary adjunct reflexive turns out upon closer inspection either to be optional (Old English), or even not quite a reflexive yet (Samoan[6]); or else there are signs that the erstwhile separate pronoun and reflexive morpheme have fused into a new reflexive pronoun (Modern English, Gumbaingar,[7] Classical Greek[8]). Irish seems to be just midway between these possibilities. The forms like _é féin_ are unquestionably obligatory reflexives; but there are no clear signs of fusion (unless examples like (36) be taken as such). Although I have not looked at enough languages to make a really valid statistical statement, my feeling is that the Irish situation is in the minority (see also the discussion on Dutch below). Therefore, I prefer to consider Cantonese to have a head reflexive until more evidence is obtained.

II.5 Adjunct secondary reflexives

If adjunct reflexives are unusual as the primary strategy, their occurrence as secondary reflexives is fairly frequent, at least in Europe. We saw an example in Chapter I: French has a secondary reflexive which is formed by suffixing -_même_ to an ordinary pronoun. Spanish has a similar formation: the pronoun is followed by _mismo_ (which shows gender and number agreement). An example:

(37) Juan habló de María delante ella misma.

Juan speak+PAST of Maria in-front-of 3FSG REFL

"Juan spoke about Maria in front of her."

The syntax of these secondary reflexives is quite complex; in particular, their obligatoriness varies depending on a number of factors. In fact, misma is optional in (37), but its presence is much more natural than herself would be in the corresponding English. We will return to this briefly in Section III.3.

II.6 Reflexive pronouns

We have seen pronouns playing two roles in reflexive noun phrases: modifiers of reflexive heads, and heads of noun phrases with a reflexive adjunct. A third possibility is simply to have a special reflexive pronoun. We have already seen one example of a language with such a pronominal reflexive: Russian uses the pronoun sebja as the object of a verb whenever coreference with the subject is intended.[9]

A somewhat different kind of example is provided by German. Here, a reflexive pronoun sich is used to indicate coreference with the subject only in the third person:

(38) a. Hans sah ihn.

Hans see+PAST 3MSGACC

"Hans saw himself."

b. Hans sah sich.

"Hans saw himself."

In the other persons, the ordinary pronoun is used:

(39) ich sah mich.

"I saw myself."; cf.

(40) Hans sah mich.

"Hans saw me."

This makes sense functionally: since the referents of first and second person pronouns are uniquely determined by the speech act, there is no need for a special reflexive form. It would be highly unexpected to find the opposite case, namely a language in which reflexives are marked in the first and/or second persons but not the third. I know of no such language, and I am confident that none exists.

The issue of reflexives marked in some persons and unmarked in others appears to be restricted to pronominal reflexives. It might appear that this is necessarily so. Thus, if we have a head reflexive, since person would enter into the construction of the noun phrase only via the redundant possessive if at all, person should not affect whether or not reflexives are marked as such. Actually, though, one can easily imagine a language using a head reflexive in the third person:

(41) John saw (his) head. ("John saw himself.")

but using the ordinary pronoun in the other persons:

(42) I saw me. ("I saw myself.")

However, no example of this has come to my attention. Perhaps grammars dislike the imbalance of semantically parallel sentences with one having a "heavy" full noun phrase (41) where the other has a "light" pronoun (42). The same applies to adjunct reflexives: although not inherently forced to apply to all persons, they seem always to do so.

As to pronominal reflexives, we have seen two possibilities: reflexives marked either in all persons (Russian) or in the third person only (German); moreover, we have decided that it is impossible for reflexives to be marked for the first and second persons (the "deictic persons") but not the third person. Are there any other possibilities?

Two cases have come to my attention which illustrate other possibilities. Both of them will be detailed later in Chapter III; here I will just indicate what the situation is regarding person. Papago has a reflexive pronoun which is used in the third and second persons; corresponding sentences in the first person take ordinary object pronouns. And Pre-Old-Norse must have had a stage in which a reflexive pronoun was used in all cases except the first person singular, for which the ordinary object pronoun was used. But cases like these are rare, and, we shall see, reflect transitional stages. Thus, it will not be a gross distortion to assume that reflexive pronouns come in two kinds: third-person and all-person, if we keep in mind that such transitional types as Papago and Pre-Old-Norse do occasionally show up.

Rather different from either the German or the Russian reflexive pronouns are the ones found in Modern English. English exhibits a separate reflexive pronoun for each of the person/number/gender categories found in the ordinary pronouns; moreover, the reflexive nature of the pronoun is uniformly marked by the suffix -self, attached to a separate identifiable pronominal element. Obviously, these pronouns exhibit in their very shape their historical origin as adjunct reflexives. Intuitively, they do not seem to belong in the same category as German and Russian. To lump the English, German, and Russian cases together under the rubric of "pronominal reflexive" simply because reflexive noun phrases are pronouns in these languages points up the weakness of such a criterion for setting up a typology of reflexives. The English pronouns look very close to still being adjunct reflexives. In fact, not only will we see (in Chapter IV) that the German and Russian pronouns have a totally different kind of origin from the English ones, but also their syntactic behavior is rather different in ways consistent with this difference in origin.

The same remarks apply to languages like Classical Greek and Gumbaingar (see Notes 7 and 8 for an exposition of their reflexives). Although we do not have written documentation of their earlier history as we do for English, their shape strongly suggests an origin parallel to the English reflexives. Clearly we should distinguish these fused adjunct reflexives from the true pronominal reflexives of German and Russian; but for the moment I will continue to use the term "pronominal reflexive" to cover both cases. A better terminology will be suggested in Section II.8.

II.7 Reflexive pronoun versus head reflexive

A different sort of difficulty with the category "pronominal reflexive" is that it is sometimes hard to tell if something is a pronoun rather than an ordinary noun. Languages differ in this respect. Some languages provide fairly clear tests for pronounhood. For example, in English, a verb particle is required to hop over a pronoun object; so while

(43) John gave up the attempt.

is all right,

(44) a. *John gave up it.

has to be converted into

(44) b. John gave it up.

Since the reflexive object also requires this hopping:

(45) a. *John gave up himself.

b. John gave himself up.

we can conclude that the reflexive is a pronoun.

Similarly, German has a rule or output-condition resulting in pronouns being placed immediately after the verb in main clauses and clause-initially in subordinate clauses. Again, sich works like a pronoun by this test:

(46) a. Hans sah seinen verlorenen Freund im Spiegel.

Hans see+PAST his lost friend in-the mirror

"Hans saw his lost friend in the mirror."

b. Hans sah im Spiegel seinen verlorenen Freund.

(47) a. Hans sah ihn im Spiegel.

3MSGACC

"Hans saw him in the mirror."

b. *Hans sah im Spiegel ihn.

(48) a. Hans sah sich im Spiegel.

"Hans saw himself in the mirror."

b. *Hans sah im Spiegel sich.

Sentences (46) illustrate that an object noun phrase may be separated from its verb by a prepositional phrase. In (47), this separation is seen to be impossible when the object is a pronoun. That the reflexive behaves like a pronoun in this respect is illustrated in (48).[10]

I do not know of a syntactic test for Russian similar to the English or German tests for pronounhood just illustrated. However, the various case forms of the reflexive sebja exhibit certain peculiarities which are also seen in the case forms of the personal pronouns menja "me" and tebja "you", so that morphologically at least the reflexive is clearly a pronoun.[11]

On the other hand, returning to the Tagalog example, we can be sure that the reflexive is not a pronoun for two reasons. First of all, the reflexive noun phrase consisted of the head sarili plus a possessive pronoun and a case particle; pronouns, however, cannot take possessives, nor are they preceded by case particles (different cases are indicated by different forms of the pronouns themselves). And secondly, pronouns cliticize and always appear in second position in the clause. Thus, compare (6c) (repeated here):

(6c) nakita ni Juan ang sarili niya sa salamin.

"Juan saw himself in the mirror."

with

(49) a. *nakita ni Juan siya sa salamin.

TOP+3SG

"John saw him/her in the mirror."

b. nakita siya ni Juan sa salamin.

The pronoun siya cannot be separated from the verb by the subject noun phrase as in (49a) the way the reflexive in (6c) can, because it is a clitic. It must appear in the second position in the clause, as in (49b). But the reflexive is not restricted in this way, as (6c) shows.

English, German, Russian, and Tagalog (and many other languages too, of course) separate out the special class of pronouns from among those words which can function as noun phrases or head them. But some other languages appear not to do this. For example, in Japanese, sentences whose English equivalents would have unstressed personal pronouns will most often simply delete the corresponding noun phrase entirely. Thus,

(50) zibun o mita.

REFL ACC see+PAST

is a perfectly good sentence which means "I saw myself", "he saw himself", etc. according to context. If it is necessary to be more specific, there are indeed words corresponding to the English pronouns. However, the class of such words is not grammatically singled out in any way: in terms of things like phonetic shape or susceptibility to morphological or syntactic rules or conditions they are indistinguishable from ordinary nouns.[12] The noun/pronoun distinction is also difficult to draw for Hindi.[13] It should be noted that neither Japanese nor Hindi reflexive NP's include a redundant possessive pronoun the way Tagalog or Basque reflexives do. This, combined with the inability to distinguish pronouns from true nouns, makes the distinction between head reflexives and pronominal reflexives undefinable for such languages. However, we will see in Chapter III that it is possible to typologize reflexives on the basis of certain special syntactic conditions, and that this syntactic typology coincides with the morphological typology suggested here. Using these syntactic conditions as extra evidence, we hope to resolve morphologically unclear cases. It will turn out that the Hindi reflexive is definitely pronominal; but the classification of the Japanese reflexive will remain unresolved.

II.8 Compound reflexives and pronominal reflexives

Our morphological typology of NP-reflexives is now complete. We have seen three kinds of formations: head-reflexives, adjunct-reflexives, and pronominal reflexives, the latter subdivided into fused adjunct reflexives and true pronominal reflexives. We have also seen that in some cases the distinctions may be hard to draw: given a bimorphemic noun phrase, it may not be clear which morpheme is the head; or, it may not be clear if a word is a pronoun or not. Except for this kind of unclarity, all the cases of noun phrase reflexivization I know of are of these types.

At this point, I would like to suggest a slightly different way of dividing up the various NP reflexives. Head reflexives with redundant possessive pronouns, adjunct reflexives, and fused adjunct reflexives have in common the fact that a reflexive NP consists of (at least) two parts: a morpheme indicating that the NP is in fact reflexive, and a separate pronominal element. On the other hand, with pure pronominal reflexives as in German or Russian, the reflexive morpheme itself is already a pronominal element, and, in fact, the only pronominal element in the NP. It happens that the syntactic tests we will be applying to NP reflexives will distinguish them into two groups, one containing just the pure pronominal reflexives, the other containing head reflexives with possessives, adjunct reflexives, and fused adjunct reflexives. For this reason, it will be convenient to use the term compound reflexive as a cover term for these last three types. Further, for brevity, I will henceforth refer to pure pronominal reflexives simply as pronominal reflexives. Thus, from now on, reflexives of the English type are not included as pronominal reflexives; they are compound reflexives.

This change in terminology presents us with a new way of looking at the problem of classifying the Japanese and Hindi reflexives, which were presented as head reflexives without possessive pronouns. We can either regard them as pronominal, or else we can say that the kind of redundant possessive pronoun which the majority of head reflexives carry with them shows up as zero. This latter way of looking at them would allow them to be subsumed into the category of compound reflexives, even though their surface appearance does not present separate reflexive and pronominal morphemes.[14] Assuming that such cases can be resolved one of these ways, we can conclude that all NP reflexives are either compound or pronominal.

II.9 Doubly marked reflexives

Before leaving the matter of noun phrase reflexives, I would like to present two illustrations of an uncommon but interesting situation, namely, reflexives which are marked simultaneously by two distinct processes belonging to different categories of NP-reflexives.

The first example of this is Dutch. An object coreferent with the subject has the form of a pronoun to which the marker -zelf has been suffixed. In the first and second persons, this marker is suffixed to the ordinary object pronoun. Example:

(51) ik zag mezelf.
"I saw myself." ; cf.

(52) Jan zag me.
"Jan saw me."

But in the third person, it is suffixed not to the ordinary object pronoun, but rather to the special form zich:

(53) Jan zag zichzelf.
"Jan saw himself."; cf.

(54) Jan zag hem.
"Jan saw him."

The suffixing of -zelf to a pronoun is a typical adjunct reflexive formation; in fact, it looks just like the earlier stage of English. The substitution of zich for the third person object pronoun is a clear pronominal reflexive strategy; in fact, it looks just like the German primary reflexive. Thus, the primary reflexive strategy of Dutch consists of the simultaneous application of an adjunct reflexive mechanism and a pronominal reflexive mechanism. We will see in later chapters that these morphologically distinct mechanisms each have their own syntactic and historical identity.

The second example is Papago. In this language, pronouns are clitics whose placement obeys rules of some complexity that we need not go into here. As in Dutch, there are two overt ways of marking the reflexive. Firstly, the word hejel is inserted (again, its exact position cannot be detailed here). In the first person, this is the only marking. An example:

(55) hejel ani ni neid.
REFL 1SG+NOM 1SG+OBJ see
"I see myself."; cf.

(56) ni neid o g Pancho.
1SG+OBJ see 3SG+NOM ARG Pancho[15]
"Pancho sees me."

In the second and third persons, in addition to the presence of hejel, a special reflexive object pronoun e is used:

(57) hejel ap e neid.
REFL 2SG+NOM REFL see
"You see yourself."; cf.

(58) m neid o g Pancho.
2SG+OBJ
"Pancho sees you."

(59) hejel o e neid g Pancho.
REFL 3SG+NOM REFL see ARG Pancho
"Pancho sees himself."; cf.

(60) neid o g Pancho.

"Pancho sees him/her."[16]

The syntactic status of hejel is not completely clear to me; most likely, it is an adjunct much like Dutch -zelf. If we consider it so, then the Papago situation is entirely analagous to the Dutch, with the additional twist that the reflexive pronoun applies to the second as well as the third person.

Another parallel between the Dutch and the Papago is that in both languages the pronominal reflexive mechanism is used alone as a middle strategy. Dutch examples:

(61) Jan heeft zich aangekleed.

Jan AUX REFL dress+PPRT

"Jan got dressed."

(62) ik heb me aangekleed.

"I got dressed."

A Papago example:

(63) o'odham o e hiwkon.

man 3SG+NOM REFL shave

"The man is shaving."

We will see that it is a common historical process for a reflexive strategy to widen its scope to include typically middle-strategy areas. It will turn out that this process depends in turn on another tendency of reflexives, namely, to attach themselves onto the verb. Since pronouns are the "lightest" noun phrases, reflexive pronouns attach themselves onto the verb more easily than adjunct reflexives. Thus, pronominal reflexives widen their scope more readily than self-reflexives, as we saw neatly exemplified in Dutch and Papago.

These historical matters are really the domain of Chapter IV. But the process of reflexives drifting towards the verb and attaching themselves onto it plays such a fundamental role that it should be kept in mind as we come now to take a look at verbal reflexives. For, it is almost certainly the case that all verbal reflexives have their origin in NP-reflexives which have undergone this process.

II.10 Verbal reflexives

Let us begin our look at verbal reflexives with some cases in which the NP-reflexive origin of the system is still evident.

As we saw in Chapter I, the primary reflexive strategy in French consists of using a special pronoun for third person reflexive objects. Pronouns denoting objects of verbs, including reflexives, are cliticized onto the verb. Non-clitic forms of personal pronouns also exist, functioning as objects of prepositions, carrying special stress, etc. However, with one exceptional context to be discussed in a moment, the reflexive pronoun in French does not have a non-clitic form in current use, so it is effectively a verbal reflexive.

Putting French in the verbal reflexive category while German, or, say, Spanish, are classed as having pronominal NP-reflexives seems suspicious in the light of the great similarities among them. Let us compare these three a bit. The following sentences illustrate reflexives as objects of the verb and of a preposition. (Note that the primary strategy in Spanish is a pronominal NP type marked only in the third person, as in German.)

French:

(64) a. Jean le voit.

"Jean sees him."

b. Jean se voit.

"Jean sees himself."

(65) a. Jean parle à Marie de lui.

"Jean is talking to Marie about him."

b. Jean parle à Marie de lui-même.

"Jean is talking to Marie about himself."

German:

(66) a. Hans sieht ihn.

"Hans sees him."

b. Hans sieht sich.

"Hans sees himself."

(67) a. Hans spricht mit Lise über ihn.

"Hans is talking to Lise about him."

b. Hans spricht mit Lise über sich.

"Hans is talking to Lise about himself."

Spanish:

(68) a. Juan lo ve.

"Juan sees him."

b. Juan se ve.

"Juan sees himself."

(69) a. Juan le habla a María acerca de él.

"Juan is talking to Maria about him."

b. Juan le habla a María acerca de sí mismo.

"Juan is talking to Maria about himself."

The German and Spanish sentences illustrate the reflexive pronoun occurring with a preposition. In addition, in this particular case, the Spanish is most natural with the secondary adjunct reflexive mismo also present.[17] In the French case, (65b), the primary reflexive cannot be used after a preposition, since it is a verbal clitic. Instead, the secondary reflexive appears alone.

It would seem that a chief practical criterion for deciding that we are dealing with an NP-reflexive rather than a verbal one is its ability to occur in prepositional phrases. We will reexamine this criterion shortly. But in any case, French poses a problem for the fundamental NP-reflexive versus verbal reflexive dichotomy. Recall that this dichotomy was defined on the basis of whether reflexivization is marked on the (object) noun phrase or on the verb. The question arises as to whether these two possibilities are mutually exclusive. French would seem to indicate that they are not. On the one hand, the marker se indicating a reflexive third person object is clearly a pronoun: it appears in the same position as other pronoun objects, and it contrasts with first and second person reflexive objects which are marked with exactly the same forms as ordinary non-reflexive first and second person objects. Thus, we would want to say that se constitutes a noun phrase, just like the reflexive pronouns in German or Spanish. On the other hand, since se exists only in this cliticized form, it is effectively bound to the verb in a way that the German or Spanish reflexive pronouns are not. As shown in (64)-(69), the Spanish and German reflexives can appear after prepositions whereas French se cannot.

What has happened, of course, is that a clear NP-reflexive inherited from Latin is midway on the road to becoming a verbal reflexive. The reflexive pronoun has already lost the ability to occur freely in all noun phrase positions in the sentence, but in the one position where it can occur, namely, object of the verb, it retains its pronominal character.

Two additional details concerning the French reflexive system further exhibit its transitional character. One is that the French reflexive pronoun does have a non-clitic form soi which can appear as the object of a preposition, but which is currently restricted to the kind of indefinite-generic reference which in subject position is denoted by on. An example would be:

(70) on ne doit pas parler de soi.

"One shouldn't talk about oneself."

The form soi could not be used in (65b) instead of lui-même, at least not in contemporary French, since in that sentence reference is being made to Jean, a well-defined person. However, older forms of French did permit such a usage, much as contemporary Spanish still does. An example from the 15th century:

(71) apres ce qu'elle out gecté son regart autour de soy

"after she had cast a glance around her"

Thus, we can see the reflexive gradually becoming bound to the verb. The persistence of the usage illustrated in (70) shows that this process is not yet complete.

The second detail of interest concerns auxiliary verbs. There is a group of tenses which are formed by placing the past participle of the verb after an inflected form of an auxiliary. Throughout the history of French, the auxiliaries which could be used have been two: avoir "have", and être, a verb which is otherwise equivalent to the empty support verb "be". Earlier periods exhibited vacillation between the two auxiliaries in many cases, but the basic principle was to use être with intransitives and *avoir* with transitives. Almost from the start, verbs with reflexive objects preferred *être*, indicating a tendency to regard such verbs as intransitivized rather than as special cases of transitive verbs. After a while, the use of *être* became both more restricted and more rigidly conditioned until the present situation was reached, which is to use *être* in exactly two contexts: (i) with a very specific, small set of common intransitives, mostly verbs of motion like "go", "leave" (but not "run" or "fly"), and (ii) with reflexives. Thus, the choice of *être* as an auxiliary can now be regarded as an additional marker of a reflexive verb, at least in the periphrastic tenses which involve an auxiliary, much as the presence of *get* marks the *get*-passive in English. Of course, marking a reflexive by means of a choice of auxiliary is a verbal strategy, and one which correlates nicely with the drift of the reflexive pronoun towards verbal clitichood.[18]

At any rate, French shows us that the fundamental distinction between NP-reflexives and verbal reflexives cannot be sharply drawn. Rather, these two types are opposite ends of a continuous spectrum. Languages may move from one pole towards the other; in fact, such movement is necessarily from the NP-reflexive pole towards the verbal reflexive pole. For convenience, we can refer to the French type as a *pronominal verbal reflexive*.

Just to show that the phenomenon of a verbal reflexive which yet remains a pronoun is not restricted to the case of Indo-European cliticized pronouns, let us look at Tswana, a Bantu language. Subject and object pronouns appear as prefixes to the verb stem, as do tense markers. However, subject pronouns precede tense markers whereas object pronouns follow them. An example:

(72) ke- tla-mo- thusa.

1ST+NOM FUT 3SG+OBJ help

"I shall help him."

The primary reflexive strategy in Tswana is to insert -i- into the object pronoun slot. This form may therefore be regarded as the reflexive object pronoun. It is used for all persons and numbers. Example:

(73) ke- tla-i thêk-êla selêpê.

1SG+NOM FIT REFL buy BEN axe[19]

"I shall buy an axe for myself."

There also exist pronouns which are independent words, but none corresponding to the reflexive. Objects of prepositions are expressed by means of possessive constructions; again, there is nothing in these constructions corresponding to a reflexive. The situation is thus analogous to French (leaving the soi aside).

It might be objected that the Tswana -i- is not an object pronoun but rather a verbal prefix creating a new reflexive verb stem. However, there are cases in which Tswana permits two object pronouns to be attached to the verb. This happens when the verb carries any of a certain group of suffixes, most commonly the benefactive and the causative. When two non-reflexive object pronouns appear, their order depends on their syntactic relationship to the verb. For example, a benefactive pronoun appears to the right of a direct object, the lower subject of a causative appears to the right of the lower object, and so on. If one of the pronouns is the reflexive, this position rule still holds except in the case that the other object pronoun is first person singular, in which case that pronoun must appear to the right of the reflexive regardless of the syntactic relationships.[20] An example:

(74) go- i- n- tšhwarêla

INF REFL 1ST+OBJ hold+BEN

"to forgive me" (literally "to hold me for oneself")

The fact that the reflexive can be separated from the verb stem by a pronoun suggests that it too is a pronoun. In fact, the low-level rule responsible for the pronouns in (74) appearing in the reverse order from what the otherwise general syntactically based ordering rule would yield reminds one of the low-level rules ordering pre-verbal clitic pronouns in Romance languages.[21]

A moment ago I said that the Tswana reflexive was analogous to the French case. That is not quite right. There is one difference, minor in itself, but with important diachronic consequences. Namely, the French reflexive is a third person pronoun, whereas the Tswana one is used for all persons. It is because of this that the Tswana reflexive, but not the French, could be misunderstood as a verbal affix. We saw that, synchronically, the Tswana reflexive is in fact a pronoun. There are other cases, however, where a reflexive marker which may once have been a pronoun has lost all traces of pronounhood and has become a true verbal affix. We saw one such case in Chapter I: the middle strategy in Russian. Recall that this consists of suffixing -sja to the verb. This suffix cannot be regarded as a pronoun: no pronouns in Russian are verbal suffixes, pronouns are not subject to a certain special morphological alternation that -sja is, etc. But historically, this suffix was indeed the cliticized version of what is now the reflexive pronoun sebja.

The Russian middle illustrates the most common kind of verbal reflexive, the use of a single verbal affix, conveniently referred to as an affixal reflexive. Caution: not all affixal reflexives arise from pronouns. A head reflexive is perfectly capable of becoming a verbal affix as well, although it is somewhat less likely to do so than a pronoun.[22] The whole issue will be examined in Chapter IV.

But since affixal reflexives do arise as a fairly late stage in the attachment of an NP-reflexive to the verb with concomitant widening of the semantic range of the strategy, it is very common to find middle strategies constructed affixally, like the Russian -sja. Lest it be thought that an affixal strategy must be a middle and can never be a primary reflexive, recall Lakhota, whose primary reflexive consists in prefixing or infixing -ic'i- to the transitive verb stem, resulting in an enlarged, intransitive verb.[23]

Two other verbal strategies should be mentioned. One is periphrasis, as in the get-passive of English. The other is the use of a separate inflectional paradigm, as the Classical Greek middle voice. These two examples are both middles; in fact, I know of no cases where the primary reflexive is of one of these types, although the French primary reflexive partially involves a special choice of auxiliary in compound tenses, as we saw above. Except for cases like these, we will not examine periphrastic or inflectional middles in this study.

If the various subtypes of NP-reflexives can be hard to tell apart at times, this is even more true of the verbal reflexives, arising as they do from NP-reflexives upon which the ravages of time have wreaked various category-obliterating changes. For example, the pronominal character of a reflexive form may be unclear. The Tswana and the Lakhota strategies are not fundamentally different, and the arguments that one involves a pronoun and the other does not (see Note 23) are not particularly strong. If a form is undergoing a process of losing its pronounness and becoming an affix, it is difficult to assess just where the crossover point is. Similarly, a special middle inflectional paradigm (as in Greek) might be easily imagined decomposed into the ordinary paradigm plus a constant reflexive/middle morpheme, provided that a sufficiently abstract analysis is admitted.

Let us return to the more fundamental problem of distinguishing NP-reflexives from verbal reflexives. We saw already that cases like French were possible in which the reflexive is both somewhat of a noun phrase yet is attached to the verb. The criterion for verbalness was the fact that reflexives occurred with verbs but not prepositions. But this cannot be a universal criterion, simply because there are languages in which the difference between a verb and a preposition is difficult or impossible to define. Consider, for example, the following Vietnamese sentences:

(75) a. cô Tám $\underbrace{\text{trong tháy}}_{\text{see}}$ $\underbrace{\text{xe táng}}_{\text{tank}}$.

miss Tam see tank

"Miss Tam saw the tank."

b. cô Tám trong tháy $\left\{\begin{array}{l}\text{anh áy}\\ \text{tôi}\end{array}\right\}$

"Miss Tam saw $\left\{\begin{array}{l}\text{him."}\\ \text{me."}\end{array}\right\}$

c. cô Tám trong tháy mình.

"Miss Tam saw herself."

(76) a. tôi trong tháy anh áy.

"I saw him."

b. tôi trong tháy mình.

"I saw myself."

Clearly, reflexive objects correspond to the placing of mình after the verb. Question: does mình constitute a noun phrase, or is it a verbal suffix which creates an intransitive verb? Let us look at the Vietnamese equivalent of some sentences with reflexives in prepositional phrases:

(77) cô Tám nói về mình.
miss Tam talk about/return REFL
"Miss Tam talked about herself."

(78) cô Tám mưa xe cho mình.
miss Tam buy car for/give REFL
"Miss Tam bought herself a car."

(79) cô Tám chơi cơ tướng với mình.
miss Tam play chess with/join REFL
"Miss Tam played chess with herself."

It would appear that (77)-(79) clearly show mình following prepositions, and hence it must be a noun phrase. However, the "prepositions" in these sentences can also function as full verbs; về can mean "go back to", cho can mean "give", and với can mean "join with" or "accompany". It may be preferable to analyze the above sentences as cases of serialization, that is, the syntactic expression of various relationships within a single semantic preposition by means of more than one verb. Viewed this way, the reflexive marker follows a verb even in (77)-(79), and we are back where we started.

In fact, there is evidence that mình is really a noun phrase. Namely, in very casual speech, this word can be used as a subject NP meaning "I myself."

(80) mình trong thấy cô Tám.

"I myself saw Miss Tam."

Here mình is obviously not a verb-suffix.

Still, examples like these illustrate the difficulty of giving universal definitions even in terms of relatively superficial syntactic notions which one might expect to be more objective or more accessible than semantic or functional notions. If we go back and examine the original motivation for the NP-reflexive versus verbal reflexive distinction, we see that it is a matter of function: if subject and object are the same, do we fill both positions in the sentence and refer to the unique referent twice (NP-reflexive), or, do we refer to it once, in subject position, and intransitivize the verb (verbal reflexive)? It may be difficult to define the contrast between these two possibilities by means of morphology. Of course, in languages for which we find a very clear NP-reflexive, there is no problem saying that we have two acts of reference to a unique referent. The problem arises in cases like French or Tswana, where the reflexive appears to be a pronoun, yet is strongly bound to the verb. Vietnamese shows that the issue is further clouded by the possibility of using separate surface clauses for expressing the fine structure of a single predication. As to the prepositional phrase criterion, we can at least say the following. If the primary reflexive in a language is morphologically obviously of the NP type, and if that language has prepositional phrases, then the reflexive may appear in some of them to mark coreference (at least) with the subject.

Since a verbal reflexive is attached to the verb, we expect that its syntactic power is restricted. That is, the only coreference a verbal reflexive strategy can mark will be coreference among arguments particularly close to the verb, perhaps among terms (in the Relational Grammar sense).[24] What happens to coreference involving the more distant noun phrases? Let us take a brief look at how languages with verbal reflexives deal with those situations which correspond to NP-reflexives in prepositional phrases.

We have already seen one possibility suggested by Vietnamese: serialization. Recall sentences (77)-(79) which may be analyzable as each containing a sequence of verbs predicating different aspects of the same event. These are not perfect examples, since we could alternately regard some of the verbs as prepositions; and we saw that the Vietnamese reflexive is probably a noun phrase anyway. A better example would be the following sentence from Lakhota:

(81) John Mary wokiyaki na iwoiglake.[25]
John Mary talk-to and talk-about+REFL
"John talked to Mary about himself."

Here we see two complete syntactic clauses, each with its own full verb, connected by na "and". The use of the second full verb enables the verbal reflexive to come into play; literally, the sentence reads "John talked to Mary and talked about himself." Note that only one event of talking is predicated in (81).

Another possibility was illustrated by French sentences like (65b), namely, the use of a secondary reflexive in prepositional phrases. But the corresponding Spanish sentence (69b) shows that such a secondary reflexive may be present even if there is a perfectly adequate primary NP-reflexive which can appear after prepositions.

A third possibility is that a language may have ways of converting the object of a preposition into the direct object of the main verb. Such "advancement-to-II rules", as they are called in Relational Grammar, bring the more distant noun phrases into the scope of a verbal reflexive. The Lakhota example above (81) illustrates this: the second main verb in that sentence consists of a stem -yak- "talk" which has been furnished with the prefix iwo- which here signals that the direct object of the new verb is to be understood as corresponding to what appears as the object of about in the equivalent English expression.

A fourth possibility is that reflexive-like coreference is simply not marked in prepositional phrases. A French example:

(82) Jean est monté chez lui.
Jean AUX go-up+PPRT to-the-place-of 3MSG
"Jean$_i$ went up to his$_{i/j}$ place."

What is interesting is that even though French has a secondary reflexive which serves to disambiguate the reference of a pronoun in certain prepositional phrases, this option cannot be used in certain other cases, like (82). Here, the reference of lui "him" remains ambiguous. A completely analogous situation is presented by English sentences like

(83) John saw a snake near him.

Even though the primary reflexive in English is of the NP-reflexive type and can perfectly well appear in prepositional phrases, it will not normally be used in cases like (83).

If the syntactic scope of a verbal reflexive is narrow compared to that of an NP-reflexive, we can expect to see a narrowing of syntactic scope as a concomitant feature of a reflexive moving towards the verbal end of the scale. The above possibilities for overcoming the narrow scope of a verbal reflexive will be something to look for in the context of this historical process.

This completes our survey of reflexive morphology. We are now in a position to proceed towards integrating the superficial distinctions we have been looking at with syntax and history.

Notes to Chapter II

[1] See section III.6.

[2] This does not illustrate the paradigmatic case for a primary reflexive, since the coreference here is between a benefactive and the subject rather than the object and the subject. I see no reason to restrict the illustrations to subject-object coreference, since reflexives enter into other combinations as well. A slightly wider scope of the illustrations will provide a better feel for what is going on.

[3] In (6a), "GF" means *goal focus*. This is the voice-marking part of the case indication in this sentence. A clear exposition of the unusual system of case marking in Tagalog may be found in Schachter 1975; the terminology in the glosses given here follows that found there. In (6a), the GF verbal inflection means that the NP marked TOP is the direct object. Note also that LINK in (6b) and (7b) refers to a superficial element inserted automatically in certain cases between a head noun and a modifier.

[4] But the Japanese form *zibun* is built on two borrowed Chinese morphemes, both having a fairly abstract meaning. In fact, the *zi-* seems to specifically indicate reflexivity; it occurs in other combinations, such as *zisatu-suru* "to commit suicide".

Perhaps the creation of *zibun* was due to calquing a Chinese usage, or possibly the combination itself was used at one time in Chinese as a reflexive stem (modern Mandarin has a different form). Thus, we cannot overhastily proclaim the origin of other head-reflexive stems as being a word for "head" or "body". See also Note 8 on the origin of the Modern Greek form.

[5] The question arises as to why the generalization of the meaning for "head", etc. should be to indicate specifically reflexive coreference rather than, say, plain pronominal coreference. As a matter of fact, there do seem to be cases of non-reflexive, but emphatic, pronouns built this way. Lisu exhibits pronominal usage of the word for "body" with a possessive. The following sentence is *three* ways ambiguous:

(i) ása nya alé lǽ yí kudwè mámywè tsa gə̀-a.
Asa TOP Ale DAT 3SG body story tell give
"Asa talked to Ale about himself/him."

The noun phrase *yí kudwè* can refer to Asa, Ale, or a third person. And Biblical Hebrew has emphatic, non-reflexive pronouns constructed around the word for "spirit":

(ii) $w_{ə}$nafšá:m bašševí: ha:lá:xa:
and+spirit+3MPL in+the+captivity go +PERF+3FSG
"And they themselves went into captivity."

The appearance of *nafšá:m* as a subject precludes its reflexivity. (Note that the verb shows agreement with the feminine singular noun stem *nafš-* "spirit".) In both of these languages, as far as I can tell from the limited data sources at my disposal, the more common usage of such forms is still to indicate reflexive coreference. Possible hypotheses:

(A) The reflexive usage of forms in "body", etc. is more common than a plain pronominal usage because a language is more likely to lack a reflexive than to lack pronouns.

(B) Cases of reflexive usage of such forms all went through a prior stage as emphatic pronouns, these having been created around a lexical stem out of a need for pronouns with more body (no pun intended) than clitics, affixes, or other unstressable forms. See Chapter IV for further speculation on the historical origins of these forms.

[6] In Samoan, some sort of emphatic pronoun may be constructed by putting the word *lava* after an ordinary pronoun. It is not reflexive. If I understand my sources correctly, both

(i) ā fasi 'o ia 'e ia.
FUT kill ABS 3SG ERG 3SG
"He is about to kill him/himself."

and

(ii) sa sogi 'e Ioane ia lava.
PAST cut ERG Ioane 3SG "self"(?)
"Ioane cut him/himself."

are ambiguous as to whether the subject and object noun phrases are coreferent. The pronouns in *lava* appear to be an adjunct analogue of the heavy pronouns built on a lexical noun stem discussed in Footnote 5.

[7] In Gumbaingar, reflexive pronouns are ordinary pronouns with the suffix -*u*:

(i) ŋaidja ŋa:njau bua:ŋ.
1SG+ERG 1SG+OBJ+REFL hit
"I hit myself."; cf.

(ii) ŋa:nja balngabalngawu jindjaŋ.
1SG+OBJ ant+ERG bite
"An ant has bitten me."

[8] First and second person plural reflexive pronouns in Classical Greek are simply the ordinary pronouns followed by the word *autós*, a word which is also used in the language as a demonstrative and third person pronoun; *autós* shows inflextion for number, gender, and case. This is a typical adjunct-reflexive format. However, first and second person singular reflexives are fused forms: *emautón* "myself", *s(e)autón* "yourself". These show the regular inflection of the -*autó-* suffix; but, in contrast to the plural forms where *autós* is added as a separate word after the appropriate case form of the pronoun (e.g. "ourselves" is *he:ma:s autoús* in the accusative, *he:mi:n autoís* in the dative, etc.), the fused pronoun prefix does not change. Thus, "me" is *emé* accusative, *emoí* dative; but "myself" is *emautón* Accusative, *emauto:i* dative, etc. In the third person singular *and* plural, there

is a fused form *h(e)autón* based on the third person subordinate reflexive pronoun *he*, rarely used in Classical Greek but frequently found in Homer. (See Chapter IV for a discussion of subordinate reflexives.) The plural has an alternative format in which *autós* follows the appropriate case form of the third person plural pronoun *sp^{h}a:s*.

Presumably, the fused forms used in the singular originated as adjunct-reflexives of the type still exhibited by the plural forms.

An interesting development is the appropriation of the fused third person (singular) reflexive pronoun *h(e)autón* as a nominal head around which to construct a new head-reflexive in later Greek. In Modern Greek, a reflexive noun phrase consists of this head (now having the form *eaftós*) regarded as an ordinary masculine singular noun, preceded by the definite article and followed by a possessive enclitic pronoun, as in

(i) vlépo ton eaftó mu ston kaθréfti.
see+PRES+1SG the REFL 1SG+POSS in+the mirror
"I see myself in the mirror."

This is a clear example of a head-reflexive whose noun stem was not originally a word like "head", "body", or "spirit"; cf. Note 4.

[9] See Chapter I, sentences (30)-(33).

[10] The fact that real pronouns are used reflexively instead of *sich* in the deictic persons is also somewhat of an argument for the pronominal status of *sich*; but the discussion on page 43 shows that to conclude the pronounhood of *sich* on this basis alone would be circular.

[11] Any Russian textbook (e.g. Dawson et al. 1964) may be consulted for the paradigms.

[12] The Japanese nounlike pronouns might be compared to epithets (anaphorically used full nouns, such as "the gentleman", "the bastard", etc.), which would explain the multiplicity of such "pronouns" reflecting different social gradations and speech levels. Thus, the fact that Japanese pronouns look like nouns and the fact that there are so many pronouns for various social contexts may not be unrelated facts.

[13] The variable final vowel exhibited as part of the case marking for *apnā* (e.g. the *ē* of *apnē* in (3)) is a regular feature of a large class of masculine nouns; it does not, however, occur with any ordinary personal pronoun. This might suggest that *apnā* is a true noun rather than a pronoun. However, when a true noun is to be constructed as a genitive, it is followed by the particle *kā* (whose vowel varies in adjectival agreement with the head (possessed) noun), as in

(i) laṛke kī kitāb
boy GEN book
"the boy's book"

Some personal pronouns work this way, too:

(ii) āp kī kitāb
2POL GEN book
"your book"

while others exhibit special possessive adjectival forms already containing the variable vowel, such as *merā* "my":

(iii) merī kitāb
"my book"

Now, *apnā* can by itself function adjectivally as a reflexive possessive:

(iv) vah apnī kitāb paṛh rahā hɛ
3SG REFL book read PROG+PRES
"He$_i$ is reading his$_{i/*j}$ book."

This suggests that *apnā* is really a pronoun rather than a noun.

[14] In Japanese, at least, there is some support for this in sentences like

(i) Tanaka-san wa te o aratte imasu
Tanaka TOP hand ACC wash+PROG+POL+PRES
"Tanaka is washing his hands"

in which *te* "hand(s)" is not modified by a possessive pronoun the way *hands* in the English equivalent must be.

[15] In Papago, *g* regularly precedes full noun phrases in ordinary post-verbal position; I call it an argument marker. Note that clitic pronouns redundantly appear even when there is a full noun subject, hence the *o*.

[16] The third person singular object pronoun in Papago has zero phonological shape.

[17] The Spanish sentence (69b) illustrates that the primary reflexive strategy (the use of *se* in the third person) and the secondary reflexive strategy (putting *mismo* after the pronoun) can overlap. It is thus similar to the Dutch and Papago cases, which involved the simultaneous application of two distinct morphological processes. What made Dutch and Papago unusual is that both strategies played a part in the primary reflexive scene.

[18] The auxiliary situation in French may be contrasted with that of German, which also has periphrastic tenses, and which also has two possible auxiliaries: *haben* "have" and *sein* "be". In German, *sein* is used with a fairly extensive set of intransitives; otherwise *haben* is used. As befits the NP-ness of the reflexive, reflexive sentences always take *haben*, since they are syntactically transitive. By the way, *sein* itself takes the auxiliary *sein*. This was also the case in Old French: *être* took *être* as auxiliary along with the general class of intransitives. Now, *être* takes *avoir*.

[19] In Tswana, whenever a benefactive phrase appears in a clause, the verb takes a special suffix, and the benefactive NP becomes the surface direct object.

The hyphens in (72) and (73) are not part of the orthography; they merely divide the word into morphemes for clearer presentation.

[20] The rule given in Cole (1955) seems to be: the reflexive must be the farthest to the right except when a first person singular object is present, in which case it appears to the right of the reflexive. This differs slightly from what I stated in that my statement allows for other pronouns to appear to the right of the reflexive when they are benefactives or lower subjects. There is not enough data in Cole (1955) to decide between the two, and I do not have access to a native speaker. The situation is further complicated by the fact that some causatives take their objects in the reverse order.

It should be noted that two reflexive objects are possible:

(i)	go-	i-	i-	kan-	ya
	INF	REFL	REFL	venerate	CAUS

"to trust oneself" (literally, "to cause oneself to venerate oneself")

Lest it be claimed that the reflexive on the right really is a verb-prefix in this case, note

(ii)	go-	i-	n-	kan-	ya
	INF	REFL	1SG+OBJ	venerate	CAUS

"to trust me" (literally, "to cause oneself to venerate me")

[21] See Perlmutter (1971). Rules of this type are there referred to as *stupid rules*.

[22] It appears that the head of a head reflexive has become a verbal clitic in Mojave; see Chapter IV pages .

[23] It might be claimed that *-ic'i-* is a reflexive object pronoun, since it is inserted in the same place in the verb structure as regular subject and object pronouns. A weak argument against this is that normal pronouns are at most one syllable long, and sometimes get reduced to a single consonant, whereas the reflexive is usually bisyllabic. (It is reduced to one syllable in one class of verbs.) Note that no pronoun ever separates the reflexive from the main verb stem, as can happen in Tswana.

Another possible claim about the Lakhota reflexive is that the infix is actually an incorporated object noun stem. Noun-incorporation occurs in Lakhota as a frequent, but probably not productive, derivational device. An incorporated noun stem shows up as a prefix or infix to the verb stem. However, it is often positioned differently from the pronouns and the reflexive:

(i) ophet^{h}on.
"He bought it."

(ii) opheic'ithon.
"He bought himself."/"He bought it for himself."

(iii) lolophet^{h}on.
"He bought food."

(iv) lolopheic'ithon.
"He bought himself food."

It seems best to consider the Lakhota a plain verbal reflexive.

[24] In Relational Grammer, the *terms* of a clause are: subject, direct object, and indirect object.

[25] In Lakhota, when the reflexive is put in front of a verb stem beginning with *y*, we regularly get -*ic'i*-+-*y*-→ -*igl*-.

CHAPTER III

The Syntax of Reflexives

III.1 Introduction

We turn now to the task of typologizing reflexive strategies according to their syntax. To do this, we must fix some theoretical framework for describing syntactic behavior. It is neither necessary nor useful at this point to enter into the pros and cons of currently competing theories. Rather, I will simply assume, for my own convenience, a transformational model according to which reflexives are inserted by a rule sensitive to the intended reference of NP's as well as to the structural configuration of the constituents of the sentence. Whether or not this configuration should be represented as a tree, as has been done in most transformational theories, or as an arrangement of clauses each with term slots, as in Relational Grammar, will not be decided here. However, I will allow myself to refer to the terms of a clause, when convenient to do so. My basic attitude is that any category supplied by any theory may be called upon to aid in a description without this constituting a profession of faith in the validity of that theory to the exclusion of all the others. Similarly, my choice of introducing reflexives by means of a transformation is not meant to suggest that it is wrong to have reflexives introduced lexically and then interpreted as to reference by semantic rules, as is done for English in Jackendoff 1972. I am just not taking sides on the matter.

We therefore assume henceforth that whenever a reflexive strategy appears in a sentence, it is because a rule examined two coreferential NP's and marked one of them reflexive. Such a rule may be schematically represented as in (1.1):

$$\begin{array}{lccccccl} (1.1) & \mathrm{X} & \mathrm{NP} & \mathrm{Y} & \mathrm{NP} & \mathrm{Z} & & \text{Conditions:} \\ & 1 & 2 & 3 & 4 & 5 & \Rightarrow & 1)\ 2 \text{ and } 4 \text{ are coreferent} \\ & 1 & 2 & 3 & \underset{[+\mathrm{REFL}]}{4} & 5 & & 2)\ \ldots \\ & & & & & & & 3)\ \ldots \end{array}$$

This rule is sensitive to the structural configuration of the sentence by means of further conditions not explicitly given in the schema in (1.1) but suggested by the ellipses listed as 2) and 3) under "conditions".

Before proceeding, let us consider how a rule such as (1.1) can be related to the various morphological types we have seen reflexives take. In the case of NP-reflexives, there is no difficulty imagining how a derivation would go. There would simply be a rule spelling out any NP marked [+REFL] as a reflexive pronoun, a reflexive noun stem with a possessive pronoun, or an ordinary pronoun with an adjoined reflexive morpheme. In any of these cases the pronominal element introduced may have to be sensitive to categories like person, number, and gender; presumably, this could be handled by whatever machinery handles this for nonreflexive pronouns.

But the rule (1) seems less felicitous for verbal reflexives. Of course, we can easily have a rule deleting an NP marked [+REFL] and simultaneously putting the feature [+REFL] on the verb of the clause in which that NP was. But it seems odd to introduce an NP just to carry a feature whose purpose is to trigger a change in the verb and then vanish. Moreover, the resulting surface structure is indistinguishable from that of an intransitive sentence. Strictly ergative languages such as Dyirbal even show the subject NP in the absolutive case when the verb is marked for reflexivization. This suggests that a better way to handle verbal reflexives might be to have them start out as intransitives to begin with. On the other hand, positing an NP which is deleted later does reflect the semantics of a reflexive sentence more accurately. The case marking (and other morphological correlates, such as agreement) of an intransitive clause can always be assumed to be taken care of after the reflexive NP is deleted. And, we will see later in Section III.8 that there are occasional pieces of syntactic evidence for the existence of the deleted object NP in the case of verbal reflexives. It seems acceptable to me, then, to consider all reflexives as being introduced by a rule of the type given in (1.1).

The fact is, however, that most of our discussion of the syntax of reflexives applies to NP-reflexives only. This is because the conditions that are of interest to us are conditions on the sentence configuration to which rule (1.1) applies. Just because verbal reflexives are marked on the verb, the possible range of different configurations the rule can apply to will turn out to be quite limited. Only NP reflexives allow the possibility of defining the two conditions presented in III.2 and III.3, namely, the subject-antecedence condition and the strict-clause condition. In III.4 there is presented a universal relating these conditions to each other and to the morphological typology uncovered in Chapter II. This universal constitutes a fundamental typologization of NP-reflexive strategies; together with the discussion of exceptions in III.5, and the discussion in III.7 of certain special cases of interest, this typology constitutes the chief result of the present study. The remaining two sections of this chapter are devoted to some other conditions definable on and relevant to rules of reflexivization, and to a brief consideration of the syntax of verbal reflexives, respectively.

III.2 The Subject-Antecedence Condition

Consider the following English sentences:

(2.1) John spoke to Bill about himself.

(2.2) John spoke to me about $\left\{\begin{array}{l}\text{myself.}\\ \text{*me.}\end{array}\right\}$

(2.3) I spoke to Bill about $\left\{\begin{array}{l}\text{himself.}\\ \text{him.}\end{array}\right\}$

It has long been noticed that sentences like (2.1) are ambiguous, in that the reflexive *himself* can have either *Bill* or *John* as its antecedent. Some speakers find the reading with *Bill* as antecedent hard to get, but even these speakers accept (2.2), where the antecedent of *myself* can only be the indirect object *me*, and (2.3) where the antecedent of *himself* must be *Bill*. In fact, the reflexive in these cases is as obligatory as it is in the more usual case of coreference with the subject; nonreflexive *me* is ungrammatical in (2.2), and nonreflexive *him* instead of *himself* in (2.3) cannot refer to Bill.

Now compare this situation with the one presented by the corresponding German sentences:

(2.4) Hans sprach mit Fritz über sich.

(2.5) Hans sprach mit mir über mich (selbst).

(2.6) ich sprach mit Fritz über $\left\{\begin{array}{l}\text{*sich.}\\ \text{ihn.}\end{array}\right\}$

Unlike (2.1), (2.4) is not ambiguous: *sich* can refer only to *Hans*. The German counterpart to (2.2), namely (2.5), does not reveal anything about the reflexive, since *sich* only appears in the third person. However, (2.6) shows that *sich* cannot refer to *Fritz*;[1] in fact, the sentence with *sich* is bad as a whole, since *sich*, being third person, cannot refer to the subject NP either. We conclude that in German, but not in English, the antecedent of the reflexive must be a subject.

NP-reflexive strategies in which the antecedent of the reflexive is required to be a subject will be said to obey the *Subject Antecedent Condition* (henceforth SA condition). Alternatively, we will call them *SA reflexives*. In contrast, strategies like the English reflexive will be called *non-SA reflexives*; in such cases the antecedent of a reflexive need not be a subject.

We will want to consider obedience to the SA condition as a well-defined criterion on reflexives. In order to do so, we must confront two problems. These are the definition of subject and the matter of exceptions.

The first problem is that in order to check the SA condition, we have to be able to tell which NP's are subjects. Thus, the universal applicability of obedience to the SA condition as a criterion presupposes that the notion "subject" is universally well-defined. But this is hardly the case. Attempts to define subjectness have been made in the context of a number of different theoretical viewpoints. For example, in Chomsky 1965, the subject NP is defined as the unique NP in a clause directly dominated by S; presumably, a thorough analysis of a particular language would always yield one such NP per clause in that language. For Postal and Perlmutter 1974, subjectness is taken as a primitive of the theory: in any given language, it is assumed that a subject term-slot exists in each clause which is consistent with the way the transformations of that language may be formulated, given certain restrictions on those formulations. In Keenan 1974 and 1976, many features usually associated with the notion of subject are collected and compared, but a clear definition based on any subset of these remains elusive.

There are at least three language types for which identification of the subject (and hence verification of the SA condition) may be problematic: strictly ergative languages, topic languages (see Li and Thompson 1975 and 1976), and so-called split-subject languages, that is, languages in which traditional characteristics of subject NP's are neatly divided between two possible NP's per clause (see Schachter 1976). In my actual experience to date, however, no problem has in fact arisen. For example, in Dyirbal, a strict ergative language for which many grammatical processes have been reported which apply to absolutive NP's (rather than subject NP's) (Dixon 1972), the primary reflexive strategy is verbal. For verbal reflexives, the SA condition can always be assumed to hold (see section III.8). Note that the subject of a reflexive sentence in Dyirbal appears in the absolutive case:

(2.7) bala yugu baŋgul yaṛaŋgu buyban.
the stick+ABS the man+ERG hide+PRES
"The man hides the stick."

(2.8) bayi yaṛa buybayirinyu.
the man+ABS hide+REFL+PRES
"The man hides himself."

This cannot be taken as evidence that an absolutive-object NP is the antecedent of an underlying ergative-subject NP, since the strict ergativity of Dyirbal requires that if only subject or object (but not both) is expressed it must appear in the absolutive. Otherwise put, (2.8) is formally an intransitive; hence its unique expressed argument must be in the absolutive.

Greenlandic, also a strict ergative language, combines an NP and a verbal strategy in the primary reflexive. The reflexive object is indeed referred to by an NP (built on the reflexive noun-stem iŋmi-), but, in addition, that NP always appears demoted to an "adverbial" case, the allative, again leaving the subject as the unique term of a formally intransitive clause. The subject is therefore in the absolutive:

(2.9) tuqup-paa.
kill+IND+3SG→3SG
"He killed him."

(2.10) iŋmi-nut tuqup-puq.
REFL+AL+SG kill+IND+3SG
"He killed himself."

I do not have data on sentences of the "John told Bill about himself" type in which an oblique reflexive has two antecedence candidates; clearly, such a sentence would be very revealing about subjectness in Greenlandic if in fact it is possible to get all three NP's in one clause. (That this is not necessarily the case will be understood if we recall the discussion of Lakhota in Chapter II.[2] In that language, two separate clauses were required to express the idea "John told Bill about himself.") We will return briefly to the Greenlandic reflexive in III.4.

In the less strictly ergative language Basque,[3] it is clear that the ergative NP is the subject of transitive sentences. The primary reflexive is an NP head-reflexive, as we saw in Chapter II. A direct object reflexive is in the absolutive case with the subject in the ergative, just like any transitive sentence:

(2.11) aitak bere semea hil du.

father+ERG 3SGPOSS son+NOMDEF kill have+3SG→3SG

"The father killed his son."

(2.12) aitak bere burua hil du.

head(=REFL)+NOMDEF

"The father killed himself."

The reflexive can also appear in an oblique case:

(2.13) hire buruaz mintzo hiz.

2SGPOSS head+INSTDEF speak be+2SG

"You're speaking about yourself."

However, as in Greenlandic, I have not been able to check sentences with oblique reflexives with two antecedence possibilities. Note, by the way, that (2.13) is an intransitive sentence with the subject (here appearing only as an inflection of the auxiliary) in the absolutive.[4]

Topic languages do not in practice cause difficulty, because even though topic marking may be a natural and primary syntactic option, it is still always possible to tell what the subject is by means of other case markings or other syntactic evidence.[5] In Japanese, for example, the sentence

(2.14) satoo$_i$ wa tanaka$_j$ ni zibun$_{i/*j}$ no koto ni tuite hanasita.

Sato TOP Tanaka DAT REFL about speak+PAST

"Sato talked to Tanaka about himself."

is unambiguous: the reflexive can only have *Sato* as antecedent. We know that *Sato* is the subject, because under those circumstances in which it would not have been marked as topic, it would have been followed by the particle *ga*, which specifically marks subjects, e.g.:

(2.15) tanaka ni wa, satoo ga zibun no koto ni tuite hanasita.
Tanaka DAT TOP Sato NOM REFL about speak+PAST
(roughly: "It was Sato who talked about himself to Tanaka.")

The unambiguousness of (2.14) and (2.15) clearly shows that the Japanese reflexive obeys the SA condition.

I have data on the reflexives of only one split-subject language, namely Tagalog. In this language, we are spared any difficulty as far as the SA condition is concerned; the sentences

(2.16) sinabi ni Juan kay Maria ang tungkol sa
talk+PAST+GF AGT Juan DAT Maria TOP about
kaniyang sarili.
3SG REFL
"Juan talked to Maria about himself/?herself."

(2.17) sinabi kay Maria ang tungkol sa kaniyang sarili ni Juan.
"Juan talked to Maria about herself/?himself."

show clearly that we do not have an SA reflexive. Since both the deep and the surface cases of the NP's in (2.16) and (2.17) are the same, the "true" subject NP would be expected to be the same, whichever NP it actually was. Yet, in (2.16) the reflexive can refer to Juan, whereas in (2.17) it can refer to Maria; and the reverse possibilities are not unacceptable either.[6]

Conceivably there may be split-subject languages in which the antecedent of an NP reflexive is uniquely determined by some language-specific rule. If we believe in the universal applicability of the SA condition as a classificatory feature, this would commit us to saying that in such a language the antecedents of reflexives are _the_ subjects. Such a line of reasoning surely seems too reflexivocentric to provide a believable way out of the problem of a universal definition of subject. Unfortunately (or fortunately), I do not know of any such language.

The second problem facing us in attempting to use the SA condition as a criterion for typologizing reflexives is the matter of exceptions. In many languages we find that although there is evidence strongly supporting the SA condition, there will also be cases of a reflexive coreferent with nonsubject NP's in certain well-defined classes of sentences. When confronted with such a situation, we are faced with two choices. One is that our original evidence in favor of the SA condition may be regarded as spurious. We abandon the SA condition, and explain the unambiguous reference to a subject by a reflexive in those cases by some other means. The other choice is to regard the SA condition as valid, but to explain away the examples of nonsubject coreference, typically by claiming that the antecedent NP which is not a subject on the surface actually is a subject at some underlying point in the derivation at which the rule of reflexivization applies. Clearly, for a generative grammarian, the choice depends on the ease of finding alternate explanations; and explanations of the second type (designed to save the SA condition) depend on one's willingness to posit fairly abstract deep structures. If, however, one considers the data only from a surface-structure point of view, one may base the choice on other factors, such as whether the exceptional sentences are to be regarded as exemplifying a central versus a peripheral syntactic type, or whether there is cross-linguistic evidence suggesting that exceptions to the SA condition tend to be all of a certain type or types. My own feeling is that all of these lines of argumentation are to be regarded as worthy of consideration until such time as the nature of grammatical structure is understood more clearly. In the present study, I do not have the data to delve so deeply into the grammar of a large number of putative SA reflexive strategies to motivate an unshakeable conclusion. Rather, I will illustrate in the remainder of this section how considerations such as the above can be and have been applied in a small number of specific cases.

My impression is that the reflexive strategy whose syntax has been studied the most is the Japanese primary NP-reflexive zibun. Recent articles include Akmajian and Kitagawa 1976 and McCawley 1975; these may be consulted for bounteous lists of earlier sources. I will not attempt a complete survey of the phenomena that have been studied or of the explanations proposed. However, just because it is so well known, the Japanese reflexive can furnish a handy set of illustrations of the way in which exceptions to the SA condition can be discussed.

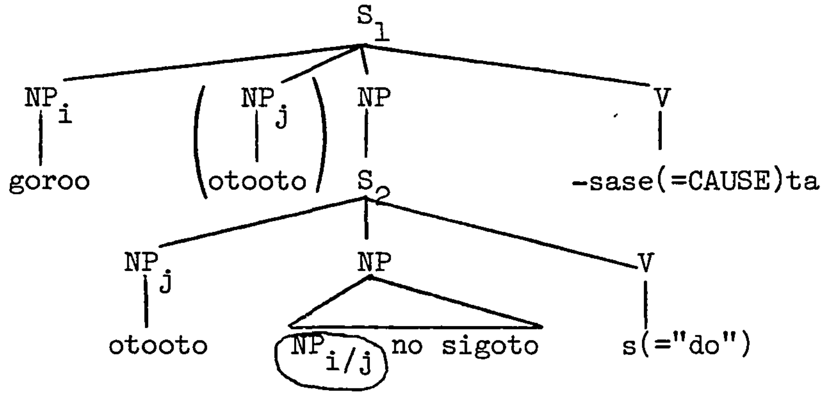
The Japanese reflexive has normally been considered to obey the SA condition on the basis of sentences like (2.14) and (2.15). The first kind of exception we will examine is that illustrated in (2.18) and (2.19):

(2.18) goroo$_i$ wa otooto$_j$ ni zibun$_{i/j}$ no sigoto o
Gorō TOP younger-brother DAT REFL GEN work ACC
saseta
do+CAUS+PAST
"Gorō$_i$ made his younger brother$_j$ do his$_{i/j}$ work."

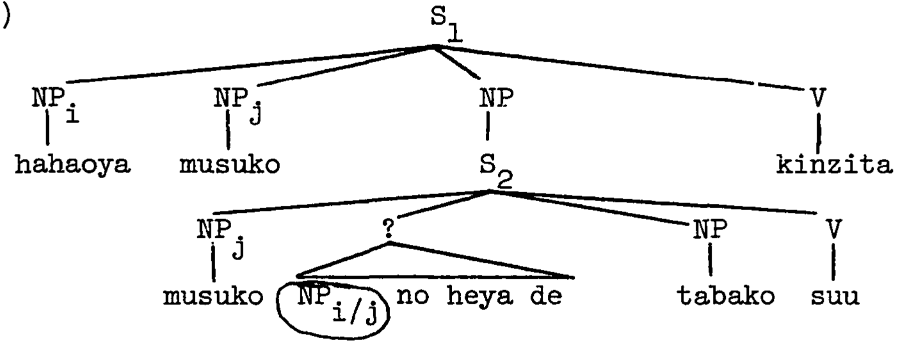
(2.19) hahaoya$_i$ wa musuko$_j$ ni zibun$_{i/j}$ no heya de tabako
mother TOP son DAT REFL GEN room LOC cigarettes
o suu no o kinzita
ACC smoke COMP ACC forbid+PAST
"The mother$_i$ forbade her son$_j$ to smoke cigarettes in his$_j$/her$_i$ room."

In these sentences, the reference of zibun is ambiguous, the antecedent being either the subject NP's goroo and hahaoya respectively, or else the dative-marked NP's otooto and musuko. These exceptions are easy to take care of transformationally, with an only mildly abstract derivation needed. Note that the sentences are transparently complex. The causative construction in (2.18) is a productive syntactic pattern, and (2.19) actually has two separate verbs, one marked by a complementizer. It is not straining the imagination to claim that at some point in their derivation these sentences have the compound structures illustrated in (2.20) and (2.21), respectively:[7]

(2.20)


S$_1$
NP$_i$
goroo
NP$_j$
otooto
NP
S$_2$
V
-sase(=CAUSE)ta
NP$_j$
otooto
NP
NP$_{i/j}$ no sigoto
V
s(="do")

(2.21)


S$_1$
NP$_i$
hahaoya
NP$_j$
musuko
NP
S$_2$
V
kinzita
NP$_j$
musuko
?
NP$_{i/j}$ no heya de
NP
tabako
V
suu

Let us make the relatively uncontroversial assumption (but see Timberlake 1976) that reflexivization is cyclic. If we choose NP$_i$ for the circled NP, then reflexivization can apply on the S$_1$ cycle, since that NP is coreferent with the subject of S$_1$ (which shows up as the subject NP of the sentence as a whole on the surface). If we choose NP$_j$, reflexivization can still apply, but on the S$_2$ cycle this time; note that NP$_j$ is coreferent with the subject of S$_2$. On the later S$_1$ cycle, equi and/or raising will destroy the subject-like appearance of that antecedent, creating the surface structures in (2.18) and (2.19), in which the SA condition appears to be violated.

This sort of analysis exemplifies the use of a transformational scheme to save the SA condition by positing a slightly more abstract structure in which a surface nonsubject antecedent appears as a deeper subject. It should be emphasized that the believability of this kind of argument depends, in my opinion, on the productivity and transparency of the syntactic combinations involved. A less productive or transparent formation would require a more abstract underlying structure, as well as more elaborate transformations. We will see an example of this in a moment. But first, let us ask if the productivity/transparency criterion has any cross-linguistic support. The answer to this is yes. Namely, it appears to be a universal fact that an SA reflexive can refer to the equied or raised subject of a nonfinite complement verb. For example, Russian has an SA reflexive, as we see by the nonambiguity of

(2.22) ivan$_i$ govoril s vladimirom$_j$ o seba$_{i/*j}$
Ivan+NOM speak+PAST with Vladimir+INST about REFL+PREP
"Ivan$_i$ spoke to Vladimir$_j$ about himself$_{i/*j}$."

Now, in (2.23):

(2.23) mat'$_i$ poprosila doč'$_j$ nalit' sebe$_{i?/j}$ vodu
mother+NOM ask+PAST daughter+ACC pour+INF REFL+DAT water+ACC
"The mother asked the daughter to pur her?/herself some water."

the reflexive can have an antecedent the accusative NP doč'. However, as in the Japanese sentence (2.19), we may assume that there is a lower clause in which nalit' is the main verb and an NP coreferent with doč' is subject. Again, this is semantically motivated, since the referent of doč' is understood to be the agent of the action predicated by nalit'. That lower subject NP is deleted by equi, but only after reflexivization applies to create sebe on the basis of coreference with it.

A similar example can be shown for Spanish. Recall that the primary reflexive strategy of Spanish consists in using the pronoun se/sí as a third person reflexive NP. This strategy obeys the SA condition, for

(2.24) Juan$_i$ le hablo a Pedro$_i$ de si mismo$_{i/*j}$.
Juan 3SG+DAT speak+PAST DAT Pedro about REFL
"Juan spoke to Pedro about himself."

is unambiguous.[8] But in (2.25)

(2.25) Juan$_i$ le aconsejo a Pedro mirarse en el espejo.
Juan 3SG+DAT advise+PAST DAT Pedro look-at+REFL in the mirror
"Juan advised Pedro to look at himself in the mirror."

the antecedent of se, itself the direct object of mirar, is Pedro, a dative NP. As in the Japanese and Russian cases, we may assume an analysis in which an NP coreferent with *Pedro* is the subject of *mirar*. This NP acts as the antecedent of *se* before being deleted by equi.

Finally, verbal reflexives, which are the SA strategies par excellence,[9] can appear on infinitives to mark coreference with a deleted subject. The following example is from Kinyarwanda. As in other Bantu languages, the primary reflexive strategy is a verbal prefix which appears in the object-pronoun position. It may be indifferently analyzed as a bound pronoun or as a piece of verbal morphology; at any rate, the strategy is clearly verbal.[10] When appearing on an infinitive, the coreference so marked is with the deleted subject; thus, in (2.26)

(2.26) Yohaani yatumñe Bill yiikubita

John cause+PAST Bill REFL+hit

"John$_i$ caused Bill$_j$ to hit himself$_j$/*him$_i$

the reflexive marks the object of "hit" as coreferent with *Bill*, a noun which appears as the object of *yatumne* on the surface, but which controlled the equi deletion of the NP which is the subject of the infinitive as well as the antecedent of the reflexive.

It is clear that, far from being exceptional, it is rather the rule that an SA reflexive in the clause of a nonfinite verb may refer to its deleted or raised subject. This rule has such widespread support, that when we find an SA reflexive which can *not* refer to a deleted or raised subject, we are tempted to regard that case as exceptional and seek an explanation for it. An example of such an occurrence might be the Hindi reflexive in causatives, e.g.

(2.27) rājā nē sīpāhī sē apnē kō gōlī marvāī

king ERG soldier ABL REFL DAT/ACC bullet strike+CAUSE+PAST

"The king$_i$ made the soldier$_j$ shoot him$_i$/*himself$_j$."

Note that, unlike the Kinyarwanda example in (2.26), the causative construction exemplified here does not involve an infinitive separate from a main verb of causation. Rather, (2.27) is constructed by means of a causative suffix on the verb. The structure of (2.27) closely resembles that of the Japanese sentence in (2.18). However, the referential possibilities of the reflexive are different in the two languages, since zibun in (2.18) can refer to the subject of the lower verb, whereas apnē kō in (2.27) cannot. An explanation of this cannot be given on the basis of the above data alone. However, viewed against the background of the almost universal ability of an SA reflexive to refer to the transparently removed subject of an embedded verb, the unique reference of the Hindi reflexive to the higher subject in (2.27) suggests that the Hindi causative is less transparent than its Japanese counterpart, that (2.27) is more like a single-clause simplex sentence than like a complex sentence with an embedded clause under a causative predicate. Such an interpretation would remove the Hindi causative from the scope of the universal asserted above.[11]

Let us move on to another kind of exception to the SA condition exhibited by the Japanese reflexive. Examine the following sentence:

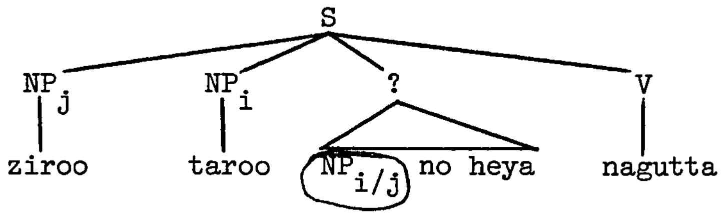
(2.28) taroo wa ziroo ni zibun no heya de nagurareta

Tarō TOP Zirō DAT REFL GEN room LOC punch+PASS+PAST

"Tarō$_i$ was punched by Jirō$_j$ in his$_{i/*j}$ room."

Sentence (2.28) illustrates an ordinary passive sentence. Note the unique antecedent of zibun. Since, presumably, ziroo was a subject earlier in the derivation, its inability to serve as an antecedent shows that reflexivization applied after it ceased being a subject, that is, after passivization. Thus, starting from a point in the derivation at which the sentence looked like:

(2.29)



passivization would apply first, making taroo the new subject and demoting ziroo to an oblique NP. Reflexivization would then try to apply. If the circled NP were NP_j, reflexivization would be blocked because its antecedent would not be a subject at that point.

Sentence (2.30) illustrates a different construction, usually called the "adversative passive":

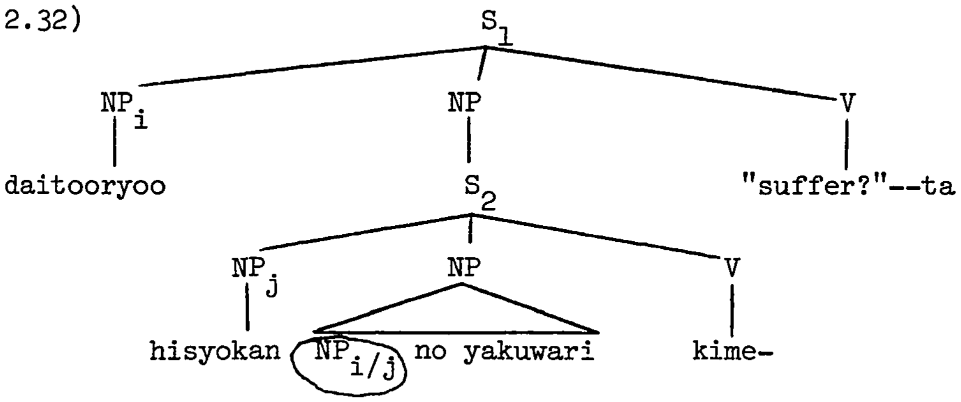
(2.30) daitooryoo wa hisyokan ni zibun no yakuwari o
president TOP secretary DAT REFL GEN role ACC
kimerareta
decide+PASS+PAST
"The president_i had his secretary_j decide $\text{his}_{i/j}$ role on him."

The verbal morphology for the adversative passive is the same as for the ordinary passive. But note that (2.30) contains an extra NP, referring to the adversely affected person, when compared with the simplex sentence

(2.31) hisyokan wa NP no yakuwari o kimeta
secretary TOP NP GEN role ACC decide+PAST

whose structure must form part of the structure of (2.30) at some deeper level of the derivation. This already suggests that the adversative passive may involve an embedding whereas the ordinary passive does not. This idea is further confirmed by the ambiguous reference of the reflexive in (2.30). In fact, this ambiguity, coupled with other parallelisms between adversative passives and causatives like (2.18) (such as the similar case-markings), has led some researchers (e.g. McCawley 1972) to posit a complex underlying structure for adversative passives. Thus, (2.30) would have a structure like

(2.32)



at an early stage in its derivation. Exactly the same kinds of derivations outlined above for causatives or other equi or raising complements would apply here. In particular, depending on which NP was chosen for the circled NP, reflexivization could apply on either the S_1 or the S_2 cycle; hence the ambiguity of the reflexive in (2.30).

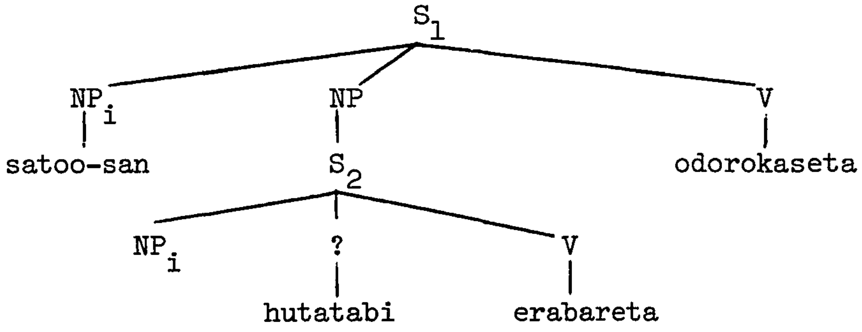
Cross-linguistic evidence is hard to come by here. We are not dealing with a strategy or function of wide occurrence in the world; the adversative passive may be peculiar to Japanese. As an exception to the SA condition, it appears best to regard it as subsumed under the first kind of exception, via the analysis suggested above and diagrammed in (2.32). The construction is certainly as productive and transparent as the causative.

A third famous exception to the SA condition discussed by students of Japanese syntax is illustrated by

(2.33) zibun ga hutatabi erabareta koto ga satoo-san o
REFL NOM again choose+PASS+PAST COMP NOM Satō Mr. ACC
odorokaseta
surprise+PAST
"That he$_i$ was elected again surprised Mr. Satō$_i$."

The antecedent of zibun is here the object of the main verb. Of course, the subject of the main verb is the entire subordinate clause, and the subject of that clause is zibun itself, so there is no subject NP to even be a candidate for being an antecedent of it. Following the line of attack in which a transformational derivation is constructed to save the SA condition, we look for a way to make satoo-san a subject. Note that the main verb predicates a psychological reaction or state of the referent of the object NP towards the content of the subject NP. One could claim, therefore, that satoo-san is in fact the underlying subject of the verb odorokaseta, and that its antecedence privelege is due to its subjecthood earlier in the derivation. Thus, (2.33) would have a structure like

(2.34)

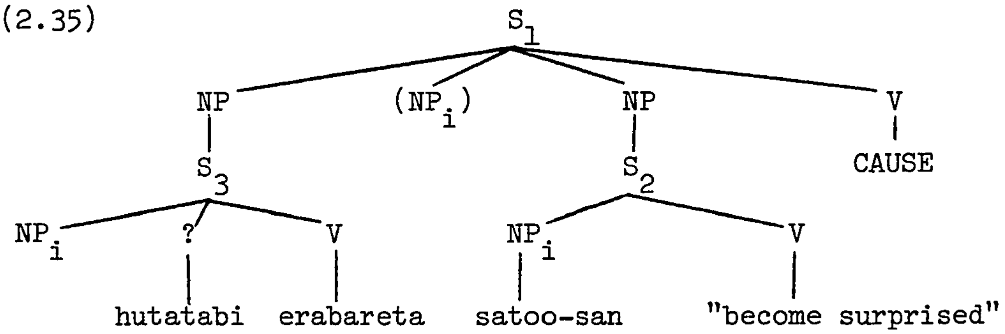


at that point. Reflexivization could now apply on the S$_1$ cycle. After that, a transformation triggered by the main verb in S$_1$ and akin to (or identical with) Postal's psych-mvt (see, e.g., Postal 1971) would flip the two NP's in S_1.

A number of problems with this analysis come to mind. First of all, the posited underlying structure (2.34) is not transparent in the surface form (2.33); in particular, the transformation needed to derive (2.33) from (2.34) (which we may as well call psych-mvt) depends idiosyncratically (that is, lexically) on the main verb. And secondly, the effect of this transformation is similar to that of passivization, so we would expect them to have similar ordering. We saw above in the derivation of (2.28) from (2.29) that reflexivization must follow passive. Here, however, reflexivization is seen to precede psych-mvt. This is necessary in order for satoo-san to still be a subject at the time that reflexivization applies.

An alternate transformational line of approach would be to analyze (2.33) as parallel to a causative such as we saw in (2.18). The structure might then be

(2.35)



Here we are faced with the situation where the antecedent (the subject of S_2) does not command the reflexive target (the subject of S_3). In section III.6 we will see that reflexives are as a rule commanded by their antecedents. The violation of this presented by (2.35) makes this approach suspicious.

I will not further pursue here the transformational approach to saving the SA condition for this case, referring the interested reader to the abundant recent literature on this matter. Rather, I would like to point to some cross-linguistic evidence in favor of the idea that it is typical for an SA condition to be suspended in cases like these Japanese psych-mvt sentences.

It is often the case that an otherwise SA reflexive will have a nonsubject NP as antecedent if that NP refers to the unique human argument of a predicate and if that argument is the experiencer of a situation or psychological state. A typical instance is that of possessive sentences constructed so as to have the possessor referred to by an oblique NP while the possessed item appears as the subject. An example can be given from Russian. Recall that the Russian reflexive pronoun obeys the SA condition, as we saw in (2.22) above. Now consider

(2.36)	u	menja	svoj	karandaš
	at	1SG+GEN	REFL+POSS	pencil+NOM

"I have my (own) pencil."

In (2.36), the surface subject is svoj karandaš. As in the Japanese sentence (2.33), the reflexive is embedded in it. Its antecedent is the object of the preposition u. In addition to the fact that menja is the only candidate for being the antecedent of svoj in (2.36), note that menja refers to the experiencer of the possession predicated by the sentence, quite analogously to satoo-san in (2.33) referring to the experiencer of the emotion predicated by the main verb.

Another typical formation allowing nonsubject antecedence is the impersonal psychological state verb with oblique experiencer NP. Again, a Russian example:

(2.37) mne žal' sebja

1SG+DAT pity REFL+ACC

"I'm sorry for myself."

In (2.37), the main predicate *žal'* is syntactically impersonal, and its "logical subject", that is, the NP referring to the experiencer, is in an oblique case rather than appearing as the surface syntactic subject. This does not prevent it from being the antecedent of the reflexive. A similar example from Hindi is:

(2.38) rām kō apnē ūpar krōdh āyā

Ram ACC/DAT REFL on anger come+PAST

"Ram is angry at himself."

The surface subject is *krōdh*; or, alternatively, *krōdh āyā* can be analyzed as an impersonal predicate. Either way, the experiencer is referred to by an oblique NP, which is nevertheless the antecedent of the reflexive.

All of these cases could be analyzed along the lines of the psych-mvt explanation suggested above for (2.33); see also the tree in (2.34). As in that case, we would have to order reflexivization to precede psych-mvt. Recall that one of the reasons this analysis seemed suspicious for Japanese was that the ordering of reflexivization and passivization was just the reverse. Put another way, the productive, transparent, syntactic process of passivization succeeded in removing an erstwhile subject from the domain of possible antecedence of a reflexive, while the lexically controlled, nonproductive psych-mvt did not. Interesting, this correlation also has some cross-linguistic support. We have just seen how what we might consider ex-subject NP's made oblique by psych-mvt can still function as antecedents for an SA reflexive in a few other languages. To see an example from another language of how a syntactic desubjectivization can make an NP unable to be a reflexive antecedent, let us take the Russian sentences

(2.39) devuški$_i$ byli v svoix$_i$ komnatax
girl+PL+NOM be+PAST+PL in REFL+POSS room+PL+PREP
"The girls were in their rooms."

(2.40) *mnogo devušek$_i$ bylo v svoix$_i$ komnatax
many girl+PL+NOM be+PAST+NSG in REFL+POSS room+PL+PREP
"Many girls$_i$ were in their$_i$ rooms."

In (2.40), a productive, syntactic rule, triggered by the quantifier *mnogo*, has desubjectivized the NP meaning "girls"; this is seen on the surface both by the fact that the noun is not in the nominative case, and by the loss of agreement on the verb, which reverts to the unmarked neuter singular form. The thing to note is that although *devuški* in (2.39) can (and must) be the antecedent of *svoix*, this possibility is destroyed in (2.40). This sentence therefore becomes ungrammatical, since there is no possible antecedent for *svoix*. Thus, although a psych-mvt surface nonsubject experiencer NP can be the antecedent of a reflexive (as in (2.36) and (2.37)), an ex-subject NP cannot if it is demoted by the syntactic rule which puts an NP into the genitive when it is the scope of the quantifier.

Another example is furnished by the German passive. Recall from (2.4)-(2.6) at the beginning of our discussion in this section that the third person reflexive pronoun *sich* obeys the SA condition. Now let us consider

(2.41) ?der Mann$_i$ wurde von sich$_i$ getötet
the man PASS+PAST by REFL kill+PSTPRT
"?The man was killed by himself."

(2.42) *mit dem Mann$_i$ wurde von Hans$_j$ über sich gesprochen
with the mann PASS+PAST by Hans about REFL speak+PSTPART
"The man$_i$ was talked to by Hans$_j$ about himself$_{i/j}$."

Sentence (2.41) is not completely acceptable. As far as I have been able to tell, its unacceptability is of the same order and due to the same cause as its English translation, namely, a violation of the Case Hierarchy Condition (to be discussed briefly in section III.6). Such violations yield sentences which are not syntactically ungrammatical, but which exude an odd semantic flavor which I find difficult to describe. If we consider (2.41) grammatical, we can already conclude that, just as in Japanese, German reflexivization follows passivization, since the antecedent of sich in (2.41) first becomes a subject by means of the latter process. This is further illustrated by the syntactic ungrammaticality of (2.42), a passive sentence based on an intransitive and hence containing no derived surface subject NP. Since there is no surface subject, there is no NP to serve as antecedent of sich, hence the ungrammaticality; in particular, the deep subject Hans is not the antecedent. Interestingly, the English translation of (2.42) is completely acceptable for many speakers, and, in fact, ambiguous, a further illustration of the non-SA character of the English reflexive.

Comparing the ungrammatical sentences (2.40) and (2.42) (and the unambiguous Japanese passive sentence (2.26)) with the grammatical psych-mvt sentences (2.36), (2.37), and (2.38) (and the Japanese

(2.33)), we conclude that, typically, SA reflexives can have nonsubject NP's as antecedents if their nonsubjecthood is lexically determined by the main verb, but not if their nonsubjecthood is due to a syntactic demotion. Incidentally, these syntactic demotions should be carefully distinguished from the equi/raising cases we considered earlier. In those cases, the subjecthood of an NP was destroyed by a syntactic process operating *on a higher cycle*; recall that this did not destroy antecedence. In the cases here, the syntactic rule which destroys subjecthood operates *on the same cycle* as that subject NP; and antecedence *is* destroyed. We can summarize these facts by saying that an SA reflexive requires its antecedent to be a cycle-final subject (that is, it must be the subject NP after all rules operating on its own cycle have applied), except in the case of lexically marked psych-mvt main verbs, in which case the antecedent is the oblique NP denoting the experiencer.

To finish this discussion of exceptions to the SA condition, let me just mention one perplexing fact. For a number of SA reflexives, a nonsubject NP can be an antecedent just in case the verb is one of a small, special set, probably definable on semantic grounds. A typical verb of this type is "protect". Here are examples from three languages with SA reflexives:

Spanish

(2.43) la sociedad$_i$ protege al hombre$_j$ de
the society protect+PRES the+ACC man from
sí$_{*i/j}$ mismo.
REFL
"Society protects man from himself."

Russian

(2.44) obščestvo$_i$ zaščiščaet čeloveka$_j$ ot samogo sebja$_{i/j}$

society+NOM protect+PRES man+ACC from EMPH+GEN REFL+GEN

"Society protects man from himself/itself."

Hindi

(2.45) qānūn$_i$ vyεktī$_j$ kō apnē$_{i/j}$ sē bacātā he

law individual ACC/DAT REFL ABL protect+PRSPRT AUX

"The law protects the individual from himself/itself."

Obviously, this phenomenon is similar to what we saw happening in the case of psych-mvt verbs: there, too, the lexical class of the main verb controlled nonsubject antecedence. However, note this important difference: in the psych-mvt case, the oblique experiencer NP is the only reasonable candidate for being a logical or semantic subject. All other NP's refer either to propositions (as in (2.33)), psychological states (krōdh in (2.38)), or else clearly patient objects or persons (karandaš in (2.36), sebja in (2.37), apnē in (2.38)). In the protect cases, however, there is already an NP which is not only a syntactic subject, but which is at least somewhat agentive, using that term broadly, with respect to the predication. Yet, the human patient (experiencer?) NP which appears as object to the verb can be the antecedent. It is not the case that a verb with a necessarily human object will always permit that object to be an antecedent: recall all our sentences with tell/talk to in which the NP denoting the person spoken to cannot be the antecedent, and hence which demonstrate the SA condition for the reflexives in them. But there is an intuitively different feel about tell as against protect. The object of the latter, but not the former, is often the center of attention, the topic of the discourse. I assume that this possible centrality of the object correlates with the possible antecedence of the object, and that both are due to some special feature of the semantic structure of verbs like protect. What this structure looks like I will not attempt to go into here, contenting myself with noting that verbs of the protect type resemble the psych-mvt verbs in permitting a nonsubject NP to be the antecedent of an SA reflexive.[12]

An examination of the list of the typically permitted exceptions to the SA condition may lead one to the feeling that the SA condition has a rather restricted range of cases in which to make itself felt. In fact, the only clear setting in which the difference between SA and non-SA reflexives is seen has been the tell/talk to sentences. While this may suggest that the SA condition is an uninteresting, spurious criterion unworthy to base a syntactic typology on, we will see in section III.4 that it correlates surprisingly with a nubmer of other typological features of reflexive strategies. This correlation provides, to my mind, the strongest justification for the worth of the SA condition as an object of consideration.

III.3 The Strict Clause Condition

Referring back to the schema for a reflexive rule given in (1.1), we see that the SA condition is a condition on the position of element 2 in its clause. Another class of conditions would be those referring to the relative positioning of the two NP's (elements 2 and 4). In order to isolate two such conditions, let us imagine that it is possible to define such a thing as the distance between two NP's in a structure, and in such a way that the subject and direct object of a single clause are as close together as possible. Any (obligatory) reflexive rule would apply from a subject to the direct object in its clause, that is, when the NP's are closest together.

There are two types of conditions describing the dependence of a reflexive rule on the distance between the NP's. One type guarantees that the rule must apply if the distance is smaller than some "amount". The other type guarantees that it can not apply if the distance is greater than some amount. For any particular measure of distance between NP's, therefore, two conditions are definable, one of each type. Here we will consider only one measure of distance, namely, the clause. The two conditions which are defined on the basis of this measure of distance are the Clause Mate Condition and the Strict Clause Condition. The Clause Mate Condition (CM condition), namely, that a reflexivization rule cannot apply if the distance between the NP's is greater than a clause (more ordinarily put: if the NP's are in different clauses), has been discussed for some time for the English reflexive. Interestingly enough, it will not play a strong role in our universal typology. I will discuss it briefly in section IV.6. The Strict Clause Condition (SC condition), namely, that a reflexivization rule must apply whenever the distance between the NP's is smaller than a clause (that is, whenever the NP's are in the same clause), has, I believe, never appeared in the literature of reflexive syntax. Since the SC condition does play a role in the sequel, let us examine it a bit here.

Compare the following English and German sentences:

(3.1) John$_i$ saw a snake near $\left\{\begin{array}{l}\text{him}_{i/j}. \\ ?{*}\text{himself}_i.\end{array}\right\}$

(3.2) Hans$_i$ sah eine Schlange neben $\left\{\begin{array}{l}\text{sich}_i. \\ {*}\text{ihm}_i.\end{array}\right\}$
Hans see+PAST a snake near

(3.3) John$_i$ was pulling a wagon behind $\left\{\begin{array}{l}\text{him}_{i/j}\\ \text{?*himself}_i\end{array}\right\}$

(3.4) Hans$_i$ zog einen Wagen hinter $\left\{\begin{array}{l}\text{sich}_i\\ \text{*ihm}_i\end{array}\right\}$ her
Hans pull+PAST a wagon behind

Sentences (3.1) and (3.3) illustrate that in English it is possible to get a nonreflexive pronoun coreferent with the subject of the clause it is in. This happens, for example, in locative prepositional phrases with verbs of perception like see, hear, find, and with certain transitive verbs of motion like pull, place, etc. With normal intonation, reflexive pronouns are at best odd in these positions, although they are acceptable if the sentence is intoned so as to indicate that the reflexive constitutes the new information in the sentence. Whatever one's judgment of reflexives in this position is, English speakers agree that the nonreflexive pronouns are perfectly acceptable even when coreference with the subject is intended.

Sentences (3.2) and (3.4) are German counterparts of (3.1) and (3.3). In contrast to English, if coreference with the subject is intended, it is ungrammatical to use the nonreflexive pronouns. (The starred sentences are of course grammatical if coreference is not intended.) It appears to be the case that in German whenever an NP is coreferent with the subject of the clause it is in, that NP must be reflexivized.

If we compare the way the English and German rules of reflexivization will be stated, we see that for English but not for German reference will have to be made to the position of the NP to be reflexivized in its clause. The German rule is blind to the particular location in the clause the NP coreferent to the subject is, while the English rule is sensitive to it. Since the German reflexive is triggered by being strictly in the same clause as its coreferent subject, we will say it obeys the Strict Clause Condition (SC condition), or that it is an SC reflexive. The English reflexive, then, is a non-SC reflexive.

One could always claim, of course, that the behavior of the English reflexive is due to the fact that the locative phrases in question are really not in the same clause as the main verb. I know of no evidence for this other than the behavior of reflexives, however; moreover, such a claim would suggest that the locative phrases themselves are fundamentally different in English and in German, again a claim for which I know of no evidence besides the behavior of the reflexives. Historically, sentences like (3.1) may have arisen through a confusion between the interpretation of near him as a locative in the main clause and the interpretation of it as a reduced relative clause on the direct object. In the second interpretation (which is still possible) the coreferent nonreflexive pronoun really is in a different clause, hence is to be expected because of the Clause Mate condition. But lest anyone suggest that the phrase is still "formally" a reduced relative in English (in order to explain the nonreflexive), note that the direct object can be moved to the right of the locative by heavy-NP shift:

(3.5) John saw near him a snake with green stripes and purple polka dots.

It is impossible to so move the head of a reduced relative clause; we cannot convert

(3.6) While in New York, John coveted a girl in Chicago he had met the week before.

into

(3.7) *While in New York, John coveted in Chicago a girl he
had met the week before.

It thus seems appropriate to blame the difference between the English and German sentences in (3.1)-(3.4) on a difference in the reflexives rather than on a difference in the structure of the locative phrases.

We see from this discussion that the universal definability of the SC condition depends on the universal definability of the notion "clause". The situation is parallel to the SA condition being dependent on the notion "subject". And as in the case of that notion, there have been attempts to provide insight into the nature of clauses. In transformational terms, a clause has always been identified as the portion of a tree exhaustively dominated by an S-node. To handle certain difficulties, such as the extractability of an NP in a comparative clause when no trace of the auxiliary is present, compared with its nonextractability if part of the auxiliary remains, as in

(3.8) He is a man who John is taller than.

versus

(3.9) *He is a man who John is taller than is.

Ross (1969) proposed a principle according to which an S-node in a tree could be deleted ("pruned") in the course of a derivation. This is tantamount to saying that, for such derivations, the portion of the sentence which was dominated by that node earlier in the derivation started out as a separate clause but no longer is one on the surface. Later investigation suggested to Ross that, rather than being a discrete category, "clause" was a quality which a constituent of a sentence could have to a greater or lesser degree; that is, "clausiness" is a squish. Recent work (e.g. Thompson and Grosu 1977) has challenged this idea; but a definition of "clause", just as one of "subject", remains elusive.

Despite this elusiveness, I will assume that the SC condition is sufficiently well-defined to regard it as the basis for a typology. Cases in which clauseness is unclear tend to cause problems with the Clause Mate condition rather than the SC condition; a few instances of this will be discussed below in section III.6.

A different problem might be seen posed by non-SC reflexives, namely: is the class of NP's which are not reflexivized by a non-SC rule the same in different languages? The answer to this is generally yes. In particular, it appears to be the case that if reflexivization is to pass over any NP's in the same clause as a coreferent subject, it will pass over NP's in locative phrases with verbs of perception, that is, sentences of the type illustrated for English by (3.1). Therefore, sentences of that type will be considered diagnostic for the SC condition, just as sentences like "John talked to Bill about himself" were diagnostic for the SA condition in section III.2 above. However, in other cases, there is a certain amount of variation from language to language. As an example, consider the following English sentence and its French counterpart:

(3.10) John$_i$ bought some candy for Mary and for $\left\{\begin{array}{l}\text{himself}_i\\ \text{*him}_i\end{array}\right\}$

(3.11) Jean$_i$ a acheté des bonbons pour Marie et pour $\left\{\begin{array}{l}\text{lui}_i\\ \text{lui-même}_i\end{array}\right\}$

We see from (3.10) that the English reflexive rule applies obligatorily to a benefactive NP, but the French secondary reflexive -même is optional in that position, as shown in the corresponding (3.11). By our diagnostic test, both reflexives are non-SC strategies; this is shown for

English in (3.1), and for French in

(3.12) Jean$_i$ a vu un serpent près de $\left\{\begin{array}{l}\text{lui}_i\\ \text{?*lui-même}_i\end{array}\right\}$

Of course, the English and French reflexives are not comparable in other ways; in particular, -même is only a secondary strategy. In fact, benefactives can also appear as verbal clitics, in which case they become subject to the obligatory primary strategy:

(3.13) Jean s'est acheté des bonbóns.

(In (3.11), the nonclitic format is required, due to the fact that the benefactive NP is compound.) In addition, English benefactives may also appear prepositionless, with some verbs; interestingly, in a certain kind of colloquial style, the reflexive may be omitted in such a case:

(3.14) John$_i$ bought $\left\{\begin{array}{l}\text{himself}_i\\ \text{him}_i\end{array}\right\}$ some candy (okay in a certain style)

It is not clear to me whether or not it is possible to arrange all oblique NP positions into a hierarchy in such a way that we could predict that if an SC reflexive passed over a given type of NP, it would automatically pass over all NP's higher up on this hierarchy. According to what was said above, if such a hierarchy exists, then it must be headed by locative phrases with verbs of perception. The facts in (3.14) show that such a hierarchy might be sensitive to the distinction between benefactive NP's marked with prepositions and benefactives without prepositions. But even within structurally definable classes of NP's certain kinds of variation can occur. Consider, for example, the class of prepositional phrases denoting locational goal with transitive verbs of motion. For many speakers, the coreferent nonreflexive in

(3.15) John$_i$ drew the book towards him$_i$

is better than the coreferent nonreflexive in

(3.16) ?John$_i$ pushed the book away from him$_i$

The explanation for this is presumably that the semantics of *draw*, but not of *push*, contains a deictic element already referring to the subject as goal of action. Otherwise put, the reflexive can be dispensed with in (3.15) because a person cannot draw an object towards someone else. However, a person *can* push an object away from someone else; hence, the reflexive in (3.16) carries functional weight and so is less dispensable. Similar facts can be adduced for corresponding verbs in other languages with SC reflexives, e.g. Hebrew:

(3.17) xanan$_i$ mašax elav$_i$ et ha-séfer
John pull+PAST to-him ACC the-book
"John drew the book towards him."

(3.18) ?xanan$_i$ hirxik miménu$_i$ et ha-séfer
John push+PAST from-him ACC the-book
"John pushed the book away from him."

Instead of (3.18), with its nonreflexive pronoun, (3.19) is preferred when coreference is intended:

(3.19) xanan$_i$ hirxik et ha-sefer meacmo
John push+PAST ACC the-book from+REFL+3MSG
"John pushed the book away from himself."

If (3.15) and (3.16) indicate that any hierarchy of non-SC-ness may be sensitive to the semantics of the main verb, then (3.20) and (3.21) suggest that it may also be sensitive to the semantics of the preposition involved:

(3.20) Krag$_i$ the robot placed a sandwich in front of $\left\{\begin{array}{l} \text{him}_i \\ ?{*}\text{himself}_i \end{array}\right\}$

(3.21) Krag$_i$ the robot unscrewed a panel in his abdomen and placed a sandwich inside $\left\{\begin{array}{l} \text{himself}_i \\ ?\text{him}_i \end{array}\right\}$

One could speculate on the role played by, say, the pragmatic unlikelihood of (3.21) as compared with (3.20) in the differential acceptability here, but I will not do so here. Since I do not have detailed examples of sentences like these from many languages, I am not in a position to suggest a hierarchy, leaving that for further research.

III.4 The Chief Universals

We come now to the main result of this study, namely, the universals which relate the various typological criteria we have been looking at. To make it easier to discuss exceptions (in section III.5), I will give the universals broken down into unidirectional implications; but it will be seen that, putting the universals together, the set of NP-reflexive strategies can be divided into two subgroups. Illustrations will then be given from a number of languages.

We begin with

(4.1) If an NP-reflexive strategy obeys the SC condition, then it obeys the SA condition.

I know of no exceptions to (4.1). The converse does have exceptions, to be discussed later, but nevertheless appears to be widely valid:

(4.2) If an NP-reflexive strategy obeys the SA condition, then it obeys the SC condition.

Combining these two statements, we get

(4.3) An NP-reflexive strategy obeys the SC condition if and only if it obeys the SA condition.

Statement (4.3) effectively typologizes NP-reflexives into two syntactic types: those obeying both the SA and the SC condition, and those obeying neither. Interestingly, there is also a correlation with morphological type. For example:

(4.4) If an NP-reflexive is pronominal, then it obeys the SA condition.

There are no exceptions to (4.4) that I know of. The converse,

(4.5) If an NP-reflexive obeys the SA condition, then it is pronominal.

has a few exceptions, to be discussed later. Combining (4.4) and (4.5) we get

(4.6) An NP-reflexive obeys the SA condition if and only if it is pronominal.

If we now put (4.6) together with (4.3), we obtain the fundamental typology of NP reflexives:

(4.7) The Fundamental Typology: An NP reflexive is either a pronominal, SA, SC strategy, or else a compound, non-SA, non-SC strategy.

I will still refer to the two types simply as pronominal and compound reflexives; but, unless exceptions to the universals are being discussed, it will be assumed that the syntactic correlations given in (4.7) automatically go along with the morphological characteristics which give the types their names.

We illustrate each of the two types by giving examples from several languages. For each strategy, at least two sentences are given.

The first illustrates the SA condition being obeyed or violated; it will usually be a sentence of the sort "John talked to Bill about himself". The second sentence will concern itself with the SC condition, and will be of the form "John saw a snake near him". The fact that the reflexive is compound or pronominal in form will be considered obvious from its appearance; for added clarity in this matter, the reflexive NP will be surrounded by brackets in the morpheme-by-morpheme gloss. Additional comments will be given with the examples if any aspects of this format are violated. Additional example sentences may also be given to illustrate special grammatical features that may be relevant in a particular case, or just because they exhibit an interesting fact. The reflexives illustrated are all primary strategies, except where indicated otherwise.

We have already seen that the primary English reflexive is a compound, non-SA, non-SC reflexive. Another example of this type is furnished by Hausa, a Chadic language:

(4.8) (non-SA)

Audi$_i$	yā	yi	ma	Garba$_j$	magana	game	da	kansa$_{i/j}$
Audu	3MSG+PAST	do	DAT	Garba	speech	about		[head+3MSG]

"Audu$_i$ talked to Garba$_j$ about himself$_{i/j}$"

(4.9) (non-SC)

Audu$_i$	yā	ga	macījī	kusan-sa$_{i/j}$
Audu	3MSG+PAST	see	snake	near 3MSG

"Audu saw a snake near him."

Hausa is seen to have a compound reflexive based on the lexical morpheme for "head". If this reflexive is used instead of the plain pronoun in (4.9), the lexical meaning reasserts itself; that is, (4.10) Audu yā ga macījī kusa da kansa

Audu 3MSG+PAST see snake near [head+3MSG]

means "Audu saw a snake near his head". To translate "Audu saw a snake near himself" (with contrastive stress on himself), the locative phrase can be fronted, with the reflexive:

(4.11) kusa da kansa Audu yā ga macījī, bā kusa

near [head+3MSG] Audu 3MSG+PAST see snake NEG near

da Garba ba

Garba NEG

"Audu saw a snake near himself, not near Garba."

Quite similar to Hausa is the reflexive in Fula, a member of the West-Atlantic branch of the Niger-Congo language family:

(4.12) (non-SA)

Demba$_i$ yeewtini Yero$_j$ hooremum$_{i/j}$

Demba talk+PAST Yero [head+3SG]

"Demba$_i$ talked to Yero$_j$ about himself$_{i/j}$"

(4.13) (non-SC)

Demba$_i$ yiyi ngooroondi seramum$_{i/j}$

Demba see+PAST snake near+3SG

"Demba saw a snake near him."[12a]

As in Hausa, the lexical meaning of the reflexive noun stem takes over if it is used in a locative phrase with a verb of perception:

(4.14) Demba yiyi ngooroondi sera hooremum

Demba see+PAST snake near [head+3SG]

"Demba saw a snake near his head."

The reflexive in Modern Hebrew, a Semitic language, is a typical compound strategy:

(4.15) (non-SA)

moše$_i$ diber im david$_j$ al acmo$_{i/j}$

Moshe talk+PAST with David about [REFL+3MSG]

"Moshe$_i$ talked with David$_j$ about himself$_{i/j}$"

(4.16) moše$_i$ raa naxaš al-yado$_{i/j}$ (non-SC)

Moshe see+PAST snake near+3MSG

"Moshe saw a snake near him."

The noun stem used in reflexives is homophonous with the noun meaning "bone"; but this latter meaning does not play a role in sentences in which the reflexive is used in a locative phrase with verbs of perception. Rather, such sentences are the equivalent of English sentences with reflexives in that position:

(4.17) moše raa naxaš al-yad acmo

Moshe see+PAST snake near [REFL+3MSG]

"Moshe saw a snake near *himself*."

The reason for this may be pragmatic: one's bone(s) is/are not a location with respect to one's body the way one's head is. Alternatively, the morphemes for "bone" and for the reflexive noun stem may be best regarded as synchronically totally distinct, if homophonous, forms.

The reflexive in Tagalog, a Philippine language, is also a typical compound strategy, but illustrating it requires brief consideration of a special feature of Tagalog grammar. In each clause, one NP is chosen to fill a syntactic slot often called *topic*. This NP is not necessarily the topic of the discourse in the ordinary use of the term. The exact semantic and syntactic conditions controlling the choice of NP to be the topic do not concern us here. However, different choices of topic sometimes allow more than one possible translation for a given

English sentence, with slightly different preferred interpretations as to reference. For example, the sentence "Juan talked to Maria about himself/herself" may be rendered

(4.18) sinabi ni Juan kay Maria ang tungkol sa
talk+GF+PAST ACT Juan DAT Maria TOP about
kaniyang sarili
[3SG+POSS REFL]

Here the *about*-phrase has been chosen topic. As is usual in ambiguous reflexive sentences (see section III.5), the interpretation in which the subject *Juan* is the antecedent of the reflexive is somewhat more prominent than the interpretation in which the dative *Maria* is the antecedent, although the latter interpretation is certainly possible. However, (4.18) may be rephrased so that *Maria* is the topic:

(4.19) sinabihan ni Juan si Maria tungkol sa kaniyang sarili
talk+DF+PAST ACT Juan TOP Maria about [3SG+POSS REFL]

Although (4.19) is ambiguous, as is (4.18), the more prominent interpretation is now the one in which *Maria* is the antecedent. The fact that two different choices of topic are possible obligate us to consider both possibilities in our examination of antecedence. The fact that the preferred interpretation is different for each version is an interesting bonus.[13] However, the ambiguity of both (4.18) and (4.19) shows that the Tagalog reflexive is clearly non-SA, as it should be. Its non-SC character is illustrated by

(4.20) nakakita si Juan$_i$ng ahas malapit sa kaniya$_{i/j}$
see+AF+PAST TOP Jaun GOAL snake near 3SG
"Juan saw a snake near him."

As in English and Hebrew, the reflexive can be used for contrast:

(4.21) nakakita si Juan ng ahas $\underbrace{\text{malapit sa}}$ kaniyang sarili
see+AF+PAST TOP Juan GOAL snake near [3SG+POSS REFL]
"Juan saw a snake near himself."

Modern Irish exhibits a compound reflexive constructed by adjoining a word to the plain pronoun. I do not have a single ambiguous sentence handy to illustrate its non-SA-ness, but the following two sentences will suffice:

(4.22) labhair Seán$_i$ le Máire$_j$ fé féin$_i$
speak+PAST John with Mary about+[3MSG REFL]
"John spoke to Mary about himself."

(4.23) labhair Seán$_i$ le Máire$_j$ fúithi féin$_j$
speak+PAST John with Mary about+[3FSG REFL]
"John spoke to Mary about herself."

Third person singular pronouns exhibit a gender distinction, hence each of the above two sentences is unambiguous. However, (4.23) clearly shows a nonsubject antecedent. Note that a plain pronoun is suffixed to the preposition of which it is the object. In the two sentences given above, the reflexive word féin is added after the preposition-pronoun combination. The non-SC-ness of the strategy is illustrated by the absence of féin following the word romham in (4.24):

(4.24) do chonac romham amach ar an
PAST see+PAST+1SG in-front-of+1SG out on the
mbóthar é
road 3MSG+ACC
"I saw him ahead of me on the road."

Compound reflexives constructed by adjoining a word to a pronoun like in Irish exist in French and Spanish as secondary strategies.

They exhibit the syntax appropriate to a compound strategy. French:

(4.25) (non-SA)

Jean$_i$ parlait à Georges$_j$ de lui-même$_{i/j}$

John speak+IMPF DAT George about [3MSG+REFL]

"John spoke to George about himself."

(4.26) (non-SC)

Jean$_i$ $\underbrace{\text{a vu}}$ un serpent $\underbrace{\text{près de}}$ lui$_{i/j}$

John see+PAST a snake near 3MSG

"John saw a snake near him."

Spanish is slightly complicated by the fact that the primary strategy, which is SA, can appear in about phrases. Consider the sentence

(4.27) Juan$_i$ le habló a Pedro$_j$ $\underbrace{\text{acerca de}}$

Juan 3SG+DAT speak+PAST DAT Pedro about

sí mismo$_{i/*j}$

[REFL$_1$ REFL$_2$]

(4.28) Juan$_i$ le habló a Pedro$_j$ $\underbrace{\text{acerca de}}$

Jaun 3SG+DAT speak+PAST DAT Pedro about

él mismo$_{i/j}$

[3MSG REFL$_2$]

Both of these mean, approximately, "Juan spoke to Pedro about himself". However, (4.27) is unambiguous. This is because the antecedent of sí, the primary reflexive, must be the subject. The ambiguity of (4.28) shows that the secondary reflexive mismo is non-SA; it also shows that the primary strategy is optional in this context. The fact that mismo is non-SC is shown in

(4.29) Juan$_i$ halló una culebra $\underbrace{\text{cerca de}}$ él$_{i/j}$
Juan find+PAST a snake near 3MSG
"Juan found a snake near him."

It is possible to add *mismo* to the pronoun in (4.29) for contrastive stress:

(4.30) Juan$_i$ halló una culebra $\underbrace{\text{cerca de}}$ él mismo$_i$
Juan find+PAST a snake near [3MSG REFL$_2$]
"Juan found a snake near *himself*."

Let us now turn to pronominal reflexives. The most accessible illustrations of this type are the various descendents of the Proto-Indo-European pronoun **s(w)-*. We have already seen it in (2.4) and (3.2), repeated here:

(2.4) (SA) Hans$_i$ sprach mit Fritz$_j$ über sich$_{i/*j}$
Hans speak+PAST with Fritz about [REFL]
"Hans$_i$ spoke with Fritz$_j$ about himself$_{i/*j}$"

(3.2) (SC) Hans$_i$ sah eine Schlange neben sich$_i$
Hans see+PAST a snake near [REFL]
"Hans$_i$ saw a snake near him$_i$"

that the German reflex of this pronoun, *sich*, is SA and SC. The same is true of the Russian pronoun *sebja*:

(4.31) (SA) Ivan$_i$ govoril s Vladimirom$_j$ o sebe$_{i/*j}$
Ivan speak+PAST with Vladimir about [REFL]
"Ivan$_i$ spoke with Vladimir$_j$ about himself$_{i/*j}$"

(4.32) (SC) on$_i$ videl pered soboj$_i$ ešče odnu zmeju
3MSG see+PAST before [REFL] still one snake
"He$_i$ saw before him$_i$ yet another snake."

I do not have an about sentence to illustrate the SA-ness of the Swedish reflexive. However, the reflexive strategy in Swedish extends to possessives, so it is possible to construct an illustrative sentence of the following sort:

(4.33) Jan$_i$ gav Leif$_j$ sin$_i$ bok
Jan give+PAST Leif [REFL+POSS] book
"Jan$_i$ gave Leif$_j$ his$_i$ book."

For the SC condition, we have our usual

(4.34) Jan$_i$ såg en orm bredvid sig$_i$
Jan see+PAST a snake near [REFL]
"Jan$_i$ saw a snake near him$_i$."

Pronominal reflexives other than those cognate to the above are not common. The first one to come to my attention was the Hindi primary reflexive:

(4.35) (SA) John$_i$ nē Bill$_j$ sē apnē$_{i/*j}$ $\underbrace{\text{bārē mē̃}}$ bāt kī
John ERG Bill ABL [REFL] about speech do+PAST
"John$_i$ spoke with Bill$_j$ about himself$_{i/*j}$"

(4.36) (SC) John$_i$ nē apnē$_i$ pās sā̃p dēkhā
John ERG [REFL] near snake see+PAST
"John$_i$ saw a snake near him$_i$"

Although apn- is clearly not a descendent of *s(w)-, we are still within the realm of Indo-European.[14] Lest it be thought that pronominal reflexives cannot be found outside of Indo-European, here is an example from Wappo, a language spoken in Northern California:

(4.37) (SA) John-i Bill-thu may' okal'i'
John NOM Bill DAT [REFL] talk
"John$_i$ talks to Bill$_j$ about himself$_{i/*j}$"

(4.38) (SC) cephi may' piya' holowik'a naw-ta'
3SG+NOM [REFL] near snake see+PAST
"He$_i$ saw a snake near him$_i$."

The primary reflexive in Pima, a Uto-Aztecan language of Arizona, is also pronominal:

(4.39) (SA) Pam o am ha'ɨču aagid hɨg Brent ab
Pam 3SG+PRES DEIC something tell NPM Brent DEIC
ɨ amǰɨḍ
[REFL] from
"Pam is telling Brent about herself/*himself."

(4.40) (SC) Pam o am hɨɨma ñɨit hɨg vaamad ab
Pam 3SG+PRES DEIC INDEF see NPM snake DEIC
ɨ hukt'an
[REFL] near
"Pam sees a snake near herself."

Incidentally, an interesting feature of the Pima reflexive pronoun is its association with person. Recall that the German pronoun sich is used only in the third person; otherwise the plain pronoun is used:

(4.41) Hans sah sich
Hans see+PAST [REFL]
"Hans saw himself."

but

(4.42) ich sah mich
1SG+NOM see+PAST 1SG+ACC
"I saw myself."

(4.43) du sahst dich

2SG+NOM see+PAST 2SG+ACC

"You saw yourself."

Similar facts hold for Swedish, Latin, and other languages. On the other hand, the Russian, Hindi, and Wappo reflexive pronouns are used for all persons. Here are some Wappo examples:

(4.44) ah may' hak'še'

1SG+NOM [REFL] like

"I like myself."

(4.45) mi' may' ohkal-ta' ha'

2SG+NOM [REFL] hurt PAST Q

"Did you hurt yourself?"

We may interpret these facts as follows. In the case of languages like German, the reflexive is not used when it does not contribute information that cannot be carried by ordinary pronouns. Thus, in (4.42) for example, the first person subject and object pronouns unambiguously mark the speaker as both experiencer and patient of the instance of seeing. That the experiencer and patient are one and the same is an automatic consequence of the unambiguous reference of first person pronouns. The same argument applies to second person pronouns, which unambiguously refer to the hearer. Since it is just the first and second person pronouns which deictically determine their referents, the reflexive is dispensed with in just these cases. It is held in readiness only for the nondeictic, anaphoric (hence potentially ambiguous) third person NP's. We might describe a setup like this as being "functionally streamlined"; use a reflexive pronoun only when an ordinary pronoun will not do.

But in the case of languages like Wappo, we can say that the reflexive is "strategically streamlined"; that is, since it applies whenever there is coreference, regardless of person, we need not mention person when giving the circumstances under which the reflexive strategy is to appear. Alternatively, we may say that, in constructing an object NP, in German-type strategies we check for person first, and only apply reflexivization afterwards to disambiguate, if necessary, whereas in Wappo-type strategies we check for coreference first, and only look at person in case of noncoreference.

Now, in Pima, the reflexive pronoun is used in the third and the second persons, while the plain pronoun is used in the first person:

(4.46) mat ɨ hiivyu
3SG+PAST [REFL] shave
"He shaved himself."

(4.47) am g ɨ vakwan
DEIC IMP [REFL] wash
"Wash yourself!"

but

(4.48) mañ ñ ñɨit ab TV ǰɨḍ
1SG+PRES 1SG+ACC see DEIC TV from
"I see myself on TV."

(4.49) mač t ñɨit ab TV ǰɨḍ
1PL+PRES 1PL+ACC see DEIC TV from
"We see ourselves on TV."

It is clear that this odd combination cannot be fitted into our discussion above comparing German and Wappo. In particular, it is difficult to understand why the first and second persons should be treated differently. One might guess that Pima displays an intermediate stage in an ongoing historical shift from the third-person-only type to the all-persons type (or vice-versa; but see Chapter IV). A Uto-Aztecan comparative study of reflexives in Langacker 1974 claims that Pima *ɨ* derives from a (nonreflexive?) pronoun originally used in the second person singular only. I am not in a position to evaluate this claim here. Suffice it to say that most other Uto-Aztecan reflexives do not exhibit this oddity, having either compound reflexives based on a noun stem of the form *tax-* or *taq-* meaning "body", or else verbal reflexives marked with a prefix *na-*. Two or three other languages, notably Classical Nahuatl, do seem to have systems similar to Pima, but a historical analysis of the situation is by no means obvious.

We might ask if there is a universally valid connection between pronominal reflexives and person. In the light of the Pima case, we might wish to claim the following:

(4.50) If a pronominal reflexive is used in the nth person, then it is used in the (n+1)st person.

The content of (4.50) may be rephrased by saying that a reflexive pronoun can exhibit only the following dispositions of person:

(4.51) (i) all persons
(ii) second and third person
(iii) third person only

The fact is, though, that pronominal reflexives which are neither third-person (like German) or all-person (like Wappo) are so rare that I do not have enough evidence to prove or disprove (4.50). However, let us take note of some facts from Old Norse which fit in with (4.50) in an interesting way. The primary Old Norse reflexive is third-person pronominal; it is therefore isomorphic to the German strategy. Indeed, it is even cognate to it, the accusative case form being sik. In addition, there is a middle strategy which consists of attaching a suffix to the ordinary active form of the verb. Now, in the third and second persons, and in the first person plural, the suffix is -sk, which has the appearance of a reduced form of the third person reflexive pronoun sik. In the first person singular, the suffix is -mk, which may be compared to the ordinary first person singular accusative pronoun mik. Most likely, the middle suffixes are actually descended historically from these pronouns, with lack of stress contributing to their phonological reduction. If we assume that the reflexive pronoun was used only in the third person in Common Germanic times, an assumption consonant with all other Germanic data I know of, then, as the middle suffixes developed, the reflexive extended its scope to the second person, and, presumably later, to the first person plural. At a much later stage in the language, the first person singular succumbed, so that in Modern Icelandic and in the modern continental Scandinavian languages, there is a single suffix to mark the middle. Technically, of course, this Norse situation is not relevant to (4.50), since it is the middle strategy which exhibits the odd correlation with person rather than the reflexive (which is restricted to the third person throughout the history of the language). However, it seems clear that if there is a tendency at all of the sort given in (4.50), then the Norse development is a manifestation of it. I have no explanation of why a reflexive pronoun might be more likely to substitute for a second person pronoun than for a first person pronoun.[15]

Let us end this digression on person and return to a consideration of compound versus pronominal reflexives. No discussion of the basic NP-reflexive typology would be complete without Dutch, the language which suggested the typology to me in the first place. The special situation we are dealing with here will become evident from the morphology of reflexive direct object NP's, to which we turn first. In the first and second persons, the reflexive direct object NP consists of the ordinary object pronoun to which the suffix -*zelf* has been attached. Thus, compare the ordinary object in (4.52) with the reflexive in (4.53):

(4.52) Jan zag me

Jan see+PAST 1SG+ACC

"Jan saw me."

(4.53) ik zag mezelf

1SG+NOM see+PAST [1SG+ACC+REFL]

"I saw myself."[16]

But in the third person reflexive, the ordinary pronoun is replaced by *zich*, and it is to this reflexive pronominal base that *zelf* is attached. Sentence (4.54) illustrates the nonreflexive masculine singular object pronoun, and (4.55) shows the reflexive:

(4.54) Jan zag hem

Jan see+PAST 3MSG+ACC

"Jan$_i$ saw him$_j$."

(4.55) Jan zag zichzelf

Jan see+PAST [REFL+REFL]

"Jan saw himself."

From this morphology alone we can conclude that "the" primary reflexive in Dutch actually involves two strategies, a compound reflexive (suffixation of *zelf*) and a pronominal reflexive, appearing in the third person only (*zich*). The use of two strategies to mark the primary reflexive is quite rare, but not unknown elsewhere; we will return to this point in a moment. Let us now verify that the two Dutch strategies respectively exhibit the appropriate syntax. We check the SC condition as follows:

(4.56) Jan$_i$ zag een slang naast { zich$_i$
Jan see+PAST a snake near *hem$_i$(zelf)
"Jan saw a snake near him." ?zichzelf

It is clear from these sentences that *zich* is an SC reflexive but that *zelf* is not, as expected. Incidentally, we already see in (4.56) a side-effect of the existence of two reflexive strategies, namely, that a reflexive NP may take rather different shapes in different syntactic positions, depending on which strategy or strategies applied. Thus, direct object reflexives are always compound, whereas the reflexive in (4.56) is the bare pronoun.[17] This variation in shape is even more striking when we test for the SA condition:

(4.57) Jan$_i$ heeft Kees$_j$ over zichzelf$_{i/*j}$ verteld
Jan AUX Kees about [REFL+REFL] tell+PP
"Jan$_i$ talked to Kees$_j$ about himself$_{i/*j}$"

(4.58) Jan$_i$ heeft Kees$_j$ over hemzelf$_{*i/j}$ verteld
Jan AUX Kees about [3MSG+ACC+REFL] tell+PP
"Jan$_i$ talked to Kees$_j$ about himself$_{*i/j}$"

The presence of *zelf* in both (4.57) and (4.58) demonstrates that it is not an SA reflexive, whereas the unambiguity of (4.57) shows that *zich* *is* an SA reflexive. The striking fact illustrated in (4.57) and (4.58) is that, because of the different syntactic behavior of the two strategies, differences in the appearance of the reflexive NP end up signalling differences in reference. At any rate, it is clear that zich is a typical pronominal strategy, obeying the SA and SC conditions, and that zelf is a typical compound strategy, obeying neither.

With Dutch we come to the end of our presentation of examples of compound and pronominal reflexives. Before moving on to the next section, let us briefly consider the issue of multiple strategies.

We just saw that subject-object coreference in Dutch is marked simultaneously by a compound reflexive and a pronominal reflexive. Dutch is the only language that has come to my attention which has this combination of strategies for the primary reflexive. However, there appear to be a few other cases of multiple marking of reflexives, with different combinations of strategies. We already saw one of these in Section III.2 above. Recall that in Greenlandic, when the subject and object NP's are coreferent, a compound NP strategy and a verbal strategy apply simultaneously. The compound NP strategy is routine, involving a noun stem with a possessive suffix. The verbal strategy consists in using an intransitive agreement suffix on the verb, demoting the reflexive object NP to the allative case (and leaving the subject NP as lone term of the clause, hence in the absolutive case, as befits an ergative language). This was illustrated in (2.9) and (2.10), repeated here for convenience.

(4.59) (=(2.9)) tuqup-paa

kill IND+3SG

"He killed him."

(4.60) (=(2.10)) iŋmi-nut tuqup-puq
[REFL AL+SG] kill IND+3SG
"He killed himself."

Another case might be Navajo, in which subject-object coreference appears to be marked simultaneously by a pronominal and a verbal strategy. Object pronouns in Navajo are prefixes attached either directly to the verb, or else to a postposition governed by the verb. If the object is coreferent with the subject, a reflexive pronoun prefix *ad(i)-* is used as an object pronoun in all persons. In addition, the verb stem undergoes what Navajo grammarians refer to as a classifier change. The details of this process are unclear to me; in particular, it does not seem to be completely productive. However, if it is validly regarded as a strategy, it is certainly verbal, being an alteration of the verb stem. Examples:

(4.61) yi- sh- 'į́
3SGACC 1SGNOM see
"I see him."

(4.62) 'ádee-sh- t'į́
[REFL] 1SGNOM see
"I see myself."

(4.63) sh- oo- 'į́
1SGACC 3SGNOM see
"He sees me."

(4.64) 'ád- oo- t'į́
[REFL] 3SGNOM see
"He sees himself."

The verb stem for "see" changes from -*'į́* to -*t'į́* in the reflexive, this being the manifestation of the classifier change for this verb.

The above are examples of subject-object coreference marked simultaneously with two strategies. It is also possible to find cases of overlap between primary and secondary strategies, that is, cases in which coreference other than subject-object is marked simultaneously by the primary reflexive and by a secondary strategy. Sentence (4.27) above is such a case from Spanish: the NP in an about phrase, coreferent with the subject, is headed (optionally: see (4.28)) by the reflexive pronoun, which is the primary strategy, and elaborated with the suffix mismo, a secondary strategy.

The simultaneous application of two reflexive strategies raises the problem of whether they ought to be considered reflexive strategies at all, rather than strategies to mark other functions which happen to come together in a reflexive context. That is, suppose that in a given reflexive context, say subject-object coreference, two strategies A and B apply. Now, it may be the case that a better analysis of the situation would be to say that strategy A really marks function α, that strategy B marks function β, and that subject-object coreference is logically equivalent to, or at least implies, both α and β. Clearly, what we must do is go back to our examples of dual marking of reflexives and examine the full range of occurrences of each strategy individually to determine its own function. Unfortunately, I do not have enough data to do this to my satisfaction for all the strategies involved. However, it will still be instructive to look at a few cases in more detail than we have done so far.

I have no information on the Greenlandic compound NP strategy other than what has been illustrated. However, the verbal strategy of intransitivization can be seen in the following examples to include cases typical of what we have called a middle strategy.[18] In the (a) sentences below, the suffix -paa or -vaa indicates a transitive verb with third person singular subject and object, whereas in the (b) sentences, the suffix -puq or -vuq marks an intransitive verb with third person singular subject:

(4.65) a. tuquppaa "He killed him."

b. tuquppuq "He died."

(4.66) a. matuvaa "He covered it."

b. matuvuq "It is covered."

(4.67) a. aturpaa "He uses it."

b. aturpuq "It can be used."

(4.68) a. avigpaa "He halves it."

b. avigpuq "It separates into two parts."

(4.69) a. uuppaa "He boils/bakes/roasts it."

b. uuppuq "It boils/bakes/roasts."

Similar examples can be adduced for the process of classifier change in Navajo. In the following, the verb stem with its classifier is separated from the pronominal prefixes by a hyphen; its variant shape is to be understood as a manifestation of the classifier change:

(4.70) a. yini-łtséés "He is putting it (the fire) out."

b. ni-tséés "It (the fire) is going out."

(4.71) a. yinee-stį́ "He laid it down."

b. nee-ztį́ "He lay down."

(4.72) a. yoo-'į́ "He sees him."

b. yi-t'į́ "It is visible."

These examples should be compared to the examples given in Chapter I of the Russian verbal middle suffix -*sja* (see (36)-(40) there). In particular, (4.68b) and (4.70b) are entirely comparable to (37), labelled there "inchoative", and repeated here:

(4.73) (=37) dver' otkrylas'
door+NOM open+PERF+PAST+*sja*
"The door opened."

Also, the potential modality present in the semantics of (4.67b) and (4.72b) may be compared to the Russian sentence in (39):

(4.74) (=39) èti stakany legko b'jutsja
these glass+NOMPL easily break+PRES+*sja*
"These glasses break easily."

In the light of these facts, we should perhaps revise our description of the primary reflexive in Greenlandic and in Navajo. Rather than saying that two reflexive strategies are involved, we would do better to say that subject-object coreference is marked by a single NP reflexive, together with an obligatory redundant verbal middle. This is seen clearly if we compare Greenlandic (4.60) with (4.65b), and Navajo (4.64) with (4.72b). Of course, it could be that, just as the verbal strategies in these languages are best regarded as not being reflexives, perhaps the NP strategies are not reflexives either. I have no evidence suggesting this, however.

Returning to Dutch, we see immediately that it would be problematic to decide that either of the strategies is not a reflexive. The reason is that each strategy exhibits typically reflexive syntax, of the sort comparable to reflexives in many other languages. This problem did not arise in the case of Greenlandic or Navajo, because there the strategy we decided really was not a reflexive was verbal, hence syntactically impoverished, and, at any rate, out of the scope of the fundamental typology. Still, we can ask if either of the Dutch strategies ever shows up in nonreflexive contexts. The answer is yes.

The zich strategy is used as a dummy object NP with certain verbs. Most such cases are obvious middles:

(4.75) Jan heeft zich aangekleed
Jan AUX ?? dress+PP
"Jan got dressed."

There are also some instances of the lexicalized use of zich:

(4.76) Jan interesseert zich voor talen
Jan interested ?? for languages
"Jan is interested in languages."

Note that (4.75) should be compared with the truly reflexive

(4.77) Jan heeft zichzelf aangekleed
Jan AUX [REFL_1+REFL_2] dress+PP
"Jan dressed himself."

the difference in meaning between these being, as far as I can tell, about the same as the difference in meaning between the English glosses given. I leave it open here whether zich should be considered a middle strategy with pronominal reflexive syntax, or a pronominal reflexive with extended applications to some middle contexts. The distinction between these two classifications is really a result of the decision to distinguish between reflexives and middles. While this distinction is useful as a general procedure, cases like Dutch (and, really, Greenlandic and Navajo as well) show that the line is blurred. In fact, it often happens that a middle is historically derived from a reflexive;

such is the case for the Russian middle -sja, as well as the Norse middle suffixes discussed briefly earlier.

The Dutch compound reflexive zelf also appears in nonreflexive situations. Most often, such cases exemplify what we called NP-emphatics in Chapter I. Here is an example:

(4.78) Jan is zelf gekomen
Jan AUX EMPH come+PP
"Jan came himself."

This usage parallels that of the English reflexive in such cases. In fact, the English and Dutch compound reflexives derive historically from an NP-emphatic, although in English there has been a shift in morphology: in Old English, the ancestor morpheme of self was by itself the NP-emphatic, whereas now the whole compound, consisting of the pronoun plus the suffix, is the emphatic. Dutch still shows the older situation, as can be seen in (4.78). But German is the most conservative of the three: the NP-emphatic selbst is not a reflexive yet at all. Thus,

(4.79) Hans sah sich selbst
Hans see+PAST [REFL EMPH]
"Hans saw himself."

involves contrast on the object NP, whereas the Dutch sentence in (4.55) is neutral.

Sometimes it is hard to draw the line between an emphatic and a compound reflexive, just as it is sometimes hard to draw the line between a reflexive and a middle. Dutch zelf illustrates this fuzziness, and so does Spanish mismo. In (4.27), mismo is the only obligatory mark of coreference (sí is optional, cf. (4.28)), hence we would certainly be led to call it a reflexive. However, it can also be used after NP's as an emphatic. A striking case is:

(4.80) la sociedad protege al hombre de la
the society protect+PRES the+ACC man from the
sociedad misma
society EMPH
"Society protects man from society itself."

in which the emphatic serves to call attention to the very kind of coreference one might think would be a candidate for an ordinary reflexive.[19] And, if mismo in (4.27) is "clearly" a reflexive, it is certainly common to find emphatics attached onto already reflexive NP's. A Russian counterpart to (4.80), namely (2.44) above, is a case in point. Another case is the following Pima sentence

(4.81) Pam o am ha'ɨču aagid hɨg Brent ab
Pam 3SG+PRES DEIC something tell NPM Brent DEIC
hɨǰɨl ɨ amǰɨḍ
[EMPH REFL] from
"Pam is telling Brent about herself."

which differs from (4.39) only in that the reflexive NP has been augmented by means of the word hɨǰɨl, an NP-emphatic.

A practical warning emerges from these considerations. If we compare German (4.79) with Dutch (4.55), we see that we might be led, in one or the other case, to make the wrong analysis by arguing from the surface form only. For example, if we knew German well, confronted with the Dutch sentence (4.55) we might incorrectly assume that zelf was an emphatic morpheme. Conversely, if we knew Dutch well, we might conclude from (4.79) that German selbst was a reflexive. In the absence of native intuition, distinguishing them may be difficult. The only rule of thumb I will suggest here is: if the morpheme in question is clearly optional, it is more likely to be an emphatic. Thus, knowing that besides (4.79) we can also get (4.41) without *selbst* suggests that *selbst* is an emphatic. Similarly, *hɨǰɨl* in (4.81) can be dropped, giving (4.39). Interestingly, a slightly different situation is suggested for Papago by the material in Saxton and Saxton 1969 and Alvarez 1969. Papago and Pima are very closely related; they are, in fact, probably dialects of the same language. In Papago, the word *hɨǰɨl* appears to have become a reflexive, just as *zelf* did in Dutch. Thus, examples of reflexive sentences given in the above two works always have *hɨǰɨl* in them, e.g.

(4.82) hɨǰɨl o ɨ ñɨ́id hɨgai
?? 3SG+PRES [REFL] see that-one
"He sees himself."[20]

(4.83) Husi at hɨǰɨl ɨ hikč
Husi 3SG+PAST ?? [REFL] cut
"Joe cut himself."

Saxton and Saxton 1969 gives no sentences with the reflexive pronoun *ɨ* as object of the verb but without *hɨǰɨl*. Alvarez 1969 does give such examples, but they are all clearly typical middles, such as

(4.84) Husi at ɨ hikč
Husi 3SG+PAST [REFL] cut
"Joe got cut."

(4.85) Huan o ɨ hiik
Huan 3SG+PRES [REFL] cut-hair
"John is getting his hair cut."

(4.86) o'odham o ɨ hiwkon
man 3SG+PRES [REFL] shave
"The man is shaving."

This should be compared with the Pima examples in (4.46)-(4.49) which do not have *hɨǰɨl* but which are all true reflexives. If this analysis is correct, then Papago *hɨǰɨl* and *ɨ* are both reflexives, comparable to Dutch *zelf* and *zich*, whereas Pima *hɨǰɨl* and *ɨ* are comparable to German *selbst* and *sich*.

III.5 *Some Exceptions*

In this section we will examine five NP reflexive strategies which are to a greater or lesser degree exceptions to the universal typology given in (4.7). We will see if any principles can be found which will clarify these exceptions.

The first case will be the primary strategy of Turkish. This is a compound reflexive in which the NP consists of the noun stem *kend(i)* plus a possessive suffix. Like other NP's in Turkish, this combination is then followed by a case suffix. Simple examples:

(5.1) Hasan kend-in- i ayna- da gör-dü
Hasan+NOM [REFL 3SG ACC] mirror LOC see PAST
"Hasan saw himself in the mirror."

(5.2) kend-im- e yeni bir palto al- acaǧ-ım
[REFL 1SG DAT] new one coat buy FUT 1SG
"I'll buy myself a new coat."

Now, according to our universal typology, this strategy should be non-SC and non-SA. There is no difficulty with the SC condition: a reflexive is not normally used in

(5.3) Hasan yan- ın- da bir yılan gör-dü

Hasan+NOM side 3SG LOC one snake see-PAST

"Hasan saw a snake near him."

although, as in English, the reflexive may be used if the NP is contrastive:

(5.4) Hasan kendi yan- ın- da bir yılan gör-dü

Hasan+NOM [REFL side 3SG LOC] one snake see-PAST

"Hasan saw a snake near himself."

The problem arises when we check for the SA condition, which we would expect does not apply. However, the following sentence is unambiguous:

(5.5) Hasan Ayşe-ye kend-in- den bahset-ti

Hasan+NOM Ayşe DAT [REFL 3SG ABL] talk PAST

"Hasan$_i$ talked to Ayşe$_j$ about $\left\{\begin{array}{l}\text{himself}_i\text{"}\\ \text{*herself}_j\end{array}\right.$

The antecedent of the reflexive in (5.5) cannot be the indirect object Ayşe, but only the subject Hasan.

While (5.5) is clearly an exception to our generalization, further examination of Turkish reveals that this exceptional obedience to the SA condition is not quite a general fact about the reflexive strategy as a whole. Firstly, the issue only arises for third person reflexives. Non-third person reflexives can freely refer to nonsubjects:

(5.6) Hasan ban-a kend-im- den bahset-ti

Hasan+NOM 1SG DAT [REFL 1SG ABL] talk PAST

"Hasan talked to me about myself."

(5.7) Hasan san-a kend-in- den bahset-ti

Hasan+NOM 2SG DAT [REFL 2SG ABL] talk PAST

"Hasan talked to you about yourself."

Thus, the SA condition does not operate across the board. It only comes into play when there are two third person candidates for antecedence, in which case it disambiguates the sentence by choosing the subject. And secondly, it turns out that there is an alternate form of the third person reflexive, kendisi, which can also refer to nonsubjects! The following alternative to (5.5) is thus ambiguous:

(5.8) Hasan Ayşe-ye kendisin-den bahset-ti
Hasan+NOM Ayşe DAT [REFL ABL] talk PAST
"Hasan$_i$ talked to Ayşe$_j$ about $\left\{\begin{array}{l}\text{himself}_i\\ \text{herself}_j\end{array}\right.$

Faced with a situation like this, we naturally ask how it may be analyzed. One way would be to claim that Turkish has two reflexive strategies. One strategy, applicable in the first and second persons, and manifested in the third person as kendisi, would be a totally unexceptional compound reflexive. The second strategy would be exceptional in two ways: (i) it would only apply in the third person, and (ii) it would obey the SA condition, even though it appeared morphologically to be a compound and was not governed by the SC condition. Note that (i) is exceptional in that, as mentioned in Chapter II, only pronominal strategies are expected to be sensitive to person. The advantage of this analysis is that all the exceptional behavior is concentrated in one strategy. Unfortunately, there are at least two problems with it. Firstly the fact that the same stem kend(i) is involved in both strategies becomes accidental. Secondly, and more seriously, the first and second person reflexives align themselves with kendi rather than with kendisi when examined with respect to another syntactic condition, namely, the Clause-Mate condition (CM condition; see Section III.6). Thus, the unambiguity of

(5.9) Orhan, Mehmed-in kend-in- e palto al- masına
Orhan+NOM Mehmet GEN [REFL 3SG DAT] coat buy COMPL
sevin- di
be-pleased PAST
"Orhan$_i$ was pleased that Mehmet$_j$ bought himself$_j$/*him$_i$
a coat."

and the ungrammaticality of

(5.10) *(ben) Mehmed-in kend-im- e palto al- masına
1SG Mehmet GEN [REFL 1SG DAT] coat buy COMPL
sevin- di- m
be-pleased PAST 1SG
"I$_i$ was pleased that Mehmet$_i$ bought myself$_i$ a coat."

show that the antecedent of kendi and of non-third person reflexives must be in the same clause as the reflexive itself. However, if we replace kendi with kendisi in (5.9), the result is ambiguous:

(5.11) Orhan, Mehmed-in kendisin-e palto al- masına
Orhan+NOM Mehmet GEN [REFL DAT] coat buy COMPL
sevin- di
be-pleased PAST
"Orhan$_i$ was pleased that Mehmet$_j$ bought himself$_j$/him$_i$
a coat."

showing that kendisi is not a CM reflexive: it can have Orhan as antecedent in (5.11), even though it is in a higher clause. If kendisi and the non-third person reflexives formed a single strategy as opposed to kendi, we would expect them to behave the same not only with respect to the SA condition but also with respect to other syntactic conditions. We see that this is not the case for the CM condition; in fact, if we had examined the CM condition first, we would have been led to identify the non-third person reflexives and *kendi* as one strategy and to regard *kendisi* as the odd case. Rather than attempting to shore up one or the other of these hypotheses, I prefer to leave the Turkish case unresolved, being content with having displayed the exceptional character of the reflexive not only with regard to our fundamental typology, but also with regard to the paradoxical way the two third person reflexives are each syntactically aligned with the non-third person reflexives by different tests.[21]

Our second problem case is Finnish. Again, the primary reflexive is a compound NP strategy, based on the noun stem *itse* (originally meaning "reflection on water"). Thus,

(5.12) Jussi näki itse-nsä
Jussi+NOM see+PAST [REFL 3SGPOSS]
"Jussi saw himself."

As in Turkish, and as expected from the fundamental typology, this strategy is non-SC:

(5.13) Jussi näki käärmeen lähe-llä- än
Jussi see+PAST snake+ACC near ADESS 3SG
"Jussi saw a snake near him."

Again as in Turkish, the SA condition, normally not expected with a compound, non-SC reflexive, is seen to apply in

(5.14) Jussi puhui Ville-lle itse-stä-än
Jussi talk+PAST Ville DAT [REFL ABL 3SG]
"Jussi$_i$ talked to Ville$_j$ about himself$_{i/*j}$"

But, once again as in Turkish, a non-third person reflexive *can* have a nonsubject antecedent:

(5.15) Jussi puhui minu-lle itse-stä-ni
Jussi talk+PAST 1SG DAT [REFL ABL 1SG]
"Jussi talked to me about myself."

Here the resemblance with Turkish stops; there is no alternate third person reflexive which can refer to nonsubjects. To translate "Jussi$_i$ talked to Ville$_j$ about himself$_j$", one can use either an ordinary non-reflexive object pronoun in the *about* phrase:

(5.16) Jussi puhui Ville-lle häne-stä

which, of course, could also mean "Jussi talked to Ville about him" (i.e. about a third individual), or else (5.16) can be used with the *about* phrase augmented by means of the NP emphatic strategy, this consisting not too surprisingly of adding on the reflexive as a separate word:

(5.17) Jussi puhui Ville-lle hane-sta itse-sta-an
Jussi talk+PAST Ville DAT 3SG ABL $\underbrace{\text{REFL ABL 3SG}}_{\text{EMPH}}$

This emphatic strategy is, of course, distinct from the primary reflexive, in which *itse* is the head of the reflexive NP; thus, (5.17) is not an instance of the SA condition being violated.

The third exceptional case is the primary reflexive in Tamazight, a Berber language spoken in Morocco. This VSO language has a compound reflexive based on the noun stem *ixf* "head":

(5.18) i- wwet urba ixf- (n)ns
he hit boy [head 3MSGPOSS]
"The boy hit himself."

Unexceptionally, this reflexive does not obey the SC condition:

(5.19) i- annay Ali ifiɣr θama-ns
he saw Ali snake side 3MSG
"Ali saw a snake near him."

In fact, use of the formation with ixf in a sentence like (5.19) forces it to revert to its lexical meaning. Thus,

(5.20) i- annay Ali ifiɣr θaman ixf- (n)ns
he saw Ali snake side head 3MSGPOSS

means "Ali saw a snake near his head". This may be compared with Hausa and Fula, where the same thing happens: see (4.10) and (4.14) in Section III.4 above. As in Turkish and Finnish, the Tamazight reflexive does obey the SA condition. Thus, ixf(n)ns in (5.21) unambiguously refers to Ali:

(5.21) i- siwəl Ali i- urgaz xəf ixf- (n)ns
he talk Ali to man about [head 3MSGPOSS]
"Ali$_i$ talked to the man$_j$ about himself$_{i/*j}$"

Similarly,

(5.22) *siwəl-əx i Ali xəf ixf- (n)ns
talk 1SG to Ali about [head 3MSG]
"I talked to Ali about himself."

is ungrammatical, since the reflexive is marked for third person, but the only third person NP in the sentence, namely Ali, is not the subject. Interestingly, there seems to be no comfortable way of coding "NP$_i$ talked to NP$_j$ about NP$_j$" in any person. If NP$_j$ is third person, an ordinary nonreflexive pronoun cannot be used in the about phrase to refer to the indirect object. Thus, (5.23) i- siwəl Ali i- urgaz ɣifs

he talk Ali to man about+3MSG

can only mean "Ali$_i$ talked to the man$_j$ about him$_k$". We have already seen in (5.21) that the reflexive cannot be used. Nor is there an alternate strategy, similar to Turkish kendisi or to the Finnish emphatic, which can be applied. If NP$_j$ is not third person, then neither the ordinary nonreflexive pronoun nor the reflexive formation can be used in the about phrase:

(5.24) *i- siwəl i- yi Ali { ɣifi

he talk to 1SG Ali { about+1SG

xəf ixf- inu

about head 1SGPOSS

"Ali talked to me about myself."

The ungrammaticality of (5.24) with the reflexive, in contrast to the acceptability of the corresponding Turkish and Finnish sentences (5.6) and (5.15), suggests that the Tamazight reflexive is more strongly SA than the first two exceptional reflexives.

I have data on a fourth exceptionally SA compound reflexive, namely Cantonese, but I will defer consideration of that case to Section III.7, in which I will discuss, among other things, reflexives in serializing languages.

The three exceptions we have just examined (and the fourth we will see later) all exhibit the same configuration of features: they are all compound reflexives which irregularly obey the SA condition. While I do not have a proven explanation for this, we may speculate a little on how these strategies came to be exceptional. Assuming that the fundamental typology is still valid, we may suppose that at one time the exceptional reflexives did not obey the SA condition. Now, even non-SA reflexives tend to be interpreted unequally when there is a choice of antecedent. In fact, a subject (or perhaps an agent) tends to be the first choice as antecedent. Thus, many English speakers, when confronted with the sentence

(5.25) John talked to Bill about himself.

out of context, will assume that *himself* refers to *John*, and only after some thought (or in the environment of a suitable context) will admit that *Bill* could also be the antecedent. It is as though the subject or agent NP carries a kind of prominence which masks the attention that can be given to the indirect object so that the latter is less likely to be kept in mind as a possible antecedent. We can imagine that, in the case of a few non-SA reflexives, this tendency to favor the subject became grammaticized into a requirement that the antecedent *must* be a subject. If we say that exceptional SA-ness comes from a grammaticized tendency to favor the subject in ambiguous cases, we can also understand that this grammaticization could occur for the potentially ambiguous third person reflexive before it occurred for the deictic persons where there is never ambiguity. Turkish and Finnish would exemplify this middle stage, whereas Tamazight has gone all the way, imposing the SA condition across the board. The prominence which subjects exhibit with regard to reflexive antecedence is presumably a corollary of the general characteristics of subjects (see, e.g. Keenan 1976), although its exact relationship with subjecthood remains to be clarified. Of course, why a certain few strategies became SA while the majority of compound reflexives have not is still a mystery. The fact that SA compound strategies are in the minority suggests that it is not generally the case that compound strategies ultimately pick up the SA condition.

Another possible kind of exception would be a compound reflexive which obeys the SC condition, but I do not know of any such case. Interestingly, the same explanation given above to show that it is reasonable for a non-SA reflexive to become an SA reflexive can also be used to show that a non-SC reflexive is likely _not_ to become an SC reflexive. Namely, just as the subject is the more prominent antecedent in (5.25), masking the indirect object, so the subject in

(5.26) John saw a snake near him

is the more prominent antecedent of _him_, masking the possibility of another referent. Now, if the reflexive strategy of the language _allows_ the nonreflexive pronoun in the position illustrated in (5.26) with the subject as antecedent, then there is no motivation for the reflexive strategy to extend its scope to that position to disambiguate the sentence in favor of the subject being the antecedent: the subject is _already_ the most likely antecedent. Rather, what we might expect is that, just as a reflexive can pick up the SA condition by grammaticizing a pro-subject tendency, the ordinary nonreflexive pronoun in sentences like (5.26) might, in some languages, likewise come to unambiguously refer to the subject. As a matter of fact, my Turkish and Finnish informants each claimed that such was the case for their languages, that is, that the ordinary pronoun in the locative phrases in (5.3) and (5.13) had to refer to the subject. While I would want to check this out with a variety of speakers before proclaiming it as grammatical fact (lest my informants mistook the masking effect for a total lack of ambiguity), we see now that this is very possibly the case.[22]

In the light of all this, I think that we can say confidently that, given a compound reflexive, it will definitely be non-SC and probably non-SA.

Let us turn our attention next to exceptional pronominal reflexives. We look at one such case, namely the Spanish primary reflexive. Recall that this is a pronoun, *se* when object of a verb, *sí* as object of a preposition, used in the third person. Its SA-ness was discussed in Section III.2; see especially (2.24). The exceptionality here concerns the fact that this strategy is non-SC. This is illustrated by (4.29) in Section III.4, repeated here:

(5.27) (=(4.29)) Juan halló una culebra cerca de él
Juan find+PAST a snake near 3MSG
"Juan found a snake near him."

As a matter of fact, *sí* is not barred from such sentences, but its use, as in

(5.28) Juan halló una culebra cerca de sí
Juan find+PAST a snake near REFL
"Juan$_i$ found a snake near him$_i$."

is typical of written style. It is important to note that *sí* in (5.28) does *not* convey contrast, the way the use of *himself* in the corresponding English sentence would. Contrast is conveyed by using the secondary compound strategy *mismo*, with or without *sí*:

(5.29) (=(4.30)) Juan halló una culebra cerca de él mismo
Juan find+PAST a snake near 3MSG REFL$_2$

(5.30) Juan halló una culebra cerca de sí mismo
"Juan found a snake near *himself*."

The lack of contrast conveyed by the presence of *sí* in (5.28) suggests that its nonappearance in (5.27) is different from the nonappearance of a compound non-SC reflexive there. What seems to be happening is that *se*/*sí*, an erstwhile normal SC pronominal reflexive, is undergoing the same process that French *se* underwent centuries ago (see Chapter II, Section II.10), namely becoming a verbal reflexive. But this just means that *sí* is disappearing from oblique NP's. The stage Spanish is at now can be roughly described as follows. In oblique NP's in which a non-SC reflexive normally will not appear, namely locatives with verbs of perception, *sí* is preferentially replaced by a nonreflexive pronoun, except when a literary or archaic flavor is desired. Thus, (5.27) is currently normal Spanish, as is[23]

(5.31) Juan vio un volkswagen delante de él
Juan see+PAST a volkswagen in-front-of 3MSG
"Juan$_i$ saw a volkswagen in front of him$_i$"

In other oblique NP's, *sí* is preferred, but optionally replaceable by the nonreflexive pronoun in colloquial style, as in (4.27) and (4.28) above, or as in

(5.32) a. Juan llevó el libro consigo
Juan bring+PAST the book with+REFL
"Juan$_i$ brought the book with him$_i$"

b. Juan llevó el libro con él
Juan bring+PAST the book with 3MSG
"Juan$_i$ brought the book with him$_i$"

(5.33) a. Juan derramo cafe sobre si mismo
Juan spill+PAST coffee on REFL$_i$ REFL$_2$
"Juan spilled coffee on himself."

b. Juan derramó café sobre él mismo
Juan spill+PAST coffee on 3MSG REFL
"Juan spilled coffee on himself."

Comparing the Spanish case of a pronominal reflexive becoming verbal with the three cases discussed previously, we can see a consistent difference between the SA and SC conditions. Namely, the SA condition is easy to pick up and hard to lose, whereas the SC condition is hard to pick up and easy to lose. In fact, I know of no case of either the SC condition being picked up or of the SA condition being lost by a strategy, whereas the two reverse possibilities are seen to be plausibly attributed to the history of Turkish, Finnish, Tamazight, and Spanish.[24] Given the precariousness of the SC condition, one may well wonder where SC reflexives come from in the first place. We will speculate on this problem in Chapter IV.

We have just examined three exceptional compound reflexives and one exceptional pronominal reflexive. We conclude this section with a discussion of a strategy whose morphological status with regard to the compound versus pronominal classification is unclear, namely Japanese. The strategy consists in using the word zibun as reflexive NP. We consider the question: is zibun a pronoun, or is it a compound?

Since zibun is syntactically an unanalyzable[25] word used as a reflexive NP, one's normal habit would be to just assume that it is a pronoun. If the bisyllabic, three-mora[26] shape of the word seemed a bit too heavy for a pronoun, one could always point to watakusi "I", "me" (four syllables!) or anata "you" (three syllables) and say that Japanese pronouns all tend to be massive anyhow. The problem is that the regular pronouns themselves have some peculiar features which undermine their pronounhood. Firstly, they are indeed phonologically massive. It seems reasonable to expect pronouns to exhibit the phonological correlates of lightness in their languages: lack of stress, tendency towards clitic-hood, small number of syllables, etc. Japanese has neither stress nor cliticization; but the number of syllables in *watakusi* (or, for that matter, *zibun*) is damning when we realize that Japanese has quite a few monosyllabic ordinary nouns (*ha* "tooth", *zi* "(written) character", *hi* "sun", *e* "picture", *te* "hand", *me* "eye", *ki* "tree", etc.). Secondly, pronouns are *not* the unmarked device in Japanese for creating either anaphoric NP's or NP's referring to the speaker or the hearer. The unmarked device for these tasks is to use no surface NP at all. Thus, a possible conversation is:

(5.34) to ga $\underbrace{\text{simatte iru}}$
door NOM be-closed+PRES
"Is the door closed?"

(5.35) ee, ima simemasita ga
yes now close+POL+PAST SPRT
"Yes, I just closed it."

It will be noted that (5.35) contains no surface NP, neither a subject NP referring to the speaker, nor an object NP anaphoric to "door", which was introduced into the context by the question in (5.34). The use of overt pronouns in (5.35) would be unwieldy and unnatural. Thirdly, Japanese pronouns exhibit a rich variety of forms reflecting the social context of the speech act. Thus, *watakusi*, *watasi*, *atasi*, *boku*, and *ore* all mean "I" or "me", but differ as to politeness, sex of speaker, and other social factors. And fourthly, non-first person pronouns are replaced by titles when a surface NP is desired and when the title is appropriate. Thus, a woman speaking politely to her older sister might say to her

(5.36) oneesan wa tukareta desyoo
older-sister TOP tire+PAST PROB
"You must be tired."

using the word for "older sister" in its direct address form to refer to the hearer. This, plus the multiplicity of forms for different social contexts and the phonological massiveness, suggests that Japanese pronouns might be better regarded as unmarked titles, to be used when a surface NP is needed and when a more specific title is not available. In particular, these "pronouns" would be superficially indistinguishable from ordinary nouns.

This being the case, perhaps *zibun* is also best regarded as an ordinary noun. Now, we have seen that many languages have reflexives consisting of a noun stem with a redundant possessive pronoun. Given our discussion above on Japanese pronouns, we would expect redundant possessive pronouns in Japanese to all be manifested as zero on the surface. This is indeed the case in general. A possessive pronoun would never be used, for example, corresponding to *his* in a sentence like "Tanaka is washing his hands"; the object of "wash" would just be the noun for "hand":

(5.37) Tanaka-san wa te o aratte imasu
Tanaka TOP hand ACC wash+PROG+POL+PRES

And if the NP *Tanaka-san wa* was dropped from (5.37), the remainder could be used as a full sentence in answer to the question "What are you doing?" to mean "I am washing my hands". Because redundant possessive pronouns never actually appear on the surface, we could easily claim that zibun is no different from visibly compound reflexives such as we have seen in Tagalog, Fula, Hausa, Finnish, Turkish, etc., only that the possessive portion of the Japanese reflexive NP happens to show up as zero.

It should be clear by now that superficial considerations will not allow us to decide clearly whether zibun is a pronominal or a compound reflexive. Let us therefore try a different tack. We will see in Chapter IV that very often pronominal strategies have their scope extended to cover middle-type contexts, and that compound strategies often are used or adapted towards being used as NP-emphatics; we already saw some of this in the discussion of Dutch and Pima-Papago at the end of Section III.4. If zibun were found to be used either as part of an NP-emphatic strategy or in middle contexts we could conclude that that constituted evidence that it was a compound or a pronominal reflexive respectively. Unfortunately, it exhibits neither usage. It is never a dummy object of a transitive verb, put there as a way of making it intransitive, passive, potential, or whatever; these functions are carried by totally different devices in the language. Nor is it an NP-emphatic. However, the most common NP-emphatics, zisin for animate NP's, zitai for inanimates:

(5.38) Taroo zisin ga iku

Tarō EMPH NOM go+PRES

"Tarō himself will go."

(5.39) arukooru zitai ga mondai da

alcohol EMPH NOM problem COP

"Alcohol itself is the problem."

do both contain the morpheme zi- which is also present in zibun. We may regard this as slight evidence in favor of *zibun* being a compound reflexive.

Since looking for nonreflexive uses of *zibun* has led us nowhere, we will make a final attempt to classify it by seeing how it fits into our basic syntactic typology of NP-reflexives. If it obeys neither the SA nor the SC conditions, we can use this to claim that it is a compound reflexive, whereas if it obeys both of them, we can claim on that basis that it is a pronoun. Now, we already saw in Section III.2 that *zibun* is probably best regarded as an SA reflexive; see especially (2.14) there. We therefore have to check the SC condition. Examine the following three Japanese versions of "Taro found a snake near him":

(5.40) Taroo wa tikaku ni hebi o mituketa
Taroo TOP near LOC snake ACC find+PAST

(5.41) Taroo wa kare no tikaku ni hebi o mituketa
Taroo TOP 3MSG GEN near LOC snake ACC find+PAST

(5.42) Taroo wa zibun no tikaku ni hebi o mituketa
Taroo TOP REFL GEN near LOC snake ACC find+PAST

The pronoun in the locative phrase in (5.40) has what we have seen to be the most common pronominal surface form in Japanese, namely zero. This would appear to be clear evidence that *zibun* is a non-SC reflexive. Not only is (5.40) acceptable and natural without *zibun*, but my informant claims that the zero-pronoun object of the postposition *tikaku (ni)* is *necessarily* coreferent with *Taroo*; this may be compared with the claims made by my Turkish and Finnish informants about comparable sentences in their languages. Of course, for *zibun* to be an SA but non-SC reflexive makes it exceptional. If we compare it with the four exceptional strategies discussed earlier in this section, we see that SA-ness coupled with non-SC-ness is the usual exceptional profile of both compound and pronominal reflexives. Thus, we still cannot tell which one *zibun* is!

Let us briefly consider (5.41) and (5.42), which are typical of written style. In (5.41) a nonreflexive pronoun appears in the locative phrase. Its presence is further evidence of the non-SC-ness of *zibun*. However, not only is the reference of *kare* ambiguous in (5.41), but my informant claims that the preferred reading is for *kare* to be *non*coreferent with *Taroo*. This is, of course, the opposite of the situation in (5.40), and also the opposite of the way an ordinary pronoun in a locative phrase is interpreted in a more normal non-SC case. (Thus, the preferred reading of "John found a snake near him" has *him* coreferent with *John*.) In addition, sentence (5.42) with *zibun* in the locative phrase does *not* have a contrastive reading. This should be compared with the noncontrastiveness of Spanish *sí* in a comparable sentence (see (5.28) above). It seems to me that this noncontrastiveness, together with the preferred noncoreference in (5.41), may be regarded as slight evidence that *zibun* is a pronominal reflexive rather than a compound. See also Note 12a.

However, looking over our discussion here of *zibun*, we see that there is no overwhelming, conclusive evidence for saying that *zibun* is either a pronominal or a compound reflexive. Still, odd as *zibun* may be in many respects, it at least exhibits a "normal" exceptional syntactic configuration, namely SA but non-SC. In fact, we may summarize the results of this section by saying that the only violations of the fundamental typology which can occur are strategies which are SA but not SC. This can be explained as a result of the fact that the SA condition is easy to acquire and hard to lose, while the SC condition is hard to acquire and easy to lose. And *these* facts can be explained by appealing to the prominence of a subject NP masking the antecedence power of any other NP, whether it is the antecedent of a reflexive in an *about* phrase or the antecedent of a nonreflexive in a locative.

III.6 Other Conditions on Reflexives

In this section we examine a number of other syntactic conditions relevant to the description of reflexives. I have much less information on the applicability of these conditions to reflexives in various languages than I do for the SA and SC conditions, so their presentation will be necessarily brief and speculative. Strictly speaking, the syntactic aspect of the present sutdy is concerned only with the SA and SC conditions; in retrospect, however, the conditions discussed below are of equal interest, and should form a part of any definitive work on reflexivization. Even though this study can hardly be called definitive, I include them here for completeness of scope, if not completeness of information, hoping that at a later time I or someone else might be able to get the appropriate data and fill in the gaps.

The first condition we will consider here is the first condition to be clearly stated in transformational terms as a characteristic of reflexives: the clause-mate condition (or CM condition). This condition is simply a requirement that a reflexive NP and its antecedent be in the same clause. In the notation of our general schema (1.1) given at the beginning of this chapter, the condition can be stated by saying that 2 and 4 must be in the same clause for the rule to apply. As pointed out in the beginning of Section III.2 above, the CM condition is formally the converse of the SC condition: the SC condition says that reflexivization must apply if 2 and 4 are in the same clause, whereas the CM condition says that reflexivization may apply only if 2 and 4 are in the same clause.[27]

In as early a work as Lees 1960 it was noticed that something like the CM condition is obeyed by English reflexivization. (The term "clause-mate" is, I think, due to Postal; perhaps its first appearance is in Postal 1971.) Thus, sentences like

(6.1) *John said that Mary kissed himself.

(6.2) *John asked Mary to kiss himself.

(6.3) *John fell in love with the woman who kissed himself.

are all bad because the only possible antecedent of himself, namely John, is in a higher clause.

If the CM condition was early observed as valid for English reflexivization, it was not long after that the CM condition was observed not to apply to the Japanese reflexive zibun. In fact, many of the sentences cited in Section III.2 in our discussion of the SA condition also illustrate violations of the CM condition: see (2.18), (2.19), (2.30), and (2.33), in all of which a possible antecedent of zibun is located in a higher clause. Another example is:

(6.4) Mitiko$_i$ wa zibun$_i$ ga $\underbrace{\text{suki na}}$ seinen o yatto
Michiko TOP [REFL] NOM like young-man ACC finally
ryoosin ni $\underbrace{\text{syookai sita}}$
parents DAT introduce+PAST
"Michiko$_i$ finally introduced to her parents the young man whom she$_i$ loved."

In (6.4), *zibun* is the subject of the relative clause on the head noun *seinen*. Its antecedent is *Mitiko*, the subject of the main clause. Since *Mitiko* is not in the relative clause, it and *zibun* are not clausemates; hence the acceptability of (6.4) shows the CM condition being violated.

Our main result, given in Section III.4, relates the occurrence of two conditions, the SA and the SC, in reflexives. We naturally ask if the CM condition can be worked into the basic typology as well. A definite answer will have to wait until much more data is unearthed. However, on the basis of a few cases, we can speculate about tendencies.

It appears that compound reflexives tend to obey the CM. We have already seen that this is the case for English. The French secondary compound reflexive -*même* is also unable to refer to an NP in a higher clause:

(6.5) *Jean$_i$ regardait la femme qui parlait de lui-même$_i$
Jean look-at+IMPF the woman who speak+IMPF about[3MSG+REFL]
"*Jean was looking at the woman who was speaking about himself."

(6.6) *Jean$_i$ $\underbrace{\text{a entendu dire}}$ que Marie parlait de lui-même$_i$
Jean hear+PAST COMP Marie speak+IMPF about[3MSG+REFL]
"*Jean heard that Marie was talking about himself."

In (6.5) *lui-même* is in a relative clause, and in (6.6) it is in an embedded complement, both situations preventing it from referring to *Jean* up in the main clause.

We saw in Section III.5 that in Turkish first and second person reflexives, and third person reflexives of the form *kendi*, obey the CM condition. The relevant sentences are (5.9) and (5.10).

The Tagalog reflexive also appears to be a CM strategy. Thus, the reflexive NP in

(6.7) pinakasalan ni Juan ang babae na nagbigay sa
marry+GF+PST AGT Juan TOP woman REL give+AF+PAST DAT
kaniyang sarili ng kotse
[3SGPOSS REFL] ACC car
"Juan$_i$ married the woman$_j$ who gave *him$_i$/herself$_j$ a car."

can only refer to the (deleted) subject in the relative clause; it cannot refer to Juan in the main clause. Similarly, the reflexive in

(6.8) pinilit ni Juan si Maria na halkan ang
force+GF+PAST AGT Juan TOP Maria COMP kiss+GF+INF TOP
kaniyang sarili
[3SGPOSS REFL]
"Juan$_i$ forced Maria$_j$ to kiss *him$_i$/herself$_j$"

cannot refer to Juan, only to the only other NP in its clause, namely the deleted subject of "kiss", which is coreferent with Maria. (Thus, (6.8) is pragmatically odd in its only possible reading.)

Obviously, the CM condition would have to be checked for many other languages before we could claim that compound reflexives regularly obey it. Incidentally, let us take note of one non-CM compound reflexive we have already seen: Turkish kendisi. Sentence (5.11) exhibits this reflexive in an embedded complement, with an NP in the main clause a possible antecedent.[28]

A generalization is harder to make in the case of pronominal reflexives. Some certainly do exhibit CM-ness. For example, German sich is seen to be a CM strategy by its reference possibilities in

(6.9) der Graf$_i$ befahl dem Diener$_j$, dass er$_j$ sich$_{*i/j}$
the count order+PAST the servant COMP he [REFL]
ankleiden sollte
dress+INF should
"The Count ordered the servant to dress *him/himself."

(6.10) der Graf$_i$ bat den Diener$_j$, der sich$_{*i/j}$ ankleiden
the count ask+PAST the servant REL [REFL] dress+INF
sollte, ein bisschen vorsichtig zu sein
should a little careful COMP be+INF
"The Count asked the servant who was supposed to dress
*him/himself to be a little careful."

(6.11) der Graf$_i$ bat den Diener$_j$, sich$_{*i/j}$ anzukleiden
the count ask+PAST the servant [REFL] dress+INF+COMP
"The Count asked the servant to dress *him/himself."

In each of the above, *sich* appears in an embedded clause; its only possible antecedent in each case is the subject NP of the clause it is in. On the other hand, the cognate pronominal reflexive in Latin is clearly *not* a CM strategy. Thus, in

(6.12) Metellus$_i$ in eis urbibus quae ad se$_i$
Metellus+NOM in those city+PL+ABL REL to [REFL]
defecerant praesidia imponit
revolt+PLUPF garrison+PL+ACC put-in+PRES
"Metellus put garrisons in those cities which had
revolted against him."

the reflexive pronoun *se* appears in a relative clause, while its antecedent is the subject of the main clause. Similarly, the reflexive in

(6.1-) mulieres$_i$ implorabant, ne se$_i$ in servitutem
woman+PL+NOM implore+IMPF COMP [REFL] in slavery+ACC
Romanis traderent
Roman+PL+DAT hand-over+IMPF+SUBJN
"The women$_i$ were imploring them not to hand them$_i$ over
to the Romans into slavery."

is coreferent with the subject of the main clause rather than that of its own embedded complement clause.

In general, the evidence points to the fact that older reflexes of the Proto-Indo-European pronoun *s(w)- did not obey the CM condition, but that more recent descendents of it seem to have all picked it up. Thus, we can get a violation of CM-ness in Old Norse as follows:

(6.14) biðr þá, at þeir mundu hjalpa sér
ask+3SG+PRES 3MPL+ACC COMP 3MPL+NOM would help+INF [REFL+DAT]
"He$_i$ asks them to help him$_i$."

with sér coreferent with the higher subject of biðr. Non-CM-ness persists into 18th century Swedish, where we can still get a reflexive in a relative clause coreferent with the subject of a main clause:

(6.15) i vaggan hade han$_i$ med nöd en gammal käring,
in cradle+DEF have+PAST 3MSG scarcely a old woman
som såg om sig$_i$
REL look-after+PAST [REFL]
"In the cradle he scarcely had an old woman who looked
after him."

However, (6.15) is ungrammatical in current Swedish: sig is now a CM reflexive.[29]

Recalling our discussion in Section III.5 above of the ease with which the SA condition might be acquired compared to the difficulty of acquiring the SC condition, we may ask if similar considerations can be brought to bear on the CM condition. While I do not have any native judgments to support the idea, it seems not unreasonable that, just as subjects can mask other NP's when competing for the antecedence of an ambiguous reflexive, so an NP in the same clause as a reflexive, being closer to it, might mask NP's in other clauses. If so, then the acquisition of the CM condition would simply consist of the grammaticization of this masking.

Some support for this idea can be found by examining what might be thought of as an intermediate case. Now, it would seem that a reflexive must be either subject to the CM condition or not subject to it. However, the definition of the CM condition depends on the notions "same clause" and "different clause". Rather than two discrete alternatives, these might be regarded as two points on a continuum. The way this can be done is by appealing to the notion of "clause" as a continuous rather than a discrete category. It is argued in Ross 197 that, for example, clauses headed by finite verbs are more clausy than clauses headed by infinitives. Thus, an NP in a subordinate clause with a finite verb might be "more" in a different clause from an NP in the main clause than an NP in an infinitive clause would be. If we accept this, we can guess that a reflexive in a finite subordinate clause might have its possible antecedence with a main clause NP more easily masked by an NP in its own clause than a reflexive in an infinitive clause would. But this would lead us to expect that there could be a reflexive strategy that had grammaticized the stronger masking effect operating against a reflexive in a subordinate finite clause while still allowing an infinitive clause reflexive to have a main clause antecedent. Are there such reflexives?

One strategy which seems to be approximately at this stage is the Russian primary reflexive. As far as I can tell, when the reflexive pronoun is in a subordinate finite clause, it can never have a main clause antecedent. Hence, sebe in (6.16) refers only to the daughter:

(6.16) mat'$_i$ poprosila doč'$_j$ čtoby ona
mother+NOM ask+PAST daughter+ACC COMP 3FSG+NOM
nalila sebe$_{*i/j}$ vodu
pour+PAST[REFL+DAT] water+ACC
"The mother asked the daughter to pour *her/herself water."

However, (6.16) may be rephrased with the complement as an infinitival clause. If this is done, as in

(6.17) mat'$_i$ poprosila doč'$_j$ nalit' sebe$_{i/j}$
mother+NOM ask+PAST daughter+ACC pour+INF [REFL+DAT]
vodu
water+ACC
"The mother asked the daughter to pour her/herself water."

many speakers find the reflexive ambiguous; that is, sebe in (6.17) can have as antecedent the subject of the higher clause. And, apparently, the possibility of main clause antecedence improves if, for "ask", we substitute a verb like "let", which might be claimed, because of its causativeness, to create a less clausy infinite phrase than non-causative "ask":[30]

(6.18) mat'$_i$ daet doč'$_j$ nalit' sebe$_{i/j}$
mother+NOM let+PRES daughter+ACC pour+INF [REFL+DAT]
vodu
water+ACC
"The mother lets the daughter pour her/herself water."

The role played by our various syntactic conditions in the functioning of reflexives are seen in a different light by regarding them not as conditions on the applicability of a rule of reflexivization, but as restrictions on the interpretation of reflexives. That is, we could take the view that reflexive NP's are freely introduced into sentences. There would then be a rule or strategy that finds an antecedent NP for the reflexive; if no antecedent is found, the sentence is ruled ungrammatical. Clearly, the SA and CM conditions, but not the SC condition, serve to narrow down the class of possible antecedents of a reflexive: an antecedent search strategy for an SA reflexive need only look at subject NP's, and one for a CM reflexive need only look at NP's in the same clause as the reflexive. If we believe the idea that masking by a strongly antecedent NP can be grammaticized, we find that it is just these two conditions which a reflexive is likely to pick up over time. Thus, as time goes on, the strategy becomes tighter, in the sense that there is less and less room for multiple antecedence of the reflexive. In fact, a reflexive obeying both the SA and the CM conditions ought to have a unique antecedent, namely, the subject NP of the clause the reflexive is in. Interestingly, even though German sich is SA and quite strongly SC (as we saw in (6.9)-(6.11)), there are cases for which sich can still have more than one antecedent:

(6.19) der Graf$_i$ liess den Diener$_j$ auf sich$_{i/j}$ zielen
the count have+PAST the servant at [REFL] aim+INF
"The Count had the servant aim at him/himself."

We can explain (6.19) by saying that an infinitive phrase with the verb lassen "let", "have" is so low in clausiness that the CM condition has not yet gotten strong enough to clamp the antecedence down to NP's in the infinitive phrase only.[31]

In Chapter IV we will speculate that the origin of pronominal reflexives is of such a nature that the CM condition is not likely to be in force. Thus, the Indo-European reflexive will be viewed as typical: non-CM when young, CM when mature.

Another condition, which I can say very little about here, is based on a case-hierarchy. In Postal 1968, a number of facts about English reflexives were given to support the idea of a crossover principle. It was noticed by a few people (e.g. Jackendoff 1972) that these facts were more easily summarized by appealing to a hierarchy, one version of which may be stated in terms of deep case as follows: agent, dative, patient. The condition states that the antecedent of a reflexive must be higher up on the hierarchy than the reflexive itself. Violations of this condition are not felt as outright ungrammatical; rather, they exude an odd uneasiness recognizable by native speakers but hard to describe. In the examples below, such violations are starred. Important: the violations are claimed to be odd only with ordinary unmarked intonation. All the starred sentences are perfectly acceptable with contrastive stress on the reflexives.[32]

Agent-Patient

(6.20) a. John killed himself.

b. *John was killed by himself.

Agent-Dative

(6.21) a. John gave himself a car.

b. *John was given a car by himself.

Dative-Patient

(6.22) a. John talked to Bill$_i$ about himself$_i$.

b. *John talked about Bill$_i$ to himself$_i$.

(6.23) a. John sold the slave$_i$ himself$_i$.

b. *John sold the slave$_i$ to himself$_i$.

(Of course, (6.22b) and (6.23b) are perfectly acceptable with the reading that the antecedent of *himself* is *John*.)

The case heirarchy explanation easily solves a problem which could be handled only with difficulty by the crossover theory, namely, why (6.22b) is bad but

(6.24) John talked about himself to himself.

is fine. Namely, the antecedent of both *himself*'s in (6.24) is *John*, which, as the agent, is higher on the hierarchy than either of them. In (6.22b), of course, the antecedent of dative *himself* is patient *Bill*. The crossover explanation of the unacceptability of (6.22b) involved moving the two prepositional phrases with respect to each other, starting with the *to* phrase preceding the *about* phrase as the unmarked order, and blaming the problem on moving an NP across a coreferent NP. Since the same sort of derivation would have to apply to (6.24), the crossover theory would incorrectly predict that (6.24) is bad.

The validity of the case-hierarchy condition (CH condition) is clearest in simplex sentences such as (6.20)-(6.24). It is not as clear how it should be interpreted with respect to a sentence like

(6.25) John believes himself to have robbed the bank.

Note that (6.25) is perfectly devoid of the oddness felt in (6.20b)-(6.23b). If we look at deep semantic case roles of himself and John, we see that himself is the agent of rob, and surely as high on the hierarchy as John, if not higher; probably, John is sort of a dative with respect to believe. Since this way of looking at it would lead the CH condition to predict that (6.25) is bad, we try another tack. Let us say that case roles must be examined with respect to a given verb (or in a given cycle, or in a given clause, etc.). Clearly, John in (6.25) has no case relation to rob. On the other hand, because himself has been raised into the main clause, we might wish to claim that it bears a derived case relation to believe. What would that case be? Following the relational grammar idea that a raised NP takes on the clause role previously occupied by the whole clause it was raised out of, we could say that himself bears, as derived case relation, the case which the entire complement sentence bore towards believe in the deep structure, namely patient. Presumably John is at least a dative. Thus, the CH would correctly predict that (6.25) is acceptable. It would also correctly predict that the passive

(6.26) *John was believed by himself to have robbed the bank.

is bad.[33]

Assuming that the derived case approach is the correct way to apply the CH condition to (6.25) and (6.26), we see that this condition is more syntactic than the reference to case would suggest. In fact, an alternate way of phrasing the statement of the condition would be to refer to clause-role categories like subject, direct object, etc., as is done in relational grammar. However, that approach has difficulties of its own. For example, direct objects and NP's in *about* phrases have in common that they are lower on the hierarchy than all indirect objects, whether these are marked with *to* or not. Thus, direct objects and objects of *about* would have to be combinable into one syntactic category in order to state the hierarchy; similarly, indirect objects with or without *to* would be so combined. Also, the condition would have to apply before passive (to be able to rule (6.20b) out) but after raising (to be able to mark (6.25) acceptable), an odd ordering, surely. For these reasons, as well as out of personal habit, I still prefer to call the condition a case hierarchy condition rather than a term hierarchy condition, recognizing fully that which side of the syntax-semantics boundary it lies on is a bit mysterious.

I have very little information on the applicability of the CH condition to various reflexives in other languages. In every language for which I do have the information, the CH is in force. Thus, the German sentence

(6.27) *Max wird von sich gewaschen
Max PASSAUX by [REFL] wash+PP
"*Max is washed by himself."

is apparently odd because an agent reflexive has a patient antecedent. Likewise for the Swedish sentence

(6.28) *Birgit forrådes av sig själv
Birgit betray+PAST+PASS by [REFL EMPH]
"*Birgit was betrayed by herself."

Similarly, the unacceptability of the Tagalog sentence

(6.29) *ibinili si Juan ng kaniyang sarili ng kotse
buy+DF+PAST TOP Juan AGT [3SGPOSS REFL] PAT car
"*John was bought a car by himself."

may be blamed on the fact that the reflexive NP is the agent NP, whereas its antecedent Juan is a dative. Another unacceptable Tagalog sentence is

(6.30) *sinabi kay Maria ang tungkol kay Juan ng
tell+GF+PAST DAT Maria TOP about Juan AGT
kaniyang sarili
[3SGPOSS REFL]
"*Juan was told about to Mary by himself."

in which the reflexive NP is an agent and hence outranks its two possible antecedents.

We now touch very briefly on conditions definable using the notions "precede" and "command". If the relevance of precede and command conditions is accepted for pronominalization, one would expect them to have relevance for reflexives. Of course, the command condition has content only for non-CM reflexives: if a reflexive is CM, then it both commands and is commanded by its antecedent. It appears that non-CM reflexive NP's are regularly commanded by their antecedents. Thus, Japanese zibun is commanded by its antecedent in (2.18), (2.19), (2.30), (2.33), and (6.4). An illustration of a violation:

(6.31) *kookogakusya$_i$ no horidasita doki no utukusisa ga
archeologist GEN unearth+PAST pot GEN beauty NOM
zibun$_i$ o odorokaseta
[REFL] ACC surprise+PAST

"The beauty of the pot that the archeologist unearthed surprised him."

Note that kookogakusya is a subject NP. It is only the violation of the command condition which renders (6.31) ungrammatical.

The examples of non-CM-ness given above ((6.12)-(6.15) and (6.17)-(6.19), besides the Japanese sentences) may all be checked; in each case the reflexive is commanded by its antecedent. However, the following sentences from Japanese and Latin suggest that the notion "command" has to be formulated in such a way that an NP in certain kinds of clauses, among those traditionally regarded as subordinate, command NP's in the clauses they are paired with:

(6.32) Ziroo$_i$ ga ie ni $\underbrace{\text{modotte miru}}$ to, ani no
Jirō NOM house DAT return+PRES as older-brother GEN
Taroo$_j$ ga zibun$_{i/j}$ no heya ni $\underbrace{\text{taorete ita}}$
Tarō NOM REFL GEN room DAT lie+PROG+PAST
"As Jirō$_i$ returned home, his elder brother Tarō$_j$ was lying in his$_{i/j}$ room."

(6.33) si ille$_i$ huc salvos revenit, reddam
if he+NOM hither safe return+PRES give-back+1SG
suum$_i$ sibi$_i$
his [REFL+DAT]
"If he returns here safe, I'll give him his stuff back."

The Latin[34] case involves a conditional sentence. Deciding which clause is subordinate to which in a conditional sentence on the basis of any formal properties of subordination is difficult (Thompson 1976). The degree of subordination of various Japanese complementizers is discussed in Kuno 1973, where it is shown that to, the complementizer (or conjunction) in (6.32), is the least subordinate of a set of common complementizers.

Some reflexives require that they be preceded by their antecedents. English is such a case; thus,

(6.34) John talked about himself to Bill.

is unambiguous and

(6.35) *I talked about himself to Bill.

is ungrammatical because *himself* precedes *Bill*, hence cannot have *Bill* as an antecedent. But in Tagalog, a preceding antecedent is merely preferred, rather than required. Thus, the reflexive NP in

(6.36) sinabi kay Maria ang tungkol sa kaniyang sarili
tell+GF+PAST DAT Maria TOP about [3SGPOSS REFL]
ni Juan
AGT Juan
"Juan talked to Maria about herself/?himself."

can take *Juan* as its antecedent even though *Juan* follows it; the preferred reading, however, is the one where *Maria* is the antecedent. If we reverse the NP's, as in

(6.37) sinabi ni Juan ang tungkol sa kaniyang sarili kay Maria
"Juan talked to Maria about himself/?herself."

the preferred reading has *Juan* as antecedent.

My sources conflict as to the acceptability of inverted German sentences like

(6.38) sich sah er im Spiegel
[REFL] see+PAST he+NOM in-the mirror
"He saw himself in the mirror."

However, if the antecedent of sich is a full NP with a lexical head, sich regularly precedes it in a subordinate clause:

(6.39) jetzt, als sich$_i$ die erste Landfahre$_i$ auf das Odland
now as [REFL] the first landferry on the waste-land
unseres Nachtgestirns senkt, ...
our night-star+GEN settle+PRES
"Now, as the first land ferry settles upon the waste
land of our night star,..."

This is because pronouns in general are all placed at the head of subordinate clauses, to the left of any fully lexical constituents.

That Japanese zibun need not be preceded by its antecedent can be seen by looking at (2.33). A similar example from Latin is

(6.40) prius quam tu suum sibi$_i$ venderes
before you+NOM his [REFL+DAT] see+IMPF+SUBJNC
ipse$_i$ possedit
EMPH possess+PAST
"Before you sold his stuff to him, he owned it."

In these two cases, the reflexive is in a lower clause than its antecedent. I suspect that precedence is never involved in such cases, although, of course, much more checking of data would be needed to substantiate this generalization.

Here we end our presentation of general conditions on reflexives. However, before moving on, I would like to describe what looks like the beginnings of a language-specific condition in Tagalog, as an illustration that besides the more or less universally definable conditions we have been looking at, namely, SA, SC, CM, CH, command, and precede, various other conditions may come into play in individual languages.

Recall that Tagalog is a "split-subject" language. This just means that subjecthood is not conveniently definable as picking out a single NP per clause; rather, two plausible definitions exist which, in general, pick out different NP's as the subject.

Case relations of the NP's in a clause are marked by preposed particles. However, in addition, one NP in each clause is chosen to play a special role, usually called "topic", and marked with a special topic particle instead of with one of the case particles. Further, an inflection in the verb codes the case relation of the topic NP. The choice of which NP is to be the topic is governed by a complex of conversational, semantic, and syntactic conditions that we cannot go into here. It is often the case that topic-hood may be assigned to different NP's in a given clause, and each such assignment will yield a good sentence.

In Schachter 1976 arguments are weighed in favor of regarding the agent NP in a clause as the subject versus regarding the topic as the subject. One argument is given using reflexives. The argument is based on the fact that it is quite common (and in some cases even obligatory) for the reflexive NP itself to be chosen as topic. The sentences given above to illustrate that precedence is not a grammaticized condition on the Tagalog reflexive, namely (6.36) and (6.37), both have the about phrase chosen as topic. This is regarded as evidence that the topic is not the subject; for if the CH condition is interpreted as being at all syntactic, it claims in part that a subject NP cannot be a reflexive NP, since a subject NP would outrank any other NP. (Note, by the way, that CH violations do yield bad sentences in Tagalog--see (6.29) and (6.30)--so that any good reflexive sentence may be interpreted as illustrating obedience to the CH condition.) Alternatively, of course, we can say that the CH condition is defined universally via case roles only, and that subjecthood is defined language-specifically, in which case (6.36) and (6.37) provide no evidence for subjecthood at all.

However, if preferential antecedence is taken as evidence for subjecthood, reflexives might provide a different kind of argument. Namely, we can check whether agent NP's or topic NP's are preferred as reflexive antecedents. Starting with (6.36) or (6.37), if we keep the about phrase (with the reflexive) as topic, but place both the agent and the dative NP's to the left, then the agent NP is preferentially the antecedent:

(6.41) sinabi ni Juan kay Maria ang tungkol sa
tell+GF+PAST AGT Juan DAT Maria TOP about
kaniyang sarili
[3SGPOSS REFL]
"Juan talked to Maria about himself/?herself."

If, however, we choose the agent or the dative NP as topic, still keeping both of them to the left of the reflexive, then the topic NP is trying to be preferentially the antecedent:

(6.42) nagsabi si Juan kay Maria tungkol sa kaniyang sarili
tell+AF+PAST TOP Juan DAT Maria about [3SGPOSS REFL]
"Juan told Maria about himself/?*herself."

(6.43) sinabihan si Maria ni Juan tungkol sa kaniyang sarili
tell+DF+PAST TOP Maria AGT Juan about [3SGPOSS REFL]
"Juan told Maria about herself/himself."

In (6.42), Juan is both agent and topic, and it is strongly preferred. In (6.43), Juan is agent and Maria is topic, and the preference is unclear. It thus looks very much that both agenthood and topic-hood cause an NP to be preferred as a reflexive antecedent. If just one of the two features of agenthood or topic-hood caused preferential antecedence, we could claim that that was evidence that that feature was associated with the subject, since the antecedence-preference could then be regarded as a kind of embryonic SA-ness. Given the situation as it is, antecedence-preference provides no evidence for subjecthood. However, whichever of the two choices turns out to be the "real" subject (if there is such a thing), preference for that NP as antecedent can be interpreted as pre-SA-ness. But this still leaves the preference for the _other_ NP as the source for an antecedence condition: if this preference is grammaticized, the resulting condition would be distinct from the SA; it would, in fact, be a condition specific to Tagalog. Obviously, it would be interesting to check other Philippine languages (which, mostly, have case and topic systems similar to Tagalog) for agent-antecedence of topic-antecedence conditions on their reflexives.

III.7 Some Special Cases

In this section we examine the way the syntactic conditions we have been discussing apply or do not apply in some special situations. We first discuss reflexives in Akan in relation to our conditions and in relation to serialization. We will speculate on the connection between serialization and reflexives, and include a brief pass by Cantonese. Finally, we will exhibit a pronoun system of an unusual type, that found in Isthmus Zapotec.

One chief point of discussion in the context of serial grammar is whether serializing verbs which have been bleached and grammaticized are still verbs, or whether they are prepositions. Thus, for example, is maa in the Akan sentence

(7.1) John tɔɔ kaa maa Mary
John buy+PAST car give+PAST Mary
"John bought a car for Mary."

a verb or a preposition? It is interesting that reflexives cannot be used to decide between these two possibilities. For, imagine that we replaced Mary by a reflexive NP. Suppose first that maa is a preposition. Then the whole sentence would be a single clause with John as subject. Since the reflexive would be in the same clause as John, and since John is the subject of that clause, we would predict that John must be at least one possible antecedent. Note that the CM condition is irrelevant, since we are looking inside a single clause; the SA condition is irrelevant, since that condition only serves to rule out non-subjects as antecedents, whereas we are discussing the antecedence of a subject; and the SC condition is irrelevant, since it constrains the occurrence of a reflexive rather than its antecedence.

Now suppose that maa is a verb. Then maa with its reflexive object would constitute a (reduced) clause separate from the clause headed by the verb tɔɔ. But note: we now can ask what the subject of maa is. Clearly, it is a deleted NP coreferent with John.[35] But it is obvious that a reflexive object can have the subject of its own clause as an antecedent, whether or not it obeys the CM, SA, or SC conditions. Thus, a reflexive object of maa must necessarily be able to be coreferent with the deleted subject NP of maa, and hence must be able to be coreferent with John.

We have shown that the reference of a reflexive object NP of *maa* in a sentence like (7.1) cannot be used to determine whether *maa* is a verb or a preposition, since, in either case we would predict the same thing, namely, that the reflexive would have *John* as antecedent. It does, of course:

(7.2) John tɔɔ kaa maa nẽ hõ
John buy+PAST car give+PAST [3SGPOSS REFL]
"John bought a car for himself."

But we have shown more. Since, for either line of reasoning, the SA, SC, and CM conditions were irrelevant, we have shown that we cannot turn the argument around and try to use grammatical categorization of *maa* as a basis for determining the syntax of the reflexive. It does not matter what kind of a reflexive *nẽ hõ* is; it will still be coreferent to *John* however *maa* is analyzed.

We can still ask about the syntax of the Akan reflexive, of course. We see from (7.2) that Akan has a compound reflexive based on the noun stem *hõ* (originally: "skin"). By the fundamental typology, we expect it to be non-SA and non-SC. We also guess that it should be a CM reflexive, based on the generalization pronounced in Section III.6 that compound reflexives appear to be mostly CM. This last condition is easiest to check, and it does indeed apply. The following sentences illustrate a few subordinate clause types all employing the complementizer *sɛ*. It will be seen that a reflexive in the subordinate clause cannot refer to the subject of the main clause:

(7.3) John kãã sɛ Mary hũũ nẽ hõ
John say+PAST COMP Mary see+PAST [3SGPOSS REFL]
"John$_i$ said that Mary$_j$ saw *him$_i$/herself$_j$."

(7.4) John nim sɛ Mary hũũ nẽ hõ

John know+PRES COMP Mary see+PAST [3SGPOSS REFL]

"John$_i$ knows that Mary$_j$ saw *him$_i$/herself$_j$."

(7.5) John kãã kyerɛɛ Mary sɛ ɔmbɔ nẽ hõ

John tell+PAST show+PAST Mary COMP 3SG+IMPER+hit [3SGPOSS REFL]

"John$_i$ told Mary$_j$ to hit *him$_i$/herself$_j$."

(7.6) John pɛ sɛ Mary hũ nẽ hõ

John want+PRES COMP Mary see+PRES [3SGPOSS REFL]

"John$_i$ wants Mary$_j$ to see *him$_i$/herself$_j$."

Of course, if we replace nẽ hõ in (7.3)-(7.6) by the ordinary nonreflexive third person singular pronoun nõ, then it can refer to John, just as in English:

(7.7) John kãã sɛ Mary hũũ nõ.

"John said that Mary saw him."

(7.8) John nim sɛ Mary hũũ nõ.

"John knows that Mary saw him."

(7.9) John kãã kyerɛɛ Mary sɛ ɔmbɔ nõ.

"John told Mary to hit him."

(7.10) John pɛ sɛ Mary hũ nõ.

"John wants Mary to hit him."

That the CM condition is actually fairly strong is seen by the nonambiguity of the reflexive in a causative sentence:

(7.11) John mãã Bill hũũ nẽ hõ

John CAUS+PAST Bill see+PAST [3SGPOSS REFL]

"John$_i$ made Bill$_j$ see *him$_i$/himself$_j$."

Even though the embedded clause in a causative is not marked by any overt complementizer, the reflexive object of the lower verb can still only have the embedded subject as antecedent.

When we try to check the SC condition we run into something interesting. Here is our standard test sentence:

(7.12) John hũũ ɔwɔ wɔ nẽ nkyɛn
John see+PAST snake LOC 3SGPOSS side
"John$_i$ saw a snake near him$_{i/k}$."

(7.13) *John hũũ ɔwɔ wɔ nẽ hõ nkyɛn
John see+PAST snake LOC [3SGPOSS REFL] side
"John saw a snake near himself."

It would appear that (7.12) is clear evidence that nẽ hõ is non-SC. However, the fact that the use of the reflexive in (7.13) is totally ungrammatical, rather than suggestive of contrast, is suspicious.

It happens that nkyɛn is a noun; the locative phrase is constructed by regarding nkyɛn as the head noun of an NP and making its "object" into a possessive. Thus, the possessive pronoun nẽ is used in (7.12); nõ would be ungrammatical here:

(7.14) *John hũũ ɔwɔ wɔ nõ nkyɛn

Now, it turns out that the reflexive NP cannot be used possessively. To take a simple example, we can get

(7.15) John praa nẽ 'fie
John sweep+PAST 3SGPOSS house
"John$_i$ swept his$_{i/k}$ house."

but not

(7.16) *John praa nẽ hõ 'fie
"John swept his own house."

It is because of this general fact that the reflexive cannot appear in (7.13). Thus, it looks as if SC behavior is imposed on the reflexive by a constraint of a totally different sort which happens to apply in the case of the locative phrase in (7.13); see Note 12a.

What clouds the issue further is that there is another kind of syntactic environment for NP's in which reflexive coreference is marked differently. Consider

(7.17) John kãã Bill hõ asɛm
John talk+PAST Bill REFL words
"John talked about Bill."

It is not clear to me what the reflexive is doing in (7.17); not do I understand the best way of analyzing the surface constituent structure of the *about* phrase. If *Bill hõ asɛm* is an NP with head noun *asɛm*, then *Bill hõ* would be a possessive. While this does not contradict the general fact mentioned above that reflexives cannot be possessives (since, firstly, Bill is a full noun rather than a pronoun as in (7.13) and (7.16), and secondly, *Bill hõ* is not a reflexive, in that it does not have another NP as antecedent), it is suspicious for another reason, namely: *Bill hõ* cannot be an NP in normal NP positions such as subject. In particular, *hõ* is not used as an NP-emphatic following a noun. The best thing we can say is that *Bill* is an NP and *NP hõ asɛm* is a construction of unclear structure meaning "about NP". Even the relatively safe claim that *Bill* is a possessive is undercut by the following sentences, which illustrate how reflexive coreference is marked in this environment:

(7.18) John kãã nẽ hõ asɛm
John talk+PAST 3SGPOSS REFL words
"John$_i$ talked about $\left\{\begin{array}{l}\text{himself}_i\text{."}\\ \text{*him}_k\text{."}\end{array}\right.$

(7.19) John kãã nõ hõ asɛm

John talk+PAST 3SG REFL words

"John$_i$ talked about $\left\{\begin{array}{l}\text{him}_k\text{."}\\ \text{*himself}_i\text{."}\end{array}\right.$

Using the possessive third person pronoun gives a reflexive reading in (7.18); use of the ordinary pronoun gives a nonreflexive reading in (7.19).

About phrases are not an isolated type; other instances of what I call "spurious hõ" abound in the language. For example, there is a transitive verb siesie meaning "to get ready":

(7.20) John siesiee abofra nõ

John get-ready+PAST child the

"John got the child ready."

(7.21) John siesiee nõ

John get-ready+PAST 3SG

"John got him ready."

(7.22) John siesiee nẽ hõ

John get-ready+PAST [3SGPOSS REFL]

"John got himself ready."

However, if the object NP is constructed with spurious hõ, it means "to dress":

(7.23) John siesiee abofra nõ hõ

John get-ready+PAST child the ??

"John dressed the child."

(7.24) John siesiee nõ hõ

John get-ready+PAST 3SG ??

"John dressed him."

(7.25) John siesiee ne᷉ hõ
John get-ready+PAST 3SGPOSS ??
"John dressed himself."

Note that (7.22) and (7.25) are the same on the surface. Note also that reflexivization in the case of *siesie - hõ* works exactly the same as in *about* phrases.

The final straw in the saga of the SC condition in Akan is the fact that not all cases of spurious *hõ* have coreference marked as in (7.18)-(7.19) and (7.24)-(7.25). Consider

(7.26) John twẽẽ ŋhõma nõ fii nõ hõ
John move+PAST book the go-fr{?*himself$_i$??
"John$_i$ moved the book away from {?*himself$_i$
him$_k$

(7.27) John twẽẽ ŋhõma nõ fii nẽ hõ
John move+PAST book the go-from+PAST 3SGPOSS ??
"John$_i$ moved the book away from himself$_i$/him$_k$."

Here, the use of the possessive *nẽ* is ambiguous, while the ordinary pronoun may also be used, but preferably with an antecedent other than *John*. It should be noted that (7.27) illustrates a sentence type in which non-SC reflexives often do not appear; recall sentences (3.15)-(3.21) and the discussion in Section III.3. It is thus not at all odd that this sentence should behave differently from sentences with reflexives in *about* phrases or in direct object position. What is odd about (7.26) and (7.27) is the direction of the difference. In (7.18) and (7.25), *nẽ* definitely marks coreference with the subject, that is, it functions as the reflexive marker. If the use of *nẽ* were an SC-strategy. it would be required in (7.27). In fact, it *is* required in (7.27) when the NP in the directional phrase is coreferent with the subject. The problem is, it is no longer a reflexive marker, since a *non*coreferent NP can also be marked with it.

We may summarize by saying that the primary strategy is not used in many NP positions. In some cases (e.g. (7.12)), when an oblique NP is constructed around a nominal head (e.g. *nkyɛn*), coreference and noncoreference must be neutralized, with the NP realized as *nẽ*. When the NP is constructed with spurious *hõ*, then in some cases, *nẽ* is reflexive and *nõ* is not; in others, *nẽ* may be used always, with *nõ* an option in the case of noncoreference with the subject.

Do (7.18)-(7.19) and (7.24)-(7.25) illustrate a secondary reflexive, or can the phenomenon they illustrate be integrated with the primary reflexive? I will not propose an analysis which reduces reflexives with spurious *hõ* and primary reflexives to manifestations of the same strategy. However, some order can be brought forth in a rough way as follows. The primary reflexive operates (in the third person) by opposing the reflexive *nẽ hõ* to the nonreflexive *nõ*. In the expression *nẽ hõ*, *nẽ* is necessarily coreferent with the subject, but this is due entirely to the fact that it is a possessor on the *reflexive* noun stem *hõ*. However, we could say that the opposition between *nẽ hõ* and *nõ* is reinterpreted as an opposition between *nẽ* and *nõ*, with the former reflexive and the latter not. This is extended to the cases where there is a spurious *hõ* following. Now, opposing the tendency to regard *nẽ* as reflexive and *nõ* as nonreflexive, there is a tendency to regard *nẽ* as applicable both for reflexive and nonreflexive contexts. This is based on the strong model of the possessor of a direct object. Recall:

(7.28) John praa nẽ 'fie

John sweep+PAST 3SGPOSS house

"John$_i$ swept his$_{i/k}$ house."

(7.29) *John praa nẽ hõ 'fie

(7.30) *John praa nõ 'fie

When it is syntactically the possessor of a noun, nẽ must take on this reflexively-indifferent usage. However, when preceding spurious hõ, the two tendencies collide. We can summarize what happens before spurious hõ by saying that those NP's in which reflexivization is usually marked even by non-SC reflexives (e.g., about phrases ((7.18)-(7.19)) or direct object ((7.24)-(7.25))), the correlation between nẽ versus nõ and reflexive versus nonreflexive wins out; whereas in those NP's in which non-SC reflexives usually do not appear (e.g. direction phrases with transitive verbs of motion ((7.26)-(7.27))), the marking of a reflexive via the nẽ/nõ opposition yields to the tendency to use nẽ indifferently, with the residual possibility of using nõ nonreflexively hanging on.

After this bout with the SC condition, the nontestability of the SA condition in Akan is an anticlimax. To illustrate the structure of our test sentence, consider

(7.31) John kãã Bill hõ asɛm kyerɛɛ Mary

John tell+PAST Bill about show+PAST Mary

"John told Mary about Bill."

It is the fact that the about phrase precedes the to phrase in (7.31) that will make our results inconclusive as to the SA condition. If we put pronouns into the about phrase, recalling our discussion above, we are not surprised with the results:

(7.32) John kãã nẽ hõ asɛm kyerɛɛ Mary

$$\text{"John}_i \text{ told Mary}_j \text{ about } \left\{ \begin{array}{l} \text{himself}_i\text{"} \\ {*}\text{him}_k\text{"} \\ {*}\text{herself}_j\text{"} \end{array} \right.$$

(7.33) John kãã nõ hõ asɛm kyerɛɛ Mary

$$\text{"John}_i \text{ told Mary}_j \text{ about } \left\{ \begin{array}{l} {*}\text{himself}_i\text{"} \\ {*}\text{herself}_j\text{"} \\ \text{him}_k\text{"} \end{array} \right.$$

The fact that nẽ in (7.32) cannot refer to Mary is not necessarily a sign of SA-ness. A more likely explanation is that precedence is a relevant condition. Alternatively, if kyerɛɛ is analyzed as a verb, we could claim that nẽ and Mary are in different clauses, and hence could not be coreferent because of the CM condition.[36]

If we put pronouns into the to phrase, we get

(7.34) John kãã Bill hõ asɛm kyerɛɛ nõ

$$\text{"John}_i \text{ told about Bill}_j \text{ to} \left\{ \begin{array}{l} \text{him}_k\text{"} \\ \text{himself}_j\text{"} \\ {*}\text{himself}_i\text{"} \end{array} \right.$$

(7.35) John kãã Bill hõ asɛm kyerɛɛ nẽ hõ

$$\text{John}_i \text{ told about Bill}_j \text{ to} \left\{ \begin{array}{l} \text{himself}_i\text{"} \\ {*}\text{himself}_j\text{"} \\ {*}\text{him}_k\text{"} \end{array} \right.$$

Recalling our discussion of "John bought a car for himself" at the beginning of this section, we are not surprised at the possibility of the reflexive referring to John. Why can it not refer to Bill? If kyerɛɛ is a verb, we can again appeal to the CM condition.[37] However, if kyerɛɛ turns out to be better analyzed as a preposition, we could claim that the CH condition rules Bill out as an antecedent, because Bill is a patient and the reflexive is a dative.

Still, of course, the SA condition might be responsible for the nonantecedence of Bill in (7.35). Another sentence might settle the issue; unfortunately, I do not have one at this time.

In the absence of clear data from Akan, we can still speculate on the relationship, if any, between serialization and syntactic conditions on reflexives. At the beginning of this section, we saw that the antecedence of John in (7.2) is expected whether maa is a verb or a preposition, and whether or not the reflexive obeys the SA, SC, or CM conditions. In other cases, however, there could be an interaction between the syntactic behavior of a reflexive and the status of a word as verb or preposition. As an example, let us assume that we have a highly serializing language with a compound reflexive. Since the reflexive is compound, it is not unreasonable to further assume, based on our generalization in Section III.6, that the CM condition applies. Finally, let us suppose that this language ordered a dative phrase before an about phrase (that is, the reverse of Akan), so that neither precedence nor the CH condition could interfere. A test sentence for the SA condition might be schematized as

(7.36) John "to/with" Bill talk-about himself.

Now, if the item labeles "to/with" is definitely a verb, then, given our setup, Bill cannot be the antecedent of himself, not only because of the CM condition (as object of "to/with", Bill is not a clause-mate of himself, the object of talk-about), but, perhaps even more crucially, because Bill would not command himself. But if "to/with" is a preposition, we cannot predict whether or not Bill could be an antecedent, that is, whether or not the reflexive is SA.

Or can we? Most recent studies of serialization (e.g. Lord 1973 and 1976, Givon 1975, etc.) proclaim that, whether the items in question are now verbs or prepositions, they were definitely verbs in the past. But this means that the historical antecedents of sentences like (7.36) could definitely not have involved antecedence of the dative NP, for the reasons given above. The question is: as the verb "to/with" is bleached semantically and syntactically into a preposition, could the antecedence of the reflexive be extended to cover Bill? Recall that in Section III.5 we decided that the SA condition is easy to pick up and hard to lose, because subject NP's tend to mask other NP's anyway as candidates for antecedence. Now, when "to/with" in (7.36) is a verb, we cannot say we have an SA condition strictly speaking, since the non-antecedence of the dative NP Bill is due to being in another clause. However, the effect of the SA condition, namely, to pick out a unique NP in the sentence to be the antecedent, is present. It seems very unlikely that this pseudo-SA-effect would go away as "to/with" got bleached, since, as the dative NP emerged into the main clause (and into possible antecedence), it would face the prior antecedence exclusivity of the subject, bolstered by the subject's masking strength. The most reasonable expectation is therefore that the antecedence would remain the same, turning into true SA-ness as the dative clause entered the main clause to be a prepositional phrase.

The conclusion we are led to is that a compound reflexive in a serializing language is likely to be SA, our fundamental typology notwithstanding.[38] This cannot be demonstrated for Akan with the data at our disposal, due to the confluence of certain peculiarities, in particular the order of the phrases on the surface and the varying strategies to mark the reflexive. We can do a little better with Cantonese, which has a surface order like (7.36) and a reasonably normal reflexive. The strategy, a compound one, is illustrated in direct object position in

(7.37) John juŋ yi köi
John like 3SG
"John$_i$ likes him$_j$/*himself$_i$."

(7.38) John juŋ yi köi ji gei
John like 3SG REFL
"John$_i$ likes himself$_i$/*him$_k$"

An about sentence is constructed as follows:

(7.39) John tuŋ Bill goŋ gwaan yü Mary ge si
John with Bill talks about Mary GEN matter
"John talked to Bill about Mary."

The problem here is that the NP in the about phrase is constructed as a possessor of the bleached noun si "matter", "affair", the whole resulting NP being the object of gwaan yü "about" (or maybe of goŋ gwaan yü "talk about"). As is often the case in possessives, ordinary pronouns can be freely used coreferent to other NP's in the same clause. Thus, köi in (7.40) can be John, Bill, or someone else:

(7.40) John tuŋ Bill goŋ gwaan yü köi ge si
John with Bill talk about 3SG GEN matter
"John$_i$ talked to Bill$_j$ about$\left\{\begin{matrix}\text{himself}_{i/j}\text{"}\\ \text{him}_k\text{"}\end{matrix}\right.$

However, if a reflexive is used, it unambiguously refers to John:

(7.41) John tuŋ Bill goŋ gwaan yü köi ji gei si

"John$_i$ talked to Bill$_j$ about $\left\{\begin{array}{l}\text{himself}_{i/*j}\text{"}\\ \text{*him}_{k}\text{"}\end{array}\right.$

It looks therefore that *ji gei* is an SA strategy as predicted.

Reflexives in serializing languages remain a large unexplored area. Unfortunately, I have no more to say on the matter here. Instead, we close this section with a look at the rather different kind of reference system exhibited by Isthmus Zapotec, as an illustration of how our typology of reflexives can be adapted in a sufficiently out-of-the-ordinary context. To keep things simple, let us restrict ourselves to third person singular. As I understand it, the following principles apply:

(7.42) i. There are two third person singular pronouns: *be* and *Ø*.

ii. If a known referent is referred to by *be* in a particular NP, it will be referred to by *be* in all succeeding NP's, not only in the same sentence, but throughout long stretches of narrative. Exactly the same is true for *Ø*. Thus, *be* and *Ø* consistently keep their own referents.

iii. Subsequent to a full (nonpronominal) NP, the referent of that NP is referred to by *Ø*.

The three principles above cannot account for every possible situation; in particular, it is not clear how a referent comes to be referred to by *be*. However, within a single sentence, (7.42) completely determines the way third person singular reference is handled in most common situations.

To illustrate, we take a simple clause expressing "A saw B". With the subject *Pedru*, we have

(7.43) biiya Pedru laa

saw Pedru SUP+*∅*

"Pedru$_i$ saw himself$_i$."

(7.44) biiya Pedru laabe

saw Pedru SUP+*be*[39]"

In (7.43), the sentence is reflexive because of (iii). Sentence (7.44) is necessarily nonreflexive by (ii), since *∅* (=*Pedru*) and *be* keep their referents separate. This might lead us to think that *∅* is in fact a reflexive pronoun. This would be further strengthened by

(7.45) biiya laa

saw+*∅* SUP+*∅*

"He$_i$ saw himself$_i$."

(7.46) biiya laabe

saw+*∅* SUP+*be*

"He$_i$ saw him$_j$."

In these sentences, the subject is *∅*. By (ii), (7.45) is reflexive and (7.46) is not. However, when the subject is *be*, the pattern is reversed:

(7.47) biiya-be laa

saw *be* SUP+*∅*

"He$_i$ saw him$_j$."

(7.48) biiya-be laabe

saw *be* SUP+*be*

"He$_i$ saw himself$_i$."

Because *be* and *∅* keep their referents, the reflexive sentence here is the one where the object is *be* as well as the subject.

Presumably, we may say that we are dealing with a pronominal reflexive, since reflexive coreference is indicated by the choice of a pronoun. However, we cannot identify a reflexive pronoun: the choice of pronoun depends on the situation. Still, the system is seen to exhibit some features typical of pronominal reflexives. Since use of *be* versus *∅* is consistent at least throught a sentence, the strategy can be said to be SC and non-CM. Thus, the reference in the six sentences (7.43)-(7.48) above is mirrored exactly in our test sentence for SC-ness:

(7.49) biǰela Pedru ti beenda gaša de laa
found Pedru a snake near SUP+*∅*
"Pedru$_i$ found a snake near him$_i$."

(7.50) biǰela Pedru ti beenda gaša de laabe
"Pedru$_i$ found a snake near him$_j$."

(7.51) biǰela ti beenda gaša de laa
"He$_i$ found a snake near him$_i$."

(7.52) biǰela ti beenda gaša de laabe
"He$_i$ found a snake near him$_j$."

(7.53) biǰela-be ti beenda gaša de laa
"He$_i$ found a snake near him$_j$."

(7.54) biǰela-be ti beenda gaša de laabe
"He$_i$ found a snake near him$_i$."

Similarly, the same pattern emerges if the second NP is in a lower clause:

(7.55) rakala'ǰi Pedru geeda

want+PRES Pedru come+*∅*

"Pedru wants to come."

(7.56) rakala'ǰi Pedru geeda-be

"Pedru$_i$ wants him$_j$ to come."

(7.57) rakala'ǰi geeda

"He wants to come."

(7.58) rakala'ǰi geeda-be

"He$_i$ wants him$_j$ to come."

(7.59) rakala'ǰi-be geeda

"He$_i$ wants him$_j$ to come."

(7.60) rakala'ǰi-be geeda-be

"He wants to come."

By the fundamental typology, a pronominal reflexive should be SC; and while pronominal reflexives are not always non-CM, they often are, as we saw in Section III.6. The final step would be to test the SA condition. The test sentences would be constructed like

(7.61) kayuí'né Victor Juan de laabe

talk-with+PRES Victor Juan about SUP+*be*

"Victor$_i$ talks with Juan$_j$ about him$_k$."

(7.62) kayuí'né Victor Juan de laa

"Victor$_i$ talks with Juan about himself$_i$."

The key sentence is (7.62). Unfortunately, since I do not have access to a native speaker, I do not know if *∅* in the *about* phrase in (7.62) can refer to Juan (it can certainly refer to Victor). The SA condition for Isthmus Zapotec will therefore have to wait.

III.8 Verbal Reflexives

In this section we take a look at the syntax of verbal reflexives. I do not have verbal reflexives nearly as well documented as NP reflexives, so generalizations presented here should be taken as tentative. However, we will see that what we come up with fits in nicely with the historical origin of verbal reflexives as proclaimed in Chapter IV and with our conceptions of the way syntactic conditions are acquired or lost.

To see that syntactic conditions are definable for verbal reflexives, recall our schema (1.1) in Section III.1, and the discussion of how a verbal reflexive can be handled by it: the NP which ends up marked [+REFL] (item 4 in (1.1)) is deleted, and "the" verb is marked [+REFL]. A problem which arises immediately is: which verb is marked [+REFL]? Note that there is no verb mentioned in (1.1). We will see momentarily that this problem can be solved trivially.

Since the SA, SC, and CM conditions were defined on the basis of a rule such as (1.1), describing verbal reflexives by means of (1.1) automatically puts them within the scope of these conditions. We may illustrate what one condition would say about a verbal reflexive with an example.

Consider a non-SA verbal reflexive applying to a sentence like

(8.1) John_i bought NP_j from Bill_j

In the absence of other restrictive conditions, the strategy would apply to yield

(8.2) John bought+REFL from Bill.

The claim of non-SA-ness would be that (8.2) could have the reading suggested by the indices in (8.1); that is, it is Bill that was bought by John, Bill having previously owned himself. If we try forming sentences (8.2) in Kinyarwanda, a language with a verbal reflexive:

(8.3) Yohaani yiiguze na Bill
Yohaani 3SG+PAST+REFL+buy+ASP with Bill
"Yohaani$_i$ bought himself$_i$ from Bill$_j$."

we find rather that the verbal reflexive marks a deleted direct object coreferent with the subject Yohaani, rather than Bill. Of course, a precedence condition might be at work here.[40] Be that as it may, the fact is, I have no examples of a verbal reflexive in which the deleted NP was not coreferent with the subject. While the general restrictiveness that we will soon see verbal reflexives exhibit makes test cases like (8.3) extremely hard to come by, so that we might say that the SA condition applies by default, it still seems valuable within the context of this study as a whole to make the generalization:

(8.4) A verbal reflexive is SA.

The SA condition restricts the choice of item 2 in (1.1); the choice of item 4 is affected by the SC and CM conditions. However, rather than discuss these individually, I will give what I believe is the correct generalization, which will be seen to supercede the SC and CM conditions:

(8.5) Given a verbal reflexive, item 4 in (1.1) (that is, the NP deleted by the strategy) must be a direct object, indirect object, or benefactive of a verb whose subject is the antecedent.

Using (8.5) we can solve the problem mentioned above of identifying the verb which is to bear the feature [+REFL]: it is simply the verb of which item 4 is the direct object, indirect object, or benefactive. Since the subject of that same verb is the antecedent,[41] the strategy is automatically CM. And, since the locative phrase used to test the SC condition is not one of those mentioned in (8.5), we conclude that a verbal strategy is necessarily non-SC.

In Chapter IV, we will claim that all verbal reflexives are historically derived from NP reflexives. Recalling that the SA and CM conditions are easy to acquire and that the SC condition is easy to lose, it is reasonable that an old NP reflexive which is well on the way towards becoming verbal will almost certainly be SA, CM, and non-SC. Thus, it is entirely reasonable for a verbal reflexive to exhibit this syntactic configuration.

One upshot of (8.5) is that, in general, we cannot use a "talk about" sentence to test for the SA-ness of a verbal reflexive: the NP in an about phrase will not be reflexivizable.

The fact that verbal reflexives can be sometimes used to indicate that a non-direct-object NP has been reflexivized could perhaps be made the basis of a typology of verbal reflexives. Namely, we could place verbal reflexives which can mark non-direct-objects in a different subclass from those which can only indicate that a direct object is reflexivized. Both classes would be nonempty. Thus, the primary reflexive in French can mark not only a reflexivized direct object:

(8.6) a. Jean voit Pierre.

Jean see+PRES Pierre

"Jean sees Pierre."

b. Jean le voit

Jean 3MSG see+PRES

"Jean$_i$ sees him$_j$."

c. Jean se voit
Jean REFL see+PRES
"Jean$_i$ sees himself$_i$."

but also a reflexivized indirect object:

(8.7) a. Jean donne l'argent à Pierre
Jean give+PRES the-money DAT Pierre
"Jean gives the money to Pierre."

b. Jean lui donne l'argent
Jean 3MSG+DAT give+PRES the-money
"Jean$_i$ gives him$_j$ the money."

c. Jean se donne l'argent
Jean REFL give+PRES the-money
"Jean$_i$ gives himself$_i$ the money."

or a reflexivized benefactive:

(8.8) a. Jean achète le livre pour Pierre
Jean buy+PRES the book for Pierre
"Jean buys the book for Pierre."

b. Jean lui achète le livre
Jean 3MSG+DAT buy+PRES the book
"Jean$_i$ buys him$_j$ the book."

c. Jean s' achète le livre
Jean REFL buy+PRES the book
"Jean$_i$ buys himself$_i$ the book."

Note that the indirect objects in (8.7a) and (8.7b) and the benefactives in (8.8a) and (8.8b) are not derived direct objects: they do not exhibit the syntactic behavior of French direct objects. Thus, Pierre in (8.7a) and (8.8a) cannot appear without a preposition, a special dative form of the pronoun is needed in (8.7b) and (8.8b), passivization cannot apply, etc. We conclude that the verbal reflexive in (8.7c) and (8.8c) has really applied to a non-direct-object.

Compare this with Kinyarwanda:

(8.9) Yohaani yaguze imodoka
Yohaani 3SG+PAST+buy+ASP car
"Yohaani bought a car."

(8.10) a. Yohaani yaguriye Bill imodoka
Yohaani 3SG+PAST+buy+BEN+ASP Bill car
"Yohaani bought Bill a car."

b. Yohaani yamuguriye imodoka
Yohaani 3SG+PAST+3SG+buy+BEN+ASP car
"Yohaani$_i$ bought him$_j$ a car."

c. Yohaani yiiguriye imodoka
Yohaani 3SG+PAST+REFL+buy+BEN+ASP car
"Yohaani$_i$ bought himself$_i$ a car."

In (8.10c), we see the reflexive being used to indicate that a benefactive has been reflexivized. However, benefactives in Kinyarwanda are advanced to direct object; this advancement is marked by the -r- in the verb in (8.10). Thus, the NP which the reflexive in (8.10c) marks as coreferent with the subject is a syntactic direct object, so, unlike French, we cannot conclude that the reflexive can by itself indicate a reflexivized non-direct-object. If I understand it correctly, the reflexive in Kinyarwanda is indeed restricted to marking coreference between subject and direct object only. The strategy ends up being able to indicate a reflexivized benefactive only because of the advancement of benefactives to direct objects.

An interesting case which may be compared both to French and to Kinyarwanda is Lakhota. Consider

(8.11) a. John Mary wacekiciciye

John Mary 3SG→ 3SG+BEN+pray

"John prays for Mary."

b. John wacekiciciye

John 3SG→ 3SG+BEN+pray

"John$_i$ prays for him$_j$."

c. John waceic'iciye

John 3SG+REFL+pray

"John$_i$ prays for himself$_i$."

It is natural to analyze (8.11a) and (8.11b) parallel to Kinyarwanda (8.10a) and (8.10b) as involving the advancement of the benefactive to direct object position. But if we do this, we are faced with the inexplicable absence of the benefactive marker in (8.11c), where the reflexive appears. The alternative is to say that Lakhota is really like French, in that the bare reflexive can refer to a benefactive as well as a direct object. Then, rather than saying we have an advancement operating in (8.11a) and (8.11b), we would simply say that the presence of a benefactive NP is marked in the verb rather than by an adposition or case affix.

While the difference in behavior between the French and Lakhota reflexives on the one hand and the Kinyarwanda reflexive on the other hand is not in itself far-reaching, the analysis of the Kinyarwanda sentence (8.10c) furnishes an important lesson. Namely, saying that item 4 in (1.1) has to be the direct object (or: the direct object, indirect object, or benefactive) of the verb to be marked with the reflexive strategy does not mean that the reflexive cannot interact with other grammatical devices to indicate coreference between the subject and a more distant NP. Put the other way around, finding a reflexive marking a more far-reaching piece of coreference does not in itself invalidate (8.5). The force of (8.5) in such an eventuality would be to predict that the NP which was reflexivized was converted to a direct object (or indirect object or benefactive) before the rule of reflexivization applied by some independently existent grammatical process.

As an example, consider the following Kinyarwanda version of our SC test sentence:

(8.12) Yohaani yiibooñe inzoka iruhaande
Yohaani 3SG+PAST+REFL+see+ASP snake near
"Yohaani$_i$ saw a snake near him$_{i/*j}$."

The reflexive in the verb indicates coreference between the subject and the NP in the near phrase. This can be seen clearly by replacing it with an ordinary pronoun:

(8.13) Yohaani yamubooñe inzoka iruhaande
Yohaani 3SG+PAST+3SG+see+ASP snake near
"Yohaani$_i$ saw a snake near him$_{*i/j}$."

However, this is not a counterexample to (8.5). The reason is that Kinyarwanda has a rule (actually, a rich set of rules) productively converting various oblique NP's into direct objects. In this case, the rule is optional, so we can see its operation clearly in the following sentences:

(8.14) a. Yohaani yabcoñe inzoka iruhaande Bill
Yohaani 3SG+PAST+see+ASP snake near Bill
"Yohaani saw a snake near Bill."

b. Yohaani yabooñe Bill inzoka iruhaande
Yohaani 3SG+PAST+see+ASP Bill snake near
"Yohaani saw a snake near Bill."

(8.15) Yohaani yabooñe inzoka iruhaande rwe
Yohaani 3SG+PAST+see+ASP snake near 3SG
"Yohaani$_i$ saw a snake near him$_{i/j}$."

To (8.14a) the advancement rule may be optionally applied, converting it into (8.14b) in which Bill has become the direct object. Similarly, the advancement rule may be optionally applied to (8.15). But when this is done, the ambiguity in (8.15) will necessarily be resolved, since the NP in the near phrase will wind up as the direct object, making it subject to obligatory scrutiny by the rule of reflexivization. The two possible outcomes are (8.12) and (8.13), of course. Thus, it is not that the reflexive has extended itself to the oblique NP; it is the oblique NP which came in under the scope of the reflexive.

A second example of this is from Icelandic. While Icelandic has a pronominal reflexive, there is a verbal middle historically derived from the reflexive which still partakes of some reflexive-like syntax. Now consider:

(8.16) karl sagðist (vera) sjötugur
old-man+NOM say+PAST+MID be+INF seventy+NOM
"The old man$_i$ said he$_{i/*k}$ was seventy."

In (8.16) the middle serves to indicate coreference between the subject of "say" and the subject of the embedded clause. But again, this could only come about because of another grammatical device. Namely, the complements of verbs like segja "say", láta "let", telja "declare", etc. can optionally have its subject raised to be the direct object of the main clause, with the lower verb put in the infinitive. Thus,

(8.17) hann láet það gott heita

3MSG+NOM say+PAST this+ACC good be-considered+INF

"He said that this was all right."

When the upper and lower subjects are the same, a raised subject becomes a reflexive pronoun:[42]

(8.18) karl sagði sig (vera) sjötugan

old-man+NOM say+PAST REFL+ACC be+INF seventy+ACC

"The old man$_i$ said he$_{i/*k}$ was seventy."

Now, (8.18) represents one of the contexts in which the middle can still be used instead of the reflexive, hence (8.16). Note that syntactically, the coreference in (8.18) is between the subject and direct object of the same verb (sagði), so that it does not involve a violation of (8.5) for a verbal middle to represent it.

A slightly different example of something similar is provided by a Lakhota strategy we have not considered here. There is a reflexivoid process, usually called the "possessive", which marks a transitive verb with a morpheme to indicate that the possessor of the object is coreferent with the subject. An example:

(8.19) itowapi wapazo

picture 1SG+show

"I show a/the picture."

(8.20) itowapi wakpazo

Picture 1SG+POSS+show

"I show my picture."

Now, the following sentence illustrates the verb "know" with an embedded complement:

(8.21) Oakland ta mnin kta slolye

Oakland to 1SG+go FUT 3SG+know

"He knows I'm going to Oakland."

If the upper and lower subjects are the same, the sentence can be constructed parallel to (8.21), as in

(8.22) Oakland ta mnin kta slolwaye

Oakland to 1SG+go FUT 1SG+know

"I know I'm going to Oakland."

However, optionally, the main verb can in this case take the possessive to mark the coreference of the upper and lower subjects:

(8.23) Oakland ta mnin kta slolwakiye

Oakland to 1SG+go FUT 1SG+POSS+know

"I know I'm going to Oakland."

Here, rather than saying that the possessive interacts with a raising rule, we conclude that the complement clause is constructed as an NP with the subject its syntactic possessor. This is both reasonable with regard to the way complements are constructed in many languages, and consonant with other facts of Lakhota grammar, such as the virtual identity between the set of nominal determiners and the set of complementizers. Although the Lakhota possessive is not a primary reflexive, the fact that it marks in the verb a coreference relation between the subject and an NP which is necessarily a part of the direct object makes it a good example of how a formally restricted coreference strategy can end up marking a more distant piece of coreference than would be imagined from its basic definition.

The Kinyarwanda, Icelandic, and Lakhota examples just discussed may be regarded as slight evidence in favor of analyzing a verbal reflexive as coming from a rule like (1.1) with two coreferent NP's in the structural description, rather than as being inserted directly into an intransitive clause. For, if we say that even verbal reflexives start out operating on a pair of coreferent NP's, then any process which puts two NP's close together (i.e. as subject and direct object in the same clause) automatically feeds reflexivization when those NP's are coreferent. Of course, if the intransitive-clause solution were opted for, one could presumably describe an interpretive rule to handle these cases. I will not pursue the matter further here.

Notes to Chapter III

[1] In (2.6), ihn can marginally refer to Fritz. This possibility gets better when the NP-emphatic selbst is added:

(i) ich sprach mit Fritz über ihn selbst.

In general, an NP-emphatic is used to call attention to the fact that the intended referent of an NP, while perfectly grammatical, is not the one most expected in that position. Here, the acceptable but unlikely coreference of Fritz and ihn becomes more transparent when called attention to by selbst. NP-emphatics are a historical source for reflexives; see Chapter IV.

[2] See sentence (81) in Chapter II.

[3] By "less strictly ergative", I mean that, while absolutive NP is used, apparently out of necessity, as a syntactic category to describe various pieces of Dyirbal grammar in Dixon 1972 and of Greenlandic grammar in Woodbury 1975, it is claimed in Anderson 1976 that subject is the relevant syntactic category for Basque, and that its ergative case marking is superficial.

[4] The choice of the auxiliary "be" in (2.13) as opposed to "have" in (2.11) and (2.12) is an automatic consequence of intransitivity versus transitivity.

[5] A possible exception is Lisu; however, it is not clear that Lisu has a reflexive, so no problem arises. See Li and Thompson 1976 and Note 5 of Chapter II.

[6] Tagalog is a verb-initial language with relatively free order of NP's. We will discuss the effect of word order on the interpretation of Tagalog reflexives in Section III.6; a very brief account of the case marking system is also sketched there. See also Schachter 1976.

[7] The NP in parentheses in (2.20) is present or absent depending on whether an equi-analysis or a raising analysis is preferred. For our purposes it does not matter which is chosen.

[8] In (2.24) and (2.25), le is a redundant pronoun copy of the dative NP, required in these sentences. In (2.24), mismo is a secondary reflexive. It is non-SA (as will be seen in Section III.4), so that the unambiguity of (2.24) is entirely due to sí.

[9] See Section III.8.

[10] Cf. the discussion of Tswana (also a Bantu language) in Section II.10.

[11] Of course, by itself, such reasoning is circular. Its force here is to suggest the search for other evidence that the Hindi causative

construction is less transparent than the Japanese.

[12] Larry Hyman notes (personal communication) that "protect NP_i from NP_i" implies a meaning somewhat like "protect NP_i from (NP_i) harming NP_i". In this latter expression, the last occurrence of NP_i can be reflexivized normally, since it is coreferent with the (equied) subject of "harm". No such expanded expression can be found for "tell NP_i about NP_i". Perhaps, then, the possibility of "protect NP_i from himself", even with an SA reflexive, as against "*tell NP_i about himself", could somehow be explained on this basis. A problem for this idea is that "protect NP_i from NP_j", with noncoreferent NP's, would be related to "protect NP_i from NP_j harming NP_i", suggesting that the object NP of "from" in the original sentence is to be identified with the subject rather than the object of "harm" in the paraphrase.

[12a] For some languages, the issue of non-SC-ness is clouded by the fact that the kind of prepositional phrase our test sentence for SC-ness involves is constructed in such a way that the preposition is morphologically (and perhaps syntactically) a noun and its object NP is a genitive modifier of it. In Fula, for example, the suffix *-mum* on *sera* "near" in (4.13) is just a 3SG possessive which is routinely attached to nouns. Now, suppose one were to make the following claim: compound reflexives cannot appear as genitives, universally. Then, for any language whose prepositional phrases are constructed as genitive expressions, a compound reflexive would automatically be non-SC, due to its inability to be a genitive. Does this undercut the claim that a compound reflexive is inherently non-SC? Does it explain that claim? There are three reasons why we cannot relate the universal non-SC-ness of compound reflexives to the non-occurrence of compound reflexives as genitives.

Firstly, languages with "real" prepositional phrases (that is, where the prepositional phrases are not constructed genitivally) still show compound reflexives being non-SC. Examples: English, Tagalog (see (4.20), Irish (see (4.24)), *-même* in French (see (4.26)), *mismo* in Spanish (see (4.29)), etc. The non-SC-ness here cannot be explained on the basis of the non-occurrence of the reflexive as a genitive, since the reflexive would *not* be a genitive in the relevant test sentences.

Secondly, even when a language does construct prepositional phrases genitivally, it is sometimes possible for a reflexive to appear in them, for emphasis in an SC test sentence, and even normally in other cases. An example: Hebrew. In (4.15), we see the reflexive appearing in an "about" phrase with no difficulty, and in (4.17) it appears emphatically in an SC test sentence, even though both prepositional phrases are constructed genitivally. Note that the reflexive normally does not appear as a genitive on an ordinary noun:

(i) xanan saraf et { beyto — "Chanan burned down his house."
Chanan burn+PAST ACC { house+3MSGPOSS
{ *?beyt acmo — ("Chanan burned down his own house.")
{ house REFL+3MSG

And thirdly, the claim that compound reflexives cannot appear as genitives is not quite true. To be sure, this is true for English (_*himself's car_), Hebrew (see (i) above), Akan (see (7.16) and the discussion surrounding it in Section III.7), etc. But it is not true of Tagalog, since it is perfectly grammatical to say

(ii) dapat sampalin ni Juan ang kaniyang sariling asawa
should slap+GF+INF ACT Juan TOP 3SGPOSS REFL+LINK wife
"Juan should slap his own wife."

A somewhat different phenomenon is found in Turkish. To form a reflexive genitive, the ordinary possessive suffix is placed on the possessed noun, while the reflexive head _kendi_ precedes this combination

(iii) kendi aile- si
REFL family 3SGPOSS
"his own family"

It may be that generally compound reflexives do avoid being genitives and that Tagalog is simply exceptional. Note, by the way, that pronominal reflexives often can be used genitivally, or at least have possessive forms. Examples: Hindi (see Chapter II note 13, sentence (iv)), Swedish (see (4.33)), and Russian (see (2.36), (2.39), and (2.40)). It is also true for Wappo:

(iv) chic-i may' t'onuk' mewi'-uk cam'i'
bear NOM REFL tail catch INF try
"The bear is trying to catch his own tail."

But see also Note 24.

In this connection, we should note also that the Japanese reflexive _zibun_ appears freely as a genitive. In the light of what we have just seen, this may be taken as slight evidence that _zibun_ is a pronoun. See the discussion at the end of section III.5, especially sentences (5.40)-(5.42) and the ensuing commentary.

[13] See the discussion of Tagalog at the end of Section III.6.

[14] Recall from Section II.7 that the morphological status of Hindi _apnā_ as a pronoun or as a noun is unclear. The syntactic behavior illustrated in (4.35) and (4.36) show that _apnā_ is best regarded as a pronoun. The morphological pronounhood of the Wappo _may'_ illustrated below is also not obvious, to me at least; again, the syntax decides the issue. The Pima reflexive _ɨ_, illustrated after the Wappo, clearly _is_ a pronoun, by virtue of its clitic positioning.

[15] A situation similar to Old Norse is exhibited by Walbiri. The reflexive is marked by means of a clitic pronoun _njanu_ which, along with other pronominal clitics, is attached onto the auxiliary. The reflexive pronoun is used in all persons and numbers except first person singular; in addition, it is not used in (second person) singular imperatives. In these two cases, the ordinary nonreflexive object pronoun is used instead. See Hale 1973.

[16] In the dialect of my informant, the suffixation of zelf is inexplicably banned in the first person plural:

(i) we hebben ons/*onszelf gezien.
"We have seen ourselves."

This is an idiosyncratic fact which has no bearing on the present discussion.

[17] Other illustrations of zich without zelf are

(ii) Jan trok een wagen achter zich aan.
"Jan pulled a wagon behind him."

(iii) Jan heeft het boek van zich weggeduwd.
"Jan pushed the book away from him."

(iv) Jan heeft het boek naar zich toe getrokken.
"Jan pulled the book towards him."

Cf. (3.15) and (3.16) in Section III.3. The form zichzelf is somewhat odd in (iv), and rather worse in the other two. The zelf strategy in Dutch is thus a bit more non-SC than the reflexive in my dialect of English, which permits himself as an alternate in the English equivalents of (iii) and (iv). But it should be kept in mind that there is variation even among English speakers, and, most likely, among Dutch speakers as well. This is another illustration that non-SC-ness is not exactly comparable cross-linguistically. See also (3.10) and (3.11) and the discussion at the end of Section III.3.

[18] Demotion of the object to the allative case seems to be the fate of a reflexive object only. See Woodbury 1975.

[19] The primary reflexive can actually not be used here; see (2.43) and the discussion in Section III.2 of exceptions to the SA condition controlled by verbs like "protect".

Sentence (4.80) is an excellent illustration of the basic function of an NP-emphatic. Namely, we have two NP's, both appearing on the surface as la sociedad. Now, ordinarily, when two identical full NP's appear in the same sentence, there is some confusion concerning their reference. If they are coreferent, one of the NP's would have been expected to be pronominalized. If they are noncoreferent, a special marker, such as one equivalent to English other, would be expected in one of the NP's. When neither of these processes are in evidence, the interpretation of the sentence is unclear. Putting the NP-emphatic in allows the acceptable but otherwise unclear coreference to be understood as the intended one.

[20] It is most likely that hɨǰɨl and ɨ are part of the same NP in (4.82) even though separated by the auxiliary o. This kind of scattering of the elements of an NP is common in Pima-Papago. Another instance of this can be seen in (4.40), where the indefinite article hɨɨma is separated from the rest of its NP, namely hɨg vaamad "snake", by the main verb. The principles governing this kind of positioning are unknown to me.

[21] Leaving the Turkish case unresolved is especially prudent due to the fact that there is idiolect variation, especially with respect to the difference in usage between kendini and kendisini.

[22] An interesting question is, if the reference of ordinary pronouns in sentences like (5.26) becomes grammaticized into coreference with the subject, will a language develop a strategy for coding "John$_i$ saw a snake near him$_j$", and, if so, what would such an antireflexive look like? While I cannot support it here, there is some evidence that demonstratives can serve such a purpose. Consider the use of a genetive demonstrative in German instead of a possessive pronoun to refer to a nonsubject:

(i) Gitta$_i$ sprach viel von ihrer$_i$ Schwester$_j$ und deren$_j$
Gitta spoke much of her sister and the-one+GEN

Schicksal
fate

"Gita spoke much of her sister and her fate."

(see Edmondson 1973). Note also the preferred noncoreferent reading of the Japanese sentence (5.41), which contains the relatively heavy overt pronoun in the locative phrase (see the discussion of Japanese below).

[23] But sí is preferred in a sentence like

(i) Juan acercó más hacia { sí el libro
Juan move-near+PAST more towards { REFL the book
??el
3MSG }

"Juan$_i$ drew the book towards him$_i$."

This is another instance of the inexact crosslinguistic correspondence of non-SC-ness. In fact, the inexactness of non-SC-ness is illustrated right inside of Spanish: mismo does not appear in (i), except contrastively. Possibly, the retention of sí in (i) is due to contamination by the required use of the reflexive in the following alternate coding of "Juan$_i$ drew the book towards him$_i$" in which the locational goal shows up as a benefactive, hence, as a verbal clitic:

(ii) Juan se acercó más el libro
Juan REFL move-near+PAST more the book

[24] An apparent counterexample would be provided by the fact that Dutch borrowed the zich strategy from High German. Thus, before Dutch acquired zich, there would be no SC-ness in the language, whereas afterwards there would be. Of course, the SC-ness just came in with zich. The strategy itself did not acquire it; it was SC all along.

Another, perhaps more real counterexample, is the loss of reflexiveness by the possessive versions of the Indo-European pronoun *s(w)- in Romance languages and in West Germanic, this entailing a loss of SA-ness. Thus, German sein, French son, Spanish su, etc. are simple possessives ("his", etc.) with no reflexive content. In general, when a reflexive is part of an NP, it seems to become susceptible to a weakening of the syntactic conditions governing it. For example, English reflexives normally obey the Clause-Mate condition (see Section IV.6); but this can be violated when the reflexive is embedded inside a "picture-noun" NP:

(i) The generalissimo$_i$ was upset when a statue of himself$_i$
fell over in the town square.

The suggestion here is that this, as well as the loss of SA-ness (and of reflexiveness in general) of the possessive erstwhile reflexive in Western Europe, may both be the result of the same kind of process that affects NP-embedded reflexives. However, I do not know what that process is.

[25] Etymologically and/or lexically, *zibun* is analyzably divisible into a specifically reflexive morpheme *zi-* and a suffix *-bun* vaguely meaning "part". The NP emphatics *zisin* and *zitai* also exhibit the reflexive *zi-*, as does the literary reflexive *ziko*, words like *zisatu* "suicide", etc. But, of course, the lexical compoundness of *zibun* is not what makes a compound reflexive compound. What we would want to see is a *pronominal* element compounded productively with the reflexive morpheme.

[26] The syllable *-bun* counts as long (i.e. two moras) in Japanese phonology because it ends in a nasal.

[27] One can formally define "in the same clause" by making reference to S-nodes in the tree; see e.g. Wall 1972, and also Postal 1971. Of course, this just throws the burden of defining clauses onto the part of the grammar which constructs trees. In fact, some problems do arise with the concept "clause", which we will see shortly.

[28] Turkish *kendisi* is thus a counterexample to the suggested universal in Wali 1975 to the effect that a non-CM reflexive is necessarily SA. If, however, what I am suggesting in this section is true, namely, that *as a rule* a non-CM reflexive is pronominal, then, putting this together with the basic typology, we can conclude that Wali's universal is generally true.

[29] Similarly, CM violations can be found in Middle High German:

(i) ir gast si$_i$ sich$_i$ kussen bat
her guest+PL 3FSG REFL kiss+INF ask+PAST
"She$_i$ asked her guests to kiss her$_i$."

(Parzival, 23, 30, via Edmondson 1973).

[30] The Hindi pronominal reflexive seems to be at a similar stage as the Russian one. Thus,

(i) *Prakāš nē pūčhā ki apnā bhāī kab āēgā
Prakash ERG ask+PAST COMP REFL+POSS brother when come+FUT
"Prakash$_i$ asked when his$_i$ brother would come."

and

(ii) *Sītā nē kahā ki apnē kō bhūkh lagī hɛ
Sita ERG say+PAST COMP REFL ACC/DAT hunger attach+PRESPF
"Sita$_i$ said that she$_i$ is hungry."

are ungrammatical because the reflexive in the lower clause does not have an NP in its own clause to refer to. Note that the subordinate clauses above contain finite verbs. This should be compared with the ambiguous reflexive in

(iii) Sītā$_i$ nē Rādhā$_j$ kō apnī$_{i/j}$ bahan kē sāth khēlnē
Sita ERG Radha ACC/DAT REFL+POSS sister with play+INF
kē liyē kahā
COMP say+PAST
"Sita$_i$ asked Radha$_j$ to play with her$_{i/j}$ sister."

The reflexive can be coreferent with the subject of the lower infinitival clause (Radha) or with the subject of the main clause (Sita). The infinitive clause is considered sufficiently low in clausiness for NP's in it to be regarded as also being in the upper clause. The same is true of those relative clauses formed by putting the verb into a participial form:

(iv) Ram$_i$ apnē$_i$ dōst ki bhējī huī kitābē̃ paṛh rahā hɛ
Ram REFL+PASS friend GEN send+PART book+PL read+PRES+PROG
"Ram$_i$ is reading the books his$_i$ friend sent."

[31] It might seem that we could predict that if (6.19) is ever disambiguated by a historical change in grammatical conditions, that the reflexive would end up unambiguously referring to the NP in the lower clause. This is not true. The reason is that there is another historical process applicable to (6.19) which could interfere, namely, the fusion of a lower verb with a higher causative verb into a single word (verb plus causative morpheme) with the concomitant fusing of the entire sentence into a single clause. If this happened, the embedded clause could lose all clausiness, entailing the loss of subjecthood of what is now the embedded subject, and causing the reflexive to unambiguously refer to the upper subject because of the SA condition. Just this happened in Hindi. Thus, the reflexive in

(i) rājā nē sīpāhī se apnē kō gōlī marvaī
king ERG soldier ABL REFL ACC/DAT bullet strike+CASUE+PAST
"The king$_i$ made the soldier$_j$ shoot him$_{i/}$*himself$_j$."

unambiguously refers to the king.

[32] Focussing devices such as contrastive stress or clefting can often yield violations (or apparent violation, depending on the analysis) of conditions on reflexives. Thus, we have seen that the English reflexive obeys the CM and CH (case hierarchy) conditions. We will shortly see that it also obeys a precedence condition: a reflexive must be preceded by its antecedent, and a command condition: a reflexive must be commanded by its antecedent. However, the sentence

(i) It was himself$_i$ that John$_i$ was killed by

violates all four of these, at least on the surface. This can also happen in other languages. Thus, we saw that the Tagalog reflexive is CM. However, it is possible to cleave a reflexive:

(ii) ang kaniyang sarili ang nabaril ni Juan
TOP 3SGPOSS REFL TOP shoot+GF+PAST AGT Juan
"It was himself that Juan shot."

On the surface, at least, we might say that the reflexive and its antecedent are in different clauses in (ii).

Are violations of this type generally possible? I do not know. A guess: compound reflexives can exhibit such violations, pronominal ones cannot.

[33] The CH condition really only applies to NP's in the same clause. As far as I can tell, freely non-CM reflexives are never constrained by case roles when the reflexive is in a lower clause from its antecedent.

[34] Alternatively, *suum sibi* in (6.33) may be a fixed expression (the combination occurs often; see also sentence (6.40)) which has lost its reflexiveness (as has the possessive *suum*, to all intents and purposes, even in ancient times).

[35] Another analysis (Schachter 1974) would have the subject be the NP *John* itself. Clearly that analysis goes through exactly the same as the one given.

[36] However, we have not checked whether the CM condition applies to the *nẽ/nõ* strategy of marking reflexives.

[37] In addition, if *kyerɛɛ* is a verb, *Bill* does not command the reflexive NP, making coreference even less likely.

[38] The careful reader will have noticed that this argument depends on the reflexive strategy in question having already been in use before serializing verbs were bleached to become prepositions. But, of course, this just means that if we found a serializing language with a non-SA reflexive, we would conclude that the reflexive had arisen more recently than bleached serialization.

[39] The form *laa* is a semantically empty support for the pronouns, which are clitics. As subjects, pronouns cliticize onto the verb; otherwise, *laa* provides something for them to cliticize onto.

[40] Note that we cannot invoke the CH condition to explain why the antecedent of the reflexive in (8.3) is the subject rather than *Bill*; for *Bill* is a dative, hence appropriately higher on the hierarchy than the deleted reflexive NP, a patient.

[41] Of course, the antecedent may have been removed by equi or raising; but this does not affect the CM-ness of the strategy, nor the

possibility of identifying the verb. See sentence (2.26), and the surrounding discussion in Section IV.2 above.

[42] The fact that the word meaning "seventy years old" is in the accusative case in (8.18) but in the nominative in (8.16) merely reflects the fact that its argument in (8.18) can be identified as an accusative NP, namely sig, whereas, since the corresponding NP in (8.16) was deleted by the verbal strategy, the case-marking rule has to hop up to the subject karl, which is in the nominative, to find an argument to agree with in case.

CHAPTER IV

How Reflexives Change

It is pointed out in Greenberg 1975 that any typology automatically presents the challenge to discover the possible ways that the synchronic types can change into one another. We have seen in Chapter III that, neglecting exceptions, reflexives fall into three types. In this chapter we will attempt to confront the challenge posed by this typology and describe the possible historical changes among reflexive strategies.

Let us begin by noting that the kind of historical questions one wants to ask about a typology depends on what is being typologized. To see this, it is instructive to compare the reflexive typology with the typology of number marking presented and analyzed historically in Greenberg 1975. It is claimed there that there are three systems of number marking which can appear as part of the NP in any language. One type would be the absence of number marking entirely. Let us denote this type by M for Mandarin, a language of such a type. A second type of number marking distinguishes the categories of singular and plural in the NP; this type will be called E, for English. The third type distinguishes three categories in the NP: singular, dual, and plural; it will be denoted S, for Sanskrit.

Now, we are faced with the question: which types of number-marking system can change historically into which other types of number-marking system? The answer, if known, can be given by drawing a graph, representing the types by means of the nodes of the graph, and representing the possible changes by arrows from one node to another.

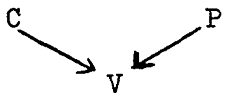
Greenberg calls this a state-process model. The graph asserted to be the correct one for the number-marking typology is:

(1) $M \rightleftarrows E \rightleftarrows S$

Thus, it is claimed that, for example, a language which has no number marking in its NP's can change into a language marking a singular/plural distinction, but not directly into a language marking the three-way division of singular/dual/plural.

Exactly the same kind of thing might be attempted for reflexives. Recall that the fundamental typology given in Section III.4 claims that, neglecting certain exceptional cases, reflexive strategies come in three types: compound, pronominal, and verbal, to be denoted henceforth C, P, and V respectively. As in the case of number-marking systems, we could ask which historical changes can occur among these reflexive types. The answer could be stated in the form of a state-process diagram, say

(2)



for example.

There is, however, an important difference between our reflexive typology and the number typology discussed in Greenberg 1975. The number typology classifies the ways in which a language can choose number categories to be marked in the NP. It is thus a classification of functions to be carried out by the grammar, but not a classification of the strategies to carry them out. In contrast, the reflexive typology classifies strategies all having the same or approximately the same function. Indeed, the discussion in Chapter I of how to define what constitutes a reflexive strategy centered around the idea of using subject-object coreference as a starting point in order to insure that only strategies of roughly comparable function would be included as reflexives. This being the case, we see that (2) must be understood as diagramming possible ways that one kind of strategy can turn into another kind of strategy. It does not diagram the way languages can change. For example, according to (2), a pronominal reflexive strategy cannot be transformed through time into a compound reflexive. However, this does not mean that it is impossible for a language with a pronominal reflexive to evolve into a language with a compound strategy. Indeed, English appears to be a case of just this change. For, the primary reflexive in Proto-Germanic was undoubtedly carried by a pronoun which was the ancestor of German sich, Old Norse sik, and Gothic sik, call it *sik. Somehow, as one dialect of Proto-Germanic evolved into English, this pronominal reflexive was lost, to be replaced by the compound strategy found in the modern language. It therefore appears that the language underwent a change from type P to type C, a change which would be forbidden by (2) if (2) were interpreted as applying to languages. However, interpreting (2) as referring to strategies, English is not a counterexample; for it is surely the case that Proto-Germanic *sik did not evolve into the modern English compound strategy. Rather, it merely disappeared, and the forms in self arose from a different source.

This English example illustrates a difficulty that is ever present in historical work, namely, the matter of identity through time. How do we know that himself is not a continuation of *sik, that is, that himself and *sik are not historically variant manifestations of one and the same strategy? This question is further highlighted when we compare *himself* with the Old English NP-emphatic strategy which consisted of placing the word *self* or *sylf* after an NP, e.g.

(3) ic me selfne claensie
1SGNOM 1SGACC EMPH purify+PRES
"I purify *myself*."

(4) ac wundorlice swydhe geeadmedde Crist hine sylfne
but wonderfully much humble+PAST Christ 3MSG+ACC EMPH
"...but greatly did Christ humble *himself*..."

These sentences also illustrate that *self* or *sylf* took inflectional endings; they are, in fact, the so-called strong adjectival endings, coding gender, number, and case in agreement with the NP to which the word was added. We obviously *do* want to say that, despite the fact that Old English *self* was a separate word taking adjectival endings whereas modern -*self* is a bound form manifesting only the singular/plural distinction, and despite the fact that modern English -*self* and Old English *self* differ in function, the two are just different stages of the *same* strategy. The criteria for deciding this are really just the phonological and morphological criteria which lead us to say that the modern morph *self* is a descendant of the Old English morph *self*/*sylf*. Thus, regular phonological changes (in this case, none) lead from the old to the new form, and the loss of adjectival endings is a general fact of English grammar, so their loss on *self* is automatic. On the other hand, *(him)self* can in no way be shown, by phonological correspondences, to be a descendant of **sik*.

It is important to note that syntactic behavior by and large can *not* be used to decide whether two stages of a language exhibit distinct strategies or whether they exhibit two stages of the same strategy.

This is simply because the syntax of a strategy can change. For example, a non-SA compound strategy might turn into an SA verbal strategy. Similarly, we could not claim that *self* is not a descendant of **sik* on the basis of the fact that **sik* was (in all probability) used in the third person only whereas *self* is used in all persons. Such a feature is subject to change; in fact, there *is* a pronominal reflexive descendant of **sik* which is used in all persons, namely Yiddish *zix*. Again, the compounding of *self* with the pronoun that precedes it, and the shift of that pronoun from objective to genitive case in the first and second persons, are likewise not to be regarded as evidence that an earlier strategy was replaced by a distinct one.

Of course, this warning against the use of syntax to determine historical relationships applies only in the absence of an understanding of syntactic change. Once it is discovered that, as suspected, syntax does not change in randomly varied ways, but along certain lines only, then it becomes possible to interpret pieces of syntactic evidence in particular cases as signs of some particular historical development.

The history of the English reflexives in -*self* points out another important difference between the way (1) describes the possible history of number-marking systems and the way (2) might describe the possible history of reflexive strategies. Namely, assuming that it is true that number-marking must take one of the three forms described, and assuming that the historical changes diagrammed are the correct ones, (1) is *necessarily* a complete picture. If a historical change affects the number-marking system of a language, the outcome must still be one of the three types, and the change must be diagrammable on (1). Thus, (1) describes a closed system.

However, (2) is not complete; in fact, I claim that (2) cannot be complete as drawn. For, it is based on a typology of those strategies which have been chosen by virtue of their shared reflexive function. But a strategy may change function. A reflexive strategy may stop being a reflexive, as did the unstressed form of the reflexive pronoun in Proto-Slavic when it became the Russian middle suffix -_sja_. Conversely, a nonreflexive strategy may become reflexive, as did the Old English NP-emphatic _self_ when it became the Modern English reflexive. What is missing from (2) is an indication of where strategies enter and leave the diagram, where they come from, and where they go.

It should be noted that this is not a trivial matter, but an empirical one, with a number of different possible answers that cannot be a priori guessed among. For example, can a reflexive strategy of any of the three types change function and become nonreflexive? Does the new function of an ex-reflexive depend on what type of a reflexive it was? If reflexives arose because nonreflexive strategies changed function, what kind of earlier functions were there? Is there any correlation between these earlier functions and the kind of reflexive strategy they turned into? A complete picture of the historical development of reflexives depends on the answers to questions like these.

The most reliable way to proceed to answer such questions, as well as the questions which the more restricted diagram in (2) attempts to answer, would be to unearth the actual history of many reflexive strategies, either by the examination of texts and inscriptions from various periods where available, or else by the traditional methods of historical linguistics, namely the comparative method and internal reconstruction, and then see what generalizations can be made about what actually happened. In practice, this procedure is quite difficult, due to the scarcity of documentation from earlier periods, the difficulty of making syntactic and semantic judgments about a dead language, and the additional fact that it is not at all clear yet how comparative and internal reconstruction is to be carried out in the domain of syntax. Indeed, what we are going to do here may be thought of as a contribution towards clarifying the way comparative and internal syntactic evidence may be interpreted historically. Our procedure will be to fit what we do know of reflexive history together with our intuitions of what kinds of historical change in general are likely to happen, and make guesses as to what the general lines of the historical development of reflexives are.

We begin by going back to the diagram in (2) and asking if what is indicated there is correct as far as it goes. Since there are three reflexive types, there are six conceivable ways one reflexive type can change into another. The claim made in (2) is that two such changes are really possible, these being a compound reflexive becoming verbal and a pronominal reflexive becoming verbal. The remaining four changes are claimed not to occur. We will now examine each of the six changes in turn, and describe what would have to happen in order for the change to be effected. The reasonableness or unreasonableness of each change will be discussed with reference to general notions of syntactic change current in the recent literature, as well as the specific points concerning the acquisition and loss of syntactic conditions discussed in

Section III.5 above. In the case of the two changes claimed possible, evidence will be presented that changes of those types have actually occurred.

We begin with the case of a pronominal reflexive changing into a verbal reflexive. In order for this to take place, a pronominal strategy has to be altered in two key ways: (i) the reflexive pronoun must lose the ability to occur in oblique NP's; and (ii) the reflexive pronoun must lose the status of an independent word and attach itself to the verb. Both of these are possible changes. Indeed, for a pronoun to become a clitic or an affix is one type of change frequently alluded to in the literature not only as possible, but as a reliable enough event to provide a key step in arguing that the morphology of a given stage of a language may be used to uncover facts about the syntax of an earlier stage. This position is developed in Givón 1971, which, along with Givón 1976, may be consulted for a discussion as well as for numerous examples of pronouns (and other grammatical function words) becoming affixes. The loss of reflexives from oblique NP's seems less natural, and, indeed, a little mysterious.[1] I do not have an explanation of its mechanism; nevertheless, it has occurred in a number of documentable cases. We conclude that the change from a pronominal to a verbal reflexive is a possible event.

But did this change ever actually occur? The closest thing to a complete documentation of the process is the transformation of the Latin reflexive pronoun se into what is effectively a verbal strategy in French. As far as I can tell, the Latin reflexive was a typical pronominal strategy. It appears to have been SA, insofar as all the cases of a nonsubject antecedent known to me fall into the various classes of "typical" exceptions discussed in Section III.2. As an example, a sentence like

(5) ei$_i$ erat hospes par sui$_i$
3SG+DAT be+IMPF guest+NOM equal REFL+DAT
"He$_i$ had a guest equal to him$_i$."

in which the reflexive is coreferent with a dative rather than a nominative NP may be compared with the Russian sentence (2.36) given in that section.[2] That Latin *se* was probably SC is suggested by sentences like the following one from Cicero:

(6) quam multos scriptores rerum suarum magnus
how many writor+PL+ACC achievement+PL+GEN 3POSS great
ille Alexander secum habuisse dicitur
DEM Alexander+NOm REFL+with have+PAST+INF say+PRES+PASS
"How many chroniclers of his achievements is Alexander$_i$ the Great said to have had with him$_i$!"

Note that the English equivalent is best without a reflexive, the English strategy being non-SC, of course.[3] Finally, the Latin reflexive was non-CM, as we saw in Section III.6; see (6.12) and (6.13) there. While pronominal reflexives are not always non-CM, they often are. At any rate, a verbal reflexive certainly cannot be non-CM, so that (6.12) and (6.13) in Section III.6 are pieces of clear evidence that the Latin reflexive is not verbal.

If we now examine the occurrence of reflexives at various stages of French, the following processes are seen to have taken place. Firstly, *se* splits into two forms, which I will refer to as *se* and *soi*, using their modern spelling. The form *se* is unstressed, and is restricted, as far as I can tell, to being the object of a verb. It must either immediately precede the verb of which it is the object, or else it precedes its verb but is separated from it by some other unstressed clitic pronoun. These restrictions on the occurrence of unstressed se seem to have been in force as soon as the split between se and soi occurred, and they remain in force in modern French.

The form soi is stressed. It may follow a preposition as its object. It may also be used as an alternative to se, in which usage it may precede or follow the verb of which it is the object:

(7) uns sarrazins...met sei en piez
a Saracen put+PRES REFL in foot+PL
"A Saracen stands up."

(8) ki home traïst sei ocit e altrui
any man traitorous REFL kill+PRES and others
"A traitor destroys himself and others."

Unlike se, whose usage remained constant up to the present, soi gradually came to be more and more restricted in its occurrence. Even in the oldest periods it could be replaced by an ordinary nonreflexive pronoun, either as (stressed) object of a verb:

(9) mais lui meïsme ne volt metre en ubli
but 3MSG REFL(?) NEG want+PRES+3SG put+INF in forgetfulness
"But he's not forgetful of himself."

or as the object of a preposition:

(10) Guillelmes$_i$ guarde devant lui$_i$ el chemin
Guillelmes look-at+PRES in-front-of 3MSG the road
"Guillelmes is looking in front of him at the road."

By perhaps the fifteenth century it became impossible to use stressed pronouns of any sort as objects of the verb; thus, *se* was left as the only possible reflexive marking in that position. As the object of a preposition, after a period of fluctuations, *soi* gradually settled into the modern restricted usage: it requires its antecedent to be unspecified, as in

(11) il ne faut pas parler de soi
DUM NEG be-necessary+PRES NEG speak+INF about REFL
"One mustn't talk about oneself."

A similar development appears to be going on in Spanish. As in French, Latin *se* has given rise to two forms, unstressed *se* and stressed *sí*, and as in later French, *se* is restricted to being a verbal clitic while *sí* is restricted to prepositional phrases. However, *sí* is not as restricted in its usage as *soi*; it can occur with an ordinary, referential antecedent, as in our old standby:

(12) Pablo le habló a María de sí mismo
Pablo 3SG+DAT talk+PAST to Maria about REFL_1 REFL_2
"Pablo talked to Maria about himself."

Nevertheless, most, if not all, occurrences of *sí* can be replaced with ordinary nonreflexive pronouns, with varying degrees of acceptability. The situation is thus reminiscent of French of around the fifteenth or sixteenth century. We may guess that *sí* may in time become restricted in usage just as *soi* has, with the result that Spanish will emerge with an effectively verbal reflexive.

It will be seen that a crucial mechanism operating in the change from pronominal reflexive to verbal reflexive in these examples is the split between stressed and unstressed pronouns, with the latter cliticizing onto the verb. Although this process is extremely widespread, it does not necessarily lead to a reflexive pronoun's becoming a verbal reflexive. Anticipating our discussion below concerning reflexive strategies changing into middles, we may say that after personal pronouns in Proto-Slavic split into stressed and unstressed-clitic pairs, the unstressed reflexive pronoun-clitic developed into a middle in Russian, whereas the stressed reflexive remained as an ordinary pronominal strategy.[4] A completely parallel development also occurred in Scandinavian. The situation is thus the reverse of French and Spanish, where the stressed reflexive pronoun disappears leaving the verbal clitic as the only manifestation of reflexivization. Therefore, given the case of a reflexive pronoun having a stressed and an unstressed form, there are (at least) two possible lines of evolution, only one of which results in a pronominal reflexive becoming verbal. It would be interesting to know what factors determine which of these lines are followed. Unfortunately, I am not in a position to discuss this at this time.

There are what I believe to be other cases of pronominal reflexives becoming verbal, but it is best to defer discussing them until we consider the other possible change in which an NP-reflexive becomes verbal. Let us therefore turn and examine this change, the change in which a compound reflexive becomes verbal.

It will be seen that a compound reflexive NP must undergo the same changes that a reflexive pronoun must when it becomes verbal, namely: (i) the compound reflexive must lose the ability to occur in oblique NP's; and (ii) the compound reflexive must cease being an independent word and instead become attached to the verb. We may compare these processes as undergone by a compound reflexive with the corresponding processes as undergone by a reflexive pronoun. On the one hand, since, by our Basic Typology of Section III.4, a compound reflexive is non-SC, that is, since it already does not appear in all oblique NP positions, it would seem to be easier for a compound reflexive to disappear entirely from oblique NP's than for a reflexive pronoun, which *is* SC, to do so. On the other hand, we would expect that a compound form is less likely to become a verbal clitic or affix than a pronoun is. A personal pronoun is often unstressed, and for a small unstressed word to become a clitic or affix is a natural development. But it is harder to imagine a massive compound form becoming unstressed and cliticizing or affixing onto another word. Still, the existence of noun incorporation in many languages is proof that verbs can digest items more massive than pronouns, so the affixation of a reflexive noun stem or adjunct to a verb must be regarded as a possible development. Putting these two lines of reasoning together, we cannot tell a priori if compound reflexives are more likely or less likely than pronominal reflexives to become verbal. However, it does at least seem reasonable that some compound reflexives might go verbal.

To illustrate that this change can also be documented to have actually occurred we take a look at Mojave. Conservative speakers of this SOV language use a compound reflexive based on the noun stem *(i)mat* meaning "body":

(13) ?- imat ?- tukañs-k
1SG REFL 1SG weigh PRES/PAST
"I weighed myself."

(14) m- imat m- tukañs-k
2SG REFL 2SG weigh PRES/PAST
"You weighed yourself."

But more commonly, the reflexive is marked by the invariant word *mat* placed immediately in front of the verb:

(15) mat ʔ- tukañs-k
REFL 1SG weight PRES/PAST
"I weighed myself."

(16) mat m- tukañs-k
REFL 2SG weigh PRES/PAST
"You weighed yourself."

It can be shown that this *mat* is not an NP. For example, we see in

(17) John-č Mary ʔič ãni: ču:ʔe:-k
John NOM Mary UNSPEC-OBJ hunt teach PRES/PAST
"John taught Mary to hunt."

and in

(18) John-č ʔiñep ʔič añi: ñ- ču:ʔe:-k
John NOM 1SG+ACC UNSPEC-OBJ hunt 1SG teach PRES/PAST
"John taught me to hunt."

that the object of the verb "teach" appears in front of the embedded lower verb. It does not matter whether the object is a full NP as in (17) or a pronoun as in (18). However, to translate "John teaches himself to hunt", the reflexive particle *mat* is placed immediately in front of the verb whose object is coreferent with its subject, that is, immediately in front of "teach", and hence to the right of the embedded verb:

(19) John-č ?ič añi: mat ču:?e:-k

John NOM UNSPEC-OBJ hunt REFL teach PRES/PAST

"John taught himself to hunt."

If mat were an NP object rather than a verbal particle, we would expect it to precede the embedded verb along the lines of (17) and (18). Thus we conclude that the noun stem formerly used in Mojave to construct reflexive NP's around has become a verbal clitic.[5]

Another example of a verbal reflexive derived from a compound is provided by the dialect of Abkhaz described by Lomtatidze (see Anderson 1976). If I understand the situation correctly, the reflexive is marked by incorporating into the verb a noun stem -č- together with a possessive prefix. Thus, in

(20) l- čə- l- š- wa- yt'

3FSG REFL 3FSG kill ACTIVE PRES

"She kills herself."

and in

(21) s- čə- s- š- wa- yt'

1SG REFL 1SG kill ACTIVE PRES

"I kill myself."

the first element in the verb complex is a possessive pronoun attached to the reflexive; the item following the reflexive is the subject pronoun. The possessive prefix, which enters the verb along with the reflexive morpheme, betrays the compound origin of the strategy. Interestingly, another dialect of Abkhaz (that described by Dumezil) uses an unabashedly compound reflexive based on the noun stem meaning "head":

(22) l- xe y- l- ba- yt'

3FSG REFL 3NSG 3FSG see PRES

"She sees herself."

(23) s- xe y- z- ba- yt'

1SG REFL 3NSG 1SG see PRES

"I see myself."

I do not know if there is an etymological connection between xe in (22) and (23) and -c- in (20) and (21). Even if there is not, the presence of a compound reflexive in one dialect of Abkhaz makes it more likely that another dialect might have once used the same kind of formation, although based on a different noun stem. It should be further noted that, according to Anderson, the incorporation of full NP objects into the verb complex is commonly found in the Northwest Caucasian languages (of which Abkhaz is one). Thus, for a compound reflexive NP to become part of the verb is reasonably natural.

The two kinds of historical changes we have just discussed, namely, a pronominal reflexive becoming verbal and a compound reflexive becoming verbal, both provide historical sources for verbal reflexives. Detouring momentarily from our consideration of the diagram in (2), we may ask if there are any other sources for verbal reflexives. According to my present knowledge, the answer is no; that is, I know of no case of a verbal reflexive which is demonstrably derived historically from a source other than an NP-reflexive.[6] Of course, there are many cases of verbal reflexives whose antecedent history is shrouded in mystery. But rather than postulating one or several unknown types of sources for these, it is simplest to guess that they too had been NP-reflexives at an earlier stage and that they became verbal by the same processes which operated in French, Spanish, Mojave, and Abkhaz. But if this is so, we are led to the further question: given a verbal reflexive, is there any way to tell from its synchronic form whether it originated as a pronominal reflexive or as a compound reflexive?

It seems clear that there could be no syntactic features that could help us here. The syntactic differences between compound and pronominal strategies involve possibilities not open to verbal reflexives, such as occurrence in oblique NP's or nonsubject antecedence. Therefore, these differences are wiped out when an NP-strategy becomes verbal.

One morphological characteristic which would provide evidence for the previous history of a verbal reflexive is the interaction with person. Compound reflexives are always marked for all persons, whereas some pronominal reflexives are not. Therefore, if we encounter a verbal reflexive marked, say, in the third person only, we will conclude that that strategy used to be pronominal. The verbal strategy in French and the verbal-strategy-to-be in Spanish would be examples of the applicability of this kind of reasoning were it not for the fact that we already know the history of those strategies by more direct means. Similarly, the fact that the verbal middle in Old Icelandic derived from a pronominal reflexive is clear from the fact that the strategy consisted of suffixing -*sk* in all cases except first person singular, which was marked with a different suffix, namely -*mk*. Of course, the synchronic reflexive pronoun *sik* (and the first person singular accusative pronoun *mik*) already give away the origin of these suffixes.

In order for this argument to be valid, it is necessary to assume that a compound reflexive marked in all persons cannot somehow come to be restricted only to certain persons as time passes. To my knowledge this is true. However, in addition to the absence of actual cases of such a thing happening, and, as a partial explanation of that absence, let us note the following argument. A verbal reflexive may be regarded as serving to modify a verb stem in such a way that a transitive verb is converted into an intransitive verb. If a morpheme used in all persons to form a reflexive NP is moved into the verb complex, it can easily be interpreted as such a modifying element. For the morpheme to be dropped in some persons could only reinforce its NP status, since person is a nominal category. But we are assuming that the morpheme is *losing* its nominal status. Thus, the morpheme will continue to be used in all persons as it becomes a verbal element.

This line of reasoning can be applied to reflexive pronouns as well as to the reflexive morphemes in compound strategies. In fact, not only would we conclude that a reflexive pronoun used in all persons is likely to continue being used in all persons as it becomes a verbal element, we would predict that a reflexive pronoun restricted to certain persons might lose those restrictions and become extended to all persons as it lost its NP-hood and became a verbal element. Of course, this has not happened in French or Spanish, at least not yet. But it has happened in Scandinavian: the Proto-Germanic reflexive pronoun **sik* was used in the third person only, whereas the middle suffix derived from it, -*s*, is used in all persons.

These notions have bearing on the history of the Indo-European reflexive. It seems clear that the reflexive pronouns found in, say, Germanic, Latin, and Slavic, namely **sik*, *se*, and *sebě*, are all cognate descendents of some morpheme of Proto-Indo-European age, which we will denote **s(w)-*.[7] Now, in Germanic and in Latin, this element is used in the third person only, whereas in Slavic it is used in all persons. The question then is, was **s(w)-* used only in the third person, to be extended to all persons in Slavic, or was it used in all persons, to be restricted to the third person in Germanic and Latin?

The standard handbooks (e.g. Meillet 1964, Brugmann 1911, etc.) uniformly claim the second of the above two possibilities. One reason for this, no doubt, was that the language families which exhibit the reflexive in all persons include, besides Slavic, Baltic, and Indo-Iranian, both thought to be particularly archaic, and hence more reliably indicative of the Proto-Indo-European scene. In addition, Meillet adduces the appearance of **s(w)-* as an element of various lexical items whose meaning he claims involves the notion "particular to a person or group", such as Greek *(w)et^{h}os* "habits" and *hetairos* "friend", Gothic *sidus* "habits" and *sibja* "family", Latin *sodalis* "companion", etc., as evidence for the purely reflexive meaning of **s(w)-*, devoid of third person content.

A third argument[8] in favor of the traditional position that **s(w)-* was originally used in all persons, but was later restricted to third person in some dialects, can be constructed around the notion presented in Section III.4 that an all-person reflexive pronoun is strategically streamlined whereas a third-person pronoun is functionally streamlined. Recall that since first and second person NP's are deictically specified, their referents are determinably independent of any syntactically based interpretive strategy. For example, in the German sentences

(24) Hans sah mich

Hans see+PAST 1SG+ACC

"Hans saw me."

(25) ich sah mich

1SG+NOM see+PAST 1SG+ACC

"I saw myself."

the referent of mich is automatically determined as the speaker. The fact that (25) but not (24) exhibits subject-object coreference is accidental and irrelevant to the functional connection between mich and its referent. Such coreference only becomes relevant to determining the referent of an object NP when that NP is not otherwise specified by deixis, that is, only in the third person. But that is just when the reflexive comes to the rescue to provide a syntactically based strategy for determining the referent, namely, the strategy which identifies the referent of the reflexive object NP with the referent of the subject NP. Thus, a third person reflexive is functionally streamlined in the sense that it appears only to salvage the case of an NP whose reference cannot be otherwise specified. In contrast, we say that an all-persons reflexive is strategically streamlined, meaning that although it is redundant to do so in some cases, subject-object coreference is always checked and marked whenever present. Thus, the applicability of the strategy is not dependent on whether some other strategy for determining the referent can apply.

Now, one could claim that, all other things being equal, functional streamlining would take precedence over strategic streamlining, since a functionally streamlined system would represent the semantic or logical intent of the speaker in a more transparent way. Thus, an inherited strategically streamlined all-person reflexive could spontaneously change to the functionally streamlined third-person-only system. It is important to note the "all other things being equal" proviso. This change, claimed by this argument to be possible as long as a reflexive pronoun remains one, is blocked or even reversed if the reflexive pronoun is losing its NP-hood and becoming a part of the verb. In fact, if the reflexive is reinterpreted as a verbal intransitivizer, it then becomes functionally as well as strategically streamlined for the reflexive to be marked in all persons, since its function is now to alter the syntax of the verb rather than to signal a referent.

The fact is, however, that the change in the use of a reflexive pronoun from all persons to third person only is not independently documentable, whereas the reverse change appears quite certain to have occurred in Scandinavian.[9] Further, the argument above can be turned around: perhaps strategic streamlining takes precedence over functional streamlining. This could be justified on the grounds that the greater mechanicalness of a strategically streamlined reflexive is just a manifestation of greater grammaticization; and it is widely assumed that linguistic elements spontaneously become more rather than less grammaticized through time. This, combined with the argument that a reflexive morpheme becoming a verbal element wants to be used in all persons, lends weight to the idea that even before a reflexive pronoun becomes a verbal element it might undergo the change from third person usage to all person usage. But if this is so, then the traditional interpretation of the history of the Indo-European reflexive pronoun may be wrong. That is, rather than being an all-person reflexive, *s(w)- may have been a third person reflexive which became extended to all persons in Slavic, Baltic, and Indo-Iranian. Of course, asserting this possibility flies in the face of the traditional Indo-European scholars, all of whom assert the reverse. My point here is not that their position is definitely wrong, but only that the evidence and arguments on either side can be made to sound plausible, so that the traditional view cannot be taken as clearly established.

Let us end this digression and return to the problem we began considering above, namely, the problem of determining the origin of a verbal reflexive. In the absence of a correlation with person, I know of no criteria which can be universally applied to this problem. However, in individual cases, various particular kinds of evidence may be found. For example, consider the following example illustrating the verbal reflexive in Abaza:

(26) c- l- ba- x- d
REFL 3FSG see back PAST
"She saw herself."

A corresponding nonreflexive is

(27) d- l- ba- x- d
3ASG 3FSG see back PAST
"She saw him/her (again)."

Comparing the two, we see that the reflexive morpheme in (26) occupies the position which the object pronoun does in (27). Can we conclude that the reflexive used to be pronominal? This is certainly possible. But noting that Abaza is fairly closely related to Abkhaz, and recalling that the verbal reflexive in one dialect of Abkhaz is clearly of compound origin, we conclude that there is a strong possibility that the Abaza reflexive used to be compound, too. Noting again that object incorporation is an attested feature of Northwest Caucasian languages, we are led to consider it entirely possible for the reflexive morpheme of a compound strategy to become part of the verb.

Compare this situation with Bantu. The structure of the verb in Bantu is schematized in (28):

(28) subject agreement marker + tense + object pronoun + verb stem + aspect

An example from Kinyarwanda is

(29) a- ra- mu- ku:nd-a
3SG PRES 3SG love ASP
"He/she loves him/her."

The reflexive is marked (in all persons) by inserting a special morpheme in the object-pronoun slot. Again, an example from Kinyarwanda:

(30) a- r- ii- ku:nd-a
3SG PRES REFL love ASP
"He loves himself."

Superficially, this looks exactly parallel to the Abaza sentences in (26) and (27). However, it happens that object incorporation is completely unknown in Bantu.[10] Because of this, we guess that the reflexive morpheme is more likely to have been a pronoun than part of a compound reflexive NP.[11]

But considerations like incorporability may not lead to a clear resolution. In Lakhota, for example, the reflexive morpheme again appears in the same position as the personal pronoun affixes, namely, prefixed or infixed to the verb stem, depending on the stem. Now, object noun stem incorporation does occur in Lakhota. However, for a given verb stem, an incorporated noun stem may appear in a different position from the pronouns. Thus, pronouns are infixed to the stem ophethon "buy", as in

(31) ophewathon

"I buy (it)."

(32) ophemathon

"He buys me."

while a noun stem is prefixed:

(33) lol-ophethon

food

"He buys food."

The reflexive appears in the same position as the pronoun:

(34) opheic'ithon

"He bought himself." or

"He bought it for himself."

In fact, the reflexive can appear together with an incorporated noun stem:

(35) lol-opheic'ithon

"He bought food for himself."

This might suggest that the reflexive is of pronominal origin. However, it could also be the case that the reflexive is a noun stem which was incorporated into the verb at a time when the undoubtedly prefixal nature of the part of the verb preceding the pronouns was synchronically obvious. That is, at an earlier time, it may be that the verb "buy" was constructed by prefixing both pronouns and noun stems to the verb stem thon, with the resulting word carrying an additional prefix ophe-.[12] As the use of the prefix ophe- with thon became lexicalized, the less productive process of noun incorporation preferred to maintain maximal transparency by putting noun stems in front of the now fused form ophethon, while the highly grammaticized pronouns remained trapped within this new stem. If an ex-noun-stem reflexive morpheme had already become a verbal element by the time ophethon became a single lexical item, it would remain embedded along with the pronouns. Thus, all in all, we cannot conclude with certainty that -ic'i- was either a pronoun or a reflexive morpheme used in a compound strategy.

With this let us end our consideration of the historical change of an NP reflexive into a verbal reflexive. I believe that we have shown quite conclusively that the two arrows in (2) represent changes which are to be expected and in fact which have actually occurred. There remains the task of showing that the other four logically possible changes among reflexive types are in fact impossible. Clearly, we can only speculate on this impossibility, since the absence of attested changes of those types could be due to our ignorance of the facts as much as to their alleged impossibility.

For a verbal reflexive to become either pronominal or compound would involve an affixal element detaching itself and becoming either an independent word itself or the basis for building an independent word. But this is just the sort of change that we would not expect. Since an affix or a clitic has its position in a sentence specified automatically with reference to another word, it is more grammaticized than an independent word. Thus, either of these changes would involve an element becoming less grammaticized. But recent studies in syntactic change all uniformly point to the tendency for elements to become more grammaticized. Thus, personal pronouns become agreement markers,[13] verbs become prepositions,[14] case markers,[15] copulas,[16] modals and tense-aspect markers,[17] or complementizers,[18] nouns become prepositions,[19] demonstratives become articles[20] or copulas,[21] etc. It is not clear whether a change towards lesser grammaticization is completely impossible or just rare. At any rate, I know of no clear cases of lessening grammaticization of any sort, much less cases of verbal reflexives becoming NP.

For a pronominal reflexive to become compound would involve, presumably, the reflexive pronoun being reinterpreted either as a noun stem upon which to build reflexive NP's or as an adjunct to appear together with ordinary personal pronouns when these are used reflexively. Both of these developments appear to involve a lessening of the grammaticization of the reflexive morpheme, on the grounds that a pronoun is inherently more highly grammaticized than a noun stem or noun adjunct. Of course, isolated cases of pronouns being used as nouns can be found, e.g. the use of the first person nominative singular pronoun ich in German as a noun meaning "ego", but it is clear that such cases are isolated coinages rather than processes of historical change. In particular, the function of ich as a noun is totally distinct from its function as a pronoun, although the meaning "ego" can be said to be related somehow to first person reference. But the change we are considering would involve loss of grammaticization with no change of function, a kind of change we may speculate as impossible or rare.[22]

Actually, a change has occurred in the history of Greek which is worth examining in this connection. The primary reflexive in Classical Greek was a compound strategy involving placing a form of the word autós after an ordinary personal pronoun. This word was inflected for gender, number, and case, in agreement with the pronoun. In the first and second person plural, the pronoun and the appropriate form of autós were simply juxtaposed. In the first and second person singular, the two words fused, creating forms like emautón (1MSG+ACC), seauté:i (2FSG+DAT), etc. In the third person, autós was fused with he-, a descendent of the Proto-Indo-European reflexive pronoun *s(w)- which does not appear independently in Classical Greek, although it is abundantly attested in earlier stages of the language, e.g. Homeric. Thus, forms like heautón (3MSG+ACC) appeared as reflexive NP's in the third person.[23]

Now, Modern Greek also uses a compound reflexive, but constructed somewhat differently. What has happened is that the modern descendant of the classical third person masculine singular reflexive, eaftós, was interpreted as a noun to which possessive pronouns were added:

(36) vlépo ton eaftó mu
see+PRES+1SG the REFL+ACC 1SG+POSS
"I see myself."

(37) vlépi ton eaftó tu
see+PRES+3SG the REFL+ACC 3MSG+POSS
"He sees himself."

(The definite article is standard with nouns that have possessive pronouns modifying them.) Thus, exactly the kind of rebuilding necessary to create a compound reflexive from a pronominal one, namely, the use of an entire reflexive NP as a noun stem to be the basis of a new compound reflexive NP, took place between the classical and modern stages of Greek. Of course, this event is not a counterexample to the asserted nonoccurrence of a pronominal reflexive becoming compound, since it involved one compound strategy turning into another. We might wish to claim that the already compound nature of heautón made it more susceptible to reinterpretation as a noun stem than a pronoun would be. Of course, this is purely speculative; principles cannot be derived by examining a single case.

Before leaving the matter of pronominal reflexives becoming compound, we might ask if the basic universals of Section III.4 have anything to tell us. Pronominal reflexives are SC, whereas compound reflexives are exceptionlessly non-SC. Thus, the change would involve a loss of the SC condition. However, we saw that the SC condition can be lost; in fact, it is lost whenever a pronominal reflexive becomes verbal. Therefore, it seems reasonable that it might be lost when a pronominal reflexive becomes compound. Pronominal reflexives are also SA. Compound reflexives are typically non-SA, but exceptions are not hard to find. We speculated in Section III.5 that the SA condition is hard to lose. Perhaps, then, if a pronominal reflexive became compound, the result would be another exceptionally SA compound strategy.

However, it is not clear that such considerations are valid. The loss or gain of the SC or SA conditions can really only be speculated upon when examining the evolutionary history of a single strategy. But for a pronominal reflexive to become a compound seems to require a restructuring, that is, a building of a new strategy using materials provided by the old one, rather than an evolutionary change. The syntax of a compound strategy build around an archaic reflexive pronoun may be totally independent of the syntax of that pronoun.[24] The point is that the nature of the change is such that in order to determine whether or not it is likely to occur, we are really restricted to the kind of argument we gave at first, namely, that such a change seems to involve an inexplicable lessening of grammaticization. Speculation on syntax is probably not relevant.

We turn now to the last kind of change, that of a compound reflexive becoming pronominal. Such a change could take place either by the reinterpretation of the reflexive noun stem or adjunct as a pronoun, or by the reinterpretation of one of the complete compound reflexive NP's as a pronoun (say, by generalizing one of the particular compound forms to all persons and numbers together with that form somehow losing its synchronic analyzability as a compound).

To begin with, we must note that for a noun to become a pronoun is an increase in grammaticization, and hence a process we would expect to occur spontaneously. Cases of nouns acquiring pronominal function are easy to come by. Thus, the Spanish second person polite pronoun usted is thought to come from the NP vuestra merced "your grace". A similar development occurred in Polish, where the title pan "sir" has become a second person pronoun as well. In Italian, the word cosa "thing" has come to function as the interrogative pronoun "what". In Japanese, titles and nouns of family relations can be used as second person pronouns (see Section III.5).

However, the pronominal status of these various items is there only by virtue of their acquired function. Morphologically, they remain nouns. Thus, usted exhibits neither the subject/object distinction nor the free/clitic distinction found among Spanish personal pronouns. Moreover, its plural is formed regularly in the same way that plurality is indicated on any other noun. The declension of pan is the same as that of other Polish nouns, exhibiting none of the peculiarities of the pronoun declensions. But if these words are pronouns by their function, we could claim that any reflexive NP, in particular, any compound reflexive NP, was a pronoun, based on the Indo-European prejudice that to mark a reflexive is a pronominal function. Clearly, this is not what we mean when we speak of a compound reflexive becoming pronominal.

To see what we do mean by such a change, let us turn to our typology given in Chapter III. For, if we cannot give morphological criteria for pronounhood which an ex-compound-reflexive might be examined against other than the loss of compound structure, our basic universal will at least provide syntactic criteria: if the new reflexive NP obeys the SA and SC conditions, we can take that as evidence that we have a reflexive pronoun. The question is then: if the noun stem or the adjunct of a compound reflexive strategy is impressed as a whole reflexive NP by itself, or, if one of the compound forms is generalized to all cases, is it likely that the resultant strategy will be SA and SC?

As in the reverse case of a pronominal reflexive becoming compound, we must confront the issue of whether we are dealing with an evolutionary change or with a case of rebuilding anew using the remains of an old strategy. However, in either case, we find that the same problem arises. We saw in Section III.5 that the SA condition is easy to pick up; therefore, its presence in the new strategy may be assumed without qualms. The difficulty is with the SC condition. If the new strategy evolved from a compound strategy, the SC condition would have had to have been acquired during the process, since compound strategies are non-SC. If the new strategy was rebuilt, the SC condition would have to be assumed to have been present from the start of the new strategy. In either case, it is hard to imagine how the SC condition got there. It is not a condition whose acquisition can be explained on perceptual or functional grounds the way the acquisition of the SA condition could be. It is for this reason that we regard the change of a compound reflexive into a pronominal one as an unlikely or impossible event. One may well ask where the SC condition observed actually applying to pronominal strategies does come from. We will shortly examine what I believe is a plausible guess to answer this question. Here, our conclusion is simply that pronominal strategies do not come from compound strategies.

This completes our justification of the diagram in (2). We now turn our attention to the matter of where reflexive strategies come from, that is, how they enter the diagram. Our conclusions here are more speculative than what has been discussed so far. They should be regarded more as hypotheses to be verified by further research than as definitive statements.

We have already alluded to the idea that all verbal reflexives originate from NP reflexives. The justification for this is based on the following three-line argument:

(38) a. There are attested cases of NP reflexives becoming verbal reflexives.

b. There are no attested cases of verbal reflexives originating some other way.

c. Therefore, it is simplest to assume that verbal reflexives of unknown origin come from NP reflexives as well.

Assuming the correctness of this argument, our consideration of the ultimate origin of reflexives can be restricted to NP reflexives. We discuss compound and pronominal reflexives separately, suggesting ways each may have come about.

The historical origin of the compound reflexive in English is one we can trace by examining original sources. In the Old English period, the language appears not to have had a primary reflexive, in that ordinary pronouns were used as object NP's even when they are coreferent with the subject. Recall that we have seen examples like

(39) swa hwa swa eadmedath hine
whoever humiliate+PRES 3MSG+ACC
"whoever humiliates himself..."

The Old English ancestor of the modern reflexive morpheme -self was an NP emphatic self or sylf, which was placed after an NP and took endings marking gender, number, and case in agreement with it. Over time this morpheme was reinterpreted as a reflexive, thus providing English with its primary strategy.

To understand this change we must have at our disposal a precise description of the function of an NP emphatic, something which I unfortunately cannot provide at this time. However, I believe we can understand these emphatics enough to see that for them to change into reflexives involves a natural reinterpretation and an increase in grammaticization.

Firstly, we assume that the function of Old English self is the same or similar to the function of NP emphatics in modern languages. In the absence of any evidence to the contrary, this seems reasonable, especially since self is directly cognate to the modern German emphatic selbst.

Next, we note that in modern languages an emphatic is added to an NP as a warning to the hearer that the intended referent of that NP is unusual or unexpected. For example, consider the English sentence

(40) John himself took the blame.

This sentence is most naturally used in a context in which it is unexpected that the person referred to by John would have in fact taken the blame. Because of this, if an unmarked version of (40) were used:

(41) John took the blame.

there is a chance that the hearer might think that the speaker was mistaken or that he heard the sentence incorrectly. By putting himself after John the speaker signals that he recognizes that the referent of John is unexpected in the context of the predication asserted in (40), thereby making it easier for the hearer to believe that there has not been a mistake.

As another example, consider how the sentence "Hans_i talked to Fritz_j about himself_j" with the reference indicated by the subscripts could be coded in German. The reflexive pronoun cannot be used in the about phrase since the reflexive pronoun is an SA strategy, whereas the antecedent here is not a subject. The plain pronoun could be used:

(42) Hans sprach mit Fritz über ihn.

However, a more likely reading of (42) would have a person other than Hans or Fritz as the referent of ihn. To indicate that it is the unlikely referent which is intended, namely Fritz, the speaker can use the emphatic:

(43) Hans sprach mit Fritz über ihn selbst.

There are two things that should be noticed about these emphatics. Firstly, their use is a strategy intended to aid the hearer in identifying the referent of an NP. And secondly, the emphatic strategy does not provide a syntactic basis for determining that referent. Thus, John himself in (40) is not coreferent with any other NP in the sentence, and need not be coreferent with any specified NP in the previous discourse. The NP ihn selbst in (43) is coreferent with Fritz; but the emphatic does not specifically direct the hearer to another NP located in a stated syntactic configuration with respect to it.

Now, a reflexive in an NP is also a strategy for identifying the referent of that NP. However, unlike an emphatic, a reflexive does provide syntactic instructions for finding another NP which has the same referent. At the very least, there must be a coreferent NP which commands the reflexive (see Section III.6). Other conditions on a particular reflexive strategy further narrow the search for an antecedent NP. For example, if a reflexive is CM, then there must be a coreferent NP in the same clause as the reflexive.

Comparing emphatics with reflexives, we see that the change from the former to the latter consists just of the grammaticization of the instructions for finding the referent. An emphatic carries a semantic instruction: look for the unlikely referent. A reflexive carries a syntactic instruction: look for the NP which commands us (which is to our left, which is in our clause, etc.). Therefore, the change from emphatic to reflexive fits in nicely with the current view that changes involving grammaticization are natural and can occur spontaneously.

Further, the particular grammaticization involved here is a natural one. To see this, we need only note that in the case of a predication involving more than one argument, the unmarked situation is for the different arguments to have distinct referents. In the absence of a reflexive strategy, it is natural for an emphatic to be used specifically to signal that the more highly marked, less expected situation is present, namely, that the NP (argument) in question has the same referent as another one in the same predication. This is just what is illustrated by (43). The unmarked situation would be for the pronoun in the _about_ phrase to have a different referent from the other NP's in the sentence. The emphatic proclaims that this is not so.

As a confirmation of this notion, we recall that there is a class of transitive verbs for which the unmarked situation (or, at least, a common situation) is for the agent and the patient to be identical. I am thinking of verbs describing actions normally done to oneself, such as _wash_, _dress_, etc. Now, suppose we have a language without a primary reflexive, but with an emphatic which can be used to mark reflexive coreference. If we believe that the reason that it is natural for an emphatic to mark reflexive coreference is that such coreference is normally a marked situation, we would predict that the emphatic would _not_ be used to mark the objects of verbs like _wash_ or _dress_ when they are coreferent with the subject, since for these verbs coreference is normal. But this is just what we find in the history of English. Well into the Middle English period it is easy to find examples like

(44) he cladde hym as a poure laborer

"He dressed as a poor laborer."

in which a plain pronoun without _self_ is used as the object of a normally reflexive verb. This may be compared to

(45) him self he hynge

"He hanged himself."

in which self marks an object coreferent with the subject when the verb is not normally reflexive. The fact that an opposition[25] like (44) versus (45) exists in Middle English shows that the adjunction of self had not yet become completely grammaticized into automatically marking subject-object coreference; that would come later. But it also suggests that the idea that an emphatic can become a reflexive because reflexive coreference is normally the marked case is probably correct.

English is not the only language for which the development of a reflexive from an emphatic is documentable. The secondary reflexives in French and Spanish also are seen to have such an origin, although the Latin ancestor of -même and mismo is not actually attested. Classical Latin had an emphatic ipse, which, in later Latin and in Romance dialects weakened into a demonstrative (Spanish ese) or personal pronoun (Italian esso). However, Latin also had a morpheme met which could be attached onto pronouns. The exact function of met is not known to me, but it seems to have had some generally emphatic or intensivizing force. It is believed that this morpheme could be prefixed to the classical emphatic to create a form *metipsimum, from which -même and mismo derive by regular changes.[26] Since Romance retains the primary reflexive pronoun inherited from Latin, which, along with other object personal pronouns, became a clitic, the use of the emphatic as a reflexive was restricted to oblique NP's. Thus, a secondary rather than a primary reflexive was the result.

There are a few other cases for which an emphatic origin of a compound reflexive is suggested. The Dutch strategy consisting of suffixing *zelf* undoubtedly started out as an emphatic, a conclusion we reach based on the fact that *zelf* is cognate to German *selbst*, which still is an emphatic, and to English *self*, which underwent the change from emphatic to reflexive. And the Papago reflexive *hɨǰɨl* is surely the result of grammaticization of an emphatic, since *hɨǰɨl* is indeed an emphatic in the closely related Pima.

Can we conclude that a compound reflexive always derives from a grammaticized emphatic? We must note that all of the compound reflexives we have been considering here are of the adjunct type, that is, where the reflexive NP is constructed by adjoining a morpheme to an object pronoun. Since I know of no other attestable source for reflexives of this subtype, I think we *can* conclude that adjunct compound reflexives always derive from emphatics.[27] Note that emphatic strategies are commonly found constructed the same way that adjunct reflexives are, with an element adjoined to NP's, so that for an emphatic to become an adjunct reflexive involves no structural rearrangement. But what about the other kind of compound reflexive, the one constructed by attaching a possessive pronoun to a reflexive morpheme which acts as a head noun?

Unfortunately, I have no direct information on the historical origin of such a head-noun reflexive. However, rather than leaving the matter unresolved, we can search for a possible candidate for being an antecedent stage of a head-noun reflexive. To do this, we ask: are there cases of languages that have NP's constructed by attaching possessive pronouns to a meaningless or bleached head noun where the function of such NP's is less grammaticized than the reflexive function?

Two examples of such a thing come to mind. The first is the use, in Biblical Hebrew, of NP's constructed around the noun meaning "soul" as pronouns:

(46) wanafšá:m bašševí: ha:lá:xa:
and+"soul"+3MPL in+the+captivity go+PERF
"And they themselves went into captivity."

(47) nišbáʕ adoná:y YHWH bənafšó:
swear+PERF the-lord YHWH in+"soul"+3MSG
"The Lord God swore by Himself."

Biblical Hebrew appears to lack a primary reflexive. The pronouns based on *nafš-* "soul" can be used reflexively, as seen in (47); but (46) shows clearly that such an NP can be used without an antecedent NP in the same sentence. Using such forms instead of the ordinary pronouns may serve a function similar to that of NP emphatics.

The second example is from Lisu, a Tibeto-Burman language also lacking a primary reflexive. In this language, NP's built around the word for "body" can be used pronominally, so that a sentence like

(48) ása nya alé lǽ yí kudwè mámywɛ́ tsa gə̀-a
Asa TOP Ale DAT 3SG body story tell give
"Asa talked to Ale about himself/him."

is three ways ambiguous: the NP *yí kudwè* can refer to Asa, Ale, or to a third person. The function of these compound pronouns is unknown to me.

In both of these cases the compound NP has some sort of pronominal function. They are clearly less grammaticized than reflexives. We may guess that all head-noun reflexives first go through a stage illustrated by these pronouns, and then become grammaticized into reflexives.

But there is a statistical problem with this idea. Head-noun compound reflexives are quite common, whereas compound pronouns such as the ones we saw in Biblical Hebrew and in Lisu seem to be relatively rare. Of course, this could just be an illusion based on lack of data, but if it is true, it suggests that the pronoun stage may be short-lived. Otherwise, if head-noun reflexives are so common and if they all stem from compound pronouns, why are not compound pronouns found more frequently?

A possibility we have not considered so far is that a reflexive strategy may be constructed as a reflexive directly, rather than having evolved from something else. In the case of a verbal or a pronominal strategy, it is hard to imagine this happening, since verbal elements or pronouns belong to small fixed sets of grammatical elements which are unlikely to be able to absorb a new item to be the basis for constructing a new reflexive strategy. The idea seems more credible in the case of an adjunct reflexive; but, in that case, we would want to ask what kind of element could be used as a reflexive adjunct. We have in effect answered this already by saying that an emphatic can be a reflexive adjunct.[29] But the actual surface construction of adjoining the element to an NP already exists for that element as an emphatic, so we are really dealing with a reflexive evolving from an emphatic rather than being created anew on the basis of an emphatic. But in the case of a head-noun reflexive, the idea that the strategy was constructed to be a reflexive from the beginning seems quite believable, especially since in many cases the head-noun stem is synchronically identical to a lexical noun stem with a concrete meaning, most commonly "body" or "head", suggesting that the reflexive is a recent development.

We are not in a position to elucidate the historical origins of compound reflexives any further here. Our final guess, therefore, is that adjunct reflexives arise from emphatics by grammaticization of the referencing instructions, and that head-noun reflexives are either coined as such or else are coined as pronouns and then undergo grammaticization to reflexives.

Can we explain the syntactic behavior of compound reflexives by means of their origin? Recall that compound reflexives are all non-SC, typically non-SA, and probably typically CM. I claim that these facts are consistent with the origin of compound reflexives suggested above.

We have already referred several times to the fact that the acquisition of the SC condition is not easily motivated. Since compound reflexives arise by the grammaticization of referencing instructions, it is relevant to take note again of the fact that the SC condition does not contribute towards narrowing down the possible referent of the reflexive NP. Therefore, I will consider the non-SC-ness of compound strategies as not requiring further explanation.

As to the other conditions, we simply note that for the referencing instructions of an NP to become grammaticized means exactly that those syntactic conditions which have as effect the narrowing down of its possible antecedents come to apply to control the occurrence of that NP. We can explain the actual behavior of compound reflexives if we assume that the various such conditions differ consistently in the ease, and hence the temporal order, with which they may be acquired. Thus, if the CM condition is assumed to be much more easily acquired than the SA condition, we can conclude that the CM condition is acquired early in the life of a compound reflexive but that the SA condition is acquired relatively late. This would explain why compound reflexives as a rule are CM, but only a minority are SA.[30] Of course, this is an explanation only if independent evidence can be found to support the relative ease of acquiring the CM as opposed to the SA condition. Intuitively, it is believable that it should be easier to perceive two NP's as being in the same clause than to perceive an NP as being a subject. Semantically, being in the same clause corresponds roughly to being arguments of the same predicate. However, the semantic correlates of subjecthood are much less clear; their variation from language to language suggests that subjecthood may not correspond to any universally definable semantic function (see the articles in Li 1976). Thus, clause-mateness might be perceptually more striking than subjecthood due to its clearer semantic correlates. It should be possible to test this directly by means of psychological experimentation. The results of such experiments could then provide independent evidence for our historical scenario in which the acquisition of the CM condition precedes that of the SA condition.

This is all I have to say about the origin of compound reflexives. Perhaps the speculative nature of our discussion has been less than satisfying. However, we have been fortunate in having at least some direct evidence for the origin and development of such reflexives, e.g. in English and in French. When we turn to the case of pronominal reflexives, we are faced with the conjunction of two problems: the total lack (as far as I know) of direct evidence for their origin, and the more difficult syntactic features to be explained, particularly the SC condition. What I will do here is to present an entirely speculative account of how pronominal reflexives may have come about, in the hopes that at a later time I, or someone who reads this, will be directed towards finding the kind of evidence which could be brought to bear on the question.

Before describing this account, we first take note of a relatively trivial way in which a language can acquire a pronominal reflexive: it can borrow or calque such a reflexive from a nearby language which already has one and with which it is in contact. A probably example of such a phenomenon is the Dutch strategy of replacing an ordinary third person pronoun with zich when it is coreferent with the subject NP in its clause. It has been claimed (e.g. in Lockwood 1968) that Dutch zich constitutes a borrowing from High German. Certainly the phonological form of the word suggests this: if zich were inherited directly from the Proto-Germanic reflexive pronoun *sik, we would not expect the final /x/ (spelled ch) to be present; cf. Dutch me/mij "1SGACC" inherited from *mik. The various syntactic features of zich, in particular SC-ness, will have been borrowed along with the word itself.

However, while borrowing can explain the presence of a reflexive pronoun in some languages, we are still ultimately faced with the question of how those pronouns originated in the host languages. We expect that an element which is functioning as a reflexive pronoun must have existed prior to that function. We turn our attention now to determine where such elements may have come from.

There are three difficult points which a suggested origin for pronominal reflexives must deal with and explain: (i) the fact that a reflexive pronoun has the morphological appearance of a pronoun; (ii) the fact that a pronominal reflexive is always SA but not necessarily CM; and (iii) the fact that a pronominal reflexive is SC. Point (i) is a difficulty because the inventory of pronouns of a language is normally imagined to be closed, that is, not capable of absorbing new members and making them look like pronouns. Because of this, a hypothesized origin for a reflexive pronoun stands a better chance of being right if it has the reflexive pronoun originating as a nonreflexive pronoun. We will therefore restrict our attention to nonreflexive pronouns, and attempt to show that under certain circumstances, certain of them can become reflexive.

Point (ii) is a difficulty if we believe what was claimed above in connection with compound reflexives, namely, that it is easier to pick up the CM condition than the SA condition. We used this idea to explain why compound reflexives are often, if not mostly, CM, but only occasionally SA. But if this is so, how can a pronominal reflexive be SA and not CM? To answer this, we will look for special situations in which a nonreflexive pronoun could acquire the SA condition even while it was in a different clause from that subject-antecedent NP. The CM condition could then be assumed to be acquired later by normal grammaticization. There is even some direct evidence that reflexive pronouns start out non-CM: the older Indo-European reflexive pronouns are the non-CM ones.

That point (iii) is a difficulty has already been pointed out several times. But, if a reflexive pronoun originates as an obligatory strategy which is necessarily non-CM, the SC condition will automatically hold: if the reflexive pronoun must be used across clause-boundaries to mark coreference, a fortiori it must be used everywhere in the same clause as its coreferent subject.

Now, consider the following Yoruba sentences:

(49) Ojo$_i$ ro pe o$_{*i/j}$ mu sasa
Ojo think COMP 3SG be-clever
"Ojo$_i$ thinks he$_{*i/j}$ is clever."

(50) Ojo$_i$ ro pe oun$_{i/*j}$ mu sasa
Ojo think COMP "X" be-clever
"Ojo$_i$ thinks he$_{i/*j}$ is clever."

The English equivalent to (49) and (50) exhibits an ambiguity: the pronoun *he* in the lower clause can be either coreferent to *Ojo* or not. In Yoruba, this ambiguity is resolved by means of distinct surface forms. If the ordinary pronoun is used, it is unambiguously noncoreferent with the higher subject. If the lower subject is intended to refer to the same person as the matrix subject, the word *oun* is used as the lower subject NP. I have glossed it "*X*" to avoid identifying it just yet.

The following sentences in Igbo exhibit the same kind of opposition:

(51) ɔ́$_i$ gwàrà ḿ nà ɔ́$_{*i/j}$ hùrù ńkétá
3SG tell+PAST 1SG COMP 3SG see+PAST dog
"He$_i$ told me that he$_{*i/j}$ saw the dog."

(52) ɔ́$_i$ gwàrà ḿ nà yá$_{i/*j}$ hùrù ńkétá
3SG tell+PAST 1SG COMP "X" see+PAST dog
"He$_i$ told me that he$_{i/*j}$ saw the dog."

The ordinary pronoun in (51) is unambiguously noncoreferent with the higher subject. Again, a special element is used in (52) when coreference is intended.

Ewe also marks this distinction in a similar way, as we see in

(53) ébe édzo

3SG+say 3SG+leave

"He$_i$ said he$_{*i/j}$ left."

(54) ébe ye dzó

3SG+say "X" leave

"He$_i$ said he$_{i/*j}$ left."

Again, the ordinary pronoun in the subordinate clause is necessarily noncoreferential, a special element being used to mark coreference.

The same phenomenon can be found in Efik:

(55) ámá ɛ́tíŋ ɛ́tè ké ókodù dó

3SG+AUX 3SG+say 3SG+COMP 3SG+MOD+be-located there

"He$_i$ said that he$_{*i/j}$ was there."

(56) ámá ɛ́tíŋ ɛ́tè ké ìkódù dó

3SG+AUX 3SG+say 3SG+COMP "X"+MOD+be-located there

"He$_i$ said that he$_{i/*j}$ was there."

These sentences are parallel to the others we have just seen.

Finally, consider the following three sentences from Lakhota:

(57) John Bill okiyaki na he S.F. ta yin kta heca

John Bill tell COMP that S.F. to go FUT be

"John$_i$ told Bill$_j$ that he$_k$ has to go to S.F."

(58) John Bill okiyaki na S.F. ta yin kta heca

John Bill Tell COMP S.F. to go FUT be

"John$_i$ told Bill$_j$ that he$_j$ has to go to S.F."

(59) John Bill okiyaki na iye S.F. ta yin kta heca

John Bill tell COMP "X" S.F. to go FUT be

"John$_i$ told Bill$_j$ that he$_i$ has to go to S.F."

The weak demonstrative he in (57) and the use of no surface NP in (58) are both typical manifestations of third person anaphora. Thus, although he and ∅ have different reference properties in these sentences, the fact that neither of them can be used to refer to a higher subject is parallel to the sentences (49), (51), (53), and (55). The use of a special word in (59) as a lower subject coreferent with an upper one is the same kind of strategy we saw in (50), (52), (54), and (56).[31]

The items marked "X" are not reflexives: they are never used to mark subject-object coreference. To my knowledge, they are not used in the same clause as their antecedents. Other strategies exist in these languages to serve as reflexives: compound strategies in Yoruba, Igbo, Ewe, and Efik, and a verbal one in Lakhota.[32] However, the function of these words is similar to that of a reflexive, in that they are NP's whose referents are determined by finding another commanding NP in the sentence and assigning the referent of that NP to the item in question. I will refer to elements such as these as subordinate reflexives.[33]

Now, our hypothesis for the origin of reflexive pronouns is that they begin as subordinate reflexives. The idea is that, due to the absence of a primary strategy in the language, or due to the fact that the primary strategy might not be able to appear in certain NP positions even when the intended antecedent is in the same clause (e.g. certain oblique NP's if the primary strategy is compound, or all oblique NP's if the primary strategy is verbal), the use of a subordinate reflexive could be extended to include NP positions in the clause of the antecedent. Eventually, the item might come to be able to appear as the direct object in the clause of the antecedent, at which point it will have become a full-fledged primary pronominal reflexive.

I claim now that the three difficult points mentioned earlier in connection with the origin of reflexive pronouns can be handled by our hypothesis.

Firstly, in at least some cases, it is obvious that a subordinate reflexive is already a pronoun. In the examples given, this is clearest for Efik: ordinary subject personal pronouns are prefixes to the verb, and the subordinate reflexive is, too. The other cases are perhaps less obvious. We will examine them a bit more closely below, but for now we can assume that they too have the general appearance of pronouns. But if a subordinate reflexive is already a pronoun, then the pronominal appearance of the primary reflexive it will turn into is automatic.

Secondly, a subordinate reflexive has already grammaticized its referencing instructions even while in a clause different from its antecedent. Namely, the referencing instruction of a subordinate reflexive involves at least the search for an antecedent NP in a higher clause in the same sentence. Moreover, some of the subordinate reflexives given above already appear to be SA.[34] This can be seen for Lakhota in (59). It is probably the case for Efik, as suggested in[35]

(60) Òkôn$_i$ ɛ́- tè Èfyɔ̂ŋ$_j$ ìmɔ$_{i/*j}$ á- nà ì-$_{i/*j}$ kâ
Okon 3SG tell Efyong SUBREFL 3SG must SUBREFL go
"Okon$_i$ told Efyong$_j$ that he$_{i/*j}$ has to go."

The following Ewe sentence shows that the subordinate reflexive in that langauge is probably SA:

(61) é- gblɔ ná é bé yá dyi ye gaké ye
3SG tell give 3SG COMP 3SG+EMPH bear SUBREFL but SUBREFL
kpe dyí
be-worthier
"He$_i$ told him$_j$ that he$_j$ begot him$_i$ but he$_i$ was worthier."

However, the subordinate reflexive in Igbo is not SA, as seen in

(62) ḿ gwàrà jɔ́n nà ɔ́ bè ɛ́nyì ḿ
1SG tell+PAST John COMP 3SG COP friend 1SG
"I told John$_i$ that he$_j$ is my friend."

(63) ḿ gwàrà jɔ́n nà yá bè ɛ́nyì ḿ
1SG tell+PAST John COMP SUBREFL COMP friend 1SG
"I told John$_i$ that he$_i$ is my friend."

If a subordinate reflexive is already SA, then the pronominal reflexive it will turn into can be easily assumed to retain the SA condition (recall that this condition is not easily lost) even while it can still appear in subordinate clauses, that is, before it has become CM. If the subordinate reflexive is not SA, we might claim that the grammaticized search for an antecedent specifically in a higher clause would allow the strategy to pick up the SA condition before the subordinate reflexive could even appear in the same clause as its antecedent, let alone acquire the CM condition. In either case, it seems reasonable that a reflexive which originated as a subordinate reflexive could be SA without being CM.

And thirdly, as pointed out above, the SC condition will be fulfilled automatically when a pronoun which must be used in a clause subordinate to that of its antecedent becomes a reflexive. To see this, let us note that for a subordinate reflexive to become a true reflexive does not involve further grammaticization of its referencing instructions. However, it does involve a simplification of production instructions, in the sense that rather than being restricted to being produced in a clause subordinate to the clause of tis antecedent, it can now be produced in any position where the antecedent will command it. If the production of an element is being generalized this way, it is reasonable to suppose that the generalization will not be retained by new conditions prohibiting the element from certain oblique NP's in the same clause as its antecedent. Rather, the generalization will go all the way, that is, the element will be used in all NP positions in the same clause as its antecedent. But this is just what SC-ness means.[36]

To give further content to the hypothesis that reflexive pronouns come from subordinate reflexives, we speculate a bit on the origin of the latter. There are two scenarios that seem plausible to me. I will give each in turn, together with what evidence is known to me in support of it.

The first scenario starts off with the fairly common phenomenon of the splitting of personal pronouns into stressed and unstressed forms. The stressed forms would be used when the referent was not determined by ordinary discourse anaphora, for example, when the referent is determined by a gesture performed simultaneously with the utterance of the pronoun:

(64) He's the one. (pointing while uttering he)

or when the referent has been contrastively singled out some other way:

(65) You know Nixon? Well, he's the one.

We assume that, through time, stressed and unstressed pronouns take on distinct phonological shapes.

Now, it is reasonable to suppose that, since the referent of a stressed pronoun is not determined by ordinary discourse anaphora, its referencing instructions might be subject to grammaticization. An easy first step to imagine would be for a stressed pronoun in a subordinate clause to require its referent to be the same as one of the NP's in the higher clause. But this is just a subordinate, non-SA reflexive.

Exactly this seems to have been the origin of the Igbo subordinate reflexive. The fact is, the word *yá* which appears in the subordinate clause in (52) is actually the nonclitic third person singular pronoun. It must be used instead of *o* ~ *ɔ* whenever the latter cannot be used preclitically to the verb, e.g. as object of the verb:

(66) bɔ̀ɔ́ yá
cut+IMP 3SG
"Cut it up!"

as a genitive attached to a possessed noun:

(67) íkɛ́ yá
strength 3SG
"his strength"

or as a member of a conjoined structure, even if the larger NP is a subject:

(68) gé nà yá nwɛ̀rɛ̀ ɛ́gó
2SG and 3SG have money
"You and he have money."

But in the subordinate position illustrated by (52), its use has been grammaticized into marking coreference with a higher NP.

The Yoruba word oun seen in (50) is also a stressed third person pronoun. Unlike Igbo, Yoruba uses clitic pronouns as verbal objects and as possessives on nouns as well as in subject position. However, when stressed, or in positions in which a clitic is impossible, independent pronouns are used. The word oun is just the independent pronoun corresponding to the third person singular subject clitic o. An example of its use in a position in which the subject clitic cannot occur is

(69) oun onile ni
3SG homeowner COP
"He is a homeowner."

The subject clitic cannot be used in copular sentences like (69), hence oun must be used for the subject "he/she". But in subordinate clauses, its use has become grammaticized to indicate coreference with an NP in a higher clause, as in (50).

Finally, the Lakhota word iye is also an example of this. Unstressed pronouns in Lakhota are usually verbal affixes; but the third person singular affix is Ø. The demonstrative he can be used as an unstressed independent third person singular pronoun in some cases. However, there is a special set of pronouns which can be used as independent stressed words. The word iye is the third person singular member of this set. An example of such a use is

(70) iye wašte tkha miye ma- šiče
3SG good but 1SG 1SG bad
"He is good, but I am bad."

Note also the first person singular independent pronoun miye appearing in (70) in addition to the verbal prefix ma-. The pronoun iye, like its counterparts in Igbo and Yoruba, has become grammaticized in subordinate clauses to mark coreference with a higher NP. In addition, it has already picked up the SA condition, as we saw in (59).[37]

The second hypothetical scenario starts off with a language in which indirect discourse does not exist. For such a language, pronouns in a clause embedded under a verb like "say" must be used as they were in the original act of saying. Let us call this phenomenon the reportive use of embedded pronouns. In such a language, the ambiguity of

(71) John$_i$ said that he$_{i/j}$ left.

is automatically resolved. In fact, a sentence constructed like (71) does not exist in such a language. Rather, the speaker would say either

(72) John said (quote) I left.

or

(73) John said (quote) he left.

Sentence (72) transmits the coreferent reading of (71), while (73) transmits the noncoreferent reading.

Now, given such a language,[38] we see immediately that, when embedded under verbs like "say", the first person pronoun already has the properties of an SA subordinate reflexive: it is necessarily coreferent with the subject of the higher verb. My claim is that it is possible for the first person pronouns in main and subordinate clauses to become distinct, perhaps by virtue of a new element being used as a main clause first person pronoun, or perhaps by virtue of a phonological change operating differently in main and in subordinate clauses. At any rate, once an old first person pronoun in subordinate clauses is reinterpreted as being an element distinct from first person pronouns in main clauses, its only function in the language becomes that of being an NP in a subordinate clause coreferent with the higher subject; that is, it automatically becomes a true SA subordinate reflexive.

An interesting consequence of this hypothesis concerns the interaction of reflexives with person. A language which uses embedded pronouns reportively should show an embedded first person pronoun coreferent to higher NP's of various persons. Thus, for example, "You said you left" would come out

(74) you said (quote) I left

in which the lower _I_ is coreferent to the higher _you_. We might conclude, therefore, that a subordinate reflexive derived from an older subordinate first person pronoun used reportively would necessarily be used in all persons. Alternatively, we might wish to claim that, starting with the sentence

(75) I said (quote) I left

in the older stage, that the subordinate occurrence of _I_ would be replaced as well as the main-clause occurrence of _I_ when the new first person pronoun was adopted. The reason is that since the speaker of (75) was also the speaker of the reported, subordinated sentence in (75), to utter (75) is not that different from merely repeating the previous utterance "I left". Thus, the relationship between (75) and the full sentence "I left" is much closer than the relationship between sentence (74) and the full sentence "I left". Hence, the lower _I_ in (74) might be left to turn into the subordinate reflexive, while the lower _I_ in (75) might be replaced along with the upper _I_ in that sentence by the newer first person pronoun. The point of this line of argument is to suggest that it is reasonable that a subordinate reflexive derived from a subordinate first person pronoun might wind up being used in just the second and third persons.

Now, according to Westermann 1907, the Ewe word *ye*, which we saw used in (54) and (61) as a subordinate reflexive, is used in precisely the second and third persons. Moreover, Westermann actually claims that this word really means "I". Although he does not give a full justification for this, we may note that in the Aŋlɔ dialect *ye* is used as the ordinary first person singular genitive clitic; and the standard dialect first person singular genitive clitic, *ñe*, may be related to it. Thus, the Ewe subordinate reflexive may be supposed to have arisen according to our second scenario.

The Efik subordinate reflexive prefix *ì-* seen in (56) is also used only in the second and third persons. In the light of our discussion, we may suppose that it too arose from an older first person pronoun used reportively.

Since the scenario which has subordinate reflexives deriving from older first person pronouns used reportively predicts that such subordinate reflexives are used in the second person as well as the third (and possibly in the first as well), and since we are postulating that subordinate reflexives can be a source for primary reflexive pronouns, our scenario becomes relevant when considering the way primary reflexive pronouns are involved with person. For example, recall from Section III.4 that the Pima-Papago reflexive pronoun *ɨ* is used in the second and third persons. Because of our current discussion, we would now say that this may be a sign that *ɨ* derives from a subordinate reflexive which in turn derived from an old first person pronoun. In looking for comparative evidence for the history of this word, this should be now taken into account.

Similarly, if a first person pronoun used reportively can become a subordinate reflexive in all persons, then there is a chance that the Proto-Indo-European reflexive *s(w)- originated this way. This would mean that those groups which exhibit descendents of *s(w)- used in all persons, e.g. Slavic and Baltic, really preserved the old situation, whereas those groups exhibiting its descendents used in the third person only underwent a change in usage which restricted the reflexive to the third person; this is the classical scenario. But we argued above that the reverse change, namely from third person usage to all person usage, seemed more natural. This could still have been the case if *s(w)- originated via a stressed third person pronoun, as in Lakhota. A third possibility is that *s(w)- originated from a reportive first person pronoun, but was used in the second and third persons, like the subordinate reflexives in Ewe and Efik. Then, some descendant languages generalized the pronoun to all persons, while others dropped its second person use. Attempting to decide among these possibilities is far beyond the scope of this study.[39]

With this we end our speculation on the historical origins of reflexives. It should be stressed again that we have been indeed speculating rather than providing sound answers. The extent to which our speculations are convincing depends on the believability of the processes suggested, coupled with the absence of an alternative explanation. There will no doubt be disagreement about the believability of the suggested scenarios. My own feeling is that something like the process of a subordinate stressed pronoun becoming grammaticized to mark coreference with a higher NP is quite believable, since it involves changing a relatively vague referencing instruction into one involving examination of the syntactic structure of the sentence in which the element is found. But even in the case of the three languages for which this process seems to have occurred, we cannot assert this occurrence with complete confidence. The reason is simply that we have no hard evidence that any of these languages really had an earlier stage in which the stressed pronoun in a subordinate clause was not necessarily coreferent to a higher NP, that is, a stage prior to the alleged occurrence of the grammaticization.

The believability of the process of a subordinate reportive first person pronoun becoming a subordinate reflexive depends on the believability of the process by means of which a new main clause first person pronoun develops. This latter process seems quite mysterious to me; in fact, I really have no idea how it might come about. Naturally, this undercuts the basis for believing the scenario. But I still feel that the easy explanation of SA-ness and of appearance in non-third-person contexts which this scenario affords makes it an attractive idea worth considering in future investigations.

The believability of a subordinate reflexive becoming a primary reflexive depends on one's feelings about the generalization of a production rule as the motive for a historical change. Actually, such changes appear to have been fairly common in the realm of morphology, where they are traditionally referred to as cases of analogy, or more specifically analogic extension. Thus, for example, the extension of the s-suffix to indicate plural on English nouns is a case in point. A production rule for this suffix in the Old English period would have a condition limiting its occurrence to noun stems from a particular morphological class. In the modern period the production rule has gotten rid of this condition: the suffix is used for all noun stems except a few marked as exceptions.

It would seem reasonable, therefore, for the production of a syntactic coreference marker to be generalized from appearing only in clauses subordinate to the clause of the antecedent to appearing in any position commanded by the antecedent. However, there are two serious problems with this idea.

The first is that, if such a generalization of production can apply to a subordinate reflexive, why can it not apply to a compound reflexive? Recall that compound reflexives are universally non-SC, which means in effect that there are NP positions in the same clause as the antecedent in which such reflexives are normally not found. From the point of view of production, this means that some condition applies to ban the occurrence of the reflexive in such positions. If it is a natural development for the production of an item to become generalized, we would expect compound reflexives to be able to lose this condition and to appear in all NP positions, say, in the same clause as the antecedent. But this seems never to happen.

A way out of this difficulty can be found by admitting a notion of a hierarchical naturalness of coreference marking. The idea would be that it is more natural for a language to mark coreference within a clause than coreference down into a subordinate clause. To justify this, we can simply point to the fact that languages lacking primary reflexives are relatively rare, whereas languages lacking subordinate reflexives are quite common.[40] Now, if this is the case, then we may further assume that there is a hierarchy of naturalness among various kinds of NP positions in the same clause as the antecedent. Thus, it would be less natural to mark coreference between a subject and an NP in a locative phrase with a verb of perception than to mark coreference between a subject and a direct object, indirect object, or benefactive NP. If such a hierarchy exists, then we can say that for a subordinate reflexive to generalize its production to allow occurrence in the same clause as the antecedent is a change towards allowing its occurrence in positions of greater naturalness; whereas for a compound reflexive to generalize its production to all NP positions in the same clause as the antecedent would allow its occurrence in positions of lesser naturalness. Presumably, changes can occur spontaneously when they increase, but not when they decrease, naturalness. Thus subordinate reflexives can become primary reflexives, but compound reflexives cannot become SC.

It should be pointed out that hierarchies of the sort needed here have been proposed in other contexts of universal syntax; see especially Keenan and Comrie 1972. It would be interesting to see if in fact the hierarchy which controls reflexives is related to the one which controls relative clause formation.[40a] If so, we might predict that certain languages would be able to relativize NP's in prepositional phrases which denoted benefactives or about-phrases, but not in prepositional phrases which denoted locatives when the verb in the clause was a verb of perception. I do not know of such a case.

The second problem with the idea that a subordinate reflexive can become a primary reflexive is that while such a change does involve generalization of production, it also involves an increase in the number of antecedence possibilities for the reflexive. To interpret a subordinate reflexive, the search for an antecedent is restricted to NP's in a higher clause; but once that element has become a primary reflexive, NP's in its own clause become additional candidates for antecedence. Now recall that the acquisition of the SA and CM conditions led to a narrowing down of antecedence possibilities, until the limit of one possible antecedent was reached: the antecedent would be the subject NP of the clause in which the reflexive NP is located. It would seem odd, therefore, for a change that had the opposite effect to occur spontaneously.

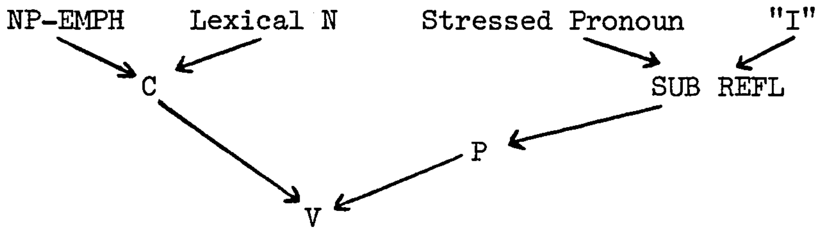
But here the naturalness hierarchy which above got us out of trouble with the problem of production generalization can get us out of trouble again. For the new antecedence possibilities which arise when a subordinate reflexive becomes primary are NP's in the same clause as the reflexive, hence manifest coreference possibilities of greater naturalness than the possibilities which are open to a strictly subordinate reflexive. On this basis the increase in antecedence possibilities can be accepted as a natural turn of events.

We see that the narrowing down of antecedence possibilities (due to grammaticization of masking effects, say) and the generalization of production are opposing tendencies. The arbiter of this opposition is the naturalness hierarchy. When the generalization of production leads to cases of coreference of a more natural kind to be added to the kinds of coreference already marked by the strategy, then it wins out. When the narrowing of antecedence possibilities results in throwing out cases of coreference which are less natural than the remaining ones marked by the strategy, then _it_ wins out.

The point of all these discussions, of course, is to render more plausible the historical scenarios proposed herein. But nothing can substitute for hard evidence, and that will have to wait. Alternatively, other scenarios might be invented and examined; but I will leave this for a later time or for someone else.

Assuming that the scenarios given here are the correct ones, we can now enlarge diagram (2) by adding in representations of them. The result would be something like

(76)



Having thus disposed of the matter of the origin of reflexives, we now turn to the opposite issue, that of the disappearance of reflexives. Again, I do not have detailed evidence of the mechanism by means of which a primary reflexive totally disappears. However, there is a reasonable amount of partial evidence we can appeal to which will fit in with the hypothesis to be suggested.

Most of our attention will be towards determining the fate of verbal reflexives. Our general claim about NP-reflexives is that they have no way of disappearing other than by first becoming verbal. Negative claims like this one can appear true due to lack of evidence, of course. As a matter of fact, I know of one candidate for a possible counterexample. Recall that Proto-Germanic almost certainly had a third-person reflexive pronoun, reconstructed as *sik, a descendant of Proto-Indo-European *s(w)-. Now, nowhere in the history of English, Frisian, or Old Saxon does a descendant of *sik make an appearance.

Further, we noted earlier that the Dutch reflexive pronoun _zich_ shows symptoms of having been borrowed from High German; this means that Dutch, too, lacks an inherited descendant of *_sik_. We conclude that the *_sik_ strategy disappeared for all Low West Germanic dialects. If it is true that NP-reflexives do not disappear, we would be forced into the position that *_sik_ had become a verbal affix or clitic before disappearing. While this is not impossible, it seems unlikely, since, as we shall see, verbal reflexives do not disappear instantly, but leave traces which should be expected to linger in the language. We will speculate below on what these traces might look like; however, they, too, are absent from Low West Germanic. A slight bit of evidence that a verbal stage was indeed passed through is that fact that in Old _High_ German the descendant of *_sik_ was lost in the dative case, and replaced by ordinary personal pronouns. Of course, this could be considered a stage towards becoming verbal; it recalls the loss of the stressed reflexive pronoun from oblique NP's which occurred in French and which seems to be occurring in Spanish. For some reason, rather than completing the change to a verbal reflexive, High German generalized the remaining accusative form of the reflexive back into the dative, explaining why we get _sich_ even in the dative instead of the expected *_sir_.[41] This re-creation of the full pronominal strategy is mysterious in itself. However, the original loss of the dative suggests that *_sik_ in Low Germanic may have indeed become a verbal affix or clitic before disappearing.

Returning to the area where we have the most clear data, namely, verbal reflexives, we make the following claim: most typically, verbal reflexives lose their reflexive function and become middles, that is, more or less general intransitivizers. Such a process is clearly a case of bleaching, since for a transitive verb to be used reflexively is a particular way in which its two arguments are reduced to one, whereas a middle strategy covers other kinds of intransitivization as well. (For examples of typical settings for the use of a middle to mark intransitivization, see Chapter I, Note 7.) Of course, the fact that the change in function is a bleaching makes it reasonable to expect it to happen spontaneously: bleaching is clearly a kind of grammaticization.

While I have no example of this process happening completely, there are a number of languages showing developments which make this idea plausible. Consider first Russian. Old Church Slavonic shows personal pronouns and the reflexive pronoun split into stressed and unstressed-clitic forms. The same is true of Polish and other Slavic languages. We assume, therefore, that this was the situation at one point in the prehistory of Russian as well. Over time, the clitic forms of the personal pronouns were dropped in favor of using the erstwhile stressed forms always. Along with this, the stressed form of the reflexive pronoun became the normal reflexive. However, the clitic form of the reflexive, rather than disappearing, turned morphologically into a verbal suffix, and functionally into a middle.[42]

A parallel development occurred in the history of Old Norse: a clitic version of the reflexive pronoun affixed itself to the verb and became a middle strategy, while the nonclitic reflexive pronoun remained a reflexive pronoun.

Note that in neither of these cases can we say that a verbal reflexive became a middle. In both cases, we start out with a pronominal reflexive and we end off with more or less the same pronominal reflexive. However, the clitic-nonclitic distinction intervened: the clitic part of the strategy broke off and became verbal. Probably concurrently with this, the part of the strategy which was becoming verbal changed function and became a middle. It is this turn of events which leads us to think that any verbal reflexive can become a middle.

Perhaps closer to this ideal is the Romance development. As in Slavic and in pre-Old-Norse, personal pronouns and reflexive pronouns in early Romance exhibited the clitic-nonclitic distinction. But in Romance, it was the clitic pronouns which remained in use as objects of the verb, and the stressed forms which disappeared in this syntactic position. Thus, the reflexive strategy perforce came to be carried by the verbal clitic. But, in addition, the strategy took on some of the functions of a middle. Thus, in French, it is possible to get sentences like

(77) la clef s' est retrouvée
the key REFL find-again+PAST
"The key was found."

The semantics of (77) do not involve coreference between an agent and a patient. Rather, there is only one argument, a patient; the function of the reflexive strategy in (77) is actually about the same as the function of the passive construction in the English equivalent. Similarly, the reflexive strategy in

(78) la pendule s' est arrêtée
the clock REFL stop (v.t.)+PAST
"The clock stopped."

serves to create the intransitive verb meaning "to cease moving" from the transitive verb arrêter "to cause to cease moving". Sentence (78) does not attribute agency to the clock; that is, it does not mean "The clock stopped itself", which would be the meaning if se in (78) were functioning as a reflexive. In Spanish, similar nonreflexive functions of the reflexive can be illustrated, e.g.

(79) se abren las puertas a las once
REFL open+PRES the doors at eleven-o'clock
"The doors open at eleven o'clock."

Like the Slavic and Norse cases, the Romance case does not illustrate a verbal reflexive becoming a middle. For one thing, the Romance strategies retain their reflexive function; and for another, the Spanish reflexive is not even completely verbal yet. However, the tendency for a reflexive to become a middle is clearly seen.

At this point we might ask what the ultimate fate of a middle strategy might be. In this matter I have no clear cases to base speculation upon. One guess is that, since intransitivization is not a single clearly defined function but a collection of various functions (reflexive, passive, etc.; see Chapter I), it is conceivable that each of these might through time come to be carried by a new productive strategy of its own, leaving the middle to appear only in certain lexically conditioned cases.[43] The effect would be to remove the middle from the syntax of the language and put it into the lexicon. Grammatically, this is tantamount to the disappearance of the strategy. If the particular lexical items are then lost or undergo considerable phonological change, all trace of the middle might be lost.[44]

Returning briefly to the matter of the loss of the reflexive pronoun in Low West Germanic, we see that if we assume that the pronoun went through a stage of being a verbal clitic, we would further expect the function of this pronoun-clitic to have undergone the shift towards a middle. Perhaps this would be followed by a period in which the ex-pronoun would be manifested lexically. Since object NP's normally follow the verb in Germanic, even when they are unstressed pronouns, we would guess that an affixed middle would be a suffix. Since the pronoun started out as *sik, a guess as to the phonological shape of such a middle suffix is -s(V); note that the modern middle strategy in Scandinavian descended from the clitic reflexive is just such a suffix -s. To my knowledge, however, there is no trace of a suffix like this in Low West Germanic, either as a middle or as an element appearing on some verb stems. This means that if the reflexive underwent the change to a verbal strategy, then to a middle, then to a lexicalized element, and then was lost entirely, all this happened before the period of the earliest extant records of Low West Germanic. While this is not out of the question, it certainly seems suspicious inasmuch as all other branches of Germanic have a vigorous reflexive pronoun which has not even taken the first step yet, namely becoming verbal. Perhaps a better guess is that, for some reason and by some mechanism yet to be discovered, the reflexive pronoun simply dropped out of Low West Germanic.

All the examples given so far of a reflexive becoming a middle involved pronominal reflexives that became or are becoming verbal. But it appears that when compound reflexives become verbal, they too can have their function extended to middle areas. Recall that the Mojave reflexive is a verbal strategy recently derived from a compound reflexive. That it has extended its function at least somewhat is illustrated by

(80) ?ahat iraw mat ičo:-k
horse fast REFL make TENSE
"He became a fast horse."

which, if I understand it correctly, does not necessarily imply agency of the subject. Similarly, *mat ču:?e:* (REFL teach) can mean "learn". In addition, there are a number of verbs which lexically require the reflexive, another sign that the function has become bleached; some examples are *mat ahay* "believe", *mat ča:hay* "be stuck up", *mat iθa:v* "be angry".

However, we would expect such bleaching to proceed more slowly for compound or ex-compound reflexives than for pronominal or ex-pronominal reflexives, for the following reason. A verbal reflexive indicates the presence of an object NP (since it indicates coreference between that NP and the subject) even though the surface structure has the appearance of an intransitive clause. But a middle strategy does *not* indicate that there is an object NP. Now, since a pronoun is typically a short, unstressed word, it should be easier for a pronoun to lose its NP-hood than a heavier compound reflexive NP.

There is a little bit of evidence that this is the case. In Dutch, where we find both a compound and a pronominal reflexive, the pronominal but not the compound reflexive occurs lexically conditioned by a large number of (nonreflexive, intransitive) verbs, in addition to its occurrence as a true reflexive. An example of such a lexicalized occurrence is

(81) Jan heeft zich aangekleed
Jan AUX REFL-PRON dress+PP
"Jan got dressed."

Note that on the surface (81) exhibits a direct object NP consisting only of zich, rather than zichzelf, which would be required if we really had a case of subject-object coreference (see the discussion of Dutch in section III.4). Of course, the object in (81) is a dummy; functionally, the sentence is intransitive.

Papago, which also has both a compound and a pronominal reflexive, exhibits the same phenomenon. The reflexive pronoun appears, without the compound adjunct, with quite a few verbs, forming a functionally intransitive combination, e.g.

(82) ma:gina at ɨ paḍɨ
car AUX REFL-PRON wreck
"The car got wrecked."

(83) Huan o ɨ maščam
John AUX REFL-PRON teach
"John is studying."

Sentence (82) shows the reflexive pronoun marking what is functionally an agentless passive, while (83) shows it combining lexically with a transitive verb to create a representation of the intransitive verb "study". As in Dutch, the pronoun ɨ in these sentences is a dummy object NP. A real object NP whose referent was the same as the referent of the subject NP would not only appear as the reflexive pronoun ɨ; the adjunct hɨǰɨl would also be added (see (4.82)-(4.86) in section III.4).

A fact probably related to this is provided by the Iroquois languages. These languages have a verbal infix -at- (in Tuscarora: -a?n-) which can mark reflexives, but which has had its function extended to various middle contexts. An example of a reflexive usage of this element in Tuscarora would be

(84) John nehr$\underbrace{\text{a?n}}_{\text{REFL}}$enə́?ya?r

"John is looking at himself."

A middle, lexicalized usage is illustrated by

(85) John wahr$\underbrace{\text{a?}}_{\text{REFL}}$ri:yu

"John fought."

Compare (85) with the transitive

(86) John wahráryu

"John killed it."

In the case of true reflexives only, that is, only when an object NP is definitely involved, a reduplicated form of the morpheme can also be used: -atat- (in Tuscarora: -a?na?n-), e.g. (Tuscarora):

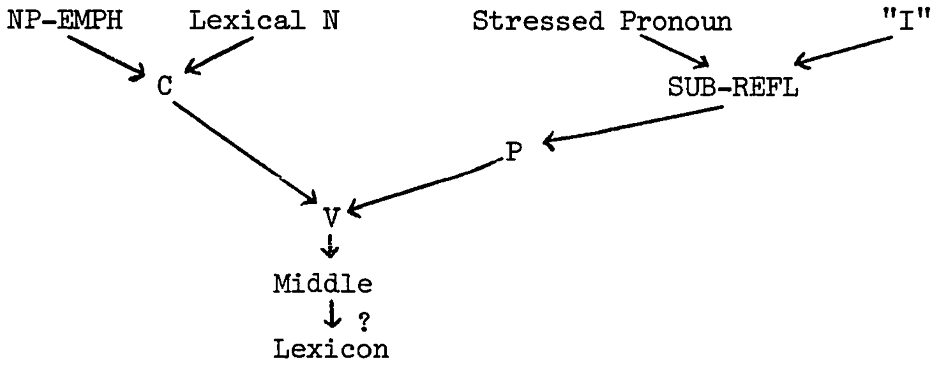
(87) nehr$\underbrace{\text{a?na?n}}_{\text{REFL}}$enə́?ya?r

"He's looking at himself."

It is not clear to me what the function of the reduplicated form is.[42] The point here is that the heavier (reduplicated) form must mark a real object NP, while the lighter (unreduplicated) form can sometimes just indicate a lexicalized intransitive, as in (85).

At any rate, it would appear from Mojave that, ultimately, any verbal reflexive can become a middle. Let us add this to our diagram to obtain a complete schematic picture of the life-cycle of the reflexive:

(88)


NP-EMPH
Lexical N
Stressed Pronoun
"I"
C
SUB-REFL
P
V
Middle
?
Lexicon

Warning: although marking a middle is inherently a verbal matter, a reflexive does not have to become completely verbal before its function can be extended to cover middles. The use of the reflexive in the position of a verbal object can mark a middle even while the reflexive can still appear as a reflexive in oblique NP's, as, for example, *se*/*sí* in Spanish or *ɨ* in Papago. With this proviso, (88) gives a pictorial summary of our guesses for the historical development of reflexives.

Notes to Chapter IV

[1] See Faltz 1976 for a guess as to how reflexive pronouns may have been dropped from oblique NP's in Romance due to a push-chain started by encroaching emphatics.

[2] A problem appears to be posed by the existence of many sentences of the type

(i) erus nequivit propitiare Veneram
master+NOM cannot+PAST propitiate+INF Venus+ACC

suo festo die
"REFL"+POSS festival-day+ABL

"The master could not propitiate Venus on her festival day."

in which the antecedent of *suus* is neither a subject nor a candidate for a typical exception to subject-antecedence. The fact is, even by the classical period *suus* appears to have lost its reflexivity and turned into an ordinary third person possessive. In general, a reflexive pronoun cannot become an ordinary anaphoric nonreflexive pronoun; but reflexive *possessives* undergo this change without difficulty. The Latin development continued down into Romance, so that in Spanish, for example, *su* (descended from *suus*) is an ordinary (nonreflexive) third person possessive, while the corresponding true pronoun *se/sí* not only remained reflexive, but exhibited the kind of development to be discussed below as being typical of reflexive pronouns. The possessives in German and Dutch, namely *sein* and *zijn* respectively, also display this change. In the modern languages they are ordinary third person possessives. Their phonological shape suggests that they are related to the reflexive pronoun (German *sich*) the same way that *mein* and *mijn* "my" are related to the first person singular pronoun (German *mich*); thus, presumably, *sein* and *zijn* were once reflexive possessives. This is further supported by the fact that their cognates in Scandinavian (e.g. Swedish *sin*) are reflexive possessives to this day:

(ii) Jan$_i$ gick till stationen med sina$_{i/*j}$ föräldrer
Jan go+PAST to station+DEF with REFL+POSS parent+PL
"Jan$_i$ went to the station with his$_{i/*j}$ parents."

(iii) Jan$_i$ gick till stationen med hans$_{*i/j}$ föräldrer
Jan go+PAST to station+DEF with 3MSG+POSS parent+PL
"Jan$_i$ went to the station with his$_{*i/j}$ parents."

[3] Sentence (6) does not correspond to our test sentence for SC-hood (see section III.4). However, if a language allows *with*-phrases to appear with verbs like *have*, *take*, *bring*, then non-SC reflexives regularly do not appear in them. Thus, compare

English

(i) John$_i$ had/brought/took the book with him$_i$.

French

(ii) Jean a son argent sur lui
Jean have+PRES 3SGPOSS money on 3MSG
"Jean$_i$ has his money on him$_i$."

Irish

(iii) thóg Seán an leabhar leis
take+PAST Sean the book with+3MSG
"Sean$_i$ took the book with him$_i$."

in which the compound reflexive does not appear in the *with*-phrase, with

Russian

(iv) ona vzjala doklad s soboj
3FSG take+PAST report with REFL
"She$_i$ took the report with her$_i$."

Hindi

(v) aurat apnē sath pānī lātī hɛ
woman REFL with water bring+PRES
"The woman$_i$ brings water with her$_i$."

Spanish

(vi) Juan llevó el libro consigo
Juan bring+PAST the book with+REFL
"Juan$_i$ brought the book with him$_i$."

in which the pronominal reflexive does appear in the *with*-phrase.

[4] Ordinary personal pronouns had split into stressed and unstressed forms too, but the unstressed forms disappeared from use.

[5] The pronoun-copy *ñ-* in (18) appears in the same position as *mat* in (19), suggesting that *mat* has somehow turned into a pronoun. Nevertheless it is still closely tied to the verb, which is the point here. Note that because of the copy *ñ-*, the full pronoun *ʔiñep* is deletable in (18), although in this case it is better to leave it in (Pam Munro, personal communication).

[6] One guess might be that a middle strategy, that is, a general intransitivizer, might become specialized to indicate reflexivization. I know of no such case; in general, middles tend to prefer to specialize to indicate passive (see Lehmann 1974, Parker 1976).

[7] Other descendants are Older Greek *he* and *sp^{h}e*, Lithuanian *si*, Prussian *sien*, possessives like Gothic *swēs*, Lithuanian *savè*, Vedic *svāh*, etc.

[8] Cf. Brugmann 1911, paragraph 395.

[9] The reflexive pronoun in Yiddish, namely *zix*, is used in all persons. Since this word is clearly descended from Proto-Germanic **sik*, which was used in the third person only, it would appear to provide another example of a third person reflexive becoming an all person reflexive. Actually, Yiddish shows such strong Slavic influence in many grammatical as well as lexical areas that the use of *zix* in all persons is probably best regarded as a calque of the Slavic usage.

[10] Talmy Givón, personal communication.

[11] The Kinyarwanda reflexive can occur more or less wherever an object pronoun can occur. Note that it is possible to get more than one object pronoun in the verb complex, as in

(i)	y-	a-	ki-	ba-	mu-	he-	er-	eye
	3SG	PAST	3SG	3PL	3SG	give	BEN	ASP
				objects				

"He gave it to them for him."

(-*ki*- and -*mu*- reflext different noun classes.) An example showing the reflexive as one of several object pronouns is

(ii)	y-	a-	ki-	b-	ii-	he-	er-	eye
	3SG	PAST	3SG	3PL	REFL	give	BEN	ASP

"He gave it to them for himself."

The Bantu reflexive is a case of a pronoun becoming verbal for which there is no evidence that the reflexive had split into stressed and unstressed forms prior to becoming verbal. In modern Kinyarwanda, for example, there is no independent pronoun cognate to -*ii*- and functioning as an oblique reflexive. Perhaps there was once such a pronoun, but it has since disappeared.

[12] The verb stem *thon* exits synchronically with the meaning "have" or "acquire". I have no idea what the etymology of *ophe*- is.

[13] A number of examples may be found in Givón 1971.

[14] See Li and Thompson 1974 for examples of this happening in Mandarin, and Lord 1973 for similar examples from Kwa languages.

[15] A Mandarin example can be found in Li and Thompson 1974.

[16] See Munro 1976.

[17] E.g., the English future modal *will* descends from a full verb meaning "want".

[18] Examples of the verb meaning "say" changing into a complementizer, mostly in Kwa languages, may be found in Lord 1976.

[19] E.g., the Hebrew noun *panim* "face" is the basis of the preposition "before": li-fney
to face-of

[20] E.g., the Latin demonstrative *ille* became the definite article in Romance.

[21] A discussion of a demonstrative used as a copula in modern Hebrew may be found in Faltz 1973. In Li and Thompson 1977, it is claimed that the modern Mandarin copula descended from a demonstrative.

[22] In Brugmann 1911 the Irish reflexive adjunct *féin* is listed as a descendant of Proto-Indo-European *s(w)-. If we assume a direct descent as a reflexive, this would be a violation of the claim that pronominal reflexives cannot become compound. However, the change can be explained via a coinage. First, a form of the reflexive pronoun is impressed into service as an NP emphatic. Then, the NP emphatic is bleached into a reflexive adjunct, a regular development (see below).

For the reflexive pronoun to come to be used as an emphatic is not unheard of elsewhere. The dative of the Latin reflexive, *sibi* is used as an emphatic with the (now nonreflexive (see Note 2)) possessive *suus*, as in

(i) suo sibi gladio hunc iugulo
3+POSS "REFL" sword+ABL 3MSG+ACC slay+1SG
"I slay him with his own sword."

Rather more common, however, is for a compound reflexive (often in an oblique form) to come to be used as an emphatic, as in Hausa

(ii) shī dà kânsà
3MSG with REFL+3MSGPOSS
"he himself"

or as in English

(iii) he himself

A related, but somewhat different, extension of a reflexive is illustrated by the use of the Bantu verbal (!) reflexive in a benefactive construction to denote "by oneself". Thus, the Kinyarwanda sentence

(iv) John y- a- mw- ii- kubit-i- ye
John 3SG PAST 3SG REFL hit BEN ASP

in addition to meaning "John hit him for himself", can also mean "John hit him by himself".

These extensions of reflexive strategies will not be further considered in this study.

[23] Thus, the two parts of the third person reflexive NP are both already reflexives, one a pronoun, the other an adjunct. This may be compared to Dutch *zichzelf* and to the use of the adjunct *hɨǰɨl* together with the reflexive pronoun *ɨ* in Papago (section III.4).

[24] The Irish development discussed in Note 22 would be an illustration of this. If a pronoun comes to be used as an emphatic, the syntactic conditions which applied to it as a reflexive pronoun become irrelevant. Its syntax as a reflexive adjunct will depend on its having been an emphatic; see below.

[25] Actually, rather than there being a fixed opposition, the use of *self* in Middle English probably fluctuated, hovering around the distinction seen in (44) and (45), until it settled into the modern English pattern.

[26] French *même* and Spanish *mismo* also mean "same". The Italian word for "same" is *medesimo*, lending support to the reconstruction.

It is not surprising that a morpheme which can be used as an NP emphatic and which is destined to become a reflexive adjunct can also be used (or be related to a form which can be used) to mean "same", since the presence of *same* in an NP signals that the referent of that NP is identical to some already established referent. I do not know the exact conditions for its use; it does seem to be the case that the referent has to have been established in the discourse (rather than by shared knowledge, say), that the NP which established it has to be in a previous sentence or clause, and that the referent of the NP with *same* in it has to be unexpected. Presumably, its particular referencing properties can be related to the comparative-like structure illustrated by

(i) A is the same as B.

[27] We are, of course, applying the argument given in (38) for the origin of verbal reflexives to the matter of the origin of adjunct reflexives.

[28] That the structure illustrated in (46) and (47) is not a primary reflexive can be seen by comparing (47) with

(i) ǎšér nišbáˤta: la:hém ba:x
REL swear+PERF+2MSG to-3MPL in-2MSG
"...to whom you swore by yourself..."

The structures of the clauses in (47) and (i) are parallel; but an ordinary pronoun appears in (i) in the position occupied by the "soul" pronoun in (47).

[29] We might well ask what sources exist for emphatic morphemes. One such source was indicated in Note 22: a reflexive NP, usually in an oblique form, can become an emphatic. But emphatics like Old English *self* or Latin *ipse* probably have some other source. I will not speculate on this matter here.

[30] The reflexive in Tamazight might be thought to pose a bit of a problem for this scenario. Recall that Tamazight builds its reflexive around a noun stem which synchronically means "head", and that this reflexive is SA. The synchronic transparency of the construction suggests that this reflexive is of recent vintage, whereas the SA-ness suggests that the strategy is relatively mature. Of course, there is no guarantee that once a noun meaning "head" is used as a reflexive, it will quickly be replaced by something else when its original lexical meaning is intended; that is, the Tamazight reflexive might be quite old despite the transparency of its construction.

[31] Eskimo also exhibits a strategy which disambiguates sentences such as the ones we have been talking about. A special pronoun suffix (sometimes called "fourth person") is used on subordinate verbs when coreference with a higher (subject?) NP is intended:

(i) takugaannilu asu uqarpallagpuq
see+when+3PL→"X" he suddenly spoke up
"When they saw him$_i$ he$_i$ suddenly spoke up."

(ii) takugaat asu uqarpallagpuq
see+when+3PL→3SG he suddenly spoke up
"When they saw him$_j$ he$_i$ suddenly spoke up."

Since Eskimo is ergative, (i) does not prove that the higher antecedent has no syntactic restrictions: perhaps it is required to be a higher absolutive.

Wappo uses a special pronoun in subordinate clauses when coreferent with a higher third person subject (Sandra A. Thompson, personal communication):

(iii) cephi me šawo hak'še? hahši?
3SG+NOM "X" bread like say
"He$_i$ says that he$_{i/*j}$ likes bread."

(iv) cephi te šawo hak'še? hahši?
3SG+NOM 3SG+NONNOM bread like say
"He$_i$ says that he$_{*i/j}$ likes bread."

(Note: the nominative forms of NP's are used as subjects of main clauses only; subjects of subordinate clauses appear in the unmarked nonnominative case.)

In Marathi, a special element may *optionally* substitute for an ordinary pronoun in a subordinate clause when coreferent with a higher NP. Thus,

(v) minilā vāṭta ki ti C.I.A. ejant āhe
Mini think COMP 3FSG C.I.A. agent COP
"Mini$_i$ thinks that she$_{i/j}$ is a C.I.A. agent."

exhibits the same ambiguity as the English equivalent. However, (v) may be disambiguated in favor of coreference by use of the word *āpan*:

(vi) minilā vāṭta ki āpaṇ C.I.A. ejant āhot
"X"
"Mini$_i$ thinks that she$_{i/*j}$ is a C.I.A. agent."

[32] The Yoruba primary reflexive is a compound one based on the noun stem meaning "body":

(i) John ri ara rẹ
John see body 3SGPOSS
"John saw himself."

The Igbo primary reflexive is compound:

(ii) ɔ́ hèrə oŋwɛ́ yá
3SG see+PAST REFL 3SG
"He saw himself."

as is the Ewe one, which consists of the NP stem *dokui* plus a possessive pronoun (Lord 1976). The Efik primary reflexive is also compound, based on "body":

(iii) á- má ó- kút ídem ésyě
3SG PAST 3SG see body 3SGPOSS
"He saw himself."

The verbal primary reflexive in Lakhota is presented in Chapter I. The primary reflexive in Eskimo is not the fourth person suffix mentioned in Note 31, but rather a combined compound and verbal affair; see sections III.2 and III.4. The Wappo primary reflexive is not the pronoun *me* mentioned in Note 31, but the pronoun *may'*; see section III.4. Finally, the Marathi primary reflexive does not involve the element *āpan* mentioned in Note 31, but rather another word, *swatāh*:

(iv) mini-ne swatāh-lā baḍavle
Mini REFL beat
"Mini beat herself."

[33] If our definition is understood to include *any* strategy used to mark the coreference of an NP in a subordinate clause with an NP in a

higher clause, then the deletion strategy usually known as *equi* (along with its (possible) variants *super-equi* and *tough-deletion*) should be considered a subordinate reflexive. Alternatively, we could tighten up our definition by restricting our attention to subordination under clauses containing verbs like *say*, *know*, etc. (that is, verbs taking a *that*-complementizer, or its equivalent in whatever language we are looking at), but disregarding subordination to clauses containing verbs like *force*, *persuade*, etc. (that is, verbs taking equi). Such a procedure is questionable due to the lack of crosslinguistic correspondence of complementizing devices; fortunately, it is not necessary. The discussion we are about to embark on only makes sense for those coreference strategies which place a special element in the lower NP slot. I leave open the question of whether synchronically equi and reflexivization ought to be considered variants of the same strategy.

[34] The Marathi subordinate reflexive introduced in Note 31 is also SA:

(i) minine vinulā kaḷavle ki āpaṇ turungāt āhot
Mini Vinu informed COMP SUBREFL prison-in COP
"Mini$_i$ informed Vinu$_j$ that she$_{i}$/*he$_j$ is in prison."

[35] The word *ìmɔ̀* in (60) is the independent version of the subordinate reflexive which corresponds to the prefix *ì-*. While not strictly necessary in (60), it is preferable to have it there, since the multiplicity of higher NP's makes it less likely that *ì-* would be interpreted as a subordinate reflexive rather than as the first person plural prefix, which happens to be homophonous to it.

[36] At this point one may reasonably ask: why cannot the production of non-SC compound primary reflexives be generalized to all NP positions in the clause? This would mean that compound reflexives would tend to become SC; yet we know that this does not happen. For the way out of this difficulty, read on.

[37] As a grammaticized subordinate reflexive in Yoruba, *oun* has also picked up the SA condition:

(i) John$_i$ sọ fun Bill$_j$ pe oun$_{i/*j/*k}$ jẹ ọrẹ Mary
John say DAT Bill COMP SUBREFL COP friend Mary
"John$_i$ told Bill$_j$ that he$_{i/*j/*k}$ was Mary's friend."

(ii) John$_i$ sọ fun Bill$_j$ pe o$_{*i/j/k}$ jẹ ọrẹ Mary
John say DAT Bill COMP 3SG COP friend Mary
"John$_i$ told Bill$_j$ that he$_{*i/j/k}$ was Mary's friend."

However, since *oun* can still also be an emphatic pronoun, it can have a nonsubject antecedent in a higher clause when emphatic, at least when that higher NP is the only possible antecedent, say, because other higher NP's are non-third person:

(iii) mo sọ fun Bill$_j$ pe oun$_j$ jẹ ọrẹ Mary
1SG say DAT Bill COMP 3SGEMPH COP friend Mary
"I told Bill$_j$ that *he*$_j$ was Mary's friend."

A nonemphatic version of (iii) with lower *he* coreferent to *Bill* still requires the use of the ordinary third person pronoun:

(iv) mo sọ fun Bill$_j$ pe o$_{j/k}$ jẹ ọrẹ Mary
1SG say DAT Bill COMP 3SG COP friend Mary
"I told Bill$_j$ that he$_{j/k}$ was Mary's friend."

This should be compared with the Turkish and Finnish situations discussed at the beginning of Section III.5. The situation here is a kind of mirror image of the one there. Here, we have a strategy which is used in the third person only, which is SA when there are two possible antecedents to choose from, but which can (marginally) refer to a nonsubject when the subject is non-third person. In Turkish, say, we have a strategy usable in all persons, which is SA when there are two possible third person antecedents, but which can have a nonsubject, non-third person antecedent. Not unlike Yoruba, the third person Turkish reflexive can marginally be used coreferent to a nonsubject when the subject is non-third person:

(v) Hasan-a kend-in- den bahset-ti- m
Hasan DAT REFL 3SG ABL talk PAST 1SG
"I talked to Hasan about himself."

although, as we would expect from the discussion in section III.5, it is preferable and more normal to use *kendisinden* in place of *kendinden* in (v).

[38] Do languages like this exist? Apparently, Navajo is one such (Stephen Anderson, personal communication). Another possibility is Tamil, if I read Lord 1976 and Larkin 1972 correctly; but this remains to be confirmed.

[39] Recall from Note 24 that Wappo has a third person subordinate reflexive pronoun *me* and an all person primary reflexive pronoun *may'*. Because of the phonetic similarity between these words, it is tempting to suggest that they derive historically from some single element *mV(C)*, presumably a subordinate reflexive. Several scenarios might be proposed for the development of the modern situation, including the different involvement of the two words with person; I leave this as an exercise for the reader. More ambitious speculators may wish to work the second person pronoun *mi'* into their scenarios...

[40] We had better leave equi out of consideration when making this statement.

[40a] Of course, the hierarchy which controls relative clause formation (the so-called "Keenan-Comrie hierarchy") cannot be identical to any hierarchy of natural coreference marking, since the former is a

hierarchy of *pairs* of NP positions. However, the following might be true: if the pair (NP_i, NP_j) is higher than the pair (NP_i, NP_k) on the hierarchy of natural coreference marking, then NP_j is higher than NP_k on the relative clause hierarchy, and/or conversely; and similar statements might hold for pairs (NP_i, NP_k) and (NP_j, NP_k). These are all open questions.

[41] Modern Icelandic retains the distinct dative form *sér* beside the accusative form *sig* of the reflexive pronoun. The Gothic reflexive shows a corresponding pair: dative *sis*, accusative *sik*. The final *s* which appears in the Gothic dative form regularly corresponds to *r* elsewhere in Germanic.

[42] See the Russian sentences (34)-(43) in Chapter I.

[43] Middles which derive from reflexives often show up lexically conditioned with many verb stems. See, e.g., the Russian example (43) in Chapter I.

[44] Alternatively, the middle could become restricted to indicating one kind of intransitivization. In a few branches of Indo-European (e.g. Latin and late Greek) the middle came to mark passivization (see Lehmann 1974, Parker 1976).

[45] As an illustration of the fact that there is some additional semantic content associated with the reduplicated reflexive, consider the following two Tuscarora sentences involving the verb meaning "to make a picture of". With the simple reflexive, we have

(i) waʔkatkyerhà:rəʔ
REFL
"I drew a picture of myself."

With the reduplicated reflexive, we get

(ii) waʔkaʔnatkyerhà:rəʔ
REFL
"I photographed myself."

I do not know if the glosses represent fixed lexicalized meanings for these combinations or if they are merely suggested interpretations based on a more abstract semantic difference.

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