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INITIAL MATERIAL DELETION IN ENGLISH

English has phonological rules which delete initial lightly stressed material of words and phrases. In this article it is shown that a similar rule exists at the sentence level, deleting strings which may consist of one or more words, parts of words and combinations of these. An argument that the missing string has a phonetic matrix is offered, showing that the sentence level rule involves deletion and not interpretation. Then evidence of the phonological as opposed to syntactic nature of the rule is presented. This work supports the idea that stress rules have varying domains, it calls for a new ordering of the phonology with respect to stylistic rules in the Extended Standard Theory, and it offers evidence for choosing between alternative theories of anaphora.

1. Introduction.

In English many nonimperative sentences have a corresponding utterance that is identical except for the lack of some initial material.

(1) gives a representative list of examples.

(1) a. Wish Tom were here. (I wish . . .)
b. You seen Tom? (Have you . . .)
c. Seen Tom? (Have you seen . . .)
d. Fine friend you turned out to be! (A fine . . .)
e. Paper boy's here. (The paper . . .)
f. Cat got your tongue? (Has the cat . . .)
g. 'Fessor you expected is here. (The professor . . .)
h. 'Fessor arrived yet? (Has the professor . . .)
i. Soon as your mother arrives, I'm leaving. (As soon . . .)
j. 'Sgusting as John is, I still love him. (As disgusting . . .)
k. 'Spect you're waiting for your mom, huh? (I expect . . .)
l. 'Splains it very well. (She explains . . .)
m. Hair's too long! (Your hair . . .)
n. Good thing you decided to come along. (It's a good . . .)
o. You want me to leave, just tell me. (If you . . .)
p. Want me to leave, just tell me. (If you want . . .)

Items such as subjects, auxiliaries, determiners, possessive pronouns, clause introducers, initial syllables or parts of syllables of words, and combinations of these can be missing.

In this paper I argue that the missing material is deleted by a phonological rule rather than a syntactic one. In ***Section 2*** another analysis of these utterances is refuted. In ***Section 3*** evidence for deletion as opposed to base generation is given. In ***Section 4*** the phonological character of the rule is pointed out. In ***Section 5*** the implications of this analysis for both syntactic and phonological theory are discussed.

2. *Another Analysis.*

Many linguists have noted one or more of the sentence types seen in (1), most often singling out deletion of a particular type of item, such as subjects, for discussion. A notable exception is Thrasher (1974), who sees all the examples in (1) as part of a single phenomenon with the important exception of the deletion of the initial segments of a word; ***'sgusting*** for ***disgusting***.[1] I discuss here only Thrasher's analysis, since it is the most comprehensive and ambitious one I know of and since he has incorporated some of the best arguments of the works preceding his and refuted some of the least tenable.

Thrasher assumes the position that there are two basic types of rules deleting initial material: deletion under identity and deletion which calls for 'no identity'. By deletion 'under identity' he means the kind of phenomenon Morgan (1973) outlines, exemplified in (2).

(2) a. Are you reading?
b. No, writing a linguistics paper. (No, I'm writing . . .)

Thrasher claims *(op. cit.:* 78) that in Morgan's fragments any part of the string could be deleted 'under identity', usually with the string immediately preceding it in the discourse. In contrast, he wants to focus on strings which can occur in discourse initial position where no identical 'trigger' for deletion can be found; as in all the examples of (1) above. Thrasher sees as a major distinction the fact that Morgan's general ellipsis rule; as Morgan dubs it, can delete any part of the string and not just the initial part, as in (3).

(3) a. Who brought the witch cake?
b. Strega Nonna, of course. (Strega Nonna brought . . .)

This division into two deletion types for missing initial material, however, is misguided for many reasons. Consider first that there is strong evidence that Morgan is wrong in positing a rule of general ellipsis. Yanofsky (1978) argues convincingly that NP utterances, (as in (4)) are base generated.

(4) Sharks! (Look out!)

She has three basic arguments.

I. A deletion analysis would require the existence of a deletion rule which can delete nonconstituents freely.

In (5b), for example, the string, 'This fantastic witch cake was made by' would be deleted.[2]

(5) a. Who was this fantastic witch cake made by?
b. Strega Nonna, of course. (This fantastic . . .)

This string is certainly not a constituent.

II. The putative deletion rule would result in nonrecoverable deletion in most (all?) cases, since there are a number of full sentence sources that one might posit for each NP utterance.

Since Thrasher adopts a generative semantics framework (see especially, *op. cit.:* 80), and since generative semantics incorporates the principle of recoverability of deletion, Yanofsky's criticism should hold for Thrasher.

III. Since NP utterances can occur in discourse initial position, there is no reasonable linguistic or pragmatic controller for many such utterances. Given that these utterances then demand a base generated analysis, this same analysis can account for all NP utterances.

Yanofsky's three arguments hold equally as well for other single category utterances, such as AP's and PP's. A very careful reading of Morgan (1973) is not necessary in order to realize that he proposes the very suspect constraint that the remaining fragment after general ellipsis should have been a constituent before the application of the rule *(op. cit.:* 734). Certainly base generating these utterances as single nodes not dominated by S is more insightful than requiring an adhoc condition on the result of general ellipsis.

If general ellipsis does not exist, then, and if instead single category utterances are base generated (as in (3b), (4), and (5b)) the only kinds of examples discussed by Morgan which remain to be explained are those where the initial material is missing. This is precisely the form of the examples in (1). In such examples, furthermore, the surface utterance need not be a constituent before deletion: consider (1), where no one would claim that in the sentence; "The paper boy's here" that "paper boy's here", is dominated exhaustively by a single node.

Now, however, Thrasher's division into initial deletion 'under identity', which he took to be a special case of general ellipsis, and initial deletion which calls for 'no identity' falls apart.[3] For, in fact, every argument given in ***Sections 3*** and ***4*** of this paper concerning the syntactic and phonological characteristics of utterences missing initial material holds for both types of utterance. That is, initial material deletion is a unitary phenomenon.

One of the blinders preventing Thrasher from seeing the unitary nature of the phenomenon is the import he gives to the recoverability principle. Since utterances which delete in a context normally labelled "under identity" (as in (2), (3), and (5)) present no particular problem for recoverability, Thrasher doesn't even consider what mechanisms would be needed to recover meaning if one didn't appeal to identical elements in the preceding discourse. Instead, he notes that deletion without identity (as in (1)) presents an enormous problem for recoverability, and it is really this problem that his dissertation seeks to solve. While he remains true to generative semantics and frames all his many and insightful observations in terms of conditions on deletion, in an EST framework his remarks can be viewed as suggestions about the ways native speakers gain access to a structure prior to deletion.[4] And his remarks are equally as valid for deletion 'under identity' as for deletion without identity. Given that his no-identity deletion needs mechanisms to allow recoverability, these same mechanisms can work to recover all initial material deletion, thus making an appeal to identity unnecessary.

In this paper, then, deletion of initial material is treated as a unitary phenomenon, in contrast to the treatment in Thrasher.

Thrasher, furthermore, argues that the deletion in question is syntactic. In ***Section 4*** I offer evidence to the contrary, with references to Thrasher when relevant. Not surprisingly, Thrasher failed to see that examples like (1 g-h, j-l), where segments of words (as well as whole words sometimes) are deleted, are part of the same phenomenon, even though they share the syntactic and phonological characteristics outlined in ***Section 3*** and ***4*** below that other sentences with missing initial material have. In this paper, they will be taken as examples of the same phenomenon. (See especially ***Section 4.4*** below.)

3. Evidence for Deletion.

Here I present evidence that sentences such as those in (1) must have underlying initial material with a phonetic matrix and not null anaphora. In this discussion some of the types of arguments which the reader might expect to find (due to their prevalence in linguistic literature about anaphora) are not found. In Appendix A I point out three of these putative arguments and show they are not valid. The arguments given in the text, however, are not vulnerable to the same types of criticisms as those in Appendix A, and are good evidence for the existence of underlying initial material in sentences like those in (1).

3.1 Inflection.

When the missing initial material corresponds to a subject, the verb can appear with person and number inflection.

(6) a. Well, how's Teddy these days?
b. Still hopes to be president some day.

If the rule of Subject-Verb Agreement requires a subject to be syntactically present, one can argue that (6b) has a third person singular matrix subject at the time of Subject-Verb Agreement.

The inflection evidence not only provides an argument for the existence of an underlying subject in (6), but also for what type of subject it must be. The underlying subject must have a feature bundle that includes person and number. Thus this subject cannot be PRO, which has no feature bundle (see Chomsky 1979).[5] The only remaining choice is that the subject have a phonetic matrix. Since there is no phonetic material in the actual utterance of (6b), we can conclude that deletion has applied.

3.2 Tag Questions.

A conducive tag question can appear with missing initial material sentences (as discussed in Thrasher *(op. cit.:* 58-0)).

(7) a. Get a load of that new vocalist.
b. Can't sing a note, can he?

If the proper generalization about conducive tag question subjects is that they must be coreferential with the subject of the sentence to which they function as a tag (usually the matrix sentence, but sometimes an embedded sentence, see Lakoff (1969) among others), then one can argue that (7) has a matrix subject at some point in the derivation which is coreferential with the 'he' in the tag.[6] Since that subject does not appear in the sentence (7b), we can conclude that it has been deleted.

3.3 Move NP.

If the missing material of these sentences were syntactically present underlyingly, we would expect this material to be able to fulfill the terms of the structural description of a transformation.[7] In fact, this is the case. In (8b) the missing subject has undergone Move NP (the Raising into Subject Position instance of the rule).

(8) a. How did John do in class today?
b. Seems to have understood the material.

If there were no syntactic entity in subject position at any point in the derivation of such sentences, (8b) could not be generated. We can conclude, then, that deletion has been applied in (8b).

3.4 Control.

If the missing initial material of these sentences were a syntactic entity underlying, we would expect this material to be able to participate in rules of semantic interpretation. In fact, a missing subject can control the subject of an infinitival (or, in other terms, can trigger Equi) as in (9b).

(9) a. Where's Ralph?
b. Had to leave. Sorry.

If there were no syntactic subject in these sentences, we could not generate (9b). We can conclude, then, that deletion has applied.

3.5 P.S. Rules.

In ***Section 2*** I argued, following Yanofsky, that single category utterances (like NP's, AP's, etc.) are base generated. But missing initial material sentences are not always single category utterances. Witness (1b) and (1d-n). As Thrasher argues *(op. cit.:* 30-1), base generation of such utterances would require new phrase structure rules to generate a great variety of fragment types. This proliferation of phrase structure rules would not only be costly to the grammar, it would present a new problem: Why is it that the new categories (which would be new types of constituents) found in this expanded base could never be found embedded within full grammatical sentences? For example, why is it that an utterance like (10) cannot be found ***as a constituent*** in a full sentence?

(10) 'Fessor arrived? (Has the professor . . .)

Contrast (11) and (12), where nodes, or constituents, may be disjoined.

(11) Has the professor arrived or left?
(12) *Has the professor arrived or (pro)fessor left?

A simple deletion of initial material does not encounter these problems, making a deletion analysis preferable.

3.6 Section Conclusion.

From ***Sections 3.1 - 3.5*** above, I conclude that sentences with missing initial material are base generated with a syntactically present initial string that has a phonetic matrix and that functions as a grammatical entity (or entities) for transformational, interpretive, and agreement rules. While the examples given above all involve sentences in a linguistic context, comparable examples with no such context could have been used.[8] Thus the data here are representative for all sentences with missing initial material.

This initial material is deleted by a process which will now be discussed below.

4. A Phonological Solution.

I present here arguments that the deletion of the missing material in these sentences cannot be syntactic deletion, but, instead, must be phonological deletion.

4.1 Constituency.

Sentences can have a variety of missing initial parts; Halliday and Hasan (1976) give examples like (13).

(13) a. What have you been doing?
b. Swimming.

They claim that the only interpretation of (13b) is "I have been swimming". With this interpretation, the missing initial material of (13b) corresponds to a nonconstituent in the full sentence. That is, there is no analysis of the auxiliary system in English that I know of that hypothesizes that subjects and auxiliaries from a constituent. This fact militates against a syntactic deletion rule if one assumes that syntactic rules operate only upon nodes and not just any string. (See also ***Note 2*** above).

One could respond (as does Thrasher, *op. cit.:* 8) with the trivial claim that deletion has applied three times in (13b): once to delete the subject, a second time to delete 'have' and a third time to delete 'been'. But notice that these rules cannot apply independently of each other. In declaratives if the subject is not deleted, the auxiliary cannot be in standard English.

(14) *I seen that movie before. (26cf. I've seen . . .)

In yes-no questions, on the other hand, the first auxiliary can be deleted with or without deletion of the subject, but then the subject can be deleted only if the auxiliary is.

(15) (You) seen any good movies lately? (Have you seen . . .)
(16) *Have seen any good movies lately? (*cf.* Have you seen . . .)

And in no case can a second auxiliary be deleted unless the subject and first auxiliary are also.

(17) *I have swimming.
*Have swimming.
*I swimming.

(Contrast all the examples in (17) to 'I have been swimming'.) The proper generalization, as many of the sources cited in footnote 1 above note, is that deletion applies to material in the sentence which is not preceded by any other phonetic material. That is, deletion removes the initial phonetic material of the sentence. Thus if three deletion rules were operative here, all three would delete the initial string of their structural description. One would be hard pressed to conflate these syntactic deletion rules, saying that what we have is merely three applications of the same rule, since this rule can delete a variety of category types such as NP's (as in (1a)) auxiliaries (as in (1b)) articles (as in (1d)) comparative ***as*** (as in 1i)), and ***if*** (as in lo)). There is no natural syntactic class into which all these items fall; the only characteristic they have in common is that they can all appear in sentence initial position; and they all can receive low stress, as discussed in ***Section 4.5*** below. Thus, writing a rule with a structural description that allows all those items to delete (with curly brackets, I presume) misses the point that it is not the particular choice of item that allows deletion, but, instead, the particular position (ie, initial).

On the other hand, positing three rules fails to capture the generalization that all three do essentially the same thing: delete material from initial position. This way out of the (non) constituency problem is clumsy, misguided, and offers no insight into the problem. I conclude that the deletion rule operative here deletes nonconstituents and, thus cannot be a syntactic deletion rule. Since all deletion rules must be either syntactic or phonological, the rule in question must be phonological.

4.2 The Contraction Facts.

Akmajian, Demers, and Harnish (1979) have noticed that the presence or absence of an auxiliary in a sentence with a missing initial subject is not free. They claim that if an auxiliary can undergo contraction in a full sentence, then this auxiliary cannot appear in the corresponding missing subject sentence.

(18) a. How is he?
b. Better. (*cf.* *Is better.)

On the other hand, they claim that if an auxiliary is neither contractable nor phonetically reducible in a full sentence, this auxiliary must appear in the corresponding missing subject sentence.

(19) a. How are you?
b. Could be better. (*cf.* *Be better.)

Muffy Siegel (personal communication) has added a third observation: if the auxiliary is not contractable but is reducible in a full sentence, there is no grammatical corresponding missing subject sentence. (20) gives Siegel's grammaticality judgments.

(20) a. What do you think of linguistics?
b. *Can understand it if I try. (I can . . .)
c. *Understand it if I try. (I can . . .)

The above claims are not entirely correct, however. Alexa McCray (personal communication) has pointed out that contractable auxiliaries can appear in some missing subject sentences, whether contracted or full. She offers (21) as an example, with her grammaticality judgments given there.

(21) a. How's the veal today?
b. Has been better. / 'S been better. / ?Been better.

And one can certainly hear noncontractable auxiliaries in missing subject sentences (especially of the so-called VP Deletion type), whether reduced or full.

(22) a. You can't do that!
b. Can, too (do that)! / C'n, too (do that)!

Thrasher also claims a relationship between contraction and deletion. He correctly states that *(op. cit.:* 48) 'if a contraction of the subject and the auxiliary exists, deletion of both is possible'. The covert implication in this statement, namely that when subject-auxiliary contraction is not possible, deletion of both is not possible, seems equally valid. The problem is that auxiliaries which come second in a string of auxiliaries can also be deleted along with the subject and the first auxiliary (as in (13b)), even though such auxiliaries are not contractable in the corresponding full sentence. Thrasher's claim would lead one to expect contractability to be crucial to this deletion process in general, but, instead, sometimes it is irrelevant.

Thrasher goes on to claim: 'The availability of the auxiliary-negative contraction seems to determine which auxiliaries must obligatorily drop along with the subject'. By auxiliary-negative contraction he means contractions like ***isn't*** for ***is not***, ***aren't*** for ***are not***, etc. This is not true, however. While ***isn't*** exists and ****amn't*** (***am not***) doesn't, ***is*** and ***am*** exhibit the same pattern in (23) - (24).

(23) a. What's the matter with ***him***?
b. ('S) not going to be able to do it this time. And that makes him sad.

(24) a. What's the matter with *you*?
b. ('M) not going to be able to do it this time. And that makes me sad.

Thus, once more, contractability is not a crucial factor to deletion.

The proper generalization, I believe, lies not in contractability or reducibility ***per se***, but instead in the stress pattern of the sentence.

Any auxiliary that does appear in the surface of a missing initial material sentence, if it is composed of one or more syllables (that is, if it is an eligible candidate to carry stress — as opposed to a reduced form that has no syllabic segment, like *'s* in (23b)) must carry prominent stress. Thus ***could*** in (19b), ***have*** in (21b), and ***can/c'n*** in (22b) are all fine. ***Is*** in (18b) is ungrammatical, however, because the only circumstance under which ***is*** would receive prominent stress is if it contrasted with something else. But a contrastive answer to (18a) seems odd semantically. In other environments where it is natural to stress ***be, be*** can occur in the absence of a subject. For example, in (25b-c) we have contrastive stress on ***be*** and the subject is missing.

(25) a. You're a complete so-and-so.
b. Am not (a so-and-so)! (I am . . .)
c. Are, too (a so-and-so)! (You are . . .)

And notice that if ***be*** is contracted in (18b) so that it does not constitute a syllabic segment by itself, but instead must become part of the following syllable, the answer is acceptable.

(26) (as a response to (18a)) 'S better.

This is because *'s* (the form of ***be***) doesn't (and can't) receive the stress in (26); the first syllable of ***better*** does.

As for (20b), some speakers find it strange, although I am not among them. Note, though, that the context there doesn't call for prominent stress on ***can*** and for many people does call for considerable lower stress on ***can***. Compare (20b) to (27), an alternative answer to (20a).

(27) Can understand anything if I try.

With the highest stress peak on the object ***anything***, (27) is perfectly acceptable. In contrast, the object of ***it*** in (20b) resists stress. The result is that in (20b) the verb ***understand*** receives the prominent stress and ***can*** receives lower stress, making it, therefore, less likely to remain if the subject is deleted. But in (27) ***anything's*** high stress causes the verb ***understand*** to have lower stress, so that the stress of ***can*** is not appreciably lower than the stress of the verb that follows it. Therefore, ***can*** can remain in (27)[9] (See also the further remarks on intonation in ***Section 4.5*** below.)

In sum, it is clear that the stress pattern of the sentence is a relevant factor to the deletion process. Given a theory in which syntactic rules precede phonological rules, the deletion in question cannot be a syntactic process.[10] And given a theory in which the syntactic and phonological components are discrete, this cannot be a syntactic rule. Therefore, it must be phonological deletion.[11]

4.3 Initial Factor.

As was pointed out in ***Section 4.1*** above, the deletion in question applies to material which is not preceded by any other phonetic material. Thus (28b) in which ***still*** is a sentence adverb with the meaning of 'all the same' — is ungrammatical with deletion of the subject where ***still*** precedes the subject position. But (29b), in which ***still*** is a VP adverb which would follow the subject position, is grammatical.[12]

(28) a. It isn't nice in Detroit.
b. *Still, coming with you. (*cf.* Still, I'm coming . . .)

(29) a. What's John doing these days?
b. Still thinking about earthquakes. (*cf.* He's still . . .)

It is not the simple presence of a sentential adverb that blocks (28b). It is the fact that this adverb would have preceded the subject, thus deletion is not allowed. If a sentential adverb occurs anywhere to the right of the subject position, the subject may delete (providing no other phonetic material precedes it).

(30) a. It isn't nice in Detroit.
b. Coming with you all the same. (I'm coming . . .)

Likewise, a sentence 'linker' isn't readily found in these missing initial material sentences. Thus (31) contrasts with (32).

(31) Any pears today? (Are there . . .)
(32) *I was wondering, any pears today? (I was wondering, are there any . . .)

Again if such a sentence linker is in noninitial position, deletion may occur.[13]

(33) John coming, by any chance? (Is John . . .)
(34) *By any chance, John coming? (By any chance, is John . . .)

The requirement that the material to be deleted not be preceded by any phonetic material is an odd one for a syntactic rule. That is, while syntactic rules may move material into or remove material from S-initial position, as far as I know sentential adverbs and/or sentence linkers can precede the target position. In fact, most structural descriptions for transformations in the standard theory were written with the implicit agreement of all concerned that no-one would worry about where adverbs might appear, since taking them into account would complicate rule after rule, even to the point of making some rules unstateable with the string formalism.

Certainly there is no difficulty in writing a structural description with the string formalism that allows deletion only of initial material.[14] The point, however, is that such a condition is odd for a syntactic rule. Since phonological rules are often phonetically conditioned, the phonetic condition on deletion here is not problematical for a phonological deletion rule.

4.4 Deletion of Parts of Words.

Our deletion rule can delete parts of words as well as entire words.

(35) 'Sgusting animals refused to turn down their music. I hate that fraternity! (Those disgusting . . .)

To see that this is not simply a word level phenomenon, note that ***disgusting*** does not reduce to ***'sgusting*** except in initial position.[15]

(36) *I hate (those) 'gusting animals!

And, like our other deletion examples, ***'gusting*** can occur with a variety of combinations of other missing material. In (35) we are missing a determiner. In (37) we are missing an auxiliary plus a determiner.

(37) 'Sgusting animals ever apologize? (Did the disgusting . . .)

A syntactic deletion rule cannot delete part of a word. This is because syntactic rules operate on nodes, and parts of words are not dominated by nodes. Phonological rules, however, can operate on parts of words. Thus the phenomenon here can only be a phonological deletion.

4.5 The Rule.

From ***Sections 4.1 - 4.4*** I conclude that a phonological deletion rule is operative in sentences like those in (1).[16] This rule deletes unstressed (or lightly stressed) initial material. Dwight Bolinger (personal communication) suggests that if we adopt the 'hat pattern' approach to intonation and divide the intonation contour of a sentence into the prehead (the part preceding the first main accent), the head (from the first main accent to the last main accent), and the post-head (the falling part after the last main accent), we could say this rule deletes the prehead. Bolinger further points out that this rule has its counterpart in other types of utterances besides just sentences. Thus, at the word level we have deletion of the initial segments up to and including the syllabic segment of the first syllable where that first syllable does not receive the highest word stress, such as ***'tween*** for ***between*** (and see footnote 15 above). Note that the word level rule I'm talking about operates regardless of where the word occurs in the overall utterance. Thus it is distinct from the sentence level rule that occurs in (35) above to delete the initial segments of ***disgusting.*** Still, the rules are quite similar. Both occur only in informal speech. A high register word such as ***conjecture*** would probably never be reduced to ***'jecture,*** although a word common to most people's vocabulary, such as refrigerator, can be reduced to ***'frigerator*** (or even ***fridge,*** see Kreidler (1979) for discussion about clippings). Likewise, the sentences of 1 all belong to informal speech.

This rule also has a counterpart at the phrase level. Thus we find examples like ***course*** for ***of course***, where ***of*** is the more lightly stressed of the two words. And we find NP utterances like ***apple, please*** for ***an apple, please.***

It appears that any items which have an intonation contour: i.e. words (word stress), phrases (phrase stress), and sentences (sentence stress) are; susceptible to a rule deleting a lightly stressed initial part.

5.0 Implications.

The above analysis has implications for grammatical theory. First, with regard to phonology, dropping of lightly stressed syllables that precede or follow the tonic syllable is a common phenomenon. That one particular aspect of such deletion, initial unstressed syllable deletion, should expand its domain to a whole phrase and even further to an entire sentence goes hand in hand with the idea that there are not only rules that assign word stress but also rules that assign sentence stress. That is, the analysis given in this paper lends support to the very basic idea of work on intonation that stress rules have varying domains (see, for example, the handling of the ***Nuclear Stress Rule*** in Bresnan (1971)).

One might ask why such a phonological rule exists. As many including Thrasher have noted, the deletion studied here occurs in informal speech (or 'intimate' styles of letter writing). Thrasher also goes on at great length to argue that in every instance of acceptable initial material deletion the information which would have been supplied by the deleted material is also supplied in some other way in the sentence. Thrasher argues that it is this redundancy that allows deletion. In the EST one could say, instead, that it is this redundancy that allows us to recover the deleted material. Either way, one might pose a correlation between informal speech and the reduction of redundancy. Certainly this hypothesized correlation needs to be further tested.

In addition this deletion leads to a shorter speech act, facilitating the rapid exchange that is typical of informal speech. In fact, as Edwin Williams (personal communication) has pointed out, the longer a sentence is, the less likely it is to have missing initial material.

(38) Where's John?

(39) Left (already).
?Left in a blue car.
??Left in a blue car with Susie.
*Left in a blue car after Jane told him to shove off.

I conclude from my own observations that sentences with missing initial material in actual discourse tend to be quite short, often just a few words.

With regard to syntax, a number of implications arise. If the phonological deletion rule suggested here exists, then at least some rules of phonology must be able to follow stylistic rules. Consider (1d), repeated here for convenience.

(1) d. Fine friend you turned out to be.

Since (40) is unacceptable,

(40) *You turned out to be fine friend.

the article ***a*** must be deleted after the fronting of the phrase ***a fine friend.*** But this fronting rule must be a stylistic rule, according to recent work in EST, by default, since it is neither an instance of ***Move NP*** (which is structure preserving, while the fronting rule in question is not) nor ***Wh-Movement*** (which, together with ***Move NP***, makes up the core grammar). Chomsky and Lasnik (1977) claim that stylistic rules follow phonological rules. But (1d) is an example in which a phonological rule ***(Initial Material Deletion)*** follows a stylistic rule. Furthermore, if all stylistic rules follow syntactic deletion (as Chomsky and Lasnik further claim), we now have one more argument that our deletion in question cannot be syntactic.

A final point to be made here is that the analysis presented in this paper is the only analysis consistent with the theory of anaphora presented in Napoli (in progress).

In this work I argue that null anaphors and proform anaphors occur in complementary distribution in surface structure in every syntactic structure I have examined thus far, and I propose that this is a necessity and not just a coincidence. The proposal, based on data from Italian and English, some of which appear in Napoli (1981), entails that any structure in which a null anaphor appears in a position in

which a proform anaphor could also appear would be a counterexample to this proposal. In particular, missing subject sentences (which constitute one type of missing initial material sentence) would be counterexamples if they were generated with null anaphors in subject position since there exist full sentences of English which have proform anaphors (that is, pronouns) in subject position. But the analysis defended in this paper is totally consistent with the complementary distribution hypothesis of Napoli (in progress).

One might ask exactly how the above metioned complementary distribution hypothesis compares to Chomsky's similar claims about anaphora in his paper ***On Binding*** and in the Pisa Lectures. Chomsky comes to the conclusion that '. . . there's something like complementary distribution between PRO and pronoun, although it fails in some cases, namely those situations where for one or another reason government is optional, then both PRO and pronoun might appear . . . ' (1979: 17). The differences between Chomsky's and my observations (where his observation is a necessity given his theory of case governance and binding, and where my observation is taken to be a necessity based on claims about the kinds of rules which can occur in a grammar) are in exactly what we say must occur in complementary distribution to proform anaphors. Neither Chromsky nor I include traces in our statements. But Chomsky includes only the phonetically null anaphor PRO, which is base generated, to contrast to pronouns, whereas I include both PRO and the result of syntactic deletion to contrast to proforms of any category (not just NP's). Thus I cover all the cases Chomsky covers and more.

The effect of including the result of syntactic deletion turns out to be extensive. It requires an examination of putative deletion rules. This examination is undertaken in Napoli (in progress), where I show that many proposed syntactic deletion rules do not, in fact, exist, and where I discuss some of the uses of nonanaphoric silence in language.

Looking at Chomsky's claim, then, we can see that he would disallow a base generated PRO as the subject of missing subject sentences without automatically disallowing a syntactic deletion analysis of these sentences. However, the evidence given in ***Sections 3*** and ***4*** above supports arguments against a null anaphor base generated in subject position and against syntactic deletion. A theory, such as mine, which disallows both of these (incorrect) analyses is to be preferred to one which disallows only one.

APPENDIX A

Here I will outline three potential arguments for the existence of an underlying subject in those sentences where the initial missing material is understood to contain a subject, and I will show that each argument fails. These arguments have basically the same argument form and the same refutation form.

1. ***Reflexives.*** Reflexive pronouns can appear in these sentences.

   (i) (***SITUATION:*** A detective walks into the room and looks from the body on the floor to the first detective standing over it. The first detective announces,)

   Killed himself.

If the proper generalization about reflexive pronouns is that they must find an antecedent within the sentence (usually within the same clause), then one could argue that (i) has an underlying matrix subject coreferential with ***himself***. (This is just what Thrasher argues (*op.cit.,* 31-2). But this is not the proper generalization. Consider (ii).

   (ii) (***SITUATION:*** Two parents look at each other as their daughter serves them the first dinner she's ever cooked alone. One says to the other,)

   All by herself, too.

There are strong arguments against an analysis of (ii) which involves deletion (see the discussion of Yanofsky (1978) in

Section 2 of the text). The reflexive pronoun in (ii), then, finds a pragmatic antecedent, and, thus, the presence of the reflexive pronoun in (i) cannot be taken as evidence that there must be an underlying subject of this sentence.

2. ***Reciprocals.*** The reciprocal 'each other' can appear in these sentences.

(iii) (***SITUATION:*** There's a commotion in the high school hallway as two students are dragged off to the principal's office. A teacher peeks out of her room and raises an inquiring eyebrow. Another teacher who has seen all responds with,)

Kissed each other in front of everyone again.

If the proper generalization about 'each other' is that it must find an antecedent within the sentence (usually within the same clause), then one could argue that (iii) has an underlying matrix subject which is coreferential with 'each other'. But this is not the proper generalization. Instead, 'each other' can find a pragmatic antecedent, as in (iv).

(iv) (***SITUATION:*** Two parents hear their children bickering upstairs. One says to the other in despair,)

Always with each other — but never with their friends. Do you think it's inevitable?

Once more see *Section 2* of the text for arguments against deletion in an utterance like (iv).

Thus the presence of 'each other' in (iii) cannot be taken as evidence that there must be an underlying subject in this sentence.

3. ***The Possessive 'Own'.*** The possessive adjective 'own' can appear in these sentences.

(v) (***SITUATION:*** Two policemen are on the scene of a crime. The one handcuffing a woman says to the other,)

Killed her own children.

If the proper generalization about 'own' is that it must find an antecedent in the sentence (usually within the same clause), then one could argue that (v) has an underlying matrix subject coreferential with 'own'. Once more however, this is not the proper generalization. Instead, 'own' can find a pragmatic antecedent, as in (vi).

(vi) (***SITUATION:*** Two children are fighting over a seat at the dinner table. Their parent says sternly to them both,)

Your own seats, please.

Again see *Section 2* for arguments against deletion in NP utterance like (vi).

Thus the presence of 'own' in (v) cannot be taken as evidence that there must be an underlying subject in this sentence.

(September 21, 1981)

NOTES

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1. Thrasher discusses earlier analyses, including the remarks of Sweet (1891), Curme (1931), Morgan (1973) (about which more follows in the text), Long (1961), Francis (1958), Schmerling (1973), Shopen (1973), Laferrier (1973), and Bolinger (1967). Jespersen has also remarked on this phenomenon and I refer the reader to Jespersen's ***Essentials of English Grammar,*** section 10.6_1 and 10.6_2. (Thrasher noted Jespersen's contributions, but offers a different reference from the one I have chosen.) Other works on this topic, which came out after Thrasher, are referred to in the text.

2. While it's been claimed that some deletion rules can operate on nonconstituents (as, for example, Brensnan's remark about ***Gapping*** (1976: 385)), one can question the very existence of the putative rules used as examples (as I do in Napoli (in progress)) and/or their deletion nature as opposed to interpretive nature (as Siegel (1979) does). Thus in this article I will still invoke the time honored assumption that syntactic rules operate only on nodes.

3. Indeed, Thrasher himself seems to lose sight of the putative distinction now and then. For example, he discusses (*op. cit.:* 39) as an example of the no-identity deletion, the utterance in (i).

(i) (There's) Always two or three stupid questions.

But (i), in contrast to Thrasher's explicit claims to the contrary about no-identity deletion, requires a context. (Note that Thrasher lumps linguistic contexts and pragmatic contexts together. Only utterances that are acceptable 'out of the blue' can be instances of the no-identity deletion.) Thus it should be an example of identity deletion. See especially his comments about his example (37), (*op. cit.:* 40).

4. It is in this area that Thrasher makes his most interesting contributions. His ideas about grammatical redundancy as a key to recoverability seem promising in accounting for why initial material deletion does not always result in an acceptable utterance.

5. Furthermore, PRO would be blocked from subject of a tensed S position in English since this is a governed position and PRO cannot be governed (see Chomsky (1979)). Of course the subject cannot be trace since there's no evidence of movement.

6. This type of tag question cannot appear with NP utterances. Thus upon seeing a man carrying a bagful of tomatoes, I cannot say,

(i) *A lot of tomatoes, hasn't he?

But I could say,

(ii) A lot of tomatoes, huh?

That is, only the tag which requires an antecedent is disallowed. Note that sentences like (iii) are not counterexamples, since they are best analyzed as examples of the missing initial material sentences studied in this paper and not as NP utterances.

(iii) (A) lot of tomatoes, aren't there? (There are a lot . . .).

Thus the tag question argument in the text is not open to the same criticisms as the arguments in Appendix A.

7. Another movement rule that one might argue that these sentences can undergo is Subject-Auxiliary Inversion.

(i) Visited/Seen/Talked to John lately? (Have you visited . . .).

Here both the inverted subject and the auxiliary are missing (as in (1c), also). These utterances are open to an analysis as base generated VP's, however (see ***Section 2*** above), depending upon one's analysis of auxiliaries. Only in a theory in which auxiliaries are generated inside the VP and in which a past participle does not form a constituent with following complements of the verb are examples like (i) convincingly argued to be instances of missing initial material sentences. Since I will not here go into an analysis of the auxiliary system of English, I leave the question open.

8. Instead of (6), we could have used,

(i) Don't hear anything, do you? (You don't . . .)

(i) would serve as well in place of (7). Instead of (8) we could have used,

(ii) Appears to be another sunny day.

Instead of (9), we could have used,

(iii) Gotta use a telephone quick! Is there one around?

9. Not all questions about auxiliaries in missing initial material sentences can be answered with a look at the sentence intonation, however. Compare (iia) to (iib) as answers to (i) with the readings in parentheses.

(i) How's the veal today?
(ii) a. Better. (It's better.)
b. *Better. (It's been better.)

While the missing subject in (13b) in the text has been deleted along with ***have*** and ***be***, this same deletion is problematic in (iib). It would appear that when two underlying structures can lead to the same surface structure by way of this deletion, sometimes only one interpretation emerges. For lots of other problems of interpretation and suggested explanations, see Thrasher (1974) and Shopen (1972).

10. This conclusion follows even if one allows intonation rules (ie. stress rules) to apply after all syntactic rules on each cycle (as Bresnan (1971) argues), since the deletion in question occurs only in matrix sentences and thus the stress pattern relevant to the deletion (the stress pattern of the final, total sentence) could not be established until after all syntactic rules had applied.

11. Thrasher himself notes that stressed elements do not delete (see his *footnote 7*, p. 57) and he claims this is because they cannot be redundant (p. 84). Because he is using a framework in which semantic interpretation is not distinguished from syntactic transformations, these stress facts have little import for him.

12. In order to understand why I've starred (28b), one must pronounce the sentence with the proper intonation. Pronounce the two sentence pairs below.

(i) Still, I'm coming with you. Sure, I've seen enough of him.
(ii) I'm still coming with you. I've sure seen enough of him.

Note that ***still*** (or ***sure***) in both has prominent stress, but there is a pause in (i) that isn't found in (ii). Now delete the ***I'm*** (or ***I've***) out of both and pronounce them. (i) is unacceptable now while (ii) is still fine. It is the (i) instance that is starred in (28b)

13. Halliday and Hasan (1976: 192) give one example where deletion would have taken place out of noninitial position.

(i) a. He must have mended it.
b. Or been going to mend it, rather.

(ib) is not an example of the kind of sentence seen in (1), however. The ***or*** which introduces it attests to the fact that the respondent has merely continued the sentence of the previous speaker by way of disjoining a VP. Furthermore, if the ***or*** doesn't appear (as it wouldn't in a true example of our phenomenon), their response is ungrammatical.

14. However, the problem of deleting nonconstituents and the problem of properly distinguishing which types of items can be deleted (discussed in ***Section 4.1*** above) still remain.

15. in (1) there are examples with ***'fessor (professor)*** and ***'spect (expect)***. I don't use these here because there are many speakers who can use these reduced forms in any position in the sentence. That is because there is a word level rule, distinct from the sentence level deletion rule which is the topic of this paper, which can delete their initial syllables as well as the sentence level deletion in question. Other examples include ***'cause (because)*** and ***'stead (instead)***. I don't think ***'sgusting*** freely alternates with ***disgusting***, however. (In other words, the word level rule doesn't apply to ***disgusting***; only the sentence level one does.) Thus I've chosen it to make my point. I could as well have chosen many other examples, such as,

(i) 'Splain it to me. (Explain . . .)
*I'd like you to 'splain it to me. (I'd like you to explain . . .)

(ii) 'Tember is a wonderful month. (September . . .)
*I enjoy 'tember. (I enjoy September.)

See also the discussion in ***Section 4.5*** *below in the text.*

16. As in ***Section 3,*** in ***Section 4*** in some cases I have used examples with linguistic contexts again. But one could as easily have used examples without contexts.

Thus for (13b), one could substitute,

(i) Reading too much lately? Try dropping out of school. (Have you been reading . . .)

For a noncontractable, nonreducible auxiliary, as in (19b), one could substitute,

(ii) Could be a nice day. What do you think? (It could . . .)

(iii) 'S interested in everything, that guy over there! (He's . . .)

For a noncontractable, reducible auxiliary, as in (22), one could use,

(iv) Can/C'n see the monastery when we pass the next bend, so look carefully. (You can . . .)

For an auxiliary that allows auxiliary-negative contraction, as in (24), one could use,

(v) ('S) not going to be any Christmas this year, Kids. (There's not . . .)

For an auxiliary that doesn't allow auxiliary-negative contraction; as in (24), one could use,

(vi) ('M) never gonna see you again, Paul. (I'm never . . .)

For a deletion sentence beginning with a modifier that occurs after the subject in a full sentence, like (29b), one could substitute,

(vii) Sure am glad to see you, Boys! (I sure . . .)

For all the other crucial examples of ***Section 4*** there are already examples without linguistic contexts in the text.

REFERENCES

Akmajian, Adrian, Richard A. Demers, and Robert M. Harnish. 1979. ***Linguistics: An introduction to language and communication.*** MIT Press. Cambridge, Mass.

Bolinger, Dwight. 1967. 'The Imperative in English' in ***To Honor Roman Jakobson.*** The Hague. Mouton.

Bresnan, Joan. 1971. 'Sentence Stress and Syntactic Transformations.' ***Language*** 42: 2. 257-81.

Bresnan, Joan. 1976. 'Evidence for a theory of unbounded transformations'. ***Linguistic Analysis.*** 2: 4. 353-91.

Chomsky, Noam. 1979 ***Pisa Lectures.*** MIT ditto. Cambridge, Mass.

Chomsky, Noam. 1980. 'On binding'. ***Linguistic Inquiry.*** 11: 1. 1-46.

Chomsky, Noam and Howard Lasnik. 1977. 'Filters and Control'. ***Linguistic Inquiry*** 8: 3. 425-504.

Curme, George. 1931. ***Syntax.*** Boston, Heath.

Francis, Nelson. 1958. ***The Structure of American English.*** New York. Ronald Press.

Halliday, M.A.K. and Ruquaiya Hasan. 1976. ***Cohesion in English.*** Longman Group Ltd., London.

Jespersen, Otto. 1964. ***Essentials of English Grammar.*** Univ. of Alabama Press. University, Alabama.

Kreidler, Charles. 1979. 'Creating new words by shortening'. ***Journal of English Linguistics.*** 13. 24-36.

Laferrier, Martha. 1973. 'Auxiliary deletion in fast speech'. A paper delivered at SECOL IX. The Univ. of Virgina.

Lakoff, Robin. 1969. 'A syntactic argument for negative transportation'. ***CLS 5.*** ed. by R.I. Binnick et al. Chicago. 140-7.

Long, Ralph 1961. ***The sentence and its parts.*** Chicago. The Univ. of Chicago Press.

Morgan, Jerry. 1973. 'Sentence Fragments and the Notion "Sentence"', ***Issues in Linguistics: Papers in honor of Henry and Renee Kahan.*** ed. by Braj B. Kachru et al. Univ. of Illinois Press. Urbana. 719-51.

Napoli, Donna Jo. 1981. 'Subject pronouns: the pronominal system of Italian vs. French.' ***CLS 17.*** ed. by Roberta A. Hendrick, et al, 249-76.

Napoli, Donna Jo. ***(in progress). Null anaphors and proform anaphors.***

Schmerling, Susan. 1973. 'Subjectless sentences and the notion of surface structure'. ***CLS 9.*** ed. by Claudia Corum, ***et al.*** 577-86.

Shopen, Tim. 1972. 'A generative theory of ellipsis: A consideration of the linguistic uses of silence'. reproduced by the ***Indiana University Linguistics Club.***

Shopen, Tim. 1973. 'Ellipsis as grammatical indeterminacy'. ***Foundations of Language***, 10.

Siegel, Muffy. 1979. 'Evidence from negation for an interpretive rule of gapping.' Paper presented at the LSA winter meeting.

Sweet, Henry. 1891. ***A new English grammar.*** Clarendon Press.

Thrasher, Randolph. 1974. ***Shouldn't ignore these strings: a study of conversational deletion.*** Ph. D. dissertation. Univ. of Michigan.

Yanofsky, Nancy. 1978. 'NP utterances'. ***CLS 14.*** ed by Donka Farkas, ***et al.*** 491-502.

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