On Declarative Sentences

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1.1 In Austin (1962), the Oxford philosopher J. L. Austin pointed out that there is an important distinction between such sentences as those in (1)

(1) a. Prices slumped.
b. I like you when you giggle.
c. Even Rodney's best friends won't tell him.

which can be true or false, and sentences like those in (2)

(2) a. I promise you that I won't squeal.
b. I sentence you to two weeks in The Bronx.
c. I christen this ship The U.S.S. Credibility Gap.
d. I pronounce you man and wife.

which have, instead of truth values, various conditions pertaining to appropriateness of use. Thus (2b) may be used appropriately only by a judge, or by one otherwise empowered to impose sentences, and (2d) only by someone with the authority to marry people. (2a) may be uttered by someone who intends to squeal, but it is not false, for all that: the uttering of (2a), whatever the intentions of the utterer, can constitute a promise, whereas the action of uttering (1a) does not constitute a slump in prices.

Austin calls sentences like those in (1) constative sentences, and ones like those in (2) performative sentences. Performative sentences must have first person subjects and usually have second person direct or indirect objects in deep structure. They must be affirmative and nonnegative, they must be in the present tense, and their main verb must be one of the large class of true verbs which includes those in (3):

(3) advise, answer, appoint, ask, authorize, beg, bequeath, beseech, caution, cede, claim, close, command, condemn, counsel, dare, declare, demand, empower, enquire, entreat, excommunicate, grant, implore, inform, instruct, offer, order, pledge, pronounce, propose, request, require, say, sentence, vow, warn, write

Since the sentences in (4), although their main verbs are [+performativa], do not conform to all the above conditions, they are not performative sentences. Therefore, the adverb hereby, which is characteristic of performative sentences, produces strangeness or total unacceptability if inserted into these sentences:

(4) a. Bill (* hereby) promises you not to squeal.
b. I (? hereby) command Tom to pick up that wallet.
c. * Do I (hereby) promise you to be faithful?
d. * I don't (hereby) pronounce you man and wife.
e. I (* hereby) warned you that Bill would be shot.

Austin (1962, p. 32) makes the interesting claim that both sentences in (5) are performative, that the only difference is that in (5a) the performative verb is explicit, while in (5b) it is implicit:

(5) a. I order you to go.
b. Go!

1.2 It has long been argued by transformational grammarians that imperative sentences like (5b), where no subject need appear in surface structure, but where a second person subject is understood, should be derived from structures which actually contain a noun phrase (NP) you as subject. This is but one of the many examples where a part of a sentence which has been called "understood" or "implicit" by traditional grammarians is present in deep structure, the abstract representation which is postulated by generative grammarians as underlying the more superficial constituent structure representations of traditional grammar.

There are a number of facts which suggest that Austin's contention that sentences like (5b) contain implicit performatives is to be captured by postulating deep structures for them which are almost identical to the deep structure which has been assumed to underlie the superficially more complex (5a). I will not discuss these arguments, for they are not central to the main thesis of this present paper. This thesis is that declarative sentences, such as those in (1), must also be analyzed as being implicit performatives, and must be derived from deep structures containing an explicitly represented performative main verb. Thus, for example, the deep structure of (1a) will not be that shown schematically in (6), as has been generally assumed previously in (6) and throughout this paper I will disregard problems connected with the deep structure representation of tenses and of the English verbal auxiliary, for I have discussed these elsewhere.
Rather, the deep structure of (1a) must be the more abstract structure shown in (7).13

Thus every declarative sentence (but cf. Section 3.4 below) will be derived from a deep structure containing as an embedded clause what ends up in surface structure as an independent clause. Although most of the arguments which I will cite below in support of this analysis are drawn from English, analogs for some of them can be found in many languages, and I know of no evidence which contradicts the assumption that the analysis can be generalized to all languages of the world. Of course, the mere fact that no counterevidence is available in some particular language does not justify the postulation of more abstract deep structures like (7) for that language, unless positive evidence can be found. Nonetheless, the absence of direct counterevidence is at least encouraging.

1.3 The outline of this paper is as follows: In Section 2, fourteen arguments which support the analysis implicit in (7) are presented. In Section 3, the rule of performatiue deletion, which, among other things, converts (7) to (1a),14 is stated, and various technical problems in the analysis are discussed. In Section 4, two alternative analyses for the facts presented in Section 2 are proposed, and each is compared with the analysis implicit in (7). Finally, in Section 5, some of the consequences which this analysis has for the theory of languages are examined.

2. The fourteen arguments below for assuming every declarative sentence to be derived from an embedded clause fall into three main groups. In Section 2.1 seven arguments suggesting the existence of a higher subject I are presented. In Section 2.2, I discuss three further arguments which indicate that the main verb of the higher sentences must be a verb like say, and in Section 2.3 I discuss the three arguments I know of within English which suggest that the performative verb above must have an indirect object you. A final argument falling under none of these categories is discussed in Section 2.4.

2.1.1 In Lees and Klima (1963), it is shown that a large number of the cases in which reflexives cannot appear, such as the sentences in (8)

(8) a. I think that \{ I *myself \} will win.
b. Have you ever wondered why Jill gave \{ you *yourself \} that tie?
c. He resented Betty's having seduced \{ him *himself \}.

can be accounted for if the reflexive rule is stated (informally) as in (9):

(9) One NP becomes the anaphoric reflexive pronoun of a preceding coreferential NP only if both NPs are in the same simplex sentence.15

Since (8a) has the deep structure shown in (10),

where the two occurrences of I are not in the same simplex sentence (i.e., it is not the case that a node S dominates one occurrence of I if and only if it also dominates the other), (9) will prevent the ungrammatical version of (8a) from arising. The same obtains for (8b) and (8c).
However, as sentence (11b) shows, there are grammatical sentences in which (9) appears to have been violated.

(11) a. Tom believed that the paper had been written by Ann and him­
self.
   b. Tom believed that the paper had been written by Ann and himself.

I have only slight evidence (cf. Note 17) for this, but a plausible source
for the reflexive pronoun in (11b) would be (11a), via a rule which deletes
an anaphoric pronoun when this pronoun is followed by an emphatic reflexive,
under certain further conditions. Whether this analysis is correct, or whether
the reflexive in (11b) can be produced by modifying the rule given in Lees
and Klima (1963), is of no relevance for the present discussion: I consider
the question to be open. Let us assume, however, for the purpose of discus­
sion, that the suggested analysis is correct. Then what are the conditions
under which the proposed rule operates?

First of all, note that the pronoun himself in (11b) must be anaphoric — it
can only refer to Tom. Therefore, sentences like (12), which contain a
reflexive pronoun which can have no antecedent in the sentence, are ungram­

(12) * Tom believed that the letter had been written by Ann and them­selves.

Secondly, note that there are conditions on the location of the antecedent
of the anaphoric pronoun to be deleted. The pronoun him in (11a) can be
deleted, for its antecedent (Tom) is the subject of a higher sentence. But
if the antecedent is embedded in a higher subject, as is the case in (13a),
the deletion is impossible: (13b) is ungrammatical.

(13) a. The girl who Tom spurned believed that the paper had been
       written by Ann and [Tom, himself].
   b. * The girl who Tom spurned believed that the paper had been
       written by Ann and himself.

Similarly, if the antecedent is in one clause of a coordinate sentence, and
the anaphoric pronoun in another, the deletion cannot take place. Thus (14a)
cannot be converted into (14b):

(14) a. Tom was not present, and many of the girls believed that the paper
       had been written by Ann and him­
       himself.
   b. * Tom was not present, and many of the girls believed that the paper
       had been written by Ann and himself.

Note that it is not necessary for the NP Tom to be a higher subject, nor,
in fact, for it to precede the emphatic reflexive. Thus (15a) and (16a) can
be converted into (15b) and (16b), respectively:

(15) a. I told Tom that the entries should be designed by Ann and him
       himself.
   b. I told Tom that the entries should be designed by Ann and himself.
(16) a. That the paper would have to be written by Ann and him himself
       was obvious to Tom.
   b. That the paper would have to be written by Ann and himself was
       obvious to Tom.

Note also that the antecedent for the reflexive pronoun need not belong
to the next sentence up the tree (in the obvious sense of this expression),
as was the case in (11b), (15b), and (16b), for (17a) can be converted into
(17b):

(17) a. Tom thinks that I tried to get Mary to make you say that the paper
       had been written by Ann and him­
       himself.
   b. Tom thinks that I tried to get Mary to make you say that the paper
       had been written by Ann and himself.

The above facts lead to the formulation stated in (19):

(19) If an anaphoric pronoun precedes an emphatic reflexive, the former
may be deleted, if it is commanded by the NP with which it stands
in an anaphoric relationship.

Inspection will reveal that (19) is satisfied only by (11b), (15b), (16b),
and (17b). It can therefore be used to account for the ungrammaticality of
(12), (13b), (14b), and (18b).

The restriction stated in (19) is the major one governing the rule that
produces emphatic reflexives, but there are others, which have to do with
the internal structure of the sentence to which the reflexive pronoun belongs.
That this is so can be seen by the varying degrees of acceptability exhibited
by the sentences in (20). [For convenience, I have repeated (11b) as (20a).]

(20) a. Tom believed that the paper had been written by Ann and
       himself.
   b. * Tom believed that the paper had been written by himself.
e. Tom believed that Ann and himself had written the paper.
d. * Tom believed that himself had written the paper.
e. Tom believed that the lioness might attack Ann and himself.
f. * Tom believed that the lioness might attack himself.

No doubt most readers would assign different degrees of acceptability to the sentences of (20) than I have, especially in the intermediate cases. But this will not concern us here. Nor will we be concerned with stating the rule which produces the sentences of (20) with the spectrum of acceptabilities I have assigned, or some other spectrum — far too little is known of the phrase structure configurations to which such a rule would be sensitive. Cursory inspection of the few facts shown in (20) shows that emphatic reflexives are invariably better if conjoined than if they occur alone, and that such reflexives are more acceptable as agent phrases than as subjects or direct objects. Doubtless there are many other conditions on this rule, which interrelate in a complex manner with those just stated, and which are of some intrinsic interest. But for my present purpose, which is to argue that (7) underlies (1a), they are beside the point. Whatever the rule is that produces the complex spectrum of acceptabilities in (20), it is obvious that the same rule is in operation in the case of such apparently simple sentences as those in (21):

(21)

a. This paper was written by Ann and myself.
b. * This paper was written by myself.
c. Ann and myself wrote this paper.
d. * Myself wrote this paper.
e. The lioness may attack Ann and myself.
f. * The lioness may attack myself.

Notice that it is not the case that just any emphatic reflexive can occur in simple sentences like those of (21): the sentences lose all traces of acceptability if myself is replaced by themselves, just as (12), whose reflexive pronoun cannot be anaphoric either, is unacceptable. That is, the pronoun myself in (21) is an anaphoric pronoun.

These facts are accounted for under my analysis, which assumes that just as (7) underlies (1a), the deep structures of the sentences in (21) will contain a higher performative clause, which is obliterated by the rule of performative deletion, after the application of the rule stated in (19), with whatever additional constraints on this rule are necessary to produce the correct spectrum of acceptabilities in (20). Hereafter, I will refer to this analysis as the performative analysis, to distinguish it from the other two alternative analyses I will take up in Section 4.

Whether or not the performative analysis is correct, I submit that as a minimal precondition of adequacy for any analysis, the facts of (21) must be accounted for by the same rules or principles that account for the facts of (20). That is, it cannot be accidental that the two acceptability spectra match each other so exactly and, more importantly, that the configurations which seem to be producing the variations in acceptability, in both (20) and (21), do not, as far as I know, play a systematic role in any other grammatical phenomenon of English.

I do not want to be thought to be advocating something mystical because of my insistence that (20) and (21) be explained in the same way. Intuitions of similarity between phenomena, while they may prove to be mistaken, are the principal forces behind attempts to find explanations of these phenomena. In linguistics, as in other sciences, if phenomenon A is intuitively felt to be similar to phenomenon B, but if the descriptions of these phenomena do not reflect the intuited similarity, the researcher is dissatisfied with the descriptions; he feels that while they may "work," they do not explain. Thus the fact that imperative sentences like *Kick that damn cat! are felt to be binary predicates semantically, with a second person argument not being physically expressed, and the fact that the reflexive pronouns that show up in imperatives are second person pronouns (*Kick yourself! not *Kick themselves!) are felt to be the same facts, and no theory of grammar which cannot reflect this sameness (e.g., no theory which provides only one level of syntactic representation) can be considered adequate.

Since the facts of (21) are felt to be the same as the facts of (20), they must be explained in the same way. The rule stated in (19), or its equivalent, must be stated in any adequate grammar of English so that (11b), (15b), (16b), and (17b) will be generated, and not (12), (13b), (14b), and (18b). Moreover, whatever conditions turn out to be appropriate to produce the acceptability spectrum of (20) must also be stated. Given those two pieces of grammatical apparatus, if the performative analysis is adopted, the facts of (21) follow. But it should be noted that the facts of (21) do not force one to accept the performative analysis in all its details; they provide no evidence for the existence of a higher you, nor for any higher verb, let alone one with the specific properties attributed to it in (7). Arguments for these stronger claims will be presented below.

2.1.2. The structure of the second argument is identical to that of the first, as are the conclusions that can be drawn from it. It has to do with like-phrases, such as the ones in (22).

(22)

a. Physicists like Albert don't often make mistakes.
b. * Physicists like himself don't often make mistakes.

While full NPs and pronouns can appear freely in like-phrases, the ungrammaticality of (22b) shows that this is not the case with reflexive pronouns. However, as the sentences in (23) show, if a pronoun in a like-phrase is...
commanded by the NP to which it refers, it may optionally become a reflexive pronoun:

(23) a. I told Albert that physicists like himself were a godsend.
    b. Albert was never hostile to laymen who couldn’t understand what physicists like himself were trying to prove.
    c. That physicists like himself never got invited to horse shows didn’t seem to faze Albert.

As (24) suggests, the reflexive pronoun can be indefinitely far away from the commanding NP:

(24) Albert accused me of having tried to get his secretary to tell you that physicists like himself were hard to get along with.

As was the case in Section 2.1.1, it is necessary that the reflexives in like-phrases stand in an anaphoric relationship with some other NP in the sentence. Thus if himself in the sentences of (23) and (24) is replaced by themselves, the sentences become ungrammatical.

The restriction that like-phrases containing reflexives be commanded by the NP to which they refer is necessary to exclude the ungrammatical sentences in (25), where this is not the case:

(25) a. * Physicists like himself always claim that Albert was hard to understand.
    b. * That Albert’s work wasn’t comprehensible to high school science teachers worried physicists like himself.
    c. * Albert was interested in astronomy, and physicists like himself should remember that.

Now note that in simple declarative sentences, the reflexive pronoun that occurs is myself:

(26) Physicists like myself were never too happy with the parity principle.

Once again, this fact can be accounted for by assuming a deep structure for all declaratives in which there is an NP I which commands what will end up as the main clause, and which will be deleted after the rule introducing reflexives into like-phrases has applied. As was the case in Section 2.1.1, the facts of sentences (22) through (26) do not support all facets of the performative analysis, but they are at least consonant with it, and they do support one facet of it.

2.1.3. The third set of facts which support the performative analysis has to do with as for-phrases, such as those that start the sentences in (27):

(27) a. As for the students, they’re not going to sign.
    b. * As for them, the students aren’t going to sign.
    c. As for the students, adolescents almost never have any sense.
    d. * As for the students, hydrogen is the first element in the periodic table.

The requirement in such constructions seems to be that the NP which follows as for have some connection with the clause that follows. Thus (27a) is acceptable only if they is taken to refer back to the students, and (27c) presupposes that all students are adolescents. Since no reasonable connection can be imagined for (27d), it is deviant in some way.20

I have no idea as to the deep structure source of these as for-phrases, but for my present purposes this is irrelevant. It is sufficient to note that the NP in these phrases cannot be a pronoun which refers to some nonpronominal NP in the following clause, as the ungrammaticality of (27b) shows. In particular, reflexive pronouns are excluded, even if the NP to which they refer is itself a pronoun. Thus, though (28a) is grammatical, (28b) is not: 21

(28) a. As for her, she won’t be invited.
    b. *As for herself, she won’t be invited.

However, there are cases where reflexive pronouns can appear in as for-phrases, as (29a) shows:

(29) a. Glinda knows that as for herself, she won’t be invited.
    b. *Maxwell knows that as for herself, she won’t be invited.

As the ungrammaticality of (29b) shows, it is not the case that just any reflexive pronoun can occur in an as for-phrase which has been prefixed to an embedded clause; this is only possible if the pronoun refers back to some NP in the upper clause. Furthermore, as the contrast between (29a) and the ungrammatical sentences of (30) indicates, it is only if the pronoun refers back to a higher subject NP that reflexives can appear in as for-phrases.

(30) a. Harry told Glinda that as for {himself, he} wouldn’t be invited.
    b. *That as for herself, she wouldn’t be invited enraged Glinda.

Finally, the ungrammatical sentences in (31) show that the subject NP to which the reflexive pronoun refers must be the subject of the sentence which immediately dominates the clause to which the as for-phrase is prefixed.

(31) Harry believes that the students know that Glinda has been saying that as for {herself, she}
    *themselves, they
    *himself, he
    won’t be be invited.

To sum up, these facts seem to require the postulation of a rule which optionally converts to a reflexive any pronoun appearing in an as for-phrase which is prefixed to an embedded clause, just in case this pronoun refers back to the subject of the next higher sentence. But if such a rule must
be in the grammar in any event, the fact that \textit{myself} can appear in the as for-phrase of an apparently unembedded main clause, as in (32).

(32) As for myself, I won’t be invited.

suggests that in a more abstract representation of (32), it must itself appear as a clause embedded in a sentence whose subject is \textit{I}. Hence sentence (32) provides stronger evidence for the performative analysis than do the sentences in (21) and (26), which only suggest the existence of an NP \textit{I} which commands all declarative clauses in deep structure. The grammaticality of (32) leads to the conclusion that the \textit{I} cannot be indefinitely far above the embedded clause, but instead must be the next subject up, which is just what is asserted in the performative analysis.

2.1.4. The next argument, which is of the same structure as the one immediately preceding, was discovered by Jeffrey Gruber (1967). He pointed out that reflexive pronouns could be in a clause embedded in the one to which they refer belongs if the embedded clause contains certain constructions with picture-nouns, like \textit{picture, story, tale, photograph}, etc., as is the case in (33):

\begin{enumerate}
\item a. Tad knew that it would be a story about himself.
\item b. Mike will not believe that this is a photograph of himself.
\item c. I promised Omar that it would be a poem about himself.
\end{enumerate}

Whether it is possible for the reflexive pronoun to precede the NP to which it refers is not clear to me — the sentences in (34), where this is the case, are perhaps less acceptable than those in (33):

\begin{enumerate}
\item a. ? That it was a portrait of himself worried Jasper.
\item b. ? That this is an article about himself has been emphatically denied by Dieter.
\end{enumerate}

I will not investigate further the many problems related to such constructions, except to point out the obvious fact that these reflexive pronouns are anaphoric (thus if \textit{himself} is replaced by \textit{herself}, the sentences in (33) and (34) become ungrammatical), and the fact that the NP to which the reflexive pronoun bears an anaphoric relationship must belong to the first sentence above the one containing the picture-noun construction. This is borne out by the contrast in grammaticality between the sentences in (33) and those in (35):

\begin{enumerate}
\item a. * Tad knew that Sheila had claimed that it would be a story about himself.
\item b. * Mike will not believe that Jane found out that this is a photograph of himself.
\item c. * I promised Omar to tell Betty that it would be a poem about himself.
\end{enumerate}

Of course, these latter sentences become grammatical if \textit{herself} is substituted for \textit{himself}, as is to be expected.

Once again, it is of no relevance to the present discussion whether the reflexives in (33) are to be generated by some extension of the normal reflexive rule, or by an extension of the rule of Section 2.1.1, which deletes an anaphoric pronoun before an emphatic reflexive under various conditions, or by some rule distinct from both of these. Some rule must be inferred to exist, and if the performative analysis is adopted, this rule will account for the fact that \textit{myself} is the reflexive pronoun that appears when such clauses as those embedded in (33) appear as main clauses, as (36) shows:

\begin{enumerate}
\item a. Max expected Sue to wash him.
\item b. ?? Sue was expected by Max to wash him.
\end{enumerate}

As the grammaticality of (39) shows, the restriction which is operative here does not exclude all passives in embedded clauses when the pronoun in the agent phrase refers to an NP in the matrix sentence:

\begin{enumerate}
\item a. Max expected Sue to wash him.
\item b. ?? Sue was expected by Max to wash him.
\end{enumerate}

As a first approximation to a principle to account for these ungrammaticalities, I suggest (41):

\begin{enumerate}
\item a. Max expected Sue to wash him.
\item b. ?? Sue was expected by Max to wash him.
\end{enumerate}

As a first approximation to a principle to account for these ungrammaticalities, I suggest (41):
Rule (41) is obviously too strong; for (39) violates it twice and yet it is perfectly acceptable. But it cannot be assumed that all such double violations will result in grammatical sentences, for (42) is ungrammatical:

(42) * Sue was expected by Max, to be washed by him.

But it does seem reasonable to assume that what is involved in accounting for the ungrammaticality of (38), (40b), and (42) will be some restriction which is like (41) in that it excludes certain types of deep structures which contain two coreferential NPs from participation in certain (types of) transformational operations. But if this assumption is correct, then it must be assumed that the deep structure of sentences like (37b) must contain two occurrences of the NP I, for it would seem natural to exclude this sentence by the same mechanism that excludes (38). Therefore, the ungrammaticality of (37b) may be taken as weak confirmation for one facet of the performative analysis.

2.1.6. The next argument for the performative analysis was called to my attention by David Perlmutter. He pointed out that the verb lurk is awkward with first person subjects, as (43) indicates:

(43) a. * I am lurking in a culvert.
b. ? I lurked near your house last night.

However, it is not always the case that lurk excludes first person subjects. In embedded clauses, such constructions are perfectly grammatical:

(44) a. Max believes that I am lurking in a culvert. I'm here with you.
b. Pat and Mike testified that I lurked near your house last night.

The true nature of the restriction on lurk can be seen in the ungrammatical sentences of (45), which differ from those of (44) only in having the subject of lurk identical to the subject of the verb in whose object the complement clause is embedded:

(45) a. Max believes that he is lurking in a culvert. I'm here with you.
b. [Pat and Mike] testified that they lurked near your house last night.

As Perlmutter observed, lurk is a verb which one may predicate of others, but not of oneself. This suggests that lurk must be constrained to so that it does not appear in deep structures where its subject is identical to the subject of the next higher verb in the tree. It seems to be necessary to state this restriction in terms of subjects of higher clauses, for the sentences of (46), in which the subject of lurk is identical to some other NP in the next sentence up, are more acceptable than those in (45):

(46) a. Susan told Max that he should not lurk near her house any longer.
b. Lurking near lakes is easy for Bobby.

Since some restriction on lurk must appear in the grammar in any case, so that sentences such as those in (45) will be blocked, if the performative analysis is adopted, the same restriction will automatically exclude the sentences of (43). Thus these latter sentences constitute further evidence for the correctness of this analysis.

2.1.7. The last argument I will adduce to show the existence of a higher NP I in the deep structure of all declarative sentences has to do with sentences containing according to, such as (47):

(47) According to [Indira Gandhi The Realist Satchel Paige], food prices will skyrocket.

As far as I know, there are no restrictions obtaining between the clause that follows the according to-phrase and the NP which appears in that phrase, but there is a restriction to the effect that first person NPs may not appear in these phrases in simple declarative sentences. However, as was the case with lurk, first person NPs can appear in these phrases if they occur in an embedded clause, as (48) shows

(48) Satchel Paige claimed that according to [Indira Gandhi The Realist you * me], food prices would skyrocket.

It is evident that a situation similar to the case of lurk obtains here. But there, although the restriction that was necessary was not clear in detail, it seemed fairly certain that the restriction was to be stated in terms of the deep structure subject of lurk and some higher NP. Here, because of the present lack of knowledge as to the deep structure source of phrases containing according to, it is not obvious as to whether the necessary restriction should be stated in terms of deep structure or in terms of some lower level of structure. I will assume, for the present discussion, that the former is true, and that phrases containing according to are not to be derived from any more complex source. In the absence of any evidence for or against these assumptions, they seem neutral enough, though I feel sure that the latter assumption will prove wrong. However, if, for the sake of argument, we make these assumptions, then the restriction which seems to be necessary to exclude such sentences as the ungrammatical one in (48) can be stated as in (49):
(49) No well-formed deep structure may contain an embedded according to-phrase if the NP in that phrase is identical to any NP belonging to the first sentence above the one containing that phrase.

This condition will exclude the ungrammatical sentence in (48), but it is also strong enough to exclude the ungrammatical sentences of (50), though not (51):

(50) a. * That food prices, according to him, would skyrocket worried Satchel Paige.
    b. * Indira Gandhi told Satchel Paige that according to [him], food prices would skyrocket.

(51) * Satchel Paige, stated that it was not true that according to him, food prices would skyrocket.

Unfortunately, condition (49) is not only too weak to exclude (51), but also too strong, for it will incorrectly block the grammatical (52):

(52) Satchel Paige, drives a truck that gets, according to him, 37.8 miles per gallon.

While I am unable, at present, to improve on (49), I suspect that it is basically correct, for at least it is adequate to the task of excluding the ungrammatical sentences of (48) and (50). If this suspicion is correct, and if the performative analysis is adopted, whatever revised version of (49) is finally arrived at will explain why (47) is ungrammatical if me occurs following according to, for it will be identical to the higher NP I which is assumed in the performative analysis. Thus the sentences of (47) also provide indirect confirmation for this analysis.

2.1.8. I have avoided many complex issues in my brief discussions of the seven sets of phenomena above, in an attempt to present the basic evidence for the existence of a higher I as clearly as possible, without invalidating the arguments by oversimplification. In this section, I would like to mention, even more fragmentarily, three further constructions which I understand much too poorly to be able to argue from at present, but which seem to be likely candidates for future use as evidence for the performative analysis.

The first observation I owe to Joshua Waletzky. In his dialect, such sentences as (53a) are possible, and they are synonymous with sentences like (53b):

(53) a. Sid is coming with.
    b. Sid is coming with me.

However, this stressed with is not always synonymous with with me — (54a) is synonymous with (54b); not (54c).

j (54) a. Abe\textsubscript{1} mentioned that Sid was coming with him.
    b. Abe\textsubscript{1} mentioned that Sid was coming with me.

The implications of these facts would appear to be the same as those of the other arguments presented above, but there are so many additional idiosyncratic restrictions on this construction that I do not understand that I will not pursue the matter further here.

The second construction was called to my attention by David Perlmutter and, independently, by Charles Elliott. They pointed out that there are relational nouns like friend which normally appear followed by an of-phrase, as in (55):

(55) A friend of Tom's is going to drop by.

In simple declarative sentences, however, the of-phrase need not be present. If it is not present, as in (56a), the sentence is felt to be synonymous with an otherwise identical sentence which contains the phrase of mine after friend [cf. (56b)]:

(56) a. A friend is going to drop by.
    b. A friend of mine is going to drop by.

Not surprisingly, when sentences like (56a) are embedded, the missing of-phrase is not always felt to be of mine — (57a) and (57b) are synonymous:

(57) a. Sheila whispered that a friend was in the trunk.
    b. Sheila whispered that a friend of hers was in the trunk.

Once again, the implications for the performative analysis seem clear — of-phrases after nouns like friend delete if the NP in the phrase is identical to some higher NP. But there are complications. In (58), the missing of-phrase is not of mine, but rather something like of one's:

(58) Friends are a great help in times of hardship.

At present, it is not clear to me how the rule which produces (58) is to be generalized so that it will also apply to (57a) and (56a) — if, in fact, it is even the same rule at work. I will leave this question unresolved in the present paper.

Lastly, there are certain types of vocatives which require first person pronouns in them. See, for example, (59):

(59) Hoboken is a fine city,

\[
\begin{array}{c|c|c}
\text{Peter} & \text{darling} \\
\text{my} & \text{boy} \\
\text{her} & \text{friend} \\
\text{his} & \text{son} \\
\text{Bill's} & \text{lawyer} \\
\text{rival} & \end{array}
\]
At present, I cannot explain why my is required in (59), but perhaps it can be shown to relate to the performative analysis somehow.\footnote{22}

Although these last three sets of facts are very unclear, it seems to me that those presented in Sections 2.1.1 through 2.1.7 more than amply support one facet of the performative analysis — the claim that deep structures of declarative sentences contain a higher subject NP I. The facts discussed in Section 2.1.1 (by Ann and myself), Section 2.1.2 (like myself), Section 2.1.5 (or I was given by me to your sister), Section 2.1.6 (lurk), and Section 2.1.7 (* according to me) all show the need for postulating an NP I in deep structure which is somewhere above (and which commands) the embedded deep structure clause which will become the main clause in surface structure. The facts discussed in Section 2.1.4 (a picture of myself) show that the I cannot be indefinitely far away, but must rather belong to the first clause up in deep structure, and the argument in Section 2.1.3 (as for myself) indicates that the I must in fact be the subject of this first clause up. The remainder of the arguments in Section 2 will be aimed primarily at justifying other facets of the deep structure in (7), but several by-products of these arguments will offer further support for the claim that a higher subject I must be postulated to exist in all deep structures for declarative sentences.

2.2.1. The first of the three arguments I will advance in this section to show that the verb of the clause whose subject NP is I is a verb like say has to do with the verb believe. This verb can have a clausal object, but as Robin Lakoff, to whom this argument is due, pointed out, believe also can have a pronoun referring back to a human NP as its superficial object, under certain circumstances. Thus if one clause of a sentence contains a verb like say whose subject is some NP\textsubscript{a}, a later clause can contain believe NP\textsubscript{a}, as is the case in (60).

(60) Tom\textsubscript{1} told her\textsubscript{1} that Ann could swim, but nobody believed him. a. *(them) b. *(her) c. *(him)

As the ungrammaticality of (60a) shows, the pronoun that follows believe must stand in an anaphoric relationship to some other NP in the sentence. The contrast between (60b) and (60c) shows that the pronoun after believe cannot stand in an anaphoric relationship to just any NP in the rest of the sentence — in general, it must refer back to a subject of a particular class of verbs, whose precise specification I will now turn to.\footnote{33}

Compare the sentences in (61) with those in (62) and (63).

\begin{itemize}
  \item (61) a. Tom\textsubscript{1} explained that Ann could swim, but nobody believed him.
  \item b. Tom\textsubscript{1} wrote that Ann could swim, but nobody believed him.
  \item c. Tom\textsubscript{1} told them that Ann could swim, but nobody believed him.
  \item d. Tom\textsubscript{1} said that Ann could swim, but nobody believed him.
  \item e. Tom\textsubscript{1} asserted that Ann could swim, but nobody believed him.
  \item f. Tom\textsubscript{1} shouted that Ann could swim, but nobody believed him.
  \item g. Tom\textsubscript{1} whispered that Ann could swim, but nobody believed him.
  \item h. Tom\textsubscript{1} spoke to them that Ann’s ability to swim.
  \item i. Tom\textsubscript{1} screamed that Ann’s ability to swim.
  \item j. Tom\textsubscript{1} yelled that Ann’s ability to swim.
  \item k. Tom\textsubscript{1} roared their that Ann’s ability to swim.
  \item l. Tom\textsubscript{1} giggled their that Ann’s ability to swim.
  \item m. Tom\textsubscript{1} cooed their that Ann’s ability to swim.
  \item n. Tom\textsubscript{1} cooed his that Ann’s ability to swim.
  \item o. Tom\textsubscript{1} cooed her that Ann’s ability to swim.
  \item p. Tom\textsubscript{1} cooed them that Ann’s ability to swim.
  \item q. Tom\textsubscript{1} cooed his, her, them that Ann’s ability to swim.
  \item r. Tom\textsubscript{1} cooed his, her, them, his, their that Ann’s ability to swim.
  \item s. Tom\textsubscript{1} cooed his, her, them, his, their, her, their that Ann’s ability to swim.
  \item t. Tom\textsubscript{1} cooed his, her, them, his, their, her, their, her, their that Ann’s ability to swim.
  \item u. Tom\textsubscript{1} cooed his, her, them, his, their, her, their, her, their, his that Ann’s ability to swim.
  \item v. Tom\textsubscript{1} cooed his, her, them, his, their, her, their, her, their, his, their that Ann’s ability to swim.
  \item w. Tom\textsubscript{1} cooed his, her, them, his, their, her, their, her, their, his, their, his that Ann’s ability to swim.
  \item x. Tom\textsubscript{1} cooed his, her, them, his, their, her, their, her, their, his, their, his, her that Ann’s ability to swim.
  \item y. Tom\textsubscript{1} cooed his, her, them, his, their, her, their, her, their, his, their, his, her, their that Ann’s ability to swim.
  \item z. Tom\textsubscript{1} cooed his, her, them, his, their, her, their, her, their, his, their, his, her, their, their that Ann’s ability to swim.
\end{itemize}

The sentences in (61) all have main verbs denoting linguistic communication, as opposed to those in (62), whose main verbs denote nonverbal communication.\footnote{34} The ungrammaticality of the latter suggests that whether the restriction on believe is to be stated in terms of deep structure or as some condition on a transformational rule, there is need of some feature [±linguistic], so that (61) and (62) may be distinguished. I use the feature [±linguistic], instead of [±verbal], because of the fact that such verbs as write, cable, wigwag, and possibly signal, buzz, etc., can appear in sentences like (61a). The crucial feature of these verbs is not that they describe oral communication, but rather a kind of communication which is based on language, or, at least, on some kind of systematic code.
Since the sentences of (63c) and (63d) are ungrammatical, I propose to mark these main verbs with the feature \([-\text{communication}]\), to distinguish them from the verbs in (61) and (62).

Presumably, all verbs that are \([+\text{linguistic}]\) are redundantly \([+\text{communication}]\) (unless verbs like babble, gibber, etc., are \([+\text{linguistic}]\)), so the verbs enquire and command would not differ in their feature composition from the verbs of (61), as Mrs. M. A. K. Halliday has pointed out to me. But since the sentences of (61) are (almost) all grammatical, while (63a) and (63b) are not, some feature is necessary to distinguish these sets. I propose the feature \([\pm\text{declarative}]\), to subcategorize verbs that are marked \([+\text{communication}, +\text{linguistic}]\), and I assume that verbs like enquire, ask, command, order, exclaim at, beseech, etc., will be lexically marked \([-\text{declarative}]\), while the verbs in (61) will be marked \([+\text{declarative}]\).

Paul Kiparsky has pointed out\(^{35}\) the need for distinguishing syntactically between such verbs as groan, snort, laugh, quip, grumble, etc., and verbs like say, claim, etc., and it appears that this same class of verbs will produce queer, though perhaps not totally unacceptable, sentences if their subjects serve as the antecedent for a pronominal object of believe.

I am at a loss to distinguish in any but an \textit{ad hoc} manner among the verbs in (61b). All these verbs would seem to have the same feature composition, so I cannot explain the differences in their behavior with respect to believe. I will leave this question for future research.

To recapitulate briefly, it appears that a human anaphoric pronoun can appear only as the superficial object of believe if this NP stands in an anaphoric relationship to another NP which functions as the subject (but see Note 33) of a verb with the feature composition \([+\text{communication}, +\text{linguistic}, +\text{declarative}]\). No matter where in the grammar such a restriction is to be stated, the existence of such sentences as (64)

\begin{quote}
(64) Ann can swim; but if you don’t believe \{me, them\}, just watch her.
\end{quote}

\(\text{strongly supports two conclusions: 1. in the deep structure of the first clause of (64), the NP I appears as the subject of a verb; and 2. this verb shares the features of a large class of verbs like say, tell, scream, mumble, etc., i.e., the features \([+\text{communication}, +\text{linguistic}, +\text{declarative}]\). This is precisely the claim made by postulating (7) as the deep structure of (1a) (see pages 222 and 224). Thus sentences like (64) provide further confirmation for the correctness of the performative analysis.}\end{quote}

2.2.2. The second set of facts which indicates that the verb of the higher clause is a verb like say has to do with idiomatic expressions like be damned if, as exemplified by sentences like (65):

\begin{quote}
(65) \{I’m, I’ll be\} damned if I’ll have anything to do with her.
\end{quote}

At first glance, it might seem as if this sentence were ambiguous, the first reading being roughly paraphrasable by “I am determined not to have anything to do with her,” and the second by “People will damn me if I have anything to do with her.” In my own speech, however, the second reading is impossible, because of the presence of the morpheme \textit{will} in the if-clause.\(^{36}\) If the if-clause is preposed, the first meaning is also excluded, and the result, (66), is ungrammatical:

\begin{quote}
(66) * If I’ll have anything to do with her, I’ll be damned.
\end{quote}

However, it is of no importance whether (65) is ambiguous for other speakers or not — as far as I know, it is grammatical for all speakers in the first meaning, and it is this meaning which the rest of the discussion will be concerned with.

There are a number of peculiarities connected with this idiomatic sense of be damned if. Notice first of all that it cannot appear with other modals than \textit{will}, nor with any other sequence of auxiliary verbs; that it cannot appear in the negative or with various kinds of adverbs; and that it cannot be questioned:

\begin{quote}
(67) a. * I must be damned if I’ll have anything to do with her.

b. * I won’t be damned if I’ll have anything to do with her.

c. * I’ll be damned frequently if I’ll have anything to do with her.

d. * Will I be damned if I’ll have anything to do with her?
\end{quote}

There are also indications that the embedded clause was a negative sentence in deep structure (in accordance with its meaning). Thus this clause can contain verbs like budge, which, as David Perlmutter has pointed out, occur only in negative environments (consider, for example, * Harry bugged), and idioms like lift a finger, which are also restricted to negative environments\(^{37}\) (for example, * I’ll lift a finger to help you).

\begin{quote}
(68) a. I’ll be damned if I’ll budge.

b. I’ll be damned if I’ll lift a finger to help you.
\end{quote}

The hypothesis that an originally present negative has been deleted receives
further support from the fact that any can appear in (65), while this is not possible when the embedded clause appears as an independent sentence, unless it is in the negative:

(69) I * will have anything to do with her.

The most important restriction on be damned if, however, is that it requires a first person subject when it appears in a simple declarative sentence:

(70) a. * Somebody will be damned if he'll have anything to do with her.
b. * Your Uncle Frank will be damned if he'll have anything to do with her.

But it is not the case that be damned if always requires a first person subject — when it appears in a clause embedded in the object of a verb like say, a subject cannot be I unless the subject of say is [cf. (71)]

(71) { \{ Ed \} I said that I would be damned if I'd have anything to do with her.

The correct generalization becomes obvious upon considering the various sentences in (72).

(72) a. Ed, said that Sally.
    * I would be damned if Bill would marry
    * you
    * Ann
    * we
    * they

b. You said that Sally.
    * I would be damned if Bill would marry
    * you
    * Ed
    * Ann
    * we
    * they

c. They, said that Sally.
    * I would be damned if Bill would marry
    * you
    * Ed
    * Ann
    * we
    * they

It appears that be damned if can appear only in a deep structure [assuming, in the absence of clear counterevidence (but see Note 38), that the restrictions in question are to be stated in terms of deep structure] if its subject is identical to the subject of a higher verb.

Furthermore, examples like (73) show that the higher verb must be the main verb of the first sentence up, in deep structure:

(73) Ed, said that we had asserted that Sheila, had screamed that
    * he or she
    * we
    would be damned if she'd go.

That it is necessary for the subject of be damned if to be identical to the subject of the first clause up, rather than to just some NP which belongs to this clause, can be seen by the ungrammaticality of the sentences in (74).38

(74) a. * I told Ed, that he'd be damned if he'd have anything to do with her.
b. * That he'd be damned if he'd have anything to do with her worried Ed.

For some reason that I do not understand, the clause above be damned if cannot be passivized — (75b) is ungrammatical.

(75) a. The Secretary of State, declared that he'd be damned if he'd let me travel in France.
b. * It was declared by the Secretary of State, that he'd be damned if he'd let me travel in France.

From the contrast in grammaticality between (76a) and (76b), it can be seen that there is a further restriction on deep structures containing be damned if; not only must its subject be identical to the subject of the next higher verb, but that verb must have the features [+ communication, + linguistic, + declarative].41

(76) a. Ed, screamed that he'd be damned if Bill would marry Sally.
    { screamed
    { asserted
    { declared
    { claimed
    { stated
    { said

b. * Ed, whispered that he'd be damned if Bill would marry Sally.
    { knew
    { believed
    { hoped
    { expected
    { doubted
    { felt
    { enquired whether
Apparently, *be damned if* is impossible with *poss- ing* complementizers,\(^42\) for (77) is ungrammatical, as opposed to the first sentence in (61b).

(77) * Ed\(_i\) told me about being damned if Bill would marry Sally.

The restrictions which so far have been imposed on the occurrence of *be damned if* actually are oversimplified, as the sentences in (78) show.

(78) a. Ed\(_i\) said that it was *likely* that he\(_i\)'d be damned if he\(_i\)'d go.

b. Ed\(_i\) said that the one thing that he\(_i\)'d be damned if he\(_i\)'d sell was this knife.

c. Ed\(_i\) claims that Betty *feels* that he\(_i\)'ll be damned if he\(_i\)'ll go.

I have not investigated such constructions as these in detail, but it is my impression that they can be accommodated if the restrictions on *be damned if* are not stated in terms of the subject and verb of the first clause up, but rather in terms of the subject of the first verb of saying above *be damned if* in deep structure. That is, I believe that the eventual restriction on this idiom will be a somewhat less permissive version of (79).\(^43\)

(79) No deep structure containing the VP *be damned if* if S is well-formed unless the subject of this VP is identical to the subject of the first VP up the tree whose head verb has the features [+communication, +linguistic, +declarative].

If this restriction, despite being inadequate to the task of distinguishing between *likely* and *true* in (78a), or *feel* and *know* in (78c), is basically correct, the grammaticality of such sentences as (65) and (68) provides compelling evidence for the performative analysis. For (79) says, in effect, that whenever the idiom *be damned if* occurs in a surface structure, the associated deep structure must contain a higher verb of saying, and that the subject of this higher verb must be identical to the subject of *be damned if*. Since the subject of the idiom is I in (65) and (68), (79) requires the presence of a higher sentence whose subject is I and whose verb is a verb like *say*, a requirement entirely in consonance with the performative analysis.

2.2.3. The last set of facts having to do with the nature of the verb in the higher clause was discovered by Michael Brane. In Arabic, there are three complementizers, which all start with highly similar phonetic sequences: \(^?\)an, which is used after verbs like *\(\text{\textit{laquulu}}\) *("I say"); and \(^?\)inna, which is used after all other verbs [e.g., after *\(\text{\textit{waswastu}}\) *("I whispered")]. Such a strange distribution would suggest an analysis which recognized only two basic complementizers, \(^?\)an and \(^?\)inna, whose distribution could hopefully be predicted largely on semantic grounds, and which postulated a low-level morphological (or even phonological) rule which replaced the expected \(^?\)inna by \(^?\)inna after the verb \(^?\)aquulu.

However, if this rather plausible analysis is to be adopted, a rule deleting the verb \(^?\)aquulu must be added to the grammar, and this rule must be ordered so as to follow the rule converting \(^?\)inna to \(^?\)inna, because of the rather startling fact that \(^?\)inna occurs not only in sentences which contain forms of the verb \(^?\)aquulu explicitly, but also optionally at the beginning of almost all declarative sentences. Thus the three sentences of (80) (the boy left the house) are synonymous and in free variation:

(80) a. \(^?\)aquulu \(^?\)inna lwalada qad taraka lbayta
    I say (indic.) that the boy (acc.) (past) leave the house (acc.)

b. \(^?\)inna lwalada qad taraka lbayta.

c. \(^?\)al walad u, qad taraka lbayta.
    the boy (nom.) (past) leave the house (acc.).\(^44\)

The consequences of these facts for the performative analysis need not be belabored. Even if no other evidence were available in Arabic,\(^45\) one would be tempted to propose an analysis along the general lines of the performative analysis to account for them.\(^46\) I might point out that Arabic is the only language I know of where strong evidence points to a rule deleting a particular verb, instead of a pro-verb specified only by an abstract bundle of features.\(^47\) In English, it does not seem possible to identify the verb as being one particular member of the class of verbs designated by the feature bundle [+communication, +linguistic, +declarative].

2.3.1. The first of the three arguments I know of within English for claiming that the deep structure for all declaratives contains an indirect object *you* was pointed out to me by David Perlmutter.

In sentences like those in (81), a possessive adjective referring back to the subject of the main verb must modify an NP in the object:

(81) a. I craned (\(\text{my} \_\_\_\_\_\_\_) neck.

b. You hold (\(\text{your} \_\_\_\_\_\_) breath well.

c. Otto\(_k\) went on (\(\text{his} \_\_\_\_\_\_) way.

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ON DECLARATIVE SENTENCES
When the verbal idiom to hold one's breath is embedded in the object of such verbs as want, need, would like, etc., as it is in (82)

(82) a. I want you to hold your breath for 2 minutes.
    b. I want Tom's breath for 2 minutes.

an optional rule can operate on the complements to convert (82a) to (83a):

(83) a. I want your breath (to be) held for 2 minutes.
    b. * I want Tom's breath (to be) held for 2 minutes.48

As the strangeness of (83b) indicates, this rule would appear to be restricted to cases where the idiom has a second person subject.

I have suggested converting (82a) directly to (83a), instead of postulating a prior application of the passive on an earlier cycle, because the sentences in (84), which would result from such a derivation in isolation, are ungrammatical, for me at least:

(84) a. * Your breath was held by you for 2 minutes.
    b. * Tom's breath was held by him for 2 minutes.

The ungrammaticality of the sentences in (85) shows that it is not the case that whatever rule effects the conversion of (82a) to (83a) works in the objects of all verbs:

(85) a. ?? I expect your breath to be held for 2 minutes.
    b. * I know your breath to have been held for 2 minutes.

Let us now return to the restriction as to the deep subject of the idiom in such sentences as those in (83). That it is wrong to insist that this subject must be second person can be seen from the sentences in (86):

(86) a. I told Max that I wanted his breath (to be) held for 2 minutes.
    b. They said to us that they wanted our breath (to be) held for 2 minutes.
    c. We informed them that we wanted their breath (to be) held for 4 minutes.

It is easy to see that the more general restriction to which this construction is subject is that the deep subject of the idiom must be identical to the indirect object of the second sentence up. Since any grammar must contain this restriction, so that the facts of (86) can be accounted for, if the performative analysis is adopted, the fact that only your is possible in (83) becomes a consequence of this independently motivated restriction.

2.3.2. The second argument for postulating a higher indirect object you was pointed out to me by Ray Jackendoff. He observed that the ungrammaticality of such sentences as those in (87)

(87) * You [tired]
    bored
    jaded
    [etc.]

is to be attributed to the more general restriction which must be postulated so that the ungrammatical sentences of (88) can be blocked:

(88) a. I told Mr. Feuerstein that [I you]
    felt tired.
    * he

b. Blondie announced to Dagwood that [I you]
    felt bored.
    * they

       * he

c. Jerry told Joyce that [Sam we
    Petroca
    felt jaded.
    * she]

That is, the subject of such subjective predicates as be tired, be bored, love, etc., cannot be identical to the indirect object of the first verb up. In conjunction with the performative analysis, this restriction explains the ungrammaticality of (87), for this analysis postulates an indirect object you in the sentence which dominates all declarative sentences. Put in another way, (87) provides evidence for this facet of the performative analysis.

2.3.3. In addition to the fairly strong support for postulating a higher indirect object you which is provided by the arguments in Sections 2.3.1 and 2.3.2, there is some support from those dialects of English in which sentences like (89) are possible:

(89) ?? This paper was written by Ann and yourself.

To me, this sentence is highly dubious, but there are speakers who find no difference between it and (21a), while they would totally reject (89) with themselves in the place of yourself.

I have not investigated such dialects in detail, but it is my belief that in
just those cases where *yourself* is possible in "simple" declaratives like (89), anaphoric reflexives like *himself* will be possible in sentences like (90):

(90) ?? Ted told Sarah, that the paper had been written by Ann and herself.

If this prediction holds true, then sentences like (89) will constitute further evidence for the performative analysis, by an argument exactly paralleling that in Section 2.3.1.

2.4. There is one final argument for the performative analysis which does not lend itself to grouping under Sections 2.1 through 2.3. It is based on such sentences as (91), which were called to my attention by Thomas Bever and, independently, by Edward Klima.

(91) Jenny, isn't here, for I don't see her.

It is clear that the *for-*clause in (91) does not provide a reason for Jenny’s absence (indeed, Jenny may not in fact be absent), but rather a reason for the speaker to assert that she is absent. It is not clear to me how such a reading could be derived in a non-*ad hoc* way from any analysis of the sentence Jenny isn’t here which did not derive it from a deep structure containing the main clause in surface structure as an object clause of some verb of saying.

2.5. To summarize briefly, in the fourteen arguments above, I have attempted to justify all facets of the performative analysis, which postulates (7) as the deep structure of (1a). Paradoxically, the one facet for which I have the least support is the claim that the verb of the deleted higher clause has the feature [+performative] and is in fact a performative in (7). Aside from the rather weak argument which is mentioned in Section 3.4 below, I have no syntactic justification for this claim. Nevertheless, the fact that the uttering of (1a) constitutes an assertion, just as the uttering of (2a) constitutes a promise, suggests that their deep structures should not differ markedly, so that there will be a uniform deep structural configuration on which to base the semantic notion speech act. And as Lakoff and I argue elsewhere [Lakoff and Ross (in preparation)], it is likely that all types of sentences have exactly one performative as their highest clause in deep structure, so the deep structures of declaratives should not differ from this general scheme. It should be quite clear, however, that this claim is highly speculative at present, so the facet of the performative analysis from which its name derives must for the time being be recognized as the most tentative claim of the whole analysis.

Finally, I would like to make two points which are perhaps too obvious to need emphasis. Firstly, the facts on which I have based the arguments given in Sections 2.1 through 2.4 are not logical truths. There is no reason why they should be consistent with one another. That is, it is logically possible that *myself* could appear in sentences like (21), but *himself* in sentences like (32), and that it could be only Baxter that was impossible in sentences like (47). Or believe [+human, +PRO]NP might require a verb of saying, while be damned if could only occur after a verb denoting fear. That these facts all do cohere requires an explanation, therefore, and the performative analysis is an attempt at one.

Secondly, the performative analysis makes a claim which transcends the fourteen sets of facts I have used in the arguments above. The claim is that if, in any language, other constructions are discovered in which there are restrictions on first or second person NPs, then these restrictions will prove to be special cases of more general restrictions which will be formulated in terms of properties of higher subjects and indirect objects, respectively. And if peculiarities having to do with the allowable constructions in the objects of verbs of saying should turn up, then just these peculiarities should be observable in simple declaratives. Whether this strong claim is correct or not can only be decided by future research.

3.1. The rule which effects the conversion of (7) into (6) is stated in (92).

(92) Performative Deletion

\[
\begin{array}{cccc}
I_NP & +V & \text{[you]}_N & S_VP \\
\text{[+performative]} & \text{[+communication]} & \text{[+declarative]} & \\
1 & 2 & 3 & 4 \\
0 & 0 & 0 & 4
\end{array}
\]

There are a number of problems with this rule. First of all, as was mentioned in Section 2.5, it appears that (92) must be made more general, so that not only verbs of saying will be deleted in generating declaratives, but also verbs of commanding, in generating imperatives. It also seems likely that it will be necessary to delete other types of verbs, so that exclamatory sentences, and optative sentences, and other sentence types, will arise from the same rule. At present, it is not clear to me how this rule is to be generalized sufficiently to handle this class of cases but still keep specific enough so that performative verbs like authorize and grant will not be deleted. Perhaps no general condition is statable, and verbs must be lexically marked as to whether or not they undergo this rule.

3.2. Secondly, is rule (92) optional or obligatory? McCawley (1968) has pointed out that while (93a) is possible, (93b) is not
pronouns can either have the verb of the clause inflected for first person, as in (97a), or for third person, as in (97b), if the relativized NP is the subject of the appositive clause (I, who am responsible):

(97) a. ich, der ich verantwortlich bin
   I (rel. pron.) I responsible be (1st pers. sg. pres.)
   b. ich, der verantwortlich ist (3rd pers. sg. pres.)

Finally, this proposal may provide a starting point for an explanation of the extremely puzzling facts of (98) and (99).

(98) a. It is I who {am} responsible.
   b. It is me who {am} responsible.
   c. It is you who {are} responsible.
   d. The one who {am} responsible is {I me}.

(99) a. I am the one who will have to protect {myself}.
   b. The one who will have to protect {myself} is {I me}.

While I agree with both of these proposals — that is, that rule (92) should be made to depend on the presence of hereby, and that I and you are to be derived from underlying third person NPs — I have postponed revising rule (92) until I understand better what other consequences the proposals will have. Thus (92) must be regarded as a very preliminary formulation.

3.4. A third problem connected with the operation of rule (92) is the following: if some syntactic rules can apply to their own output, as would seem necessary, why can rule (92) not apply to its own output and produce infinite ambiguity? That is, why can (7) not be embedded again in the object of a higher performative verb of saying? Or doubly embedded? Or embedded an indefinitely large number of times?

The answer to this question is that there is an independently necessary constraint that prohibits any verb from having a performative interpretation when it is embedded as the complement of another verb. Thus while (100a), said in isolation, constitutes an admission, and (100b) a promise,

(100) a. I admit that I’ll be late.
   b. I (hereby) promise that I’ll be late.
when (100b) appears as the object of admit, as in (101).

(101) I admit that I (* hereby) promise that I'll be late.

the result is an admission of having made frequent promises, but it is not a promise. This fact is also reflected in the inability of the adverb hereby to precede promise in (101). Thus, since performative verbs cannot be used performatively in complements, rule (92) will not produce infinitely ambiguous surface structures. This point provides some nonsemantic evidence for including the feature [+ performative] in (7) and in (92).

3.5. One final point about the operation of rule (92): even granting that this rule operates in the derivation of sentences like (21), (26), (32), (64), (65), etc., where the superordinate sentence leaves traces in the surface structure, it might be argued that there is no superordinate sentence in the deep structure of sentences where no trace can be found of this higher clause. Thus (1a) would have (6), instead of (7), as its deep structure.

It seems to me that this line of argument is not tenable, for it would make the claim that while sentences like (21) are unambiguous (they can be derived only from deep structures containing a higher performative), sentences like (1a) are ambiguous, in that they can be derived from (6) or from (7). Since rule (92) must be in the grammar, it will convert (7) to (6) and then to (1a). But it is false that sentences like (1a) are ambiguous, so one of the two structures, (6) and (7), which were postulated to underlie (1a), must in fact not be a well-formed deep structure. It is obvious that (7) must be retained, and not (6), unless some non-ad hoc way can be found to block the conversion from (7) to (6). The only thing that suggests itself to me is some vastly more powerful convention on recoverability of deletion than is now available.55 In the absence of such a convention, however, I will for the present assume that the only deep structure for (1a) is (7), or, more generally, that every declarative sentence has one and only one performative sentence as its highest clause, and that this highest clause is deleted by the rule of performative deletion.56

There is a class of true counterexamples to this claim, as was pointed out to me by Paul Kiparsky. The sentences which appear in an instruction manual, or in a newspaper article without a byline, obviously are not to be derived from a deep structure containing a superordinate clause. In fact, it is precisely in impersonal contexts like this that first person pronouns cannot occur. So my claim must be weakened somewhat, as has been done in (102).

(102) All declarative sentences occurring in contexts where first person pronouns can appear derive from deep structures containing one and only one superordinate performative clause whose main verb is a verb of saying.

At present, I do not know of any reason to assume a more abstract underlying structure than (6) for (1a), if it is used in a newspaper article. Nor, more importantly, do I know how to give formal content to such terms as "occur" and "context," which Kiparsky's observation has forced me to use in stating (102). They seem to be definable only within a systematic theory of pragmatics, an area which up to now has been largely disregarded by generative grammarians. I will return to this topic, briefly, in Section 4.2 and in Section 5 below.

4. In this section, I will propose two alternative analyses of the facts in Section 2. While the first of these appears clearly inferior to the performative analysis, the second does seem to be equally satisfactory, and possibly superior.

4.1. The first alternative analysis I will refer to as the quotative analysis. The explanation it provides for the facts in Section 2 is the reverse of the explanation I have given. That is, while I have tried to account for the occurrence of myself in the as for-phrase of (32), which I repeat here for convenience.

(32) As for myself, I won't be invited.

by assuming a rule that optionally reflexivizes a pronoun in an as for-phrase if the pronoun refers back to the subject of the next higher verb, the quotative analysis assumes that (32) is basic — that an optional rule allows the me in an as for-phrase which starts an independent clause to become myself. Given this rule, and another, which converts direct quotes to indirect quotes, the fact that in embedded sentences other reflexives appear in as for-phrases is explained by the rule which changes pronouns in forming indirect quotations. That is, just as (103a) would be converted into (103b), so (104b), which has resulted from (104a) by the operation of the as for reflexivization rule, would be converted into (104c)

(103) a. Harpo said to Greta, "I'll never forget you."
   b. Harpo said to Greta that he'd never forget her.

(104) a. Harpo said to Greta, "As for me, I'll never forget you."
   b. Harpo said to Greta, "As for myself, I'll never forget you."
   c. Harpo said to Greta that as for himself, he'd never forget her.

It seems to me that there are insuperable difficulties with this analysis. First of all, since as for-phrases containing reflexives can appear after such verbs as believe, as in (105a), the objects of such verbs would have to be derived from direct quotes, as in (105b), which is hardly a plausible structure for semantic rules to work on.

(105) a. Ed believed that as for himself, he'd be spared.
   b. * Ed believed, "As for me, I'll be spared."
Further, since (105b) is ungrammatical, the indirect discourse rule would have to convert it to (105a) obligatorily.

Secondly, although it can perhaps be plausibly maintained that first person pronouns become third person pronouns which refer back to the subject of the matrix verb, by the operation of the indirect discourse rule, there is a problem concerning what should happen to second person pronouns. It might seem that they should become third person pronouns which refer back to the indirect object, but this proposal cannot be maintained, because there are verbs, like determine, which have no indirect objects for the second person pronouns to refer back to. So while (106a) could be converted to (106b), no “indirect quote” can be provided for (107a).

(106)  
   a. *Tom determined, "As for myself, I won't eat anything Sarah cooks." 
   b. Tom determined that as for himself, he wouldn’t eat anything that Sarah cooked.

(107)  
   a. *Tom determined, "As for myself, I won't eat anything you cook." 
   b. Tom determined that as for himself, he wouldn’t eat anything ?? cooked.

Finally, if I and you are obligatorily converted to third person anaphoric pronouns by the rule which produces indirect discourse, what is the source for the I's and you's which can appear in indirect discourse, as in (108)?

(108)  
   Philip, said to Mabel, that he, and I would go out with you and her, sometime.

Until these objections can be answered, the quotative analysis must be rejected as a possible explanation for the facts in Section 2.

4.2. The second alternative to the performative analysis I will refer to as the pragmatic analysis.

In this analysis, it is accepted that sentences like (32) are to be explained on the basis of sentences like (29a) by the same rule of optional reflexivization of the NP in the as for-phrase as was proposed for the performative analysis. What is different about the two analyses is that the pragmatic analysis postulates (6), and not (7), as the deep structure for (1a), and claims that certain elements are present in the context of a speech act, and that syntactic processes can refer to such elements. Thus, since the context provides an I which is “in the air,” so to speak, and since the rule which produces reflexives in as for-phrase would be stated in such a way that the antecedents to the reflexive pronouns could either actually be present in deep structure or be “in the air,” this rule would correctly produce the myself of such sentences as those in (21), (26), (32) and (36). Similarly, however, if the constraint preliminarily stated in (41) is to be revised, it would be stated in such a way as to take into consideration elements “in the air,” so sentences like (37b) would be blocked. Furthermore, deep structure constraints would not only specify what interrelationships among elements of deep structure were permitted, but also what interrelationships were possible between elements of deep structure and elements “in the air.” Thus the ungrammatical sentences in (43) and (47) would be blocked by the same mechanisms used to block the ungrammatical sentences in (45) and (48).

Note that in order to account for the facts in Sections 2.2 and 2.3 under the pragmatic analysis, it would have to be assumed not only that there was also a verb of saying and an NP you “in the air,” but also that the you functioned as the indirect object of this verb [to account for the sentences of (83) and (87)]. Furthermore, the I that is “in the air” would have to function as the subject of this verb, for it will be recalled that the restrictions on as for-phrases and idioms like be damned if make use of the relation subject of in their formulations. Thus the elements that would have to be assumed to be “in the air” under the pragmatic analysis do not merely form an unstructured set. Rather, they must be assumed to be hierarchically grouped to form a structure which is exactly the same as that of a normal clause in deep structure.

Given this isomorphism, it may well be asked how the pragmatic analysis differs from the performative analysis: why are they not merely notational variants? Where the latter analysis has more abstract deep structures than the former, and needs a rule like (92), the former presupposes richer notions of analyzability [cf. Chomsky (1955)] and deep structure constraint, so there would not appear to be much to motivate a choice on the grounds of simplicity or elegance. Presumably, the two analyses would make different psychological claims, but exactly how these would differ is obscure to me.

The only argument I know of for distinguishing between these two analyses has to do with sentences like (109), which were called to my attention by Francois Dell:

(109) As for myself, I promise you that I'll be there.

The problem is, how can the pronoun myself be generated? Since (109) can be a performative sentence, it cannot be argued that there is a higher performative verb of saying, for performative verbs cannot be embedded, as was pointed out in connection with (101). Furthermore, it is simply incorrect to claim that (109) is both a promise and an assertion, as the ungrammaticality of (110) shows:

(110) *Fritz said to Ken, "As for myself, I promise you that I'll be there," which was a lie.

Thus sentence (109) poses real problems for the performative analysis.

In the pragmatic analysis, however, since there would presumably be ele-
ments “in the air” for promises, as well as for assertions, the regular rule which produces reflexives in *as for*-phrases could refer to the *I “in the air,“* and *myself* would be generated in such sentences as (109). This type of sentence, therefore, seems to constitute evidence for rejecting the performative analysis in favor of the pragmatic analysis.

However, there may still be a way to account for (109) in terms of the performative analysis. Paul Kiparsky has suggested to me that the *as for*-phrase which starts (109) may not modify *promise* in deep structure, but rather that it may be a constituent of the embedded clause. That is, (109) would be derived from (111), by means of a rule which preposes the embedded *as for*-phrase:

(111) I promise that, as for myself, I’ll be there.

In support of this derivation, Kiparsky points out that the strangeness of (112) is preserved when it is embedded in the object of *promise*, as shown by the contrast in acceptability between (113a) and (113b):

(112) * * ?? As for me, Tom will be there.

(113) a. I promise you that Tom will be there.

b. ?? I promise you that, as for me, Tom will be there.

If the normal rule which produces reflexives in *as for*-phrases applies to (113b), and then Kiparsky’s proposed rule preposes this phrase, the resulting sentence, (114), retains the strangeness of (113b):

(114) * ?? As for myself, I promise you that Tom will be there.

Thus, Kiparsky proposes to explain the strangeness of (114) on the basis of the strangeness of (112).

It is obvious that the pragmatic analysis cannot explain the difference between (109) and (114), for if the *I “in the air,“* can occasion the conversion of *as for me* to *as for myself* in the former sentence, it should also be able to do so in the latter.

There is an assumption in the pragmatic analysis account of (109) that I have not challenged till now, namely, that *as for*-phrases can occur as constituents of performative clauses. That is, even if *myself* cannot occur in *as for*-phrases in sentences like (114), *me* should be able to, according to this analysis. However, I find (115) only slightly less strange than (114):

(115) * * As for me, I promise that Tom will be there.

If (115) must be excluded, as well as (114), it is clear that only Kiparsky’s account of (109) can be correct. However, my intuitions about (115) are not sharp enough to decide the issue.

If Kiparsky’s proposal regarding the embedded origin of the *as for*-phrase in performative sentences is correct, we would predict that there could be no such *as for*-phrases in performative sentences containing no clause embedded as a direct object. The performative sentences in (116), which have this property, are certainly strange, but I am not sure enough in my judgments to state categorically that no such sentence would be grammatical.

If even one such sentence is grammatical, the performative analysis must be rejected. However, even if they are all ungrammatical, the pragmatic analysis can be maintained, for their ungrammaticality would only confirm the correctness of Kiparsky’s proposed rule to prepose embedded *as for*-phrases. Since such a rule is compatible with both analyses, performative sentences which start with *as for myself* do not provide crucial evidence for choosing either the performative analysis or the pragmatic analysis. However, if (115) is ungrammatical, this fact, in conjunction with the grammaticality of (109), does constitute counterevidence to the pragmatic analysis.

In conclusion, I must emphasize that neither the quotative analysis nor the pragmatic analysis has ever been worked out in detail. I have discussed them here merely as foils to the performative analysis.

However, even if they are only foils, certain qualitative differences between them remain. At present, the quotative analysis seems to be totally out of the question — not only would it occasion violent and otherwise unmotivated disruptions in fairly well established analyses, but it has a number of internal difficulties, which, as far as I can see, are irremediable.

The pragmatic analysis, by contrast, seems to me to be far less of a straw man. Since there are valid statements like (102) which seem to be linguistically significant, in an admittedly broad sense of “linguistic,” somehow an extended theory of language, or a related theory of language use, must incorporate them. But it is clear that such a theory will have to be given a precise formulation, and that stylistic devices such as making use of colorful terms like “in the air” do not ensure that such a theory exists. A precise theory would have to specify formally what features of the infinite set of possible contexts can be of linguistic relevance. Furthermore, these features would have to be described with the same primes which are used for the description of syntactic elements, so that rules which range over syntactic elements will also range over them. While such a theory can be envisioned, and may even eventually prove to be necessary, it is obvious that it does not exist at present.

In fact, it seems to me that the only concrete information about the struc-
ture of contexts at present is that which can be inferred from the facts discussed in Section 2. These facts show that if the pragmatic analysis is to be carried through, contexts must be assumed to have the structure of clauses: They must have elements which share properties with subject NPs, elements which share properties with indirect object NPs, and elements which share properties with verbs of saying. Furthermore, if Lakoff and I are correct in our claim that questions are to be derived from structures roughly paraphrasable by I request of you that you tell me S (cf. Note 19), then contexts also exhibit properties of syntactic constructions with embedded clauses. However, while such observations may be interesting, they only serve to illustrate the enormous gap between what can now be said about contexts in fairly precise terms and what would have to be said in any theory which could provide a detailed understanding of language use.

Since no such theory exists, the pragmatic analysis does not exist. The performative analysis, on the other hand, can be said to exist: it fits naturally into a theoretical framework whose broad outlines are relatively clear, and it is for this reason that I have argued for its adoption in this paper. However, while the pragmatic theory, in the absence of a detailed theory of language use, is too vague to be testable, it does not seem to me to be impossible in principle, as the quotative analysis does. Therefore, while I would urge that the performative analysis be adopted now, given the vanishingly small amount of precise present knowledge about the interrelationship between context and language, I consider open the question as to whether the theory of language can be distinguished from the theory of language use. A pragmatic analysis implicitly claims that they cannot be distinguished, whereas the performative analysis makes the more conservative claim that they can be.

5. What consequences do the facts of Section 2 have for the theory of grammar?

First of all, regardless of whether the performative analysis, or the pragmatic analysis, or some third possibility I have not envisioned, turns out to be correct, it is obvious that English syntax in particular, but all syntax in general, will become more abstract than has previously been realized. If the performative analysis is chosen, the relationship between deep and surface structures will become slightly less direct than it formerly was. While rules which delete various grammatical morphemes or designated elements are well-known within generative grammar, I know of no rule which operates like rule (92) to delete a whole clause of deep structure. While no formal constraint precluded the existence of such a rule, no evidence had ever been discovered which suggested such rules might be necessary.

If, on the other hand, a precise theory of language use is developed, and the pragmatic analysis is chosen, the relationship between deep and surface structures will remain the same, but there will be an increase in the abstractness of the structures which must be assumed to be being manipulated by transformational rules. Thus, whether or not the superordinate I, you, and verb of saying are conceived of as being generated by the base rules, the constructs which must be postulated within generative grammar to explain features of surface structures will become even further removed from observable behavior than is now the case. Whatever analysis of the facts of Section 2 is finally decided upon, they will make generative grammar more mentalistic.

With this increase in the abstractness of the syntax of particular languages comes the possibility of making far stronger claims about universal grammar than have previously been tenable. It has often been observed that languages differ far less in their deep structures than they do in their surface structures. And as deep structures become more and more abstract, and get closer and closer to semantic representation, it appears that differences between deep structural representations of widely disparate languages get smaller and smaller, which would follow, if semantic representations can be assumed to be universal.

As a case in point, it now seems likely that no matter whether the performative or the pragmatic analysis is adopted for English, the same analysis will hold universally. I would expect that arguments cognate to those in Sections 2.1.5 through 2.1.7, 2.2.1 and 2.2.2, and 2.3.2 will be discoverable in virtually all languages, so that rule (92), if it is a rule of English, will be a universal rule, when given a formulation abstract enough to allow for automatic reordering of its terms.

But if it is correct to claim that this analysis is universal, not only will the deep structures of declaratives in all languages resemble each other in having a performative clause containing a verb of saying as their highest structure, but other apparent discrepancies in the base rules of various languages can be disposed of. Thus if we say, for the sake of argument, that one of the base rules for English is that given in (117)

\((117) \, S \rightarrow NP \, VP\)

then the base rules of Arabic would differ from those of English, without the performative or the pragmatic analysis, for one of the base rules for Arabic would presumably be (118):

\((118) \, S \rightarrow (\text{'inna}) \, NP \, VP\)

If we adopt the performative or the pragmatic analysis for Arabic, however, this apparent difference in deep structures disappears.

It might be argued that the 'inna at the beginning of (80b) need not be introduced in deep structure, but could be attached by a transformation. This appears to be possible for the Arabic example, but it would not be for the following facts from Thai:

In this language, every sentence must end with the particle khrap or kà.
The first particle signifies that a male has spoken the sentence; the second, that it was spoken by a female. Thus there are two sentences which translate the English sentence he is coming — both are given in (119):

\[
\text{(119) } \text{khw} \text{a maa} \begin{cases} \text{khrāp} \\ \text{kā} \end{cases}
\]

he come

Since these utterer agreement particles (UAP) have meaning, and can be the cause of semantically anomalous sentences, I assume that they must appear in deep structure. That is, the base component for Thai would have to contain either the rule in (120) or those in (121):

\[
\text{(120) } S \rightarrow \text{NP} \quad \text{VP} \begin{cases} \text{khrāp} \\ \text{kā} \end{cases}
\]

\[
\text{(121) } \begin{array}{l}
\text{a. } S \rightarrow \text{NP} \quad \text{VP} \quad \text{UAP} \\
\text{b. } \text{UAP} \rightarrow \begin{cases} \text{khrāp} \\ \text{kā} \end{cases}
\end{array}
\]

But here once again the putative differences vanish if the performative or the pragmatic analysis is adopted — both English and Thai have rule (117) in their base components. The only difference will be that Thai will have a copying rule which precedes (92) and which places a morpheme which agrees in semantic gender with the superordinate I at the right end of the sentence.61

Rudolf de Rijk has informed me of a similar phenomenon in Basque. In this language, a morpheme in the verbal complex agrees with the semantic gender of the addressee. Once again, since this morpheme has semantic significance, it must find some reflection in the deep structures of Basque. However, Basque need not have a language-particular base rule introducing this morpheme, if the performative or the pragmatic analysis can be motivated for this language. A rule adjoining a copy of the semantic gender of the superordinate you in the appropriate place in the verbal complex can instead be used to account for the facts.

These three examples of the effects of more abstract syntactic representations on the theory of universal grammar are not atypical. Not only will the performative or the pragmatic analysis, if it can be internally motivated in Arabic, Thai, and Basque, reduce differences in the deep structure representations chosen for these languages, in this case it will eliminate them. This suggests that the hypothesis stated in (122) may be tenable:

\[
\text{(122) \text{THE UNIVERSAL BASE HYPOTHESIS}}
\]

The deep structures of all languages are identical, up to the ordering of constituents immediately dominated by the same node.

In Lakoff and Ross (in preparation), George Lakoff and I investigate a number of constructions in detail, attempting to show for each that underlying struc-
tures of far greater abstractness than have been proposed up to now must be assumed to underlie them. These abstract deep structures lead us to propose a concrete, albeit highly tentative, set of rules that generate an infinite set of deep structures that we hope may prove to be universal.

In conclusion, I want to emphasize that this investigation of declarative sentences cannot be viewed in isolation. The performative analysis of declaratives is only one fragment of a far more inclusive analysis which postulates that every deep structure contains one and only one performative sentence as its highest clause. The pragmatic analysis would have to be broadened in a similar way. Until an analysis with a scope broad enough to encompass all sentence types has been carried out, the conclusions I have reached in this paper must remain extremely tentative. In such a broader study, the interconnections between syntax and pragmatics should be investigated in detail. Possibly when they have been clarified, a reason for choosing either a performative analysis or a pragmatic analysis of all sentence types will emerge.

NOTES

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2. I say “can constitute,” because (2a), like all the sentences in (2), is ambiguous. It can be either a promise or a description of a habitual action of the utterer, as in I make promise after promise to you that I won’t squeal. In this latter sense, the sentences in (2) are declaratives and do not differ in any significant way from those in (1). Henceforth I will disregard this sense of sentences like (2), and will concentrate instead on the usage which Austin was concerned with.

3. There are some performatives (I will use this term to refer to verbs which may appear in performative sentences), such as move, question, and second, and possibly proclaim, which exclude indirect objects, and some, such as christen and name, whose direct object can be second person, but need not be [cf. sentence (2c)]. For some performatives, such as demand, order and promise, the second person object need not appear in surface structure (cf. I promise that I won’t squeal), but for others, it must (cf. * I appoint captain, * I sentence to death, ? I warn that the trip will be difficult). I assume that there is a rule which operates to delete the second person object in the former class of verbs, but I have no evidence to support this assumption.

4. This qualification is necessary because of the existence of passive performatives, such as you are hereby authorized to commande sufficient bubblegum to supply a battalion for a week, etc.
5. I will assume that such verbs as these are lexically marked with the feature [+performative], which will mean that they can be, but need not always be, used in performative sentences. They are thus distinct from such verbs as divorce, insult, jump, etc., which cannot be used as the main verb of a performative sentence, and will be marked [−performative].

6. At present it is not clear what the source for this adverb is. It would seem desirable to generate it and its related adverb thereby by the processes which produce such words as thereafter, thereupon, and possibly therefore, as well as other uses of thereby. I assume that the following sentences are all to be derived from the same underlying structure, by a sequence of optional rules:

Mort fell down, and he broke his leg by falling down.
Mort fell down, and by it (OBL thereby) he broke his leg.
Mort fell down, thereby breaking his leg.

_Hereby_ might be derived from _by uttering this_, in a parallel fashion, but at present, such suggestions are only speculation. I am not aware of any research on such sentences as the above.

9. A detailed analysis of a wide range of English complement constructions can be found in Rosenbaum (1967). In an important recent study [Kiparsky and Kiparsky (1967)], it is shown that semantic considerations play a much larger role in the grammar of these constructions than had previously been realized. Cf. also Robin Lakoff (in press).

10. A discussion of all the relevant evidence will be presented in Lakoff and Ross (in preparation).
12. In (6), as elsewhere in the paper, I have drastically simplified the constituent structure representations, both deep and superficial, of the examples discussed, as long as the point at issue was not materially affected by such simplification.
13. The bundle of syntactic features [cf. Chomsky (1965, Chapter 2)] dominated by the highest V of (7) would appear in the lexical representation of such actually existing verbs as assert, declare, say, state, tell, etc.; but it need not be assumed that any of these occurs in the deep structure of (1a). The more abstract feature representation, which all these verbs have in common, is sufficient for my present purposes (but cf. Section 2.2.6). For some arguments that the stronger claim that a particular member of this class of verbs must be singled out as the performative verb for all English declarative sentences, cf. McCawley (1968). I assume that the preposition to which appears in surface structure before the indirect objects of most such verbs will be introduced transformationally, though nothing below depends on this assumption.
14. I will often use the locution "sentence A is transformed (converted, etc.) into sentence B" for the more correct but awkward phrase "the structure underlying sentence A is converted into one which more immediately underlies sentence B." No theoretical significance should be attached to this abbreviation.

15. For some suggestions as to the way Lees and Klima's notion "simplex sentence" should be captured within the theory of grammar, cf. Ross (1967a, Chapter 5).
16. I say "appears," because it is doubtful whether the reflexive pronoun in (11b) is produced by the same rule as the one that Lees and Klima were discussing. The reflexives in (11) are felt to be emphatic, as in the sentence I myself thought I could vote against Goldwater. This matter will be taken up again shortly.

Ray Jackendoff has recently called attention to a large number of interesting cases which seem to be true exceptions to the formulation proposed by Lees and Klima [cf. Jackendoff (1967)].

17. I am not sure whether (13a) can even have a pronoun replace Tom before himself; hence the question mark before him. When I wish to distinguish between more than two degrees of acceptability, I will use the following notation: if a sentence has no prefix, it is (for me) completely acceptable. If it is preceded by a single question mark, it is doubtful; by a double question mark, very doubtful; by an asterisk, completely unacceptable; and if it is preceded by a sequence of question mark and asterisk, it is very bad, but maybe not completely out: some vestiges of grammaticality may remain. It is to be expected that when such fine distinctions are drawn, disagreements as to the choice of prefix will be frequent. However, none of the arguments below depends crucially upon such fine distinctions, and only large differences will be critical.

It is of course totally irrelevant to the point at hand as to whether (13a) is possible at all with him referring back to Tom; if it is impossible, then some constraint must be imposed upon the pronounization rule that produces him. In fact, if _him_ is impossible, that fact would provide support for the analysis I have proposed, for it is only anaphoric pronouns that can be deleted by the rule I suggested, and if _him_ cannot replace the second _Tom_ in (13a), the ungrammaticality of (13b) is explained.

However, all this is beside the point under discussion, which is that emphatic reflexives, such as I assume the reflexive in (11b) to be, cannot occur in all environments (unless, of course, an NP immediately precedes). Exactly what rule accounts for the ungrammaticality of the bad cases is immaterial.

18. The important notion of command is defined and discussed in detail in Langacker (1966). Briefly, node _A commands_ node _B_ if neither dominates the other, and if the first node above _A_ dominates _B_. Or, in the informal usage of the text, _A_ commands _B_ if _A_ "belongs to" a sentence which dominates _B_.

19. The attentive reader will have noticed that _yourself_ appears, with the same spectrum of acceptabilities, in questions related to the sentences in (21). I suggest that this should be accounted for by deriving questions from deep structures whose two highest sentences are, roughly, _I request of you that you tell me S_, where _S_ eventually becomes the main clause of the question. This suggestion is explored at some length in Lakoff and Ross (in preparation).

20. I might remark in passing that it is not at all clear to me that sentences like (27d) can be excluded on purely linguistic grounds — I suspect that the requirement that there be some connection between the NP of the _as for_-phrase and the following clause can be satisfied if there is a real-world connection. Thus while the sentence _as for Paris, the Eiffel Tower is really spectacular_ is acceptable, it becomes unacceptable if _Albuquerque_ is substituted for _Paris_. And since the knowledge that the Eiffel Tower is not in Albuquerque is not represented in the semantics of English, I conclude that this unacceptability is not linguistic.
21. This fact, and its implications for the performative analysis, were pointed out to me by Edward S. Klima.

22. This terminology was suggested by Florence Warshawsky Harris in two extremely interesting unpublished papers, Warshawsky (1964a, 1964b).

23. This statement is adequate for my purposes, but it is an oversimplification, as can be seen from the grammaticality of such sentences as Tad concedes that it is probable that it was not known that it would be a story about himself. What differentiates this sentence from the ungrammatical ones in (35) is the fact that the sentences which separate the NP Tad and its anaphoric reflexive pronoun here do not contain any occurrences of other human NP. Some consequences of this difference, which was first noted by Ray Jackendoff, are discussed in Jackendoff (1967).

24. In a class at the University of Pennsylvania in the fall of 1962, David Perlmutter has brought to my attention the fact that most passive sentences with definite pronouns as agents are somewhat unacceptable. Thus, though the sentence the final exam was passed by everybody in my class is unobjectionable, the sentence ?? the final exam was passed by them is decidedly odd. However, in line with Harris’s observation, the sentence ?* The final exam was passed by me is even worse. I suspect that the explanation for the phenomenon noted by Perlmutter will be connected to the solution of problems in the area of what the Prague linguist Vilem Mathesius called "functional sentence perspective" (aktuální členění věně). Mathesius’s basic idea was that, normally, the order of constituents in a sentence was determined by the amount of new information they conveyed to the listener. Already known constituents would tend to come at the beginning of the sentence, and constituents conveying new information at the end. Thus definite noun phrases of all kinds, but definite pronouns in particular, would tend to occur early in a sentence, which could explain the fact noted by Perlmutter.

An excellent introductory exposition to these problems, and a review of work done on them by Czech linguists, can be found in Garvin (1963). For an attempt to deal with functional sentence perspective within the framework of generative grammar, cf. Heidelph (1965).

26. Of course, I mean the pronoun him in (38) to refer back to the subject NP Tom. I will use the device of subscripting nouns which are intended to be coreferential with the same index.

27. Some speakers appear not to find sentences like those in (43) at all out of the ordinary, but for me they are beyond redemption. Robert Wall has suggested the verb purport as a substitute for lurk, for it exhibits all the properties of lurk, but with clearer ungrammaticalities for most speakers. Thus while he purports to be with it is grammatical, * I purport to be with it is not.

28. This restriction is actually not stated correctly, for in addition to such sentences as those in (43), sentences with factive verbs [cf. Kiparsky and Kiparsky (1967)] like know, find out, etc., cannot embed as objects sentences with lurk and a first person subject (cf. ? * Did Merv find out that I am lurking in his car?), and some intransitive adjectives, like likely, are also transparent to this restriction (cf. ?. ? it’s not likely that I’ll lurk here much more than 40 hours a week now). These last two examples suggest the complexity of the necessary revisions to the restriction stated above, which I will not attempt to specify more fully here, as the stated version is adequate to prove the point at hand.


29. It has been called to my attention by Izumi Ushijima that a situation paralleling that with lurk exists in Japanese. The bound morpheme –garu, when added to any of a lexically designated set of adjectives, converts the adjective to a verb. Thus, omosiroi “interesting” : omosirogari “to feel interested (in something).” These verbs in –garu differ from other verbs in that they may not occur with first person subjects — the following sentence (I feel interested in this) is ungrammatical:

* watakushi wa kore o omosirogaru

I (part.) this (part.) feel interested.

As was the case with lurk, when such sentences as the above are embedded, it turns out that first person subjects are possible, as long as the first verb up does not have a first person subject. The general restriction, then, is that the subject of verbs in –garu not be identical to the subject of the first verb up. Thus, while the first two versions of the sentence below are grammatical, the third, where the subject was identical in deep structure and has been deleted by the general rule which deletes unstressed pronouns, is ungrammatical:

biru wa [zyoozyi watakushi] ga kore o omosirogatt to itta

Bill (part.) George (part.) this (part.) felt interested that said

Bill, said that [George] (part.) felt interested in this.

I have no reason to believe that when a more precise restriction on lurk can be formulated (See Note 28), it will differ in any way from the restriction that is necessary for verbs in –garu. Thus, just as the facts of (43) support the performative analysis for English, those with –garu support it for Japanese. Together, these arguments suggest that it may be universally valid.

I wish to thank Agnes Nyiekawa Howard and Susumu Kuno for their help in clarifying the above facts.

30. Sentence (52) will be blocked by (49) only if relative clauses are deep structure constituents of the NP whose head noun they modify in surface structure, an assumption which has been widely assumed to be correct. However, recent studies by Postal (1967b) and Brame (1968) indicate the untenability of this hypothesis, and suggest that relative clauses are to be analyzed as deriving from conjoined clauses in deep structure. If this analysis is correct, (52) will not constitute counter-evidence to (49).

31. I assume, of course, that the ungrammatical phrase * friends of one’s would be obligatorily converted into one’s friends by the normally optional rule which changes phrases like a friend of mine into my friend.
32. Note that there are some titles which require my when used as vocatives, and some that require your; compare, for example, the following:

```
<table>
<thead>
<tr>
<th>my</th>
<th>lord</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>liege</td>
</tr>
<tr>
<td></td>
<td>Führer</td>
</tr>
</tbody>
</table>
```

Hoboken is a fine city.

```
<table>
<thead>
<tr>
<th>your</th>
<th>worship</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>honor</td>
</tr>
<tr>
<td></td>
<td>lordship</td>
</tr>
<tr>
<td></td>
<td>majesty</td>
</tr>
<tr>
<td></td>
<td>excellency</td>
</tr>
</tbody>
</table>
```

Why this should be is a total mystery.

33. There is one verb, hear, whose indirect object can serve as an antecedent to a pronoun: -cf. they heard from Tom, that Ann could swim, but nobody believed him. As far as I know, hear (from) is the only verb which can appear in sentences like this — near synonyms like learn (from), find out (from) cannot. This suggests that hear (from) may be derived from say (to) by an optional rule which interchanges the subject and object of certain verbs, adjoining prepositions which interchanges the subject and object of certain verbs, adjoining prepositions like from to the deep subject in the process. This rule, which was first proposed by Postal, [cf. Rosenbaum (1967), where it was called subject-object inversion], relates such sentences as your advice benefited me and I benefited from your advice. One indication that hear (from) is not basic is the fact that its indirect object cannot be a reflexive pronoun, whereas this is possible in the case of say (to), tell, and other verbs whose subjects can be antecedents for a pronominal object of believe. (Compare I said to myself that she couldn’t hurt me with * I heard from myself that she couldn’t hurt me, paralleling I taught myself that she couldn’t hurt me but * I learned from myself that she couldn’t hurt me.) The restriction which appears to be operative here is a very general condition on all transformational rules which prevents moving one NP in such a way that it crosses over a coreferential NP, under various complicated conditions. One of the effects of this condition is to exclude passives of reflexives (e.g., they understand themselves but not * they are understood by themselves). Hopefully, this restriction, which is studied in great detail in Postal (1968), can be generalized to include (41) as a subcase.

34. Sentences like those in (62) have never been studied by generative grammarians, to the best of my knowledge. There are some strange restrictions on whatever rule it is that produces such sentences. First of all, note that the possessive pronoun modifying the abstract noun in the object must refer back to the subject (cf. * Tom frowned Ann’s displeasure). Secondly, there appear to be restrictions between the main verb and the abstract noun in the object; such sentences as

```
He shrugged his resignation
```

are certainly odd, though probably only for semantic, if not extralinguistic reasons.

A stronger restriction on the abstract noun is that it denotes a certain kind of mental state. Thus the following sentences are all unacceptable:

```
* Tom frowned his departure.
```

Interestingly, it appears not to be the case that all nouns which denote mental states can appear in such constructions: only those nouns which denote mental states which can be behaviorally manifested can, it would seem. For me, at least, there are clear differences between the sentences below.

```
Tom frowned his disbelief of the witness’s story.

? * Tom nodded his belief in the witness’s story.
```

Other abstract nouns which cannot appear in this construction are: recklessness, prejudice, greed, hope, kindness, and many more.

Such considerations suggest a derivation like the following

```
Tom, frowned (his) displeasure by frowning (his) approval.
```

for it is only those abstract nouns which can follow such verbs as register that can appear in sentences like those in (62). The proposed rule, which would substitute such basically intransitive verbs as frown, scowl, etc., for a pro-verb of the class of register, closely parallels the derivation of sentences like Max beat his wife into submission from a deeper Max got his wife to submit by beating her, which was suggested in Lakoff (1965). It seems not unlikely that the same rule is involved.

One final note on this construction: the transformational rule which copies the subject NP as a possessive pronoun on the abstract noun in the object must follow the very general rule which nominalizes such sentences as those in (62), for these possessive pronouns do not appear in the associated nominalizations. Thus,

```
He grimaced his disgust.
```

The productivity of this nominalization (* his beam of pleasure) is the only counter-
example I know of) would appear to constitute one counterexample to Chomsky's proposal [cf. Chomsky (1967b)] that all constructions he refers to as derived nominals should be lexically derived.

35. In several lectures at MIT in the spring of 1967. Cf. also Dean (1967).

36. Barbara Hall Partee has made a plausible case for postulating the existence of a rule which deletes will in all if-clauses which superficially resemble present tense clauses [cf. Hall (1964)]. Two facts support such an analysis: firstly, future tense adverbs, like tomorrow, can occur in if-clauses, but not in certain of the corresponding present tense clauses (cf. *if he knows the answer tomorrow, he should raise his hand, but not *he knows the answer today*); and secondly, the only cases where will can occur at all in if-clauses are cases where it means "persist in" or "agree to" (cf. *if your son will stay up too late, slip him a Mickey Finn and if you will meet me in Tokyo, we can conclude the deal there*). Thus sentences where such a meaning is impossible (e.g., *there will be an explosion tomorrow*) are decidedly strange in if-clauses (cf. *only if there will be an explosion tomorrow should you stay here*). Probably such sentences are only acceptable with a sense parallel to that of *if you're so smart, why aren't you rich*, which, as Paul Kiparsky has observed, mean "If what you say is right, ..."

It can be seen that the matter is too complex to pursue further here, but it should be clear, nonetheless, that it is not normal for will to appear in if-clauses. Therefore, the if-clause in sentence (65) is not a normal one.

37. This fact was noted in Kiparsky and Kiparsky (1967).

38. Sentence (70b) is ungrammatical if it is uttered as an observation about the subject, as would be the case in a sentence like *your Uncle Frank will be 39 next year*.

39. If my intuition that the following sentence is grammatical is correct,

> *Ed, then is resolved, 
>     has decided to marry him."

then this would further support an analysis under which this sentence is derived from something like the following:

> *Ed, told me that he'll be damned if he'll go.*

40. The contrast in grammaticality between (75a) and (75b) seems to indicate that, counter to my previous assumption, the restrictions on be damned if cannot be stated in terms of deep structure, at least not if previous conceptions of the passive as an optional rule are correct. Of course, if the passive is not optional, but instead triggered by some element in deep structure, like the one suggested in Chomsky (1965), or by some other property of deep structure, then it would be possible to make reference to this element or this property in stating the restriction on be damned if. But such a complication in an otherwise fairly straightforward restriction is highly unsatisfying, and I hope that some alternative to this solution will turn up, for it seems impossible to state the necessary restriction on be damned if in surface structure, for a number of reasons too complex to go into here.

Ray Jackendoff has suggested to me that pronominalization should be constrained so that the agent phrase in a passive sentence may never enter into an anaphoric relationship with any other NP. Such a constraint would then render (41) unnecessary, as well as explaining the ungrammaticality of (75b). However, it would also rule out such acceptable sentences as (39) and *that Sheriff Clarkson has ever taken any bribes has been repeatedly denied by him*, both of which are acceptable to me. Therefore, I see no way out of the ad hoc "solution" sketched above at present, although Jackendoff's suggestion should certainly not be dismissed without further study.

41. William Watt has pointed out to me that there are at least three verbs, be resolved (that), decide (that), and make up one's mind (that), but not, for some unknown reason, such a near synonym as be determined (that), which can occur with be damned if but not with believe. Compare the following sentences:

> *Ed, that he'll be damned if Bill will marry Sally.*
> *Ed, that he'll be damned if Bill will marry Sally.*

I have no explanation for this fact.

42. Cf. Rosenberg (1967) for an explanation of this term, which is roughly equivalent to the traditional term "gerund."

43. I have not mentioned the various restrictions on negatives, auxiliaries, adverbs, and questions in (79), for the sake of simplicity.

44. The phonetic sequence [?a] which begins this sentence is inserted by an automatic phonological rule which applies to prevent certain sequences from starting with two consonants. I will not be concerned here with this rule, nor with the regular rule accounting for the automatic alternation between nominative and accusative case markings on the subject NP of the embedded clause.

45. I should point out that there is an unsolved problem concerning the specification of which declarative sentences can start with ?inna. Brame informs me, for example, that (80b) becomes less acceptable if the particle qad is not present. But the argument has force if there are any sentences at all which can start with ?inna. Furthermore, in Brame (1967), several other arguments are discussed, and it would not surprise me if an argument cognate to the one in Section 2.2.1 (believe me) could be constructed in Arabic, or if verbs with the properties of *lurk* and be damned if could be found. It is my belief that such arguments will be discovered in a wide variety of languages.

46. James Harris has called my attention to a similar, but weaker, argument in Spanish. There, both of the following sentences are possible:
Que mi gato se en ratón ó.
that my cat itself (pref.) mouse (3rd pers. sg., pret. indic.)

Mi gato se enratónó.
My cat got sick from eating too many mice.

However, the complement structure que + indicative is not unique to decir "say," and furthermore, the sentences appear to differ slightly in meaning — the sentence with que is more emphatic and more insistent than the one without it.

47. In McCawley (1968), it is argued that the particular verb sell is deleted by the rule of performative deletion, on the basis of the fact that while hereby can appear with performatives like those in (2), it is odd to say:

* I hereby tell you that prices will skyrocket.

I agree that it is odd, but this sentence seems equally odd with say (to) in the place of sell. Therefore, while McCawley's argument is suggestive, I do not regard it to be as compelling a one as exists in Arabic.

48. Sentence (83b) is perhaps grammatical if construed as a request to ask or force Tom to hold his breath. This interpretation is impossible, however, if an adverbial modifier such as starting now is appended. In the sense which this modifier forces, the sentence is totally impossible, and it is with this sense in mind that I have starred it.

49. This may not always be true, for a rather trivial reason. For example, although sentences like those below must be restricted to first person subjects

\[
\begin{align*}
\text{I'll} & \quad \text{a monkey's uncle} \\
\text{you'll} & \quad \text{horns-woggled} \\
\text{Blake'll} & \quad \text{blowed} \\
\text{Mr. Wonton'll} & \quad \text{goldurned} \\
\text{etc.} & \quad \text{etc.}
\end{align*}
\]

this restriction cannot be stated in terms of higher subjects, for the simple reason that such sentences cannot be embedded, as the ungrammaticality of the following sentence shows:

* Blake said he'd be horns-woggled.

Barring special circumstances like this, however, the claim should hold true.

50. I disregard here a number of minor problems, such as how the nodes VP and NP which dominate the embedded S in (7) are to be pruned [cf. Ross (1967b)], and how the complementizer that, which would presumably have been inserted by the time rule (92) applies, is to be deleted (in English).

51. This analysis thus explains why I, you, and we are pronouns (note that they must be analyzed as such in English to account for the fact that they behave like the anaphoric pronouns he, she, it, and they in not following particles in verb-particle constructions — * I egged on you is as bad as * I egged on them).

52. Edward S. Klima first called such sentences as (96c) to my attention.

53. Ray Jackendoff has pointed out that the two sentences of (99a) answer different questions. With myself, the sentence answers the question "Who will have to protect you?" while with himself, it answers the question "Who will have to protect himself?"

Correct though this observation is, it merely adds to my bafflement concerning the analysis of (98) and (99).

54. In phonology, the convention which appears to be necessary is that no rules apply to their own output within the same cycle [cf. Chomsky and Halle (1968)]. In syntax, however, it appears that while cyclic rules may not apply to their own output, post-cyclic rules must be able to. One clear case of a cyclic syntactic rule which must not be allowed to apply to its own output is the rule of *there-insertion.* As William Grossman has pointed out to me, if this constraint were not imposed, an infinite number of derivations of the form

A man was standing in the surf.
There was a man standing in the surf.
* There was there a man standing in the surf.
* There was there a man standing in the surf.

would ensue, unless an otherwise unnecessary restriction were imposed on this rule. Similarly, if the dative rule converts (i) to (ii)

(i) I gave John a book.
(ii) I gave a book to John.

then unless cyclic rules cannot apply to their own output, or some *ad hoc* restriction is imposed on the dative rule, (ii) will be converted to (iii):

(iii) * I gave to John a book.

That post-cyclic rules must be able to apply to their own output can be seen by examining sentences (iv) through (vi):

(iv) They all must have left.
(v) They must all have left.
(vi) They must have all left.

If, as seems likely, (vi) is to be derived not directly from (iv), but rather via (v), and if the same rule converts (iv) to (v), and (v) to (vi), then obviously some rules must be able to apply to their own output. I know of no argument against claiming that the rule in question is a post-cyclic one.

And if there is a post-cyclic rule that freely permutes elements of the same clause in free word-order languages like Latin, then this rule, which I have called scrambling [cf. Ross (1967a, Section 3.1.2)], must be able to apply to its own output, as long as only adjacent constituents can be permuted, for (vii) must somehow become (viii), and no single permutation of adjacent constituents can effect such a change:

* "The good man loves the beautiful girl."
  (vii) Homo bonus amat puellam pulchram.
  man good loves girl beautiful

(viii) Pulchram homó amat bonus puellam.

Finally, G. H. Matthews (1965) has proposed a late rule reordering nominal affixes in Hidatsa, and this rule must be able to apply to its own output. Thus it seems likely that post-cyclic rules can apply to their own output, and since *performative deletion* is such a rule, some way must be found to block it from applying in this manner, if infinite ambiguity is to be avoided.
55. For some discussion of this notion, cf. Chomsky (1964) and Chomsky (1965, Chapter 4, Section 2).

56. There are some apparent counterexamples to this claim. Deictic sentences such as the following, which were pointed out to me by Paul Postal:

There's Judy, behind that boar.

although they have the superficial form of declaratives, are really not declaratives. Note that such sentences cannot be negated, embedded, or put in the past tense. More importantly, they cannot appear in such contexts as the one below:

* Mike said, "There's Judy, behind that boar," which was a lie.

Nor can such sentences as those mentioned in Note 49:

* Hiram said, "I'll be hornswoggled!" which was a lie.

Since it seems to be possible for all other declaratives to be followed by the sentential relative clause which (as a lie, I tentatively conclude that the sentences in direct quotes are not declaratives, despite their surface form, and that they therefore are not embedded in the object of a performative verb of saying (though they may be, and probably are, embedded as objects of some other performative verb).

57. That increases in the abstractness of syntactic representations decrease the distance between these representations and semantic representations is a fact which needs explanation, since it is not a logical necessity. One possible explanation, which Lakoff and I and others are now exploring, is that there may be no level of syntactic representation which is distinct from semantic representation, and which could be called "deep structure."

58. For some discussion of the notion of a convention for automatically reordering the terms of certain types of transformational rules, cf. Ross (1967a, Section 4.1).

59. I disregard here the differences between Arabic and English in the order of the main constituents of S.

60. I am grateful to Mr. Udom Warotamisikkhatit for furnishing the Thai examples.

61. A further bit of evidence for the correctness of this rule, which I am grateful to Samuel E. Martin for bringing to my attention, is the fact that among the twenty-six words Thai has for the first person singular pronoun, there are some for male speakers (e.g., pôm) and others for females (e.g., chân).

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