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Utterance meaning and syntactic ellipsis

ROBERT J. STANTON

Speakers often use ordinary words and phrases, unembedded in any sentence, to perform speech acts—or so it appears. In some cases appearances are deceptive: The seemingly lexical/phrasal utterance may really be an utterance of a syntactically elliptical sentence. I argue however that, at least sometimes, plain old words and phrases are used on their own. The use of both words/phrases and elliptical sentences leads to two consequences: 1. Context must contribute more to utterance meaning than is often supposed. Here's why: The semantic type of normal words and phrases is non-propositional, even after the usual contextual features are added (e.g., reference assignment and disambiguation). Yet an utterance of a word/phrase can be fully propositional. 2. Often, a hearer does not need to know the exact identity of the expression uttered, to understand an utterance. The reason: Typically, words/phrases in context will sound the same, and mean the same, as some elliptical sentence token.

1. Introduction

Let me start with some data. Suppose I'm at a linguistics meeting, talking with Andy Brook. There are some empty seats around a table. I point at one and say, 'Barbara Partee'. I then indicate another empty seat and say, 'The editor of *Pragmatics & Cognition*'. Upon hearing these words, Andy forms the belief that the unoccupied seats are reserved for Barbara Partee, and for the editor of *Pragmatics & Cognition*. Another detail. The seats I pointed to are actually reserved for Emmon Bach and M.A.K. Halliday. Moreover I, the speaker, am aware of this — I'm simply playing a joke on poor Andy. I want to stress two things about this imagined situation. First, since the seat I indicat-

ed first is not Barbara Partee's, and since the missing occupant of the second seat is not Marcelo Dascal, my utterances of (1a) and (1b) were both false.

- (1) a. Barbara Partee
- b. The editor of *Pragmatics & Cognition*

Second point: What I uttered, in the described situation, was a name on the one hand, and a definite description on the other. Neither time did I utter a sentence. (I'll spend much of this paper defending this last claim.)

More data. Suppose that, instead of simply pointing and saying (1a), the situation was slightly different. (Call this Situation Two.) Andy says to me, 'Who does that seat belong to?' and I reply 'Barbara Partee'. Here again, I take it that if the indicated chair is not Barbara Partee's, my utterance is false. In situation two, however, it *is* plausible to suppose that I uttered a sentence — a syntactically elliptical sentence.

You might want to take issue with the way I've described these situations. But, before I defend myself, I should let you in on why it matters. Consider two initially plausible hypotheses about utterance meaning.

- (2) *The Sufficiency Hypothesis*: To arrive at utterance meaning from expression meaning it is sufficient to disambiguate, and assign reference where required.¹
- (3) *The Necessity Hypothesis*: To arrive at utterance meaning it is necessary to discover precisely which expression was uttered.²

Despite their initial plausibility, I think both hypotheses are incorrect: Sometimes finding utterance meaning requires *more* than disambiguation and reference assignment; and sometimes finding the meaning of the utterance requires *less* than knowing the exact identity of the uttered expression. The just introduced situations are designed to illustrate these claims.

Start with the Sufficiency Hypothesis — and with 'Barbara Partee' as uttered in situation one. What does this expression, the expression *type*, mean? Well, if you like the Fregean (1892) story, 'Barbara Partee' refers to Barbara Partee by means of some sense; if, on the other hand, you prefer a Kripke-style (1972) story, 'Barbara Partee' simply stands for Barbara Partee. But on *nobody's* story does the name 'Barbara Partee' express a proposition; nor does it express a propositional character, à la Kaplan (1977). Next step. I take it that the name 'Barbara Partee' is not ambiguous. Nor does it contain any indexicals. So, if the Sufficiency Hypothesis is true, in situation one the

context adds *nothing* to utterance meaning: There is no need for disambiguation or reference assignment. Hence, if (2) were true, the meaning of the utterance ought to be the meaning of the expression — an individual, either presented directly, or via some sense. But, in situation one, the utterance of ‘Barbara Partee’ was *false*. Conclusion? Utterance meaning can be propositional, even when expression meaning + disambiguation + reference assignment is not propositional. In which case, it isn’t true that to get from expression meaning to utterance meaning it is sufficient to disambiguate, and assign reference.

Next up, the Necessity Hypothesis. In situation two it was, I’ll suppose, an elliptical sentence which was uttered. Given that the uttered expression *was* an elliptical sentence, it *was not* a name. (An elliptical sentence, being a sentence, can not be identical to a name, since the latter is not a sentence. More on this shortly.) But notice: *Had* a name been used, the meaning of the utterance would, intuitively, have been the same. After all, the name ‘Barbara Partee’ (not the elliptical sentence, mind you, but the name) was used in the *first situation* to make essentially the same statement that the syntactically elliptical sentence is used to make in the second situation. In which case, it doesn’t really matter to the hearer precisely which expression was uttered; in particular, the hearer does not need to figure out whether it was a name or a sentence, in order to understand the utterance: The precise identity of the expression is immaterial. This clearly conflicts with the Necessity Hypothesis.

2. Syntactic ellipsis and the Sufficiency Hypothesis

Most of the rest of this paper explores ways to rescue the Sufficiency and Necessity Hypotheses. I might as well share the sad result right away: The rescue effort won’t succeed. But the attempts are instructive. I’ll start with (2).

Here’s a way one might defend (2): “Look, the problem comes about when one concedes that words and phrases (e.g., ‘Barbara Partee’ and ‘The editor of *Pragmatics & Cognition*’) are used outside a sentence. The solution, then, is to refuse to make this concession”. Of course one can’t simply say this, and stop; a pressing question needs to be addressed — namely, why does it *appear* that words and phrases are used on their own? This is where *ellipsis* comes in. Without an ellipsis-based explanation of the appearances-

to-the-contrary, the claim that words and phrases are not used is implausible; to defend the Sufficiency Hypothesis, then, the following Ellipsis Hypothesis needs to be explained and defended.

- (4) *The Ellipsis Hypothesis*: Whenever a speaker performs a speech act using an (apparently) unembedded word or phrase, what that speaker really utters is an elliptical sentential expression.

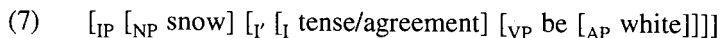
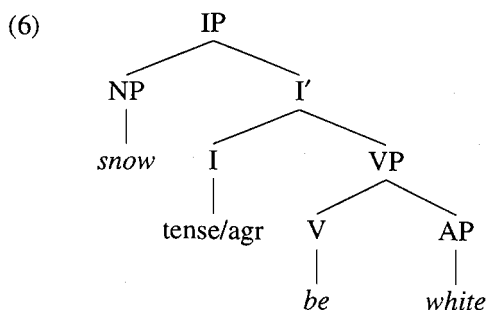
2.1. *The nature of syntactic ellipsis*

It's absolutely crucial in what follows to distinguish two senses of 'ellipsis'. There is an ordinary language notion of ellipsis, according to which elliptical speech simply "leaves something unsaid". Thus, using Grice's (1975) delightful example, a letter of reference which talks only of the candidate's command of English might be called elliptical. A different case: Someone who refers to 'Montague, Partee and all the rest' might be said to be speaking elliptically about intensional semanticists, leaving unspecified exactly where the boundaries of this class lie. I would agree that the use of 'Barbara Partee' in situation one was elliptical — in this weak, purely pragmatic, sense of 'ellipsis'. But this admission provides no solace to the proponent of (2). For to say that the use of unembedded words and phrases is pragmatically elliptical effectively *entails* that words and phrases are used outside sentences: It amounts to saying that a speaker may produce a word/phrase, but assert a proposition. And, in defending (2), this must be denied. However, there are stronger senses of 'ellipsis' — some of them strong enough to save (2). Elsewhere, I discussed and rejected a semantic version of ellipsis. (The basic idea was this: There could be *syntactically* non-sentential expressions which are nevertheless *semantically* propositional. Quine's (1960) "one-word sentences" provide obvious examples.) Having already said quite enough about "semantic ellipsis" in Stinton (1995), I won't discuss it here. What I want to consider in this paper is *syntactic ellipsis*. Explaining it will, I'm afraid, take quite a while.

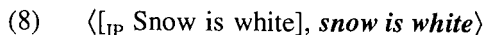
First, a word about notational conventions. In what follows, I will represent the syntactic structure of utterances by a labelled bracketing (or, equivalently, by a tree). For example, suppose John utters the sentence,

- (5) Snow is white.

I use either of the following notations to give the syntactic structure of John's utterance:



I use English orthography in bold italics to give the phonetic form of utterances. The phonetic form of John's utterance, for example, would be given by *snow is white*. To give the full linguistic representation of an utterance, I use an ordered pair of a syntactic structure and a phonetic form — in that order.³ Here, for example, is the linguistic representation of John's utterance:



Back to explaining syntactic ellipsis. Linguistic representations (i.e., expressions/types) fall into different classes. In particular, one can classify some as syntactically sentential and others as syntactically lexical or phrasal. Roughly: A linguistic representation is syntactically sentential if and only if it is headed by an inflectional element at the appropriate level of representation — where inflectional elements include modals, tense and verb–subject agreement. (For further discussion, see Chomsky (1981, 1982, 1986a, 1986b), Haegeman (1991) and references cited there.) A linguistic representation is lexical/phrasal otherwise.

Everyone agrees that speakers *appear to* utter non-sentences. For example, everyone recognizes that a man may approach an apple cart and say 'Red', or knock on a co-worker's door and say 'Hungry?' In both cases, the speaker performs a speech act: a request in the first case, an "asking" in the second. And in both cases, the speaker *appears to* use an unembedded word. To motivate the syntactic ellipsis hypothesis, then, its proponent must maintain that, despite the fact that certain utterances do not *sound like* ordinary sentences, they nevertheless are sentential. There are, so far as I

know, only two ways of maintaining this: the abbreviation hypothesis and the empty element hypothesis.

2.2. *The Abbreviation Hypothesis*

I will say that a linguistic representation r is SHORTENED if and only if there exists another linguistic representation r' such that r' has a longer phonetic form than r , but r' has the same syntactic structure as r .⁴ Examples (9) and (10) are paradigmatic of shortened linguistic representations:

(9) $\langle [_{IP} \text{ She does not smoke}], \textit{She doesn't smoke} \rangle$

(10) $\langle [_{IP} \text{ John thinks } [_{CP} \text{ that snow is white}], \textit{John thinks snow is white} \rangle$

These are shortened because there are other linguistic representations — e.g., (11) and (12) — which have the same syntactic structure, but a longer phonetic form:

(11) $\langle [_{IP} \text{ She does not smoke}], \textit{She does not smoke} \rangle$

(12) $\langle [_{IP} \text{ John thinks } [_{CP} \text{ that snow is white}]], \textit{John thinks that snow is white} \rangle$

The phonetic form of (11) is longer than that of (9), in the sense that only the latter exhibits contraction; the phonetic form of (12) is longer than that of (10) because the word 'that' is not phonetically present in (10). Hence, (9) and (10) are shortened linguistic representations.

Given the notions of syntactically sentential linguistic representations and shortened linguistic representations, I can now state the first version of the ellipsis hypothesis:

- (4') *The Syntactic Ellipsis Hypothesis, Version I: The Abbreviation Hypothesis: Whenever a speaker performs a speech act by uttering an (apparently) unembedded word or phrase, what that speaker really utters is an elliptical sentence in the sense that the linguistic representation of her utterance is syntactically sentential, but it is shortened.*

It is the "shortening", of course, that explains why the result does not "sound like" an ordinary sentence — even though the utterance is syntactically sentential. (Notice: The hypothesis is stated in such a way as to be indifferent to *how* the abbreviation occurs — syntactic deletion, phonological

deletion, or what-have-you.)

Here is an example of an utterance of an (apparently) unembedded word or phrase. Imagine that John (appears to) utter the phrase 'An emergency generator fire' all on its own. On the abbreviation hypothesis, John's utterance has the phonetic form given in (13) and (something like) the syntactic structure given in (14):

(13) *An emergency generator fire*

(14) [_{IP} There [_{I'} INFL [_{VP} be an emergency generator fire]]]

Notice that there is (at least) one other phonetic form that shares this syntactic structure. It is given in (15):

(15) *There is an emergency generator fire*

The phonetic form in (15) is longer than the one in (13). But both share the syntactic structure (14). Hence, by the definition of "shortened", the linguistic representation of John's utterance is shortened. Notice, however, that the syntactic structure in (14) — the syntactic structure of John's utterance — is headed by INFL. Hence the linguistic representation of this utterance is syntactically sentential. Therefore, what John really uttered was not a phrase at all; it was an elliptical sentence.

To summarize: The abbreviation hypothesis holds that the linguistic representation of any actual or possible utterance of an (apparent) word or phrase, used to make a speech act, is syntactically sentential, but shortened. The utterance is syntactically sentential in the sense that, put roughly, it is headed by INFL. And it is shortened in the sense that there exists another linguistic representation with the same syntactic structure, but a longer phonetic form. Being shortened, the utterance does not sound like an utterance of a sentence. But, despite appearances, it is an utterance of a sentence.

2.3. *The Empty Element Hypothesis*

I now present another reading of the syntactic ellipsis hypothesis. I begin by introducing the notion of phonologically null (or "empty") elements. Phonologically null elements are syntactic items that have no phonetic "spell out"; that is to say, no sound corresponds to them. Hence, though present in the syntactic structure, they are never heard. Recent research has suggested that natural languages exhibit several different kinds of empty elements. Consider

one paradigm example: the element PRO in English. One of the places PRO occurs in, at least in English, is the subject position of embedded infinitival clauses. For example:

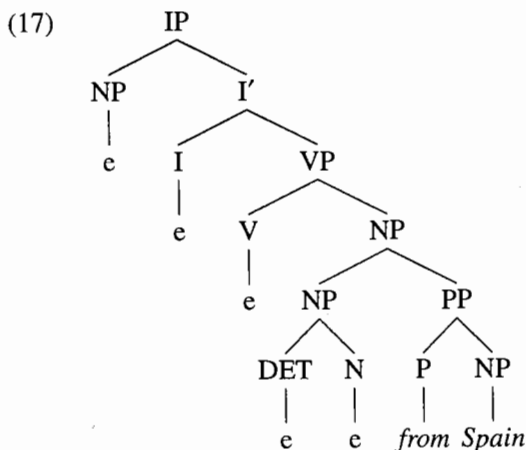
- (16) [_{IP} John₁ wants [_{IP} [_{NP} PRO₁] to leave]

The crucial point is the following: Though PRO is syntactically present, we do not hear it when someone says the sentence 'John wants to leave'. That is *precisely because* PRO has no phonetic spell out.

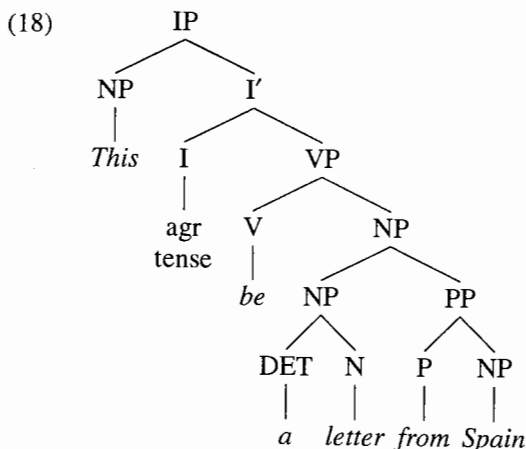
Given the notion of phonologically null elements, I now state the second version of the ellipsis hypothesis: the empty element hypothesis. (See Williams 1977 for a related idea.)

- (4'') *The Syntactic Ellipsis Hypothesis, Version II: The Empty Element Hypothesis: Whenever a speaker performs a speech act by uttering an (apparently) unembedded word or phrase, what that speaker really utters is an elliptical sentence in the sense that the linguistic representation of her utterance is syntactically sentential, but that syntactic structure contains a number of phonologically null (i.e., "empty") elements.*

Here is an example. According to the empty element hypothesis, the tree in (17) gives the syntactic structure of an utterance of the (apparent) phrase 'From Spain'. The letter e stands for the phonologically null (i.e., "empty") element:



Compare this syntactic structure with that of utterances of the (ordinary) sentence 'This is a letter from Spain':



The trees are the same, except that many of the bottom nodes in (17) dominate phonologically null elements. This explains why an utterance having the syntactic structure in (17) sounds different from one that has the syntactic structure given in (18).

In sum: On both the abbreviation and empty element hypotheses, all utterances are sentential, syntactically speaking. That is to say, the syntactic structure of every speech-act-achieving utterance is headed by INFL. The difference between the two ellipsis hypotheses is the means they employ to explain why one does not *hear* the subject and inflected verb, even though they are syntactically present. Where the abbreviation hypothesis introduces shortened representations, the empty element hypothesis posits phonologically null elements.

2.4. *How syntactic ellipsis helps*

Before going on, let me remind you of the game plan. I am in the process of laying out a defense of the Sufficiency Hypothesis — one which appeals to syntactic ellipsis. Applied to the original example, the line would be that I did not produce the name $\langle [_{NP} \text{Barbara Partee}], \textit{Barbara Partee} \rangle$; instead, I uttered (something like) sentence (19a) or sentence (19b) — depending on whether you buy the abbreviation hypothesis or the empty element hypothesis:

- (19) a. $\langle [_{IP} \text{ That seat } [_{I'} \text{ AGR } [_{VP} \text{ belong } [_{NP} \text{ Barbara Partee}]]]] \rangle$,
Barbara Partee
 b. $\langle [_{IP} e [_{I'} e [_{VP} e [_{NP} \text{ Barbara Partee}]]]] \rangle$, ***Barbara Partee***

In contrast with the name $\langle [_{NP} \text{ Barbara Partee}] \rangle$, ***Barbara Partee***, each of these syntactically elliptical sentences has indexical elements to be filled in. (Also, in the case of (19a), the verb ‘belong’ will contribute its standard meaning to expression meaning.) Hence, it’s plausible to suppose, in the case of *these* expressions, utterance meaning really is determined by expression meaning, disambiguation (vacuous here) and reference assignment. In which case, assuming it was one of these that was “really” uttered, and not the name, the counterexample to (2), based on the purported use of the name ‘Barbara Partee’, evaporates. Now generalize: If speakers *never* use words/phrases, but always use elliptical sentences (with appropriate slots to be filled in by reference assignment) then the Sufficiency Hypothesis may be safe. That’s how the Syntactic Ellipsis Hypothesis helps. The question is: Is this hypothesis — in either its abbreviation or its empty element version — actually true?

3. Against the Syntactic Ellipsis Hypothesis

In the following sections I will present objections that apply to both the empty element hypothesis and the abbreviation hypothesis. First, however, I should like to make some methodological remarks that apply specifically to the empty element hypothesis.

3.1. Methodological considerations

There are two good methodological reasons for not adopting the empty element hypothesis. First, this hypothesis introduces a new kind of empty element into linguistic theory. It’s clear that it is new because no previously known element is dominated by all of N, P, I, DET, V, A and so on. Hypothesizing a new empty element is ad hoc, since the only reason for hypothesizing it is to account for the use of words and phrases.

It might be said that, at least when it is dominated by N, *e* is independently required. Introducing the new element would then remain ad hoc in some cases — but not all. However, even this (thoroughly cold) comfort is

not to be had, since the hypothesis requires introducing another kind of empty element *even in the case of N*. The four familiar empty elements that are dominated by N are: wh-trace, NP-trace, PRO and pro. But e can be none of these. English is not a pro-drop language. If it were, sentences like (20) would be grammatical.

(20) *_[IP pro is sleeping]

And e cannot be either an NP or wh-trace either. First, because no movement has taken place in sentence (17), repeated below as (21). Second, because traces require antecedents, whereas e does not. Third, because e does not share a theta role with any overt element, but is itself assigned a theta role. (Traces do not get assigned theta roles on their own. I.e., a trace cannot form a single member chain.) All of these properties are exhibited by the empty element dominated by N in the sentence below:

(21) [_{IP} [_{NP} e] [_{I'} [_I e] [_{VP} [_V e] [_{NP} [_{NP} e] [_{PP} from Spain]]]]]

The empty element e cannot be PRO either. PRO can sometimes occur without an antecedent, as sentence (22) shows.

(22) [PRO to sleep now] would be dangerous

But, by the PRO theorem, PRO cannot be governed. Both the NP positions in (17), however, are governed. This is evident, because overt NPs can occur in these positions — as (18) shows. (Overt NPs can only appear in case marked sites; and case marked sites are necessarily governed, because case is assigned under government.)

So e, if it exists, is a hitherto unfamiliar empty element. The only reason provided for positing e is to account for the fact that speakers (appear to) perform speech acts with, and hearers appear to construe, words and phrases. So their introduction into the theory is not independently motivated. The phenomenon at hand can be explained without positing e by agreeing that words and phrases can be used alone. And, as I argued in Stainton (1994), there are independent reasons — beyond the fact that speakers appear to *actually* utter ordinary words and phrases — for thinking that speakers *can* utter unembedded words and phrases. A typical speaker has the ability to perform speech acts by uttering ordinary words or phrases, even if she never chooses to do so. Hence the introduction of e is not only ad hoc; it is completely unnecessary.

Let me stress: My objection is not that positing empty elements is, generally speaking, methodologically promiscuous. The postulation of an empty element may be independently motivated; and this postulation may explain facts which would otherwise remain unexplained. But the particular phonologically null element which the empty element hypothesis appeals to is *not* independently motivated. This empty element does allow one to claim that when speakers (appear to) utter unembedded words and phrases, they are actually producing elliptical sentences. But it serves no other purpose. And the phenomenon which the empty element hypothesis accounts for — the fact that people appear to utter and construe words and phrases — can be explained without appeal to empty elements. This is one very good methodological reason for rejecting the empty element hypothesis.

The second reason is that the empty element hypothesis posits a phonologically null element which linguists know almost nothing about; in fact, the only information given about this element is that it appears in linguistic representations of utterances of (apparent) words and phrases. It remains utterly mysterious, for example, why this element cannot appear in ordinary sentences. One would have expected the phonologically null verbs, inflection, etc. to be ubiquitous. Yet the following syntactic structures are ungrammatical.

- (23) a. *_[IP] John [_{I'} e] [_{VP} [_V e] [_{AP} tall]]]
 b. *_[IP] Steve [_{I'} [_I e] [_{VP} be shopping]]]
 c. *_[IP] John comes [_{PP} [_P e] France]]

So far as I can see, no plausible constraints can be placed upon the distribution of e. In particular, one is at a loss to explain why it cannot appear in these positions. Best then to deny that there exists an empty element, in natural language, able to occupy all of I, V, N, A, etc. This will automatically explain the ill-formedness of (23a–c) — though it will simultaneously block appeal to such an element in the defence of the Sufficiency Hypothesis.

3.2. *Data-based objections*

Having spelled out the two versions of the syntactic ellipsis hypothesis in some detail, consider now what they have in common. The syntactic ellipsis hypothesis, on its broadest reading, can be paraphrased as follows: Utterances of (what appear to be) words and phrases actually have sentential syntac-

tic structures. But these utterances do not sound like utterances of typical sentences because they are, so to speak, phonetically diminished when compared with ordinary syntactically sentential utterances. The difference between the abbreviation hypothesis and the empty element hypothesis has to do with how the phenomenon of phonetic abridgement is explained.

There are good reasons for thinking that natural languages do contain *some* elliptical expressions. VP deletion constructions, sluicing constructions, and PP deletion constructions provide prototypical examples. (See especially Hankamer and Sag 1976 for discussion.)

- (24) a. VP Deletion: $\langle [_{IP}$ John does not smoke], *John doesn't*
 b. Sluicing: $\langle [_{IP}$ I wonder when Steve left], *I wonder when*
 c. PP Deletion: $\langle [_{IP}$ Alex is in France too], *Alex is too*

These paradigm examples of elliptical expressions share an important characteristic: They cannot appear in discourse initial position. One cannot walk into a room and say 'I wonder when' or 'John doesn't'. The generalization is that elliptical expressions — linguistic representations which are phonetically abbreviated in the way described — cannot acceptably occur discourse initially. If this generalization is correct, then the syntactic ellipsis hypothesis is mistaken.

I define a discourse as an ordered n-tuple of linguistic representations, such that the said n-tuple is not itself an element in an n-tuple. Some discourses are acceptable, in a rough pre-theoretical sense. Others are unacceptable. (I use 'acceptable' and 'unacceptable' rather than 'well formed' and 'ill-formed' because I do not wish to take a stand on whether the unacceptability of discourses derives from ungrammaticality, or from some other source.) The discourse in (25) is unacceptable, in this pre-theoretical sense. This is predicted by the generalization, since this discourse (which happens to consist of a single linguistic representation) begins with an elliptical expression.

- [Mary is holding a gun to her head. Alex says]
 (25) *Mary doesn't.

On the other hand, as Yanofsky (1979) notes, a discourse like that in (26) is perfectly acceptable even though 'John's father' is discourse initial — indeed, even when used to introduce a new topic!

[Two people are talking at a party. Mary points to a man near the door and says]

(26) John's father

On the syntactic ellipsis hypothesis, this discourse begins with an elliptical expression. So, either the generalization is incorrect, or 'John's father' is not an elliptical expression.

In fact, the generalization appears not to hold for *any* word or phrase. All words and phrases — even very complex words and phrases — are acceptable in discourse initial position. Several of this unlimited number of words and phrases are given below.

- (27)
- a. An emergency generator fire
 - b. Another scoop of ice cream
 - c. At the house of the seven gables
 - d. The editor of *Pragmatics & Cognition*
 - e. Imported from France
 - f. Coffee, black, with seven lumps of sugar

The syntactic ellipsis hypothesis and the generalization cannot be true together. The evidence for the generalization is rather strong: It holds for the familiar cases of ellipsis. Yet it fails when applied to these controversial cases of (apparent) words/phrases. Given the conflict between the generalization and the syntactic ellipsis hypothesis, and the lack of independent evidence for the latter, one ought to conclude that uses of (apparent) words and phrases in discourse initial situations are *not* uses of elliptical sentences.⁵

3.3. *VP deletion, sluicing and PP deletion*

Recall that, by definition, a discourse is an ordered n-tuple of linguistic representations. Now, discourses that contain VP deletion, sluicing and PP deletion constructions are acceptable only if there is a prior element of the discourse that is syntactically sentential: These constructions cannot acceptably occur if there is no prior syntactically sentential linguistic representation. This provides a sort of test for syntactically sentential linguistic representations in prior discourse.

The Test: Take an acceptable discourse *D* — containing one of these constructions — and a syntactically sentential linguistic

representation *S* that precedes the construction. Replace the syntactically sentential linguistic representation *S* with an expression *E* that differs minimally from *S*. If the resulting discourse *D'* is acceptable, then *E* is a syntactically sentential linguistic representation. (Because *D'* contains a construction that requires, for acceptability, a prior syntactically sentential linguistic representation. And, ex hypothesis, the only candidate is *E*.) If, on the other hand, the resulting discourse *D'* is unacceptable, then *E* is not a syntactically sentential linguistic representation.

This test is not conclusive, of course. The unacceptability of *D'* could be due to some irrelevant feature of *E*, or of *D'*, that has nothing to do with *E*'s status as a syntactic sentence/non-sentence. But the test does provide some evidence. Now consider the following examples:

(28) *VP Deletion*

- a. Jason: The man from Paris is smoking again
- b. Mark: And Betty is [_{VP}...] too
- c. Jason: The man from Paris
- d. Mark: ??And Betty is too

(29) *Sluicing*

- a. Jason: The man from Paris is at the door
- b. Mark: I wonder why [_{IP}...]
- c. Jason: The man from Paris
- d. Mark: ??I wonder why

(30) *PP Deletion*

- a. Jason: The man from Paris is at the door
- b. Mark: And Betty is [_{PP}...] too
- c. Jason: The man from Paris
- d. Mark: ??And Betty is too⁶

The sentences 'The man from Paris is smoking again' and 'The man from Paris is at the door' differ minimally from the phrase 'The man from Paris' in the crucial respect that the latter expression can, like the sentences, be used to communicate the propositions that the man from Paris is smoking again, or is at the door, respectively. Yet, if one substitutes the phrase 'The man from Paris' for the corresponding sentence in (28), (29) or (30), the

result becomes less acceptable — even when the thought in question is successfully communicated. Though not conclusive, this data suggests that ‘The man from Paris’ is not syntactically sentential. For if it were, the discourses (28c, d), (29c, d) and (30c, d) as a whole should be perfectly acceptable — which they’re not. A fortiori, ‘The man from Paris’ is not syntactically sentential *and elliptical*. Hence ‘The man from Paris’ is not an elliptical sentence.

It might reasonably be replied that, for a discourse containing one of these constructions to be acceptable, what is required is the presence of a special kind of phonetic form⁷ in prior discourse — call it phonetic form of kind *K*. But there is a surprising, though very real, feature of human linguistic communication which hints that the above is not a test for a certain kind of phonetic form. There are well-formed bilingual discourses. Such discourses are, admittedly, quite peculiar. But they indicate that it is the *syntactic structure*, and not the phonetic form, of preceding linguistic representations which influences whether a discourse containing VP deletion, sluicing or PP deletion is acceptable. Consider the following discourse:

- (31) a. André: Marie a fini sa thèse
 b. Bill: And Betty has too

There is a clear sense in which this discourse is acceptable. Especially if one compares it with (32).

- (32) a. André: La thèse de Marie
 b. Bill: *And Betty has too

Notice however that in the acceptable discourse (31) the English verb ‘to have’ is not phonetically present. Only the French verb ‘finir’ is. It seems very plausible then that it is not anything about phonetic forms which permits VP deletion, PP deletion and sluicing; rather, it is the syntactic structure of a linguistic representation which determines whether it can be followed by one of these constructions. Hence the test is indeed a test for *syntactically* sentential linguistic representations. (For further arguments that ellipsis isn’t about phonetic form see Sag 1976: 59ff.)

3.4. *Non-sentential responses*

I now turn to examples in which (purported) syntactically sentential linguistic representations cannot *follow* constructions that are known to license syntactic sentences. Propositional attitude *wh*-interrogatives license syntactically sentential answers. For instance, the following discourse is acceptable:

- (33) a. Alex: What does John believe?
 b. Betty: Snow is white

According to the ellipsis hypothesis, 'An emergency generator fire' is syntactically sentential. The hypothesis therefore predicts that 'An emergency generator fire' can serve as an answer to (34a). Here again, the proposal runs afoul of the facts.

- (34) a. Alex: What does John believe?
 b. Betty: *An emergency generator fire

In sum: Given the weight of evidence against it — the methodological worries; the fact that “fragments” can occur discourse initially; the fact that they cannot follow, and cannot be followed by, expressions which license, and are licensed by, “real” sentences — I conclude that the Ellipsis Hypothesis, in both its syntactic variants, is incorrect. Assuming that (4) cannot be otherwise defended, it's fair to conclude that ordinary words and phrases are used in isolation. Utterances of these are propositional. But, as I pointed out, lexical and phrasal expressions (i.e., the types) do not express propositional characters — hence reference assignment will not be sufficient to make utterances of them propositional. (For more on this, see Stainton 1995.) Disambiguation will not affect the meaning of the utterance either, since the unembedded words and phrases aren't particularly ambiguous. In which case (2), the Sufficiency Hypothesis, does not hold for utterances of unembedded words and phrases: It is not true, in the case of lexical and phrasal utterances, that expression meaning + disambiguation + reference assignment gives utterance meaning.

4. Syntactic ellipsis and the Necessity Hypothesis

The Sufficiency Hypothesis cannot be saved by syntactic ellipsis because *not all* (apparently) lexical/phrasal utterances are elliptical. Sometimes speakers

produce, and hearers understand, bare words and phrases. But this very fact might suggest a rescue strategy for the Necessity Hypothesis (3).

Suppose that *no* utterances are elliptical. If that's right, then whenever speakers *appear* to utter words and phrases, that's exactly what they *do* utter. Which would mean — thank heavens! — that, at least as far as the use of words and phrases in isolation is concerned, it's not true to say, "it doesn't really matter to the hearer precisely which expression was uttered". The claim that precise identity of the expression is immaterial is not supported because, to return to the original example, there won't *be* two competing hypotheses, (35a) and (35b), each of which gives equivalent results in terms of utterance meaning.

- (35) a. The speaker uttered the bare name pronounced *Barbara Partee*
 b. The speaker uttered the elliptical sentence pronounced *Barbara Partee*

The reason: If speakers never produce elliptical sentences, (35b) is simply not available as an interpretive hypothesis. Hence the problem for (3) would disappear.

At first glance, this is a rescue effort worth pursuing. Indeed, some authors (e.g., Barton 1990 and Dalrymple 1991) have recently conjectured that ellipsis of the kind under consideration *never* occurs. Nevertheless, as I will now show, there are solid reasons for supposing that speakers *sometimes* utter elliptical sentences that sound like words and phrases. Since speakers also, sometimes, utter words and phrases, (3) remains in trouble.

4.1. Arguments for the Syntactic Ellipsis Hypothesis

Morgan (1973) offers numerous arguments in favour of what he calls the "ellipsis theory". I begin with several which are not, in my view, terribly convincing. I then turn to more compelling cases.

Morgan (1973: 723) notes that "fragments have the semantic import (in context) of full sentences...". But, he seems to suggest, if fragments were really words and phrases — with the meanings of ordinary words and phrases (e.g., individuals, properties, generalized quantifiers) — they would not be interpreted like sentences. Hence, he concludes, if one takes fragments to be words and phrases, one must assign them a special sentence-like

meaning, by “interpretive principles” which are “undiscussed” and do not “involve any intervening stages constituting a syntactic representation of a full sentence” (pp. 723–724). Introducing such extra semantic principles is surely ad hoc. And besides, until the said principles materialize, the fact that hearers *even manage* to construe fragments remains wholly unexplained.⁸

On the other hand, that hearers construe fragments is easily explained, without any additional principles, if the syntactic ellipsis hypothesis is true — in either of its variants. After all, according to the syntactic ellipsis hypothesis what the speaker produces is syntactically sentential. So of course it has the meaning of a sentence. In a word: It seems the syntactic ellipsis hypothesis is simpler, less ad hoc, and more explanatory than the alternative. This, Morgan claims, provides one good reason for favouring it.

A second piece of evidence for ellipsis: Ordinary speakers can understand a certain kind of pun, illustrated by the following examples, adapted from Morgan (1973: 724):

- (36) a. Question: What did Dracula turn into?
 b. Answer: The nearest bar
 c. Interpretation: Dracula turned into the nearest bar
- (37) a. Question: What are you up to?
 b. Answer: Page 9
 c. Interpretation: I’m up to page 9

As Morgan (1973: 724) says:

... understanding the pun entails a reconstruction of the missing surface structures [given in (36c) and (37c)]. The ability of the speaker to interpret such puns suggests that the interpretation of fragments involves the mental reconstruction of a syntactic representation of a full sentence which contains that fragment as a subpart.

With respect to the first argument, I would like to make two related points. First: It is a crucial premise of this first argument that if fragments were really words and phrases, with the meanings of ordinary words and phrases, they would not be interpreted like sentences. It was this premise which motivated the introduction of the “undiscussed interpretive principles”. The argument fails because, as Morgan himself recognizes in a later paper (Morgan 1989), this premise is false: The possibility remains open that *the fragments themselves* have non-propositional meanings, though what is

communicated by *an utterance of a fragment* is propositional. Because *the speaker* communicates a proposition by uttering a fragment, the fragmentary utterance is given a sentence-like interpretation; but the fragment itself need not have a sentence-like meaning.

Second: I grant that if fragments are syntactically elliptical sentences, one can explain why they are interpreted as communicating propositions; and I further grant that proponents of the anti-ellipsis alternative owe an equally attractive explanation. But I believe one is at hand. The interpretation of ordinary words and phrases can be explained, I believe, by appealing to: (a) the hearer's automatic search for relevance — a search which makes use of general inferential capacities; and (b) the hearer's inevitable realization that the meaning of a word or phrase, even after reference assignment and disambiguation, cannot be relevant — since only propositions can be relevant, and words and phrases do not typically express propositional characters. (For more on Relevance Theory, see Sperber and Wilson (1995). I discussed the interpretation of ordinary words and phrases in Stanton (1994).) In sum: I find the first argument unconvincing.

What about the second argument, from the interpretation of certain puns? It does seem that the hearer in such cases constructs a sentence, and then interprets the speaker. This construction is even quite systematic. But this does not imply that what was produced — i.e., the fragment — is syntactically sentential. Even a non-linguistic stimulus, e.g., a drawing, can induce its perceiver to construct a natural language sentence and interpret it. But, in the case of such a non-linguistic stimulus, one should not conclude that the *stimulus itself* is syntactically sentential. What gets constructed (i.e., a sentence) differs greatly from what was produced (i.e., a drawing).

The same holds for utterances. Not every expression a hearer systematically constructs, in her quest to understand the speaker, need be something the speaker uttered. Consider the famous case of the military man who, having been told not to capture Sind, cabled to his superiors:

(38) Peccavi.

To understand this utterance, the hearer must reconstruct its English translation (i.e., 'I have sinned') and then realize that this recovered sentence is homophonous with 'I have Sind'. Only then will the hearer successfully interpret the utterance. True enough, in this example the hearer constructs a sentence — and in so doing, she uses her linguistic competence. But,

nevertheless, this constructed sentence (i.e., 'I have Sind') is not any part of what the speaker uttered. A similar story can be told in the case of puns. The hearer constructs — rather than *re*-constructs — a sentence. She then interprets it. But what is constructed (i.e., a sentence) differs from what was produced (i.e., an ordinary word or phrase).

So much for unconvincing arguments. I turn now to one example of a more convincing argument. Morgan notes co-reference phenomena which support the existence of at least some syntactically elliptical constructions. As he writes in his 1989 paper,

Anaphoric elements, including pronouns, reflexives and 'epithets', are well formed fragments just in case they would be well-formed in the corresponding larger expressions containing potential binders (Morgan 1989: 231).

One example: When (39b) is given as an answer to (39a), 'the bastard' in the answer-sentence cannot be coreferential with 'John' in the question-sentence. The parallel with the declarative sentence (39c) is clear: There too, the interpretation according to which John thinks that *he*, John, is being spied on is not available.

- (39) a. What does John think?
 b. That [the bastard] is being spied on
 c. John thinks that [the bastard] is being spied on

The natural explanation of this parallelism in interpretation is that (39b) is derived from (39c) by syntactic ellipsis — possibly deletion.

Morgan (1973, 1989) goes on to offer a wealth of further syntactic evidence for the ellipsis hypothesis. He points out that: 1. There are fragments which are not constituents in underlying structure. They appear, rather, to arise from *sentence-level* transformations like *tough*-movement and passive. 2. Complementizer choice in fragments mirrors that in full sentences. 3. Case marking in fragments is typically a reflection of the fragments' position in the corresponding full sentence. In my view, such cases strongly suggest that the interpretation of *some* fragments involves reconstruction of elided material.

Here is another case, suggested by a comment from James Higginbotham (p.c.). In question and answer pairs, choice of inflectional markers in the answer-fragment is closely constrained by the question's inflection. Thus

'What do they do at work?' licences (40a) but not (40b); whereas 'What are they doing?' licenses (40b) but not (40a).

- (40) a. Dig potatoes
b. Potato digging

The most obvious explanation of this fact would be that, to put it roughly, (40a) is derived by ellipsis from 'They dig potatoes', while (40b) is derived from 'They are potato digging'. If this story is to work, however, the answers must be syntactically elliptical sentences.

So, it would seem that speakers sometimes use bare words and phrases, and sometimes use elliptical sentences. That is: Some fragments are elliptical sentences, but others are unembedded words or phrases. In which case, it will sometimes happen that it will be indifferent to a hearer whether a word/phrase was uttered, or whether a (homophonous) elliptical sentence was uttered.

Example (40b) provides a case in point. It's fair to assume that 'Potato digging' — the bare phrase, that is — *could* be used on its own: You might look quizzically at a pair of mud covered boys, out in a field. I could explain their sorry state by saying 'Potato digging. All morning'. On the other hand, there are also cases in which an elliptical sentence, whose phonetic form was *potato digging*, could be used to the same effect. In such a situation, a speaker who encounters the sound pattern *potato digging* does not need to know whether the speaker uttered a sentence, or a bare phrase. The meaning of the utterance is the same, either way. In which case, (3) is not true.

5. Epilogue: A puzzle for linguistic epistemology

If the foregoing is on the right track, speakers use *both* unembedded words and phrases *and* syntactically elliptical sentences: Syntactic ellipsis is neither universally applicable — accounting for every use of fragments — nor wholly inapplicable. This fact calls into question both the Sufficiency Hypothesis and the Necessity Hypothesis. It also raises an interesting epistemological puzzle. I end with it.

Linguistic expressions differ along (at least) three dimensions: phonology, syntax and semantics. Each word, phrase and sentence has a phonetic spell out, a syntactic structure and a meaning. A linguistic expression, then,

can be *identified with* an ordered triple whose first element is a meaning, whose second element is a syntactic structure, and whose third element is a phonetic spell out. (I represent the meaning in capital letters. As before, I represent the syntactic structure by a labelled bracketing, and the phonetic form by English orthography in bold italics):

- (41) ⟨MEANING, [syntactic structure], *phonetic spell out*⟩

Thinking about linguistic expressions as ordered triples means changing one's usual way of speaking, at least a little. For instance, one should not say that the word in (42) is *ambiguous*: a word which refers to a chiming sound on the one hand, and to a piece of digital finery on the other.

- (42) Ring

Rather, speaking in this way, one should say that there are *two* words corresponding to the sound *ring* — the two homonyms (43) and (44):

- (43) ⟨CHIME, [_N ring], *ring*⟩
 (44) ⟨FINGER BAND, [_N ring], *ring*⟩

The expressions in (43) and (44) sound the same. But they are two different words.

Speaking this way — and I believe it is the more perspicuous way to speak — highlights an important fact: The sound of an utterance *u* is not, in general, sufficient to determine which linguistic expression *u* is an utterance of. For example: An utterance whose phonetic form is **ring** could be an utterance of (43) or of (44) — for all the sound determines. This raises an epistemological question:

- (45) *The Epistemological Question*: Given an utterance *u* whose sound is shared by two or more linguistic expressions, how can one tell which of these homonyms *u* is an utterance of?

Here is the obvious answer to the epistemological question: When a speaker produces an utterance whose sound is shared by one or more linguistic expressions, *the thought which the utterance encodes* provides sufficient evidence to determine which expression was uttered. For example, suppose a subject says (46). It will usually be clear whether she is talking about finger bands or bell sounds:

(46) That's a nice ring

If the ongoing conversation is about finger bands, or if the speaker is pointing at a finger band, then the thought communicated is probably about rings *as in finger bands*. In which case, the expression uttered is (44). If, on the other hand, the ongoing conversation is about bell sounds, then the utterance likely communicates something about rings *as in chimes*. In which case, the expression uttered is (43).

So here is the proposed answer to the epistemological question: Given an utterance whose sound is shared by several linguistic expressions, one can tell which of the homonyms the utterance is an utterance of by inferring, from the context, the thought which the utterance communicates — and this, plus the sound, are sufficient to determine which linguistic expression the subject produced.

Now for the epistemological problem posed by syntactic ellipsis. Suppose, as I have argued, that natural languages contain elliptical sentences: expressions whose syntactic structure contains material that is not wholly spelled out phonetically. Suppose, in particular, that there are elliptical sentences that share their phonetic spell out with a word or phrase. Here is a new example:

(47) ⟨THE PROPOSITION THAT THE DISPLAYED PAINT SAMPLE IS RED, [_{IP} [_{NP} That paint sample] [_{VP} is red]], *red*⟩

Notice that the elliptical sentence in (47) shares the phonetic form *red* with the word in (48).

(48) ⟨THE PROPERTY RED, [red], *red*⟩

Notice too that, if my conclusions above are correct, given the right circumstances both of these expressions could be used to say that the displayed paint sample is red. Imagine an exchange between a doctor and her patient: The doctor explains that the patient is to identify the colour of each displayed paint sample. She then shows the patient a series of paint samples, and in response to the sixth, he produces an utterance whose phonetic form is:

(49) *red*

The patient thereby asserts that the sixth displayed paint sample is red. Suppose some unhappy linguist is attempting to describe this exchange. His evidence, in the first instance, comes from what the utterance means (i.e.,

that the displayed paint sample is red) and from the sound of the utterance (i.e., the sound *red*). But the sound of the utterance *even together with the proposition which it encodes* is not sufficient to establish which linguistic expression the patient produced. The semantic and phonetic facts are consistent with both of the following hypotheses. Hypothesis one: The patient uttered the ordinary word ⟨THE PROPERTY RED, [red], *red*⟩. Hypothesis two: The patient uttered the syntactically elliptical sentence ⟨THE PROPOSITION THAT THE DISPLAYED PAINT SAMPLE IS RED, [_{IP} [_{NP} That paint sample][_r AGR [_{VP} be red]]], *red*⟩.⁹ One of these hypotheses is true. And only one is true. But the sound and meaning of the utterance do not provide sufficient evidence to find out which hypothesis is the correct one. In general, the problem arises whenever a subject produces an utterance such that (a) the sound of the utterance is shared by a word or phrase *and* an elliptical sentence; and (b) what an utterance of the word or phrase would communicate, in the circumstances, is the same as what an utterance of the elliptical sentence would communicate in the circumstances. If this situation arises with any regularity, one arrives at the extreme epistemological problem stated below.

- (50) *The Extreme Epistemological Problem*: Given an utterance *u* that sounds like an ordinary word or phrase, the sound of *u* — *even together with the thought it encodes* — is not in general sufficient to determine which linguistic expression *u* is an utterance of.

This result is important because, at this stage of inquiry, one often does not have any evidence beyond this. Sometimes it's available, as the foregoing discussion illustrates. But, where an utterance is not discourse initial, isn't preceded by a propositional attitude wh-question, isn't followed by a VP-deletion, PP-deletion, or Sluicing construction, doesn't exhibit complementizer choice and case assignment typical of sentences, etc., the linguist cannot immediately tell what kind of expression was uttered. That's the puzzle. (Quineans will say: "Of course!" Not being a Quinean, I say: "How interesting".)

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Notes

1. This hypothesis, as it stands, clearly needs amending. For instance, Sperber and Wilson (1995: 183) point out that to arrive at utterance meaning any vague terms must be rendered more specific; and Dascal (1983: 34) notes that whether conventional implicatures attach to the utterance needs to be determined as well. But, since my objection to the Sufficiency Hypothesis stands even after such refinements, it will do no harm to put these issues aside.
2. As Dascal (1983: 38) puts it, sentence meaning "... plays a basic role in the process of interpretation: sentence meaning is needed in order to determine utterance meaning, and the latter is needed in order to reach speaker's meaning".
3. Evidently, a complete and accurate linguistic representation would need to indicate all levels of representation, and in very much greater detail. However, to simplify exposition, I have chosen to describe only these two levels, in this greatly simplified form. So far as I can tell, this simplification in no way affects the arguments that follow. I should also note that, though I employ the notation of Chomsky's Government and Binding framework, neither my conclusions nor my arguments depend on this notation.
4. I leave open the question of how, precisely, the notion of length should be explicated — relying in what follows on an intuitive understanding of this notion. Early explorations of the hypothesis include Morgan (1973) and Sag (1976).
5. You might say: "This just shows that there are more *varieties* of syntactic ellipsis than previously thought". There is certainly something to this: pending a finding of deep similarities between, say, VP deletion and the (apparent) use of words and phrases, the foregoing could indeed lead one to posit discourse-initial syntactic ellipsis. But, at this point, I say: if it doesn't quack like ellipsis, and it doesn't waddle like ellipsis then, plausibly, it ain't ellipsis.
6. You might think that 'And Betty is too' requires a *non-elliptical* sentence as its linguistic antecedent. But this doesn't seem right. Notice, for example, that where 'The man from Paris' answers a wh-interrogative (which would plausibly make it an elliptical sentence) 'And Betty is too' becomes quite okay. Thus:

Lenny: Who's at the door?
 Jason: The man from Paris.
 Mark: And Betty is too.

Another point: Though it's unclear why, 'And __ is too' is sensitive to sentential antecedents in a way that other related expressions are not. That's why I use 'And Betty is too', rather than anything else.

7. Both James Higginbotham and Ken Hale pointed this out to me, independently.
8. This argument is a reconstruction from passages in Morgan (1973). It may not be precisely what Morgan had in mind, though it seems to be. Morgan would almost certainly reject the argument today. He notes in Morgan (1989: 236) that "the right pragmatic theory, if we had one, would automatically provide an account of (at least some) fragment utterances, without reconstructing containing sentences".
9. Worse, if *both* the shortening *and* the empty element versions of syntactic ellipsis actually occur, there is a third expression, an utterance of which would share this sound and meaning:
 <[THE PROPOSITION THAT THE DISPLAYED PAINT SAMPLE IS RED], [_{IP} e [_{I'} e [_{VP} e [_{AP} red]]]], *red*>

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