Rhetorical Questions

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It's not uncommon to hear a certain inner voice that accompanies the start of many writing projects. This time my inner critic was whispering (1) in that skeptical tone well known to authors of handbook chapters.

(1) Who even gives a damn about rhetorical questions?

The voice that poses (1) spotlights the attention rhetorical questions receive and pessimistically laments the lack thereof. That pessimism is not expressed as an explicit assertion, but the intended meaning is recognizable. This ability to convey asserted content via interrogative syntax is part of why rhetorical questions present a semantic and pragmatic puzzle.

Contrary to the pessimism implicit in (1), multiple scholars over multiple decades have visited and revisited the topic of rhetorical questions. The available analyses address a number of puzzles raised by these utterances and do so by drawing on fundamental semantic and pragmatic mechanisms related to the way questions evoke answer sets and the way speakers signal the status of their common ground commitments. This chapter reviews these puzzles and provides a characterization of existing analyses. In addition, the chapter illustrates how corpus data can inform our understanding of speakers' choices in formulating their intended message and the effects such choices have on a discourse.

We often characterise language as being used to transmit and receive information. Speakers ask questions when they have uncertainty and seek information; they make statements to tell an addressee things they believe will be interesting and informative to hear. Rhetorical questions do neither. Speakers who ask rhetorical questions are not unsure of the answer, as illustrated by the infelicity of (2), or at least not in a way that parallels the inquisitiveness of ordinary questions (3).

- (2) #I've been wondering, who gives a damn about rhetorical questions?
- (3) I've been wondering, who is working on rhetorical questions these days?

Addressees who hear rhetorical questions show no signs of having encountered novel content; rather they respond as if the meaning were already known, as in (4) from the discourse-annotated Switchboard corpus (Jurafsky et al., 1998).

¹Switchboard (Godfrev et al., 1992) contains telephone conversations augmented with an-

Speaker A's question asks about *who*, seemingly anticipating an answer about an individual, a group of individuals, or the null set of no individuals. However, B's reply merely expresses agreement, as if A has introduced an assertion.²

(4) A: But who wants to ride a bus?

B: I know. [sw_1062_2190]

A primary issue (for those who give a damn) has been to demarcate where the interrogative-like properties of rhetorical questions end and how their functional force arises. This chapter considers a set of (non-rhetorical) questions about these utterances: (i) are they questions, (ii) are they assertions, and (iii) why do speakers use them? The approaches and empirical data presented here highlight different perspectives on how to evaluate what an utterance is and how it contributes to a discourse.

1 "Feels like a question"

If it looks like a question and sounds like a question, why doesn't it act like a question? Rhetorical questions resemble ordinary questions in several ways, not only in their use of interrogative syntax. Like ordinary questions, they can target different syntactic elements: argument wh- questions (4), polar questions (5), and adjunct wh- questions (6) (Rohde, 2006; Caponigro and Sprouse, 2007; cf. Gutierrez-Rexach, 1996, whose claims about limits on rhetorical questions are discussed in Section 3).

- (5) It may be free but is it [a] good education? [sw_0536_2502]
- (6) You know, why do you do this to yourself? [sw_0461_2436]

They can be expressed as rising declaratives (7), as alternative questions (8)-(9) (from Biezma and Rawlins, 2017), as multiple wh- questions (10) (illustrated here in Japanese, which permits such structures for ordinary questions; example from Caponigro and Sprouse, 2007), and in embedded positions (11) (from Caponigro and Sprouse 2007).

notations (Jurafsky et al., 1998) for 42 dialogue acts (question, statements, backchannel, agreement, disagreement, apology, etc.). Unless noted otherwise, Switchboard examples presented here were coded as rhetorical by the annotators, following instructions to identify syntactic questions that were not pragmatic questions (7% of questions). Examples are shown with the name of their dialog file and without disfluencies or repairs that are visible in the original files.

- #I know who would give a damn if I stopped coming to work.
- (ii) I wonder who would give a damn if I stopped coming to work.

²The rhetorical status is assumed for current purposes. Later sections will review tests to distinguish utterance types, as well as proposals for determining rhetorical question meaning.

³The available embedding predicates appear to be restricted to those that embed asking events (p.c. Deniz Rudin; see also Crone, 2017). For example, a rhetorical reading of the embedded question in (i) is ruled out since *know* doesn't embed asking events, and example (ii) carries a *wonder-out-loud* sense, more like a quotative.

(7) You think the CIA doesn't spy?

- [sw_0837_3379]
- (8) Context: professor to PhD student who complains about the work Professor: Are you doing your PhD or vacationing in Konstanz?
- (9) Context: John does something really stupid Is John an idiot or is he an idiot?
- (10) Kekkyoku, dare-ga nani-o katta-to-iu no? After all, who what bought-C Q 'After all, who bought what?'
- (11) Context: No one at the office likes the boss, and the boss knows this. One day she gets fed up with the situation, and says:

 Boss: Should I even ask who'd give a damn if I stopped coming to work?

Sometimes they can be followed by an answer (Caponigro and Sprouse, 2007; Farkas and Bruce, 2010), even one produced by the speaker themselves (12).

(12) A: What are you telling that student?
A: You're telling them that, hey, you might as well forget it. [sw_0393_2407]

These similarities with ordinary questions raise the question of whether rhetorical questions exhibit any features that allow them to be reliably distinguished from ordinary questions. For example, if speakers produced rhetorical questions with consistent and distinctive intonation, addressees could better infer speaker intent. Several studies show subtle distinctions between ordinary and rhetorical questions (Banuazizi and Creswell, 1999; Dehé et al., 2022), but the diagnosis of a question as rhetorical can't depend on intonation alone, not least because the same rhetorical question can be produced with rising or falling intonation (Bartel, 1999) and because written questions are nonetheless recognizable as rhetorical.

In some languages, speakers can signal rhetorical intent via certain lexical cues. In German, the inclusion of the particle *schon* marks a question as rhetorical, see (13) from Biezma and Rawlins (2017), based on Meibauer (1986).

(13) Context: A has been told they should have helped Hans

A: Was hätte ich schon tun können? A: what had I SCHON do can 'What could I have done?'

With *schon* included, A's question must be understood as rhetorical. However, rhetorical questions in German can appear without *schon*, so its absence does not ensure a non-rhetorical reading. The lack of a one-to-one mapping between form and function for disambiguating question status is a problem noted in computational work on the automatic detection of rhetorical questions (Bhattasali et al., 2015; Ranganath et al., 2018; Kalouli et al., 2018).

Like schon in German, the presence of a negative polarity item—give a damn in (1) or lift a finger in (14) or any and at all in (15)—provides a reliable cue across languages regarding a question's rhetorical status (Ladusaw, 1980;

Han and Siegel, 1997). This effect has been linked to negative polarity items? appearance in environments where negation (or more specifically, downward entailment) is at play, a point we'll return to in Section 3.

- (14)Who lifted a finger to help?
- (15)So why have any restrictions at all?

[sw_0402_2634]

Even with the availability of certain disambiguation cues, much of the time the burden falls on the addressee. The same question can be interpreted as rhetorical in one context but information-seeking in another. The question in (16) is posed rhetorically in the context of a semantics job search regarding a candidate who unfortunately has no background in semantics but non-rhetorically in (17) in the context of a syntax job search in which knowledge of semantics would be desirable (adapted from Caponigro and Sprouse, 2007).

- I don't think we should have Onavi on our short list. (After all,) what (16)does he know about semantics?
- (17)Onavi looks like an interesting syntactician. What does he know about semantics?

Different addressees may themselves make different diagnoses, uttering an unexpected answer to a rhetorical question or failing to answer an ordinary informationseeking question. These mistakes are rare, but their presence is a testament to the ambiguity that addressees (and researchers) face in trying to detect when a question "feels" rhetorical.

$\mathbf{2}$ "Feels like an assertion"

A primary diagnostic is that rhetorical questions exhibit assertion-like qualities. Just as assertions can be prefaced with after all or followed by a yet clause, so too can rhetorical questions, whereas ordinary questions permit neither of these (Sadock, 1971). Compare (18) and (19), with naturally occurring examples in (20) and (21), as well as kekkyoku in Japanese in (10) and after all in (16).

- (18)After all, nobody lifted a finger to help me.
 - After all, who lifted a finger to help me?
 - c. #After all, could you potentially help me?
- (19)Nobody lifted a finger to help me. Yet I never complain.
 - Who lifted a finger to help me? Yet I never complain. b.
 - Could you potentially help me? #Yet I never complain.
- (20)Context: discussion of liberal bias in the media and speculation that it reflects journalists' own biases A: After all, who writes?

[sw_0018_4082]

(21)Context: discussion of taxes for funding education A: So are they willing to pay for quality education, you know?

B: Uh-huh

A: And yet people get very frightened when they see the Japanese moving in and the Russians moving in certain areas of technology that we used to dominate. [sw_0536_2502]

Of course, these diagnostics themselves depend on felicity judgments, which are no less subjective than the identification of rhetorical intent. Even the presentation of corpus examples coded as rhetorical only transfers this subjectivity to the decisions of annotators. One way of evaluating these subjective annotations is to see if they correlate with observable behaviors. Prior work reports two features observable in and around Switchboard rhetorical questions (Rohde, 2006). Figure 1 shows speakers' inclusion of you know in different types of utterances, as in (21); Figure 2 shows the distribution of addressee responses.

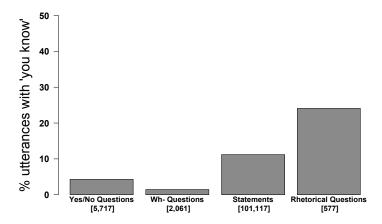


Figure 1: Speakers' inclusion of *you know* across four utterance types (total count of each utterance type in brackets)

These figures, adapted from Rohde (2006), show the assertion-like properties of rhetorical questions, both in how those questions are produced and how addressees react to them: greater use of $you\ know$ and more frequent agreement responses (e.g., yeah) or backchannels ("short utterances which play a discourse-structuring role like indicating that the speaker should go on talking", e.g., uh-huh). In contrast, ordinary questions rarely contain $you\ know$ and receive replies in accordance with the information they seek: yes/no replies for yes/no questions, statements for wh- questions. Thus Switchboard annotators' intuitions regarding rhetorical intent vary with two observable properties of the dialogues. However, we cannot know whether the annotators themselves used such properties in their coding decisions. Future work could compare coding decisions with/without such properties to see if the diagnosis of rhetorical intent correlates with these properties even when the two are kept independent.

For addressees trying to detect rhetorical intent, material within the question

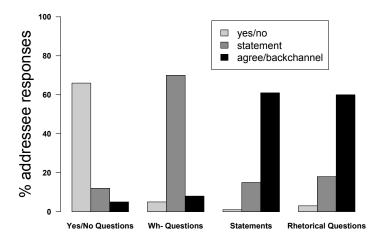


Figure 2: Addressees' subsequent response types across four utterance types

itself can serve as a cue. For the researcher, differences in addressee responses are also useful. Indeed, in work on the automatic detection of rhetorical questions, inclusion of the immediately following utterance improves classifier performance (Bhattasali et al., 2015).

An analysis of responses to an utterance provides a window into the updates (or non-updates) that that utterance induces on the conversational common ground. Whereas ordinary questions induce a state in which a response is expected in order to settle an unresolved issue, some questions are like assertions in not requiring an answer and not leaving the discourse in an inquisitive state (Farkas and Bruce, 2010; see also Ryan, 2023). Farkas and Bruce report on a class of questions in Romanian in which the particle *oare* signals an answer is optional, see (22).

(22) Oare Petru a sosit deja? oare Peter has arrived already 'Has Peter arrived already?'

Farkas and Bruce propose that (22) ressembles an assertion in that the projected common ground (one of a set of expected future conversational states) anticipates a state in which the content of a single proposition is confirmed, whereas ordinary questions project several different possible resolutions given the multiple possible answers that could be confirmed in a subsequent discourse move.

Another way rhetorical questions resemble assertions is in their infelicity when produced by a speaker who is unwilling to commit themselves or who shows uncertainty. Caponigro and Sprouse (2007) note the infelicity of an assertion or a rhetorical question preceded by *I'm really curious*, see (23).

- (23) a. #I'm really curious, nobody lifted a finger to help me.
 - b. #I'm really curious, who lifted a finger to help me?
 - c. I'm really curious, who helped me?

Relatedly, a speaker who has already indicated certainty about some content cannot felicitously repeat their commitment. This prohibition applies similarly to repetition via assertion or via rhetorical question. If the immediately preceding discourse contains a speaker's public commitment to a certain proposition, the speaker is prohibited from re-introducing that same content. An assertion commits the speaker so subsequent repetition of their commitment is ruled out, see (24). Biezma and Rawlins argue that rhetorical questions behave similarly, see (25).

- (24) A: It's not raining. A: # It's not raining.
- (25) A: No one lifted a finger to help A: # Did anyone lift a finger to help?

Biezma and Rawlins (2017) pursue their analysis using Gunlogson's (2001) context-update model of discourse in which different types of utterances induce different updates to the Common Ground commitments of the speaker and addressee. A speaker who produces an assertion (a falling declarative, per Gunlogson's typology) updates their own commitment set. A speaker who utters a biased question (a rising declarative) adds a proposition to the commitment set of the addressee, and a speaker who utters an information-seeking question (a rising interrogative) updates nobody's commitments. Rhetorical questions are not included in this typology, but the model lends itself to a specification of the discourse state in which such questions can be felicitously produced and the impact they'd have on interlocutors' commitment sets (see Rohde, 2006; Farkas and Bruce, 2010).

In keeping with this claim that rhetorical questions carry speaker commitment, computational systems that aim to automatically extract propositions from text in fact target questions that are classed as rhetorical as potential sources of implicit assertions (Jo et al., 2020).

As illustrated here, rhetorical questions share properties with assertions and receive responses that parallel those for assertions. Their infelicity likewise patterns with assertions: Infelicity arises if the speaker expresses curiosity about certain content or if the prior context already contains a public commitment to that content.

Beyond recognizing rhetorical intent, an addressee must also identify the meaning that the speaker intends. The next section reviews proposals for how the intended meaning is established. Both for proposals that treat rhetorical questions as assertion-like and those that treat them as question-like, a commonality is the relevance of the question form for identifying the answer set that would be associated with the question if it were posed as an ordinary question. Given that answer set, a relevant proposition can be extracted or constraints

can be imposed to determine what the rhetorical question means.

3 Meaning of a rhetorical question

A long-standing proposal is that the meaning of a rhetorical question is the negative assertion identified by invoking the possible answers to the posed question—treating it as an ordinary question with an associated answer set—and selecting the negative or null answer (Han and Siegel, 1997; Han, 1998). This approach correctly associates $\it wh$ - questions and polar questions like (26) and (27) with a negative assertion.

- (26) Who wants to ride a bus?

 A wants to ride a bus.

 B wants to ride a bus.

 C wants to ride a bus.

 A and B want to ride a bus.

 ...

 No one wants to ride a bus.
- (27) It may be free but is it a good education?

 Yes, it's a good education.

 No, it's not a good education.

The bias to select the negative answer is most obvious for rhetorical questions containing negative polarity items. In cases like (28), the intended meaning is uniformly understood to contain negation, an outcome posited to reflect the infelicity of a negative polarity item in the utterance that would comprise the positive answer.

(28) Did anyone lift a finger to help?

#Yes, someone lifted a finger to help.

No, no one lifted a finger to help.

Ladusaw (1980) argues that the negative interpretation of questions like (28) stems from the form of the question and a constraint on the correspondence between questions and their felicitous answers (see also Guerzoni, 2004). This constraint requires a question's answer to be derivable with minimal modification from the formulation of the original question. For most questions, a variety of answers are available without extensive reformulation, see (26)-(27). For questions like (28), however, the negative answer is the only one that supports the presence of the negative polarity item; the positive answer is ruled out due to the unlicensed negative polarity item and the additional work that a positive reply would require to flag the departure from the original question (e.g., Hold on! In fact someone did actually offer to help in the end!). The constraint on question~answer congruence and the resulting limitation on possible answers

together ensure that questions with negative polarity items must be interpreted rhetorically. There is in effect only one answer in their answer set, thus undermining any information-seeking interpretation (though see van Rooy's (2003) account to be reviewed below).

This strategy of inspecting the answer set and identifying the negative answer creates a problem for questions whose answer set has no negative answer. Adjunct questions have been analysed as presupposing the proposition within the question, i.e., a speaker who asks when/where/how/why an event occurred presupposes the event took place, thereby excluding negative or null answers (no time, no place, no manner, no reason). As such, negative answers to adjunct questions would require the kind of discourse interruption associated with presupposition failure (e.g., Hey wait a minute! That event never occurred so I can't tell you when/where/how/why it happened!). If rhetorical questions are associated with negative or null answers, adjunct rhetorical questions should be ruled out a priori. Indeed, some researchers take such a position (Gutierrez-Rexach, 1996; see also Eilam and Lai, 2009; Eilam, 2011); others acknowledge limited usage if the question expresses surprise but still presupposes the event's occurrence, see the exclamative in (29) adapted from Han and Siegel (1996).

(29) How did Hannah finish her rhetorical questions chapter in time?!

If adjunct rhetorical questions are generally ruled out due to their answer sets' lack of negative or null answers, other questions that carry such a presupposition should likewise resist rhetorical usage. This restriction indeed seems to hold, see (30) from Eilam (2011): The non-cleft version in (30-a) allows a rhetorical reading (no one could have predicted this disaster), a reading seemingly unavailable with the cleft version in (30-b).

(30) a. Who could have predicted this disaster? b. #Who is it that could have predicted this disaster?

Switchboard notably contains no examples of cleft questions coded as rhetorical. However, it does contain adjunct questions that function rhetorically, as in the *why* questions (6) and (15), for which a null answer does seem available. Indeed, a variety of adjunct rhetorical questions seem possible, see (31)-(34) with associated negative answers (*never/nowhere/no way/no reason*). In these cases, the speaker avoids the presupposition of the event having occurred by using a modal or future-oriented tense to indicate the hypothetical nature of the event, thereby allowing the answer set to contain a negative assertion which can be selected as the question's associated meaning.

- (31) When is the sun going to come out? [sw_1013_4822]
- (32) Where are they going to get the money? [sw_0646_2575]
- (33) How can you justifying raising anybody's salary if you have to lay people off? [sw_0302_3309]
- (34) Why should I go out of my way when it doesn't matter?[sw_0898_2303]

So far, we have seen how the formulation of a question and the nature of the answer set can yield assertion-like meanings of rhetorical questions. There are other rhetorical questions that impose constraints on their expected answer, but the answer is not necessarily negative. For (35) from Biezma and Rawlins (2017), the associated answer set contains two alternatives which are identical.

(35) Context: John has done something really stupid Is John an idiot or is he an idiot?

As with questions containing negative polarity items, (35) highlights an answer that is derivable from the formulation of the question, although the associated meaning is positive (yes, John is an idiot). Other rhetorical questions give rise to positive meanings that are derivable, not from the nature of the answer set, but from interlocutors' knowledge or beliefs about the world, see (36) and (37).

- (36) Is the Pope Catholic?
- (37) Has the educational system been so watered down that anybody who's above average is now gifted? [sw_0393_2407]

Section 4 will return to such cases in discussing the Common Ground constraints stipulated to hold for a question to succeed rhetorically. Indeed, invoking Common Ground appears to be essential for contending with the sheer variety of rhetorical question meanings that are possible, since many rhetorical questions are not necessarily associated with negation nor derivable from the form of the question. Han (1998) cites (38) as a wh- question that succeeds rhetorically and picks out a non-negative non-null answer.

(38) Context: a mother to her son
Who has fed you and given you a proper education?

Switchboard includes questions like (39), in which B takes a certain answer to be common knowledge, and (40), in which the question highlights many answers but not specifically the null answer, *nothing*. Relatedly, (41) evokes a sense of shared concern that there is no obvious answer. In these cases, the question's associated meaning is accessible, provided the interlocutors share relevant world knowledge or beliefs, a condition formalized in accounts that invoke Common Ground (Rohde, 2006; Caponigro and Sprouse, 2007; Biezma and Rawlins, 2017).

- (39) A: So, who's your favorite team?
 B: Who do you think?
 B: laughter> The Dallas Cowboys. [sw 0389 2157]
- (40) Context: discussion of youth crime
 What's going to happen to these kids when they grow up?[sw_0255_4548]
- (41) Context: discussion of troops in Eastern Europe after the Cold War What are we going to do with all the soldiers over there? [sw_0264_2252]

The proposals and observations discussed so far all associate rhetorical questions with assertion-like meaning. Not all accounts, however, abandon the interrogative nature of rhetorical questions. A proposal from van Rooy (2003) posits that all questions, including rhetorical questions, are posed when the speaker has uncertainty about the answer. His account is similar in some respects to other proposals that involve the imposition of constraints on an answer set, but under his account, there is no assumption that a singleton answer will emerge from those constraints.

Under van Rooy's account, rhetorical and ordinary questions are treated in the same way. Regardless of the question type, each answer in the answer set is associated with a probability, which is the speaker's estimate that that answer is correct. Speakers can only pose questions felicitously when no answer has probability 1. Van Rooy captures the notion of uncertainty in information-theoretic terms, measuring the entropy of the answer set. The best questions are those whose answer set has high entropy, i.e. all answers are equiprobable. Even for a question like (42) with a negative polarity item, both answers have equal probability.

The negative polarity item in (42) evokes a scale of possible contributions (amounts of help), and van Rooy proposes that the question achieves its rhetorical effect by asking about the smallest value on that scale (lifted a finger, yes or no?), thereby implicating that the question is resolved for all other values on that scale (...a huge amount? no ...a lot? no ...a bit? no). Since (42) conveys that the status of nearly all scale values is already resolved, the question (though technically information-seeking) succeeds as a rhetorical question by conveying near certainty: Both answers are unfavorable in that the question asks whether someone contributed next to nothing or whether they did absolutely nothing at all.

This probabilistic approach is adopted in work by Rohde (2006) but to different effect. Whereas van Rooy uses entropy to characterize what he takes to be the high level of uncertainty present in the answer set for all questions, Rohde's account uses entropy to distinguish ordinary and rhetorical questions. The proposal is that ordinary questions are posed when a speaker does not know the answer (high uncertainty), whereas rhetorical questions require an obvious answer (low uncertainty).

To illustrate the proposal, consider the question *Who wants to ride a bus?* and the two answer sets below with hypothetical probability distributions: one with equiprobable answers (43-a) and one with a highly skewed probability distribution (43-b).

(43) Who wants to ride a bus?

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A wants to ride a bus. .125
B wants to ride a bus. .125
C wants to ride a bus. .125
A and B want to ride a bus. .125
...
No one wants to ride a bus. .125

A wants to ride a bus. .125
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A speaker with no prior bias about the correct answer would assign a probability distribution like (43-a), and the question should be treated as information-seeking. The speaker is uncertain and expects to gain information if the addressee can resolve their uncertainty. Alternatively, if the speaker assigns a probability distribution like (43-b)—and crucially if the addressee shares the bias to the same answer—then the question should be treated as rhetorical. The speaker has posed a question whose answer they are already confident in, and the addressee can treat the utterance as a move by the speaker to highlight that obvious answer.

This characterization of the answer set for rhetorical questions represents one of three felicity conditions posited in Rohde's (2006) account. Together, the felicity conditions formalize intuitions from prior work that rhetorical questions have an answer that everyone already knows and that no addressee response is required. The three conditions work as follows. The first captures the sense of an **obvious** answer. Rhetorical questions have a strongly skewed probability distribution over candidate answers, i.e., a low-entropy answer set. The second condition captures the uninformativity of the favored answer. Rohde adopts Gunlogson's (2001) characterization of questions (specifically rising interrogatives) as utterances that leave unchanged both the speaker and addressee commitments. When an ordinary question is posed, the speaker makes no update to their commitments (they don't know the answer) and the addressee is not committed either (they haven't yet provided an answer). Rohde posits that rhetorical questions likewise induce no updates but for a different reason: Neither the speaker nor addressee need update their commitments because both are already committed to an answer. Lastly, that answer must be one that is shared across speaker and addressee, a constraint specified in the third condition about the Common Ground (see Section 4).

A probabilistic approach thus underlies van Rooy's and Rohde's accounts and their respective characterizations of speaker uncertainty. Van Rooy assumes that the answer set for all questions must have high entropy but that rhetorical questions achieve their rhetorical effect by asking about something so truthconditionally negligible (lifting a finger or not, paying a red cent or not, eating a bite or not, etc.) that the speaker implicates that the answer to the overarching question (amount of help, amount of money, amount of food) is already resolved. Rohde's account captures this sense of resolution by instead positing that the answer set for rhetorical questions has low entropy and that the speaker and addressee share prior commitment to a matching answer. The next section considers this sense of a shared answer.

4 "We knew it all along"

What we haven't addressed so far is why a speaker would opt to use a rhetorical question. If the rhetorical question functions like an assertion, why not simply produce an assertion directly? Why ask a question that no one needs to answer about content that may not even be up for debate? The fact that the content is not debatable likely reflects its status of being already known; as such, an assertion of that content would fail to constitute an informative contribution to the discourse. As alluded to earlier, content that has already been asserted shouldn't be repeated since the information is already part of the discourse record, see (24)-(25). This prohibition against redundancy is familiar from the Maxim of Quantity (Grice, 1975) and is implicated in a range of phenomena in which speakers signal the status of certain content as informationally given (information structure: Lambrecht, 1994; coreference: Ariel, 1990; presupposition: Stalnaker, 1978). Much of what this chapter has covered suggests that rhetorical questions are another such phenomenon.

If questions are used rhetorically when their answer is known and shared (or else trivially derivable or truth-conditionally negligible), their use must serve a non-informational function. Perhaps rhetorical questions represent discourse moves whose aim is to align speaker and addressee by highlighting content in their shared common ground. This tactic may be particularly useful for content a speaker doesn't want to go on record as explicitly stating, e.g., negative or disparaging content.

This final section reviews accounts that emphasize the Common Ground properties that license the use of rhetorical questions and the impact these questions have on subsequent discourse. The Common Ground is understood to be a representation of the shared knowledge among interlocutors (Stalnaker, 1978; Clark, 1996; Clark and Marshall, 1981). It contains proposition p if all interlocutors know p and all know that they all know p. Consider (44), in which the exchange between A and B succeeds because the Common Ground provides the necessary referential, contextual, and world-knowledge background.

- (44) Context: co-authors discussing their reviewers' misinterpretation of the same key point that was flagged in an earlier submission
 - A: They did it again!
 - B: We'll talk to the editor.

The interpretation of the pronouns they/it/we depends on referential knowledge about the likely antecedents (the reviewers, the misinterpretation, the two

speakers, respectively). The felicitous use of *again* depends on access to contextual knowledge of an earlier similar situation. The relevance of talking to the editor invokes world knowledge about the academic publishing process.

Relatedly, B's rhetorical question in (45) relies on Common Ground, and to succeed, both speakers must know who stayed out late.

(45) Context: start of the morning conference session

A: Most of us are here, but we're missing someone.

B: Well, who stayed out at the party til 3am?

A: Oh right, that's who's missing!

The answer to B's question is not a negative answer (no one) nor is it derivable from the form of question (no negative polarity item or double-alternative construction). Rather, it is accessible to interlocutors with knowledge about last night's party. In Rohde's (2006) account, the third condition, which ensures a shared answer among interlocutors, evaluates the commitment sets of the speaker and addressee to check for prior commitment to sufficiently similar content. This condition ensures that question (36) Is the Pope Catholic? will succeed as rhetorical so long as the addressee knows that the Pope is Catholic. What is missing from this condition, however, is a specification that the knowledge is known to be known. For (36), the speaker makes an assumption about shared world knowledge, and the rhetorical intent will likely be understood (most people know the Pope is the head of the Catholic Church). However, in (45), even if B's question is recognizable as rhetorical, confusion may arise if the late-night partier brought to mind for A is different from that brought to mind for B.

In Caponigro and Sprouse's (2007) account, therefore, rhetorical questions are explicitly specified to be questions "whose answer is known to the Speaker and the Addressee, and they both also know that the other knows the answer as well" (p.129). Their pragmatic account specifies that what makes rhetorical questions different from ordinary questions is not a property of their syntax or semantics (which are taken to be identical to ordinary questions) but rather the conditions under which rhetorical questions can be used. A question is rhetorical if the answer is present in the sets of propositions representing (i) the speaker's beliefs, (ii) the addressee's beliefs, and (iii) what both interlocutors take to be mutually believed.

Portraying utterance meaning in terms of mutual beliefs evokes presuppositional meaning, i.e., meaning that is already known and known to be known (Stalnaker, 1978). For asserted meaning, a speaker offers certain content as at-issue content, to be accepted or denied or else taken up for further discussion. At-issue content addresses a current Question Under Discussion (Roberts, 1996). If the utterance contains not-at-issue content, that which does not directly address a current Question Under Discussion, then that content is typically assumed to be true (presupposed) for the purposes of the conversation and unavailable to be taken up for further discussion. One diagnostic for distinguishing asserted vs. presuppositional meaning is thus the type of dissent required

for expressing disagreement. Content introduced via assertion can be denied with flat-out disagreement, as in B's denial *That's not true* in (46), whereas disagreement with content introduced via a rhetorical question is said to require the kind of discourse interruption associated with presupposition failure; see the similarity between (47) and (48) (Biezma and Rawlins, 2017).

- (46) A: No one lifted a finger to help.
 B: That's not true! [that no one helped]
- (47) A: The organizers are disappointed that no one lifted a finger to help.

 B: #That's not true! [that no one helped]

 B': Hey, wait a minute! I helped!
- (48) A: Did anyone lift a finger to help?

 B: #That's not true! [that no one helped]

 B': Hey, wait a minute! I helped!

In (47), the proposition that no one lifted a finger is embedded under the predicate be disappointed, which renders the content presuppositional. Flat-out disagreement That's not true can only express disagreement with the asserted content that the organizers are disappointed. The fact that no one helped is taken to be shared common knowledge and therefore not part of the at-issue content of A's statement in (47). To disagree with that content requires signalling a discrepancy in what is understood to be part of the Common Ground, as in the Hey, wait a minute exclamation from B'. That the rhetorical question in (48) behaves similarly suggests that its meaning that no one helped, though not embedded under a factive presupposition trigger, is nonetheless presuppositional.

Biezma and Rawlins (2017) argue that rhetorical questions are interrogatives that trigger a presupposition that the context entails the answer. This approach is reminiscent of Portner and Zanuttini's (2000) description of exclamatives as questions that presuppose their content and for which it "makes no sense to provide the information [in an answer]" (p. 201). Biezma and Rawlins point to the use of actually for signalling disagreement with the meaning of a rhetorical question, see (49), given that actually often targets not-at-issue content. In (48) and (49), B is reacting to content that has not been introduced explicitly. In both cases, the context presumably already contains an understanding of the answer (that no one helped or that no one will buy a book on rhetorical questions).

(49) A: Such a silly idea! Who on earth will buy a book on rhetorical questions?

B: #That's not true! B': Actually, I would.

In Biezma and Rawlins's account, speakers who utter rhetorical questions force their interlocutor to accommodate the non-inquisitive state of the context. Whereas assertions introduce new commitments, Biezma and Rawlins follow Caponigro and Sprouse (2007) in proposing that rhetorical questions function to extract commitment from the addressee, as in (50) from Caponigro and Sprouse.

(50) You should stop saying that Luca didn't like the party last night. After all, who was the only one that was still dancing at 3am?

Caponigro and Sprouse argue that (50) can even be followed by an explicit mention of the answer (Luca) by either speaker or addressee. In providing that answer or otherwise accepting the rhetorical question as a discourse move to highlight that answer, an addressee commits themselves to that answer. Disagreement would require disrupting the discourse to reject the answer presupposed by the question. As such, the speaker has used the rhetorical question to raise the salience of the assumed answer and confirm that there is agreement.

This effect of highlighting (what is assumed to be) shared knowledge echoes the pragmatic effects of expressions like it is clear that (Taranto, 2003). Speakers who assert something 'obvious' risk producing an utterance whose content will be redundant to the addressee. Speakers thus mark such utterances (using clearly or obviously or other related discourse adjectives and adverbials) to acknowledge the status of the information they're conveying. But why convey it in the first place if the addressee already knows it? Taranto points to effects at the 'metalinguistic' level, whereby such expressions provide information about the conversation rather than about the world. Utterances containing these discourse adjectives and adverbials often appear discourse-initially and discourse-finally, positions associated with metalinguistic updates. The expressions help the interlocutors synchronize the common ground and ensure they're 'on the same page'. Their use can succeed even when it is not clear to all interlocutors that the asserted content is true. Taranto offers the example of a seminar discussion in which only some of the students have done the reading. If the professor states It is clear that this work was hugely influential in the field, that claim may be accepted for the sake of the current conversation even if the content is not known to all the students.

The use of rhetorical questions may share some similarities with expressions like *clearly*. Even when the associated meaning of a rhetorical question isn't already shared, the speaker can use the question to encourage the acceptance of that meaning for the purposes of the conversation. In uttering a rhetorical question, the speaker aims to synchronize commitments, raising some known information for the purpose of drawing out new conclusions or showing the relevance of that information to the current exchange (Rohde, 2006). Along these lines, Crone (2017) discusses rational motivations for speaker redundancy, including the desire to raise awareness or draw attention to an issue. According to Crone, these motivations apply not only to rhetorical questions but also to uninformative assertions which may serve to emphasize shared beliefs and build camaraderie.

In contrast to accounts that require a known shared answer (Rohde, 2006; Caponigro and Sprouse, 2007), Crone argues that rhetorical questions are best characterized simply by their lack of requirement for an answer. In many cases, this constraint is met due to the presence of a known shared answer, but else-

where, the lack of a requirement for an answer may arise because the question implies that there is no answer, see the examples in (51) from Crone (2017).

- (51) a. How (the Hell) could you do that?
 - b. What (the Hell) is wrong with you?
 - c. What (on Earth) were you thinking?

By emphasizing the lack of a required answer as the defining feature of rhetorical questions, Crone successfully captures cases like (51), which pose difficulties for accounts that require that a particular meaning be derivable (from the question or from the common ground). A further challenge arises for accounts which point to the presence of an obvious answer (e.g., Rohde's depiction of a low-entropy answer set) from information-seeking questions that have a highly probable answer but for which an answer is nonetheless still expected, see (52).

(52) Context: B has bought a lottery ticket and is watching the announcement of the winning numbers; A can't see the announcement.

A: So did you win?

B: Nope, not this time.

In (52), the highly probable answer is no, but A can felicitously ask their (optimistic?) information-seeking question and expect a reply. It is therefore the speaker's intention and the recognition of that intention that defines the question as non-rhetorical. This pragmatic approach—in which speaker intentions are key and in which addresses must recognize the relevant speech act that is at play—is at the core of recent work by Ryan (2023). In that work, many questions are treated as rhetorical in a broad sense in terms of **not** requiring a response, **not** seeking information, and **not** having the illocutionary force of asking. Under this umbrella, Ryan includes indirect questions, which use interrogative syntax but lack the illocutionary force of questioning. In (53), the speaker likely intends their utterance as a request, and if the addressee recognizes that intention, no answer is expected (while the subsequent action of opening the window is).

(53) Could you open the window?

These pragmatic approaches, with which I will close this chapter, are a reminder of the importance of analyzing utterances not only with regards to their properties in isolation but in terms of their use in context. It is with this mindset that the use of corpora is particularly relevant. The Switchboard data discussed here demonstrates that addressees respond differently to rhetorical and ordinary questions. Ryan likewise cites naturally occurring examples to make the case that the category of rhetorical questions is much broader than is often assumed. Her examples include questions that direct the addressee to act (53), those whose answer is unknown (54), those that mark attitude and don't expect a reply (55) (Tottie and Hoffmann, 2006), as well as so-called peremptory tag

⁴Thanks to Andrew Kehler for this example.

questions, as in B's reply in (56), which signals an intention to close off debate (Algeo, 2006).

- (54) Context: Discussion in *The Sound of Music* about Maria whose behavior does not match expectations for a nun
 Nun 1: How do you solve a problem like Maria?
- (55) I don't know where it is, do I?
- (56) A: When will the taxi arrive?
 B: We'll know when it gets here, won't we.

These cases are important because they highlight the ambiguity in the utterance of a variety of questions. As seen pervasively in natural language, the surface form does not fully determine speaker intention nor addressee interpretation. Acknowledging such ambiguity encourages an approach to rhetorical questions that focuses on contexts of use and invites data-driven investigations to clarify how and why speakers choose the linguistic formulations they do and how such choices are interpreted in context.

References

- Algeo, J., 2006. British or American English? A handbook of word and grammar patterns. Cambridge University Press, Cambridge.
- Ariel, M., 1990. Accessing noun phrase antecedents. Routledge.
- Banuazizi, A., Creswell, C., 1999. Is that a real question? Final rises, final falls, and discourse function in yes-no question intonation, in: CLS 35.
- Bartel, C., 1999. The intonation of English statements and questions: a compositional interpretation. Outstanding Dissertations in Linguistics, Garland Publishing, New York.
- Bhattasali, S., Cytryn, J., Feldman, E., Park, J., 2015. Automatic identification of rhetorical questions, in: Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics, p. 743–749.
- Biezma, M., Rawlins, K., 2017. Rhetorical questions: Severing questioning from asking, in: Semantics and Linguistic Theory (SALT), pp. 302–322.
- Caponigro, I., Sprouse, J., 2007. Rhetorical questions as questions, in: Puig-Waldmüller, E. (Ed.), Proceedings of Sinn und Bedeutung, pp. 121–133.
- Clark, H.H., 1996. Using Language. Cambridge University Press, Cambridge.
- Clark, H.H., Marshall, C.R., 1981. Definite reference and mutual knowledge, in: Joshe, A., Webber, B., Sag, I.A. (Eds.), Elements of discourse understanding. Cambridge University Press, Cambridge, UK, pp. 10–64.
- Crone, P., 2017. Redundancy and awareness in discourse. Ph.D. thesis. Stanford University.
- Dehé, N., Braun, B., Einfeldt, M., Wochner, D., Zahner-Ritter, K., 2022. The prosody of rhetorical questions: a cross linguistic view. Linguistische Berichte 269, 3–42.
- Eilam, A., 2011. Explorations in the informational component. Ph.D. thesis. University of Pennsylvania.
- Eilam, A., Lai, C., 2009. Sorting out the implications of questions. CON-SOLE'09.
- Farkas, D.F., Bruce, K.B., 2010. On reacting to assertions and polar questions. Journal of Semantics 27, 81–118.
- Godfrey, J.J., Holliman, E.C., McDaniel, J., 1992. Switchboard: Telephone speech corpus for research and development, in: Proceedings of Acoustics, Speech, and Signal Processing (ICASSP), pp. 517–520.
- Grice, H.P., 1975. Logic and conversation, in: Cole, P., Morgan, J.L. (Eds.), Speech Acts, volume 3 of Syntax and Semantics. Academic Press, p. 41–58.

- Guerzoni, E., 2004. Even-NPIs in questions. Natural Language Semantics 12, 319–343.
- Gunlogson, C., 2001. True to form: Rising and falling declaratives as questions in English. Ph.D. thesis. Unviersity of California, Santa Cruz.
- Gutierrez-Rexach, J., 1996. The semantic basis of NPI licensing in questions. MIT Working Papers in Linguistics 31.
- Han, C.H., 1998. The structure and interpretation of imperatives: mood and force in universal grammar. Ph.D. thesis. University of Pennsylvania.
- Han, C.H., Siegel, L., 1996. NPI licensing in adjunct wh-questions, in: Proceedings of the 22nd Berkeley Linguistics Society, pp. 147–158.
- Han, C.H., Siegel, L., 1997. Syntactic and semantic conditions on NPI licensing in questions, in: 15th West Coast Conference on Formal Linguistics, pp. 177– 191.
- Jo, Y., Visser, J., Reed, C., Hovy, E., 2020. Extracting implicitly asserted propositions in argumentation, in: Proceedings of the Conference on Empirical Methods in Natural Language Processing, pp. 24–38.
- Jurafsky, D., Bates, R., Coccaro, N., Martin, R., Meteer, M., Ries, K., Shriberg, E., Stolcke, A., Taylor, P., Ess-Dykema, C.V., 1998. Switchboard discourse language modeling project final report, in: Research Note 30, Center for Speech and Language Processing, Johns Hopkins University Baltimore, MD, pp. 1–50.
- Kalouli, A.L., Kaiser, K., Hautli-Janisz, A., Kaiser, G.A., Butt, M., 2018. A multilingual approach to question classification, in: Proceedings of the Eleventh International Conference on Language Resources and Evaluation, pp. 2715–2720.
- Ladusaw, W., 1980. Polarity sensitivity as inherent scope relations. Ph.D. thesis. University of Texas. Austin.
- Lambrecht, K., 1994. Information structure and sentence form: Topic, focus, and the mental representations of discourse referents. Cambridge University Press, Cambridge.
- Meibauer, J., 1986. Rhetorische fragen. Linguistische Arbeiten 167.
- Portner, P., Zanuttini, R., 2000. The force of negation in wh exclamatives and interrogatives, in: Horn, L., Kato, Y. (Eds.), Studies in Negation and Polarity. Oxford: Oxford University Press, pp. 193–231.
- Ranganath, S., Hu, X., Tang, J., Wang, S., Liu, H., 2018. Understanding and identifying rhetorical questions in social media. ACM Transactions on Intelligent Systems and Technology 9:2, 1–17.

- Roberts, C., 1996. Information structure in discourse: Towards an integrated formal theory of pragmatics. OSU Working Papers in Linguistics 49.
- Rohde, H., 2006. Rhetorical questions as redundant interrogatives. San Diego Linguistics Papers 2.
- Ryan, J., 2023. Is that a rhetorical question?: A pragmatic analysis. Ph.D. thesis. University of Wisconsin-Milwaukee.
- Sadock, J., 1971. Queclaratives, in: CLS 7, pp. 223-231.
- Stalnaker, R., 1978. Assertion. Syntax and Semantics 9, 315–332.
- Taranto, G., 2003. Discourse adjectives. Ph.D. thesis. University of California. San Diego.
- Tottie, G., Hoffmann, S., 2006. Tag questions in British and American English. Journal of English Linguistics 34, 283–311.
- van Rooy, R., 2003. Negative polarity items in questions: Strength as relevance. Journal of Semantics 20, 239–273.