

Yes or no? The complex semantics of a simple question

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Es erstaunt mich nur, 'ja' und 'nein' nicht auf der Liste zu finden. Ich dachte, das braucht man in jeder Sprache 'It only surprised me not to find 'yes' and 'no' on the list [of universal semantic primes]. I thought this was something one needed in any language' (Nordenstam 2001: 12)

1. Introduction

This short paper investigates the semantics of yes/no questions, using the reductive paraphrase methodology of the Natural Semantic Metalanguage theory (Wierzbicka 1996, Goddard and Wierzbicka 2002). This topic may strike some people as an odd one. To judge from the literature, linguists generally seem to think that there are no real problems with yes/no questions, at least not compared with their much-studied cousins, the wh-questions. I will try to show that the apparent simplicity of yes/no questions is illusory, and that yes/no questions can be decomposed – both semantically and syntactically – into simpler structures.

I will also be asking how it is that such questions can presuppose or invite an answer in the form of *yes* or *no*, which in turn means asking: What are the meanings of *yes* and *no* themselves? Many people would assume that they must be universals (cf. the quotation from Swedish philosopher Tore Nordenstam above), but this assumption is challenged by the existence of multiple “yes words” and “no words” in some languages and by their non-existence in other languages.

2. The syntax of ‘not knowing’

Presumably all questions (except rhetorical ones) convey the impression that the speaker does not know something and wishes to know it, but to get from this to a semantic paraphrase is not as straightforward as it may seem. The difficulty is how to represent the way in which a yes/no question is about the status of a particular proposition, e.g. ‘Mary is at home’.

One way would be to use the semantic prime KNOW with an *if*-complement: ‘I don’t know if —’. The illocutionary semantics of a yes/no question could then be approximately and partially sketched, as in (1). The arrow (\Rightarrow) indicates that the explication is intended only to be partial.

(1) *Is Mary at home?* \Rightarrow

I don’t know if Mary is at home
I want to know

It seems clear, however, that this kind of *if*-complement is not a semantically simple and irreducible valency option of KNOW, but instead conceals some complex semantics of its own. Compare (2a) and (2b). Example (2a) could be used regardless of whether or not the thought that Mary might be at home had ever entered my head. Not so (2b). It portrays a more “active” state of mind. It implies that it must have occurred to me that Mary might be at home.

(2a) *I didn't know that Mary was at home.*

(2b) *I didn't know if Mary was at home.*

I propose that the ‘don't know if – ’ construction can be explicated as in (3), using the semantic primes THINK and MAYBE, as well as KNOW. The idea is that ‘don't know if – ’ implies that the subject thought of the possibility. In the explication, the I THINK depicts the “think of” aspect, and the MAYBE clause represents the “possibility”.

(3) *I don't know if she is at home =*

I think maybe she is at home
I don't know

This leads to the interim and partial explication for a yes/no question given in (4).

(4) *Is Mary at home? =>*

I think maybe Mary's at home
I don't know
I want to know

3. The schematic semantics for a “yes/no” response

Explication (4) is still deficient because it does not indicate in any way that such a question is “inviting” an answer in the form of *yes* or *no*. Clearly, whatever *yes* and *no* mean, they are generic or schematic in content. This suggests that explication (4) should be rephrased in such a way that the invited response is about the “hypothetical situation” described by the question.

How can this be represented within natural semantic metalanguage, which cannot resort to a complex and language-specific term such as ‘situation’? It is helpful to ask how this kind of meaning could be talked about in ordinary colloquial usage. That is, in ordinary usage how could one describe, in a general or schematic way, what someone who asks a yes/no question is asking about? One possibility is as follows:

(5) Ques: I think maybe Mary's at home
I want to know if it is so (i.e. like this)

Ans: It is/isn't so (i.e. like this).

The questioner asks whether the situation is ‘like this’, supplying a specific description at the same time, and the other person replies by saying that it either is or isn't like this (i.e. *so*). In my view, this phrasing is a vital clue to the underlying schematics of both the yes/no question and the canonical responses *yes* and *no* themselves.

In current NSM thinking the predicative expression LIKE THIS is a simple semantic molecule composed of two primes, but what is the status of ‘it’? In the current model (Goddard and Wierzbicka 2002), the nearest prime would presumably be SOMETHING, and it is certainly the case that many uses of English *it* can be analysed as meaning, essentially, ‘this thing’ (= this something). However, this analysis is not viable for all uses of *it*. For example, in a sentence like *She said that Max did it, but I don’t believe it*, the first *it* might be paraphrasable as ‘this thing’, but this doesn’t work nearly as well for the second one. For these and other reasons, it has recently been proposed that “situational *it*” could be a distinct semantic prime (Goddard 2002). Such a prime would designate something which is anchored or taken-for-granted in the speech context; for example, a previously mentioned proposition or discourse topic, perhaps even some real-world phenomenon which is self-evident in the context ¹.

It is not possible here to discuss this issue adequately, but for the purposes of this paper I am going to use “situational *it*” as if it were a semantic prime. For interest, Table 1 gives a schematic depiction of the relationships between the substantive and quasi-substantive primes, showing how a hypothetical prime IT fits into the current picture.

Table 1: Substantive primes and related elements

<i>Deictics</i>	<i>Categoricals</i>	<i>Specifics</i>	<i>Relationals</i>
I/YOU	SOMEONE (PERSON)	PEOPLE	KIND OF
IT	SOMETHING (THING)	BODY	PART OF
		WORDS	
HERE	SOMEWHERE (PLACE)		
NOW	SOMETIME (TIME)		

Returning now to the basic schema for a yes/no question, I propose that this can be portrayed as in (6), or, in a simpler formulation, as in (7). The questioner depicts him or herself as having a certain possibility in mind, and as wanting to know if it is so. In answering *yes* or *no*, the respondent is saying that it either is or isn’t *so*, i.e. ‘like this’.

¹ It goes without saying that there are yet other uses of English *it* which are highly language-specific and which could have no claim to candidature as a semantic prime. Conversely, in other languages the exponent of the intended meaning could have a grammatical status quite different to that of English *it*. In Russian, for instance, the obvious exponent is *eto*, the invariable neuter form of the word for ‘this’.

(6) Ques: *Is Mary at home?* =

I want to know something
 I think maybe Mary's at home
 if it's like this, I want you to say it's like this
 if it's not like this, I want you to say it's not like this

Ans1: *Yes* = it is like this

Ans2: *No* = it is not like this

The schema in (7) has the advantage of being simpler but there is room for uncertainty about the final component, i.e. 'I want you to say'. This sounds slightly odd in English (though still acceptable, in my judgement), but it is perfectly alright in many other languages.

(7) *Is Mary at home?* =

I want to know something
 I think maybe it's like this:
 Mary's at home
 I don't know
 I want you to say

As a check on the above explication, one can ask how well it works for "negative questions", i.e. for questions with negative polarity such as *Isn't Mary at home?* or *Aren't you coming?* It is well known that an odd property of the so-called "polarity-based" yes/no system of English is that *yes* doesn't work properly as an answer: to be clear, one has to reply *Yes she is*. Many languages have a special, extra response word to affirm a question posed in the negative, e.g. German *doch*, French *si*, Icelandic *ju*, cf. Sadock (1985: 190); and English once did too, in the distinction between *yea* and *yes*.

Why is it so? Presumably because a question phrased in the negative conveys the impression that the speaker previously held the expectation that the negative was correct. Once this aspect is added to the explication, the oddness of a *yes* answer seems to follow naturally, because it is not clear what is being affirmed.

(8) Ques: *Isn't Mary at home?* =

I want to know something
 I thought before that Mary is at home
 if it's like this, I want you to say it's like this
 if it's not like this, I want you to say it's not like this

Ans: *?Yes* = it is like this

At this point, we have developed answers to the main questions addressed in this paper, i.e. we have a semantic schema for English yes/no questions and we have shown how this connects with a simple hypothesis about the meanings of *yes* and *no* as responses to such questions ².

² This is not the end of the story of *no*. For example, if someone says *Stop talking* or *Don't forget your keys*, one can answer *No* or *No, I won't*, and apparently here *no* = 'I don't want to do it' (rather than 'it's not like this').

4. “Alternative questions” and *whether*-complements

The present analysis also has some light to shed on the relationship between ordinary yes/no questions and so-called “alternative questions”, i.e. questions of the form *Is Mary at home or not?*, and on the related issue of the semantics of *whether*-complements, e.g. *He asked whether Mary was at home*. For reasons of space, the treatment must be highly compressed.

In the early generative literature it was assumed that ordinary yes/no questions were derived from the same underlying structures as alternative questions. However, subsequent work (especially Bolinger 1978) established that there are significant differences in usage and meaning between ordinary yes/no questions and alternative questions, and, significantly, that these differences correlate with the difference between two types of complement structure, namely: ‘don’t know if – ’ vs. ‘don’t know whether – ’. That is to say, just as ordinary yes/no questions can be aligned with the ‘don’t know if – ’ construction (as pointed out in section 2), so alternative questions can be aligned with the ‘don’t know whether – ’ construction.

Two relevant observations about *whether* are as follows. First, *whether* “logically combine[s] the conditional meaning of *if* with the disjunctive meaning of *either... or*” (Quirk and Greenbaum et al 1985: 750). A *whether*-complement, in other words, is much more “polarity focussed” than an *if*-complement. (Notice that, unlike *if*, complementiser *whether* can be immediately followed by the words *or not*; cf. *I don’t know whether/*if or not she’s at home*.)

Second, syntactically (as well as etymologically) *whether* can be regarded as a *wh*-word. For example, unlike *if* but like other *wh*-words, *whether* can take *to*-complements as well as finite complements; cf. *I don’t know whether/*if to go*.

From a semantic point of view, the following observation of Bolinger’s (1978: 96) is very pertinent.

“*whether* appears to imply something about laying hold of information. The speaker has already taken the alternative possibilities under consideration and wants to make up his mind about them.”

Bolinger here highlights, first, the “factual” orientation of *whether*-complements (and alternative questions), and second, the idea that they present the addressee with a strict choice between alternatives. These observations may serve to introduce the paired explications in (9) and (10).

Significantly the positive counterpart of *no* in such contexts is not *yes*, but something like *OK*, *sure*, or *alright* (though *yes* sounds alright in very asymmetrical power relationships – *Yes sir!*). Two alternative lines of analysis would seem to present themselves. The first is that there are two “no’s” in English: *no*₁ ‘it’s not like this’ (corresponding to *yes*), and *no*₂ ‘I don’t want this’ (corresponding to *OK*, *sure*, etc.). Alternatively, one could regard the meaning conveyed by *no* as simply semantic prime NOT – this being combined with either LIKE THIS or with WANT depending on context.

(9) *I don't know whether she is at home* =

I think one of these two things is true
 'she's at home', 'she's not at home'
 I don't know which

(10) *Is she at home or not?* =

I want to know something
 I think one of these two things is true
 'she's at home', 'she's not at home'
 I don't know which
 I want you to say one of these two things

From the point of view of NSM syntax, these explications are not yet fully resolved since they still contain a “suspect” construction, in the form of the embedded question locution *don't know which*. But at least they show how *whether* can be linked with an overt *wh*-word, i.e. *which*. Furthermore, it is notable that both *which* and *whether* are “definite” *wh*-words (Bolinger 1978: 99), in that they presuppose a response drawn from a restricted set.

The analysis also offers possibilities for accounting for facts about embedded questions with verbs other than *know*, for instance, *wonder*, *inquire*, *question*, *investigate*, and so on; and in particular for the fact that some verbs and some contexts prefer a complement of one kind or the other, i.e. an *if*-complement or a *whether*-complement. It is impossible to tackle these issues here, yet the following pair of explications can give some idea of the shape of the analysis (they assume, of course, a certain lexical semantic analysis of the verb, in this case *wonder*).

(11) *Max wondered if Mary was at home* =

for some time Max thought like this:
 maybe Mary's at home
 I don't know
 I want to know

(12) *Max wondered whether Mary was at home* =

for some time Max thought like this:
 one of these two things is true
 'Mary's at home', 'she's not at home'
 I don't know which
 I want to know

5. Concluding remarks

In his review of speech-act distinctions in syntax, Sadock (1985: 178-9, 195) observes that it is “not logically necessary” for a language to have yes/no questions, and comments:

“the effect of a yes–no question could be obtained by a declarative sentence meaning ‘I want to know: X or not’ or by an imperative sentence meaning ‘Tell me: X or not’.”

The analysis proposed in the present study also recognises that yes/no questions have a schematic structure, but it differs markedly on the nature of the schema. Where Sadock's formulations hinge on the word *or*, which is not a lexical universal, my proposals hinge on the semantic prime MAYBE, which empirical evidence suggests is a lexical universal (cf. Goddard and Wierzbicka 1994, 2002).

The present study also elaborates the schematics of a yes/no question, first, by identifying the putative prime "situational IT" as, in a sense, the topic of such a question, and second, by highlighting the function of the semantic molecule LIKE THIS as a way of introducing its specific content. We have also moved beyond Sadock in proposing meanings for *yes* and *no* themselves, and explaining how these succinct responses can function as good answers.

Many unresolved issues remain. In addition to those already mentioned, there are typological implications. It is well-known that in some languages one answers yes/no questions in a fashion quite different to that of English, either: (a) by using 'yes' and 'no' words on the agree/disagree principle, as Japanese and Chinese, or (b) by repeating the main predicate, with negation if appropriate, as in Welsh and Finnish (the so-called "echo" system). Some languages have different ways of asking polar questions, e.g. Chinese question-particle *ma* vs. 'A-not-A' constructions. From the point of view of the present study, such differences imply that polar questions and responses can have significantly different meanings in different languages.

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