

# Semantics and pragmatics of negative polar questions

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## Abstract

This paper aims to provide a literature review about the meaning and use of negative polar (yes/no) questions and complete it with some Polish data. Semantic and pragmatic factors will be discussed. Attention will be drawn to the fact that most of research concentrate on interrogatives themselves, neglecting their possible answers, whereas the latter may be very informative about the nature of the former.

## 1 Introduction

From a logical semantic point of view, since a polar question  $?\phi$  and its negative counterpart  $?\neg\phi$  have the same answers, they are logically equivalent (Groenendijk and Stokhof, 1997). It is obvious, however, that if we consider the natural language use of negative polar interrogatives like for example the one in (2), we can not consider them equivalent to positive ones, as in (1).

- (1) Is Jane coming?
- (2) Isn't Jane coming?

## 2 Pragmatic and semantic factors

If negative and positive polar questions are semantically the same, why would we use both of them? Considering some common pragmatic intuitions (captured by numerous concepts like Principle of Economy, Principle of Least Effort, Gricean Maxim of Manner or the minimization of cognitive effort in terms of Relevance Theory) negative interrogatives would not be used if their meaning were not at least pragmatically different from that of positive ones.

These intuitions are confirmed by classic experimental results in psycholinguistics. Syntactic transformations of kernel sentences into other structures like interrogatives or negatives are rather charging for the cognitive system. The syntactic form of a sentence (whether it is an ac-

tive, passive, interrogative or negative clause) seems to be something distinct and more difficult to recall than its semantic content (Mehler, 1963). Syntactically complex sentences, like questions or negatives, require more capacity of immediate memory. Sentences which are both interrogatives and negatives are the ones that are the most hard to process (Savin and Perchonock, 1965). The usage of negative questions that are semantically equivalent to the positive ones but much more difficult to process can thus be explained by pragmatic factors only.

Nevertheless, some approaches find the nature of the distinction between negative and positive polar questions semantic (e.g. Romero and Han, 2004). They are consistent with Ladd's (1981) observations. As Ladd points out, negative polar questions are systematically ambiguous: in case of the "outside negation" reading the speaker believes that the proposition under question is true, whereas in the "inside negation" one the speaker believes it is false.

In this paper we will discuss some examples which show that in Polish Ladd's ambiguity is much more difficult to capture. We will also take into account the possible answers to questions of this kind. It has not been done by most of authors, but it turns out that if we consider the dialogic factors (which in case of questions seem to be very important), the nature of negative vs. positive polar questions distinction appears to be pragmatic. We will argue that even if the internal ambiguity of negative polar questions is due to semantic factors, it is still likely that the distinction between positive and negative questions is pragmatic.

## 3 Ladd's ambiguity in Polish

Most of the papers on the subject of Ladd's ambiguity (e.g. Romero and Han, 2004; Reese, 2006) discuss polar questions with preposed negation (English interrogative sentences with a negated auxiliary verb) as the one in (2) and ex-

clude from consideration interrogative sentences with non-preposed negation, as the one in (3) which permit a neutral interpretation in an unbiased context.

(3) Is Jane not coming?

Since in Polish polar interrogatives are formed by means of an interrogative particle *czy* or with intonation alone, the distinction like that between (2) and (3) is nonexistent. Instead, we have only one type of structure which is rather similar to the structure of an affirmative clause and can be preceded (4) or not (5) with the interrogative particle. This structure conveys all the three readings discussed in the literature (Ladd's outside and inside negation readings, and the neutral one).

(4) Czy Jane nie przychodzi?

INTERR. PART. Jane NEG come<sub>3SG, PRES.</sub>

(5) Jane nie przychodzi?

Jane NEG come<sub>3SG, PRES.</sub>

In Polish, the word order within a sentence is much less strict than the one in English. Consequently, a Polish equivalent of an ambiguous negative polar interrogative, like (6) (the example of Ladd, 1981) would be more naturally represented by a pair of sentences with different word orders where (7a) expresses the outside negation reading, whereas (8a) the inside negation one.

(6) Isn't there a vegetarian restaurant around here?

(7a) Nie ma w okolicy wegetariańskiej restauracji?

NEG be<sub>3SG, PRES</sub> in neighborhood<sub>LOC, SG</sub> vegetarian<sub>GEN, SG</sub> restaurant<sub>GEN, SG</sub>

(8a) Nie ma wegetariańskiej restauracji w okolicy?

NEG be<sub>3SG, PRES</sub> vegetarian<sub>GEN, SG</sub> restaurant<sub>GEN, SG</sub> in neighborhood<sub>LOC, SG</sub>

This difference in word order seems to corroborate Reese's (2006) intuition that "there is no semantic (...) difference between "outside" and "inside" negation. Rather, what is at issue is whether negation targets the core meaning of an utterance or some secondary meaning".

Further inspection reveals some problems with the inside negation reading of interrogatives constructed with the particle *czy*. Interrogatives like (7b) and (8b) are acceptable but none of them can convey an inside negation reading. It seems that the presence of *czy* can

somehow trigger the outside negation or neutral understanding of negative polar questions.

(7b) Czy nie ma w okolicy wegetariańskiej restauracji?

(8b) Czy nie ma wegetariańskiej restauracji w okolicy?

Another very interesting phenomenon is the use of the particle *czyż*. This form is used to construct rhetorical questions and simultaneously deny the proposition under question. Hence, the negative question preceded with *czyż* conveys an affirmative assertion. This kind of construction seems to be a paradigmatic example of an outside negation interrogative.

## 4 Conclusions

As we have seen, the origins of negative polar questions are hard to define. There is some evidence suggesting that their nature is pragmatic as well as some other evidence, showing their semantic nature. In this paper we try to bring together these two approaches. We provide some evidence from Polish language, as well as evidence about answers. Thus a mixed, semantic-pragmatic model is needed to describe the meaning and use of negative polar interrogatives..

## References

- Groenendijk, Jeroen and Martin Stokhof. 1997. Questions. In van Benthem, J. and A. ter Meulen, editors, *Handbook of Logic and Language*. Elsevier, Amsterdam, pages 1055-1124.
- Ladd, Robert D. 1981. A First Look at the Semantics and Pragmatics of Negative Questions and Tag Questions. In *Proceedings of Chicago Linguistic Society*, pages 164-171.
- Mehler, Jacques. 1963. Some effects of grammatical transformations on the recall of English sentence. *Journal of Verbal Learning and Verbal Behavior*, 2(4): 346-351.
- Reese, Brian J. 2006. The Meaning and Use of Negative Polar Interrogatives. In Bonami, O. and P. Cabredo Hofherr, editors, *Empirical Issues in Syntax and Semantics 6*, pages 331-354.
- Romero, Maribel & Chung-Hye Han. 2004. On Negative Yes/No Questions. *Linguistics and Philosophy*, 27(5): 609-658.
- Savin, Harris B. and Ellen Perchonock. 1965. Grammatical structure and the immediate recall of English sentences. *Journal of Verbal Learning and Verbal Behavior*, 4(5): 348-353.