Biased declarative questions in Swedish and German:  
The syntax of negation meets modal particles (väl and doch wohl).

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This paper investigates a class of biased questions with declarative syntax in Swedish and German that differ in their bias from the familiar class of declarative questions: *rejecting questions* (RQs), which may occur with or without negation. We provide a semantic-pragmatic analysis of RQs and show for negative RQs that the negation is non-propositional. We analyse the non-propositional negation as the speech-act modifying operator FALSUM (Repp 2009, 2013). In both languages, FALSUM interacts with modal particles whose meanings relate to contrast and the epistemic state of the speaker. We propose that the illocutionary operator in RQs is REJECTQ, which is an operator that comes with presuppositions that are the source of the particular bias of RQs.

1 Introduction

This article investigates a class of declaratives in Swedish and German that are used as questions but systematically differ in both form and function from the declarative questions (DQs) that have been described in the literature (Gunlogson 2003, 2008; Šafářová 2006; Trinh 2014, Gyuris to appear). See (1) for examples of negative questions with a declarative syntax. (1a) illustrates the familiar kind of DQ. (1b) illustrates an English rendering of what Seeliger (2015) called *rejecting question* (RQs)\(^1\) for reasons that we will discuss further below.

(1)  
\begin{align*}  
a. \quad & \text{Peter isn't coming? 'simple' declarative question} \\
& \text{'rejecting' question}' \\
b. \quad & \text{Surely Peter isn't coming?! 'rejecting' question}' \\
\end{align*}

(1a) and (1b) have in common that they cannot be uttered in out-of-the blue contexts, and that they express that the speaker had particular assumptions with respect to the true state-of-affairs before s/he asked the question. So, questions like (1a&b) are biased. Seeliger (2015) argued that the biases of negative questions with a declarative syntax like those in (1a) vs. (1b) differ. We will provide a systematic discussion of question bias in cases like (1a) vs. (1b) in the present paper, and extend the discussion to positive questions with a declarative syntax.

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\(^1\) Seeliger coined the term for RQs containing a negation. We will use it here to refer both to negative and to positive declaratives that are used as RQs.
Formally, English (1a) and (1b) differ in the presence of the epistemic adverb *surely* and in their prosody. Whereas (1a) tends to have a rising contour (cf. Gunlogson 2003; Šafářová 2006), (1b) ends more reliably in a fall, with a L+H* pitch accent on *coming*. In Swedish and German, the languages under investigation in the present paper, the formal differences concern the position of the negation (in Swedish), the presence of modal particles, which do not occur in the familiar negative DQs, see (2a) vs. (2b), and prosody.

(2) a. (i) Peter kommt nicht?
    (ii) Peter kommer inte?
    'Peter isn't coming?'

b. (i) Peter kommt doch wohl nicht?
    (ii) Inte kommer Peter?
    'Surely Peter isn't coming?'

The modal particles *doch* and *wohl* are obligatory in German RQs. Since their meaning in RQs seems to be different from the meanings that have been identified for them in assertions (see section 4), we will not give translations for them here. In Swedish, the necessity of the presence of a modal particle depends on the position of the negation. In (2b.ii), the negation occurs in the clause-initial position, Spec,CP, which is an unusual position for the negation in the Germanic languages and thus has attracted some attention in the literature (Christensen 2005, Lindström 2007, Petersson 2008, Østbø 2013, Brandtler & Håkansson 2012, 2014). In (2b.ii) no particle is required. However, as we will see later on, the negation can also take its ordinary clause-medial position, but then a RQ requires the presence of the modal particle *väl*, or, in positive RQs in specific contexts the particles *visst* or *nog*. We will discuss the meaning of the Swedish particles in section 5. Prosodically, DQs and RQs differ as follows. In German, DQs tend to come with rising intonation (von Essen, 1966 and subsequent literature) but RQs always end in a fall. Their nuclear accent (which in (2b.i) is on the main... 

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2 A declarative containing only *doch* which is followed by the question tag *oder?* can also be used as a RQ. Since question tags raise a number of independent issues, we will gloss over this variant here. We will say more about the precise readings with and without individual particles in German in section 4.

3 This is a tendency. As has been shown by Petrone & Niebuhr (2014), there are pre-nuclear prosodic means to...
verb) is a prominent L*+H pitch accent, which intuitively is more prominent than a run-of-the-mill nuclear accent in an ordinary assertion. However, this claim needs experimental back-up. In Swedish, DQs do not end in a fall but are differentiated from assertions by other means, viz. DQs are characterized by higher peaks of the lexical accents (e.g. Gårding 1979), a later peak on the prefinal accent and a longer duration of the prefinal syllable (House 2003). RQs, when compared to rejections, largely share these question-marking features (Seeliger & Repp to appear). Whether or not DQs differ from RQs prosodically in Swedish is an open issue.

In this paper, we investigate how the morpho-syntactic formal markers in German and Swedish (modal particles, fronted negation) contribute to the interpretation of declaratives as RQs. We provide a detailed empirical discussion of German RQs and the speech-act-characteristic particle combination doch wohl, which raises an issue of compositionality because the two particles individually have meanings that do not seem to combine compositionally in RQs. Similarly for Swedish, we explore the contribution of modal particles. We also present experimental evidence on Swedish RQs that verifies quantitatively Seeliger's (2015) proposal about the relation between the syntactic position of the negation / the presence of the modal particle väl in the declarative on the one hand, and question bias on the other. On the basis of the empirical findings, we make a theoretical proposal for the semantic-pragmatic and syntactic analysis of RQs. Importantly, this analysis takes into account specific characteristics of the negation in negative RQs, which we show to be non-propositional.

The paper is structured as follows. Section 2 discusses the notion of question bias in greater detail and introduces a classification scheme for bias profiles\(^4\) that was proposed by Sudo (2013). Section 3 discusses the bias profile of RQs. Section 4 explores the morpho-syntactic properties of RQs in German and makes a preliminary proposal for the semantic-pragmatic analysis of RQs in that language. Section 5 explores the morpho-syntactic properties of Swedish RQs and presents the experimental evidence on Swedish negative RQs. Section 6 proposes a semantic-pragmatic and a syntactic analysis for RQs in both languages and highlights the particular characteristics of the negation in RQs, which is not propositional negation but operates on the speech act level and is analysed as the operator FALSUM (Repp 2009, 2013). Section 7 concludes.

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\(^4\) The term bias profile was coined by Gärtner & Gyuris (2016) but they use a different notation for bias profiles.
2 Question bias

The normal way to ask a neutral question that expects a yes- or no-answer is to ask a positive polarity question with an interrogative syntax, which in English involves subject-auxiliary inversion as in Is Peter coming? The same holds for equivalent interrogative structures in Swedish and German. Formal deviations from these structures produce questions that express some kind of bias. For instance, asking a negative polar question like Isn't Peter coming?, asking a positive question with declarative syntax like Peter is coming? or asking a negative question with declarative syntax like (1a) is not possible in a neutral out-of-the-blue context, and/or without certain speaker assumptions about the true state-of-affairs. For negative polar questions with an interrogative syntax, question biases were investigated first by Ladd (1981), Büring & Gunlogson (2000), Romero & Han (2004). Declarative questions received a first detailed investigation in Gunlogson (2003).

Questions biases have been suggested to come in different types. Sudo (2013) proposed that for an adequate description of different question types, it is necessary to distinguish evidential and epistemic bias. Evidential bias concerns contextual evidence. Some question types are only felicitous in contexts where there is evidence for one of the propositions denoted by the question \{p, \neg p\}^5, for other questions it is necessary that there be evidence against one of these propositions, for yet other questions it is necessary that there be no evidence for one or the other of these propositions. For instance, certain negative polar questions, e.g. Isn't there a vegetarian restaurant round here?, cannot be asked felicitously if there is contextual evidence for the positive proposition p, i.e. that there is a vegetarian restaurant (cf. Büring & Gunlogson 2000 and subsequent literature).

With respect to epistemic bias, Sudo (2013) observes that most question types allow inferences about the epistemic state of the speaker, in particular about his/her previous assumptions. For instance, a speaker might have thought that the positive proposition is true and wishes to double-check that this is indeed the case, or s/he thought that the negative proposition is true, has started doubting, and now checks whether the positive proposition is true (cf. Ladd 1981). For the moment we are assuming that the actual intentions of the speaker – to double-check one or the other proposition – are not part of the pragmatics that licenses

\(^5\) For ease of exposition we will assume in these introductory sections that questions expecting a yes- or no-answer, denote \{p, \neg p\} independently of their syntactic form. We will discuss this issue in greater detail in section 6.
the use of biased questions. Plausibly, these intentions arise as a consequence of a conflict between evidential and epistemic bias.

To encode evidential and epistemic bias, Sudo (2013) proposes the following scheme. Both types of bias can take the values [+positive] (bias for \( p \)), [neutral] (no bias), and [+negative] (bias for \( \neg p \)). Evidential bias can furthermore take the values [‒positive] for questions that are incompatible with evidence for \( p \), and [‒negative] for questions that are incompatible with evidence for \( \neg p \). (3) illustrates. It gives possible contexts for a question denoting \{Peter is coming; Peter is not coming\}, and shows what values the evidential bias of the question might take in these contexts. (4) gives possible speaker assumptions.

\[(3) \textbf{Evidential bias:} \text{ Relevant contexts for Maria asking the question } \{ \text{Peter is coming; Peter is not coming} \} \]

a. **Evidence for } p \text{**: Paul and Maria are looking at a list of guests for tonight's dinner party. Maria sees Peter's name on the list.

\[ \text{compatible with [+positive]; [–negative]} \]

b. **Evidence for } \neg p \text{**: Paul and Maria are looking at a list of guests for tonight's dinner party. Maria sees that Peter's name on the list is crossed out.

\[ \text{compatible with [+negative]; [–positive]} \]

c. **Evidence for neither } p \text{ nor } \neg p \text{**: Paul is looking at a list of guests for tonight's dinner party. Maria is watching him from the other end of the table, where she cannot see the list.

\[ \text{compatible with [neutral]; [–negative]; [–positive]} \]

\[(4) \textbf{Epistemic bias:} \text{ Speaker assumptions for the question } \{ \text{Peter is coming; Peter is not coming} \} \]

a. Peter is coming. (= \( p \)) \quad \text{compatible with [+positive]}

b. Peter is not coming. (= \( \neg p \)) \quad \text{compatible with [–negative]}

c. \( \{p, \neg p\} \) \quad \text{compatible with [neutral]}

In the following we will apply this scheme first to 'simple' DQs (this section) and then to RQs (section 3). A summary of this discussion with an overview of the bias profiles of the individual question types can be found in Table 1 at the end of section 3. Note that throughout this paper, we will use the variable \( p \) to refer to the positive proposition in the question denotation \( \{p, \neg p\} \) and \( \neg p \) to refer to the negative proposition. Thus, a negative declarative
denotes \( \neg p \), and a positive declarative denotes \( p \). Both types may come with a bias for e.g. \( p \), which in our notation means that they would have the same bias, viz. for the positive proposition in the question denotation \( \{ p, \neg p \} \).

Starting with positive declarative questions (PDQs), consider (5) for an example in English, German and Swedish. All three PDQs are only felicitous in context (3a). Their evidential bias is [+positive], i.e. they require contextual evidence for \( p \). This is also the proposition that is denoted by the declarative. Furthermore, (5a-c) can only be uttered in this context if Maria thought beforehand that Peter would not be coming, or if she had no specific assumptions (she might not have thought about whether Peter would be coming or not, or she might have had doubts). In other words, the only epistemic bias that is excluded for the PDQs in (5) is [+positive]. This type of bias currently cannot be encoded in Sudo's (2013) bias system because biases that cover two out of three polarities – [+positive] in our case – are only allowed as values for evidential biases, not for epistemic biases. We will amend the system accordingly and allow 'minus'-biases for epistemic biases, too (also see Gärtner & Gyuris 2016).

(5) **Positive declarative questions (PDQs)**

\[
\begin{align*}
\text{evidential: } & [+\text{positive}]; \text{ epistemic: } [-\text{positive}] \\
\text{Maria: } & \text{a. Peter is coming?} \\
& \text{b. Peter kommt?} \quad \text{German} \\
& \text{c. Peter kommer?} \quad \text{Swedish} \\
& \text{Peter comes}
\end{align*}
\]

Let us next turn to the negative declarative questions (NDQs) in (6a-c). These questions can only be uttered felicitously in context (3b), that is if there is contextual evidence for \( \neg p \). This is (again) the proposition that is denoted by the declaratives, which in (6) contain a negation. The evidential bias of the NDQs is [+negative]. Turning to the epistemic bias of (6), the NDQs allow the conclusion that Maria had assumed \( p \) to be true, or that she had no assumptions about \( \{ p, \neg p \} \), i.e. the epistemic bias of (6) is [-negative].

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6 An anonymous reviewer suggests that this is the epistemic bias of these questions when realized with a L*H% contour. If they are realized as a H*H% contour, they can be used as confirmation questions with a [+positive] epistemic bias. The role of intonation in RQs will have to be investigated further.

7 The felicity of a NDQ with the speaker having no epistemic bias for \( p \) seems to depend on particular characteristics of the context and on prosody of the NDQ. In the contexts that we have been considering for (6),
Negative declarative questions (NDQs)
evidential: [+negative]; epistemic: [‒negative]

Maria: a. Peter isn't coming?
    b. Peter kommt nicht? German
    c. Peter kommer inte? Swedish

Peter comes not

Comparing the PDQs in (5) and the NDQs in (6), respectively, we find that they are identical in terms of their evidential and epistemic biases in the sense that both types of questions require contextual evidence for the proposition that is denoted by the declarative, and both require that the speaker must not have already assumed what is denoted by the declarative. In what follows we will apply these insights about different kinds of question biases to RQs.

3 Bias in rejecting questions
Consider (7), which is repeated from the introduction. (7a-c) intuitively are only felicitous in the interlocutors were considering a list, which could have a person’s name or a person’s crossed-out name on it, or the person’s name could not be on the list at all. As a consequence, asking about a person whose name is crossed out can be a question which expresses that the speaker just noticed that that person was relevant for the list at all and had not previous bias. In such a context, (6) is a clarification question. It can be followed by OK. I didn't even know that he was considered for the guest list. In contrast to a situation where a speaker had an epistemic bias for $p$, the rise that is characteristic of DQs intuitively would involve a less low target before the high tone (i.e. no L* H-H% contour) but would be more gradual. Obviously, this issue needs to be explored experimentally. The relevance of the context for the two types of epistemic bias of (6) can be seen rather clearly if we compare (i) and (ii) below. In (i) the question allows the conclusion that Maria had previously assumed that it was in fact raining: a continuation like OK, I didn't even think about the weather is incoherent. The epistemic bias of this particular question is [+ positive] rather than [–negative].

(i) Context: Someone is coming into a windowless room dry and wearing sunglasses.
    Maria: It's not raining?
(ii) Context: For the last 10 weeks, Peter has been recording in a list when it rained. For several days there is no 'rain'-mark in the list. Maria is curious because she collects weather data from different places.
    Maria: On 10 September it didn't rain? OK, I'll mark that down in my list too.

The difference between (i) and (6ii) is that in (i) the context only makes the possibility that the sun is shining salient, not the possibility that it is not raining. In the list scenario in (ii) both possibilities are made salient. There is overall evidence for two polarities, which is compatible with neutral epistemic bias.

An exception are so-called expert contexts (Beun 2000, Gunlogson 2003), e.g. when somebody buying a train ticket at a counter is verifying that a train is departing at a certain time: And the train is leaving at 5 p.m.?
context (3a) from section 2, viz. the context where Maria is looking together with Paul at a list of guests for a party and where she finds Peter's name on the list. The evidential bias is [+positive]. So (7a-c) pattern with the PDQs in (5) in terms of evidential bias. Note that this is the case although the proposition that is denoted by the declarative is \( \neg p \) in the RQs, and \( p \) in the PDQs. This means that a generalization that was recently proposed for polar interrogatives and DQs, viz. that the proposition denoted by the prejacent of the question (i.e. the meaning of the TP without the question operator) must not contradict the contextual evidence (Trinh 2014) is not valid for RQs.\(^9\)

With respect to epistemic bias, the two question types differ: while a PDQ allows for the possibility that the speaker of the question had no previous assumptions about the questioned proposition (i.e. neutral epistemic bias), a negative RQ (= NRQ) obligatorily expresses that the speaker of the question was (and continues to be) opinionated about the questioned proposition – specifically that s/he took \( \neg p \) to be true.\(^10\) While the latter is also a possibility for PDQs, it is just one of two possibilities. Thus, whereas the epistemic bias for PDQs is \([-\text{positive}]\), for NRQs it is \([+\text{negative}]\). Comparing PDQs to NDQs, we found in the last section that the epistemic bias of NDQs is \([-\text{negative}]\), that is the speaker must not have assumed that \( \neg p \) is true. The epistemic bias of PDQs is \([-\text{positive}]\), that is the speaker must not have assumed that \( p \) is true. Thus, in both NDQs and in PDQs the speaker must not have assumed that the proposition that is denoted by the declarative (NDQ: \( \neg p \), PDQ: \( p \)) is true. DQs pattern with each other, NRQs are different.

\(^{9}\) We will see in section 6 that the negation in negative RQ is not propositional negation, so these questions are not actually problematic for Trinh’s generalization, from which questions with so-called high negation (which is has been analysed as being outside the proposition, e.g. Romero & Han 2004; Repp 2009, 2013) are excluded. However, the same observation obtains for positive RQs, which are discussed below, and which do pose a problem for Trinh.

\(^{10}\) We take the rejecting component of the meaning of RQs to be conventionalized in the sense that RQs usually express that the speaker would prefer keeping their prior commitment, but this preference can be overridden. In (i), the RQ indicates that the speaker had a strong expectation that the sun would not be shining, but there does not seem to be any indication that s/he would prefer to keep this expectation. Instead, the RQ indicates surprise or puzzlement (see section 4 for more on this issue).

(i)  Context: It has been raining non-stop for weeks. The speaker now sees that the sun is shining.
    Es scheint doch wohl nicht die Sonne?
    ‘Surely the sun isn’t shining?’
Negative rejecting questions (NRQs)

evidential: [+positive]; epistemic: [+negative]

Maria: a. Surely Peter isn't coming?
   b. Peter kommt doch wohl nicht? German
   c. Inte kommer Peter? Swedish

We mentioned in the introduction that that there are also positive RQs (PRQs), which hitherto had not been observed. Consider (8). (8a-c) are felicitous in context (3b) from section 2, viz. the context where Maria finds Peter's name on the list to be crossed out. So the evidential bias is [+negative], the counterpart to that of the NRQ. As for the epistemic bias of (8a-c), Maria must have assumed that Peter would be coming, viz. the bias is [+positive], the opposite of the epistemic bias of the NRQ. Note that the Swedish question must either contain the modal particle väl and a clause-initial men ('but'), or a modal particle in clause-initial position. We will come back to this observation in section 5.

Positive rejecting questions (PRQs)

evidential: [+positive]; epistemic: [+negative]

Maria: a. Surely Peter is coming?
   b. Peter kommt doch wohl? German
   c. Men Peter kommer väl? Swedish
c'. Visst/Nog kommer Peter? MP comes Peter

The bias profiles of the four question types are summarized in Table 1. We see that negative and positive RQs differ from positive and negative DQs in that RQs are 'more biased' than DQs. The speaker of an RQ assumed a specific proposition to be true, viz. \( \neg p \) (NRQ) or \( p \) (PRQ), whereas the speaker of a PDQ and a NDQ is less 'prejudiced' as it were. As a consequence, the conflict between what seems to be real (as suggested by the contextual evidence) and what the speaker believed to be true is more drastic in RQs. Overall, the speaker of a RQ might be said to reject what s/he sees and to insist on what s/he believed –
hence the term rejecting question. As we already mentioned, there is some overlap in the situations where RQs and DQs can be used, notably with 'criss-crossing' polarities. A NRQ is used in a subset of the situations where a PDQ can be used. For both types of questions there must be contextual evidence for \( p \), but in NRQs the speaker is more restricted in his/her assumptions: she/he must have assumed \( \neg p \), which is a subset of the situations where the speaker did not assume \( p \). Similarly, a PRQ is used in a subset of the situations where a NDQ is used.

**Table 1: Overview over types of questions with declarative syntax**

<table>
<thead>
<tr>
<th>Question type</th>
<th>Declarative denominates(^{12})</th>
<th>Evidential bias</th>
<th>Epistemic bias</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declarative</td>
<td></td>
<td>[+positive]</td>
<td>[−positive]</td>
<td>Peter is coming?</td>
</tr>
<tr>
<td>PDQ</td>
<td>( p )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NDQ</td>
<td>( \neg p )</td>
<td>[+negative]</td>
<td>[−negative]</td>
<td>Peter isn't coming?</td>
</tr>
<tr>
<td>Rejecting</td>
<td></td>
<td>[+negative]</td>
<td>[+positive]</td>
<td>Peter surely is coming?!</td>
</tr>
<tr>
<td>PRQ</td>
<td>( p )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRQ</td>
<td>( \neg p )</td>
<td>[+positive]</td>
<td>[−negative]</td>
<td>Peter surely isn't coming?!</td>
</tr>
</tbody>
</table>

4 Rejecting questions in German

4.1 The meaning of the modal particles *doch* and *wohl* in isolation

In the previous sections we saw that in German RQs differ from DQs in that they contain the modal particles *doch* and *wohl*. We will see in this section that both of these particles are required to mark a declarative as RQ.\(^{13}\)

On its own, *doch* is typically used – in declarative assertions – to remind the addressee

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\(^{11}\) We would like to point out here that RQs are different from non-\(wh\)-echo questions, which are also sometimes called incredulity questions (e.g. Cohen 2007). The terminology might suggest that the two question types are the same. However, as (i) illustrates, in contrast to incredulity questions, RQs are not coherent in a discourse that echoes the previous utterance (as is expected on the basis of the bias profiles of RQs summarized in Table 1).

(i) A: Peter kommt. B: Peter kommt? (= incredulity question)
     B’: #Peter kommt doch wohl? (= RQ)

\(^{12}\) We will argue in section 6 that the negation is not actually propositional negation, so that the declarative does not denote \( \neg p \). The above notation is thus simplified.

\(^{13}\) As we mentioned in footnote 2, a declarative containing only *doch* which is followed by the question tag *oder*? (‘or’) can also be used as a RQ. An anonymous reviewer points out, that for him/her *oder* is not even needed. We do not share this judgement. The issue needs to be tested quantitatively in future research.
that the proposition that the modal particle scopes over is part of the common ground already, and that that proposition is in conflict with a previous proposition, e.g. one that was just uttered by the other interlocutor, or one that was presupposed, entailed or implicated by a previous utterance (e.g. Thurmair 1989; Lindner 1991; Jacobs 1991; Karagjosova 2004; Zimmermann 2011; Repp 2013). Furthermore, a recent investigation of the role of *doch* for the interpretation of discourse relations (Döring 2016; Döring & Repp to appear) suggests that speakers often employ the reminding function of *doch* to signal that they consider the proposition *doch* scopes over as uncontroversial, and thus to strengthen the argument that they are trying to make.

For the particle *wohl* it has been argued that if it occurs in declaratives it has an epistemic meaning. The speaker hypothesizes that the proposition that *wohl* scopes over is true but s/he is not absolutely certain (e.g. Abraham 1986, 1991; Asbach-Schnitker 1977; Doherty 1979, 1985; Gast 2008). The particle has also been suggested to restrict the validity of the speech act (Thurmair 1989). Zimmermann (2004) suggests that *wohl* is a speech-act modifying particle which indicates that the speaker's commitment to the proposition is weakened.

What is particularly relevant for the present context is that Doherty (1985) observes that declaratives with *wohl* can be used as assertions or as questions (also cf. Thurmair 1989). Zimmermann (2004) suggests that the question meaning arises via pragmatic reasoning from a clash of the meaning of the particle with the meaning of the speech act in certain contexts. He provides an example where a *wohl*-declarative conveys a hypothesis about who the addressee's boyfriend is (lit. *Peter is WOHL your boyfriend*?), i.e. about something the addressee obviously is already informed about. By implicature this means that the declarative cannot be intended as an assertion: it is not informative. So it is plausibly intended as a question. We think that this reasoning is problematic because declaratives with *wohl* can also be uttered if it is not obvious that the addressee knows the answer. Consider (9), where the most plausible interpretation of the context is that neither interlocutor knows anything about ‘the guy’ apart from what they are seeing. Still, Maria’s utterance most plausibly is interpreted as a question – as Paul’s reaction indicates.
(9) Paul: Look, the guy from this morning is still standing in front of Ann’s door.
Maria: Der weiß wohl nicht, dass sie im Urlaub ist?
‘Doesn’t he know that she is on vacation?’
Paul: We could ask him.

So, we think that Zimmermann’s (2004) account does not explain why *wohl* can ‘turn’ an assertion ‘into’ a question. Instead, we will assume that the function of *wohl*, to indicate speaker uncertainty and a weakened commitment to a proposition, are easily interpreted as an invite for the addressee to settle whether the proposition should be part of the common ground or not (also cf. Thurmair 1989; and see Gast 2008 who suggests that hypotheses prompt the hearer to react). Obviously, this idea raises the issue of why not every *wohl*-utterance is a question. We would like to suggest here – in opposition to claims in Zimmermann (2004) – that *wohl*-utterances that are intended as questions get a little help from prosody. We agree with Zimmermann, that such utterances do not necessarily end in a rise. However, we know from the prosodic literature that declarative questions might end in a fall and still be distinguishable from assertions, e.g. by the nuclear accent and by the shape, slope, and alignment of the preceding prenuclear pitch accents (see Petrone & Niebuhr 2014). So, it is very likely and in our view intuitively correct that declarative questions with *wohl* are marked prosodically. How they are marked exactly is a matter of future research. In sum, we will assume that *wohl* can occur in declaratives that due to the presence of *wohl* are fairly readily interpreted as questions. As a short-hand, we will say that *wohl* has a question-inducing function but we will be assuming throughout that the question meaning additionally is marked by prosody.

Another meaning shade of *wohl* that will become important later on is what we may call an *evidential* or *reportative* meaning. In (10) Ann uses *wohl* to indicate that she has heard by word-of-mouth that the person in the picture is Maria's boyfriend.

(10) Context: Bea is pointing at a photograph.
Bea: Weißt du wer das ist?
‘Do you know who this is?’
Ann: Das ist wohl Marias Freund.
‘That’s Maria’s boyfriend (or so I’ve heard).’
The reportative meaning does not necessarily imply a weak commitment. This can be seen if we compare *wohl* to the modal verb *sollen* (‘should’), which may have a deontic or a reportative meaning. For the reportative meaning of the modal verb it has been observed that a speaker may be committed to the truth of the proposition or not, or that s/he might even be committed to its falsity (Öhlschläger 1989, Diewald 1999, Mortelmans 2001, Faller 2017). Although *wohl* cannot be used in all of these cases, it can certainly be used in the first case, i.e. if the speaker is committed to the truth of the proposition. Consider (11) from Faller (2017: 58), which illustrates that a speaker can be committed to the proposition that is denoted by a sentence which also contains *sollen* (i.e. the speaker is committed to the prejacent). The *sollen*-sentence is given in italics. The final sentence in the example presupposes the truth of the prejacent of the *sollen*-sentence, which indicates that *sollen* is only used to express the reportative character of the statement. (12) is an equivalent of the *sollen*-sentence with *wohl* rather than with *sollen*. Replacing the *sollen*-sentence in (11) with (12) is coherent.

(11) In Offenburg ist ein kurioser Diebstahl in einem Seniorenheim aufgefallen. *Ein Dieb soll aus dem Seniorenheim innerhalb von drei Monaten rund 500 gebrauchte Wischmopps entwendet haben.* [. . .] Was genau der Dieb mit den 500 Wischmopps vorhat, ist nicht bekannt. ‘In Offenburg, a curious theft in a home for senior citizens has attracted attention. A thief reportedly stole around 500 used mops from the home over three months. [. . .] What exactly the thief plans to do with the 500 mops is not known.’ (http://www.anwalt-strafverteidiger.de/strafrecht-meldungen/strafrecht/diebstahl/, last accessed 4/6/2014)

(12) Ein Dieb hat *wohl* aus dem Seniorenheim innerhalb von drei Monaten rund 500 gebrauchte Wischmopps entwendet.

Thus, we may assume that *wohl* may be used to indicate that the speaker has some kind of reportative evidence for his/her assumption (also cf. Modicom 2012 on the assumption that *wohl* may mark hearsay evidentiality; and Haumann & Letnes 2012 on the role of evidentiality for *wohl* in general). The reportative meaning shade is not present in DQs with *wohl*. Thus, the speaker is not asking the addressee for evidenced truth in such questions.
4.2 Combining doch and wohl

Let us now return to RQs and explore the combination of doch and wohl, which discerns RQs from other declaratives that have a question meaning. Recall from section 3 that RQs come with an evidential bias that is opposite to what the speaker had assumed to be true. The speaker utters a RQ to express the conflict and his/her wish to verify what the true state-of-affairs is. Intuitively, we might therefore say that in RQs doch signals that there is a conflict between the proposition doch scopes over and the contextual evidence, and that wohl has its question-inducing function. It might be the case that the question-inducing function, which we argued above may be a consequence of wohl's hypothesizing function, is strengthened because there is a conflict.

There are a few aspects that are worth noting about this scenario. First, the reminding meaning of doch intuitively seems to be absent in RQs and does not figure in the above scenario. However, as it turns out, RQs are not actually special in this respect. The reminding function is not present in other contexts either, for instance in contexts where the speaker expresses surprise about something that s/he just realized (e.g. Das ist doch Peter! 'Oh, wow, that's Peter!'). Kaufmann & Kaufmann (2012: 211) call this meaning shade realizing the obvious. We might hypothesize that the conflict-indicating meaning component of doch lends itself to mark surprise because there is a contrast with a previous knowledge state. This seems to be compatible with the biases of RQs. What about the ‘obvious’-part in realizing the obvious, that is, what is marked as being obvious? The c-command relations suggest that doch scopes over wohl, and both scope over the proposition. If doch and wohl combine compositionally we would expect one of the two following readings. On the one hand (a), doch may signal that the speaker just realized, and is surprised about the obvious state-of-affairs that the proposition in the scope of wohl is true or not (i.e. wohl induces a question meaning). On the other hand (b), doch may signal that the speaker just realized, and is surprised about the obvious state-of-affairs that there is an uncertainty with respect to the proposition (i.e. wohl does not induce a question meaning). The problem with both of these interpretations is that they do not capture what an RQ seems to express. Interpretation (a) is trivial in the sense that it would be odd for a speaker to signal that s/he just realized that a proposition may be true or not because that is the case for all contingent propositions. Interpretation (a) would be saying something like Oh, wow, I am only realizing now that Peter arrived or didn't arrive! With respect to interpretation (b) we observe that the uncertainty, which (reportative uses ignored) lies at the heart of wohl, intuitively is very different from the uncertainty that is signalled in declaratives with wohl but without doch, i.e. the cases
discussed in the previous subsection. So, there seems to be a compositionality problem here.

Particle combinations are somewhat notorious for compositionality problems. For instance, it is perfectly fine to combine *ja* and *doch* in a sentence (Doherty 1985, Lindner 1991), although the meaning of the latter subsumes the meaning of the former (viz. *ja* expresses the reminding / uncontroversiality meaning of *doch* (but not the conflict-indicating meaning)). Still, some particle combinations are compositional, as was observed for instance for *ja wohl* by Zimmermann (2004) for sentences like *Peter kommt ja wohl* (*'Peter is coming'*). Here *ja* indicates that speaker and addressee share the hypothesis that Peter is coming – probably because of some rumour that they heard together (= the reportative use of *wohl*). In other words, the weak commitment to the proposition is already part of the common ground.

In the following we will explore the compositionality issue for *doch wohl* by comparing this particle combination to *ja wohl* as well as to isolated occurrences of the three particles (*ja, doch, wohl*) in speech acts that involve a conflict but are not questions: we will look at rejections both without and with negation. This exploration will give us some better insight into the role of modal particles in rejective speech acts. To start, consider (13). (13) is a dialogue where Ann makes a claim that is rejected by Bea by way of challenging a condition that needs to be fulfilled for Ann's claim to be possibly true: Noah can only come to the party if he is available, i.e. if he is not at sea. To render these dialogues more natural, we added a continuation, which gives a motivation for Noah’s being at sea. As (13a-c) show, Bea's rejection may include the particle *doch*, or no particle, but it may not contain *ja* unless the rejection is followed directly by an explicit statement like *Therefore he cannot come to the party*.

(13) Ann: Noah kommt morgen zur Party. (*'Noah is coming to the party tomorrow.'*)

   Noah is at sea his boss has the roster changed.
   c. #Noah ist ja auf See. Sein Chef hat den Dienstplan geändert.
   'Noah is at sea (b./c. – as you should know). His boss changed the roster.'

A straightforward explanation for the infelicitous use of *ja* in (13) suggests itself if we assume with some of the previous literature on *ja* and *doch* (e.g. Kaufmann & Kaufmann 2012, Grosz 2014a, Döring 2016), that the meaning components of the particles described above are presuppositions. We may assume that in a context where there is a conflict like in (13), *doch*
is preferred over *ja* due to the principle *Maximize Presupposition* (Heim 1991) because in that context the additional presupposition of *doch* (indication of conflict) is met. The difference between (13a), which has no particle, and (13b) with *doch* is that (13a) lacks the additional meaning that the proposition *Noah is at sea* should have been known to the addressee already.\(^{14}\)

Let us next turn to *wohl* in rejections. (14) illustrates that it is possible to insert *wohl* into the kind of rejection we just considered. However, only the reportative reading of *wohl* is available, (14a). The (likely) source of the information is given in the second sentence: Noah’s boss. The question reading – unsurprisingly – is incoherent in this context, (14b) – with or without the second sentence.

\[
(14) \quad \text{Ann: Noah kommt morgen zur Party. ('Noah is coming to the party tomorrow.' )} \\
\quad \text{Bea: Noah ist wohl auf See. Sein Chef hat den Dienstplan geändert.} \\
\quad \quad a. \quad 'I heard that Noah is at sea. His boss changed the roster.' \\
\quad \quad b. \quad '#Noah is at sea, isn't he? His boss changed the roster.'
\]

Next, consider the combination of *doch/ja* and *wohl* in the rejections in (15). Comparing (15) to (13) shows that if *doch/ja* are combined with *wohl*, their contextual appropriateness is inverted. This suggests that the meaning of these two particle combinations is not compositional. *doch wohl*, if it were compositional, should have a reading in which the conflict plus reminder meaning (seen in (13)) combines with the reportative use of *wohl* (seen in (14)), which prima facie should be able to combine. However, a declarative with *doch wohl* is not felicitous as a rejection in this context. In contrast to this, although *ja* on its own is not felicitous in rejections (seen in (13)), it may combine with *wohl* to insist on the truth of a proposition that contrasts with a meaning aspect of a previously asserted proposition.\(^{15}\)

\[
(15) \quad \text{Ann: Noah kommt morgen zur Party. ('Noah is coming to the party tomorrow.' )} \\
\quad \text{Bea: a. \quad #Noah ist doch wohl auf See.}
\]

\(^{14}\) The continuation about the roster would also be felicitous with *doch*

\(^{15}\) An anonymous reviewer does not share our judgement here. For him/her both replies are equally bad. For us, the contrast is quite sharp. Note that the intonation of (15b) must be one where there is a L*+H L-% contour, with the L*+H on *See*. Overall, there might be interindirect differences with respect to the acceptability of modal particles / particle combinations in German. These need to be investigated in quantitative research, which is beyond the scope of the present paper.
Intended: 'Noah indisputably is at sea – as you should know.'

b. Noah ist ja wohl auf See.

'Noah indisputably is at sea – as you should know.'

On a speculative note, what might be happening in (15b) is that the reminding meaning of ja is employed to imply uncontroversiality (see above: Döring 2016; Döring & Repp to appear), which in conjunction with the reportative use of wohl leads to a high, 'certified-by-others' certainty reading. So there might be room for a compositional derivation of ja wohl in rejections (which requires closer scrutiny of reportative wohl). It is important to note, however, that this interpretation still is rejection-specific. As we mentioned above, in other contexts (recall the rumour scenario for an utterance with ja wohl, discussed above example (13)), sentences like (15b) can express that the speaker wishes to remind the addressee that they share a weakened commitment, i.e. uncertainty with respect to the proposition.

In principle, the reasoning for ja wohl in terms of signalling high, evidence-based speaker certainty should also apply to doch wohl. However, the only reading that (15a) may have is as a positive RQ.16 Thus, the addition of wohl to a rejection with doch like (13b) turns the rejection into a RQ. The reportative meaning of wohl does not surface in the RQ. Instead the question-signalling meaning arises. The reminder meaning component of doch, which was part of the rejection, is no longer present. The conflict meaning component is present. The precise role of the contrastive meaning component of doch needs closer scrutiny. It is

16 (15a) is actually not terribly good as a PRQ although the contextual evidence should license such a reading. We think that this is because RQs very often have a reproachful flavour in the sense that the speaker complains about what s/he is seeing and that his/her original expectations are not met. In (15a), complaining about Noah's apparently not being at sea is not very plausible if no additional context is given. If the speaker had ordered Noah to set sail to do a certain job and now learns that Noah is not actually at sea, there would be a good reason for complaining and (15a) would be felicitous as a PRQ. The reproachful flavour of RQs can be seen very well in conventionalized phrases with future tense, e.g. du wirst doch wohl (‘surely you will...’), man wird doch wohl ... dürfen (‘surely one may’), see (i) and (ii).

(i) Context: Ben is not offering his seat to an old woman on the tram.

Mary to Ben: Du wirst der alten Frau doch wohl einen Platz anbieten?

Surely you will offer that old lady a seat?!

(ii) Man wird doch wohl noch fragen dürfen?!

Surely one may ask may a question?!
interesting to note in this connection that (15b) with *ja wohl*, which differs from (15a) in the lack of the contrastive component, becomes less rejective and more question-like if it is preceded by the conjunction *aber* (*'but'*), which also indicates contrast (see Repp 2013 for a close comparison of *doch* and *aber*). Although such judgements are extremely subtle and need to be investigated quantitatively in future research, they receive some indirect support from Swedish RQs, where the modal particle *väl*, which is very similar to *wohl*, combines with the Swedish variant of *but*, see section 5.3 further below.

Overall, it seems that the combination of *wohl* with the particles *doch* and *ja* in rejections proceeds somewhat in a pick-and-mix fashion. Some meaning components of the individual particles are part of the particle combinations, others are not. Which ones are, and which ones are not, essentially seems to be conventionalized. Note that this does not only hold for rejections without a negation, which we concentrated on up to now, but also for rejections with a negation, see (16), which shows that a sentence with *doch wohl* cannot be used as a rejection whereas a sentence with *ja wohl* can.

(16) Ann: Noah kommt morgen zur Party. ('Noah is coming to the party tomorrow.‘)
        b. #Noah ist ja nicht in der Stadt.17  b’. Noah ist ja wohl nicht in der Stadt.
        c. Noah ist doch nicht in der Stadt.  c’. #Noah ist doch wohl nicht in der Stadt.
        d. Noah ist wohl nicht in der Stadt.

        (a-d, b’, c’) Sein Boss hat den Dienstplan geändert.

    'Noah is not in town. His boss changed the roster'

We conclude from our discussion that the particle combination *doch wohl* does not receive a compositional interpretation but has a conventionalized meaning which signals that the speech act it occurs in is a RQ. Having said this, it is still reasonable to assume that the use of *doch* and *wohl* to signal the RQ reading is (historically) motivated in the way that we described at the beginning of this subsection. In the next subsection we make a preliminary proposal for how RQs can be modelled at the semantics-pragmatics interface.

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17 Like (13c), (16b) improves if it is followed by some additional information that highlights the relevance of the utterance to the antecedent.
4.3 Proposal for German rejecting questions

When the sentence type does not match the speech act type – as is the case with any kind of declarative that is used as a question, and other 'minor' speech act types – the issue arises of how the pragmatic question meaning can be derived from the syntax and semantics of the declarative sentence. In sections 2 and 3 we saw that declaratives of the same polarity have completely different conditions for their use as questions depending on their morpho-syntactic and prosodic properties. In the previous two subsections we saw that the morpho-syntactic means that are employed to mark declaratives as RQs in German do not determine these conditions in a direct compositional way. In section 5, we will see that the formal means employed to mark declaratives as RQs in Swedish do not lend themselves freely to a compositional analysis either. Furthermore, the means that are used in Swedish are not the same means as in German, although there is some overlap. All this suggests that the formal means that mark a RQ should be considered as cues for the speech act that is expressed, rather than compositional building blocks (cf. Grosz 2014 for a recent proposal on cues). However, considering that the particle combination doch wohl is obligatory in RQs – which is not a typical characteristic of speech act cues (they often are optional) –, and considering that syntax brings meaning and form together, we think that there must be a syntactic representation of the particular speech act in terms of an illocutionary question operator that interacts with the morpho-syntactic marking.

On the basis of our discussion on question bias in sections 2 and 3, we assume that illocutionary question operators always carry information about the evidential and epistemic biases of the question, i.e. they encode the question's bias profile. Concretely, we will assume that there is an illocutionary operator REJECTQ, for which we give a preliminary definition in (17), to be revised in section 6. In (17) \( q \) stands for the proposition denoted by the declarative, irrespective of whether it contains a negation or not. The superscripts are shorthand for evidential bias, and for epistemic bias of the speaker. So, REJECTQ applies to a proposition \( q \) and requires the context to provide a proposition with the opposite polarity from \( q \), and it requires the speaker to have assumed \( q \). REJECTQ then provides a set of propositions as the meaning of the RQ. After our discussion of Swedish we will see that REJECTQ does

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18 This kind of information essentially encodes the felicity conditions of the speech act, so encoding it in the speech act operator in our view is highly appropriate.

19 Krifka (2015) suggests that declarative questions are monopolar, i.e. only offer one proposition to the interlocutor (the one denoted by the declarative) so that s/he may commit to that proposition. Commitment is considered likely if there is contextual evidence for the offered proposition. As it stands, the proposal cannot
not operate 'directly' on a proposition and that its meaning therefore needs to be adapted, section 6.

\[(17) \text{To be revised}\]

\[
[\text{REJECTQ}] = \lambda q: \neg q^{\text{evid}} \& [q]^{\text{epist}}.\{q, \neg q\}
\]

REJECTQ imposes language-specific restrictions on the formal means that must be present in a declarative if that is to be used as a RQ. In German this is simply a requirement for the presence of the modal particle complex *doch wohl*. We assume that REJECTQ probes for this complex and enters an Agree relation with it. Note that this implementation is a simple feature checking mechanism for morphological units that does not require semantic or pragmatic evaluations. The situational appropriateness of REJECTQ will be verified at the level of semantics/pragmatics, not syntax. We will elaborate on the syntactic proposal in section 6.

5 Rejecting questions in Swedish

Turning our attention to Swedish RQs, we need to extend the scope of our investigation beyond modal particles. As mentioned in section 1, Swedish RQs can be marked by the non-canonical, clause-initial position of the negation. We will therefore begin our analysis of Swedish RQs by giving some background on clause-initial negation in section 5.1, before turning to modal particles, particularly *väl*, in section 5.2.

5.1 Fronted negation

We pointed out in the introduction that in Swedish NRQs the negative marker *inte* occurs in the clause-initial position. Recall that this was not the case in NDQs. We will use the term *fronted negation* here because there are good arguments that the negation is moved to the clause-initial position rather than being base-generated there (Zeijlstra 2013, Seeliger in prep.). As already mentioned, fronted negation is quite rare in the Germanic languages.\(^{20}\) In account for the bias profile of RQs, especially the evidential bias, which is the opposite of what is expected under Krifka's analysis. We will leave this issue for future research.

\(^{20}\) However, contrary to common assumptions, German does allow fronted negation in certain contexts, see (i), where the fronted negation contrasts with the positive polarity of the previous sentence.


*I spared Bonn open disagreement even regarding those issues in which more explicit criticism would have
Swedish, fronted negation only occurs in declaratives and has been claimed to come in different subtypes. Lindström (2007) differentiates responsive, interrogative and additive fronted negation. Seeliger (2015) argues that the former two are restricted to rejective utterances, viz. to rejections (responsive negation) and to NRQs (interrogative negation), i.e. the type of utterances at issue in the present paper. The difference between NRQs and rejections is marked prosodically (Seeliger & Repp to appear). Additive negation differs from the type of fronted negation described here considerably (and will therefore be excluded from the scope of this article). Among other differences, the negative marker in additive negation is stressed, arguably a means of marking information structure, and it only occurs in highly parallel utterances that are non-rejective (e.g. Inte gick jag till London, och inte gick jag till Paris. 'I didn't go to London, and I didn't go to Paris.').

The type of fronted negation at issue in this paper has been claimed to be quite marked in current Standard Swedish, but to be more idiomatic in Northern Swedish and Finland Swedish (cf. Lindström 2007, Brandtler & Håkansson 2014 on the historic development of fronted negation, as well as Østbø 2013 on the acceptability of fronted negation in Swedish and Norwegian). However, even in varieties of Swedish in which fronted negation is marked, it is acceptable, which stands in stark contrast to the non-Scandinavian Germanic languages, in which this type of fronted negation is unacceptable. In the experimental study to be presented in section 5.4 we will show that fronted negation is highly acceptable in RQs in Swedish.

As we mentioned in section 1, it has been claimed that declaratives with fronted negation that are intended as questions (i.e. NRQs) can be paraphrased by declaratives with the negative marker in its canonical position left of the vP edge combined with the modal particle väl (Petersson 2008), see (18).

(18) Peter kommer väl inte? Swedish
    not comes MP Peter
    'Surely Peter isn't coming?'

Swedish väl is quite similar to German wohl in non-rejective utterances. Therefore, it is been appropriate. I did NOT, however, spare them an initiative that – humble though it might have been – opened a crack in the wall."

A corpus analysis carried out by the first author shows that polarity contrast regularly licenses nicht in a fronted position and is not completely uncommon (see Seeliger in prep.). Cf. also Ulvestad (1975).
remarkable that it also seems to be able to occur in RQs. The following section will explore
the function and meaning of väl in detail.

5.2 The modal particle väl
There is not much literature on Swedish väl outside descriptive grammars and translation
studies (e.g. Teleman et al. 1999, Aijmer 1996). In the existing literature, väl is described as a
particle that expresses that the speaker is not certain that the proposition väl scopes over is
ture but that s/he suspects that it is true. Aijmer (2015:174) gives the paraphrases 'I guess that'
and 'I suppose that', and Alm (2012:47) assumes that väl 'both marks the proposition as
uncertain and signals that the hearer is the source of knowledge'. All this is very reminiscent
of the meaning of German wohl. Crucially, väl-utterances are very often characterized as
essentially to answer it. So, what for German wohl has been described as one of several
functions seems to be a central meaning component for väl: väl seems to signal regularly that
its host utterance is intended as a question, or at the very least requests input from the
addressee in the sense that the proposition that it scopes over requires explicit ratification
from the addressee before it can be added to the common ground. To illustrate, (19) without
väl is a commitment of the speaker to the proposition that Peter is coming. With väl, the
speaker tentatively assumes (i.e. hypothesizes) that Peter is coming and expects a
confirmation by the addressee. The English paraphrase makes this meaning component
explicit by the use of a tag question.

(19) Peter kommer (väl).

Peter comes MP

'Peter is coming, isn't he?'

Swedish

In essence, we propose that declaratives with väl cannot be assertions. They are declarative
questions. Positive declaratives with väl have the bias profile as PDQs, viz. there must be
(contextual) evidence for the denoted proposition p, and the speaker must not have assumed p
beforehand (recall that the speaker of a väl-utterance in the moment of the utterance only
hypothesizes p to be true). We must leave open here what exactly the difference between a
PDQ without väl and one with väl is.

When negation enters the picture, the issue gets more complicated. If väl and inte
combine compositionally, the negative declarative version of (19) should roughly express
Peter isn't coming, is he? In terms of bias profiles, this negative declarative should have the same bias profile as an NDQ without väl. However, if Petersson (2008) is right, i.e. if a sentence like (18) above, which is a negative declarative with väl, can be used to paraphrase a sentence with fronted negation and without väl, väl and inte do not combine compositionally. The reading that Petersson suggests for (18) is that of a rejecting question. In the experiment presented in section 5.4, we test Petersson's claim quantitatively, viz. we tested whether negative declaratives with väl can have the bias profile of RQs.

Note that Swedish väl does not seem to have the reportative meaning of German wohl. The Swedish example (20), which is the translation of German (10) in section 4.1, does not have the reportative meaning that (10) has. In (20) Maria only utters a hypothesis. Further input from Bea is required. In German (10), Ann provides a complete answer, which clearly marks the epistemic source of the asserted proposition as hearsay. In Swedish, this evidential marking must be marked by a different modal particle: by clause-medial visst (which has a different meaning from clause-initial visst (cf. Aijmer 1996; Petersson 2008; Scherf to appear), see subsection 5.3 for discussion).

(20) Context: Bea is pointing at a photograph
Bea: Vet du vem det är?
'Do you know who this is?'
Ann: Det är väl Marias pojkvän.
'That's Mary's boyfriend, isn't it?'

5.3 Combining fronted negation and modal particles
To investigate the meaning contribution of väl and negation in rejective utterances we will proceed as we did for German, that is we will explore how rejections can be marked morphosyntactically in Swedish. First consider the rejections in (21), which are the translations of German (13) in section 4.2, and which do not contain a negation. (21) shows that the rejecting utterance can come without any particle, see (21a)\(^{21}\), or with the clause-medial particle ju, see (21b). Clause-medial ju has the same meaning as German doch but can also be used in contexts where there is no conflict, i.e. in contexts where German ja would be used (Aijmer 1996). In (21b) the speaker not only rejects the assumption that Noah is able to come to the

\(^{21}\) Rejections without a particle usually are a little better with the conjunction men ('but'). We are glossing over this issue here.
party because he is not at sea, but also reminds the addressee that Noah's being at sea should have been known to him/her.

(21) Ann: Noah is coming to the party tomorrow. [positive rejection]
       Noah is to sea
   b. Noah är ju till sjöss. 
       'Noah is at sea (b. – as you should know).'

Turning to rejections containing a negation, consider (22), which shows that they can occur without a particle or with the particle ju. Furthermore, the negation can be fronted (recall section 5.1), and combine with ju or not. As before, we assume that ju has a reminding function. The fronting of the negation in (22c) and (22d) marks the proposition that Noah is not at sea as uncontroversial and as conflicting with the context, i.e. in this case it conflicts with Ann's assumption that Noah is in fact at sea.

(22) Context: Whenever Noah is on shore leave, he always visits every party.
   Ann:   Noah is not coming to the party tomorrow. [negative rejection]
       Noah is not to Sea
   b. Noah är ju inte till sjöss. 
   c. Inte är Noah till sjöss. 
   d. Inte är ju Noah till sjöss.
       '(But) Noah is not at sea (b./c./d. – as you should know).'

Turning to RQs, recall that we observed in section 3 (example (8)) that Swedish positive RQs can be marked in several ways. (23) shows how RQs may be marked in the context that we have been considering in the sections on German. In (23a) we see that a declarative without any additional morpho-syntactic marking cannot express an RQ reading. This is the same as in German. The particle väl can occur in a positive RQ but ideally combines with the conjunction men ('but'), i.e. the contrast that is part of the rejective meaning ideally is expressed overtly, see (23b).22 This is similar to German, where wohl combines with the

22 There is some corpus evidence that suggests that men is not always required, see (i) for an example of an
contrast-marking modal particle *doch*. The preference for *men* in such RQs also parallels our observation for German that the particle combination *ja wohl*, if combined with *aber* ('but') more readily receives a RQ reading in that language (recall the discussion below example (15) in section 4.2).

(23) Ann: Noah is coming to the party tomorrow. [positive RQ]
   Bea: a.  #Noah är till sjöss?
   b.  Men Noah är väl till sjöss?
   c.  #Visst/Nog är Noah till sjöss?
   d.  #Visst/Nog är väl Noah till sjöss?
   'Surely Noah is at sea?'

Turning to clause-initial *visst/nog*, which we showed in section 3 to be able to mark positive RQs, (23c) and (23d) show that they are infelicitous in the present context. This discrepancy obviously is remarkable. For clause-initial *visst/nog*, Petersson (2008) lists three types of meaning, which are identical for both particles. *Visst/nog* can express that the speaker is completely sure of the embedded proposition's truth (e.g. *Noah is definitely coming to the party*), or that the speaker considers the embedded proposition likely to be true and appeals to the addressee for confirmation (with *visst* having a similar question-inducing function like *väl*; e.g. *Surely Noah is coming to the party?*), or that the speaker concedes that a previously asserted proposition is true but has reservations, which are typically expressed in a subsequent sentence (e.g. *Noah is certainly coming to the party, but...*). On the basis of these characterizations we expect that (23c/d) should be felicitous on the second type of meaning – which is what we found in example (8) in section 3, which was a PRQ in the context where the speaker saw that someone's name was crossed out on a list of party guests but had expected that the person would come to the party. The difference between the earlier example and the present example is the explicitness of the contextual evidence. In the earlier example the contextual evidence that was rejected was explicit. In the present example the contextual evidence with *väl* that arguably has a PRQ reading without *men*:

(i) Hört på H&M's barnavd av ca 7-åring: "Jag vill ha den tröjan!" Mamman: "Det är väl en tjejtröja?" Han: "Är du från stenåldern eller?"

'Overheard in H&M's children's department from a 7-year-old: "I want that sweater!" The mother: "Surely that's a girls' sweater?". Him: "Are you from the stone age or something?"

23 Note that *visst* and *nog* have no overlap in their meanings if they are in clause-medial positions.
evidence only has an indirect relation to the proposition that is rejected in the RQ. So, it seems that although clause-initial *visst/nog* in the literature have not been related to any kind of evidential meaning, such a meaning is present. That this should be so is plausible at least for *visst* because *visst* in clause-medial position is an evidential marker. For *nog* the issue is somewhat less clear because *nog* in clause-medial position meanders between a high certainty and a weak certainty reading. We leave the latter issue to future research.

With respect to negative RQs, we observed above that there are several issues regarding the acceptability of various marking strategies. We observed that fronted negation in rejective utterances overall seems to be marked. Furthermore, we observed that the marking strategy where fronted negation combines with the particle *väl* should give a negative declarative the bias profile of a NDQ rather than the bias profile of a NRQ. These issues require closer scrutiny. The previous literature on the different readings of fronted negation leaves many questions open. The (various) question contexts in which fronted negation can occur have been largely put aside by previous investigations (e.g. Brandtler & Håkansson, 2012, 2014). The similarities between (in our terminology) rejections and RQs or (in the terminology of Lindström 2007 responsive and interrogative negation) have been overlooked.24 There is one earlier investigation of the acceptability of declaratives with fronted negation, Østbø & Garbacz (2014), but this investigation is restricted to declaratives with clause-final doubling of negation (e.g. *Inte är Noah till sjöss inte*), whose role in our view is not yet well-understood.

In the next subsection we will present an acceptability judgement study that investigated the acceptability of RQs with fronted negation, and explored whether a RQ reading can also be indicated by means of a combination of low negation and the modal particle *väl*, as was claimed by Petersson (2008). Thus, the paradigm that we investigated is the one given in (24) except that the contextual evidence was not provided by another speaker (Ann in (24)). Note that *men* (‘but’) did not feature in this paradigm. The hash sign in (24.a) and its lack in (24.b-d) anticipate the results.

(24) Ann: Noah is not coming to the party tomorrow. [negative RQ]
    Bea: a. #Noah är inte till sjöss?
        b.  Noah är *väl* inte till sjöss?
        c.  **Inte** är Noah till sjöss?

24 Østbø (2013) hypothesizes that fronted negation in questions and rejections is formally the same.
5.4 Experiment on the interaction of negation and the modal particle väl in Swedish negative rejecting questions

The experiment tested declaratives denoting a negative proposition \( \neg p \) that were marked with fronted vs. clause-medial negation and with vs. without the modal particle väl in contexts that would support a NRQ reading of the declarative. Thus, the context was such that it would be appropriate for a question with the question profile evidential: [+positive], epistemic: [+negative], that is a question where the illocutionary operator REJECTQ as defined in section 4.3 takes a negative declarative as its complement. We hypothesized that declaratives with fronted negation would be more acceptable than declaratives without fronted negation unless the latter contained the modal particle väl (Petersson 2008).

5.4.1 Method

Participants. 24 native speakers of Swedish (21 to 48 years, \( M = 27.8 \)) participated in the experiment. They took part in the study voluntarily, without payment.

Materials and Design. The materials consisted of 16 experimental items, 32 filler items and four practice filler items. Every experimental item introduced a scenario in which it was natural to utter a rejecting question, see (25) for an example item. The items started with a scene description, which provided contextual evidence for a proposition with positive polarity, i.e. the evidential bias that Seeliger (2015) postulates for RQs, [+positive], was met by the context. In (25), the context provides evidence for the positive proposition that it will rain: The father in the scenario grabs an umbrella. Then one of the interlocutors, in (25) this is the mother, asks a question about that proposition: \{it will rain, it will not rain\}. This is the target question. It always had declarative syntax, contained the negative marker inte, and ended in a question mark.

The target question came in four different versions. It either did or did not contain the modal particle väl, and the negative marker inte was either in its canonical low position, or in the pre-verbal, fronted position. The experiment had a 2x2 within-subjects within-items design, with the factors MODAL PARTICLE (väl present or not) and NEGATION (fronted or low). We used a Latin square design so that participants were randomly assigned to one of four groups, which differed in the order of filler and experimental items. Participants saw each
experimental item once, in one of the four conditions, and four items per condition.

(25) **Sample item**

Det är söndag och familjen Johansson tänker ta en promenad just nu. Alla tar på sig kläderna, men pappan också tar med sig ett paraply. Mamman säger:

*It is Sunday and the Johanssons are about to go for a walk. Everyone is getting dressed, but the father also grabs an umbrella. The mother says:* 

<table>
<thead>
<tr>
<th>Condition</th>
<th>NEGATION</th>
<th>MP</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1]</td>
<td>low</td>
<td>−</td>
<td>Det ska inte regna idag?</td>
</tr>
<tr>
<td>[2]</td>
<td>low</td>
<td>+</td>
<td>Det ska väl inte regna idag?</td>
</tr>
<tr>
<td>[3]</td>
<td>fronted</td>
<td>−</td>
<td>Inte ska det regna idag?</td>
</tr>
<tr>
<td>[4]</td>
<td>fronted</td>
<td>+</td>
<td>Inte ska det väl regna idag?</td>
</tr>
</tbody>
</table>

The filler items were *wh*-questions and verb-first polar questions in contexts with no contextual evidence for the questioned proposition.

**Procedure.** The experiment was web-based. Participants worked through it at their own pace. The items were presented visually on a computer screen in the following way. At the very top, there was the instruction in Swedish: *Please read the following context and question.* Below the instruction, there were the scene description and the target question. In the lower half of the screen, there was the Swedish version of the following question: *How fitting is this question in this context?* Underneath it there was a 7-point scale which consisted of numbered radio buttons. The end points of the scale were labelled with *helt lämplig* ('very fitting'; (= 7), *helt olämplig* ('very unfitting'; = 1). Participants were asked to give their judgement on the scale by clicking on the appropriate button. Note, that the word *question* (Swedish *fråga*) was used explicitly in the instruction and in the request to give the judgement. This was done to make a reading of the target question as a rejection less likely. In principle, such a reading is possible for conditions [1] and [3], where there is no modal particle, if participants additionally ignored the question mark at the end of the target question.

**5.4.2 Results**

The distribution of the ratings is shown in Figure 1. The statistical analysis was conducted by using cumulative link mixed models (R package *ordinal*; Christensen 2015) with random
intercepts for subjects and items. The model parameters are given in Table 2. There was a main effect of MODAL PARTICLE, and an interaction of NEGATION and MODAL PARTICLE. Overall, items that included väl received higher acceptability ratings than items that did not include väl. However, this effect was only reliable for conditions where the negation was low. When the negation was fronted the presence or absence of väl had no effect on the (already quite high) acceptability.

### Table 2: Model parameters for the experiment

<table>
<thead>
<tr>
<th></th>
<th>estimate</th>
<th>se</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEGATION</td>
<td>.115</td>
<td>.099</td>
<td>1.16</td>
<td>.25</td>
</tr>
<tr>
<td>MODAL PARTICLE</td>
<td>.442</td>
<td>.104</td>
<td>4.27</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Interaction</td>
<td>-.328</td>
<td>.100</td>
<td>-3.29</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

**Figure 1.** Distribution of ratings (on the y-axis) in each of the four conditions as a violin plot, overlaid with box-and-whiskers plots. The width of the violin at a particular rating indicates the number of judgements for that rating. A wider violin means that there were more judgements for that rating. The box-and-whiskers plots show means (bold horizontal line), quartiles (lower and upper end of the box) and 1.5 times the interquartile range (vertical lines /whiskers) of the ratings in each condition. The dots are judgements that lay outside the 1.5 × interquartile range. Note that the means did not enter any statistical analysis. The box-and-whiskers-plots are here only for illustratory purposes.

### 5.4.3 Discussion

We take these results to largely confirm our predictions that a Swedish negative declarative
with fronted negation comes with an evidential bias for the positive proposition, [+positive]. The results indicate that such declaratives are highly acceptable in a context that provides evidence for the positive proposition. In contrast to this, negative declaratives containing low negation are much less acceptable in such a context if they do not contain the modal particle väl. Thus, without väl, the evidential bias of a negative declarative with low negation is different. This is predicted by our considerations about the context sensitivity of RQs vs. NDQs. The results of our experiments also support the claim by Petersson (2008), according to which negative declaratives may receive the same reading as negative questions with fronted negation if they contain the particle väl. In the experiment, such negative declaratives were judged to be highly acceptable. We conclude from this result that these declaratives also have the evidential bias [+positive], and are, in fact, RQs.

6 An illocutionary operator for rejecting questions

In section 4.3, we proposed that RQs come with the illocutionary operator REJECTQ that takes the proposition denoted by a declarative sentence, \( q \), which can be positive or negative, as complement, forms a question meaning \{\( q \), \( \neg q \)\} and presupposes that there is contextual evidence for \( \neg q \) and that the speaker had assumed \( q \) to be true. Furthermore, we proposed that in German, REJECTQ enters a syntactic Agree relation with the modal particle complex doch wohl. For Swedish, the results of the experiment presented in the previous section suggest that the meaning definition of REJECTQ also applies to Swedish but that REJECTQ requires a different syntax. To repeat, in NRQs either the negation is fronted, or low negation is combined with the particle väl; väl may also occur with fronted negation. So, there are three ways of marking NRQs, rather than only one, as in German. For PRQs we observed in section 5.3 that the conjunction men ('but') combines with väl, and that if the contextual evidence is 'direct' (see example (8), section 3), one of the modal particles visst or nog may occur in clause-initial position. So, overall, Swedish has a rather large variety of morpho-syntactic means to express RQs. However, it seems that at least one of them must be used (in addition to intonation), in the sense that a declarative with just low negation cannot well be used as a NRQ and a positive declarative without men and väl cannot well be used as a PRQ. This means that RQs must come with some kind of morpho-syntactic cue (cf. Grosz 2014) but which cue it is, is not determined by syntax.

Now, the fact that there is syntactic movement of the negation to the clause-initial position, i.e. a very high position, both in RQs and in rejections is in itself remarkable. It has been claimed that the negation in rejections is non-propositional (Van der Sandt 1991; Repp
2009) but takes speech-act level scope. As a consequence, it also has a higher position in the clause. This raises the issue if the negation in RQs possibly is non-propositional. There is good evidence that this is indeed the case. Seeliger (2015) shows that Swedish NRQs cannot host negative polarity items (NPIs) like någonsin ('ever'), see (26) for a NRQ with fronted negation. Applying this test to German we must move to other NPIs since German jemals ('ever') must be licensed by a negation in a higher clause or by interrogative syntax. (27) shows that the German NPIs nicht ausstehen können ('to not be able to stand', (27a)), and keinen roten Heller haben ('not to have a penny to one's name', (27b)), cannot occur in a NRQ.

(26) Context: Peter and Mary are about to travel to Greenland.
Mary: 'It will be nice to see Greenland again.'
Peter: *Inte har du någonsin varit på Grönland?
not have you ever been on Greenland
Intended: 'Surely you haven't ever been to Greenland?' Seeliger (2015: 582)

(27) a. *Peter kann doch wohl französische Filme nicht ausstehen?
Peter can French films not stand
Intended: 'Surely Peter cannot stand French films?'
b. *Peter hat doch wohl keinen roten Heller?
Peter has no red cent
Intended: 'Surely Peter does not own a penny to his name?'

Exploring this issue in more detail, let us turn to the equivalents of English too, which has been used in tests of high negation in negative polar questions (Ladd 1981): too is not compatible with clause-mate negation but it is compatible with high negation. In German the corresponding element is auch, c-commanded by the negation, viz. nicht auch ('not also') (rather than auch nicht ('also not'), which corresponds to either; Repp 2009). In Swedish there is också (PPI). (28a&b) illustrate that both PPIs can occur in NRQs.25

25 The corresponding NPI in Swedish, heller, according to Brandtler & Häkansson (2014) is only felicitous in additive fronted negation (i.e. not in the contexts we are considering here). For German, it seems that auch nicht is possible in NRQs, see (i)

(i) The party list context from the introduction: Maria sees that Noah's name on the list is crossed out, but
Peter, whom she hates, is on the list.
The party list context from the introduction: Maria sees that Noah is on the list and then discovers that Peter, whom she hates, is also on the list.

a. Peter kommt doch wohl nicht auch? b. Inte kommer Peter också?

Peter comes MP MP not also not comes Peter too

'Surely Peter isn't coming, too?’

Overall then, we find that the negation in rejections and in RQs is non-propositional. Intuitively this makes sense because non-propositional negation is a reflex of the speaker rejecting (evidence for) a positive proposition in both cases. We will assume here, following Seeliger (2015) that the negation in rejections and in RQs denotes the operator FALSUM from Repp (2009, 2013). FALSUM is an epistemic speech-act level operator (here simply referred to as *illocutionary modifier*) which signals that the speaker is essentially not committed to the proposition $q$ that is at issue – because there are zero degrees of strength for sincerely committing to $q$ and for adding $q$ to the common ground. We return to the issue of polarity items in RQs with FALSUM after presenting our analysis for rejection questions. The counterpart of FALSUM in PRQs is VERUM (originally proposed in Höhle 1988, 1992; see Lohnstein 2012; 2016; cf. Romero & Han 2004, Repp 2013) – or an evidential version of it: the particles *visst/nog* occur clause-initially in PRQs. They signal high certainty but require direct contextual evidence.

We assume that the illocutionary modifers FALSUM and VERUM occur in the specifier position of ForceP: at LF in German, and in Swedish either at the surface or at LF. ForceP is headed by the speech act operator REJECTQ. The definition of REJECTQ is given in (29). REJECTQ takes a proposition $q$ and an illocutionary modifier (IM) as its arguments. It comes

---

Peter kommt doch wohl auch nicht?

Peter comes MP MP also not

'Surely Peter isn't coming, either?'

The difference between (28a) and (i) is the proposition that satisfies the presupposition of *also*. In (28a), it is presupposed that someone in addition to Peter is coming, which is satisfied by the contextual evidence (Noah is coming). In (i), it is presupposed that someone in addition to Peter is not coming, which is satisfied by the speaker's previous assumption (epistemic bias). The negation in (i) is very low. We will leave these interactions for future research.

26 We deviate here from the proposal in Repp (2009) where FALSUM scopes over the proposition and speech act operators scope over FALSUM. However, the semantic composition of the two elements is similar.
with two presuppositions. The first is that on an evidential basis there is the degree of commitment to add \( \neg q \) to the common ground that is expressed by the respective IM. Thus, if IM is FALSUM, the evidence is such that it does not support commitment to \( \neg q \) if IM is VERUM the evidence is such that it supports high commitment to \( \neg q \). The second presupposition of REJECTQ is that on an epistemic basis (i.e. according to the speaker’s previous assumptions), there is the IM-determined degree of commitment to add \( q \) to the common ground. The non-presuppositional meaning contribution of REJECTQ is to form a set of propositions that are modified by IM. Thus, a rejecting question essentially asks the addressee what the commitment to a specific proposition should be in the face of conflict with contextual evidence.

\[
[\text{REJECTQ}] = \lambda q. \lambda \text{IM}: (\text{IM}(\neg q))^{\text{evid}} \& (\text{IM}(q))^{\text{epist}}. \{\text{IM}(q), \neg\text{IM}(q)\}
\]

Sample derivations for the PRQ Peter kommt doch wohl? (‘Surely Peter is coming?’) and for the NRQ Peter kommt doch wohl nicht? (‘Surely Peter isn’t coming?) are given in (30). For better readability, the presupposition is underlined. Note that both in the PRQ and in the NRQ, the proposition \( p \) is non-negative because FALSUM and VERUM are not propositional operators.

(30) a. Peter kommt doch wohl (‘Surely Peter is coming?’)

\[
\lambda q. \text{VERUM}(q) \quad \lambda \text{IM}: (\text{IM}(\neg\text{Peter kommt}))^{\text{evid}} \& (\text{IM}(\text{Peter kommt}))^{\text{epist}}.
\]

\[
\{\text{VERUM}(\text{Peter kommt}), \neg\text{VERUM}(\text{Peter kommt})\}
\]

REJECTQ

\[
\lambda q. \lambda \text{IM}: (\text{IM}(\neg q))^{\text{evid}} \& (\text{IM}(q))^{\text{epist}}. \{\text{IM}(q), \neg\text{IM}(q)\}
\]

\[
\lambda q. \lambda \text{IM}: (\text{IM}(\neg q))^{\text{evid}} \& (\text{IM}(q))^{\text{epist}}. \{\text{IM}(q), \neg\text{IM}(q)\}
\]
b. Peter kommt doch wohl nicht (‘Surely Peter isn’t coming?’)

\[
\text{[Falsum}(\neg\text{Peter kommt})_{\text{evid}} \& [\text{Falsum}(\text{Peter kommt})]_{\text{epist}}.
\]

\[
\{\text{Falsum}(\text{Peter kommt}), \neg\text{Falsum}(\text{Peter kommt})\}
\]

\[
\lambda p. \text{Falsum}(q) \quad \lambda \text{IM}: [\text{IM}(\neg\text{Peter kommt})]_{\text{evid}} \& [\text{IM}(\text{Peter kommt})]_{\text{epist}}.
\]

\[
\{\text{IM}(\text{Peter kommt}), \neg\text{IM}(\text{Peter kommt})\}
\]

\[
\text{RejectQ} \quad \text{Peter kommt}
\]

\[
\lambda p \lambda \text{IM}: [\text{IM}(\neg q)]_{\text{evid}} \& [\text{IM}(q)]_{\text{epist}}. \quad \{\text{IM}(q), \neg\text{IM}(q)\}
\]

We assume that the insisting nature of RQs that we mentioned in the introductory sections follows from the specific epistemic bias of the speaker: before the speaker asked the question s/he thought that s/he was committed to a certain proposition, or that s/he was definitely not committed to that proposition. This is different from NDQs and PDQs where it is only required that the speaker did not actively believe what the contextual evidence suggests.

Returning to the issue of the licensing of polarity items in RQs, we follow Giannakidou (2011) in assuming that veridicality is the crucial theoretical notion behind the licensing of NPIs. Strict NPIs must occur under antiveridical operators like negation, while weak NPIs can be embedded under nonveridical operators like e.g. a question operator. Furthermore, they can be 'rescued' from ungrammaticality when in the scope of a veridical operator as long as the context of their host utterance makes available a nonveridical operator that can be associated with the NPI. For example, the sentence in (31a) can host the weak NPI anybody because it entails (31b), whose antiveridical operator 'rescues' anybody by associating with it ‘in the context’.

(31)  a. Only John knows anybody here.
       b. No one but John knows anybody here.

In examples (26) and (27) above, ausstehen and någonsin are weak NPIs – they are licensed in questions and under negation – while roter Heller is strict – it requires a c-commanding antiveridical operator like negation.

The observation that (27b), where roter Heller occurs in the surface scope of negation, is unacceptable can be easily explained in our analysis because the base proposition before the
application of REJECTQ and FALSUM is positive in polarity. There is no antiveridical operator that would license this strict NPI. As for the unacceptability of (26) and (27a), where the NPIs are weak and thus should be licensed by a question operator, we might hypothesize that the REJECTQ operator differs from the ‘ordinary’ question operator in polar questions with respect to NPI licensing. However, this hypothesis is not tenable because certain polar questions show exactly the same NPI patterns as rejecting questions, as we will show instantly (see (32) further below). Therefore, we tentatively assume that the unacceptability of (26) and (27a) follows from REJECTQ's presupposition that there is contextual evidence for IM(¬q), which, when combined with the meaning of FALSUM, gives rise to the inferences that the speaker believes that Peter can stand French films (in the case of (27a)) and that the addressee has ever been to Greenland (in the case of (26)). Beliefs arguably are not subject to grammatical licensing conditions. Still, should the speaker want to make these beliefs explicit, s/he would have to formulate positive sentences that host NPIs. PPIs are predicted to be acceptable in NRQs on this tentative account, which is borne out.

Turning to the licensing of NPIs in polar questions, which we mentioned above, we can offer a similar kind of reasoning. Consider the polar question in (32), which involves high negation. This question should be able to host a weak NPI, even if the negative marker in (32) corresponds to FALSUM: A positive polar question can, in fact, host ausstehen. Now, polar questions with high negation come with the presupposition that the speaker believes p, which in (32) is that Peter can stand French films. Again this belief ‘hosts’ an NPI.

In a sense, the presuppositions that rejecting questions and polar questions with high negation come with are similar to Giannakidou's proposed rescuing of NPIs in veridical contexts. In the examples under discussion here, a contextually available proposition of positive polarity (the speaker believes q in the case of polar questions with high negation, and the speaker presupposes that there is contextual evidence for q in the case of NRQs) antilicenses weak NPIs in nonveridical contexts, see Seeliger (in preparation for an elaboration of this topic).

(32) *Kann Peter nicht französische Filme ausstehen?
    can Peter not French films stand
    Intended: 'Can't Peter stand French films?'

It is an issue for future research to explore the sensitivity of inferences and presuppositions to
grammar aspects in a systematic way, but recall footnote 25, which highlights a sensitivity of this sort in connection with the presupposition of the additive particle *auch* (‘too’).

Turning to the syntactic side of REJECTQ, our proposal for German from section 4.3 can stay as it was except that the negation in NRQs is not interpreted in situ but as the FALSUM operator, which at LF (German) or at the surface (sometimes in Swedish) appears high in the structure, as we just saw. The assumption that FALSUM appears in the specifier position of REJECTQ is similar to Zimmermann’s assumptions about the syntax-semantics interface of sentences with *wohl*. As for the modal particle complex *doch wohl*, we assume that this complex enters a feature chain with appropriate features on the REJECTQ head:

\[
(33) \quad \text{[ForceP FALSUM [REJECTQ[doch wohl]Peter kommt nicht \[vP tPeter \[\text{kommen}\]]]]]
\]

For Swedish, we assume that REJECTQ can come with or without a syntactic feature that overtly attracts FALSUM or the modal particles *visst/nog* to its specifier position. As we argued above, the uniting semantic feature of these elements is that they are conversational epistemic operators. As for the presence of *väl* in NRQs, *men* (‘but’) plus *väl* in PRQs and *ju* in rejections we must assume that they are cues in the sense of Grosz (2014), i.e. that their presence is required in cases of potential ambiguity between different types of speech act. In Swedish negative declaratives, ambiguity arises if the negation is low: negative declaratives with low negation in principle can (at least) be assertions, NDQs, rejections, and NRQs. We know that rejections and NRQs differ in their prosody (Seeliger & Repp, to appear). Intonation can also disambiguate NDQs and assertions (Gårding 1979, House 2003). However, intonation does not seem to be enough for a disambiguation of rejective vs. non-rejective utterances, i.e. RQs vs. DQs, and rejections vs. negative assertions. Morpho-syntactic means are employed for this differentiation.

7 Conclusion

We have argued that RQs in German and Swedish are best modelled by an illocutionary operator, REJECTQ, which takes a proposition and an illocutionary modifier as its argument, and which comes with certain presuppositions concerning the evidence available in the situation as well as the speaker’s previous assumptions. The presence of the illocutionary
modifier \textsc{falsum} can be indicated by a high syntactic position of the negation (in Swedish), and by the combination of a negative marker in its canonical position with modal particles or modal particle stacks that do not receive a compositional meaning. The presence of \textsc{verum} is only indicated by modal particles or modal particle stacks. This proposal brings questions with declarative syntax in line with theories about questions with interrogative syntax, in which more than one syntactic position and pragmatic function of negation have long been proposed (Romero & Han 2004; Repp 2009, 2013, Krifka 2015).

8 References


Haumann, Dagmar & Letnes, Ole. 2012. German "wohl": An Evidential? In Covert Patterns


