

Rhetorical question marking: German *schliesslich*¹

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Abstract. The German adverb *schliesslich* can be used in two senses: in a sentence-internal sense ‘eventually’ and in an intersentential sense similar to justificational ‘after all’ in English. I argue that these two uses are syntactically and semantically distinct, asking for an ambiguity analysis. Next, we address the observation that questions with justificational *schliesslich* must be interpreted as rhetorical questions (RhQ). The present analysis can predict this and offers the basis for studying general justificational RhQ in both German and English.

Keywords: *schliesslich*, *after all*, justification, rhetorical questions, discourse relations

1. Introduction

Why do we use rhetorical questions? Style guides characterize rhetorical questions as „a figure of speech in which a question is asked for a reason other than to get an answer—most commonly, it's asked to make a persuasive point.“² Yet, the discourse relations for rhetorical questions (RhQ) have remained widely unresearched. The epistemic baseline for RhQ was set by Caponigro and Sprouse (2007), who propose the following condition (p. 10, (34)).

- (1) A question *Q* in a discourse is interpreted as a RhQ iff the true answer to *Q* is in the current common ground: $ans(Q) \in CG$.

Caponigro and Sprouse argue that the question *Q* must not be reinterpreted as an assertive act. Instead, they argue, the discourse effects of uttering an interrogative *Q* with a known answer follow from pragmatics. This lines up with Farkas (2022) who describes RhQ in terms of their properties on the Conversational Score Board.

Biezma & Rawlins (2017) demonstrate that (1) is a necessary, but not a sufficient criterion for an acceptable RhQ. They argue that a question is not an acceptable RhQ in a discourse where $ans(Q)$ echoes an immediately preceding assertion.

- (2) A: Oh, look: Konstanz is in Germany, not Switzerland!
B: #What country is Konstanz in? (intended: RhQ)
(Biezma & Rawlins 2017: ex. 6).

Hence, all points in discourse are not suited to utter a question *Q* with a commonly known answer. Redundancy is not the only factor to prevent RhQs. The following examples (3b) – (d) illustrate further incoherent attempts to use RhQs.

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² <https://www.litcharts.com/literary-devices-and-terms/rhetorical-question>, visited Jan.15, 2024, see also Farkas 2022 on rhetorical questions.

- (3) The family wants to catch the 10.00 bus downtown. Everyone is staring at the clock. Leaving at 9.50 will be ok. It is now 9.45. Alex, known as a very punctual person, is absent.
- a. Alex (entering the room): I am here. / It's 9.45. We can leave.
 - b. Alex (entering the room): #Am I in time? We can leave.
 - c. Alex (entering the room): #What's the time? We can leave.
 - d. Alex (entering the room): #Where am I? We can leave.

The assertions in (3a) are coherent conversation starters. As a very punctual person, let us assume that A knows the time and place, and his interlocutors know this. Hence, the answers to questions Q_b , Q_c , Q_d are in CG. Yet, (3b) – (3d) are infelicitous RhQ in the present discourse. Intuitively missing for a RhQ interpretation is some previous controversy around whether A will be in time.³

The discourse relations of RhQ are still underresearched in formal pragmatics. I argue that RhQ marked with *schliesslich* in German are *justificational* rhetorical questions. The adverb *schliesslich* codes specific discourse properties and offers a handle to study the links between RhQ and preceding text more closely.⁴

The paper is structured as follows. Section 2 surveys the grammar and use of *schließlich* in German declaratives and questions. I list syntactic, prosodic, and pragmatic reasons in favor of an ambiguity analysis with a sentence-internal reading *schließlich_{cul}* and a discourse adverb *schließlich_{just}*. Section 3 proposes a semantic analysis for both uses, predicting that *schließlich_{just}* in questions triggers a RhQ interpretation. Section 4 studies whether plain RhQ can also be used as justificational questions. We find constellations where RhQs systematically violate Caponigro and Sprouse's criterion in (1), which highlight the need for further research on the discourse effects of RhQs. Section 5 summarizes.

2. The grammar and use of *schließlich* in German

2.1. Two readings?

In one of its uses, the adverb *schließlich₁* situates a temporally bounded event e as the culmination point ‚after other preliminary events took place‘. It translates into English *eventually*. The declarative S(*schliesslich*) presupposes that e came about after some back-and-forth, as illustrated in (4). Sentence (4a) conveys that Jane decided only after being undecided between the two men for some time.

- (4) Jane worried for a long time about who to marry: Bill or Tom.
 a. *Schliesslich heiratete sie Tom.*

³ Some readers find (3b) acceptable. They might have accommodated a preceding conversation where Alex was accused of being always late.

⁴ Most observations will translate to English RhQ with *after all* (Sadock 1971). Given that acceptability judgments for RhQ can involve quite subtle nuances, I will focus on German in the following.

Rhetorical questions with *schliesslich*

schliesslich married she Tom
'Eventually, she married Tom.'

This use will be labelled as *schließlich_{cul}* to indicate that an event *e* is presented as a culmination point.

In its second use, *schließlich₂* relates the proposition denoted by sentence S to another, preceding utterance T in context. The sentence S can be stative or eventive and its event time is independent of any other events. S(*schließlich₂*) refers anaphorically to a salient second proposition T and the host sentence S is presented as justification. This use is illustrated in (5).

- (5) *Mary kann bezahlen. Schließlich ist sie reich.*
Mary can pay schliesslich is she rich
'Mary can pay. After all, she is rich.'

The speaker aims to support the (possibly controversial) assertion 'Mary can pay' by the less controversial assertion that she is rich. This use will be labeled *schließlich_{just}*. It translates into English justificational *after all*; the translation 'eventually, she is rich' would be inappropriate in (5). There is a long-lasting debate in English around the uses of *after all* and whether they should be unified (Szczesniak 2015, Otsu 2018). For German, a comprehensive review of the properties of *schließlich_{just}* and *schließlich_{cul}* warrants two lexical entries that may be historically related but differ in their synchronic syntactic and pragmatic properties.

2.2. *Schliesslich_{cul}*

The use of *schließlich_{cul}* in declaratives was illustrated in (4) above. The adverb can also occur in questions like (6), where the presupposition projects as usual.

- (6) A: Jane worried for a long time about who to marry, Bill or Tom.
B: *Wen hat sie schließlich geheiratet?*
whom has she schliesslich married
'whom did she marry, eventually?'

B asks the question 'Whom did she marry' and presupposes that the marriage was the culmination point after a series of preceding events. B cannot ask the question in a context where she doesn't know how the marriage came about.

- (7) B watches a happy bride, leaving the church after the wedding ceremony in a crowd of equally well-dressed happy looking young men. B wonders who the groom may be.
- a. B: *Wen hat sie geheiratet?*
whom has she married
'whom did she marry?'
 - b. B: *#Wen hat sie schließlich geheiratet?*
whom has she schließlich married
'whom did she marry eventually?'

(7b) is an inappropriate question in this situation, given that B knows nothing about the bride or her choice of husband. Blocking tests for presuppositions confirm that *schliesslich_{cul}* is indeed a presupposition trigger. This is illustrated in (8) (where the antecedent is given in English for the sake of simplicity).

- (8) If Jane receives marriage proposals from several boys,
wird sie schliesslich den reichsten heiraten.
 AUX.FUTshe schliesslich the richest marry
 ‘If Jane receives marriage proposals from several boys, she will marry the richest after some back and forth.’

The antecedent clause introduces a context where Jane can reflect back and forth about whom to accept, which satisfies the presupposition of *schliesslich_{cul}* in the main clause. The conditional as a whole does not presuppose any back-and-forth events. Presupposition blocking is a major test to distinguish presuppositions from non-at-issue meaning, which is of importance in Section 2.5 (Geurts 1999).

Finally, *schliesslich_{cul}* cannot be used parenthetically in German declaratives or questions.

- (9) Jane worried for a long time about whom to marry, Bill or Tom.
 **Schliesslich, sie heiratete Tom.*
 schliesslich she married Tom

The word order in (9) is ungrammatical. *Schliesslich* is situated left to the pre-verbal position in a German main clause. This position is pragmatically limited to topic setters or extra-clausal parentheticals and excludes sentence-internal adverbs. We will see in the next section that *schlieβlich_{just}* is licensed in this position, which shows the differences in syntactic status. The same restriction also holds in questions.

- (10) A: Jane worried for a long time about whom to marry, Bill or Tom.
 B: **Schliesslich, wen hat sie denn geheiratet?*
 schliesslich whom has she PRT married

In summary, the examples (10)/(10) cannot be interpreted in an *eventually* sense and the adverb *schliesslich_{cul}* cannot be used parenthetically.⁵

2.3. Schlieβlich_{just}

Our initial example with justificational *schliesslich_{just}* is repeated in (11).

- (11) *Mary kann bezahlen. Schliesslich ist sie reich.*
 Mary can pay schliesslich is she rich
 ‘Mary can pay. After all, she is rich.’

⁵ German speakers who rate such examples as grammatical will typically provide contexts and paraphrases that amount to justificational *schlieβlich_{just}*.

Rhetorical questions with *schliesslich*

The sentence *S schliesslich_{just}* refers to an antecedent *T* where *S* is offered to justify *T*. *T* can be a preceding assertion, like ‚Mary can pay‘ in (11). But *T* can also be a salient action obvious to the speaker and addressee, or a preceding question or command. In any case, *T* is perceived as more controversial than *S*.

- (12) *Trink Deinen Tee aus! Schliesslich haben wir es eilig.*
drink your tea out schliesslich have we it hurried
‘Finish your tea! After all, we are in a hurry.’

- (13) [B observes A preparing herself a second cappuccino. A feels urged to justify.]
A: *Schliesslich ist heute Sonntag.*
schliesslich is today Sunday
‘After all, today is Sunday’

The speaker in (12) justifies the directive ‚Finish your tea‘ by pointing out the (less controversial) fact that they are in a hurry. In (13), A justifies an action that could be judged as self-indulgent by pointing out that it is Sunday (allowing for such excesses). Such examples show that actions, in general, can be justified, whereas temporal presuppositions concern the word-to-world fit only (Searle 1976). In the following, I focus on justifications of assertion, leaving the exploration of general justifications for another occasion.

The following examples show that *schliesslich_{just}* can be used parenthetically in declaratives and questions.

- (14) A: Jane should quit smoking.
Schließlic: *was ist ihr Beruf? (Ärztin, wie wir wissen)*
‘schliesslich: what is her profession?’
‘What is her profession, after all? (she’s a doctor, as we both know).’

- (15) A: Mary can pay.
Schließlic: *Sie hat gestern im Lotto gewonnen.*
Schliesslich she has yesterday in-the lottery won
‘Mary can pay. After all: she won the lottery yesterday.’

The adverb *schliesslich_{just}* in (14), (15) precedes the preverbal position in a German V2 main clause. The adverb is prosodically non-integrated, as indicated by colons. The examples may lean towards oral registers but they are perfectly acceptable. German speakers judging (9) and (10) as grammatical will also construe justificational scenarios as illustrations.

Justificational *schliesslich* in questions triggers an interpretation as rhetorical question RhQ. This is illustrated in (16) and (14) above.

- (16) A: I can’t buy my kid an iPhone.
Bin ich schliesslich ein Millionär?
am I schliesslich a millionaire
‘I can’t buy my kid an iPhone. Am I a millionaire, after all? (obviously not!)’

Polar questions with *schließlich_{just}* like (16) can only be interpreted as RhQ, here with an implied negative answer. The RhQ justifies the preceding assertion ‚I cannot buy my kid an iPhone‘ by the implied proposition ‚I am not a millionaire‘. Justificational RhQ with *schließlich_{just}* can also be constituent questions. The speaker in (14) and its non-parenthetical version (17) aims to justify a moral request on Jane by drawing attention to Jane’s profession.

(17) A: Jane should quit smoking.

Was ist schließlich ihr Beruf? (Ärztin, wie wir beide wissen.)
 what is schließlich her profession
 ‘What is her profession, after all? (She’s a doctor, as we both know.)’

All our *schliesslich_{just}*-questions rest on the assumption that the speaker and addressee know the answer, or otherwise, the intended justification would not come about: Uses of questions Q(*schliesslich_{just}*) must adhere to Caponigro and Sprouse’s criterion for RhQ.

2.4. *Schließlich_{just}* contributes to the expressive dimension

There is clear evidence that *schliesslich_{just}* does not contribute to content at the propositional level. The relevant diagnostics were discussed extensively for English *after all* in earlier literature (Blakemore 1997, Lewis 2018, Szczesniak 2015), and the data directly carry over to *schliesslich_{just}*. Using the criteria of (Potts 2007), I argue that five of Potts’ six characteristics apply to *schließlich_{just}*. In the following, *schliesslich* is to be read as *schliesslich_{just}*.

Independence. The propositional content of declaratives with *schliesslich* is independent of the information signaled by the adverb. The speaker in (11) asserts $p =$ ‘Mary is rich’. If (11) is negated or denied, the resulting propositional content is ‘Mary is not rich’. The content of *schliesslich* is not captured by negation (Blakemore 1997). This shows that the adverb *schliesslich* always takes scope over negation. The scope and meaning of *schliesslich* in questions will be discussed in Section 3. Using *schliesslich*, the speaker communicates her intention to justify a preceding claim, directive, or action by p .

Immediacy. Using the adverb *schliesslich*, the speaker expresses rather than claims their intention. The addressee can not challenge the intention or accuse the speaker of being wrong. The discourse relation *justification* belongs to Austin’s speech act type *expositives* (Austin 1962: lecture XII), where he diagnosed immediacy in his own terms by stating that, like all speech acts, the expositive act comes about by utterance. While the class was given up later, Austin’s intuition about immediacy remains valid.

Perspective. If used in embedded speech, it is the reported speaker who wants to justify a second claim with p as we see in (18).

(18) *Peter meinte, Mary könne bezahlen. Sie sei schließlich reich.*
 Peter said Mary could_{SUBJ} pay. She be_{SUBJ} schließlich rich
 ‘Peter said that Mary could pay — after all, she was rich.’

The second sentence reports that Peter justifies his first claim that Mary can pay. It cannot mean that the speaker, in uttering (18), justifies anything.

Nondisplacability. The adverb refers to the current utterance context, as it is the current speaker who aims to justify an earlier claim. As the following examples illustrate, the content of *schliesslich* cannot be shifted to other contexts by modals such as *possibly*, or in conditionals.

(19) We should be polite to Mr. Müller.

Möglicherweise wird er *schliesslich* der neue Chef.
Possibly FUT-AUX he *schliesslich* the new boss
'He might be our new boss, after all.'

In (19), *schliesslich* takes scope over *möglicherweise* ('possibly'): The recommendation to be polite to Müller is justified by the *possibility* of him being our next boss. The speaker cannot mean to say: I recommend being polite to Müller. *Possibly, this is justified by his becoming our new boss.* The speaker in (19) is not uncertain about the argumentative power of the assertion. The only uncertain aspect is whether Müller will actually be the new boss.

(20) Maria must be an excellent cook.

#Wenn Du an Astrologie glaubst, ist sie schliesslich ein Stier.
If you in astrology believes is she *schliesslich* a Taurus

According to the rules of astrology (some say), Taurus women are destined to be excellent cooks. If the content of *schliesslich* was displaceable, (20) should be a felicitous way to convey "in case you believe in astrology, the following fact should convince you...". In fact, the sentence has no such reading.⁶

Descriptive ineffability. The contribution of *schliesslich* is easier to paraphrase than most other expressive items (e.g., epithets or modal particles). While a semantic characterization in terms of "justification" is possible—as Section 3 argues—naïve speakers may still find it difficult to identify and paraphrase the speaker attitude behind a sentence with *schliesslich*. As we will see, the adverb takes two propositional arguments, one provided by the host clause and the other accessed anaphorically in context. It indicates the speaker's intention to justify one by the other. The logical complexity of the word's argument structure aligns it with other modal adverbs and particles in the domain of words that are difficult to paraphrase in the language of things and properties.

Repeatability is the only property on Potts' list of expressives that doesn't hold for *schliesslich*. If the word *schliesslich* occurs in a sentence twice, it must be interpreted in different senses.

(21) Peter is not such a pet hater as he pretends to be.

Schliesslich hat er schliesslich doch noch zwei Katzen adoptiert.
Schliesslich has he *schliesslich* prt yet two cats adopted

⁶ Some speakers pointed out that paratactic conditionals like the following can exhibit the missing reading: „Wenn Du an Astrologie glaubst: Schließlic ist sie ein Stier.“ (,If you happen to believe in Astrology: She is a Taurus, after all‘) These conditionals belong to the class of Relevance-conditionals and I will leave their pragmatic and modal properties aside for now.

‘*After all, he eventually did adopt two cats.*’

The propositional content of (21) is that Peter adopted two cats, presupposing ‘after some back and forth’. The speaker asserts this to justify the claim that Peter is not a pet hater. The first instance in (21) is *schliesslich_{just}*, whereas the second must be interpreted as *schliesslich_{ev.}* Unlike what repeatability would lead us to expect, the two occurrences of *schliesslich* don’t add up to a particularly forceful justification. Yet, violating repeatability is not a strong reason against expressive content, as Potts grants that this feature is often restricted by grammar.

In summarizing, five of six diagnostics confirm that *schliesslich_{just}* conveys expressive content. We have thus identified a further important property distinguishing *schliesslich_{just}* from *schliesslich_{cul}*, which is – as argued in section 2.2 – a presupposition trigger.

2.5. Summary of data

The data survey shows that *schliesslich_{cul}* and *schliesslich_{just}* differ in several regards. Culminative *schliesslich* contributes information about the referential event of the host clause. It conveys that the event was preceded by back-and-forth and is the culmination point in a series of earlier events. This information is presupposed, i.e., *schliesslich_{cul}* is a presupposition trigger. The adverb can be used in questions, where its presuppositions project above the question operator. The illocutionary point of the question remains unchanged. Finally, the adverb in its event-modifying sense cannot be used parenthetically.

Justificational *schliesslich_{just}* in a declarative S signals that the speaker claims S in order to justify a preceding claim T (or generally, a preceding action). This information is conveyed as non-at-issue content (Potts 2005, 2007) or use-conditional content (Gutzmann 2015), a pragmatic mode different from presuppositions. The adverb can be used parenthetically in this sense. It can also be used in questions, where it influences the illocutionary point of the utterance: the question must be interpreted as a RhQ.

These differences justify the stipulation of two different lexical entries *schliesslich_{just}* and *schliesslich_{cul}* with distinct meanings. It is tempting to claim (and probably true) that the justificational sense emerged from the culminative sense in language history. However, the project of finding a unified analysis for both senses includes the ancillary task of explaining why the best English translation of *schliesslich_{cul}* ‘eventually’ doesn’t have a justificational use. Likewise, German *am Ende* and *zuletzt* can be used as near-synonyms for *schliesslich_{cul}* but don’t have a justificational use. Given that my main focus lies on questions with *schliesslich_{just}*, the remainder of the paper assumes the ambiguity account.

3. Semantic Analysis

Section 3.1 proposes a semantic analysis of *schliesslich_{cul}* in declaratives and questions. Section 3.2 offers an account for *schliesslich_{just}* in declaratives and section 3.3 argues how the analysis can be adjusted for *schliesslich_{just}* in questions. The analysis correctly predicts that *schliesslich_{just}*-questions must be rhetorical questions.

3.1. *Schliesslich*_{cul}

I propose to analyze *schliesslich*_{cul} as an adverbial modifier of event predicates, which takes its syntactic base position at the VP boundary in German (Frey 2003). Assuming that subjects are VP-internal, the adverbial modifier combines with an event predicate. I use ϵ as the type of events, thus modifiers of event predicates P are of type $\langle\langle\epsilon,t\rangle,\langle\epsilon,t\rangle\rangle$. $\llbracket \textit{schliesslich}_{cul} \rrbracket$ adds to P the presupposition that the eventuality in question is temporally preceded by a phase of preparatory events e' of diverging aims. The relation BACK+FORTH(e',e) is assumed to be true of (e',e) iff e' is a (single or complex) event that precedes e , and e is the culmination of that series. I acknowledge that a full account would have to be modal ('why don't the actions in e' straightforwardly lead to e ?) and needs a perspectival point ('who presents the action series e' as closed by event e ?'). While these refinements would be an attractive research project, I must leave them aside now. Brackets [] are used to notate presuppositions. This leads to the following denotation.

$$(22) \llbracket \textit{schliesslich}_{ev} \rrbracket = \lambda P_{\langle\langle\epsilon,t\rangle,\langle\epsilon,t\rangle\rangle} \lambda e. [\exists e'. \text{BACK+FORTH}(e',e)](P(e))$$

The denotation of *schliesslich*_{ev} modifies an event predicate P and adds the presupposition that the P-events are preceded by a series e' of back-and-forth events to which e constitutes the culmination point. Semantic composition is illustrated for examples (4) and (6), omitting the question particle *denn* in (6) for the sake of simplicity.

(23) *Schliesslich* heiratete sie Tom.

- a. $\lambda e. \text{MARRY}_w(J,T,e)$ (set of events where Jane marries Tom in w)
- b. $\lambda P_{\langle\langle\epsilon,t\rangle,\langle\epsilon,t\rangle\rangle} \lambda e. [\exists e'. \text{BACK+FORTH}(e',e)](P(e))$
(denotation of *schliesslich*)
- c. $\lambda e. [\exists e'. \text{BACK+FORTH}(e',e)](\text{MARRY}_w(J,T,e))$
(set of events where Jane marries Tom; assuming that there was some back-and-forth preceding the marriage)
- d. $\exists e. [\exists e'. \text{BACK+FORTH}(e',e)] (\text{MARRY}_w(J,T,e) \wedge \tau(e) < S)$
(past tense and existential closure)

The sentence denotation (23d) asserts that Jane married Tom, and presupposes that the speaker and addressee know that there were complications before the marriage. (24) illustrates the question case. We adopt a question semantics where *wh*-constituents are interpreted as alternatives over entities (Beck 2004, Eckardt 2006).

(24) Wen hat sie *schliesslich* geheiratet?

- a. $\{ \lambda e. \text{MARRY}_w(J,x,e) ; x \in \{\text{Tom, Bill}\} \}$
(set of alternative event predicates for answers: Jane marries Tom / marries Bill)
- b. $\lambda P_{\langle\langle\epsilon,t\rangle,\langle\epsilon,t\rangle\rangle} \lambda e. [\exists e'. \text{BACK+FORTH}(e',e)](P(e))$ (denotation of *schliesslich*)
- c. $\{ \lambda e. [\exists e'. \text{BACK+FORTH}(e',e)](\text{MARRY}_w(J,x,e)) ; x \in \{\text{Tom, Bill}\} \}$
(set of alternative event predicates for answers: Jane marries Tom / marries Bill, now with presupposition 'there was some back-and-forth before that marriage')
- d. $\{ \exists e. [\exists e'. \text{BACK+FORTH}(e',e)] (\text{MARRY}_w(J,\text{Tom},e) \wedge \tau(e) < S) ,$
 $\exists e. [\exists e'. \text{BACK+FORTH}(e',e)] (\text{MARRY}_w(J,\text{Bill},e) \wedge \tau(e) < S) \}$
(past tense and existential closure)

The denotation (24d) predicts that in a context like (6(6), the question has two possible answers:

- a. ‘(After some back-and-forth), Jane married Tom’
- b. ‘(After some back-and-forth), Jane married Bill’

We correctly predict that the presupposition of *schliesslich_{ev}* is inherited by both answers. Likewise, the polar question with *schliesslich_{ev}* (25) is predicted to take the back-and-forth for granted. This is warranted by the data.

(25) A: Within the same day, Jane got marriage proposals from Tom and Bill.

B: *Hat sie schliesslich Tom geheiratet?*

has she schliesslich Tom married

- ‘ Did she eventually marry Tom?’

A: #No, she accepted Tom’s proposal right on the spot.

A cannot answer B to the negative on the grounds that Jane’s decision wasn’t preceded by back-and-forth pondering. This is exactly what we expect for presuppositions.

The account thus correctly predicts that *schliesslich_{ev}* is interpreted sentence, and contributes presuppositions. It takes scope below the question operator in questions and the presupposition projects. As a VP modifier, the adverb cannot normally be used parenthetically (Haegeman 2012). While it would be interesting to study the notion of culmination and delineate the BACK+FORTH predicate more precisely, I leave this for later research.

3.2. *Schliesslich_{just}* in declarative sentences

Schliesslich_{just} in declarative sentences S indicates that the speaker claims S in order to justify some preceding claim or action *p*.⁷ I assume that *schliesslich_{just}* takes scope at the level of the speech act phrase (Speas & Tenny 2003), thus taking scope over question or imperative operators. This assumption will be important in 3.3.

The speaker’s intention is conveyed at the non-at-issue level, whereas the propositional sentence meaning is at-issue-content. I use the relation JUSTIFY(sp, *q*, *p*) to code the speaker’s intention. It has the following truth conditions:

- (26) The relation JUSTIFY(sp, *q*, *p*) is true (in context *c* and world *w*) iff the speaker sp intends to offer proposition *q* to make *p* more likely, more plausible, or less objectionable to accept. The speaker considers claim *q* as less controversial, easier to accept than claim *p*.⁸

The claim that *p* preceded the declarative with *schliesslich_{just}* in examples so far. The full analysis will have to ensure this anaphoric quality. Before moving on, take a brief look at *who* is supposed to find *q* more plausible than *p*. In the simplest examples the speaker aims to

⁷ We focus on justification of claims.

⁸ The relation JUSTIFY here is used in the same sense as SUPPORT in Eckardt (2023) on English *after all*.

convince the addressee. Natural examples show, however, that speaker and addressee can also solidarize against some third party who doubts p .⁹

- (27) A: I think that Jane should marry Tom.
 B: *Ja, schliesslich_{just} hat er das schnellere Auto.*
 yes schliesslich has he the faster car
 ‘Yes – after all, he owns the faster car.’

This perfectly natural conversation shows that B can use *schliesslich_{just}* while A has already committed to $p =$ ‘Jane should marry Tom’. A and B implicitly address a third party — maybe Jane? — who has not yet accepted p . My analysis assumes that *someone* objects to p , which avoids stipulation of fictitious addressees.

After these clarifications, we can turn to an analysis of *schliesslich_{just}* in declarative sentences. I adopt the two-dimensional notation where tuples $\langle \Phi \bullet \Psi \rangle$ code at-issue content Φ and expressive content Ψ .

- (28) $\llbracket \textit{schliesslich}_{just} \rrbracket^c = \lambda q_{\langle s, t \rangle}. \langle q \bullet \wedge \text{JUSTIFY}(\text{sp}(c), q, T) \rangle$
 where $\text{sp}(c)$ is the speaker in c , and T is a propositional anaphor. T must be resolved to a preceding proposition p that is more controversial than q .

We hence predict that the speaker, uttering S *schliesslich_{just}*, asserts S and thereby aims to increase the plausibility of an earlier claim T . The restrictions on T in (28) leave it open *who* believes that p is more controversial than $\llbracket S \rrbracket$, in line with the above discussion. (29) shows how the analysis plays out in dialogue (11).

- (29) Mary can pay. Schliesslich ist sie reich.
 a. $\llbracket \text{Mary can pay} \rrbracket^c = \lambda w. \diamond \text{PAY}_w(\text{M})$
 the proposition p that Mary can pay.
 b. $\llbracket \text{Sie ist reich} \rrbracket^c = \lambda w. \text{RICH}_w(\text{M})$
 the proposition ‘Mary is rich’
 c. $\llbracket \textit{schliesslich}_{just} \rrbracket^c (\llbracket \text{Sie ist reich} \rrbracket^c)$
 $= \langle \lambda w. \text{RICH}_w(\text{M}) \bullet \wedge \text{JUSTIFY}(\text{sp}(c), \lambda w. \text{RICH}_w(\text{M}), T) \rangle$
 asserted content ‘Mar is rich’, and speaker’s intention to use this fact to justify T
 d. Anaphor resolution for T
 $\langle \lambda w. \text{RICH}_w(\text{M}) \bullet \wedge \text{JUSTIFY}(\text{sp}(c), \lambda w. \text{RICH}_w(\text{M}), \lambda w. \diamond \text{PAY}_w(\text{M})) \rangle$

According to (29d) the utterance asserts that Mary is rich, and conveys that the speaker thereby justifies the preceding, controversial claim ‘Mary can pay’. This prediction is adequate.

While the denotation of *schliesslich_{cul}* can easily be applied in questions, the semantic composition of *schliesslich_{just}* with a question will raise an epistemic puzzle. We would derive a question (e.g., who is rich?) plus the speaker’s intention to offer whatever the true answer may be as a justification for some controversial p . Such an epistemic stance would be irrational

⁹ The condition, more precisely, should be phrased ‘speaker and addressee believe that there is someone C who objects to p ’. I leave this implicit as the refinement won’t gain us anything in the course of this study.

if the speaker didn't know which answer was true. We must therefore make some adjustments to account for *schliesslich_{just}* in questions.

3.3. *schliesslich_{just}* in questions

We assumed that *schliesslich_{just}* takes scope over CP and has thus access to the logical type of the sentence. Declarative sentences are of type $\langle s, t \rangle$, whereas interrogatives are of type $\langle \langle s, t \rangle, t \rangle$.¹⁰ The semantics of *schliesslich_{just}* in 3.2 is compatible with arguments of type $\langle s, t \rangle$. We can now devise the denotation of *schliesslich_{just}* for arguments of type $\langle \langle s, t \rangle, t \rangle$ based on the version for declaratives. It combines with a question Q , and I use $ans_c(Q)$ to stand for the true answer to Q in context c .

- (30) $\llbracket schliesslich_{just} Q \rrbracket^c = \langle \llbracket Q \rrbracket^c \cdot \wedge JUSTIFY(sp(c), ans_c(Q), T) \rangle$
 where $sp(c)$ is the speaker in c , and T is a propositional anaphor. T must be resolved to a preceding proposition p that is more controversial than $ans_c(Q)$.

Rational-Use Restriction on c:

$sp(c)$ knows $ans_c(Q)$ and believes that $ad(c)$ knows $ans_c(Q)$.

The Rational Use Restriction states that speakers use language rationally. It would be irrational to justify claims with propositions unknown to the speaker or addressee. The use of *schliesslich_{just}* in questions requires that the speaker know $ans_c(Q)$, or else she could not aim to justify T with it. The speaker also assumes that the addressee knows $ans_c(Q)$. Otherwise, the justification would not catch on. Hence, the question's discourse aim can only be achieved if $ans_c(Q) \in CG$. That is, Q fulfills the necessary criterion for RhQ (Caponigro & Sprouse 2007). (31) illustrates the analysis for example (17).

- (31) A to B: Jane should quit smoking. Was ist schließlich ihr Beruf?
 a. $\llbracket Q \rrbracket^c = \{ \lambda w. \text{Profession}_w(J, x) ; x \in \{\text{lawyer, doctor, teacher, tailor, ...} \} \}$
 b. $\llbracket schliesslich_{just} \rrbracket^c (\llbracket Q \rrbracket^c) = \langle \llbracket Q \rrbracket^c \cdot \wedge JUSTIFY(A, ans_c(Q), T) \rangle$
 A poses the question and intends to justify some preceding proposition p with $ans_c(Q)$.
 c. T is resolved to proposition $p = \text{'Jane should quit smoking'}$.
 d. The true answer to Q is $q = \lambda w. \text{PROFESSION}_w(J, \text{DOCTOR})$
 e. $\langle \llbracket Q \rrbracket^c \cdot \wedge JUSTIFY(A, \lambda w. \text{PROFESSION}_w(J, \text{DOCTOR}), \text{'Jane should quit smoking'}) \rangle$
 \rangle

As (31e) shows, the speaker A poses the question 'What is Jane's profession?'. At the same time, A knows that Jane is a doctor and also assumes that B knows this. A poses the question to justify $p = \text{'Jane should quit smoking'}$ with the fact that Jane is a doctor. This prediction matches the data.

Two final remarks before we move on. While the denotation in (31) is obviously parallel to (28), I don't suggest deriving it by general type-shifting principles. German has further justifying adverbs like *immerhin*, *endlich*, *am Ende*, and *schlussendlich* that cannot, or only

¹⁰ I leave it to the reader to translate the sortal restrictions of *schliesslich* into Inquisitive Semantics (Ciardelli et al. 2019)

very restrictedly, be used in questions. Likewise, the German particle *ja* can be used in justificational declaratives but does not trigger an RhQ reading in questions.¹¹ Other languages may also have justifying particles or adverbs that are illicit in questions. Thus, while the step from declarative *schliesslich_{just}* to interrogative is small, it should be coded in the lexicon. Secondly, the analysis leaves it open whether B should answer Q or not. This is in line with recent findings that RhQ in dialogue can trigger answers or consent (Biezma & Rawlins 2017, Farkas 2022). The most important prediction, however, is that *schliesslich*-RhQ differ from general RhQ in that they need an explicit antecedent. In the next section, this prediction will be tested, and I will compare general justificational RhQ with *schliesslich*-RhQ.

4. More on justificational RhQ¹²

4.1. Can plain RhQ be justificational?

The first fact to establish is whether a plain RhQ can also be justificational. We can simply test this by devising wellformed dialogues with Q(*schliesslich_{just}*) and then leaving out *schliesslich_{just}*. If the resulting dialog is felicitous and synonymous with the original one, we can conclude that plain RhQ can also be used as justifications. The following examples pass this test.

- (32) A: We should have oysters for starters at our party. = *p*
 B: *Wer kann schliesslich Austern widerstehen?*
 who can schliesslich oysters resist?
 ‘Who, after all, can resist oysters?’ (rhetorical, JUSTIFY(B, ‘nobody can resist’, *p*))
- (33) A: We should have oysters for starters at our party. = *p*
 B: *Wer kann schon Austern widerstehen?*
 who can prt oysters resist?
 ‘Who can resist oysters?’_{RhQ} (rhetorical, JUSTIFY(B, ‘nobody can’, *p*))

Example (33) uses a RhQ where *schliesslich* is replaced by the particle *schon*. The particle is a know cue for RhQ in German (Braun et al. 2018, Bayer & Struckmeier 2017, Meibauer 1986). *Schon* doesn’t by itself convey justification. (33) therefore illustrates that a plain RhQ can be interpreted as justification. The following pair makes the same point, using a RhQ without questions in (34).

- (34) A: We should eat 1 pound of spinach every day. = *p*
 B: Right!
Welches Gemüse enthält schließlich am meisten Eisen?
 which legume contains schliesslich the most iron
 ‘Which legume, after all, is richest in iron?’

¹¹ For a more nuanced picture of *ja* and other particles in German RhQ see Viesel & Freitag (2019).

¹² I owe the following observations to Veronika Hering (Hering 2023), which I gratefully acknowledge.

(JUSTIFY(B, ‘spinach is richest in iron’, *p*))

A Polar RhQ with *schliesslich* can equally be replaced by a plain polar question which is used as a justification, see (35) and (36).

(35) A: We won’t buy champagne at 500\$ the bottle. = *p*
 B: *Sind wir schliesslich verrückt?*
 are we schliesslich crazy?
 ‘Are we crazy, after all?’_{RhQ} (JUSTIFY(B, ‘we are not crazy’, *p*))

(36) A: We won’t buy champagne at 500\$ the bottle. = *p*
 B: *Sind wir denn verrückt?*
 are we prt crazy?
 ‘Are we crazy?’_{RhQ} (JUSTIFY(B, ‘we are not crazy’, *p*))

(36) has the particle *denn* for smoothness. As before, *denn* makes the RhQ interpretation easier to access without by itself expressing rhetoricity or justification (Theiler 2020). All examples confirm that plain RhQ without *schliesslich*_{just} can be used as justification.

4.2. Are all RhQ justificational?

Exploring the data in the opposite direction, we can ask whether all RhQ are justificational. Data like the following suggest that the answer is “no”.

(37) A: We should have oysters for starters at our party.
 B: *Wer mag schon Austern?*
 who likes prt oysters
 ‘Who the hell likes oysters?’

(38) A: Look, there is a fox passing.
 B: *Welcher Fuchs würde schonam hellen Tag herum rennen?*
 which fox would RhQ at-the-light day around run
 ‘What kind of fox would dare running around in full daylight?’

The questions in (37)/(38) use the particle *schon*, which marks them as RhQs with a negative answer (Braun et al. 2018, Bayer & Struckmeier 2017). The RhQ in (37) implies the answer ‘nobody likes oysters’, which objects to A’s proposal. The answer to (37) cannot be interpreted as a justification of A’s utterance. In (38) the RhQ challenges A’s claim by its answer ‘no reasonable fox would run around in full daylight’. Again, the answer to the question does not justify A’s assertion.

These data illustrate that RhQs can also be used as objections and allow discourse links beyond justification. This finding takes up Asher and Reese (2005, 2007) hypothesis that RhQs serve to challenge the interlocutor’s discourse belief. While Asher and Reese refer to their questions as “biased questions”, their example questions are marked with *after all*, which forces a RhQ interpretation (Sadock 1971). In a similar vein, educational and descriptive literature often presents rhetorical questions as a rhetorical means to challenge an opponent.

On second thought, examples (37), (38) pose a general challenge to current pragmatic theories of RhQ in that they contradict Caponigro and Sprouse's necessary condition on RhQ in (1). Consider the CG in (38) before B's utterance. A has just asserted 'a fox is passing'. The implied answer of B's RhQ is 'no fox would pass in daylight'. In view of A's discourse commitment to $p = \text{'a fox is passing'}$, B can hardly pretend that $ans(Q) \in CG$. Similar considerations hold for (37). Given A's suggestion and assuming that A is a benevolent host, B knows that A's beliefs include 'our guests like oysters'. This belief contradicts $ans(Q)$, which means that $ans(Q) \notin CG$, and B cannot mistakenly believe it is. Were Caponigro and Sprouse wrong?

While the full range of data is beyond the scope of the present paper, a final test with *schliesslich* may indicate a way to rescue Caponigro and Sprouse's approach. For one, *schliesslich* in (38) is infelicitous, as we see in (39).

- (39) A: Look, there is a fox passing.
 B: **Welcher Fuchs würde schliesslich am hellen Tag herum rennen?*
 which fox would RhQ at-the bright day around run
 *'What kind of fox would dare running around in full daylight, after all?'

The RhQ with *schliesslich* cannot be used as a challenging retort in the same way as in (38). The next version shows that this is only due to the fact that *schliesslich* in (39) lacks an antecedent. If B overtly objects to A, the dialogue is felicitous even though the exchange remains, by and large, synonymous with (38).

- (40) A: Look, there is a fox passing.
 B: That's impossible.
Welcher Fuchs würde schliesslich am hellen Tag herum rennen?
 which fox would schliesslich at-the-bright day around run
 'What kind of fox would dare running around in full daylight?'

In a table model analysis of (40), we can track that B hasn't accepted A's proposal to update CG. Instead, B tries to force A to commit to 'no fox would run around in full daylight' by agreeing to the presupposition that $ans(Q) \in CG$. This would force A to give up his public discourse commitment 'there is a fox'.

This invites the hypothesis that Caponigro and Sprouse's epistemic baseline should be refined. It might more aptly be phrased as "virtually everybody knows that $ans(Q)$ ". This version is stronger and more tolerant at the same time. It can accommodate single exceptions, such as A not believing $ans(Q)$. But it could also explain the persuasive strength of RhQs: Is it wise for A to maintain a belief against everybody's better knowledge? Thus, comparing justificational with challenging RhQs forces us to rethink the epistemic baseline, an issue I leave for future research.

5. Summary and outlook

The present paper investigates the use of *schliesslich* in declaratives and questions, distinguishing between culminative *schliesslich* and justificational *schliesslich*. RhQs. I argue

that justificational *schliesslich* triggers the interpretation as RhQ in questions. On a historical note, similar data are reported for English: The justificational use of *after all* in declaratives is well-established in the literature (Blakemore 1997, Szczesniak 2015, Otsu 2018) and Sadock (1971) characterized *after all* as an RhQ marker. Data suggest that *after all* in questions expresses an act of justifying and triggers a RhQ reading, just in the German case. Similar adverbials serve as RhQ triggers in Romance languages (Italian *finalmente*, Spanish *al fin*, *en fin*, Portuguese *afinal*). While style and register preferences have to be delineated separately for each language, there is thus a typological trend suggesting that justification might be a common function of RhQs. This falls in line with Biezma and Rawlins' (2017) observation that the *sufficient* conditions to license RhQs have not yet been fully understood.

Justification is one prominent discourse function of RhQs. It contrasts with the discourse function that we see in *challenging* RhQs. These two functions suggest a possible integration of RhQ in the table model as very elaborate ways to *agree* or *disagree* with an assertion. The increasing interest in discourse functions of RhQs is mirrored in ongoing work, e.g., by Esipova and Romero (2023), who study *Re-asking* RhQs and *Explanation-seeking* RhQs in English and Russian. Kiss and Lo (2021), in turn, argue that Mandarin Chinese RhQs can gradually differ in inquisitiveness. The quest for the true function of RhQs will continue.

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