

Discourse particles as discourse-navigating devices – a case study on German *denn**

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1 Introduction

- In the literature, the German discourse particle *denn* is discussed nearly exclusively with respect to its (non-)occurrence in the different **main clause types** (a.o. König 1977; Thurmair 1989, 1991; Bayer 2012, exception: Kwon 2005).¹

- (1) Distribution of *denn* in the three (common) main clause types
- | | | |
|----|---|---------------------|
| a. | <i>Hat Alex denn den Spinat gegessen?</i>
‘Did Alex eat the spinach?’ | POLAR INTERROGATIVE |
| b. | <i>Was hat Alex denn gegessen?</i>
‘What did Alex eat?’ | WH-INTERROGATIVE |
| c. | <i>*Alex hat denn den Spinat aufgegessen.</i>
Intended: ‘Alex ate the spinach.’ | DECLARATIVE |
| d. | <i>*Iss denn den Spinat!</i>
Intended: ‘Eat the spinach!’ | IMPERATIVE |

⇒ **Observation:** *denn* only seems to be felicitous in interrogatives

- **But**, apart from the use in questions, there is a second (related?) use of *denn* in the **antecedent of conditionals**:

- (2) *Koizumis Reformpläne werden also schmerzhaft werden. Wenn sie **denn** kommen.*
‘Hence, Koizumi’s plans for reform will be painful. If they are indeed realized.’
Die Zeit, 21.06.2001 (DWDS)
- (3) *Mit diesem Dilemma, wenn es **denn** schöpferisch eins ist, haben Komponisten seit 1945 verschärft zu tun.*
‘Composers have to deal with this dilemma since 1945 with increasing frequency, if it is indeed a creative dilemma.’
Die Zeit, 19.07.2014 (DWDS)

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¹*Denn* has various functions/homonyms: the causal conjunction, the regional variant of temporal *dann* (Engl. ‘then’), stressed *denn* in constituent questions, and the archaic comparative particle will be left aside in this talk (cf. Thurmair 1989).

- **Question-*denn*** and **conditional-*denn*** are analyzed separately for the time being; a unified account – if at all possible – would be preferable in the long run.
- Comparison of the **frequency** of question-*denn* and conditional-*denn*:
 - question-*denn* occurs far more frequently than conditional-*denn*.
 - **Estimate** on the basis of the “Gesprochene Sprache” corpus (corpus of spoken German, DWDS): question-*denn* comprises about 95% of all particle cases in spoken German

Structure of the talk:

1. preliminaries on discourse particles
2. our analysis of question-*denn*
3. our analysis of conditional-*denn*
4. conclusion and open issues

2 Preliminaries on discourse particles and “*denn*”

- Particles fit the current utterance to the previous discourse. (cf. Zimmermann 2011).

“[Discourse particles] help to organize a discourse by conveying information concerning the epistemic states of the speaker, or her interlocutors, or both, with respect to the descriptive, or propositional, content of an utterance.”
(Zimmermann 2011:2012)
- **Following previous work:** Particles contribute *not-at-issue content* (cf. Simons et al. 2010)—either via presuppositions or conventional implicatures. The *at-issue content* conveyed by the rest of the material in the utterance remains unchanged.
- **Previous analyses of question-*denn*** (a minimal overview): *Denn* is the main focus of the literature on particles in questions.²
 - **König (1977):** *denn* signals that the reason for posing the question can be found in the current discourse context
 - **Thurmair (1989):** *denn* signals that the speaker reacts to an immediate, surprising state of affairs; using *denn* renews/resets the speaker’s relation to the hearer
 - **Thurmair (1991):** *denn* has no special function apart from marking the question as a standard question
 - **Bayer (2012):** *denn* signals that the speaker’s utterance refers/relates to the utterance situation, and that the speaker is particularly interested in the answer
 - **Csipak and Zobel (2014):** *denn* signals that the speaker expects/wants a complete, elaborate answer
- **Previous analysis of conditional-*denn*:** Kwon (2005:119) suggests that conditional-*denn* conveys that the speaker does not consider the proposition expressed by the antecedent probable, but that it is externally motivated (in the situation or context).

²The main focus in the formal literature on German discourse particles in general are the particles *doch*, *ja*, and *wohl*, of which only *wohl* can occur in questions.

(4) *Hat Hans wohl Maria eingeladen?*
‘Has Hans invited Mary?’ (+ particle contribution)
(Zimmermann 2011:2020)

3 “denn” in questions

- **Aim of this section:** give semi-formal proposal for the not-at-issue content contributed by *denn* in questions.

- (5) a. *Wie geht es dir denn?*
 ‘How are you?’
 b. *Kommst du denn morgen mit?*
 ‘Are you coming along tomorrow?’

- Interrogatives are standardly analyzed as being made up from a **sentence radical** p and a **question operator** $?$ (cf. Stenius 1967).³

- Semantic structure of the **sentence radical**:

- **Polar question:** $\lambda w.$ proposition-content(w) (proposition)
- **Constituent question:** $\lambda w.\lambda x.$ property-content(w)(x) (property)
- **Multiple constituent question:** $\lambda w.\lambda x_1.\dots\lambda x_n.$ relation-content(w)(x_1)...(x_n)
 (intensional relation between two or more individuals)

- Assumption on the **felicity conditions of questions**:⁴

c_S questions c_A about a state of affairs P given by p .

- c_S does not know the truth about P . (= c_S does not know the answer to $?p$)
- c_S wants to know the truth about P . (= c_S wants to know the answer to $?p$)
- c_S believes that c_A may be able to supply the information about P that c_S wants.
 (= c_S believes that c_A may be able to supply the answer to $?p$)

(cf. Malamud 2007 class handouts, original reference unknown)

In contrast, Searle (1969:66) suggests the following felicity conditions (among others):

- **preparatory condition:** c_S does not know the answer, i.e., does not know if the proposition p is true or does not know the answer needed to complete the proposition from p . It is not obvious to both c_S and c_A that c_A will provide the information at the time without being asked.
- **sincerity condition:** c_S wants this information.

⇒ Searle’s **preparatory condition** suggests that c_S believes that c_A knows the missing information. We believe that this is **too strong**.

- (6) **Scenario 1:** A and B are travelling through Italy for the first time; B has some basic knowledge of the language. They read a sign.
 A to B: *Does “mare” mean “sea”?*
- (7) **Scenario 2:** A and B are travelling through Italy for the first time. A knows that B does not know Italian at all. They read a sign.
 A to B: *#Does “mare” mean “sea”?*

- **Condition on the use of *denn*:** Since *denn* only occurs in interrogatives, there must be either a syntactic constraint on sentence type, or a pragmatic constraint.

⇒ since *denn* also occurs in interrogatives that do not express purely information-seeking questions, it seems improbable to capture this restriction with a pragmatic constraint

³How the question semantics is spelled out in detail differs for different accounts (cf. Groenendijk and Stokhof 1984, Berman 1991). We do not (need to) commit to one specific question semantics at the moment.

⁴ c_S and c_A are the Kaplanian speaker- and addressee-coordinates, respectively, and p is the sentence radical.

- (8) a. *Bist du **denn** noch zu retten?*
 ‘Are you crazy?’ (lit.: Can you still be saved?)
 (Thurmair 1989:165)
- b. *Was stehst du **denn** hier herum?!*
 ‘Why are you standing around here!?’
 (Bayer and Trotzke to appear:21)

- **Informal proposal:** *denn* indirectly strengthens the felicity condition that “ c_S believes that c_A may be able to supply the information about P that c_S wants” by conveying:

- (9) **First component:**
 $\llbracket \text{denn} \rrbracket^{c(? , p)}$: c_S believes that c_A is able to supply the answer to $?p$

In addition, *denn* conveys that the speaker **wants an answer that elaborates above and beyond the question that was asked**, i.e. that answers any potential follow-up questions.

- (10) **Second component:**
 $\llbracket \text{denn} \rrbracket^{c(? , p)}$: c_S wants an answer to $?p$ and any questions that usually follow from the answer to $?p$

- **Support for the first component:**

- (11) a. *Was ist denn der Sinn des Lebens?*
 ‘What’s the meaning of life?’
- b. *Gibt es denn ein Leben nach dem Tod?*
 ‘Is there life after death?’

⇒ Usually these questions are not asked with *denn*; intuitively, using *denn* creates pressure for the addressee to give an answer that is not “I don’t know”.⁵

⇒ Contexts in which these questions are felicitous with *denn*: e.g. a very naive person asks their spiritual leader, who they trust completely, for their wisdom.

- (12) A: I haven’t heard from Alex in a really long time. We’re only friends on facebook.
 B: *Wohnt er (**#denn**) noch in Berlin?*
 ‘Does he still live in Berlin?’

⇒ If B uses **denn**, he would suggest that A knows everything about Alex, even though they have not been in contact (and can elaborate on Alex’s living situation = component 2).

- **Support for the second component:**

- (13) *Wollen Sie, Alex Schneider, (**#denn**) Kim Lee heiraten?*
 ‘Do you, Alex Schneider, want to marry Kim Lee?’

⇒ No further questions arise; no ‘elaborate’ answer is needed

⇒ **However:** this example might be odd for other reasons, e.g. coming from a conventionalized script. Possibly conventionalized requests also do not allow for *denn* to occur.

- (14) a. *Kannst du (**#denn**) mal das Fenster schließen?*
 ‘Can you close the window?’
- b. *Könntest du mir (**#denn**) mal das Salz geben?*
 ‘Could you pass me the salt?’

⁵We thank Irene Rapp (p.c.) for this data.

Further support comes from discourse-initial questions:

(15) **Context 1.** A is home alone, not expecting anyone. The doorbell rings.

A: Wer ist (✓denn) da?

Context 2. A is throwing a party, expecting many guests. The doorbell rings.

A: Wer ist (#denn) da?

⇒ A speaker who is expecting guests does not have follow-up questions, such as *why are you here?*, whereas a speaker who is not expecting anyone might well expect such answers.

- One nice result of our proposal is that it captures why it is hard to pin down any contribution of *denn*, at all, and why questions with *denn* are not markedly different from when *denn* is omitted – in contrast to, for instance, certain assertions may become odd when *ja* or *doch* are omitted (cf. Zimmermann 2011).

4 “denn” in the antecedent of conditionals

- **Aim of this section:** give semi-formal proposal for the not-at-issue content contributed by *denn* in conditionals.

(16) *Dramatischer ist – wenn die umlaufenden Zahlen **denn** zutreffen – die Abwanderung von Milliardären.*

‘More dramatic is the emigration of billionaires – if the circulating numbers are indeed correct.’
(Die Zeit, 12.08.1996 [DWDS])

- **Conditions on the use of conditional-*denn*:**

- Since conditional-*denn* only occurs in the antecedent of conditionals, and neither in other embedded clauses, nor in main clause declaratives, there has to be a condition on the use of conditional-*denn* capturing this.

(17) **Condition 1:** c_S does not know whether p is true or false in w_0 .

- Since antecedents with *denn* only occur in situations in which the content of the antecedent has been treated as established in the Common Ground, the use of *denn* has to be further constrained.

(18) **Condition 2:** There is a previous tacit proposal to update the Common Ground with p by a participant α .

⇒ a proposition counts as “tacitly proposed” if it is a presupposition of a previous utterance q , or “just” a precondition or supposition on the truth of q based on world-knowledge

⇒ the participant α may differ from c_S , or be a previous time-slice of c_S (self-correction/qualification)

- **Support for Condition 1:** Apart from antecedents of conditionals, *denn* cannot occur in adverbial clauses.

(19) **Among others:**

- a. *Da/weil Peter (***denn**) zu Hause ist, ...*
‘Since/because Peter is at home ...’

- b. *Obwohl Peter (*denn) zu Hause ist, ...*
 ‘Even though Peter is at home ...’

⇒ All occurrences of *denn* in embedded questions under verbs of saying/attitudes with a question flavor we classify as occurrences of question-*denn*.

⇒ Condition 1 also constrains *denn* to hypothetical conditionals; this is desirable since *denn* cannot occur in purely temporal conditionals.

(20) [Context: A knows for sure that Peter will arrive in the evening.]

A: *Peter und ich gehen essen, wenn er (#denn) heut Abend ankommt.*
 ‘Peter and I are going out to dinner when he arrives this evening.’

- **Support for Condition 2:** (Bare) antecedents containing *denn* cannot be used to call into question previous explicitly asserted propositions.

(21) A: *Peter kommt morgen.*
 ‘Peter is coming tomorrow.’
 B: # *Wenn er denn kommt.*
 ‘If he’s coming.’

⇒ Any type of presuppositions (see (3)) or other suppositions (see (2) and (16)) can be called into question.

- **Informal proposal:**

- A discourse participant α tacitly proposes to update the Common Ground with p .
- The speaker c_S infers: For α , the probability that p is true in the actual world w_0 is “high enough” (higher than a threshold S used for assertions).
- The speaker c_S does not know whether p is true in w_0 .
- **In fact:** For c_S , the probability that p is true in the actual world w_0 is even lower than the threshold S ; this is conveyed by conditional-*denn*.

(22) $\llbracket \text{denn} \rrbracket^c(p): \text{prob}(c_S, w_0, p) < S$

⇒ The use of basic hypothetical conditionals only requires that the speaker is ignorant regarding the truth/falsity of the antecedent-proposition p . No further evaluation regarding the probability of p is needed. Hence, using *denn* serves to express a certain level of insecurity with respect to p .

5 Conclusion and open issues

- The German discourse particle *denn* has **two distinct(?) uses**: one in main clause interrogatives and one in the antecedent of a conditional.
- Both variants **contribute various types of not-at-issue meaning** that can be classified either as conditions on the use of *denn*, or as (novel) content conveyed by the particle.
- All of the conveyed contents are **speaker-anchored** and convey speaker-attitudes towards a question/proposition (cf. Zimmermann 2011):

– **question-*denn*:**

(23) **First component:**

$\llbracket \text{denn} \rrbracket^c(?, p)$: c_S believes that c_A **is able to supply** to answer $?p$

(24) **Second component:**

$\llbracket \text{denn} \rrbracket^c(?, p)$: c_S wants an answer to $?p$ and any questions that usually follow from the answer to $?p$

– **conditional-*denn*:**

(25) a. **Condition 1:** c_S does not know whether p is true or false in w_0 .

b. **Condition 2:** There is a previous tacit proposal to update the Common Ground with p by a participant α .

(26) $\llbracket \text{denn} \rrbracket^c(p)$: $\text{prob}(c_S, w_0, p) < S$

• **Open issues/questions:**

– All of the concepts appealed to informally need to be made precise.

– **Related issue:** How to integrate these results in a general theory of discourse structuring beyond appealing to the Common Ground and public/private beliefs (e.g. Asher and Lascarides 2003, Roberts [1996] 2012, or Onea 2015).

– **Further motivation:** Our proposal for question-*denn* might not be enough; questions that ask for the next step in an ongoing narration cannot be asked with *denn*.

(27) [Context: A tells B how he made the cake he brought to the party.]

A: First I put the flour in the bowl, then I added the sugar and the eggs. . .

B: *Was hast du (**denn**) dann/danach gemacht?*

‘What did you do then/afterwards?’

⇒ B’s question with *denn* asks for what A did **after finishing the cake** effectively changing the topic of conversation.

⇒ If B is actually interested in the next step, he has to omit *denn*.

– If at all possible, a unified analysis of question-*denn* and conditional-*denn*.

– A detailed, more differentiated analysis of *denn* in the antecedent of different types of conditionals.

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