

# A unified account of the semantics of discourse particles

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## Abstract

The paper investigates discourse particles on the example of German *doch*, assigning to them very specific semantic interpretations that still cover a wide range of their uses.

The analysis highlights the role of discourse particles in managing the *common ground* and crucially takes into account that discourse particles can refer not only to utterances they are a part of and to previously uttered utterances, but also to *felicity conditions* of these utterances.

## 1 Introduction

This paper advocates very specific semantic interpretations for discourse particles, concentrating on German *doch*. There is a very wide range of concrete usages of discourse particles in context (which has motivated analysing them as polysemous, e.g., in Helbig (1988)).

Assigning them a uniform semantic interpretation seems to be subject to two conflicting requirements:

- the interpretation must be sufficiently *specific* to allow deriving the interpretation of concrete uses
- it must be sufficiently *general* to cover a wide range of concrete uses

So far, research on the interpretation of *doch* focusses on the second requirement (e.g., Thurmair (1989), König (1997), Karagjosova (2004), or König and Requardt (1997)).

The meaning of *doch* emerges as a two-place relation between the utterance *doch* is a part of and a previous utterance to which the *doch*-utterance is a reaction.

This relation is described by the features KNOWN and CORRECTION in Thurmair (1989), i.e., *doch*-utterances *correct* a previous utterance by introducing *old* information. Karagjosova (2004) regards *doch*-utterances act as *reminders*, which present old information to hearers. According to König and Requardt (1997), *doch*-utterances point out *inconsistencies* between old information and a new piece of information or action.

Such general descriptions of *doch* apply to cases like Karagjosova's (1): B reminds A of Peter's illness, which seems inconsistent with A's announcement and therefore can act as a correction of A:

(1) A: *Peter wird auch mitkommen.* B: *Er ist doch krank.*

'A: Peter will come along, too. B: But he is ill.'

While these general descriptions (excepting Karagjosova (2004)) do not spell out in detail the way in which *doch* contributes to the meaning of larger discourses, they can capture a wide range of uses of these particles.

There remain a number of problematic cases, including *discourse-initial* uses of *doch*-utterances like König and Requardt's (2), which functions as an opening line in a conversation, it neither corrects nor reminds the hearer, nor is there an inconsistency between the utterance and the context:

(2) *Sie sind doch Paul Meier.*  
'You must be Paul Meier.'

The proposed analysis of the particle *doch* is sufficiently general to account for a wide range of uses yet being specific enough to specify the semantic construction for discourses that comprise *doch*.

I follow much previous work in developing my analysis on the basis of simple examples like (1),

and then extending it to cases like (2). Most examples consist of two utterances, the second utterance comprises a discourse particle and is a reaction to the first one. In the remainder of this paper, these two utterances are called ‘involved utterances’.

In (1), the (propositional) semantic arguments of the particle are the meanings of these two utterances. But the semantic arguments of a discourse particle may differ from the meanings of the involved utterances, as illustrated by (3) (from Thurmair 1989):

- (3) A: *Seit wann hast du denn den „Zauberberg“?* B: *Den hast du mir doch vor zwei Jahren geschenkt.*  
 A: ‘Since when have you owned the ‘Zauberberg’? B: But you gave it to me two years ago.’

B reacts to the implicit statement that A does not know the answer to his question. This statement is an argument of *doch* in (3), even though it is not the meaning of A’s utterance. This shows that the semantic arguments of discourse particles must be distinguished from the meanings of their involved utterances.

Utterances with a discourse particle and preceding utterances to which they react are called ‘p(article)-utterances’ (or ‘*doch*-utterances’) and ‘a(ntecedent)-utterances’. They are distinguished from the semantic arguments of the particle, which are referred to as ‘p-proposition’ and ‘a-proposition’, respectively.

This is not just a question of nomenclature but reflects a fundamentally different view on the role of discourse particles. Instead of indicating the relation between two already identified propositions, the meaning of the particle applied to its first argument (very often but not always the interpretation of the p-utterance) determines the range of potential a-propositions in the context of utterance. From this range, the hearer selects the appropriate proposition.

This resembles the intuition of König and Requardt (1997) that discourse particles are ‘metapragmatic instructions’ which tell hearers how to deal with the p-utterance in a communicative situation.

Consequently, a- and p-utterances do not determine the semantic arguments for all uses of discourse particles, which might account for some

problems of defining the semantics of the particles in the literature, which is characteristically based on the meanings of a- and p-utterance.

My claim is that there is a link between a- and p-proposition and a- and p-utterance, respectively, in that the propositions can either be the meanings of the utterances or emerge through the *felicity conditions* of the utterances.

E.g., in (3) the *doch*-proposition reminds A of the fact that the first preparatory condition for a question (that the speaker does not know the answer) does not hold, since A (as the one who gave the book to B) should know since when the book has been in B’s possession.

The plan of the paper is to introduce background assumptions on discourse particles in section 2, to apply the proposed approach to the (unstressed) particle *doch* in section 3, and to conclude with an outlook on further research.

## 2 Formal background

This paper follows much previous work in assuming that discourse particles refer to the *common ground* (CG), e.g., König (1997), Karagjosova (2004), or Zimmermann (2009).

Common ground and the interlocutors’ individual backgrounds are modelled as common or individual *belief* (Stalnaker, 2002). Individual belief is equated with the set of propositions that are true in all possible worlds compatible with the individual’s beliefs; common belief, with the set of propositions believed by all members of the respective group of believers.

Stalnaker notes that this is an idealisation in that the CG might comprise propositions not shared by the background of every member of the group. But this idealisation is not a problem for the analysis presented in this paper.

Reasoning on CG and individual backgrounds often uses *defeasible deduction* (Asher and Lascarides, 2003). I.e., from statements of the form ‘*p* defeasibly entails *q*’ ( $p > q$ ) together with *p* one can defeasibly deduce *q*.

This defeasible Modus Ponens applies if  $\neg q$  does not hold and  $\neg q$  cannot be deduced simultaneously (Asher and Lascarides, 2003). Defeasible deducibility of *p* from a set of propositions *C* is written as ‘ $C \sim p$ ’.

Reference to the common ground makes the semantics of discourse particles context-dependent, because the CG is relative to the interlocutor(s) of

a- and p-utterances. This shows up in the shifting effects observed in Döring (2010). Consider e.g. what happens if one embeds (1) in a quotation like in (4):

- (4) *A sagte, Peter komme auch mit. B entgegnete, er sei doch krank.*  
 ‘A said Peter would come along, too. B retorted that he was ill.’

The shift in (4) arises because *doch* presents a proposition (here, that Peter is ill) as part of the common ground, and the relevant CG is calculated with respect to A and B, not with respect to the interlocutors of (4). I.e., (4) does not express that Peter’s illness is in the common ground of the speaker and hearer of (4).

### 3 The analysis

The proposed approach to discourse particle is now applied to *doch*, which introduces a notion of *tension* between the a- and the p-proposition.

#### 3.1 Declarative a- and p-utterances

I will first illustrate this notion with simple examples in which the a-utterance expresses the a-proposition, and the meaning of the declarative p-utterance provides the p-proposition.

In (5) [= (1)] and (6), adapted from Karagjosova (2004), there is tension between being ill on the one hand and going out and living healthily on the other hand, respectively:

- (5) *A: Peter wird auch mitkommen. B: Er ist doch krank.*  
 ‘A: Peter will come along, too. B: But he is ill.’
- (6) *Ich bin oft krank. Dabei lebe ich doch gesund.*  
 ‘I am often ill. But I have a healthy lifestyle.’

The intuitive notion of tension between two propositions  $p$  and  $q$  is formalised as defeasible entailment  $q > \neg p$ . I.e., given  $q$ , one would expect  $p$ , but the propositions are not incompatible, even though  $q$  is a potential impediment for  $p$ .

The effect of *doch*  $q$  as a reaction to an a-proposition  $p$  against the common ground  $C$  is to remind the hearer that  $C$  comprises a potential impediment  $q$  for  $p$ , which expresses either surprise at the fact that  $p$  nevertheless holds or puts doubt on  $p$ . Still,  $p$  is not explicitly denied.

Formally, *doch* states that the common ground  $C$  defeasibly entails  $q$  and the fact that  $q$  defeasibly entails  $\neg p$  (which by defeasible Modus Ponens would allow one to infer  $\neg p$ , if the conditions for defeasible Modus Ponens are met):

- (7)  $\llbracket \text{doch} \rrbracket(q)(p)$  iff  $C \sim q \wedge C \sim q > \neg p$

This analysis differs from the one of König (1997), who assumes that *doch*  $q$  points out a contradiction in the CG, in that  $p$  is incompatible with a consequence of  $q$ . In contrast, I regard this incompatibility as a *default* only. The status of  $q$  as derivable from the CG is also expressed in Karagjosova (2004) claim that *doch* introduces  $q$  as a reminder and in Thurmair’s (1989) feature KNOWN.

In (5) and (6),  $p$  and  $q$  are the semantics of the a- and the *doch*-utterance. Being ill is a potential impediment for going out, so, by pointing out Peter’s illness in (5), B expresses surprise or disbelief at A’s announcement but does not necessarily correct it or refute it, because even ill people can go out in principle.

Similarly, the speaker of (6) is surprised at his frequent illness, in spite of his healthy lifestyle. (6) shows that  $q$  is only a default impediment: If  $q$  and  $p$  were contradictory, (6) would be nonsensical, but, intuitively, it is not.

The use of defeasible implications to model the tension between two propositions as indicated by *doch* is closely related to accounts of the discourse relation of CONCESSION in Grote et al. (1997), Oversteegen (1997), Lagerwerf (1998), and Knott (1996).

They assume the same kind of defeasible implication for this discourse relation and model it as a presupposition, which is compatible with giving it common ground status.

#### 3.2 Non-declarative a-utterances

In (5) and (6), the a-proposition enters the CG as the meaning of an a-utterance. But the a-proposition can also emerge as a *felicity condition* of the a-utterance. Consider e.g. *doch*-utterances as reactions to questions, as in (8) [= (3)]:

- (8) *A: Seit wann hast du denn den „Zauberberg“? B: Den hast du mir doch vor zwei Jahren geschenkt.*  
 A: ‘Since when have you owned the ‘Zauberberg’? B: But you gave it to me two years ago.’

*Doch* in (8) expresses surprise at the question being asked, since A himself gave the book to B and hence should know that B owns it.

The proposed analysis reconstructs this intuition: B's utterance expresses a proposition  $q$  (that A gave the book to B) and points out that  $q$  is part of the CG. It is also part of the CG that  $q$  is a potential obstacle for a specific a-proposition  $p$  (formally, the CG entails  $q > \neg p$ ).

Such p-utterances restrict the range of potential a-propositions  $p$ , and their hearers try to identify the a-propositions in the given context. The a-utterance in (8), however, cannot directly contribute  $p$  in any context, since its meaning is not a proposition.

But due to the assumption that A is cooperative, the question introduces into the CG the felicity conditions for questions, among them the first preparatory condition, viz., that A does not know the answer to his question. This is a suitable  $p$ , because it is reasonable to assume that if A gave the book to B ( $= q$ ), he should know the answer to the question ( $= \neg p$ ).

The intuition that the semantic arguments of discourse particles need not be identical to the meanings of the involved utterances is related to suggestions to let discourse relations relate either to the content of the discourse segments that they link or to the corresponding intensions of the speaker or the intended effects on the hearer, which is suggested by Sweetser (1990) and Knott (2001).

*Doch*-utterances in reaction to imperatives work analogously, e.g., (9):

(9) A: *Übersetze mir bitte diesen Brief.* B: *Ich kann doch kein Baskisch.*

A: 'Please translate this letter for me.' B: 'But I do not know Basque.'

Here B's lack of proficiency in Basque ( $= q$ ) and A's belief that B can translate a Basque letter (i.e., the first preparatory condition of the request, our  $p$ ) are in tension.

Now  $q$  can be deduced from the common ground either because it has been explicitly introduced before or because it makes sense to assume defeasibly that someone does not speak a less known language like Basque. In either case, A should not take for granted that B speaks Basque, i.e., has a reason not to require B to translate letters written in Basque.

This use of *doch* also shows up in reactions to declarative statements: The p-utterance of (10) states no potential impediment for the proposition expressed by A.

Rather, B's use of *doch* refers to A's surprise, suggesting that A should not be surprised at all. The felicity condition of expressing surprise that is cast into doubt by B is considering the fact about which one is surprised as something extraordinary, which would not have happened in a normal course of events.

(10) A: *Peter sieht schlecht aus.* B: *Er war doch lange im Krankenhaus.*

'A: Peter does not look healthy. B: But he has been in hospital for a long time.'

Peter's long stay in the hospital ( $= q$ ) is no potential obstacle to looking unhealthy, on the contrary, it entails defeasibly that his looking unhealthy is quite normal ( $= \neg p$ ). This would negate the abovementioned felicity condition for A's surprise ( $= p$ ), hence suggests that A should not be surprised.

### 3.3 Non-declarative p-utterances

Another group of *doch*-utterances are imperative or interrogative (the latter adapted from Thurmair (1989)):

(11) *Verklag mich doch!*

'Go ahead and sue me.'

(12) *Komm doch nach Hause!*

'Do come home.'

(13) *Wie heißt doch diese Kneipe in der Sredzkistraße?*

'What is the name of this pub in the Sredzkistraße?'

(14) *Wie sagt Goethe doch so treffend?*

'What was this piercing remark of Goethe again?'

(15) *Du kommst doch?*

'I presume that you will be there.'

*Doch* is used provocatively in imperatives like (11); it suggests that the hearer cannot fulfil the request. In cases like (12), *doch* signals that the requested or suggested action is a very natural thing to do. *Doch*-questions refer to a piece of knowledge that the speaker knows or is supposed to

know (Thurmair, 1989), e.g., (13) indicates that the speaker knows the answer at least in principle, (14) announces a quotation, and (15) suggests that the answer can only be affirmative.

There are two issues in interpreting these sentences; the p-utterance does not denote a proposition (which could be the semantic argument of *doch*), and there need not be an a-utterance at all from which to derive the a-proposition.

But in all these utterances, speakers use *doch* to point out that they are aware of evidence from the CG which suggests that a felicity condition of the utterance itself does not hold. This can be modelled by identifying the p-proposition *q* (the argument of *doch*) with the fact that the sentences were uttered, which can be (trivially) deduced from the common ground *C* (the condition  $C \vdash q$  in (7)).

Then the felicity conditions associated with different kinds of illocutionary acts emerge from the common ground *C* as default entailments from the utterance of the respective illocutionary type (the condition  $C \vdash q > \neg p$  in (7); here  $\neg p$  refers to one of the felicity conditions).

I.e., using *doch* in these cases triggers a search for a suitable a-proposition *p* in the CG which negates a felicity condition of the utterance. E.g., *doch* in (11) shows that the first preparatory condition of a request (the speaker believes that the hearer can do it) does not hold, even though this condition follows defeasibly from the fact that the request was made.

In (12), *doch* addresses the second preparatory condition of a request or advice (that it is not obvious to speaker and hearer that the hearer complies with the request in a normal course of events). Thus, *doch* suggests that it is obvious that the hearer will do anyway what is requested or advised, even though uttering (12) defeasibly entails the contrary. Consequently, (12) presents a request or advice as a very natural thing to do.

I.e., *doch*-imperatives do not correct unwanted behaviour by the hearer (pace Thurmair (1989)), which is confirmed by examples like (16), which can be uttered between future lovers during their courtship to take the process of courting one step further:

(16) *Komm doch mal vorbei!*  
‘Just drop by.’

(16) does not request the hearer to change his behaviour, because calling on the speaker was not

an option yet. Instead, visiting the speaker is presented as a very natural thing to do for the hearer, i.e., once more the second preparatory condition of a request does not hold.

Using *doch* in questions also indicates that a felicity condition of the utterance does not hold, even though its validity could be deduced defeasibly from the fact that the question has been asked. The relevant condition is the first preparatory condition for questions (that the speaker does not know the answer already).

*Doch* signals that this condition is not fulfilled, either because the answer escapes the speaker only momentarily, as in (13), because he obviously knows, as in the conventionalised announcement (14), or because he would not accept a refusal, which settles the question, like in (15).

The analysis predicts that *doch* is not acceptable in ordinary questions, which is borne out e.g. by (17), because in these questions there is no tension between uttering the question and potential obstacles for its felicity conditions:

(17) \**Wer schreibt dir doch?*  
‘But who is corresponding with you?’

Rhetorical questions are also incompatible with *doch*, but for a different reason. Consider e.g. the contrasting dialogue pairs (18a)/(18b) and (18a)/(18c):

- (18) (a) A: *Ich werde meinen 30. Geburtstag mit einem großen Fest feiern.*  
A: ‘I’ll throw a big party on the occasion of my 30th birthday.’  
(b) B: *Es würde doch keiner zu deinem Fest kommen.*  
B: ‘But no one would come to your party.’  
(c) B: \**Wer würde doch zu deinem Fest kommen?*  
B: ‘But who would come to your party?’

The inacceptability of (18a)/(18c) - and of the rhetorical *doch*-question in particular - is not due to the function of the rhetorical question as a negated statement: In this case, (18b) should be an unacceptable response to (18a), too.

(18c) is unacceptable because rhetorical questions characterise statements as CG information (Egg, 2007). This is also one of the effects of *doch*; consequently, (18c) is as informative as

(18b) but more complex, hence, its use would not comply to conversation maxims (Grice, 1975; Krifka, 1989).

To sum up, non-declarative *doch*-utterances refer to their own felicity conditions; since they do not denote propositions, the first semantic argument of *doch* cannot be the meaning of the *doch*-utterance.

Instead, *doch* applies to the fact that the speaker uttered the sentence. In contrast, declarative *doch*-utterances like in (8) or (9) refer to a felicity condition of the non-declarative a-utterance.

This analysis of non-declarative *doch*-utterances also applies to the hitherto extremely problematic group of *discourse-initial doch*-utterances:

(19) *Morgen fahre ich doch nach Wien.*  
'Well, I'll go to Vienna tomorrow.'

(20) *Du hast doch ein Auto.*  
'Well, you have a car.'

These examples are characterised by *doch* as a *reminder*. This means that the p-utterance (the speaker's travel plans or the fact that the hearer has a car) contributes information semantically that is already in the CG. However, this information is not obviously in tension to any other information. This raises the question of what the semantic arguments of *doch* are in these cases.

Here *doch* addresses the first preparatory condition for statements, viz., that it is not obvious to the speaker that the hearer already knows what the speaker will say. Uttering the statement (=  $q$ ) defeasibly implies this condition (=  $\neg p$ ), but according to the CG the speaker knows that the hearer knows (=  $p$ ).

(21) [= (2)] instantiates this case, too:

(21) *Sie sind doch Paul Meier.*  
'You must be Paul Meier.'

Telling someone his name obviously violates the first preparatory condition for statements, whence the use of *doch*.

Another such case is the use of *doch* in expressions of outrage. Here *doch* signals that it is common knowledge that the hearer knows that the situation or action to which the speaker refers is outrageous:

(22) *Das ist doch die Höhe!*  
'That is the limit!'

Finally, the sincerity condition of a statement can also be targeted by *doch*:

(23) *Da sagt er doch im letzten Moment ab!*  
'I can't believe that he cancelled the appointment at the last moment.'

In (23), *doch* expresses disbelief of the speaker, he cannot believe what he is saying. This violates the sincerity condition for statements. The effect of *doch* here is one of expressing surprise.

The same effect shows up in exclamative *wh*-sentences:

(24) *Wie schön Amélie doch ist!*  
'How beautiful Amélie is!'

Following analyses of these sentences like Zanuttini and Portner (2003) or Rett (2009), (24) characterises the degree of Amélie's beauty as unexpectedly or surprisingly high. Hence, *doch* naturally occurs in these exclamatives to deny a belief of the speaker in what he is stating.

In sum, I offered a uniform semantic analysis of *doch*, which still covers a wide range of its usages. *Doch* relates two propositions  $p$  and  $q$  iff  $q$  is derivable from the common ground as well as the fact that  $q$  defeasibly implies  $\neg p$ , i.e.,  $q$  presents a potential impediment for  $p$ .

The correlation of  $p$  and  $q$  with utterances is flexible, however: Often  $q$  is the meaning of the *doch*-utterance, but for non-declarative and discourse-initial declarative *doch*-utterances,  $q$  is the fact that this utterance has been made.

The proposition  $p$  can be the meaning of a preceding a-utterance to which the *doch*-utterance is a reaction. But especially for non-declarative a-utterances,  $p$  can also be one of its felicity conditions, or, for discourse-initial *doch*-utterances, a felicity condition of the utterance itself.

#### 4 Conclusion and outlook

The paper outlined a research programme for discourse particles that captures their meanings in very specific semantic descriptions that nevertheless account for the wide range of their uses. These two competing goals can be pursued simultaneously because *doch*-utterances can be integrated flexibly into the meaning of the surrounding discourse.

While discourse particles like *doch* uniformly relate two propositions semantically, the meaning of the utterance of which the particle is a part, and

the meaning of the utterance to which this first utterance reacts are not the only feasible semantic arguments of the particles: They can also have *felicity conditions* of these two utterances as semantic arguments.

This research programme was illustrated by investigating the particle *doch*. The next steps now are to extend the coverage of this analysis to other particles, in particular, *schon*, and to contrast ‘minimal pairs’ of discourses which differ only by discourse particles (e.g., *Komm schon!* as opposed to *Komm doch!*, which both require the hearer to come).

This analysis can also be used for investigations of stressed and unstressed forms of discourse particles and of the relation between them. Here it is particularly interesting to take prosody seriously and to look into the semantic effects of emphasising a discourse particle.

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