Subjectless Sentences and the Notion of Surface Structure*

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In Aspects of the Theory of Syntax, Chomsky states (p. 16) that "the syntactic component of a grammar must specify, for each sentence, a deep structure that determines its semantic interpretation and a surface structure that determines its phonetic interpretation." It is generally accepted today that there can be no level of deep structure characterizable in this way; while Chomsky and others who, unlike linguists of the generative semantics school, continue to maintain the existence of a linguistically significant level of representation "between" semantic representation and surface structure, they would no longer define this level of representation in the way quoted above. On the other hand, little if any serious discussion has been devoted to the question of whether a definable level of surface structure exists, despite the fact that a number of linguists have noted various problems which bear on the question of the viability of the sort of characterization of surface structure quoted above. Bierwisch (1968) and Pope (1971), for example, have argued that various prosodic rules must have access to information not available in an independently motivated surface structure, while a case where a syntactic rule appears to require prosodic information has been discussed by Baker (1971). A different sort of problem has been noted by Bierwisch (1966) and Chomsky and Halle (1968): cases where intonation breaks do not coincide with the major constituent breaks one would expect in a "syntactically motivated" surface structure. These linguists have thus argued for "readjustment rules" which alter constituent structure. Two points are worthy of note here: first, such rules appear to differ from "legitimate" syntactic rules not in terms of what they do but in the way they are motivated by the linguist (thus it is really being claimed here that "phonologically motivated" rules which alter constituent structure can all be ordered after "syntactically motivated" rules which do this); second, such discussion presupposes a new characterization of surface structure.

One thing which would still appear to argue for the existence of a definable level of surface structure is the existence of what have become known as "surface structure constraints". Ross (1967) and, to a greater extent, Perlmutter (1971) have argued convincingly that certain ill-formed sentences cannot be ruled out by the blocking of obligatory rules; in other words, speaking loosely, certain sentences are absolutely "good" or "bad" in some respects at some relatively superficial level of representation, regardless of specific aspects of their derivational history. Clearly any such statements presuppose the existence of some level of representation at which such constraints "apply". It is important to note, however, that Perlmutter was careful to hedge about the level at which his constraints held; while he had no evidence that they had to precede the application of any syntactic rules, he did not rule out this

possibility. I shall argue in this paper that there is a set of syntactic rules in English which follow the level at which one of Perlmutter's "surface structure" constraints holds, and thus that the existence of this constraint does not provide any evidence for a definable level of surface structure.

The constraint in question is given in (1):

1. Any sentence other than an Imperative in which there is an S that does not contain a subject in surface structure is ungrammatical.

- which Perlmutter argued was a surface structure constraint contained in the grammars of English and French, but not, for example, Spanish and a number of other languages. Perlmutter's proposal is attractive because of the uniform explanation it provides for a number of facts about English (I ignore French here). These include: 1) the impossibility of questioning or relativizing the subject of an embedded sentence, except in cases where a <u>that</u>-complementizer is deleted:

2a. Who did you say (that) John saw?
b. Who did you say (*that) saw John?

2) the impossibility of deleting unemphatic subject pronouns, even in cases where verb inflection prevents ambiguity:

3a. *Am here.
b. *Is a doctor.

3) the existence of the dummy subjects <u>it</u> and <u>there</u> in cases like those in (4):

4a. It's raining. (cf. *Is raining.)
b. It's cold in here. (cf. *Is cold in here.)
c. It's a long way to Tipperary. (cf. *Is a long way to Tipperary.)
d. It's obvious that Dick's hiding something. (cf. *Is obvious that Dick's hiding something.)
e. It's John who's responsible. (cf. *Is John who's responsible.)
f. There's a fly in my soup. (cf. *Is a fly in my soup.)

and 4) (not noted by Perlmutter) the inapplicability of the rule of Heavy NP Shift to subjects:

5a. I saw yesterday a hunchbacked old man who claimed to be selling copies of the Watergate files.
b. *Arrived yesterday a hunchbacked old man who claimed to be selling copies of the Watergate files.

Now, the statement of Perlmutter's constraint is not without

problems; for one thing, I have strong doubts that the sentences in (2) are to be accounted for by the same constraint as the others, though this question is not directly relevant to the discussion here.[2] What is particularly attractive about Perlmutter's proposal, though, is that at least the phenomena in (3), (4) and (5) seem to cluster together in the languages with which I am familiar; thus, for example, the Spanish analogues of the starred English sentences are all grammatical. I thus conclude that the grammar of English does contain a constraint of this sort.

Contrary to the predictions made by Perlmutter's proposed constraint, however, there do exist non-imperative subjectless sentences in English, such as those in (6):

6a. Seems like the class always wakes up five minutes before the bell rings.
b. Guess I should have been more careful.
c. Going to lunch?

(Note also the absence of the expected auxiliary in (6c). I shall have more to say about this below.) We are thus faced with a dilemma (trilemma?) in accounting for these facts. We can, of course, simply assume that Perlmutter was wrong - that English has no such constraint. While there is no way one can argue conclusively against such an approach, I will point out that to take such an approach would be to say that correlations of the sort Perlmutter noticed are entirely accidental, a claim which does not seem to be correct. A second approach one might take is simply to label sentences like those in (6) as ungrammatical. This approach might seem intuitively plausible at first glance, since such utterances are characteristic of informal style and it is tempting to simply label them as examples of careless speech. However, as we shall see, there are quite heavy constraints on their formation - the exact opposite of the situation we would expect if such utterances were merely due to carelessness on the part of the speaker. One might then want to argue that such utterances are grammatical but not sentences - that they have a status analogous to a sentence fragment like (7b) given as a reply to (7a):

7a. What are you going to do when you get home?
b. Take a nap.

The examples in (6), however, differ from fragment replies, which are discussed in Morgan (in press), in an important way: they do not require specific preceding sentences in a discourse to be understood; in fact, they might very well be used to initiate a discourse. I know of no non-a priori grounds for excluding such utterances as fully legitimate sentences. We are thus left with a third alternative: reconciling the existence of sentences like these with the observations made by Perlmutter.

Before attempting to do this, I will discuss briefly some of the problems involved in characterizing these subjectless sentences.

I shall begin my discussion with questions, which show the most variety. As indicated earlier, question cases like those in (8) appear to involve deletion not only of a subject, but also of the preposed auxiliary:

8a. Going to lunch?
b. Find what you were looking for?
c. Ever been to Chicago?

In fact, the deletion of the subject appears to be contingent on deletion of the auxiliary, in the sense that deletion of the subject is optional if the auxiliary has been deleted, as shown by the examples in (9) but is impossible if the auxiliary is not deleted, as shown by the examples in (10):

9a. You going to lunch?
b. You find what you were looking for?
c. You ever been to Chicago?
10a. *Are going to lunch?
b. *Did find what you were looking for?
c. *Have ever been to Chicago?

The auxiliaries which can be deleted in this way are limited, so far as I can tell, to _do_, _did_, _have_,[3] and _be_. Modals and past tense forms of _have_ and _be_ do not delete.

Deletion of the auxiliary does not seem to depend on the subject of the sentence; thus all the examples in (11) are fine:

11a. I look okay?
b. You find him yet?
c. They still in there?

On the other hand, in these examples only a second-person subject can be deleted; (12a) and (12c) cannot be understood as equivalent to (11a) and (11c):

12a. Look okay?
b. Find him yet?
c. Still in there?

In general, only second-person subjects can be deleted in such questions; the one class of exceptions I have found involves perception verbs. Thus (12a) is fine with some third-person subject understood, and similar examples could be given with the other perception verbs. What is interesting about these cases, however, is that third-person subjects of perception verbs appear to be deletable only if the _experiencer_ is second-person. I at least find (13b) much[4] less acceptable than (13a), though both versions of (14) are fine:

13a. That sound okay to John?
b. ??Sound okay to John?

14a. That sound okay to you?
b. Sound okay to you?

(Note the absence of verb-agreement in these cases; obviously these are not simple echo questions, and it is for this reason that I have been referring to deletion of do.)

Before moving from questions to statements, I want to mention some problem areas which need to be investigated in more detail. First, I have indicated that did is one of the auxiliaries which can be deleted in such questions - and, indeed, sentences like (8b) or (15) are fine. In general, however, did-questions are much more

15. Come up with anything else while I was gone?

restricted than the others. Thus, for example, (16a) and (17a), in the perfect, are fine, but the past-tense analogues in (16b) and (17b) are fairly bad for me:

16a. Tried one of those cookies?
b. ??Try one of those cookies?
17a. Been to the exhibit yet?
b. ??Go to the exhibit yet?

There are cases where sentences like these might be used, but in these cases the sentences are not genuine requests for information; they are, rather, sarcastic replies of a sort, as in (18):

18. Old-time machine politics is dead.
--Oh yeah? Ever go to Chicago?

This leads to another problem area. While the examples discussed so far, apart from (18), are genuine requests for information, with certain verbs such as know and remember only a special use of the sentence is involved:

19. Know what Dick did last spring?
20. Remember where we saw Gordon?

Sentences like this are used by the speaker to lead into a story, or to jar the addressee's memory. Thus a sentence like (19) might be followed by one like (21) or (22):

21. Well, he hired a lot of people to install some machinery.
22. Well, you should do the same thing.

Having scratched the surface with questions, I turn now to subjectless statements, where we find an even messier situation. I have so far noticed three kinds of cases where third-person subjects may be deleted. The first of these involves flip perception verbs again, as in the sentences in (23):

23a. Seems like the class always wakes up five minutes before the bell rings.
b. Looks like an accident.
c. Sounds like another ghost.
d. Smells like hot metal.
e. Tastes like almonds.
f. Feels like real silk.[5]

Here again there is a restriction as to person of experiencer; in this case the experiencer must be first person:

24a. Looks like an accident to me.
b. *Looks like an accident to John.

Another kind of case involves sentences with modals. Various examples with epistemic modals occur with deleted third-person subjects, as in (25):

25. {Must / Might / Could / May} be an accident up ahead.

(Compare these with (26):

26. *Must be an accident so we can get the insurance money.)

A third kind of case I've noted involves sentences like those of (27) (note the difference between (27a) and (27b)):

27a. Happens that way all the time.
b. *Happens that they close at ten.
c. Turns out you can't do that in Texas.
d. Seems you can't do that in Texas.

I've grouped these examples together basically as members of a wastebasket class.

First-person cases seem to be even more limited. At this point I have little to say except to point out some cases which do occur and to contrast them with some which don't:

28. Guess I should be going.
29. *Guesses he should be going.
30. *Think I should be going.
31. Think I'll have another cup of coffee.
32. Wish I hadn't done that.
33. Gotta be going.
34. *Hafta be going.

One thing which seems to be going on here is that the permissable examples have an almost performative character; there is some elu-

sive element of spontaneity and impulsiveness involved in uttering them. This seems to have something to do with the fact that analogous third-person cases are out; these could only be reports.

One more kind of situation I'll mention here involves sentences which are not ordinary statements but exclamations of disgust, like (35):

35. Did it again!

Unlike the other sorts of cases there is no restriction as to person, as the reflexive pronouns in (36) show:

36. Cut { myself / yourself / himself / ourselves / yourselves / themselves } again!

Obviously, there are many more fascinating cases which could be discussed in this context and which I will not discuss for lack of space.[6] It should be clear, however, that we are dealing with something quite different from ordinary unemphatic subject pronoun deletion. This latter rule, in languages like Spanish, does not have any of the sorts of constraints on it that these deletions in English have. Furthermore it applies in matrix and embedded sentences alike, while the English deletions occur only in highest sentences.

It thus seems clear that these deletions in English are quite late, and this seems to be the clue to resolving the dilemma noted earlier. While it is clear that Perlmutter's constraint cannot hold at a stage of a derivation after all syntactic rules apply - surface structure, in the "traditional" sense - it seems quite plausible to maintain the position that it holds at a level of "shallow structure" or the output of the cyclic rules. I know of no evidence that any of the rules involved in the examples given to motivate Perlmutter's constraint in English are not cyclic. *There*-insertion is clearly cyclic, and, regardless of what one believes about the various dummy *it*'s,[7] it is likewise clear that these *it*'s can be cyclic subjects - notice, for example, that all these dummy subjects can be raised. Heavy NP Shift is more of a mystery, though, again, I know of no real arguments that it cannot be cyclic. If this is right, then, we find that these funny subjectless sentences are not incompatible with a constraint of the sort Perlmutter proposed, but that this constraint cannot hold at a level like surface structure.[8] I thus conclude that the existence of this constraint argues in no way for such a level of representation, and the problems involved in trying to characterize such a level remain.

In questioning the existence of a level of surface structure, I do not mean to imply that there is no distinction between syntax and phonology. I assume that one can characterize the notions "syn-

tactic rule" and "phonological rule" and that these differ - though linguists have not always made the difference clear.[9] It appears to be the case that syntactic and phonological rules interact in a limited number of ways, and an adequate linguistic theory must account for this. What is questionable is the claim that positing a level of surface structure is the right way to do this: the problems noted by various authors seem to suggest that this approach would account for interactions which do not occur and not for ones which do. It is in this sense that the existence of a level of surface structure does not seem to be supported by the facts.

Footnotes

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[1]Cf. Perlmutter 1971, chapter 4.

[2]Perlmutter was forced to propose that deletion of the that-complementizer caused the S immediately dominating the embedded sentence to prune, a claim for which he had no independent evidence. If this S node fails to prune as a consequence of that-deletion, then, of course, (2b) must be accounted for independently. Notice, further, that by Perlmutter's treatment it is an accident that the facts in (3) through (5) hold equally well for complement sentences where that is deleted; these facts would follow if that-deletion did not cause the dominating S to prune.

The suggestion that the impossibility of questioning or relativizing an embedded subject is due to an independent constraint is supported by two further observations of Perlmutter's. First, he noted that while the French examples (i) and (ii) are ungrammatical, (iii) and (iv) are possible for some speakers,

i. *Qui a-t-il dit que s'est évanoui?
'Who did he say (that) fainted?'
ii. *la speakerine qu'il a dit que s'est évanouie
'the announcer that he said (that) fainted'
iii. Qui a-t-il dit qui s'est évanoui?
iv. la speakerine qu'il a dit qui s'est évanouie

and suggested that the mysterious appearance of the relative pronoun qui in (iii) and (iv) showed that the embedded sentences in these examples retained subjects in surface structure, and thus that such examples would not be filtered out by (1). More recently, however, Perlmutter has found evidence that the qui in these examples is not a relative pronoun but a variant of the complementizer que which appears directly before verbs; his arguments for this analysis are discussed in Berman 1973. If his more recent analysis is correct, then (i) and (ii) must be ruled out independently.

A second observation made by Perlmutter which bears on this issue is that subjects of embedded sentences may be questioned in Dutch, as in (v),

v. Wie vertelde je, dat gekommen was?
'Who did you say (that) had come?'

but that Dutch, like French and English, does not permit subject pronoun deletion and has the dummy subjects het and er. He was, of course, forced to conclude that the latter facts were accidental.

[3] Will can sometimes delete in statements, as in (vi):

vi. Be back in a few minutes.

[4] Some speakers (Paul Postal has informed me that he is one) find (13a) equally bad. I, and other speakers with whom I have checked, find (13a) fine as a question of a report. Analogous remarks hold for the sentences in (24).

[5] Probably related to these cases are sentences like (vii):

vii. Has a sort of greasy taste.

Notice that subjects of has are not freely deletable:

viii. *Has a lot of money.
ix. *Has three minutes to catch the train.

[6] One further weird fact I will point out is that a number of bad examples improve greatly if a tag of some sort is added:

x. ??Got a lot of nerve.
xi. Got a lot of nerve, {doesn't he? / I'd say. / eh?}

This may have something to do with the fact that the examples in (xi) sound much less like actual statements which convey information.

[7] For some discussion of this subject, see Morgan 1968.

[8] It may, of course, turn out that this constraint cannot apply to a level of shallow structure characterized in this way either. The point I am trying to make is that application of this constraint will define a level of representation which cannot be equivalent to surface structure in the usual sense.

[9] Stress assignment, for example, would seem intuitively to be a phonological matter, yet, because of the interaction between

emphatic stress and *do*-support, Chomsky (1957) was forced to treat the former as an essentially syntactic phenomenon.

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