First Comps Paper

Title
Negation as a Marker of Commitment

Simone Hartung
Spring 2009

Readers
Chair: Ivano Caponigro
Robert Kluender
Andrew Kehler
1. Introduction

Negation in natural language has many uses. The cross-linguistically most common use of negation is its logico-semantic use: when negation is added to a sentence, the original positive sentence cannot be true in the same situations in which the negated sentence is true. Negation is sometimes also used meta-linguistically (Horn 1985) for rejecting the pronunciation of a word as in *My name is not [simona] but [simone]*; it is also used for the purpose of reinforcing another negation marker as in *I don’t like no meat*; and, in languages such as German and Italian, negation can even have an expletive use as in *Ich gehe nicht bevor du nicht aufgeräumt hast* ‘I won’t go before you have (not) tidied up’ where the presence or absence of the (bracketed) negation in the *before*-clause does not change the truth-conditions.

In this paper, I present a new and unexpected use of the German negation marker *nicht* which reveals itself only in the combination of *nicht* with polar interrogatives such as (1). In addition to reversing the content of the interrogative, the negation marker *nicht* can be used for indicating the speaker’s commitment to the content of the interrogative.

(1) **Hat damals nicht Max den Kuchen gemocht?**
    has back then not Max the cake liked
    ‘Is it not the case that Max like the cake back then?’

Uttering the polar interrogative in (1) commits its speaker to believing that *Max liked the cake back then* just as an asserted declarative would do. The utterance of the polar interrogative in (2), which contains two negation markers, informs the addressee that the speaker of (2) commits to believing that *Max did not like the cake back then*. Since interrogatives are by definition not informative, this is a surprising effect.

(2) **Hat damals nicht Max den Kuchen nicht sonderlich gemocht?**
    has then not Max the cake not particularly liked
    ‘Is it not the case that Max did not like the cake at all back then?’

(3) **Max hat damals nicht den Kuchen nicht gemocht.**
    Max has back then not the cake not liked

The distinctiveness of the effect of combining negation with polar interrogatives is
also evidenced in the surprising fact that two negation markers can co-occur in German polar interrogatives (2) but not in German declarative constructions (3).

Second, the interrogative sentence containing the negation marker nicht in (4) does not license German Negative Polarity Items (NPIs) such as sonderlich (roughly, ‘at all’).

(4)  Hat damals nicht Max den Kuchen (*sonderlich) gemocht?
   has back then not Max the cake NPI liked ‘Is it not the case that Max like the cake (*at all) back then?’

That the NPI is not licensed in (4) is surprising, because, according to Ladusaw (1980), NPIs are licensed in (i) interrogatives and (ii) downward-entailing environments such as the scope of negation. The linguistic object in (4) is (i) a polar interrogative and (ii) the NPI occurs in the scope of the negation marker nicht. This should fulfill the requirements of NPIs doubly but the combination of negation and polar interrogative in (4) does not license the NPI at all. Hence, it seems that the negation marker in the interrogative in (4) lacks the usual semantic effect of creating a downward-entailing environment.

The semantic object of polar interrogatives with content p is commonly thought to be the set containing their possible answers p and ¬p (Hamblin, 1973). Although this analysis does not distinguish negated and positive polar interrogatives since in both cases their denotation is {p, ¬p}, negation is generally thought to have an impact on the content of the interrogative. Curiously, the combination of negation and polar interrogative (1,2) yields a new phenomenon which has nothing to do with the compositional semantic analysis of negation and polar interrogative.

In a nutshell, my proposal for the analysis of the pragmatic rather than semantic effects of the combination of polar interrogatives and negation in this paper is the following: German negated polar interrogatives like (1) and (2) in part behave like standard polar interrogatives and in part as asserted declaratives. As standard polar interrogatives, they are semantically sets of propositions that pragmatically raise the issue of their propositional content p being true or its negation ¬p being true. As asserted declaratives, they publicly
commit their speaker to believing in the truth of their content. The negation in a polar interrogative like (4) does not have any semantic (truth-conditional) effect, but it triggers a pragmatic bias, functioning as a ‘commitment marker’. Although the speaker is raising the issue of which proposition is true among the set of proposition p and ¬p, she commits to believing in p and therefore she is biased towards the truth of p rather than ¬p. My analysis of the pragmatic behavior of polar interrogatives with nicht like the ones in (1) and (2) is inspired by the notion of context structures, developed in Farkas & Bruce (2007) and Gunlogson (2003; 2008). In this framework, utterances are defined in terms of their contribution to the current discourse.

The discourse-level meaning contribution of informing the addressee about the speaker’s attitude regarding the content of the interrogative seems tightly connected to the specific occurrence of negation in polar interrogatives. The question arises whether it is really an idiosyncratic property of negation in polar interrogatives to sometimes affect the content of the utterance and to sometimes contribute to the discourse-level meaning, or whether it is part of a broader phenomenon. I will show that occurrences of particles different from negation in negated or affirmative declarative and interrogative constructions elicit a similar effect on the discourse-level meaning of the utterance. I suggest that the phenomenon at hand should be viewed in the broader context of German’s elaborate system of discourse particles which have the clear discourse function of conveying the speaker’s attitude among other discourse related information (Weydt 1983).

This paper starts out by introducing and characterizing the phenomenon in section 2. I will show that polar interrogatives with nicht as the ones in (1) and (2) are to be crucially distinguished from other types of polar interrogatives, from rising declaratives and from tag-interrogatives. The stage for the analysis is set in introducing the framework in the first part of section 3. Then I present my proposal for an analysis of the discourse-level meaning effect of negated polar interrogatives. The contribution of papers dealing with related phenomena such
as e.g. light negation (Schwarz & Bhatt 2004) or preposed negation (Romero & Han 2004) is discussed in the fourth section of this paper. In the 5th section, I embed the phenomenon at hand into the larger picture of German’s system of discourse particles before I conclude.

Before starting with the characterization of the phenomenon of interest, I would like to point out that this paper is concerned with German, and the English translations might not necessarily mirror the exact same effect of the corresponding German example. Furthermore, it will be convenient to introduce some terminology used throughout this paper. I follow Groenendijk & Stokhof (1994) in that I distinguish terminologically between the syntactic object, the semantic and the pragmatic object of utterances. Two relevant types of utterances in this paper are declarative and interrogative sentences. I will use the terms interrogative and declarative for referring to the syntactic object defined as a particular type of sentence with a particular word order, containing a question mark and colon, respectively. The terms interrogative act and declarative act are used to refer to the pragmatic object, i.e. the act of asking a question or making an assertion. Finally, the terms question and assertion are used to refer to the semantic content of an interrogative and declarative, respectively. Following Farkas (2007), I will refer to part of the syntactic object – namely the sentence part without the operators – as sentence radical. Finally, a convention: in the text, a sentence in italics means that the sentence is viewed as a syntactic object, while no italics between ‘single quotation marks’ means that I am referring to the propositional content.

2. The Phenomenon

In this section, I discuss properties of the special constructions which combine negation and polar interrogatives in a manner which yields a pragmatic effect. I will show that the negation in these instances occurs higher in the clause than standard sentential negation, is semantically inert (does not affect truth conditions) and pragmatically functions as a ‘commitment marker’ and imposes conditions on the discourse.
2.1. **Syntactic Differences**

The combination of negation and polar interrogative in German does not always yield the pragmatic effect indicated in the introduction. Sometimes, negation affects the content of the interrogative as expected. The specific pragmatic effect of committing the speaker to the content of the interrogative in the case of the combination of negation in polar interrogatives arises when *nicht* occurs in syntactic positions that are inadmissible in declaratives but admissible in interrogatives. Negation has its standard effect on the content of the interrogative in case it occurs in a syntactic position in the interrogative which is admissible also in declarative clauses. That is, the syntactic position of *nicht* in interrogatives determines whether *nicht* acts on the pragmatics or whether it constitutes standard truth-conditional negation.

First, note the various positions that negation may have in German polar interrogatives like (5a), and note further that only the lowest position for *nicht* is also an admissible syntactic position for *nicht* in declaratives like (5b).

(5)

a. Hat (nicht) Max (nicht) den Kindern (nicht) die Geschenke (nicht) gegeben?
   has not Max not the children not the presents not given
   ‘Didn’t Max give the children their presents?’

b. Max (*nicht) hat (*nicht) den Kindern (*nicht) die Geschenke (nicht) gegeben.
   Max not has not the children not the presents not given

The bracketed occurrences of *nicht* in (5a) indicate all the possible positions of *nicht* in German polar interrogatives, but the sentences in (5) are intended to only have one occurrence of *nicht* each.

Usually, in declarative clauses, the negation marker *nicht* has to follow definite noun phrases like *die Kinder* ‘the children’ in (6) and cannot precede them, as shown by the unacceptability of (7).

(6) Max hat die Kinder *nicht* abgeholt.
   Max has the children *not* picked up
   ‘Max did not pick up the children.’
Max has not the children picked up

The syntactic flexibility of the negation marker *nicht* in polar interrogatives does not prohibit negation in its usual location following the verb’s objects, as shown in (8).

(8)  Hat Max die Kinder *nicht* abgeholt?
     Has Max the children not picked up
     ‘Did Max not pick up the children?’

In contrast to declarative clauses, in interrogatives like (9), negation can precede definite noun phrases like *die Kinder* in (9a).

(9)  a.  Hat Max *nicht* die Kinder abgeholt?
     Has Max not the children picked up
     ‘Is it not the case that Max picked up the children?’

In interrogatives, *nicht* can even precede the subject (*Max*), as shown in (9b).

   b.  Hat *nicht* Max die Kinder abgeholt?
       Has not Max the children picked up
       ‘Is it not the case that Max picked up the children?’

While the negation in the polar interrogative in (8) affects the content of the interrogative as expected, the negation in the interrogatives in (9) does not. To distinguish terminologically the negation which occurs *higher* in the interrogative’s structure and has a pragmatic function from standard negation, I henceforth refer to it as *high negation* (see also Figure 1).

In German standard negated polar interrogatives with definite objects such as (8), the negation marker is in the lowest possible position preceding the verb. In the case of high negation, the negation marker is either positioned between auxiliary and subject (9b), between subject and object (9a) or between object and object as can be observed in (5a) where *nicht* is found between *den Kindern* ‘the children’ and *die Geschenke* ‘the presents’. Hence, the case of double negation in a polar interrogative in the example in (2), repeated here as (10),

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1 This sentence would be fully acceptable with narrow (constituent) focus on *nicht*. All sentences in this paper are to be understood with no special focus marking unless otherwise noted.

2 I always mark the special negation by boldfacing and underlining it.
constitutes an instance where two different uses (pragmatic and truth-conditional) of nicht co-occur.

(10) Hat damals **nicht** Max den Kuchen **nicht** sonderlich gemocht?
    has then **not** Max the cake **not** particularly liked
    ‘Is it not the case that Max did not like the cake at all back then?’

Since high negation only appears in polar interrogatives (compare examples 2 and 3) and since it can take both, negated (10) and positive (9b) polar interrogatives in its scope, I am assuming that the operator high negation (abbreviated as HiNeg) has widest scope over the interrogative including the interrogative operator ? and the sentence radical (Figure 1).

The sentence radical may contain an additional negation marker occurring in the negation phrase (NegP). The purpose of Figure 1 is to display my assumption regarding the syntactic position of high negation relative to the rest of the interrogative and is only meant as a rough sketch.

![Figure 1: Its structurally high position gives high negation its name.](image)

In German, the negation of sentences with definite objects works differently from the negation of sentences with indefinite objects: In the case of indefinite noun phrases in German declarative sentences such as (11), the negation marker nicht and indefinites such as *ein* ‘a’ have to amalgamate to form *kein* ‘no’.

(11) Max hat **kein** Kind abgeholt.
    Max has no child picked up
    ‘Max did not pick up any child.’
In declarative clauses like (12), the negation marker *nicht* usually cannot\(^3\) precede indefinite noun phrases like *ein Kind* ‘a child’.

(12) * Max hat **nicht ein** Kind abgeholt. 
Max has not a child picked up

In contrast to declaratives, both the non-amalgamated sequence *nicht [...] ein* (13) and the amalgamated form *kein* ‘no’ (14) occur with indefinite noun phrases in interrogatives.

(13) a. **Hat Max **nicht einen** Kuchen gebacken?**
Has Max not a cake baked
  ‘Is it not the case that Max baked a cake?’

b. **Hat **nicht Max** einen** Kuchen gebacken?**
Has not Max a cake baked
  ‘Is it not the case that Max baked a cake?’

(14) **Hat Max **keinen** Kuchen gebacken?**
Has Max no cake baked
  ‘Did Max not bake a cake?’

The cases where *nicht* and *ein* do not amalgamate in interrogatives are cases of high negation, as indicated by the translations in (13) vs. (14).

In sum, while the syntactic position of *nicht* in declaratives is relatively strict, in polar interrogatives, *nicht* may occur in a variety of positions. Whereas standard negation always has to amalgamate with a following indefinite determiner, *nicht* in interrogatives does not have to amalgamate but may remain separate from following indefinites. When *nicht* appears in positions that are possible only in interrogatives, it functions as high negation.

2.2. **Semantic Differences**

Depending on the position of the negation marker in interrogatives, the polarity of the interrogative’s content differs. Standard sentential negation affects the truth conditions of the declarative sentence in which it occurs. Since interrogatives are neither true nor false, the contribution of negation has to be detected indirectly, by looking at its effects on the licensing

\(^3\) If the determiner *ein* ‘a’ receives focus (i.e. ‘not one’), this construction is possible.
of polarity items in interrogatives (Sec 2.2.1) and on answer particles (Sec. 2.2.2).

2.2.1 Negative and Positive Polarity Items

German NPIs include items such as sonderlich ‘especially’\(^4\), auch nur (roughly, ‘even’) or jemals ‘ever’. NPIs are licensed in (i) interrogative\(^5\) clauses such as (14) and in (ii) downward entailing (DE) environments (Ladusaw 1980). A linguistic context (i.e. a chunk of linguistic structure) is DE if conclusions from superset to subsets can be drawn with respect to that context. The scope of negation is the typical example of a DE-context in which NPIs are licensed, and thus sonderlich is licensed in (15).

(14) Hat Max den Kuchen sonderlich gemocht?
    has Max the cake NPI liked
    ‘Did Max like the cake at all?’

(15) Max hat den Kuchen nicht sonderlich gemocht.
    Max has the cake not NPI liked
    ‘Max did not particularly like the cake.’

Surprisingly, high negation polar interrogatives do not license NPIs, although they are (i) interrogatives, and (ii) their high negation scopes over the NPI as shown in (16). Actually, it seems as if high negation anti-licenses NPIs. This behavior is the opposite of standard negation, as demonstrated by the contrast in acceptability between standard (17) and high (16) negation polar interrogatives with NPIs.

(16) Hat Max nicht den Kuchen (*sonderlich) gemocht?
    Has Max not the cake NPI liked
    ‘*Is it not the case that Max liked the cake at all?’

(17) Hat Max den Kuchen nicht sonderlich gemocht?
    has Max the cake not NPI liked
    ‘Did Max not like the cake at all?’

Unlike standard sentential negation, high negation does not seem to create a DE-context. That is, high negation does not have the same effect on the sentence radical in the interrogative as

\(^4\) At all in English has a similar effect as sonderlich in German but has a different meaning: ‘especially’.
\(^5\) Except for alternative questions, where NPIs are not licensed.
standard negation does.

The positive counterpart of NPIs are Positive Polarity Items (PPIs) such as, for German, *ziemlich* ‘quite’ or *weit* ‘far’. In contrast to NPIs, PPIs are usually not found in DE-contexts such as the scope of negation. This is shown by the ungrammaticality of the declarative in (18) where *ziemlich* is in the scope of *nicht*. Furthermore, PPIs are not acceptable in regular polar interrogatives (19).

(18) * Max hat den Kuchen **nicht ziemlich** gemocht.
    Max has the cake **not** PPI liked

(19) * Hat Max den Kuchen **ziemlich** gemocht?
    has Max the cake **PPI** liked

The licensing conditions of PPIs predict that high negation polar interrogatives are not acceptable with a PPI, because they are both negative and interrogative. Surprisingly, *ziemlich* is licensed in the scope of high negation in a polar interrogative, as shown in (20). In the polar interrogative in (20), *nicht* scopes over the PPI, but high negation is still acceptable.

(20) Hat Max **nicht** den Kuchen **ziemlich** gemocht?
    has Max **not** the cake **PPI** liked
    ‘Is it not the case that Max quite liked the cake?’

This clearly shows that high negation does not act as standard negation and does not affect the content of the interrogative. It looks as if high negation adds something to the nature of the interrogative, permitting PPIs and anti-licensing NPIs.

2.2.2 **Answer particles**

Further evidence that high negation does not affect the content of interrogatives comes from the answer particles that can be used to reply to a high negated vs. standard polar interrogative. German possesses the same answer particles *ja* ‘yes’ and *nein* ‘no’ as English. *Ja* is used by the speaker to answer a positive polar interrogative such as *Did Max like the cake?* when she agrees with the proposition associated with the positive sentence radical in the interrogative (‘Max liked the cake’). *Nein*-answers to the same interrogative are used to
indicate that the answerer disagrees with the propositional content of the positive sentence radical in the interrogative and that the answerer thinks that the negated sentence radical is true, i.e. that ‘Max did not like the cake’. Additionally, German speakers employ the reversal particle (Farkas 2007) *doch*\(^6\) to indicate that the positive sentence radical *Max liked the cake* is true in case of a negated polar interrogative such as *Did Max not like the cake?*. If someone for instance asks you *Did you not go to the mountains last weekend?*, you can use *doch* to express that you actually DID go to the mountains. *Doch* cannot be used to answer positive polar interrogatives. This pattern of possible answers is summarized in the third column in Table 1, titled **Positive Polar Interrogative**. In contrast to positive polar interrogatives, in the case of a **negated polar interrogative** like *Did Max not like the cake?* in the second column of Table 1, both the *ja*-answer and the *nein*-answer convey that the speaker agrees with the propositional content of the negated sentence radical ‘Max did not like the cake’.

*Doch* is a felicitous answer to a standard negation polar interrogative and is used to convey that the opposite of the proposition associated with the negated sentence radical is true, i.e. that ‘Max liked the cake’.

<table>
<thead>
<tr>
<th>Use of answers to Answer Particles</th>
<th>Negated Polar Interrogative</th>
<th>Positive Polar Interrogative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ja</strong> ‘Yes’</td>
<td>‘Max did not like the cake’</td>
<td>‘Max liked the cake’</td>
</tr>
<tr>
<td><strong>Doch</strong> ‘reversal particle’</td>
<td>‘Max did not like the cake’</td>
<td>INFELICITOUS</td>
</tr>
<tr>
<td><strong>Nein</strong> ‘No’</td>
<td>‘Max did not like the cake’</td>
<td>‘Max did not like the cake’</td>
</tr>
</tbody>
</table>

**Table 1** The rows contain the different answer particles and show when they are used, and inform the reader whether a particular answer particle is possible with a particular interrogative type. The column titled Negated Polar Interrogatives shows the use of answers to negated polar interrogative and the column titled Positive Polar Interrogative shows the use of the answer particles to positive polar interrogatives.

Turning to the pattern of high negation polar interrogatives (20), summarized in Table 2, the *ja*-answer conveys that ‘Max liked the cake’ similar to the *ja*-answer to

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\(^6\) German *doch* is used in the same way as French *si* is used.
positive polar interrogatives. Likewise, the *nein*-answer to a high negation polar question conveys that ‘Max did not like the cake’, similar to the *nein*-answer to positive polar interrogatives. Finally, just as in the case of positive polar interrogatives, *doch* cannot be used to answer high negation questions. Hence, *doch* is another reliable test for high negation.

<table>
<thead>
<tr>
<th>Use of answers to</th>
<th>High Negation Polar Interrogative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Answer Particles</strong></td>
<td><em>Is it not the case that Max liked the cake?</em></td>
</tr>
<tr>
<td><strong>Ja</strong> ‘Yes’</td>
<td>‘Max liked the cake’</td>
</tr>
<tr>
<td><strong>Doch</strong> ‘reveral particle’</td>
<td>INFELICITOUS</td>
</tr>
<tr>
<td><strong>Nein</strong> ‘No’</td>
<td>‘Max did not like the cake’</td>
</tr>
</tbody>
</table>

Table 2: The answer pattern of high negation polar interrogatives. The pattern is the same as for positive polar interrogatives.

In sum, the use of answer particles in response to high negation questions resembles the pattern of usage of answer particles in response to positive polar interrogatives and differs from the use of answer particles in response to polar interrogatives with standard truth-conditional negation. This brings further evidence to my claim that high negation does not have any truth-conditional import.

2.3. **The Contribution of High Negation**

As we just saw, high negation differs from standard sentential negation as far as the licensing of polarity items and answer particles is concerned. There are several other contrasts, which are discussed in this section: speaker’s beliefs and conditions on the discourse (Sec. 2.3.1) and conditions on the answer (Sec. 2.3.2).

2.3.1 **The Speaker’s Belief and its Consequences for Discourse Conditions**

High negation polar interrogatives are biased interrogatives in conveying that the propositional content of a high negation interrogative is the speaker’s belief. By using a high
negation polar interrogative, the speaker commits to believing in the truth of its propositional content. Standard negation polar interrogatives do not convey such a bias and therefore impose different conditions on the discourse.

In this section, I will demonstrate this contrast between standard and high negation polar interrogatives by means of minimally paired contexts, either allowing for a speaker’s bias or signaling the speaker’s ignorance regarding the crucial propositional content. Then, I will go on to show that different types of contexts that can host high negation polar interrogatives all have in common that they allow for the speaker’s bias AND make available a plausible reason for the speaker to commit to her belief, and to ask the addressee for her contribution to the issue raised with the interrogative. Although, as the reader will see, there is overlap between contexts fulfilling the requirements of standard and high negation polar interrogatives, the discourse conditions for their occurrence have to be crucially distinguished.

Consider the high negation polar interrogative in (21), which commits the speaker to her belief that ‘Max liked the cake back then’. The belief is the propositional content associated with the sentence radical underneath high negation.

(21) Hat damals **nicht** Max den Kuchen gemocht?
    has then not Max the cake liked
    ‘Is it not the case that Max liked the cake back then?’
    \[\text{Speaker’s belief:} \quad \text{‘Max liked the cake back then’}\]

By contrast, turning to the high negation polar interrogative in (22), which contains an additional standard negation marker below the object (*den Kuchen*), the high negation conveys to the addressee that the speaker commits to her belief that ‘Max did **not** particularly like the cake back then’.

(22) Hat damals **nicht** Max den Kuchen **nicht** sonderlich gemocht?
    has then not Max the cake **not** particularly liked
    ‘Is it not the case that Max did not particularly like the cake back then?’
    \[\text{Speaker’s belief:} \quad \text{‘Max did not particularly like the cake back then’}\]

It is always the propositional content associated with the sentence radical underneath high negation – no matter whether it is positive or negative - that is equal to the speaker’s belief.
expressed by the high negation polar interrogative.

To see that standard and high negation polar interrogatives differ in that the latter publicly commit their speaker to their content while the former are regular non-informative interrogatives, consider the scenario in (23), in which it is emphasized that the speaker of the crucial interrogative (23a/b) does not have a basis for committing to the propositional content of the interrogative that ‘the project received the grant’. As per the context, the speaker (Ralph) of the crucial interrogative (23a/b) is ignorant of the issue in question.

(23) The professor had applied for financial support for a project. Ralph is a new student and doesn't feel competent to judge their chances to receive a grant. When the professor says: “The financial situation of the project doesn’t look good!” Ralph asks:

a. # Hat das Projekt **nicht** die finanzielle Unterstützung bekommen? High Negation
   has the project **not** the financial support **received**
   ‘Is it **not** the case that the project received the grant?’

b. Hat das Projekt die finanzielle Unterstützung **nicht** bekommen? Negated Polar
   has the project the financial support **not** received
   ‘Did we not receive the grant?’

Because the context in (23) withdraws the basis for the speaker’s belief regarding the issue in question, (23a) is infelicitous under this scenario. It does not make sense that the speaker commits to his belief that ‘the project received the grant’ when the addressee (i.e. the professor) knows that the speaker does not have any basis from prior experience for such a belief. By contrast, a standard negation polar interrogative (23b) is appropriate in the scenario in (23), suggesting that standard negation polar interrogatives do not commit the speaker to the proposition as do high negation polar interrogatives, and thus for purposes of a standard negated polar interrogative, the context may be unbiased in regard to the proposition in question. Standard negation polar interrogatives are truly unbiased interrogatives and therefore do not require a basis for the bias.

Turning to the context in (24), which builds a minimal pair with (23), in the context in (24), the speaker of the crucial interrogatives (24a/b) has a basis for his belief that ‘the project received the grant’ in form of rumors in the lab.
The professor had applied for financial support for a project. Ralph has heard rumors in the lab that their project received a grant. When the professor says: “The financial situation of the project doesn’t look too good!” Ralph asks:

a. Hat das Projekt nicht die finanzielle Unterstützung bekommen?
   has the project not the financial support received
   ‘Is it not the case that the project received the grant?’

b. Hat das Projekt die finanzielle Unterstützung nicht bekommen?
   has the project the financial support not received
   ‘Did the project not receive the grant?’

Interestingly, as soon as the context is modified minimally, such that the speaker has a plausible basis for his belief, (24a) becomes acceptable. The standard negation polar interrogative is acceptable in both contexts (23) and (24). That is, although the standard polar interrogative does not require a plausible basis for a speaker’s belief, it can occur in a context allowing for a speaker’s bias.

In order for a speaker to publicly commit to her belief and to raise it as an issue, there has to be a reason for her to do so. This is a particular condition of high negation polar interrogatives, which are on the one hand biased like a declarative, but on the other hand give rise to issues about the speaker’s belief. This discourse condition of high negation polar interrogatives is different from the conditions that standard negation polar interrogatives impose on the discourse. Since a standard negation polar interrogative does not commit the speaker to its propositional content while giving rise to issues regarding the content, its use does not require from the discourse a reason for discussing the speaker’s belief. In the context in (24), the reason for the speaker to commit to his belief and raise it as an issue is the conflict between his belief and the professor’s utterance. The speaker’s belief is the opposite of what the professor’s statement implies. Therefore, Ralph publicly commits to his belief in order to flag this conflict for the professor and, at the same time, to ask for the professor’s contribution on how to resolve this conflict. The negative implication of the professor’s statement, which is part of the conflict, is also able to license a standard negated polar interrogative.

Consider now the context in (25), which contains no conflict and does not license a
standard negation polar interrogative (25b) but does license a high negation polar interrogative. In the context in (25), the speaker’s (Lisa’s) desire gives rise to her belief that ‘they should start to eat cake now’. The context in (25) provides a plausible reason for Lisa to commit to her belief and to discuss it: Lisa desires to begin the cake-eating now and wants it to become true, but the desire to eat cake is not fulfilled yet. She has to commit to her desire to signal it to her mom, and Lisa raises an issue in choosing the interrogative over a declarative since her mom will have the last say in what will be done, and therefore, Lisa invites her mom’s contribution to the issue in question. Thus, the high negation polar interrogative in (25a) is felicitous. The context in (25) does however not fulfill the requirements for standard negation polar interrogatives as seen in the infelicity of (25b) in the scenario in (25).

(25) It is Lisa’s birthday, and she has invited friends over to have coffee and cake with her. When they have all arrived, a boisterous and lively conversation takes place. Lisa wants to start eating cake and asks her mom who is just entering the room:

a. Sollen wir \textbf{nicht} jetzt mit dem Kuchenessen anfangen? \hspace{1cm} \textbf{High}
   should we not now with the cake-eating start
   ‘Is it not the case that we should start to eat cake now?’

b. \# Sollen wir jetzt noch \textbf{nicht} mit dem Kuchenessen anfangen?\footnote{As the reader might have noticed, the two crucial sentences in (25) are not exactly minimal pairs. The infelicitous b-sentence contains an additional noch ‘yet’. I chose to add the noch as otherwise the sentence in (25b) would have a high negation reading. The noch preceding the negation enforces the standard negation reading. The reader might ask also why we cannot use the sentence structure in (i).}
   \hspace{1cm} \textbf{Standard}
   should we now with the cake-eating start
   ‘Is it the case that we should not yet start to eat cake now?’

The standard negation polar interrogative in (25b) is infelicitous because, first, there is no reason to use a negated polar interrogative in contrast to the conflict scenario in (24) where the negative implication of the professor’s statement makes a negated polar interrogative felicitous. Second, its negative content contradicts Lisa’s desire to start with the cake eating now. This is further evidence that standard vs. high negation polar interrogatives impose

\footnote{(i)} * Sollen wir jetzt mit dem Kuchenessen \textbf{nicht} anfangen?
   should we now with the cake-eating \textbf{not} start
(i) is not a grammatical sentence with the negation following the prepositional phrase. The negation in German has to precede prepositional phrases.
different conditions on the discourse.

Turning to the context in (26), the scenario is such that the speaker (Moritz) of the crucial interrogatives in (26a/b) is asked for ideas about who to ask for help with proofreading. In accordance with Gricean maxims, Moritz would only present propositions as possibilities he himself believes in. Max’s request for suggestions is the reason for Moritz to commit publicly to beliefs relevant to the purposes of the current conversation, while at the same time raising issues for the solution of which Max’s contribution is solicited.

(26) Max and Moritz are students and have just finished writing their paper for submission to a conference. They need someone to proofread their work.
(i) Max says: “We want someone who is good at it! Who could we ask?
(ii) Moritz’ answer:

a. Ist nicht Chris ein guter Korrekturleser?
   isn't Chris a good proofreader
   ‘Isn’t Chris a good proofreader?’

b. # Ist Chris kein guter Korrekturleser?
   is Chris no good proofreader
   ‘Is it not the case that Chris is a good proofreader?’

c. Könnte nicht Chris das Korrekturlesen übernehmen?
   could not Chris the proofreading do
   ‘Couldn’t Chris do the proofreading?’

d. # Könnte Chris das Korrekturlesen nicht übernehmen?
   could Chris the proofreading not do
   ‘Could Chris not do the proofreading?’

The interrogative in (26b) is not felicitous in the context in (26) because the content of the interrogative ‘Chris is not a good proofreader’ contradicts his belief that ‘Chris is a good proofreader’ which is a necessary condition for making a suggestion.

Considering the suggestions in (26c/d), the polar interrogative in (26c) can be used to suggest Chris as a proofreader while (26d) cannot be used. Nicht in (26a) is a high negation whereas nicht in (26d) is a standard negation. Interrogatives such as (26c) can only be used to

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8 Considering the polar interrogatives in (26a/b), the reader notices that high negation nicht in (26a) is contrasted with kein (amalgamation of nicht and ein ‘a’) in (26b). Recall from section 2.1. that in the case of indefinite objects, this amalgamation is enforced in declarative clauses. In interrogatives, standard negation is represented in the amalgamated form kein while high negation is represented by the not-amalgamated form nicht ein ‘not a’.
suggest Chris as a possible proofreader if the speaker believes in that Chris could take on the proofreading. Since this belief is not conveyed by (26d), this interrogative is infelicitous in the context in (26).

In sum, while the conditions of high negation are fulfilled by the context in (26), as shown in the felicity of (26a/c), the context in (26) does not allow for standard negation polar interrogatives (26b/d), providing further evidence for the claim that the discourse conditions imposed by standard vs. high negation polar interrogatives differ.

I have presented three different types of interrogative contexts that allow for high negation. I do not claim that the occurrence of high negation is restricted to these three types of interrogative context, but they help to demonstrate the validity of the generalization: The contexts in which high negation polar interrogatives are felicitous all have in common that they all allow for a speaker’s bias regarding the content of the interrogative and for a reason for the speaker of the high negation polar interrogative to commit to her belief and to discuss it in form of a high negation polar interrogative. Presumably, there are many more interrogative context types that allow for high negation, but I claim that what they will all have in common is that they allow for the speaker’s bias and a reason for committing to it while raising an issue in regard to the belief. I conclude that the discourse conditions of standard and high negation polar interrogatives are crucially distinct, although they may at times overlap, as seen in the conflict scenario (24).

2.3.2. **Conditions on Answers**

Whenever the addressee’s answer to a high negation polar interrogative goes against the speaker’s bias, the answer cannot consist of just the appropriate answer particle (ja ‘yes’ or nein ‘no’), but the addressee also needs to give a reason for why the speaker should give up her belief and change her commitment. However, no further elaboration is required if the addressee’s reply is consistent with the speaker’s belief.
For instance, in the birthday-cake eating scenario in (25), Lisa will not be satisfied with a plain yes/no-answer in case she uses high negation. She is clearly committed to her desire to start eating the cake now. Her mother, who is the addressee of the polar interrogative, has to come up with a good explanation for why they cannot start yet in order for Lisa to accept any postponement of cake-eating. Examples of explanation might be that someone else is not there yet, the cream is not whipped yet, etc. Otherwise, a simple yes, let’s eat is sufficient as an answer. In case of a positive polar interrogative, which is also possible in the context of (25), a simple yes/no-answer suffices and no further convincing is necessary, independent of which answer is given.

Turning to the scenario in (26), where the speaker uses a polar interrogative with high negation to propose a solution, the addressee has to say WHY Chris would not be good for reviewing the paper if he wants to reject the proposal, e.g. oh, Chris doesn’t like proofreading or Chris is busy. Otherwise, a simple yeah, good idea would be sufficient.

2.4. Positive Interrogatives, Tag Interrogatives and Rising Declaratives

As seen in section 2.2.2, high negation and positive polar interrogatives exhibit the same pattern with answer particles. Therefore, the question arises whether positive and high negation polar interrogatives can be distinguished. High negation polar interrogatives indicate that their propositional content constitutes the speaker’s belief, and can therefore be viewed as biased interrogatives. Therefore, the question also arises whether high negation polar interrogatives can be distinguished from other biased constructions such as tag-interrogatives and rising declaratives (e.g. Gunlogson 2003; 2008).

Considering the scenario in (27) and the utterances in (27a) - (27d), the content of the utterances of the neighbor are based on her observations in the current situation. The content of the utterances in (27a) - (27d) is an inference from the speaker’s perception at the very moment that ‘the car is shiny’. There needs to be a reason for the car to be shiny which is
most likely that ‘Susi’s husband washed the car’.

(27) The car of Susi's husband stands gleaming in the driveway. Susi’s neighbor, who is just coming home, asks her:

a. Hat dein Mann sein Auto gewaschen?  
   ‘Has your husband washed his car?’

b. # Hat dein Mann **nicht** sein Auto gewaschen?  
   ‘Is it not the case that your husband washed his car?’

c. Dein Mann hat sein Auto gewaschen, nicht wahr?  
   ‘Your husband washed his car, didn’t he?’

d. Dein Mann hat sein Auto gewaschen?  
   ‘Your husband washed his car?’

While positive polar interrogatives (a), tag-interrogatives (c) and rising declaratives (d) can be used to inquire about a proposition that receives its content from inferences drawn from the current situation, high negation polar interrogatives (27b) cannot be used under the same discourse conditions. This pattern shows that the discourse conditions of high negation polar interrogatives have to be crucially distinguished from the occurrence conditions of positive polar interrogatives, tag-interrogatives and rising declaratives.

The discourse conditions of high negation polar interrogatives are not met by direct, immediate evidence for the belief expressed by the question, and this makes sense: In all contexts in section 2.3.1, the speaker’s belief originated either in previous experiences (e.g. in previously heard rumors in the lab, experiences which suggested Chris to be an expert for proofreading etc.) or in the speaker’s desire, but never in the current discourse situation. The current context is responsible for providing a reason to raise an issue in regard to the belief the speaker is publicly committing to by using high negation in a polar interrogative. Direct, positive contextual evidence for the belief might create a new belief, but is not a good reason to discuss a belief which originated in prior (to the current situation) evidence. Consistent
with the evidence from the contexts in which high negation polar interogatives can occur, they cannot be used to create a new belief but are restricted to committing to and discussing ‘old’ beliefs which have their basis in prior experience.

3. **A Theory of High Negation Polar Interogatives**

The purpose of this section is first to introduce a framework for modeling discourse (Sec. 3.1) and then to present a proposal that uses this framework to account for the properties and of high negation and its behavior in polar interogatives, as discussed in the previous section (Sec. 3.2).

3.1. **Modeling Discourse: a Framework**

I will employ a framework for modeling discourse moves, such as asking and answering a question, that is largely inspired by seminal work by Stalnaker (Stalnaker 1978) and more recent developments and extensions by Farkas (Farkas 2007; Farkas & Bruce 2007) and Gunlogson (Gunlogson 2003, 2008).

First, some terminological definitions and distinctions: The **common ground** (Stalnaker 1978) is the set of all the propositions the speakers agree upon in a discourse. I am assuming a possible worlds semantics where *propositions* are defined as sets of worlds. The common ground comprises propositions on the truth of which discourse participants had agreed upon in previous conversations; propositions regarding agreement on the rules of society on how to treat persons from a certain social class; propositions concerning knowledge of events generally known to the group the discourse participants are members of (for instance 9/11); propositions concerning knowledge about requirements on how to behave in different circumstances in this particular society, etc. Crucially, in order for a proposition to be part of the common ground, each of the interlocutors has to believe that the proposition is true, and that the other discourse participants also take the proposition to be true. All
discourse participants assume the propositions in the common ground to be mutual knowledge and beliefs. Every discourse participant has her own view on what is in the common ground but ideally, the views on the common ground should agree, and if inconsistencies show up the interlocutors will aim at creating consistent views on their common ground (Farkas & Bruce 2007).

For ease of presentation, I assume two discourse participants A and B throughout the remainder of the paper. The content of the common ground crucially depends on the discourse participants in a particular discourse, and is individualized. That is, speaker A and speaker B have a different common ground in discourse $d$ than have speaker A and speaker C in a discourse $d'$. The common ground stores the information newly learned and newly agreed upon in the discourse $d$, in addition to everything else the common ground of the interlocutors A and B already contained.

A discourse involves speech acts such as interrogative acts and declarative acts (see Introduction for definitions); it involves reactions to speech acts and agreement or disagreement over sentences being true or false. Reactions to speech acts include accepting the content of a declarative for it to become shared beliefs or knowledge, or answering a question. A model of discourse has to be able to capture the discourse’s ever-changing nature. Speech acts induce a change in the current state of the discourse. I use a construct called discourse structure (ds) to keep track of the different moves the discourse participants undertake for the duration of the discourse. The discourse structure $ds$ represents the state of the discourse $d$ between interlocutors A and B at a certain point in time $t$, and consists of subcomponents modeling the different effects of speech acts on the discourse. These subcomponents will be introduced in a moment.

Discourse moves are defined by means of their effect on the discourse structure. The speaker brings up an issue for discussion in the discourse, and places it for all discourse participants to see on the discourse structure called TABLE. The TABLE holds the ordered
pair of linguistic and semantic objects associated with an utterance. In the case of a declarative act, the syntactic object associated with it consists of the declarative operator [.] plus the sentence radical S. For transparency of representation, I will mark a negated sentence radical as not S. In case of an interrogative act, the syntactic object associated with it consists of the interrogative operator [?] plus the sentence radical S. These representations are summarized below.

- [.S]: syntactic object of a positive declarative sentence
- [.notS]: syntactic object of a negated declarative sentence
- [?]S]: syntactic object of an interrogative containing a positive sentence radical
- [?]notS]: syntactic object of an interrogative containing a negated sentence radical

Turning to the semantic object of a declarative, it is defined as the proposition associated with the sentence radical S of the syntactic object. A view of the TABLE in the case of a declarative act is shown in Figure 2. The semantic object of an interrogative is defined, following Hamblin (1973), as a set of propositions consisting of possible answers to the question. In the case of a polar interrogative, this set contains (i) the proposition p associated with the sentence radical of the syntactic object, and (ii) its complementary proposition ¬p.

A view of the TABLE in the case of an interrogative act is shown in Figure 3. The top box represents the container for the linguistic object and the bottom box represents the container for the semantic object.

<table>
<thead>
<tr>
<th>Syntactic Object</th>
<th>Semantic Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>.S</td>
<td>p</td>
</tr>
</tbody>
</table>

**Figure 2:** This is the representation of the effect of a declarative with sentence radical S and content p on the structure TABLE.
Syntactic Object → ?S
Semantic Object → {p ¬p}

Figure 3: This is the representation of the effect of an interrogative with sentence radical S, content p and possible answer p and ¬p on the structure TABLE.

The representation of an utterance on the TABLE provides information about the type of utterance (declarative or interrogative act) by means of the declarative or interrogative operator, about the polarity of the sentence radical in the interrogative or in the declarative (positive or negative) and about the denotation of the utterance (proposition or set of propositions). The TABLE is implemented as a stack such that the latest utterance is the first one on the stack. Utterances are removed from the stack as soon as some sort of agreement in regard to the content of the utterance has been reached between the discourse participants. The discourse participants may either agree on the content on the TABLE, or they may agree to disagree about the content on the TABLE. In case of interrogative acts, the issue is resolved as soon as the addressee has provided an answer and the speaker of the interrogative has accepted it. The answer of the addressee is added to the top of the stack, i.e. on top of the initial interrogative, as depicted in Figure 4. If the discourse participant who posed the interrogative agrees with the answer, both the answer and the initial interrogative are removed from the TABLE.

<table>
<thead>
<tr>
<th>TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntaxic object of answer</td>
</tr>
<tr>
<td>Syntaxic object of initial interrogative</td>
</tr>
<tr>
<td>Semantic object of the answer</td>
</tr>
<tr>
<td>Semantic object of the initial interrogative</td>
</tr>
</tbody>
</table>

Figure 4: The implementation of the TABLE as a stack is seen in case an interrogative has been posed and the addressee provided an answer to it but the speaker of the interrogative
has not yet accepted the answer.

In case the addressee indicates that she does not know an answer to the interrogative, the issue is simply removed from the TABLE right away.

A declarative act publicly commits (Gunlogson 2008) its speaker to the declarative’s propositional content \( p \). Commitment to a propositional content \( p \) is modeled by means of a speaker-specific discourse commitment list. Every discourse participant has a discourse commitment list associated with her. A discourse commitment list contains all discourse commitments that a particular participant A has publicly committed to in the realm of the current discourse. Discourse commitments are modeled as propositions, and I will refer to the list of commitments associated with a particular speaker X as \( CL_X \) for commitment list. The \( CL_X \) keeps track of the commitments made in the current discourse and associate each commitment in it to speaker X. The CLs of two different discourse participants are not likely to be equivalent given that discourse participants do not always come to an agreement over an issue, but sometimes agree to disagree. I assume that the intersection of the individual CLs is part of the common ground. The separation of individual CLs from the common ground has the advantage of clarifying the individual contribution and public commitments of each discourse participant in the current discourse, as shown in Figure 5. Speaker specific CLs are represented by means of individual boxes. In Figure 5, both discourse participants A and B have publicly committed to the propositional content \( q \) as seen in that \( q \) is part of both \( CL_A \) and \( CL_B \), and thus, propositional content \( q \) enters the common ground also.

![Figure 5: Commitment Lists of speakers A and B both contain proposition q; the common ground \( cg \) is thus enriched with \( q \) to form the new common ground \( cg' \)](image)

A declarative act has the effect of placing a single proposition (the proposition associated with
the sentence radical in the declarative) on the TABLE. Furthermore, it has the effect of adding the propositional content associated with the sentence radical in the declarative into the speaker’s CL. In contrast to declarative acts, a polar interrogative act by itself does not commit the speaker to the propositional content of the sentence radical in the interrogative. The answer to an interrogative act adds the propositional content of the answer to the commitment list of the answerer and, if the questioner agrees with the answer, she also publicly commits to the propositional content.

In sum, a discourse structure has the following components.

- **TABLE**: The set containing the ordered pair of linguistic and semantic object associated with an utterance of a discourse participant
- **Common ground CG_{A,B}**: The set of propositions which constitute mutual beliefs of the discourse participants A and B
- **Commitment set CL_{X}**: List of propositions which constitute the public commitments of discourse participant X in discourse d

### 3.2. The Proposal

As a brief reminder of the discussion in section 2, high negation is restricted to interrogatives, and high vs. standard negation polar interrogatives need to be distinguished. Syntactically, high negation *nicht* in polar interrogatives occurs in a higher syntactic position than *nicht* in standard negation polar interrogatives. Semantically, high negation in a polar interrogative does not have any effect on the propositional content of the interrogative, as demonstrated by answer particles and NPIs/PPIs. Pragmatically, high negation polar interrogatives are biased, and high negation itself functions as a commitment marker for the propositional content associated with the sentence radical in its scope. Thus, high negation polar interrogatives require from the discourse a reason for the speaker to publicly commit to her belief while putting it up for discussion, and do not tolerate immediate evidence for the content of the belief.

By uttering a high negation polar interrogative, the speaker wants to convey that she
believes in its propositional content $p$ and is committing to it, but for whatever reason she is raising it as an issue in the conversation and asking for the addressee’s contribution in resolving the issue. In other words, high negation polar interrogatives have a dual nature, since they share discourse properties with asserted declaratives and interrogatives. Like a polar interrogative with standard negation, one with high negation raises an issue by bringing its propositional content ($p$) and its negation ($\neg p$) into onto the TABLE ($\{p, \neg p\}$). This is consistent with high negation polar interrogatives looking like standard interrogatives syntactically in displaying interrogative word order and in containing the interrogative operator, and semantically in denoting a set of propositions. On the other hand, the effect of a high negation polar interrogative is to add its propositional content $p$ to the Speaker’s commitment list, which is not the case for a standard interrogative. In this regard, high negation polar interrogatives behave like asserted interrogatives. They do not look like asserted declaratives but they share with asserted declaratives the fact that their propositional content is added to the Speaker’s CL. This constitutes the specific contribution of high negation, which behaves like a commitment marker. Since high negation does not affect the semantics and since it is only found in interrogatives, I am assuming that it is a pragmatic operator that applies to polar interrogatives and is responsible for placing the propositional content $p$ of the interrogative in the speaker-specific CL. In this regard, high negation resembles the declarative operator. I refer to the pragmatic operator ‘high negation’ as $\text{HiNeg}$. I am assuming that $\text{HiNeg}$ has scope over the interrogative, which consists of an interrogative operator and the sentence radical in the interrogative. This assumption is based on that high negation is only found in interrogatives.

Specifically, if a speaker poses a high negation polar interrogative like (28), the ordered pair of linguistic object and semantic object of the utterance is added to the TABLE, as shown in Figure 6. The linguistic object of (28) contains the HiNeg-operator since (28) contains high negation; it contains the interrogative operator $?$ since (28) is an interrogative; it
contains the sentence radical *Max liked the cake back then*. The semantic object consists of
the set of possible answers to the interrogative which is the set {‘Max liked the cake back
then’, ‘Max did not like the cake back then’}. In this regard, high negation polar
interrogatives look like standard positive and negated polar interrogatives.

(28) Hat **nicht** Max damals den Kuchen gemocht?
  has not Max back then the cake liked
  ‘Is it not the case that Max like the cake back then?’

![Figure 6](image)

*Figure 6:* High negation functions as a pragmatic operator and ensures that the
propositional content associated with the sentence radical *Max liked the cake back then* in the
polar interrogative is added to CLSpeaker.

If the speaker utters a high negation polar interrogative like (29) with an additional
standard negation underneath the high negation, the high negation picks up the proposition
associated with the negated sentence radical ‘Max did not particularly like the cake back then’
and places it on the speaker specific CL. This is shown in *Figure 7*.

(29) Hat **nicht** Max damals den Kuchen **nicht** sonderlich gemocht?
  has not Max back then the cake not particularly liked
  ‘Is it not the case that Max did not particularly like the cake back then?’

![Figure 7](image)

*Figure 7:* High negation functions as a pragmatic operator and ensures that the
propositional content ‘Max did not like the cake back then’ associated with the sentence
radical in the polar interrogative is added to CLSpeaker.
By committing to a proposition while raising an issue about the proposition, the speaker also makes available the option of adding to the common ground, as shown in Figure 8. In Figure 8, the addressee agrees with the speaker’s commitment in (28) by means of a declarative act. The answer of the addressee is added to the top of the initial high negation polar interrogative on the stack of the TABLE. The addressee asserts that ‘Max liked the cake back then’ and therefore adds to her CL the proposition that ‘Max liked the cake back then’, which also enters the common ground because one who poses a question with high negation has already committed to this proposition just by using high negation.

**Figure 8** The addressee submits as an answer that Max liked the cake. Now both speakers are committed to this proposition, which therefore enters the common ground, as indicated by the arrows.

In case the addressee contradicts the speaker’s commitment and submits compelling evidence for rejecting the propositional content of the polar interrogative, the speaker might revise her commitment, as shown in Figure 9. The addressee of (28) rejects the speaker’s commitment that ‘Max liked the cake back then’ by means of a declarative act, which adds the syntactic and semantic object associated with it to the TABLE on top of the interrogative. The speaker who uttered the high negation polar interrogative got convinced by the addressee that her commitment was wrong in Figure 9 and changes her commitment from ‘Max liked the cake back then’ to ‘Max did not like the cake back then’, as shown in her CL-Speaker in
Figure 9. Since public agreement has been reached, the propositional content also enters the common ground. 

![Table and Diagram](image)

**Figure 9** The addressee submits as an answer the complement of the speaker’s commitment, i.e. *that Max did not like the cake*, and the speaker revises her belief to the answer of the addressee in changing her CL.

Within the framework at hand, and as illustrated by the contrast between **Figure 6** and **Figure 10**, high negation polar interrogatives distinguish themselves from regular polar interrogatives such as *Did Max like the cake back then?* in that in the case of a regular interrogative act, the propositional content (‘Max liked the cake’) associated with the sentence radical in the interrogative does not become part of the speaker’s CL. On the other hand, regular and high negation regular polar interrogatives resemble each other in that in both cases, the semantic object is a set of propositions – the set of possible answers to the interrogative, as shown in the bottom part of the **TABLE** in **Figure 10**.

**Figure 10:** Uttering a regular positive polar interrogative has the effect on the discourse that the **TABLE** now contains the ordered pair of syntactic and semantic object associated with the interrogative. The semantic object is the set of possible answers to the interrogative. Nothing is added to the CLs.
As illustrated in the contrast between Figure 7 and Figure 11, high negation polar interrogatives distinguish themselves from asserted declaratives such as Max liked the cake back then. In the case of asserted declaratives, no issue is raised but the semantic object consists of a single proposition (‘Max liked the cake back then’), which is the propositional content associated with the sentence radical in the declarative. High negation polar interrogatives resemble asserted declaratives in that both add to the CL of the speaker.

<table>
<thead>
<tr>
<th>TABLE</th>
<th>CL_{Speaker}</th>
</tr>
</thead>
<tbody>
<tr>
<td>. [Max liked the cake back then]</td>
<td>‘Max liked the cake back then’</td>
</tr>
</tbody>
</table>

**Figure 11:** The declarative operator ensures that the propositional content associated with the sentence radical in its syntactic object is added to CL_{Speaker}.

Finally, as argued in section 2, high negation polar interrogatives have to be distinguished from rising declaratives. Like asserted declaratives, rising declaratives commit the speaker to their propositional content, according to Gunlogson (2008). Gunlogson (2008) analyzes the commitment to the sentence radical of a rising declaratives as dependent on the confirmation of the content by the addressee. In the case of asserted declaratives, the commitment of the speaker to the content of the declarative is independent of the addressee’s reaction to this commitment. According to Gunlogson, in the case of rising declaratives, the addressee is the authority in deciding the issue.

High negation polar interrogatives are distinguished from rising declaratives in that the latter do not raise an issue in the same way the former do and therefore, the semantic object of rising declaratives would be a single proposition under my analysis. Furthermore, the commitment of high negation polar interrogatives is not dependent on an authoritative answer from the addressee. An answer of the addressee that is the complement of the speaker’s
commitment, might or might not convince the speaker of a high negation polar interrogative to change her commitment. For instance, in the cake-eating scenario in (25), Lisa might not change her commitment to her desire to start eating cake now, even if her mother provides a reason why they cannot start eating cake now. In the proof-reading scenario in (26), Moritz might not change his commitment to that Chris has done proofreading a lot already even if Max says that Chris is not a good choice.

3.3. **NPIs in Biased Questions**

In section 2.2.1, I showed that high negation polar interrogatives do not license NPIs unless they contain an additional logico-semantic negation. From this, the questions arise why the scope of high negation does not license the NPI, and why the polar interrogative in combination with high negation does not license the NPI.

The first question is easy to answer in my analysis. High negation is not a standard negation but a pragmatic operator, which is semantically inert, and thus does not create a downward-entailing environment. Since the licensing of NPIs is commonly thought to require a downward-entailing context, the NPI is not licensed by high negation itself but an additional logico-semantic negation has to be present in order for a NPI to be licensed.

That biased interrogatives like high negation polar interrogatives do not license NPIs is predicted by Krifka’s (Krifka 1995) and van Rooy’s (van Rooy 2003) theory of NPIs. My analysis automatically yields the biased nature of high negation polar interrogatives and thus, the finding that they cannot license NPIs is in line with Krifka’s and van Rooy’s theory of NPIs.

Following Fauconnier (1980), Krifka (1995) assumes that NPIs, like focused constituents, induce a set of ordered alternatives, and the NPI itself denotes the most minimal alternative of this set. For instance, the NPI *ever* denotes the set of all times and *ever* itself denotes the minimal number of times something happened or was done. As with scalar
implicatures, it is assumed that if there is a set of alternatives, the speaker must have a reason to choose one alternative over the others. The assumption is that speakers make the strongest assertion possible. The assertion in (30a) with the (bold-faced) NPI is stronger than (30b) because of the downward-entailing context.

(30)  
   a. Fritz hasn’t been to Italy ever.
   b. Fritz hasn’t been to Italy last year\(^9\).

By contrast, a NPI in an upward-entailing context (i.e. without negation) creates the weakest assertion possible (31a) and is thus the least informative alternative and ruled out. (31a) is, so to speak, too uninformative to be used. (31b) is stronger than (31a).

(31)  
   a. *Fritz has ever been to Italy.
   b. Fritz has been to Italy last year.

Applying this idea to polar interrogatives, the speaker wants to maximize the potential benefit of the question. According to Krifka, the benefit is maximized in case every answer to the interrogative yields the same amount of information. Consider the polar interrogative containing the NPI ever in (32). Using the time frame ever instead of, say last year, yields an equal amount of information regardless of whether the answer will be yes or no. By contrast, the information value of a yes-answer to (32b) is much higher than the information value of a no-answer.

(32)  
   a. Have you ever been to Italy?
   b. Did you go to Italy last year?

With a yes-answer to (32b), the speaker of the question finds out that you have ever been to Italy AND that you went there last year. With a no-answer, the speaker only finds out that the addressee was not in Italy last year but does not learn anything about whether the addressee has been to Italy before this year. By contrast, both, a yes- and a no-answer to (32a), cover the entire previous lifetime. The extra information (last year) of a yes-answer to (32b) is not

\(^9\) According to native speakers of English, this sentence is ungrammatical. I use it however, following Krifka.
provided in a *yes*-answer to (32a), but on the other hand, a *no*-answer to (32a) is more informative than a *no*-answer to (32b), because it covers the entire previous lifetime.

Therefore, in the case of NPIs in polar interrogatives, the informativity of the answer is maximally equal. Thus NPIs in interrogatives reduce the bias towards one answer over the other. Van Rooy (2003) formalized this idea and argued, following Krifka, that NPIs in interrogatives indicate that the interrogative with the NPI meaning is less biased, because the potential answers are maximally balanced regarding their informativity in comparison to all the other alternatives introduced by the presence of the NPI. This predicts that there are no NPIs in biased questions.

According to my analysis, the speaker of a high negation polar interrogative is biased towards the propositional content in the sentence radical of the interrogative. The proposition the speaker commits to by means of a high negation polar interrogative is one possible answer to the question. If the speaker is biased towards a particular answer, she will want to maximize the information she gets out of that particular answer, which means reducing the information which can be gained through the complement answer. This contradicts the purpose of the use of NPIs.

4. **Related Phenomena**

The purpose of this section is to provide an overview of work concerned with negation phenomena related to high negation. To the best of my knowledge, the phenomenon of high negation in German has not been discussed previously.

I will discuss the phenomenon of *light negation* in German as defined in Schwarz & Bhatt (2004) and argue that although light negation might be related to high negation, it has to be crucially distinguished from the phenomenon of high negation as discussed in the section 2 and 3. Furthermore, the phenomenon of *preposed*\(^{10}\) *negation* in English as analyzed in

\(^{10}\) Sometimes, this negation type is also termed *outer* negation (Ladd, 1980).
Romero & Han (2004), Büring & Gunlogson (2000) and van Rooy & Safarova (2003) resembles high negation in some aspects but differs from it in others. My purpose in this paper is the investigation of the German phenomenon high negation and I leave it for future research to determine whether preposed negation and high negation is the same thing. I will however show here that no matter whether preposed negation is the same as German high negation, the analyses provided for preposed negation are problematic for German high negation and sometimes even for the English data.

4.1. Arguments for distinguishing High Negation from Light Negation

Schwarz and Bhatt (2004) discuss a German phenomenon called light negation which resembles high negation in its morphology nicht and in its structural position. In the face of these similarities, I argue that high negation has to be distinguished from light negation.

Schwarz & Bhatt employ as a diagnostic for light negation “the lifting of positional constraints”. Basically, Schwarz & Bhatt call every instance of nicht light negation, which does not fulfill the standard positional constraints for negation in German while grammaticality is retained. Positional constraints are for instance that nicht can usually not precede definite objects like Frage 3 ‘question 3’ (33a) and indefinite objects like eine Fremdsprache ‘a foreign language’ (33b).

(33) a. * Fritz hat nicht Frage 3 beantwortet.
   Fritz has not question 3 answered

   b. * Fritz kann nicht eine Fremdsprache.
   Fritz knows not a foreign language

Usually, the sequence of nicht and the indefinite determiner ein ‘a’, as in (33b), has to amalgamate to form kein as pointed out in section 2.1. However, in the antecedent of subjunctive conditionals (among other constructions) nicht may precede Frage 3 (34a) and eine Fremdsprache (34b) and does not require the amalgamation. Thus, nicht in (34a/b) is an instance of light negation according to Schwarz & Bhatt.
(34) a. Wenn Fritz nicht Frage 3 beantwortet hätte, wäre er durchgefallen.
if Fritz not question 3 answered have.subj be.subj he failed
‘If Fritz hadn’t answered question 3, he would have failed.’

b. Wenn Fritz nicht eine Fremdsprache könnte, wäre er durchgefallen.
if Fritz not a foreign language know.subj be.subj he failed
‘If Fritz didn’t know a foreign language, he would have failed.’

Note that constructions, which allow for light negation, always also allow for standard negation with standard morpho-syntax as seen in the contrast between (34a/35a) and (34b/35b).

(35) a. Wenn Fritz Frage 3 nicht beantwortet hätte, wäre er durchgefallen.
if Fritz question 3 not answered have.subj be.subj he failed
‘If Fritz hadn’t answered question 3, he would have failed.’

b. Wenn Fritz keine Fremdsprache könnte, wäre er durchgefallen.
if Fritz no foreign language know.subj be.subj he failed
‘If Fritz didn’t know a foreign language, he would have failed.’

Another positional constraint of nicht is that it may not usually precede quantificational phrases such as jemanden ‘someone’ (36a), but has to amalgamate with jemand to form niemand ‘noone’ (36b).

we have not someone recommended

b. Wir haben niemanden empfohlen.
we have nobody recommended
‘We didn’t recommend anybody.’

However, in the restrictor (in form of a relative clause) of a determiner such as kein ‘noone’ (37), nicht may precede jemand. Nicht is thus considered light negation in (37).

(37) Wir haben keinen zugelassen, den nicht jemand einem von uns empfohlen hatte
we have no one admitted who.acc not someone-nom one-dat of us recommended had
‘We admitted no one who someone didn’t recommend to one of us.’

In sum, nicht constitutes light negation if it precedes indefinites and quantificational phrases and does not amalgamate with them, and in case nicht precedes definite phrases.

Further contexts where the positional constraints of nicht are lifted and light negation occurs, are generally negative polarity contexts such as the restrictor of quantificational phrases jeder.
‘every’ and kein ‘no’. Light negation also occurs in conditionals and in the scope of bevor ‘before’. According to Schwarz & Bhatt, the environments where light negation occurs are very similar to environments where NPIs are licensed and thus, Schwarz & Bhatt employ the thought that light negation might actually be a NPI.

Importantly, Schwarz & Bhatt argue that light negation also occurs in polar interrogatives – the environment where high negation occurs. In polar interrogatives, nicht may precede jemand (38a) and does not necessarily have to amalgamate to form niemand (38b). Schwarz & Bhatt consider (38a) a case of light negation.

(38) a. Hat **nicht** jemand Fritz einem von uns empfohlen?
   ‘Has not someone Fritz one of us recommended’
   ‘Didn’t someone recommend Fritz to one of us?’

   b. Hat **niemand** Fritz einem von uns empfohlen?
   ‘Has nobody Fritz one of us recommended’
   ‘Did nobody recommend Fritz to one of us?’

I believe that Schwarz & Bhatt are collapsing two different phenomena. My claim is that light negation in interrogatives such as (38a) is our high negation, whereas light negation in declaratives (e.g. 34, 35, 37) is a different phenomenon.

The first indication for the correctness that light negation is not the same as high negation comes from that high negation as discussed in the preceding sections occurs only in interrogatives and never occurs in declarative contexts. According to Schwarz & Bhatt, light negation occurs in declarative contexts and interrogatives.

Second, jemand ‘someone’ has different readings depending on whether it occurs in declaratives like (37) or in polar interrogatives like (38a). In (37), jemand has a de dicto reading and the speaker of (37) has someone specific (or at least a specific set of people) in mind when she utters (37). By contrast, the jemand in (38) can only be read de re and the speaker has no specific person in mind to who jemand might refer. This difference suggests that light negation in polar interrogatives has to be distinguished from light negation in declaratives.
Third, light negation in declaratives cannot co-occur with additional normal negation in the same clause. Adding a second negation marker (indicated by underlining) to examples from Schwarz & Bhatt results in ill-formedness since German does not tolerate two truth-condition changing negations within the same clause.

(39)
   We have no one admitted who not nobody one of us recommended has

   We have no one admitted who not someone no one of us recommended has

The ungrammatical sentences in (39) form minimal pairs with the grammatical sentence (37). The switch from \textit{jemand} (39) to \textit{niemand} (39a) yields a case of double negation and causes ungrammaticality.\textsuperscript{11} The switch from \textit{einem} to \textit{keinem} in (39b) also creates a double-negation case and the sentence is ungrammatical.

The same is true of conditionals. (40a/41a) are grammatical conditionals taken from Schwarz & Bhatt (2004), and (40b/41b) each form a minimal pair with (40a/41a), respectively. The only difference between (40a) and (40b), and (41a) and (41b) is that the indefinite determiner \textit{ein} is converted into the negation determiner \textit{kein} in the b-examples. Again, double negation is not possible, as seen by the ungrammaticality of the b-examples.

(40)  a. Wenn Fritz \textit{nicht} eine Fremdsprache könnte, wäre er durchgefallen.  
   If Fritz not a foreign language knew would he failed
   ‘If Fritz couldn’t speak a foreign language, he would have failed.’

   b. * Wenn Fritz \textit{nicht keine} Fremdsprache könnte, wäre er durchgefallen.  
   If Fritz not no foreign language knew would he failed

(41)  a. Wenn Fritz klug wäre, hätte er \textit{nicht} eine Frage beantwortet.  
   If Fritz clever was had he not a question answered
   ‘If Fritz was clever, he would not have answered one question.’

\textsuperscript{11} Notice that the example (42) cannot count as a case of double negation since the negation marker \textit{kein} and \textit{nicht} do not occur within the same clause. In embedded questions, as shown in section 2, double negation can occur within the same clause as seen in (i).

(i) Anne fragt, ob \textit{nicht} Franz \textit{keinen} Kuchen mag  
   Anne asks if not Franz no cake likes
   ‘Anne asks whether not Franz doesn’t like cake’. Therefore, it should be possible to have double negation under embedding within the same clause.
b. * Wenn Fritz klug wäre, hätte er **nicht** **keine** Frage beantwortet.
   If Fritz clever was had he not no question answered

By contrast, the polar interrogative in (42), which forms a minimal pair with the polar interrogative in (38a), is grammatical although an extra negation marker niemand is added (42).

(42) **Hat nicht niemand** Fritz einem von uns empfohlen?
    Has not nobody Fritz one of us recommended
    ‘Didn’t someone recommend Fritz to one of us?’

That double negation is not possible with light negation in declaratives but with high negation in polar interrogatives further supports my claim that high negation in interrogatives has to be distinguished from light negation in declarative constructions. Permitting double negation is a crucial property of high negation polar interrogatives.

Another difference between high negation in interrogatives and light negation in declaratives is that high negation in interrogatives can never be used as an expletive, because it contributes to the meaning of the sentence on the discourse level, as we have seen. By contrast, light negation, according to Schwarz & Bhatt, has a further expletive use in declaratives like (43), though this is never claimed for interrogatives. As Schwarz and Bhatt (2004) correctly point out, the meaning of (43) does not change depending on the presence of the (bracketed) **nicht** in the before-clause.

(43) Ich gehe **nicht**, bevor du (**nicht**) das Zimmer aufgeräumt hast.
    I leave not before you not the room cleaned-up have
    ‘I won’t leave until you’ve cleaned up the room.’

Finally, I would like to point out that Schwarz & Bhatt’s light negation in declaratives (mostly12) contributes to the truth conditions while high negation never does, as can be seen in the answer pattern and the pattern with NPIs in section 2. Consider (44). Eliminating the (bold-faced) negation in the **wenn**-clause causes the truth-conditions of the entire sentence to change.

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12 In expletives, the negation marker obviously does not contribute to the truth conditions.
Wenn Fritz (nicht) eine Fremdsprache könnte, wäre er durchgefallen
‘If Fritz couldn’t speak a foreign language, he would have failed.’

Leaving out the negation, the sentence would be true if [Fritz had failed the class because he knew a foreign language]. In the presence of the negation in the antecedent, the sentence would be true if [Fritz had failed the class because he did NOT know a foreign language].

In conclusion, high negation has to be distinguished from light negation because high negation is restricted to polar interrogatives while light negation is also found in declarative constructions such as conditionals and relative clauses. Second, the reading of indefinite phrases such as jemand ‘someone’ differs depending on whether it occurs in the scope of light negation in declaratives or in the scope of high negation in polar interrogatives. Third, high negation may co-occur with another negation marker in the same clause whereas sentences containing light negation become ungrammatical if adding an additional negation marker. Fourth, as opposed to light negation, high negation can never be used as an expletive but always contributes to the discourse level meaning. Fifth, while light negation sometimes contributes to the truth-conditions, high negation never changes the content of the interrogative it occurs in.

I conclude that Schwarz & Bhatt conflate two different phenomena in their term light negation: light negation in interrogative is in reality high negation.

4.2. High Negation in English?

Preposed negation (45) as opposed to standard negation (46) in English polar interrogatives (Romero & Han 2004) looks very similar¹³ to high negation in contrast to standard negation in German: both preposed and high negation can precede the subject in contrast to standard negation, and both convey a speaker’s belief in contrast to standard

¹³ Notice that in English, preposed negation (45) takes on a slightly different form from standard negation (46) because it is contracted with the auxiliary. German high negation does not display this morphological difference to standard negation.
negation. In this section I show that despite these similarities, the accounts proposed for the English phenomenon *preposed negation* do not work for the German data.

(45) Isn’t Jane coming?

(46) Is Jane *not* coming?

Let us start with characterizing the English data before I discuss and criticize their various accounts in sections 4.2.1 – 4.2.3.

There are three differences between the examples in (45) and (46).

1. The negation is contracted to the auxiliary and precedes the subject in (45) while in (46) the negation follows the subject and is not contracted. Similarly, high negation can precede the subject in German polar interrogatives (section 2.1) while standard negation cannot.

2. The interrogative with preposed negation in (45) is ambiguous (Ladd 1981) between a reading where the content of the sentence radical is negative (*Jane is not coming*) and a reading where the content of sentence radical in the interrogative is positive (*Jane is coming*). The interrogative with standard negation in (46) is not ambiguous and its sentence radical always has negative content.

The reason for assuming an ambiguity is that both, *too* (47a) and *either* (47b), attach to interrogatives like (45). *Too* is known to select positive sentences to attach to, and *either* is known to only select negated sentences to attach to. Although *too/either* are not considered polarity items, they are used as diagnostic in English to see whether the sentence to which the item attaches is negative or positive.

(47) a. Isn’t Jane coming *too*? ‘Is it not the case that Jane is also coming?’

    b. Isn’t Jane coming *either*? ‘Is it not the case that Jane is also *not* coming?’

I have added paraphrases to the interrogatives in (47) which hopefully clarify the two different readings.

Note that high negation in German is not ambiguous as seen in the pattern with
polarity items: only PPIs but not NPIs are licensed in high negation polar interrogatives.

(3) In the case where *too* attaches to interrogatives like (45), the interrogative conveys the implication that the sentence radical ‘Jane is coming’ is the speaker’s previous belief. Note that this is similar to German high negation polar interrogatives which highlight their content as the speaker’s belief. This effect does not arise in the case of (46) where the negation follows the subject.

4.2.1. **Problems with Introducing an Additional Operator**

The purpose of this section is to show that a theory of negated polar interrogatives, a la Romero & Han (2004), based on the assumption of an additional semantic operator in the case of a syntactically higher negation marker, is problematic for the German data.

Romero & Han explain the polarity difference between the standard and preposed negation polar interrogatives and the ambiguity of preposed negation polar interrogatives (46) by means of an additional semantic operator called *Verum*. *Verum* works on the semantics and adds to the utterance to which it applies that the speaker *is sure* of the content of the utterance. The translation of *Verum* as *to-be-sure* results from that Romero & Han take *Verum* to be a covert *really*. The use of *really* is thought to have the effect of signaling to the addressee that the speaker is sure about the content of the statement in which context *really* is uttered: *Jane is really coming* means that the speaker is positively sure that Jane is coming.

In the case of polar interrogatives, *Verum* changes the set of possible answers. Ignoring negation for a moment, the structure in (48) where *Verum* is present results in a question, which asks the addressee whether *she is sure* that the content of the question should be added to the common ground. The new answer options to the question in (48), created by the presence of *Verum*, are given in (49).

(48) [? *VERUM* S]: Are you sure that p should be added to the common ground?

(49) [? *VERUM* S] = \{for-sure-that-p, not-for-sure-that-p\}
Now consider the cases with negation in polar interrogatives (45/46). Preposed negation and standard negation polar interrogatives are distinguished in that the former contains Verum and the latter does not. Therefore, their semantics differ.

In the case of preposed negation, the negation might either scope over Verum, or Verum might scope over the negation as shown in (50a/b), yielding different sets of possible answers. Notice that in case the negation scopes over Verum (50a), Verum blocks the negation from applying to the sentence radical *Jane is coming*, and therefore, the sentence radical underneath *for-sure-that* is positive for both answer possibilities. In case Verum scopes over negation (50b), the negation applies to the sentence radical and thus both answer options contain *Jane is not coming* underneath *for-sure-that*.

(50) a. [[? NEG VERUM [Jane is coming]]] = 
   \{it is for sure that we should add to CG that Jane is coming, 
   it is not for sure that we should add to CG that Jane is coming\}

   b. [[? VERUM NEG [Jane is coming]]] = 
   \{it is for sure that we should add to CG that Jane is not coming, 
   it is not for sure that we should add to CG that Jane is not coming\}

The scopal ambiguity between Verum and negation (50a/50b) explains why both *too* and *either* sometimes attach to polar interrogatives such as (45). In the case of (50a), *too* can attach to the sentence radical in the interrogative because, due to Verum, the sentence radical is positive and thus *too* can attach. In the case of (50b), Verum does not block the negation from applying and the negation thus has an effect on the sentence radical of the interrogative which allows *either* to attach to the sentence radical in the interrogative.

This analysis of the difference between (45) and (46) indicates that for Romero & Han, there is no inherent difference between the negation in (45) and (46): both contain the same lexical element and the negation has the same function of taking a proposition and yielding its complement. In the case of (45) *Verum* induces answer options different from the answer options to standard negation polar interrogatives (51). In case of (46), the negation functions in its usual way, as shown in (52).
Let us now turn to the arguments why this analysis does not work for German high negation as presented in the previous sections.

(1) **High Negation is not semantic in German**

The new operator *Verum* operates on the syntax/semantics of the construction, and thus the interrogatives in (45) and (46) can be differentiated in the semantics in Romero & Han’s theory. As I have argued in preceding sections, high negation in German does not affect the semantics of interrogatives and functions instead as a pragmatic operator. Thus an analysis in which the difference between standard and high negation polar interrogatives is located in the semantics will not account for the German data.

(2) **Lack of Scopal Interaction in German**

There is no evidence for assuming an additional operator to account for high negation polar interrogatives in German. The stipulation of a new operator that interacts with negation predicts scopal ambiguity between negation and the *Verum* operator, which is the case for English as we just saw. The German data however are not consistent with an operator account along the lines of Romero & Han’s proposal, which would lead to contradictions in the German data. First, in German there is no evidence whatsoever for scopal interaction between high negation and some other operator. Reconsider the pattern with polarity items, where high negation licenses PPIs but not NPIs:

(53) * Hat nicht Max den Kuchen *ziemlich/*sonderlich* gemocht?¹⁴  
    has not Max the cake PPI/NPI liked  
    ‘Didn’t Max quite/*at all like the cake?’

If there were scopal interaction of high negation with an invisible operator, then both NPIs

¹⁴ The pattern with polarity items might also constitute a problem for Romero & Han’s account of English since NPIs are also not licensed in case of English preposed negation interrogatives as shown in (i), and thus the same argument against an operator approach I am pointing out for German might actually also hold for English.  
(i) * Didn’t Max like the cake at all? ‘Is it not the case that Max liked the cake at all?’
and PPIs would be expected to be licensed in (53). It is however never the case that NPIs are licensed in the scope of high negation: high negation polar interrogatives license only PPIs.

Furthermore, the German equivalent of too/either by itself shows that high negation and either cannot co-occur. Too can be translated as auch and occurs in the scope of high negation in (54).

(54) Hast du nicht auch einen Freund?
    have you HiNeg also a friend
    ‘Is it not the case that you have a boyfriend too?’

The equivalent of English either is formed by auch plus nicht ‘not’. Negation in the scope of auch is forced to have only a standard interpretation; the high negation interpretation is not available.

(55) Hast Du auch nicht die Kinder abgeholt?
    have you also not the children picked up
    ‘Did you not pick up the children either?’

I conclude that although there may be evidence for scopal interaction between the negation marker and an invisible new operator – and thus for the presence of such an operator – in English, there is no basis for assuming such an operator in German.

(3) Positing a Verum operator creates an un-resolvable paradox in German

Another problem with an operator account a la Romero & Han (2004) is that an additional operator creates an un-resolvable paradox for the German data. Notice that, in contrast to polarity items, the only requirement for either and too is that they attach to negated and positive sentence radicals, respectively. That is, too is licensed in a positive interrogative and in the case of preposed negation interrogatives, this licensing is explained by invoking an operator that blocks negation from applying, therefore providing a positive sentence radical for too. However, positive polar interrogatives in German do not license PPIs but do license NPIs, and standard negation polar interrogatives also license NPIs but not PPIs. The interrogative operator and negation marker are both NPI-licensors but PPI-anti-licensors. Thus if one were to account for the pattern of polarity items in German high negation polar
interrogatives by positing a *Verum* operator it would additionally have to block the interrogative operator from applying to the proposition contained in the interrogative, as otherwise there would be no reason for PPIs to be licensed and NPIs anti-licensed. In (56) and (57), the operator *Verum* is in boldface to indicate its blocking of the effect of both the negation and the interrogative operators on the sentence radical S containing a PPI/NPI.

(56) \( ? \text{ NEG } \text{ VERUM } S \text{ PPI} \)

(57) \( * ? \text{ NEG } \text{ VERUM } S \text{ NPI} \)

But if the interrogative operator is blocked from applying to the sentence radical, then the denotation of a high negation polar interrogative is no longer the set of its possible answers (Hamblin 1973). This cannot be the correct analysis of high negation polar interrogatives because, like other types of polar interrogatives, they raise an issue and can be answered with either the positive or the negated sentence radical. Consequently, an analysis of German high negation polar interrogatives based on Romero & Han’s proposal allows for the pattern with polarity items at the expense of denying the interrogative nature of high negation polar interrogatives. Therefore, Romero & Han’s theory cannot be applied to the German data without substantial theoretical sacrifices in terms of the representation of the true nature of high negation polar interrogatives.

(4) **Context Independence** The final problem with an operator account a la Romero & Han (2004) does not apply only to German high negation polar interrogatives, but in general to all interrogatives that convey the speaker’s belief. Romero & Han assume the *Verum* operator to apply in the syntax/semantics but do not build the speaker’s belief into the meaning of the operator; it thus does not by itself explain the presence of the speaker’s belief. The contextual requirements for preposed negation interrogatives along with a new pragmatic principle are used to derive the presence of the speaker’s belief.

**Principle of Economy:** *Do not use a meta-conversational move unless necessary (to resolve epistemic conflict or to ensure Quality).*
Romero & Han consider preposed negation polar interrogatives to be meta-conversational moves. They suggest that the contextual requirements of preposed negation polar interrogatives consist of the interplay between the speaker’s belief and the current discourse situation, and assume that preposed negation polar interrogatives are restricted to contradiction scenarios and suggestion scenarios. To my understanding, these are all assumptions with lack of arguments for them. A contradiction scenario is a situation in which the speaker has the belief that propositional content p is true and the addressee contradicts p in the immediate context. This conflict triggers and justifies the use of a preposed negation interrogative. According to Romero & Han, it follows from the principle of economy that the speaker must have a belief because it is part of the conflict, and the conflict constitutes the justification for the meta-linguistic move. In suggestion scenarios there is no contradiction. The justification for using a preposed negation interrogative is a requirement to ensure quality (via the principle of economy) by providing a possible answer or explanation to an unresolved issue. In order to ensure quality, the speaker can only suggest a proposition in the truth of which she believes.

The reader can see how context-specific the derivation of the speaker’s bias is. Romero & Han’s approach and its reliance on contextual explanation leads to the need to find a new explanation for the presence of the speaker’s bias for every occurrence of a preposed negation interrogative that does not fulfill the requirement that it occur in a suggestion or contradiction scenario. It thus seems to miss a generalization, namely that the speaker’s belief itself is the only constant in all the scenarios, as shown in section 2.

The theory of German high negation polar interrogatives in this paper proposes that conveying the speaker’s belief is due to high negation signaling that the propositional content associated with the sentence radical underneath high negation enters the speaker’s commitment list. This explanation is context-independent.

Based on all these problems with the application of Romero & Han’s account of
preposed negation polar interrogatives in English to the German data – the non-semantic and context-independent nature of high negation in German, plus the lack of evidence for scopal interaction with a postulated Verum operator and the paradox this would create for high negation polar interrogatives – I conclude that an additional syntactic/semantic operator cannot account for German high negation polar interrogatives.

4.2.2. Contextual Problems

Büring & Gunlogson (2000) provide an analysis of polar interrogatives, including two types of negated polar interrogatives and positive polar interrogatives. Büring & Gunlogson use the German data in (58/59) to make evident the two different kinds of negation in English polar interrogatives. While (58) constitutes a high negation polar interrogative, as described in this paper, (59) is a standard negation polar interrogative where nicht and ein ‘a’ have amalgamated to form kein ‘no’.

(58)  Gibt es hier nicht ein vegetarisches Restaurant?
      is there EXPL here not a vegetarian restaurant
      ‘Is it not the case that there is a vegetarian restaurant around here?’

(59)  Gibt es hier kein vegetarisches Restaurant?
      is there EXPL here no vegetarian restaurant
      Isn’t there a vegetarian restaurant around here?

Büring & Gunlogson (2000) provide several generalizations and observations regarding the occurrence of polar interrogatives. Their tool of analysis for the different types of polar interrogatives is their different contexts of occurrence. I will show that Büring & Gunlogson’s analysis does not capture the facts we learned about German high negation polar interrogatives in sections 2 and 3.

To briefly introduce their idea, consider the polar interrogative in (60), which is thought to have the two different readings in (58) and (59)

(60)  Isn’t there some vegetarian restaurant around here?

Büring & Gunlogson identify three types of contextual evidence for polar interrogatives:
neutral (61), providing evidence for a proposition p (*positively biased*, 62), providing evidence against a proposition p (*negatively biased*, 63).

(61) A and B want to go out for dinner. B has been to Moosewood a couple of years back.  
A: Where do you want to go for dinner?

(62) A and B want to go out for dinner. B has been to Moosewood a couple of years back.  
A: I bet we can find any type of restaurant you can think of in this city. Make your choice!

(63) A and B want to go out for dinner. B has been to Moosewood a couple of years back.  
A: Since you guys are vegetarians, we can’t go out in this town, where it’s all meat and potatoes.

Büring & Gunlogson’s generalizations are as follows. Positive polar interrogatives are licensed within a neutral context (61) or within a context that provides evidence for the propositional content p of the interrogative like (62), but never in context providing evidence against p like (63). Standard negation polar interrogatives like (64), on the other hand, are only possible in a context holding compelling evidence against p like (63). High negation polar interrogatives like (60) are licensed in both neutral contexts like (62) and negatively biased contexts like (63); they are thus different from both positive interrogatives and standard negation interrogatives, but share contextual requirements with both.

<table>
<thead>
<tr>
<th>Positive Polar Interrogative</th>
<th>Standard Negation Polar Interrogative</th>
<th>High Negation Polar Interrogative</th>
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<tbody>
<tr>
<td>(61) &amp; (62)</td>
<td>(63)</td>
<td>(61) &amp; (63)</td>
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</table>

*Table 3*: Summary of Büring & Gunlogson’s generalizations of occurrence contexts (61) – (63) for the three different types of polar interrogatives

The first problem with this analysis is that, since Büring & Gunlogson restrict the contextual requirements to evidence from the current context only – namely what is explicitly done or said right before the crucial interrogative is posed – the nature of high negation polar interrogatives in German is lost. To use their words, contextual evidence is defined as “Evidence that has just become mutually available to the participants in the current discourse situation” (Büring & Gunlogson 2000:7). Their definition of context does not contain
privately acquired previous knowledge or speaker intentions, and therefore does not provide a sufficient tool for analyzing high negation in German. As I have shown earlier, high negation polar interrogatives require that the context (i) allows for the crucial speaker’s belief and that (ii) the beliefs originated independent of the current discourse.

(i) To see this, consider again the scenario in (64), where the crucial sentence pertaining to the state of the speaker’s belief regarding the crucial proposition in the high negation polar interrogative is bold-faced. The contexts in (64a) and (64b) only differ in Ralph’s belief state: In (64a), Ralph does not have any basis for the belief that the project received the grant. In (64b), Ralph has evidence from prior conversations that the project received the grant and thus has a plausible basis for the belief that the project received the grant.

(64) a. The professor had applied for financial support for a project. **Ralph is a new student and doesn’t feel competent to judge their chances to receive a grant.** When the professor says: “The financial situation of the project doesn’t look good!” Ralph asks:

#  
Hat das Projekt **nicht** die finanzielle Unterstützung bekommen?

has the project not the financial support received

‘Is it not the case that the project received the grant?’

b. The professor had applied for financial support for a project. **Ralph has heard rumors in the lab the project received the grant.** When the professor says: “The financial situation of the project doesn’t look good!” Ralph asks:

Hat das Projekt **nicht** die finanzielle Unterstützung bekommen?

has the project not the financial support received

‘Is it not the case that the project received the grant?’

While (64b) fulfills the conditions of high negation polar interrogatives, (64a) does not. Hence, it is crucial for a high negation polar interrogative to occur in a context which does at least not disallow a speaker’s belief which means that beliefs cannot be disregarded from the context. High negation polar interrogatives impose conditions on the context regarding the belief state of the speaker and Büring & Gunlogson’s definition of context does not capture this discourse condition of high negation polar interrogatives.

(ii) Contexts like (65) where the context provides immediate evidence for the crucial proposition in the high negation polar interrogative, and where high negation polar
interrogatives are not licensed although there is immediate evidence which might easily function as a basis for a belief, suggest that immediate evidence cannot function as a licenser of high negation polar interrogatives.

(65) The car of Susi's husband stands gleaming in the driveway. Susi’s neighbor, who is just coming home, asks her:

# Hat dein Mann *nicht* sein Auto gewaschen?
has your man *not* his car washed
‘Is it not the case that your husband washed his car?’

The context in (65) provides immediate evidence that Susi’s husband washed his car and a high negation polar interrogative with this content is not possible. In the scenarios in (64), the evidence for the content of the high negation polar interrogative had its origin in prior conversations or experiences (overhearing that the project received the grant).

The second problem is that Büring & Gunlogson’s analysis ignores that standard and high negation polar interrogatives are licensed in contexts that contain evidence against the proposition at issue for different reasons. Büring & Gunlogson’s analysis does not indicate that high negation polar interrogatives are licensed by evidence against the belief because the evidence against the belief constitutes the reason for the speaker to put her belief up for discussion; it does also not indicate that standard negation polar interrogatives are licensed by negative evidence because a negative implication is needed to license the use of a negation just as with negated declaratives. I think it is an important distinction between standard and high negation polar interrogatives that they have different discourse conditions, as discussed in section 2. Different discourse conditions might in some situations be fulfilled by means of the same scenario, but this should not give rise to a conflation of the different discourse conditions. I conclude that an analysis a la Büring & Gunlogson, which relies on evidence conditions drawn only from the immediate context, does not capture the discourse conditions of high negation polar interrogatives in German, and applying these to the German data in this paper would miss important insights into the German phenomenon of high negation.
4.2.3. **Informativity as Decisive Factor?**

The purpose of this section is to show that, although van Rooy & Safarova’s (2003) theory of polar interrogatives does not run into the problems context-dependent accounts do, their theory can neither account for the pattern of answer particles to German high negation polar interrogatives nor for the co-occurrence of standard and high negation, and seems to be problematic for English as well.

Van Rooy & Safarova propose a pragmatic account of polar interrogatives based on Decision Theory (Jeffrey 1965) and Information Theory (Shannon 1948). Their idea is that the speaker chooses the interrogative type (positive or negated polar interrogative) that is most useful: either the chosen interrogative type is one that makes it most likely that a certain goal (e.g. the goal that you get someone to open the door for you) will be reached, or the interrogative type is chosen on the basis of which answer is expected to be the most informative. An *informative* answer is an answer that provides mostly *new* information. If the speaker already assumes that a certain proposition holds true, a positive answer is less informative than a negative answer.

Van Rooy & Safarova assume that preposed negation polar interrogatives as well as all interrogatives containing a negation contain in fact a negative sentence radical. Notice that this assumption is contradictory to Ladd’s finding that *too* sometimes attaches to preposed negation polar interrogatives as shown above in section 4.2. That *too* can attach to a preposed negation polar interrogative is good evidence that this interrogative contains a positive sentence radical and thus contradicts van Rooy & Safarova’s assumption. This issue is not addressed in van Rooy & Safarova (2003) as far as I can tell.

The assumption that an interrogative containing a negation always has negated content prevents the need for an explanation why an interrogative contains a negation if the negation does not have an effect on the content.

The speaker’s positive belief in the case of preposed negation polar interrogatives is
tightly connected to the use of a negated sentence radical, according to van Rooy & Safarova. A speaker utters *Isn’t Jane coming?* in the belief that *Jane is coming*. The speaker uses the negated sentence radical *Jane isn’t coming* because a positive answer in the meaning that *Jane is not coming* will be more surprising than a negative answer in the meaning of *Jane is coming* because the speaker thinks it to be likely that *Jane is coming* (hence the belief). Since it is more surprising and thus has a higher information value to learn that *Jane is not coming* in case you believe that *Jane is coming*, the speaker chooses the negated interrogative so that the positive answer leads to more information gain.

The problem with van Rooy & Safarova’s theory for English also shows up for German high negation polar interrogatives. The assumption that the speaker chooses the negated sentence radical for the content of the interrogative because of its high information value as a possible answer cannot be accommodated with evidence that high negation polar interrogatives in German in fact do not contain a negated sentence radical but a positive sentence radical. Recall from section 2.2.2. that the answer pattern of high negation polar interrogatives showed that high negation polar interrogatives have positive content unless they contain an additional negation. Second, the double negation case (example 2 in the introduction, example 10 with tree in section 2.1.) could not be explained under the assumption that high negation is a standard negation which has effect on the content of the interrogative. Under my analysis high negation and standard negation operate on different levels of meaning and can thus co-occur in polar interrogatives. If high negation and standard negation are analyzed as operating on the same level, van Rooy & Safarova had to provide a good explanation why in German interrogatives negation markers can co-occur while this is not the case in declarative clauses.

In sum, van Rooy & Safarova’s account raises problems for both, English and German negated polar interrogatives.

In conclusion, all the previous accounts are not able to capture fully the phenomenon
of high negation in German. In contrast, the theory of high negation presented in this paper is in line with the data, puts minimal conditions on the discourse and does not make contradictory predictions.

5. **A System of Discourse-Level Meaning**

After looking at all these related but different phenomena concerning negation in section 4, I now want to address the question whether there is any other phenomenon related to high negation outside of negation where we see this particular function of high negation of affecting the discourse-level meaning in a larger context that makes more sense. The purpose of this section is to (1) show that discourse-level-meaning contributions are not limited to negation in polar interrogatives. German has a highly structured pragmatic system to convey speaker’s attitudes among other discourse information and this system is not limited to interrogative constructions. (2) I argue that high negation is part of this pragmatic system of discourse-level meaning.

1. **Discourse Particles and the larger Picture**

German has a rich system of discourse particles (Weydt 1983). They do not contribute to the truth-conditions of a sentence but convey the biases and attitudes of the speaker (among other things) and connect previous utterances to what is currently at issue. These particles have a lexical counterpart with purely lexical meaning. There are roughly two dozen such particles in German. Examples (with their lexical translations) are *doch* (reversal particle) ‘however’, nur ‘only’, *vielleicht* 'maybe, perhaps' and *etwa* 'approximately'. Consider the examples in (66) through (69) to get a feel for the discourse contribution of these elements and to see that discourse particles are possible in positive and negated declarative and interrogative clauses. That is, discourse-level meaning contributions are not restricted to negation in polar interrogatives.

Lexically, *doch* is used as a reversal particle to answer negated polar interrogatives. As
discourse particle, *doch* has the effect of conveying to the addressee that the addressee should already know the content of the utterance in which *doch* occurs (66). In this case, the utterance is a positive declarative.

(66) \[\text{Ich ziehe *doch* morgen um!}\]
I move however tomorrow
‘I have told you previously that I am moving tomorrow.’

*Nur* ‘only’ in its lexical meaning is used to express for instance that ‘*I only* washed my own car but not my husbands’. In (67), the discourse level meaning of *nur* in combination with the negation *nicht* conveys to the addressee of the utterance that the speaker strongly wishes the content of the utterance were not true and everything would be good if the speaker would not move tomorrow. Without the negation, the speaker would express her wish that the content of the utterance was true. In (67), *nur* functioning as a discourse particle occurs in a negated declarative.

(67) \[\text{Zöge ich morgen *nur* nicht um!}\]
move I tomorrow only not
‘I wish I would not move tomorrow!’
\[\rightarrow\] ‘I wish I would not move tomorrow.
If I would not move tomorrow, everything would be good’

*Vielleicht* ‘perhaps’ in its lexical meaning is used to convey that the possibility exists that one might or might not do something. Its discourse-level meaning conveys surprise of the speaker regarding her inference from the current situation suggesting that the content of the utterance, in which *vielleicht* is used, is true (68). (68) expresses that its speaker previously believed that ‘you are moving tomorrow’. Without the negation, this belief is not conveyed. In (68), *vielleicht* functioning as a discourse particle occurs appears in a negated interrogative in this case.

(68) \[\text{Wirst du *vielleicht* nicht morgen umziehen?}\]
will you perhaps not tomorrow move
‘Is it possible that you are not going to move tomorrow?’
\[\rightarrow\] Said with an additional flavor of surprise from the side of the speaker about evidence from the current situation indicating that the addressee does not move tomorrow unexpectedly.
In its lexical meaning, *etwa* ‘perhaps’ is usually used as ‘approximately’ as in ‘I moved approximately 30 boxes’. The discourse level meaning conveys to the addressee that the speaker is surprised and possibly indignant about inference she just drew from the current situation. The inference is the content of the utterance. The use of *etwa* indicates that the speaker previously thought that the complement of the content of the utterance was true. In (69), discourse particle *etwa* occurs in a positive polar interrogative.

(69) Wirst du *etwa* morgen umziehen?  
   Will you approximately tomorrow move  
   ‘You are MOVEing tomorrow?’  

→ Uttering (69) conveys that the speaker is surprised and not pleased to infer from the discourse context that the addressee is going to move tomorrow.

The examples (66-69) demonstrate the meaning of German discourse particles in contrast to the lexical meaning of each particle. Lexical items apart from negation can be used to express discourse level meaning in interrogatives (68, 69) and declaratives (66, 67), with negation (67,68) and without negation (66,69). This shows that discourse-level-meaning contribution is not restricted to polar interrogatives containing *nicht*.

Here the question arises why high negation is limited to positive and negated interrogative constructions if discourse effects in German are in general not limited to interrogatives. Recall that under my analysis high negation functions as a commitment marker. The content of a declarative is a commitment of the speaker by definition. Therefore, high negation in declaratives would be redundant and would tell the addressee nothing new about the speaker’s attitude. High negation does therefore not occur in declaratives but only in interrogatives.

Concluding, the phenomenon of high negation in polar interrogatives is not an isolated phenomenon but is part of a larger highly structured system of discourse-level meaning in German. Alike discourse particles, *nicht* can be used both, in a lexico-semantic manner and to convey discourse level meaning. This suggests that high negation might actually be a discourse particle. As far as I know, negation has not yet been considered to be part of the
German discourse particle system.

(2) **High Negation as a Discourse Particle**

Further evidence that high negation is part of the German discourse particle system comes from examples where *nicht* and discourse particles co-occur. While regular negation is compatible and can co-occur with discourse particles, interrogatives containing high negation and a conversational particle are ungrammatical, and in fact uninterpretable. That is, the ‘pragmatic’ effect of high negation interferes with discourse-level contribution while the effect of standard negation does not.

Considering the positive polar interrogative in (70), *etwa* conveys that the speaker is surprised about the content of the interrogative, here, that ‘Max passed the exam’, and previously expected the opposite to be true, i.e. that ‘Max did not pass the exam’. The (a)-interrogative contains a definite object (*die Prüfung*) whereas the (b)-interrogative contains an indefinite object (*Brot*), but the bias is the same for both.

(70)  

<p>| | |</p>
<table>
<thead>
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</thead>
<tbody>
<tr>
<td>a.</td>
<td>Hat Max <strong>etwa</strong> die Prüfung bestanden?</td>
</tr>
<tr>
<td></td>
<td>has Max perhaps the exam passed</td>
</tr>
<tr>
<td></td>
<td>‘Did Max really(^{15}) pass the exam?’</td>
</tr>
<tr>
<td>b.</td>
<td>Hat Max <strong>etwa</strong> Brot gekauft?</td>
</tr>
<tr>
<td></td>
<td>has Max perhaps bread bought</td>
</tr>
<tr>
<td></td>
<td>‘Did Max really buy bread?’</td>
</tr>
</tbody>
</table>

Turning to (71), *etwa* can be used in a polar interrogative with standard negation. The speaker expresses surprise at some contextual evidence implying that ‘Max has not passed the exam’ or that ‘Max has not bought bread’. The speaker previously believed that ‘Max passed the exam’ or ‘bought bread’.

(71)  

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>a.</td>
<td>Hat Max <strong>etwa</strong> die Prüfung <strong>nicht</strong> bestanden?</td>
</tr>
<tr>
<td></td>
<td>has Max perhaps the exam not passed</td>
</tr>
<tr>
<td></td>
<td>‘Did Max really not pass the exam?’</td>
</tr>
<tr>
<td>b.</td>
<td>Hat Max <strong>etwa</strong> kein Brot gekauft?</td>
</tr>
<tr>
<td></td>
<td>has Max perhaps no bread bought</td>
</tr>
<tr>
<td></td>
<td>‘Did Max really not buy bread?’</td>
</tr>
</tbody>
</table>

\(^{15}\) ‘Really’ is the best translation for *etwa* I could think of, but it does not accurately reflect the force of *etwa*. 
By contrast, high negation and *etwa* cannot co-occur, and the interrogatives in (72) are incomprehensible in both the definite and indefinite object case. In all examples in (72), *nicht* has to be taken as indicating high negation.

(72)  
  a. # Hat **nicht** Max *etwa* die Prüfung bestanden?  
    has not Max perhaps the exam passed  
  b. # Hat **nicht** Max *etwa* Brot gekauft?  
    has not Max perhaps bread bought  
  c. # Hat *etwa nicht* Max Brot gekauft?  
    has Max perhaps not bread bought  
  d. # Hat Max *etwa nicht* Brot gekauft?  
    has perhaps not Max bread bought

Finally, more support for the claim that high negation and discourse particles cannot co-occur comes from comparisons between the grammaticality pattern of high negation in polar interrogatives with definite and indefinite objects.

Recall that in the case of a sequence of *nicht* and indefinite phrases *nicht* has to become *kein*. In the case of a sequence of *nicht* and definite phrases the morphology of the negation does not change. Recall further that in polar interrogatives positional constraints for *nicht* are lifted. Now, compare the ungrammatical interrogative with an indefinite object in (73a) and the grammatical interrogative with a definite object in (74). In both cases the discourse particle *vielleicht* is followed by *nicht*, which is followed by the object. The object differs in terms of definiteness. Why do we find this grammaticality difference connected to definiteness considering that (73b) where negation is expressed by *kein* is grammatical?

(73)  
  a. * Hat Max *vielleicht nicht* Brot gekauft?  
    has Max perhaps not bread bought  
  b. Hat Max *vielleicht kein* Brot gekauft?  
    has Max perhaps no bread bought  
    ‘Is it the case that Max did NOT buy bread?’

(74)  
Hat Max *vielleicht nicht* die Prüfung bestanden?  
Has Max maybe not the exam passed  
‘Is it possible that it is the case that Max did not pass the exam?’
Nicht in the scope of a conversational particle can only be interpreted as standard negation, and therefore (73b), where nicht is changed into kein, is grammatical. Remember that kein is always standard negation. In the case of (73a) however, nicht is clearly not standard negation since standard negation preceding an indefinite phrase is always kein. Hence, (73a) is ungrammatical. By contrast, nicht in (74) cannot amalgamate to kein because there is no indefinite object, and therefore nicht in (74) cannot be disambiguated as clearly being high negation. Standard negation has the same morphology as high negation in case of definite objects: nicht. Strikingly, nicht in (74) unambiguously constitutes standard negation in co-occurrence with the discourse particle vielleicht and cannot be read as high negation. That is, high negation just changes into standard negation if preceded by a discourse particle. This provides further support to my claim that discourse particles and high negation operate on the same level and evidences that high negation in polar interrogatives is in fact part of a larger system of discourse-level meaning unlike standard negation.

Concluding, the contribution of discourse particles to the discourse level meaning of different linguistic constructions such as positive and negative declarative and interrogative clauses suggests that what looks like a purely semantic function of a word may be used non-semantically. The German system of discourse particles opens the universal possibility that purely logico-semantic functions of words can figure in larger highly structured pragmatic systems that convey among other things speaker’s attitudes which is non-semantic in a strictly logical sense.

6. Conclusion

Although morphologically identical to sentential negation nicht, German high negation exhibits different distributional, semantic and pragmatic properties. I have argued that high negation occurs higher in the clause than standard sentential negation, is
semantically inert, and pragmatically acts as a ‘commitment marker.’ Why would a language like German use an element that morphologically looks like negation as a commitment marker? As I have showed in section 5, German has a whole system of lexical elements which, on the one hand, convey semantic information and, on the other hand, convey pragmatic or discourse information. Thus, nicht might be viewed as a discourse particle, usually having an effect on truth-conditions but sometimes also imposing discourse conditions.

I have shown that a purely semantic analysis is not sufficient for representing the whole meaning contribution of a high negation construction and have argued that the discourse-level-meaning contribution of negation in polar interrogatives is not an isolated case, but rather part of a more general system of discourse particles in German. The Farkas-Gunlogson framework has turned out to be a particularly useful system to account for discourse-level effects in addition to semantic effects.

Finally, the question arises whether the phenomenon that lexical elements are used to convey non-semantic information is specific to German or whether other languages have similar highly structured pragmatic systems. I will leave the answer to this question for future research.

References


