A Comparison of *fei* and *aber*[1]

Stefan HINTERWIMMER — *University of Cologne*
Cornelia EBERT — *Leibniz-Zentrum Allgemeine Sprachwissenschaft, Berlin*

Abstract. This paper compares the modal particle *fei* (Schlieben-Lange, 1979; Thoma, 2009) with the modal particle/sentence adverb *aber* (not to be confused with the conjunction *aber*, 'but'). Intuitively, both items express some form of contrast and correction. We will show that both are special among discourse particles in the following sense: They make a contribution that is interpreted at a level distinct from the level where at-issue content (Potts, 2005) is interpreted, as is standard for modal particles (see Gutzmann, 2015 and the references therein). But more interestingly, they exclusively relate to propositions that have not entered the Common Ground via being the at-issue content of an assertion made by the addressee.

Keywords: discourse particles, assertions, at-issue content, presuppositions, conventional implicatures, conversational implicatures.

1. Introduction

In this paper we compare the Bavarian modal particle *fei* (Schlieben-Lange, 1979; Thoma, 2009), which does not have a direct counterpart in standard German, with the modal particle/sentence adverb *aber* (not to be confused with the conjunction *aber*, 'but'), which exists in Bavarian as well as in standard German. Intuitively, both items express some form of contrast and correction. We will show that both are special among discourse particles in the following sense, however: They make a contribution that is interpreted at a level distinct from the level where at-issue content (Potts, 2005) is interpreted, as is standard for modal particles (see Gutzmann, 2015 and the references therein). But more interestingly, they exclusively relate to propositions that have not entered the Common Ground via being the at-issue content of an assertion made by the addressee.

Following Hinterwimmer (to appear), we assume that *fei* is used by the speaker to direct the addressee's attention to a conflict between her own and the addressee's beliefs that is not maximally prominent at the point where the sentence containing *fei* is uttered. Such a conflict would be maximally prominent if a proposition p entailing the negation of the proposition q denoted by the sentence with *fei* had been previously asserted by the addressee. After all, by asserting p, the addressee has presented herself as believing p to be true and proposed to add p to the Common Ground (Stalnaker, 1978). It is thus evident to a speaker who believes a proposition q entailing the negation of p that the addressee believes *not q*, and by asserting q it likewise becomes evident to the addressee that the speaker believes *not p*. Consequently, the conflict between the addressee's and her own beliefs can be assumed by the speaker to be

---

obvious not only to her, but to her addressee as well as soon as she has asserted q, and there is hardly any need to draw the addressee's attention to it.

The situation is different whenever the speaker only infers on the basis of contextual information and/or general background knowledge that the addressee believes a proposition p entailing the negation of the proposition q he is about to assert, or when *not q* is entailed by a conventional or conversational implicature or a presupposition of a previous utterance by the speaker. In such a case, the addressee has not explicitly proposed to add p to the Common Ground, and the question of whether p is true is therefore not automatically maximally prominent at the point where the speaker is about to assert the proposition q. Consequently, the conflict in beliefs does not automatically become maximally prominent as soon as the speaker has asserted q. The addition of *fei* to a sentence denoting q in order to direct the addressee's attention to that conflict is thus not superfluous.

This explains the distribution of *fei*, which is as follows: First, *fei* cannot be added felicitously to a sentence denoting a proposition q in a situation where the addressee has previously asserted a proposition p which contradicts q. Second, the addition of *fei* is perfectly felicitous when the speaker's assumption that the addressee believes p is based on contextual information and/or general background knowledge, or when p is a conventional or conversational implicature or a presupposition of a previous utterance by the speaker.

The discourse particle/sentence adverb *aber*, in contrast, requires there to be a proposition p entailing the negation of the proposition q denoted by the sentence with *aber* that is, on the one hand, prominent at the point where that sentence is uttered. On the other hand, p may likewise not be the at-issue content of a sentence previously uttered by the addressee. Consequently, *aber* behaves like *fei* in certain respects and can felicitously be added to a sentence denoting the proposition q whenever the speaker can infer on the basis of contextually salient information that the addressee believes a proposition p entailing *not q*. In contrast to *fei*, however, *aber* cannot be added to a sentence denoting the proposition q in the three following situations: (a) The information on the basis of which the speaker infers that the addressee believes p is not contextually salient, but only general background knowledge. (b) p is entailed by a conventional implicature of a previous utterance of the addressee. (c) p is entailed by a presupposition of a previous utterance of the addressee.

The paper is structured as follows. Section 2 introduces the data to be accounted for. Section 3 summarizes the analysis of *fei* proposed in Hinterwimmer (to appear). Our analysis of *aber* is presented in Section 4. Section 5 gives the conclusion.

2. Data

Consider the contrast between the felicity of *fei* and *aber* in Tom's reaction in (1), on the one hand, and their infelicity in Tom's reaction in (2), on the other. Since *aber*, as already said in the introduction, exists in standard German as well as in Bavarian, where it is spelled out as *oba*, all examples are given in Bavarian for ease of comparison. The modal particle *doch*, which likewise exists in standard as well as in Bavarian German, has been included for comparison.

(1) Paula (wearing only a shirt): I geh spaziern.

I'll go for a walk.
Tom: S'is (fei/oba/doch) saukoit draussn.
It's terribly cold outside.

(2) Paula: S'is goa ned koit drauss'n.
It's not cold at all outside.
Tom: (So a Schmarr'n!) S'is (#fei/#oba/doch) saukoit drauss'n.
(*What nonsense!) It's terribly cold outside.*

In (1), the proposition denoted by the sentence Tom utters contradicts a proposition which Tom can plausibly assume Paula to believe on the basis of her non-verbal behavior in combination with the sentence she utters – namely that it is not cold outside. If she believed otherwise, she would presumably not leave the house with the intention to go for a walk wearing only a shirt. In such a situation, not only *doch* but also *fei* and *oba* can be added felicitously. In (2), in contrast, Paula has explicitly asserted that it is not cold outside. In that situation, only *doch* and neither *fei* nor *oba* can be added felicitously. It thus seems to make a difference whether the addressee has previously asserted a proposition that contradicts the proposition denoted by the sentence with *fei* or *oba*, or whether it can only be inferred by the speaker that the addressee believes that proposition on the basis of a combination of verbal and non-verbal behavior. The modal particle *doch*, in contrast, seems to be insensitive to that difference.

Consider next the contrast between (3) and (4). In (3), the addition of *fei* or *oba* is presumably infelicitous for the same reason for which it was infelicitous in (2) – the addressee has previously asserted a proposition which contradicts the proposition denoted by the sentence containing the respective discourse particle/sentence adverb (these sentences will henceforth be called the *prejacents*). In (4), in contrast, where the same proposition – namely that Otto has eaten the whole cake – has not been asserted, but rather conversationally implicated by the addressee's immediately preceding utterance, both *fei* and *oba* can be added felicitously.

(3) Paula: Da Otto hod den ganzn Kuacha gessn.
Otto has eaten the whole cake.
Tom: Da Otto hod den Kuacha (#fei/#oba) ned gessn. Des woa d'Maria.
Otto hasn't eaten the cake. It was Maria!

(4) Paula: Da Otto is in da Kich gwen und da Kuacha is weg.
Otto was in the kitchen and the cake is gone.
Tom: Da Otto hod den Kuacha fei/oba ned gessn. Das woa d'Maria.
Otto hasn't eaten the cake. It was Maria!

Taken together, the contrasts discussed so far could be taken to show that both *fei* and *oba* can only be added to a sentence denoting the proposition p if the speaker believes but does not know for sure that the addressee believes a proposition contradicting p. After all, it is one of the defining features of conversational implicatures that they can be cancelled, and inferences based on verbal combined with non-verbal behavior are usually defeasible as well. As soon as an interlocutor x has asserted a proposition q, in contrast, the other interlocutors know for sure that x at least presents herself as believing q, and in the absence of mind-reading abilities, that

is the strongest evidence that one can hope to get that *x* believes *q*. But now consider the following contrasts.

(5) Paula: In Fronkreich gibts imma no an Kini.
       In France there is still a king.
    Tom: (So a Schmarr'n.) In Fronkreich gibts (#fei/#oba/doch) koan Kini nemma.
       What nonsense! In France there is no king anymore.

(6) Paula: Da Kini von Fronkreich is a Depp.
       The king of France is an idiot.
    Tom: In Fronkreich gibts (fei/??oba/doch) koan Kini nemma.
       In France, there exists no king anymore.

The infelicity of both *fei* and *oba* in Tom's reaction to Paula's statement in (5) is exactly what we would expect, given what we have said so far, since the proposition asserted by Tom contradicts the proposition asserted by Paula. What is unexpected, though, is the felicity of *fei* in Tom's reaction to Paula's statement in (6): It is standardly assumed, following Strawson (1950) (see Elbourne, 2013 for an overview of the discussion), that by using the definite article the speaker presupposes the existence of a unique entity satisfying the predicate denoted by the respective NP. Consequently, Paula (wrongly) assumes the Common Ground to entail the existence of a unique king of France at the point at which she utters the sentence. Tom has therefore just as strong evidence that Paula believes there to be a king of France in the case of (6) as he has in the case of (5). Concerning *fei*, it is thus not tenable that its addition is infelicitous whenever the speaker knows that the addressee believes a proposition contradicting the proposition denoted by the prejacent. The addition of *oba*, in contrast, while not being quite as infelicitous as in (5), is at least awkward in (6) as well.

Let us turn to the contrast between (7) and (8) next.

(7) Paula: Da Chomsky is a berühmta Soziologe.
       Chomsky is a famous sociologist.
    Tom: (So a Schmarr'n). Da Chomsky is (#fei/#oba/doch) koa Soziologe.
       What nonsense! Chomsky is no sociologist.

(8) Paula: Da Chomsky, a berühmta Soziologe, is a Anarchist.
       Chomsky, a famous sociologist, is an anarchist.
    Tom: Da Chomsky is (fei/??oba/doch) koa Soziologe.
       Chomsky is no sociologist.

Again, the infelicity of *fei* and *oba* in Tom's reaction to Paula's utterance in (7) is unsurprising in light of the discussion so far. What is remarkable, however, is that *fei* is fully felicitous in Tom's reaction to Paula's utterance in (8). After all, as far as the relation between the proposition denoted by Tom's reaction and the proposition that Chomsky is a famous sociologist is concerned, the only difference between (7) and (8) is the following: In (7) that proposition is the at-issue content of Paula's previous assertion, while in (8) it is a conventional implicature in the sense of Potts (2005). As shown by Potts (2005), nominal appositives such as *a berühmta Soziologe* ('a famous sociologist') in (8), appositive relative clauses, and

expressives belong to a special kind of linguistic content dubbed *conventional implicatures*. One of the defining features of conventional implicatures is that they, in contrast to 'ordinary' semantic content, and similar to presupposed content, are not affected by semantic operations such as negating and questioning: The sentences in (9a-b), for example, are not understood as negating or questioning that Jennifer is a great drummer, but only that she will join the band.

(9)   a. Jennifer, who is a great drummer, will not join the band.
        b. Will Jennifer, who is a great drummer, join the band?

At the same time, and in contrast to presupposed content, conventionally implicated content is assumed by the speaker to be new to the addressee. Intuitively, the contrast between conventionally implicated and 'ordinary' asserted content, which Potts (2005) dubs *at-issue content*, is the following: Getting across the at-issue content is the main point of the respective utterance. It is thus explicitly put on the table by the speaker (see Farkas & Bruce, 2010), and the addressee is invited to at least implicitly accept the respective proposition, or otherwise reject it explicitly. Conventional implicatures, in contrast, constitute side remarks that do not really promote the conversation and are assumed to be uncontroversial by the speaker, i.e. the speaker expects the addressee to simply accept them. This intuition is formalized by Potts (2005) in the following way: At-issue and conventionally implicated content are assumed to be interpreted at separate levels that do not interact with each other. By uttering the opening sentence in (8), Paula thus makes two claims at the same time: that Noam Chomsky is an anarchist, and that Noam Chomsky is a famous sociologist. The two claims do not have the same status, though. While the first one is the main point of her utterance, and she invites Tom to at least implicitly accept or else reject it, the second one is just a side remark she assumes to be uncontroversial. Nevertheless, Tom does not have any more reason to doubt that Paula believes Chomsky to be a famous sociologist in (8) than in (7), where that proposition is the at-issue content of her assertion. The felicity of *fei* in Tom's reaction in (8) thus provides further evidence that it is not the question of whether the speaker knows or only believes that the addressee believes a proposition contradicting the prejacent of *fei* that is at stake. The behavior of *oba*, in contrast, is less clear in this regard: While its addition to Tom's reaction in (8) is certainly not as infelicitous as in (7), it is still awkward and clearly considerably less felicitous than the reaction with *fei*.

Interestingly, the reaction in (8) with *oba* becomes entirely acceptable once Paula's utterance is addressed and acknowledged first.

(10)   Paula: Da Chomsky, a berühmta Soziologe, is a Anarchist.
               Chomsky, a famous sociologist, is an anarchist.
        Tom: Aha / Wenn'st moanst... / Ja scho...
               Ok / If you think so... / Yes, okay, ...
               Da Chomsky is oba koa Soziologe.
               But Chomsky is no sociologist.

We assume that by his reaction Tom acknowledges Paula's utterance and thus agrees to the respective content being added to the Common Ground. After Tom's acknowledgement, all parts of Paula's utterance have entered the Common Ground and are now equally prominent. And this seems to be the crucial difference that sets (10) apart from (8). We observe the same

pragmatic effect in (6), where Tom's reaction can also be rescued by acknowledging the content of Paula's utterance first.

(11)   Paula: Da Kini von Fronkreich is a Depp.
                The king of France is an idiot.
        Tom: Aha / Wenn'st moanst... / Ja scho...
                Ok / If you think so... / Yes, ok, ...
                In Fronkreich gibts oba koan Kini nemma.
                In France, there exists no king anymore.

Note also that, unsurprisingly, the facts in (8) and (10) can be re-established with speech-accompanying gestures, which have been claimed to pattern exactly like appositives by Ebert & Ebert (2014).

(12)   Paula: Des TRIANGLE_[Stoppschild] in der Müllerstroß is nei.[2]
                The stop sign in Müllerstraße is new.
        Tom: Des is/Stoppschilder san (fei/[??]oba/doch) ned dreieckad.
                It is/Stop signs are not triangular.

Again, adding an acknowledging phrase in Tom's response to Paula's remark makes *oba* felicitous.

(13)   Paula: Des TRIANGLE_[Stoppschild] in der Müllerstroß ist nei.
                The stop sign in Müllerstraße is new.
        Tom: Aha / Wennst moanst... / Ja scho...
                Ok / If you think so... / Yes, okay, ...
                Des is/Stoppschilder san oba ned dreieckad.
                It is/Stop signs are not triangular.

Consider now the following example, where *fei* and *oba* clearly part ways. Consider first the contrast between the felicity of *fei* in an out-of-the-blue utterance of (14) as compared to the infelicity of *oba*.

(14)   Tom: Des neie Buach vom Kehlmann is (fei/#oba/#doch) spitze!
                The new book by Kehlmann is great!

Intuitively, for *fei* to be felicitous it is sufficient for Tom to have good reasons to believe on the basis of general background knowledge that his addressee would have expected the new book by Daniel Kehlmann to be not great (because she does not like the books by Daniel Kehlmann, for example, or believes that no great books are written anymore these days). Consequently, the addition of *fei* would be awkward if Tom knew his addressee to be a fan of Daniel Kehlmann, for example, or to have no opinion whatsoever regarding the books of Daniel Kehlmann. Concerning *oba*, in contrast, general background knowledge is not sufficient to license its use (and similarly for *doch*): Even in a context where the addressee is well known to hate the books by Daniel Kehlmann, the addition of *oba* to (14) leads to infelicity if the

---

[2] We indicate that a gesture GEST occurs at the same time as a certain expression EXP by GEST_[EXP]. TRIANGLE denotes a gesture where the speaker iconically indicates a triangular object.

sentence is uttered out of the blue. Rather, for *oba* to be felicitous, the question of whether the new book by Daniel Kehlmann is great needs to have been raised at least implicitly in the preceding conversation. Additionally, just as with *fei*, the speaker needs to have good reasons to believe that the addressee would have expected the new book by Daniel Kehlmann to be not great. Consequently, both *fei* and *oba* are perfectly fine in Tom's reaction to Paula's utterance in (15).

(15) Paula: S'gibt oifach koane gscheidn Biacha nemma.
           There simply are no good books anymore.
      Tom: Des neie Buach vom Kehlmann is (fei/oba/doch) spitze!
           The new book by Kehlmann is great!

With this in mind, consider next the contrast between (16) and (17).

(16) Paula: Des neie Buach vom Kehlmann is spitze!
           The new book by Kehlmann is great.
      Tom: Des is (#fei/#oba/doch) da letzte Schmarr'n.
           It's complete nonsense.

(17) Paula: I find des neie Buach vom Kehlmann spitze!
           I find the new book by Kehlmann great.
      Tom: Des is (#fei/oba/doch) da letzte Schmarr'n.
           It's complete nonsense.

Again, the infelicity of both *fei* and *oba* in Tom's reaction to Paula's utterance in (16) is expected in light of our discussion so far, since the at-issue content of Paula's utterance contradicts the at-issue content of Tom's utterance. The infelicity of *fei* in Tom's reaction to Paula's utterance in (17) is likewise expected, since the at-issue content of that utterance entails that she believes a proposition that contradicts the prejacent of *fei* – namely that the new book by Daniel Kehlmann is no nonsense. What is surprising, however, is the felicity of *oba* in (17), which, given what we have said so far, should be infelicitous for the same reason as *fei*. In contrast to *fei*, *oba* only seems to be infelicitous when the addressee has previously asserted a proposition *p* that contradicts the prejacent, but not when she has asserted that she 'finds' *p*. When a speaker says that she finds p, this is a subjective judgment presented as an opinion and not a fact (for an analysis of German *finden* 'find', see among others Reis, 2013; Umbach, in press), which seems to matter for the felicity of Tom's reaction with *oba* in (17).

Consider furthermore the following exchange between Paula and Tom.

(18) Paula: I woaß ned ob I ma des neie Buach üba d'Münchna Räterepublik kafa sui.
           I don't know if I should buy the new book about the Soviet republic of Munich.
      Tom: Des is (fei/$^?$oba/doch) interessant.
           It's interesting.

In the case of (18), Paula's utterance indicates that she believes neither the proposition denoted by Tom's reaction nor its negation, i.e. she considers it both possible that the book is interesting and that it is not interesting – otherwise there would be no point in making the utterance in the

first place. In such a situation, the addition of *fei* is perfectly felicitous, while *oba* is degraded (although far from being infelicitous).

Our observations regarding the distribution of *fei* and *oba* can be summarized as follows.

(a) The distribution of *fei*:

fei can be added felicitously to a sentence denoting the proposition *p* in a context where the interlocutor either believes *not p* or at least considers *not p* to be a likely option and *not p*

(i) can be inferred from the context or general background assumptions, or

(ii) is entailed by the conversational or conventional implicatures or presuppositions of a previous utterance by the interlocutor.

The addition of *fei* is infelicitous, in contrast, if there is a previous utterance by the interlocutor whose at-issue content in combination with the fact that the interlocutor has asserted it entails that she believes *not p*.

(b) The distribution of *oba*:

oba can be added felicitously to a sentence denoting *p* in a context where

(i) a proposition entailing *not p* is activated in the discourse,

(ii) it can be inferred that the addressee believes *not p*,

(iii) there is no recent assertion *A* by the addressee such that the at-issue content of *A* entails *not p* and

(iv) neither the presuppositions nor the conventional implicatures of a recent utterance by the interlocutor entail *not p*.

Having presented data that illustrates the differing felicity conditions of *fei* and *aber*, we will show in the following that the two particles sometimes also differ in their perlocutionary force.

(19)   (Tom just sat down on a chair next to Melanie.)
         Melanie to Tom: Do sitzt (fei/oba/doch) imma d'Miriam.
         This is where Miriam usually sits.

All particles are licensed in (19). There is, however, a difference in what (19) pragmatically conveys depending on the particle used. While the utterance with *doch* is an allegation and indicates that Melanie is of the opinion that Tom should know about the fact that Miriam usually sits in this chair, with *fei* it has informational character and conveys that Melanie assumes that Tom does not know about this fact, fully in line with what we have argued so far about the semantics of *fei*. With *oba*, however, (19) turns into a demand for Tom to stand up and look for a different place to sit. In other words, while (19) with *fei* is an informational statement, with *oba* it is a demand.

Similarly, in the following example, adding *oba* turns the utterance into an implicit demand, while *fei* and *doch* do not.

(20) Child: Wos gibt's zum Mittogessen?
              What have you cooked for lunch?
      Mother: Lachs mit Spinat.
              Salmon with spinach.
      Child: I mog (fei/oba/doch) koan Spinat ned!
              I don't like spinach!

With *oba*, the child implicitly asks his mother to prepare some alternative food for him, the utterances with *fei* or *doch* lack this connotation.

In Section 3, we will summarize and partially refine the analysis of *fei* argued for in Hinterwimmer (to appear), and in Section 4 we will present our analysis of *oba* and discuss how this analysis can account for the observed semantic behaviour of *oba* and its pragmatic effects.

3. The analysis of *fei*

fei is a modal particle that is derived from Latin *finis* and French *fin* (*end*, *border*) and entered Bavarian German in the 12th century (Schlieben-Lange, 1979; Glaser, 1999). As already said in the introduction, *fei* does not have a direct counterpart in standard German. Distributionally, it shares all the characteristics of modal particles (Weydt, 1969; Thurmair, 1989; Jacobs, 1991; Omelius-Sandblom, 1996; Zeevat, 2003; Karagjosova, 2004; Corniglio, 2011; Zimmermann, 2008; 2011, Gutzmann, 2015; see the papers in Bayer and Struckmeier, 2017 for a recent overview): It is always optional, it can only occur in the so-called middle field, it cannot receive the main accent of the respective clause, it cannot be questioned, it cannot be negated and it does not contribute to the truth conditions of a sentences containing it, i.e. a sentence with *fei* always has the same truth conditions as the corresponding sentence without *fei* (see Thoma, 2009 and Hinterwimmer, to appear for details). In descriptive linguistic work, *fei* is taken to add emphasis to the meaning of the sentence containing it. The first analysis of *fei* in modern linguistic terms has been proposed by Thoma (2009), and that analysis is also the starting point for the analysis proposed by Hinterwimmer (to appear).

Thoma (2009) assumes that *fei* is not only a modal particle, but also encodes polarity focus. The second part of this assumption is refuted in Hinterwimmer (to appear). For reasons of space, we cannot go into the details of that refutation here and have to refer the interested reader to Hinterwimmer (to appear). According to Thoma (2009), the felicity conditions of *fei* can be stated as follows: Adding *fei* to a sentence α with propositional content p is felicitous in a context C iff the speaker believes in C that the addressee believes $\neg p$. Based on the data discussed in Section 2, Hinterwimmer (to appear) shows that Thoma's analysis, while capturing an essential component of *fei*'s felicity conditions, misses an important aspect – namely that *fei* is only felicitous if the speaker's assumption that the addressee believes $\neg p$ is inferred on the basis of contextually available information or general background knowledge, or if the conversational or conventional implicatures of a previous utterance by the addressee in combination with the fact that she has made that utterance entail that she believes $\neg p$. Whenever the at-issue content of a previous utterance by the addressee in combination with the fact that she has made that utterance entail that she believes $\neg p$, in contrast, the addition of *fei*

is infelicitous. Additionally, as shown by the felicity of *fei* in Tom's reaction to Paula's utterance in (18), repeated here as (21), the felicity conditions assumed by Thoma (2009) are too strong: The speaker need not believe that the addressee believes $\neg p$. Rather, it is sufficient that she believes the addressee to consider $\neg p$ a likely option.

(21) Paula: I woaß ned ob I ma des neie Buach üba d'Münchna Räterepublik kafa sui.
        I don't know if I should buy the new book about the Soviet republic of Munich.
      Tom: Des is (fei/$^?$oba/doch) interessant.
        It's interesting.

In order to state the just-sketched felicity conditions precisely, it is crucial to have a clear definition of at-issue content as opposed to secondary, i.e. presupposed or conventionally implicated, content. Hinterwimmer (to appear) follows AnderBois et al. (2015) and Murray (2017) in assuming that at-issue content differs from conventionally implicated content in the way in which it enters the Common Ground: It is only the at-issue content that is asserted, where for a proposition to be asserted means that the speaker explicitly proposes to add it to the Common Ground. Crucially, the respective proposition is only added to the Common Ground after the addressee has explicitly or implicitly accepted it. From this it follows that it is entirely unproblematic for the addressee to directly deny or question an asserted proposition. For conventional implicatures, in contrast, there is no intermediate step, i.e. they enter the Common Ground directly. Consequently, the addressee cannot directly deny or question a conventional implicature, but rather has to employ special means that interrupt the flow of the conversation such as saying 'Hey, wait a minute!' first (Shannon, 1976; von Fintel, 2004). The same applies to presupposed content, which, even if it is not already part of the Common Ground, is at least treated by the speaker as if it was. Finally, since it is one of the defining features of conversational implicatures that they can be cancelled, it is clear that they are likewise not asserted.

With these assumption in place, the felicity conditions of *fei* can now be stated informally as given in (23). Note that the version in (23) differs from the one in Hinterwimmer (to appear) in the following respect: It is stated in such a way that it accounts for the infelicity of *fei* in cases where the addressee has asserted a proposition entailing $\neg p$ as well as for the infelicity of *fei* in cases such as (17), repeated here as (22), which were not discussed in Hinterwimmer (to appear). In (22), the speaker has not asserted a proposition entailing $\neg p$, but rather a proposition entailing that she 'finds' $\neg p$. Condition (ii) is general enough to account for both cases: If the addressee has asserted a proposition entailing $\neg p$, then the fact that she has uttered that proposition entails that she believes $\neg p$, and if she has asserted a proposition entailing that she 'finds' $\neg p$, then the fact that she has uttered that proposition entails that she believes that proposition as well.

(22) Paula: I find des neie Buach vom Kehlmann spitze!
        I find the new book by Kehlmann great.
      Tom: Des is (#fei/oba/doch) da letzte Schmarr'n.
        It's complete nonsense.

(23)   *fei* can be added felicitously to a sentence α denoting the proposition *p* in context *C* iff
        (i) the speaker believes that the addressee considers $\neg p$ a likely option.

(ii) there is no recent assertion *A* by the addressee such that the content of *A* in combination with the fact that the addressee has asserted it entails that the addressee believes ¬*p*.

This informal analysis (or rather, a close variant of it) is formally implemented in Hinterwimmer (to appear) in a possible worlds framework along the lines of Hintikka (1969). In such an analysis, a person *x* believes a proposition *p* in a world *w* iff *p* is true in all worlds *w′* that are compatible with what *x* believes in *w*. In order to formalize the notion of considering a proposition a likely option, existential rather than universal quantification is required. Unrestricted existential quantification over the addressee's belief worlds would be too weak, however, to formalize the first felicity condition in (23): This would predict *fei* to be felicitous whenever the speaker assumes that the addressee does not completely exclude the possibility that ¬*p* is true. Rather, what we need is existential quantification not over the entire set of the addressee's belief worlds, but rather over the following subset: the set of worlds containing only those worlds that correspond to the addressee's assumptions about what is stereotypically the case (cf. Kratzer's, 1981 analysis of modal verbs).

Putting everything together, the informally stated felicity conditions can be formalized as in (24), which is paraphrased in (25).

(24)   *fei* can be added felicitously to a sentence α denoting the proposition *p* in context *C* iff

(i) $\forall w' \in DOX_{SP,w*} [\exists w'' \in MAX_{Stereo\text{-}ADR}(DOX_{ADR, w'})[\neg p(w'')]]$,
where *SP* is the speaker in *C*, *ADR* is the addressee in *C*, w^* is the world of *C*, $DOX_{SP,w*}$ is the set of worlds compatible with what *SP* believes in w^*, and $MAX_{Stereo\text{-}ADR}$ is the function mapping a set of worlds to the subset that makes as many of *ADR's* assumptions about what is stereotypically the case true as possible.

(ii) $\neg\exists e[Assertion(e)(w^*) \land Agent(e, ADR) \land recent(\tau(e)) \land Content(e) = q \land \forall w \forall e \forall x[Assertion(e)(w) \land Agent(e, x) \land sincere(e, x) \land Content(e) = q \rightarrow \forall w' \in DOX_{x,w}[\neg p(w')]]]$.

(25)   *fei* can be added felicitously to a sentence α denoting the proposition *p* in context *C* iff

(i) all of the speaker's belief worlds contain at least one world that is compatible with as many of the addressee's assumptions about what is stereotypically the case as possible where the negation of *p* is true, and

(ii) there is no recent assertion of a proposition *q* by the addressee such that in all worlds where an individual *x* sincerely asserts *q*, ¬*p* is true in all worlds that are compatible with what x believes in *w* (i.e. there is no recent assertion of a proposition by the addressee such that whenever someone asserts that proposition sincerely, she believes ¬*p*).

These felicity conditions account for all the facts discussed in Section 2. Concerning the question of why there should be a modal particle with such complex and subtle felicity conditions, the reasoning already sketched in the introduction applies: *fei* can be used by the

speaker to direct the addressee's attention to a conflict between her own beliefs and the addressee's beliefs that is not maximally prominent at the point where the sentence with *fei* is uttered. That is the case when the speaker's assumption that the addressee at least considers a proposition contradicting the propositional content of the prejacent of *fei* to be a likely option is inferred on the basis of contextual information or general background knowledge. It is also the case if the presuppositions or conversational or conventional implicatures of a recent utterance by the addressee entail such a proposition. But consider the case when the addressee has asserted a proposition where it directly follows from her having asserted it sincerely that she believes a proposition contradicting the propositional content p of the prejacent of *fei*. In this case, simply asserting p would have been sufficient to make the conflict between the speaker's and the addressee's beliefs maximally prominent.

4. The analysis of *oba*

After having presented our analysis of *fei*, let us now return to *oba*, the Bavarian version of *aber* ('but') (recall that the only reason why we discuss the Bavarian instead of the standard German version is to facilitate comparison with *fei* – as far as we know, there are no relevant semantic or pragmatic differences between the two uses). As already said in the introduction, we are only interested in its uses as a speech act particle or sentence adverb in this paper, i.e. in those uses where it does not conjoin two clauses, but rather occurs after the finite verb in a sentence that is uttered as a reaction to a previous utterance of an interlocutor. Recall from Section 2 that *oba*, just as *fei,* (a) can be used if the speaker assumes the addressee to believe a proposition p that contradicts the proposition denoted by the prejacent and (b) cannot be used if the addressee has asserted a proposition that entails ¬p, but differs from *fei* in the following respects: First, it is at least awkward when a proposition entailing ¬p is presupposed or conventionally implicated by a previous utterance of the addressee (see (6) and (8), repeated here as (26) and (27), respectively, cf. also (12)). Second, it is not sufficient that the speaker believes on the basis of general background knowledge that the addressee believes ¬p. Rather, that the addressee believes ¬p has to be inferable on the basis of contextually salient information p (see (14) and (15), repeated here as (28) and (29), respectively). Finally, *oba* is felicitous when the addressee has previously asserted a proposition entailing that she 'finds' ¬p (see (16) and (17), repeated here as (30) and (31), respectively).

(26) Paula: Da Kini von Fronkreich is a Depp.
           The king of France is an idiot.
    Tom: In Fronkreich gibts (fei/[??]oba/doch) koan Kini nemma.
           In France, there exists no king anymore.

(27) Paula: Da Chomsky, a berühmta Soziologe, is a Anarchist.
           Chomsky, a famous sociologist, is an anarchist.
    Tom: Da Chomsky is (fei/[??]oba/doch) koa Soziologe.
           Chomsky is no sociologist.

(28) Tom: Des neie Buach vom Kehlmann is (fei/#oba/#doch) spitze!
           The new book by Kehlmann is great!

(29) Paula: S'gibt oifach koane gscheidn Biacha nemma.
　　　　　There simply are no good books anymore.
　　　Tom: Des neie Buach vom Kehlmann is (fei/oba/doch) spitze!
　　　　　The new book by Kehlmann is great!

(30) Paula: Des neie Buach vom Kehlmann is spitze!
　　　　　The new book by Kehlmann is great.
　　　Tom: Des is (#fei/#oba/doch) da letzte Schmarr'n.
　　　　　It's complete nonsense.

(31) Paula: I find des neie Buach vom Kehlmann spitze!
　　　　　I find the new book by Kehlmann great.
　　　Tom: Des is (#fei/oba/doch) da letzte Schmarr'n.
　　　　　It's complete nonsense.

While there are various analyses of the English equivalent of *aber/oba*, *but* (see, e.g., Lakoff, 1971; Winter and Rimon, 1994; Umbach, 2005), the use of *aber/oba* as a sentence adverb of speech act particle has received rather little attention (but see Kwon, 2005 and the references therein). As we will now show, the felicity conditions of *aber/oba* just repeated can be captured in a way that is in large parts very similar to our analysis of *fei*, but also differs from it in certain relevant aspects.

(32) *aber* can be added felicitously to a sentence α denoting the proposition *p* in context *C* iff
　　(i) a proposition *q* entailing ¬*p* is salient and *q* is one of the possible answers to the current *question under discussion* (*QUD*), with *p* entailing another possible answer.
　　(ii) there is no recent assertion *A* by the addressee such that the at-issue content of *A* entails ¬*p*.

The condition in (32ii) is closely related to the second felicity condition of *fei* stated formally in (24ii) and informally in (23ii), with one crucial difference: According to (23ii)/(24ii), what is disallowed is the existence of a recent assertion such that the propositional content of the assertion in combination with the fact that the addressee has made that assertion entails that she believes ¬*p*. That formulation captures the observation that *fei* is infelicitous not only in cases such as (30), where the addressee has asserted a proposition entailing ¬*p* – in that case, that the new book by Daniel Kehlmann is not nonsense – , but also in cases such as (31), where she has asserted a proposition entailing that she 'finds' ¬*p*. The condition in (32ii), in contrast, is formulated in such a way that it allows cases of the latter kind,[3] and only disallows cases of the former kind.

---

[3] Note that Umbach (in press) argues that 'subjective judgments [such as the complements of finden 'find'] present their propositions as mere opinions, not intended to enter the common ground' (Umbach, in press: 28 of final draft). As they are not intended to enter the common ground, they do not open up new issues for discussion, i.e. they do not affect the table. This would mean that, according to Umbach, they do not raise any QUDs, which in turn would mean that *oba* should not be licensed in a reaction to subjective statements as in (30), contrary to what we find. Our analysis is, however, in line with Reis (2013), who proposes that *finden* 'find' triggers the presupposition that there is an open issue that is under debate. In other words, there is a QUD that is presupposed by using the word *finden* 'find'. We assume that it is this QUD that is addressed by the reaction with *oba* in (31).

The condition in (32i) differs more fundamentally from the one in (23i)/(24i). It captures both the infelicity of *oba/aber* in cases such as (28) and its felicity in case such as (29), and the observation that *oba*, in contrast to *fei*, is infelicitous if the presuppositions or conventional implicatures of a previous assertion by the addressee entail ¬*p*. The crucial point is the requirement that both the prejacent *p* and the contextually salient proposition *q* entailing ¬*p* constitute possible answers to the *current question under discussion* (QUD). This notion goes back to Roberts (1996; see Klein and von Stutterheim, 1987; van Kuppevelt, 1995 for similar views) and is based on the following idea: It is not only utterances in oral conversations that answer explicit or implicit questions, but also sentences in all kinds of written texts. In cases where the QUD is implicit, the task of the addressee/reader is to identify the QUD that the respective sentence answers on the basis of its focus-background structure, where the explicitly given or inferable parts correspond to the background and the new parts to the focus: The focal part replaces the wh-term contained in the implicit QUD, thus picking one from the set of possible answers. The given or inferable material, the background, in contrast, corresponds to the remaining part of that subquestion.

Now, the assumption that the contextually salient proposition contradicting the prejacent of *oba* has to be a possible answer to the current QUD automatically rules out cases where the propositional content of the prejacent of *oba* contradicts the presupposition of a previous utterance of the addressee, as in (26): Being presupposed and thus at least being treated as if it was already part of the Common Ground by the one who utters the respective sentence, a presupposed proposition can by definition not answer the QUD (which, in the case of (26) can only be a question such as *What is the king of France like*?, but not a question such as *Is there a king in France*?). Simons et al. (2010) (see also Beaver et al., 2017) show, based on contrasts like the one between (33) and (34), that also conventional implicatures, in contrast to the at-issue content of a sentence, can never answer the current QUD:

(33)   Tom: Where did Mary buy her new dress?
        Susan: Mary, who lives in Potsdam, bought it at a store in Berlin.
        Susan: #Mary, who bought it at a store in Berlin, lives in Potsdam.

(34)   Tom: Where does Mary live?
        Susan: Mary, who bought her new dress at a store in Berlin, lives in Potsdam.
        Susan: #Mary, who lives in Potsdam, bought her new dress at a store in Berlin.

The felicity conditions stated informally in (32) above and stated more formally in (35) thus successfully capture the distribution of *aber/oba*.

(35)   *aber/oba* can be added felicitously to a sentence α denoting the proposition *p* in context *C* iff
        (i) $\exists q[\forall w[q(w) \rightarrow \neg p(w) \land \text{prominent}(q, \text{time}(C))] \land q \in \text{QED}_{\text{time}(C)} \land \exists r \in \text{QUD}_{\text{time}(C)} [\forall w[p(w) \rightarrow r(w)]]]$,
        where $QUD_{time(C)}$ is the question under discussion at the time of *C*.
        (ii) $\neg\exists e[\text{Assertion}(e)(w^*) \land \text{Agent}(e, \text{ADR}) \land \text{recent}(\tau(e)) \land \text{Content}(e) = q \land \forall w[q(w) \rightarrow \neg p(w)]]$.

It would be worth pursuing the relation between the conjunction uses of *oba/aber* and its uses as a discourse particle. Interestingly, Umbach (2005) proposes an analysis of the conjunction *but* which is also based on the notion of QUD. Very roughly, and simplifying considerably, she assumes that *but* is felicitous iff each of the two clauses conjoined by *but* answers one of two polar questions serving as the subquestions of an (usually implicit) superquestion, with one of the two questions being answered positively and the other negatively. Further investigating the relation between our analysis of *oba/aber* as a sentence adverb or discourse particle and Umbach's (2005) analysis of the conjunction *but* is a topic that we have to leave for future research.

We will now turn to the perlocutionary acts of utterances with *aber/oba* and *fei*, i.e. examples (19) and (20), repeated here as (36) and (37).

(36)   (Tom just sat down on a chair next to Melanie.)
        Melanie to Tom: Do sitzt (fei/oba/doch) imma d'Miriam.
        This is where Miriam usually sits.

(37)   Child: Wos gibt's zum Mittogessen?
                What have you cooked for lunch?
        Mother: Lachs mit Spinat.
                Salmon with spinach.
        Child: I mog (fei/oba/doch) koan Spinat ned!
                I don't like spinach!

The pragmatic effect of the *oba*-reaction in (36) directly follows from our analysis that *oba* is licensed only if the corresponding utterance addresses a current QUD. In case of (36), there is no explicit preceding discourse and thus no obvious QUD. By sitting down on the chair next to Melanie, there is, however, an implicit question that is raised, namely whether this seat is taken or not and whether Tom is allowed to sit there or not. It is this question that is addressed by Melanie's reaction and answered negatively. This is why the reaction in (36) with *oba* is understood as an implicit demand to change seats. With *fei*, on the other hand, there is no implicit QUD that needs to be addressed. The fact that Tom sat down on Miriam's place simply indicates that he apparently believes this seat is not taken (in general and not taken by Miriam in particular), which licenses the utterance with *fei*.

As for (36), the reasoning is parallel. As the semantics of *oba* requires that there is a QUD that is addressed by the corresponding utterance, the child's reaction with *oba* triggers a presupposition that there is such a QUD. In case of (37) it would most sensibly by a question such as *Do I like this?* or *Can I eat this?* as a follow-up to *What have you cooked for lunch?*. The child's reaction with *oba* would then be interpreted as answering the question whether what the mother prepared for lunch is something that he likes or can eat, indicating that the answer is *no*. Hence, the reaction receives the character of a demand to the mother to prepare something different for the child. Again, with *fei*, there is no such connotation, because an utterance with *fei* does not have to address a current QUD.

5. Conclusion and outlook

In this paper we have compared the felicity conditions of the Bavarian discourse particle *fei* and the sentence adverb or modal particle *oba/aber*.

One issue we have not addressed and which is still an open question is why *oba/aber* is licensed and used very frequently in reactions to demands or requests.

(38) Mother: Du sollst deine Hausaufgaben machen.
             You have to do your homework.
      Child: Ich mach aber keine Hausaufgaben!
             I won't do my homework!

It is not clear whether imperatives can be taken to induce QUDs and, if so, which ones. One could speculate that they trigger the QUD of whether the addressee does what is demanded or not (see Gutzmann, 2012: 99). If that is the case, this would explain why the reaction in (38) is fully acceptable – it addresses the QUD whether the child will obey and answers it negatively.

We leave a comprehensive analysis of *aber/oba* in reactions to imperatives for future research.

References

AnderBois, S., A. Brasoveanu and R. Henderson (2015). At-issue proposals and appositive impositions in discourse. *Journal of Semantics* 32: 93–138.

Bayer, J. & V. Struckmeier (Eds.) (2017). *Discourse Particles. Formal Approaches to their Syntax and Semantics*. Berlin: de Gruyter.

Beaver, D., C. Roberts, M. Simons and J. Tonhauser (2017). Questions under discussion: Where information structure meets projective content. *Annual Review of Linguistics* 3: 19.1–19.20.

Coniglio, M. (2011). *Die Syntax der deutschen Modalpartikeln: Ihre Distribution und Lizenzierung in Haupt- und Nebensätzen*. Berlin: Akademie Verlag.

Ebert, Ch. and C. Ebert (2014). Gestures, Demonstratives, and the Attributive/Referential Distinction. Handout of talk at *Semantics and Philosophy in Europe*, Berlin. http://semanticsarchive.net/Archive/GJjYzkwN/EbertEbert-SPE-2014-slides.pdf

Elbourne, P. (2013). *Definite Descriptions*. Oxford University Press.

Farkas, D. and K. Bruce (2010). On reactions to assertions and polar questions. *Journal of Semantics* 27(1): 1–37.

von Fintel, K. (2004). Would you believe it? The King of France is back! Presuppositions and truth-value intuitions. In M. Reimer and A. Bezuidenhout (Eds.), *Descriptions and Beyond*. Oxford: Oxford University Press.

Glaser, E. (1999). Funktion und Verbreitung der Partikel *fäi*. In: Tatzreiter, H., Hornung, M. and P. Ernst (Eds.), *Erträge der Dialektologie und Lexikographie. Festgabe für Werner Bauer zum 60. Geburtstag*. Wien: 165–190.

Grice. H. P. (1989). *Studies in the Way of Words*. Cambridge: Harvard University Press.

Grosz, P. (2014). German *doch*: An element that triggers a contrast presupposition. *Proceedings of the Chicago Linguistic Society 46*, 163-177. University of Chicago.

Gutzmann, D. (2015). *Use-Conditional Meaning*. Oxford University Press.

Gutzmann, D. (2012). Verum – Fokus – Verum-Fokus? Fokus-basierte und lexikalische Ansätze. In: Blühdorn, H. and H. Lohnstein (Eds.): *Wahrheit – Fokus – Negation*. Hamburg: Buske. 67–103.

Hinterwimmer, S. (to appear). The Bavarian discourse particle *fei* as a marker of non-at-issueness. In: D. Gutzmann and K. Turgay (Eds.), *Secondary Content: The Linguistics of Side Issues*. Amsterdam: Brill.

Hintikka, J. (1969). Semantics for propositional attitudes. In J. W. Davis and D. J. Hockney (Eds.), *Philosophical logic*, 21–45. Dordrecht: Reidel.

Höhle, T. N. (1992). Über Verum-Fokus im Deutschen. In J. Jacobs (Ed.), *Informationsstruktur und Grammatik*. Westdeutscher Verlag, 112–141.

Jacobs, J. (1991). On the semantics of modal particles. In: W. Abraham (Ed.), *Discourse Particles*, 141-162. Amsterdam: John Benjamins.

Karagjasova, E. (2004). *The Meaning and Function of German Modal Particles*. Saarbrücken Dissertations in Computational Linguistics and Language Technology.

Klein, W. and Ch. von Stutterheim (1987). Quaestio und die referentielle Bewegung in Erzählungen. *Linguistische Berichte* 109:163–185.

Kratzer, A. (1981). The notional category of modality. In: H.-J. Eikmeyer and H. Rieser (Eds.). *Words, Worlds, and Contexts*. Berlin: de Gruyter, 38–74.

van Kuppevelt, J. (1995). Discourse structure, topicality and questioning. *Journal of Linguistics* 31: 109–147.

Kwon, M.-J. (2005). *Modalpartikeln und Satzmodus Untersuchungen zur Syntax, Semantik und Pragmatik der deutschen Modalpartikeln*. PhD thesis, University of Munich.

Lakoff, R. (1971). If's, and's and but's about conjunction. In Fillmore, Ch., Langendoen, T. (Eds.): *Studies in linguistic semantics*. de Gruyter, New York, 114–149.

Lindner, K. (1991). 'Wir sind ja doch alte Bekannte' – The use of German *ja* and *doch* as modal particles. In: W. Abraham (Ed.), *Discourse Particles*. Amsterdam: Benjamins, 303–328.

Murray, S. (2017). *The Semantics of Evidentials*. Oxford University Press.

Ormelius-Sandblom, E. (1996). *Die Modalpartikeln ja, doch und schon. Zur ihrer Syntax, Semantik und Pragmatik*. Lund: Almqvist & Wiksell International.

Potts C. (2005). *The Logic of Conventional Implicatures*. Oxford, UK: Oxford University Press.

Reis, M. (2013). Dt. 'finden' und "subjektive Bedeutung". *Linguistische Berichte* 236: 389–426.

Roberts, C. (1996). Information structure in discourse: Towards an integrated formal theory of pragmatics. In J. H. Yoon and A. Kathol (Eds.), *Papers in Semantics*, 91–136. Columbus, OH: Ohio State University.

Roberts C. (2012). Information structure in discourse: Towards an integrated formal theory of pragmatics. *Semantics and Pragmatics* 5:1–69.

Schlieben-Lange, B. (1979). Bairisch *eh-halt-fei*. In: Weydt, H. (Ed.): *Die Partikeln der deutschen Sprache*. Berlin/New York: de Gruyter, 307–317.

Shannon, B. (1976). On the two kinds of presuppositions in natural language. *Foundations of Language* 14: 247–249.

Simons M., J. Tonhauser, D. Beaver and C. Roberts (2010). What projects and why. In N. Li & D. Lutz (Eds.), *Proceedings of the 20th Semantics and Linguistic Theory* (SALT 20), 309–27. Ithaca, NY: CLC.

Stalnaker, R. (1978). Assertion. In: P. Cole (Ed.), *Syntax and Semantics* 9: *Pragmatics*. New York: Academic Press, 315–332.

Strawson, P. (1950). On referring. *Mind* 59: 320–344.

Thoma, S. (2009). To p or to ¬p – The Bavarian particle *fei* as polarity discourse particle. *Sprache und Datenverarbeitung – International Journal for Language Data Processing* 33:139–152.

Thurmair, M. (1989). *Modalpartikeln und ihre Kombinationen*. Tübingen: Niemeyer.

Umbach, C. (in press). Evaluative propositions and subjective judgments. In J. van Wijnbergen-Huitink & C. Meier (Eds.). *Subjective meaning*. Berlin, de Guyter.

Umbach, C. (2005). Contrast and Information Structure: A focus-based analysis of *but*. *Linguistics* 43, 207–232.

Weydt, H. (1969). *Abtönungspartikeln*. Bad Homburg: Gehlen.

Winter, Y. and M. Rimon (1994). Contrast and Implication in Natural Language. *Journal of Semantics* 11, 365–406.

Zeevat, H. (2003). Particles: presupposition triggers, context markers or speech act markers. In R. Blutner and H. Zeevat (Eds.), *Optimality Theory and Pragmatics*. London: Palgrave MacMillan, 91–112.

Zimmermann, M. (2008). Discourse particles in the left periphery. In: B. Shaer et al. (Eds.). *Dislocated Elements in Discourse: Syntactic, Semantic, and Pragmatic Perspectives*. London: Routledge, 200–231.

Zimmermann, M. (2011). Discourse particles. In: P. Portner; C. Maienborn & K. von Heusinger (Eds.). *Semantik: Ein internationales Handbuch der zeitgenössischen Forschung*. Berlin: Mouton de Gruyter, 2011-2038.