Meaning Sensitivity and Grammatical Structure

The topic of this talk is the semantics of natural language. This is an area of investigation that today merges work in linguistics with work in philosophy. In linguistics there is a going enterprise in the study of the syntax of natural language, coupled with a methodological goal of studying semantics as well. In philosophy there is a going enterprise in the study of semantical issues, without a great deal of regard for the syntax of natural language. The two enterprises *C* the study of syntax by linguists and the study of semantics by philosophers, or by linguists working within philosophical frameworks *C* proceed mostly on parallel tracks, informed by one another, but not frequently very tightly linked. Part of the success of Montague Grammar was that Montague's essays linked them completely. But Montague was a layman in syntax, and so Montague Grammar remains mostly a semantical enterprise running independently of serious work in syntax. There are a number of people who would try to link these two enterprises more closely. That is the topic of my talk today *C* a problem about whether and how that linkage might be established. The particular issue I will focus on I call `meaning sensitivity'.

Frege held that in certain contexts, such as `that'-clauses, words come to refer to the meanings that they normally express. He called these `indirect contexts' because in them one speaks of things indirectly only via speaking directly of the meanings of words; I call such contexts "meaning sensitive," without endorsing Frege's analysis of them in terms of a kind of indirect reference. Philosophers who do semantics usually take meaning sensitivity to be an essential element of semantical structure. The question I want to focus on is how this is related to syntactical structure.

In a nutshell, I want to defend the view that logical form is the same as grammatical form. The contrary view is well-entrenched in the philosophical heritage of the last century. Frege set the tone in his *Begriffsschrift*, when he wrote:

> In my first draft of a formula language I was mislead by the example of [ordinary] language into forming judgements by combining subject and predicate. I soon became convinced, however, thatthis was an obstacle to my special goal and led only to useless prolixity. (end of section 3)

Russell nailed the point down in *Introduction to Mathematical Philosophy*, stating:

> Mislead by grammar, the great majority of those logicians who have dealt with [the question of "unreality"] have dealt with it on mistaken lines. They have regarded grammatical form as a surer guide in analysis than, in fact, it is. (page 168)

Frege and Russell held the views they did because they did not possess sophisticated theories of grammatical form. We have sophisticated theories, and it is an exciting and natural idea to want to base a semantics for natural language on such a theory of syntax.

The question can be posed initially in terms of the contrast between meaning sensitivity and opacity. A sentential context is opaque if codesignative terms cannot necessarily be substituted for one another within it without affecting the truth value of the whole, or if existential quantification of a term within the context is not valid. Philosophers, influenced by Quine, tend to think in terms of opacity when formulating semantical theories. I see opacity as an important semantic phenomenon, which is typically a *symptom* of meaning sensitivity, but not definitive of it. For example, I see the contents of `that'-clauses as automatically meaning sensitive, as a matter of grammar. In a that-clause following the word `believes' one then has meaning sensitity accompanied by the symptom of opacity:

Mary thinks that **snow is white**

But since that-clauses are automatically meaning sensitive, as a matter of grammar, then the embedded clause of:

It is true that **snow is white**

is in a meaning sensitive context, even though this is *not* an opaque context. It is not opaque because you *can* intersubstitute coextensive terms in it, and because you can existentially generalize on singualar terms. This is because of the special meaning of the word `true' which in effect cancels out the potential opacity created by meaning sensitivity. I want to explore the idea that meaning sensitivity is systematically correlated with the syntactic structure of natural language. So for me, meaning sensitivity is the potential for opacity caused by syntactic structure. The occasional lack of opacity of meaning sensitive contexts then needs explanation in terms of the special meanings of other items with which they interact, such as the special meaning of `true' in `it is true that snow is white'.

What guarantee do we have that the semantics of natural langauge can be based on a theory of syntax of the sort that linguists currently practice? What if Frege and Russell are right, and current linguisitic syntax just plain ignores important semantic phenomena? I do not think that these questions can be anwered *a priori*. So in other work I have tried to describe a semantics for natural language based on its linguistic syntax. That is the job I have been working on for many years now, and my talk today focusses on one of the impediments to it: is it the case that every time you have a meaning sensitive context you can point to a linguistic construction that is causing the meaning sensitivity?

There are two forms that this hypothesis might take. The weak version holds that in each language there is a correlation between syntactic structures that create meaning sensitivity and those that do not. The strong version holds that it is possible to identify types of syntactic structures that create meaning sensitivity in *all* languages. This stronger hypothesis does not follow from the weaker. A reason to believe the weaker is that meaning sensitivity is an important aspect of the meanings of constructions, that these need to be learned in order to master the language, and a correlation of meaning sensitivity with syntactic structure would explain how this is possible. But the structures could be different from language to language and they could still be learnable. I won't try to address the stronger hypothesis here. Indeed, I'll only explore the weaker version, and that only for English.

This version works relatively flawlessly for certain generators of meaning sensitivity in English. That is, it is plausible to see "automatic" meaning sensitivity in complement phrases (CP's) formed with `that', `for' (`for the meat to cool'), and `whether', and in certain `-ing' constructions such as `Brutus's violently stabbing Caesar'.

For example, here are some complement clauses whose structures are well-known, even if not well understood:
NonInterrogative, Finite:

Mary believes [that [Sam will be early]]\\
Mary believes [-- [Sam will be early]]

NonInterrogative, Nonfinite:

She is anxious [for [them to arrive on time]]\\
She asked   [-- [them to arrive on time]]\\
She intended [-- [-- to arrive on time]]

Interrogative, Finite:

I don't know [whether [she will be on time]]\\
I don't know [if [she will be on time]]

Interrogative, NonFinite:

She wondered [whether [-- to leave early]]

Then there are some that are called "exceptional clauses":

I believe [the president to be right]\\
I consider [him to be conscientious]\\
He was reported [-- to be in pain]

along with more problematic clauses that apparently have fairly complicated unpronounced structures:

John persuaded Mary [-- [-- to resign]]\\
John promised Mary [-- [-- to resign]]

Without going into detail, I assume that all of these structures create meaning sensitivity for their contents.

Next we have clauses that use the progressive or gerund forms of verbs. These come in two sorts. The meaning sensitive ones preserve verbal and adverbial structure:
MEANING SENSITIVE: **Her violently stabbing Caesar** amazed the onlookers.

They are not to be confused with gerundive clauses that refer to events or states. These lose the verbal and adverbial structures:

EVENT SENSITIVE: **Her violent stabbing of Caesar** was her last evil deed.

The difference is that in the progressive form adverbs remain adverbs (we have `violently', not `violent') and the direct object remains in direct object position instead of being the objet of the preposition `of'. These other phrases refer to events or states, and they are not meaning sensitive.

If the example is sufficiently short the two constructions will be spelled and pronounced alike:

Her running ...

This is ambiguous between a meaning sensitive progressive construction and a non-meaning sensitive gerund construction.

State predicates seem to yield the same ambiguity with `ness' instead of `ing':

MEANING SENSITIVE: **His nakedness** offended her

(She was offended that he was naked.)

EVENT SENSITIVE: **His nakedness** offended her

(She didn't care whether he was naked, but seeing it grossed her out.)

So, summing up, there are a host of constructions in English that are known in virtue of their syntactical structure to automatically produce meaning sensitivity or event/state sensitivity. If the whole language were like this, things would be nice.

Problem Case I:
There are a number of apparent counterexamples to the hypothesis. There are cases in which the same grammatical structure does or does not yield meaning sensitivity depending on the choice of verb C at least, this is how it seems. One example of this is with certain embedded clauses, that linguists, for want of a better term, call "small clauses." These may not contain tense, or `to', or modals, or auxilliaries. They have the bare forms:

NP VP   Mary saw [Brutus][stab Caesar]*event sensitive*\\
NP AP   I consider [him][intelligent]   *? ? ?*\\
NP NP   I consider [her][a fool]   *meaning sensitive*\\
NP PP   I want [him][off this plane]   *meaning sensitive*

Small clauses of the form NP VP are event sensitive; they refer to events, and are not meaning sensitive. Example:

      Mary saw [Brutus][stab Caesar].

is equivalent to

      Mary saw the stabbing of Caesar by Brutus.

This is not meaning sensitive; if Caesar is the emperor and if Mary saw Brutus stab Caesar then she saw Brutus stab the emperor.

      Small clauses of the form NP NP or NP PP are meaning sensitive. Suppose there are no unicorns and no chimeras. It could still be true that I consider her a unicorn though I don't consider her a chimera. Likewise, I could want him in the living room without wanting him in the dining room even if unbeknownst to me the living room in this house is the dining room.

      Small clauses of the form NP AP are problematic, since whether they are meaning sensitive or not seems to depend on what verb they follow, thus conflicting with the idea that meaning sentitivity is purely a matter of grammatical structure. For example,

      She imagined [him][naked]

contains a meaning sensitive context; it is equivalent to
      She imagined him to be naked

but

      She saw [him][naked]

does not contain a meaning sensitive context. This is exactly what is not supposed

to happen on the hypothesis under discussion. If the small clauses following `imagine' and `saw' have the same syntactic structure, then you can't get meaning sensitiviy in one case and not in the other. How can this be explained?

Problem Case II:

The second problem case is more well-known; it involves the meaning sensitivity of the direct objects of *intensional* verbs. Normally the direct object is not a meaning sensitive position:

Not Meaning Sensitive: I gave you a horse.

But in other cases it is:

Meaning Sensitive: I promised you a horse.

Verbs such as `promise' are often called intentional verbs for this reason.

The Three Known Solutions:

There are three known ways to deal with these problems.

1. First, there is Montague's approach to NP's that are direct objects of verbs, which is to declare all direct object positions meaning sensitive, and rely on the particular meanings of verbs to cancel this out. This conforms with the letter of the hypothesis under investigation, though not its spirit, since the cancelling out is the default case. Almost nobody likes this approach, though it is not at all easy to say in detail specifically what is wrong with it.

2. The other popular approach in the philosophical literature is to propose particular analyses of particular verbs, such as:

Mary sought a unicorn   Mary tried to find a unicorn.

These sorts of analyses are all *ad hoc*, and this does not fit well with current views of language learning C since there is no evidence that learners are ever taught such

paraphrases. The paraphrases are not constant across the small but apparently open class of verbs that require such analysis. This is no more than to say that this approach treats the problem cases as idioms. But they are more systematic than idioms.

The idea of analysing `seek' into `try to find' might be adequate for certain philosophical purposes, such as when an explication is needed. But that *does not address* the semantical problem of the actual meaning of `seek' in English.

3. Finally, there is a recent idea explored by Ede Zimmerman (1992) and partially endorsed and criticized by Friederike Moltmann (forthcoming). Notice that this sentence can be read either transparently or opaquely:

    Mary sought a unicorn.

The transparent reading is given by `Some unicorn is such that Mary sought it', and this is true only if there is a specific unicorn that Mary sought. On the opaque reading Mary is just out unicorn hunting, with no particular unicorn in mind, and this is consistent with the fact that there are no unicorns.

Zimmerman and Moltmann note the oddity of trying to read sentences like:

    Mary sought every unicorn.

opaquely. The transparent reading is `Every unicorn is such that Mary sought it'. They believe that there is no such reading, and try to explain this by proposing that the problematic direct object positions really contain predicates, not NP's; it is only an accident that the indefinite article is used before `unicorn'; the sentence might as well read `Mary was unicorn seeking'.

This is a very compelling idea, but it seems to run afoul of the fact that most of the prohibited readings actually exist. The sentence `Mary sought every unicorn' has a reading given by the opaque reading of `Mary tried to find every unicorn'. This is unnatural, but it exists, as do others, such as `Mary sought three unicorns'. Although we need to explain what is odd about these constructions, we can't use an analysis that prohibits them entirely. (Zimmerman and Moltmann indeed have ways of dealing with them.)

The Structural Ellipsis Solution

I want to explore a different approach. It is a version of the second approach, the one that uses *ad hoc* analyses of these contexts. It is what you get by requiring that the analyses not be *ad hoc*, but instead be systemtatic. The requirement is simply that the paraphrases introduce no lexical items from open classes. The meaning sensitive uses of these constructions are all cases of *structural ellipsis*; they are short for slightly longer phrases that add *structure without content*. Or something close to that. Specifically, I want to propose that the missing content be confined to the grammatical helping verbs `be' and `have', and words whose sole purpose is to mark grammatical structure (like the infinitival use of `to'), and regular lexical formatives, in particular inchoatives and causatives.

Hamlet Ellipsis

The idea is to see what minimal grammatical structure is needed to achieve the required meaning sensitivity while getting the meaning right and while introducing as little additional structure as possible. So let us start with the simplest cases, which are psychological verbs allow paraphrases using `be', on the pattern:

She imagined him naked   She imagined him to be naked.

The idea is that this structure:

     She imagined [him] [naked]

is elliptical for this one:

     She imagined [[him] to be [naked]]

which is a clausal structure, and has the extra grammatical formatives `to' and `be'. This analysis sees the initial problematic structure as being elliptical for one with a closely related, slightly more complex, grammatical structure that is already known to be meaning sensitive. I imagine that speakers learn that it is acceptable to use the shorter structure for the longer one with psychological verbs.

In the early days of transformational grammar there would have been a transformation proposed to generate `She imagined him naked' from `She imagined him to be naked' by deleting `to be'; this would probably have been called HAMLET deletion. So let me call my proposal Hamlet ellipsis: the sentence `she imagined him naked' is elliptical for `she imagined him *to be* naked'. Ellipsis is not a rule of syntactic generation; the uttered sentences are not derived syntactically from their elliptical expansions. Instead, as a matter of language learning we learn to produce the shortened versions as abbreviations of the expanded versions.

Hamlet ellipsis is nice in that it seems to unify the treatement of all meaning sensitive small clauses. For if you apply it to the NP NP and NP PP forms you get examples like this:

I consider [her][a fool]   I consider [her] to be [a fool]\\
I want [him][off this plane]   I want [him] to be [off this plane]

These are pretty clearly synonymous. One can speculate then that all of these constructions can shorten to small clauses, as stylistic variants, and the only thing left over to discuss is the independent fact that most small clauses of the form NP VP and NP AP and NP PP already have event/state readings which are different.

How far can Hamlet ellipsis take us? Well, it also applies, though not so neatly, to the direct objects of intensional verbs. In fact, `imagine' is one of these as well. It occurs with a simple direct object, as in:

Mary imagined a unicorn.

There are two ways to apply Hamlet deletion to such examples. One is to see this terse sentence as itself elliptical in context for something discoverable only from context, like:

Mary imagined a unicorn prancing around
or
Mary imagined a unicorn just standing there.

Then *these* examples could be seen as Hamlet ellipsis, e.g.

Mary imagined a unicorn to be just standing there.

This approach can be summed up by the formula:

Mary imagined a unicorn   \\
For some F, Mary imagined a unicorn to be F-ing

But there is a simpler (and, I think, better) way to handle these. This is to see

Mary imagined a unicorn

as short for

Mary imagined a unicorn to be.

This is stylistically bad in English, though grammatical. It is more natural to read it with an added expletive `there':

Mary imagined there to be a unicorn.

I prefer the shorter form for the theory because it has less structure, and because it is not a theoretical disadvantage for our problem sentences to be elliptical for unnatural constructions; they only need to be elliptical for grammatical constructions.

I suggest then that we consider applying Hamlet ellipsis to all small clauses with intensional readings, and to all direct object constructions with what Moltmann calls creation verbs: `paint', `draw', `imagine', `plan', `conceive', ... and what she calls epistemic resultative verbs, such as `see' (in the *imagine* sense), `recognize', `discriminate', and epistemic `find' (meaning *discover*).<<Fn>>

<<Fn: There is a complication for what Moltmann calls resultative verbs with direct objects alone. These all take small clauses as well, and the challenge is to say how they are related. The verbs are `appoint', `hire', `elect', `find' (resultative). We know how to handle `They elected Mary president' by Hamlet ellipsis; it is elliptical for `They elected Mary to be president'. But what about `They elected three cabinet members'?  Clearly this is short for `They elected three people to be cabinet members'. The trick is to formulate this generally, since it looks *ad hoc*.>>

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Hemingway Ellipsis

How far can Hamlet ellipsis take us? Farther than we would like to go. It yields perfectly wrong results for some verbs with direct objects, which are the other sort of case at which I am aiming. For example, by Hamlet ellipsis

I want a giraffe

is short for

I want to be a giraffe.

This is not quite right. But it's close, and a slight variation will do the job. What is missing is not the helping verb `be' but the other helping verb: `have'. The required analysis is:

I want a giraffe   I want to have a giraffe.

Instead of Hamlet ellipsis of `to be (or not to be)' we have Hemingway ellipsis of `to have (and have not)'. Hemingway ellipsis would apply to the verbs that Moltmann calls verbs of absence, including `need', `lack', `owe', `promise', `seek', `want', and `look for'.

This proposal is similar to one from Generative Semantics; that idea is to propose that `I want a giraffe' is generated syntactically from `I want to have a giraffe' by a transformation called `have'-deletion. (See Dowty 1979, 245.) This does not fit with current work in syntax, and it is not what I propose. Instead I am talking about ellipsis, a process where, given certain words, we reconstuct something longer that is meant. An example is when we respond to the question:

"How many horses does Fred have?"

with:

"Two."

Our `Two' is elliptical for `Two horses', and even more elliptical for `Fred has two horses'. I am imagining that it is a constraint on ellipsis that the longer reconstructed version be constructed in a simple fashion from materials explicitly supplied in context (as in the case of the question) or from the the short version itself, and I am supposing that we can take liberties with this only to the point of supplying the helping verbs `be' and `have'. In the case of words like `want' and `need' I am supposing that this is so regular a process that we learn it when we learn the words. But I don't go as far as Dowty (1979, 260) in suggesting that the extra structure be a part of the meaning of the word itself, so that the word `need' has two meanings, one simple one when it occurs with an infintival phrase, and a more complex one when it occurs with a simple direct object. Rather, it has only one meaning, and we reconstruct the rest of the phrase.

Problems with the Analyses

There are hosts of problems with this proposal. First, a simple one. On this analysis

I promised you a horse

is short for

I promised you a horse   I promised you to have a horse,

but this looks as if it should mean that I promised you that *I* would have a horse, when we need it to mean that I promised you that *you* would have a horse. It doesn't mean that. We must keep in mind that Hemingway ellipsis ellipses a *minimal* structure, one in which `you' is the subject of `have':

I promised [-- [[you] to have [a horse]]],

not the *additional* complicated structure needed to supply a missing empty subject to be controlled by the subject `I':

I promised you [-- [-- to have [a horse]]].

The desired reading of `I promised you to have a horse' is not a favored one in

English, but we are talking about constructions that are avoided by the use of ellipsis, not explicitly used, and there is no reason to expect them to be unmarked.

Further questions now arise as to whether more grammatical structure is needed than this. (These questions arise on any analysis.) The structures I have in mind are inchoative and causative formations. These are very systematic in English; from

the door is open

we have the inchoative:

the door opened (= the door *became* open)

and the causative inchoative:

Mary opened the door (= Mary *caused* the door to *become* open)

In the promise case it appears that the inchoative is needed. For consider:

I promised you to have a horse.

And suppose that you already have a horse. Then how can we distinguish the case in which you keep the horse and the promise is thereby fulfilled from the case in which you keep it and the promise is not thereby fulfilled? The latter case seems to require the *inchoative* of `have':

I promised you to *come to have* a horse

which is not fulfilled if you just keep the one you have, because you never get one.

This reasoning is not conclusive, because it brings in the extraneous notion of fulfilling a promise. But it hints at a difficulty. Let's see if we can link this with the meaning of the statement about promising. Suppose you already have a horse but don't know it. I promise you a horse for your birthday tomorrow. And tomorrow I reveal that you now have a horse. You then discover that you already had this horse when I made the promise, and you look back on my promise from a

new point of view. To be specific, suppose I actually said:

I promise you a horse for your birthday.

Question: was this promise kept? I think that there is no clear answer, and if we think about why that is it is because the promise could be taken in two different ways *C* which means, apparently, that it is ambiguous. I either promised that you would have a horse, or I promised that you would acquire a horse. This is indeed the contrast between the noninchoative and inchoative readings. For notice that in the construction:

I promise you to come to have a horse

the scope of `a horse' can come all the way outside, in which case there is a particular horse that I promise you that you will come to have, or all the way inside, in which case I promise you that you will become in the state of having a horse; this is a state you cannot become in if you already have a horse. But it can also come inside the embedded clause but not inside the inchoative, with the meaning:

I promise that there is a horse you will come to have.

which is the appropriate meaning when I promise that you'll get a horse you don't already have in the face of the fact that you already have one.

How far does this sort of complication go? Suppose I promise you a horse, knowing that you don't have one but that your mother intends to give you one. And suppose that she does give you one. You do acquire a horse, but I had nothing to do with it. *Then* is my promise fulfilled? Again, there are two ways to take it, and this time we seem to need to introduce a causative inchoative versus a noncausative inchoative to capture this:

I promise you to come to have a horse\\
I promise to cause you to come to have a horse

<<Footnote: I am not supposing that `I promise you a horse' is elliptical for the sentence `I promise to cause you to come to have a horse'. I am supposing that it is elliptical for something like `I promise to get you a horse', with the understanding that `x gets y z' has a semantical analysis along the lines of `x does something that

causes a getting by y of z'. And the simpler `x gets y' has the analysis `there is a state of having y & there is a becoming in that state of x'. For analyses of these constructions, see Parsons 1990.>>

So good so far, but it is not clear that we can keep things so neatly in hand. Suppose you get a horse because I blackmail a local rancher into giving you one. Then I cause you to get a horse. But you didn't get it from me. And you may very well have expected me not just to *get* you a horse but to *give* you a horse C from me. Is this yet another meaning of `promise you a horse'? If so, we seem to need to add some additional structure that is arguably not just a matter of grammatical formatives:

> I promise to cause you to come to have a horse *from me*.

What if in fact I said `I promise to give you a horse'. Then I promised you a horse, but the promise wasn't kept. There are clearly two options here. One it to expand the stock of ellipses to account for these examples, by adding the grammatical formative SOURCE, to yield `from me'. The other option is to not do this, and to point out that the sentence `I promised you a horse' does not say anything, even elliptically, about the source of the horse. (This is independent of the fact that if I *say* I will give you a horse then that promise is not kept unless the horse you get is from me.)

> There is another sticky problem to deal with, raised by Moltmann. Consider:

> I need exactly five pipes.

There is a transparent reading which we are ignoring: that there are five specific pipes and I need each of them. The catch is, there seem to be two opaque readings:

> I need to have five pipes and I need to have no more than five.

or

> I need to have five pipes and five is the maximum number of pipes that I need, though I have no need to have only five.

Moltmann offers this as a problem for such analyses. But I think it has a simple solution, perhaps even a glib one. `Exactly' is a word whose meaning is a recipe: exactly means `at least, and not more than'. The `at least' and the `more than' go in the sentence exactly where the `exactly' goes, but the scope of the `and not' may vary. And that is the key to the solution. The sentence:

I need exactly five pipes

is elliptical for

I need to have exactly five pipes,

and this has two construals due to the fact that the meaning of `exactly' allows the negation to occur in two different places:

I need to have at least five pipes & to have **no** more than five pipes.

I need to have at least five pipes & I **do not** need to have more than five pipes.

We are not through with problems yet, for our proposal suggests other ellipses that are more problematic. First, notice that it sanctions:

Mary sought a unicorn   Mary sought to get a unicorn

This is a little odd, but, on reflection, it seems to me to be exactly right. In fact, the traditional paraphrse:

Mary sought a unicorn   Mary tried to find a unicorn

seems to leave something out: it leaves out the *seeking*. And the more systematic paraphrase restores that. But now what about:

I owe you a horse   I owe to get you a horse,

which is not clearly even grammatical?

It is too bad we cannot appeal to etymology here, for the word `owe' derives from `ought', and there is nothing particularly awkward about:

I owe you a horse   I ought to get you a horse

But that isn't right either, because it leaves out the *owing*. I don't owe you a horse just because I ought to give you a horse; I only owe you a horse because of some previous commitment. So the ungrammatical paraphrase contains something vital. The best I can do here is to speculate that the ellipsis here has become ossified and retained even when the full form is archaic. But it is interpretable. In fact, if someone struggling with the language were to utter this to you, you would get the meaning exactly right. So maybe I can use (perhaps, misuse) a suggestion from Higginbotham 1985, that we need to take account not just of what is grammatical in English, but of what *could* be grammatical, and `I owe to get you a horse' certainly is that. Otherwise we are stuck with seeing `owe' as a real idiom that needs learning. I don't know if that is right or not. Details of this kind of paraphrase need to be developed and assessed.

Meaning Intonation

Let me turn now to a quite different phenomenon, one that is either a glaring counter-example to the hypothesis under consideration or a confirming instance. I call it *meaning intonation*, and it is illustrated by the italicized words in the example:

`Schnee' means *snow*.

The word `snow' in this sentence is clearly in a meaning sensitive context. But what is its syntactic structure here? An idiosyncrasy of these contexts (shared with quotation) is that the context may be occupied by a phrase of any grammatical structure whatsoever, and the result is automatically construed as a Noun Phrase. Examples are:

`etwas unanständig' means *something obscene*.\\
`zu essen' means *to eat*.\\
`essen' means *eat*.

In the first example, you know something special is going on because the

construction is ambiguous. If the direct object is read without meaning sensitive intonation, it means one thing C it means that `etwas unanständig' itself is an obscene phrase, which is false; if the direct object is read with meaning sensitive intonation then the direct object tells you correctly what the phrase `etwas unanständig' means. On both of these construals the direct object is a Noun Phrase. In the second example there is only one construal; you can only read it grammatically as if `to eat' is a Noun Phrase.  On any normal interpretation, `to eat' is not a Noun Phrase at all, so something special is going on here. The italics indicates the conversion of a phrase of any category into a definite singular Noun Phrase, a Noun Phrase that denotes the meaning of the phrase as usually used. At least that is what seems to be going on. And if that is right, then there is a syntactic process that produces Noun Phrases of these very special sorts from grammatical phrases of any category whatever. And this is a syntactic construction that creates meaning sensitivity, in keeping with the hypothesis under consideration. (The same thing also happens with quotation, at least as used by philosophers; a phrase of any syntactic category is converted into a definite Noun Phrase by quotation marks, a Noun Phrase that denotes the phrase contained between the marks.)

This is how I see things, but I might be wrong. I am not in a position to tell syntacticians how syntax works. And linguists might want to deny that there is any such syntactic construction as the one I have been discussing. It is in fact quite unlike any syntactic rules normally studied, since it takes any grammatical unit at all as input and produces uniform output. So one might want to deny that there is any syntactic process here at all; there is just an unusual use of words. If so, the hypothesis under consideration is falsified by this phenomenon. I leave that unsettled; instead I want to explore the consequences of the phenomenon, however it is construed. In particular, I want to try to use it to address a problem posed by Moltmann.

Counting Ships

We need to worry about overkill. To illustrate this, let me consider an example of Moltmann's, the construction:

I counted 28 ships.

This can mean transparently that there were 28 ships that I counted, or it has a

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meaning sensitive reading on which I counted and came up with the answer *28 ships*; the latter reading is consistent with there being no ships at all. What worries me about this example is not that I have no solution for how to construe the example; I have two solutions without a clear way to choose between them. One solution employs what I am calling meaning intonation. If asked what answer I got on the exam, I might say `eat beans', or `I got eat beans', or `I got the answer eat beans'. This is a clear case of meaning sensitive intonation, because `eat beans', normally construed, is not an NP at all, and so something special must be done to make it the direct object of `got'. But there seems little difference between `I counted, and I got 28 ships' and `I counted 28 ships'. So perhaps the meaning sensitivity here is best accounted for by meaning intonation.

On the other hand, the previous proposal seems to work here as well. `I counted 28 ships' is just elliptical for `I counted there to be 28 ships'. So perhaps the phenomenon is ellipsis.

The worry, of course, is that meaning intonation works for *all* of the contexts with which we have been dealing, and perhaps renders the ellipsis solution irrelevant. Not completely irrelevant; we still need to explain the synonymy of `I want him off this ship' and `I want him to be off this ship', which the ellipsis solution does automatically.

Hosts of additional constructions provide at least apparent counter-examples to the hypothesis, and require discussion.

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