## MEANING AND USE OF RHETORICAL QUESTIONS

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This paper attributes the use of rhetorical questions as emphatic statements to their literal meaning as a question. The proposed account of rhetorical questions focusses on *negative polarity items* (NPIs), a characteristic of these questions.

The integration of an NPI into a question greatly affects the set of exhaustive answers to this question (i.e., the meaning of the question). For yes/no-questions this introduces the presupposition that the corresponding question without the NPI is already settled in the negative, which is seen as the main impact of the NPI and the reason for the rhetoricity of the question (Krifka 1995; van Rooy 2003).

It will first be shown that for *wh*-questions, however, the integration of an NPI does not settle the corresponding question without NPI in the same way. It is argued that rhetoricity already emerges from the general threshold-lowering effect of NPIs, which makes in particular *wh*-questions too general to be of interest to the speaker (in a literal interpretation).

Second, I will then explain why rhetorical questions do not violate felicity conditions even though they are not interpreted as ordinary information-seeking questions: They are used in indirect speech acts, which explains why they do not seek information, and in such speech acts, questions are evaluated against the common ground. Rhetorical questions thus emerge a means of presenting a statement not as the speaker's personal opinion, but as a consequence of the common ground, which explains their persuasive effect.

#### 1. Introduction

In rhetorical questions, the speaker does not demand information, instead, these questions function as *emphatic statements*: For yes-no questions, as negated statement, for *wh*-questions, as the statement that none of the entities as specified in the *wh*-phrase would allow an affirmation of the question:

- (1) Did you lift a finger to help Max? 'You did not lift a finger to help Max'
- (2) Who lifted a finger to help Max? 'No one lifted a finger to help Max'

Rhetorical questions are relevant for the semantics-pragmatics interface since there is a seeming contradiction between their literal meaning (question) and their function in discourse (statement). I will show that even for rhetorical questions one can uphold the claim that the function of utterances in concrete utterance contexts is based on their context-independent 'literal' meanings. I will also explain why rhetorical questions do not violate the maxim of manner even though they express a statement in an indirect way, viz., through a question.

Rhetorical questions can host strong *negative polarity items* (NPIs) like *lift a fin*ger. My account of rhetorical questions focusses on NPIs, which are characteristic for these questions. In the following, I will often compare pairs of a rhetorical question incorporating a strong NPI and the corresponding question without the NPI, e.g., (1) and (3), or (2) and (4), and refer to them as ' $Q_R$ ' and 'Q', respectively:

- (3) Did you help Max?
- (4) Who helped Max?

Other linguistic characteristics of rhetorical questions are the modals *could* and *would*, the weak polarity item *ever*, and *wh*-phrases that are extended by *on earth*, e.g., *who on earth*. I will show that these expressions, too, can be explained in terms of my account of the impact of the integration of strong NPIs into questions.

#### 2. Answer sets for rhetorical yes/no-questions

Following Groenendijk and Stokhof (1997), the meaning of a question is the set of exhaustive answers, formalised as a partition of the (contextually relevant) set of possible worlds. Then the interpretation of a rhetorical question in terms of a negative statement has a semantic basis, in that this statement is an element of the answer set of the rhetorical question (Han 2002).

I will first focus on the impact that the incorporation of a strong NPI into a question has onto these answer sets. By reconstructing this phenomenon, it is possible to explain the intuition that rhetorical questions are no ordinary *information-seeking* questions (Caponigro and Sprouse 2007).

For rhetorical yes/no-questions, this impact is analysed in Krifka (1995) and van Rooy (2003): Strong NPIs indicate the minimal endpoint of a scale, which is entailed by all other alternatives (e.g., all amounts of helping entail lifting at least a finger to help). Thus, asking (1) instead of (3) and thus debating whether the hearer offered at least a minimal amount of help entails that all stronger alternatives - including an affirmative answer to (3) - are false, since any of them would entail an affirmative answer to (1), which would settle (1) in advance. (1) thus leaves open only the alternative between the hearer's helping minimally or doing nothing at all.

Integrating a strong NPI in a question has a threshold-lowering effect; it makes an affirmative answer more probable. This effect can also be observed for *ever* and the modals *could/would*: *Ever* introduces an existential quantification over times,

*could/would*, an existential quantification over possible worlds. Thus, asking either of (5) or (6) presupposes that (3) has a negative answer:

- (5) Did you ever help Max?
- (6) Would you help Max?

The positive answer to (3) is the proposition that the hearer helped Max at  $\langle w, t \rangle$ , where w is the actual world and t, the reference time in the past anaphorically referred to in the proposition (following Partee 1973). This proposition would immediately settle (5) in the affirmative, since (5) can be paraphrased as the question of whether there is some t' in the past such that the hearer helped Max at  $\langle w, t' \rangle$ . (The reasoning for (6) is analogous.)

We can now reformulate the insights of this account in terms of answer sets: Both  $Q_R$ 's and Q's answer set have two partitions (for the affirmative and the negative answer).  $Q_R$ 's answer set is derived from the one of Q by moving all worlds where the hearer offered at least a little amount of help from the partition for the negative answer to the partition for the affirmative answer.

For Q's answer set, this boils down to *eliminating* its affirmative element (for (1), that the hearer helped in a substantial way): This answer would settle  $Q_R$  immediately (by entailing its affirmative answer), which would be incompatible with uttering  $Q_R$  felicitously.

This account explains why  $Q_R$  rules out an affirmative answer to Q, but leaves open the question of why  $Q_R$  is understood in a stronger version, i.e., as implying that  $Q_R$ , too, cannot be answered in the affirmative. In other words,  $Q_R$  is not understood as a question (however weak) at all.

#### 3. Answer sets for rhetorical wh-questions

For rhetorical wh-questions  $Q_R$ , the integration of strong NPIs brings about rhetoricity in a different way. Its main impact does not lie in a restriction of the corresponding Q's answer set but in the fact that it turns Q into an extremely general question  $Q_R$ , which holds good for much more entities than the original Q.

Asking  $Q_R$  does not restrict the corresponding Q's answer set in a relevant way by presupposing that Q must have been settled in a specific way. The only element of the answer set of Q that is ruled out by asking  $Q_R$  is 'Q holds good for all entities E as specified in the wh-phrase', which would settle  $Q_R$  by entailing that  $Q_R$  holds for all  $e \in E$ . For instance, if all E helped, they all at least lifted a finger to help.

Since no other element of Q's answer set could settle  $Q_R$  by entailing one of  $Q_R$ 's answers, asking  $Q_R$  does not rule out any of these elements. In particular, for any  $E' \subset E$ , the answer that Q holds good for only  $e \in E'$  does not entail that  $Q_R$  holds good for only the elements of E'. E.g., 'only A and B helped Max' does not entail 'only A and B lifted a finger to help Max', since there might be a C who did not really help Max but who provided at least a minimal amount of help.

Instead, the impact of strong NPIs in rhetorical wh-questions lies in the fact that they redraw the boundaries in the partition of possible worlds (the formalisation of the answer set) by lowering the threshold for the question to hold for elements of the set E: A world in the partition element of Q representing the answer that Q holds only for elements of an E' may end up in a partition element of  $Q_R$  for the answer that  $Q_R$  holds only for  $e \in E''$ , where  $E' \subset E''$ , since the answer to  $Q_R$  attributes a weaker property to elements of E' than the answer to Q to elements of E'. Thus, worlds are shifting in the direction of partitions where a weaker answer is true for larger groups of entities, while the partition element where the question is true for no entity gets rather depleted in the move from Q to  $Q_R$ .

E.g., for (4), a world in the partition of 'only A helped' may turn up in the partition of 'only A and B lifted a finger to help', but not vice versa. And, the answer to (4) that no one helped is much more probable (or, its partition element has much more worlds) than the answer to (2) that no one lifted a finger to help.

This shift of worlds towards partitions where a weaker, less informative answer is true for larger groups of entities is due to the move from Q to  $Q_R$ . Thus, uttering  $Q_R$  instead of Q amounts to choosing a question that holds good for much more entities than Q, but has an answer that attributes a much weaker property to them. But this makes the answer to a wh-rhetorical question uninteresting.

Weak NPIs such as *ever* and modals like *would/could* add to this effect by making the question even weaker. Adding *on earth* does too, because it explicitly removes (implicit) contextual restrictions on the set of entities as specified in the *wh*-phrase: E.g., the set of persons relevant for a question with *who on earth* (and hence its answer set) is much larger than the one for the corresponding question with *who*.

E.g., in (7) the answer would (without any contextual restrictions) list all persons for whom there is some time t in some world w such that they help Max at  $\langle w, t \rangle$  at least in a minimal way:

#### (7) Who on earth would ever lift a finger to help Max?

In sum, the integration of a strong NPI into a question does not change its status as a question but severely influences its answer set. This affects yes-no and *wh*-questions in different ways, but indicates for either that the speaker is not interested in an answer.

### 4. Rhetorical questions as indirect speech acts

At a first glance, rhetorical questions as questions whose speaker is not interested in an answer seem to violate felicity conditions for questions (Searle 1969), e.g., the sincerity condition (speakers want to have a specific piece of information) or the essential condition (they try to get this piece of information from the hearer by means of the question).

But speakers are cooperative and do not violate felicity conditions without a motivation, hence, hearers try to reconstruct this motivation of the speaker. When they do so, they will notice that rhetorical questions are often used in *indirect speech acts*, where a 'direct' speech act refers to a felicity condition of the intended speech act (Gordon and Lakoff 1975). E.g., in *Could you pass the salt?*, the intended speech act is a request.

The intended speech act for (7) is *statement*: A preparatory condition of a statement is that it is not obvious for the speaker that the hearer already knows what is being stated, and the speaker can refer to this condition with a rhetorical question. (Further possible speech acts for which rhetorical questions can be used include advice, refusal, warning, etc.)

Rhetorical questions indeed show a typical effect for indirect speech acts, viz., that the hearer can react to *both* the direct and the indirect speech act (Bach and Harnish 1979; Asher and Lascarides 2001). E.g., confronted with (7), the hearer can indicate affirmation (e.g., by nodding; reaction to indirect speech act) and answer 'nobody' (reaction to direct speech act.)

But this interpretation as indirect speech act now is the decisive clue to the interpretation of rhetorical questions: In indirect speech acts, questions are not interpreted w.r.t. the hearer's background because they do not request information; instead, they are evaluated against the *common ground*. (The hearer's own background is irrelevant here, it might even differ from the common ground.)

During this evaluation, the hearer recognises that only the negative element of the set of possible answers is compatible with the common ground, therefore these rhetorical questions are interpreted as *negative statements*. For rhetorical *wh*-questions, the statement negates the existence of a suitable entity for which the question holds, e.g., for (7): no one would even offer a minimal amount of help to Max in any world at any time, a rather strong statement.

On the basis of this analysis, one can now explain the motivation for rhetorical questions. They are a means of presenting a statement not as the personal opinion of the speaker, but as a consequence of the common ground, which justifies the additional complexity of the utterance and thus complies with the maxim of manner. This yields the typical *persuasive* effect of rhetorical questions.

However, this mechanism can be abused: Speakers can present their own opinions in the form of rhetorical questions, while the intended statement is not part of the common ground. They intend hearers to recognise the rhetorical question by its form (e.g., the fact that it comprises NPIs) and its special interpretation (answer set), and to accommodate the statement into the common ground.

### 5. Conclusion and outlook

The proposed analysis of rhetorical questions tries to bridge the gap between their literal meaning (a question) and their function (a statement) in terms of their role as

indirect speech acts.

This analysis directly carries over to the related phenomenon of *non-negative* rhetorical questions like (8):

(8) Well, who is responsible for this mess? (intended meaning: 'You are.')

Here felicity conditions for questions seem to be violated, too, since no information is required. The only difference to the cases discussed so far is that the only element of the answer set that is compatible with the common ground happens to be not negated. In contrast to the proposed analysis, theories of rhetorical questions that force a negative interpretation in any case would yield the wrong predictions here (e.g., the one of Han 2002).

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