

# On the distribution of German discourse particles across types of questions\*

Sarah Zobel

Universität Tübingen • sarah.zobel@ds.uni-tuebingen.de  
(joint work with Eva Csipak, Universität Göttingen)

17.03.2015  
Universität Wien

## 1 Introduction

- **The particles** we investigate are from Austrian German and Standard (German) German:
  - Standard German *denn* and *etwa*
  - Austrian German *leicht* and *eh*⇒ besides *eh*, they are restricted to interrogatives.

- **Observing a contrast:** *denn*, *leicht*, *etwa*, and *eh* may all occur in polarity questions. But only *denn* and *leicht* may occur in constituent questions. Compare (1) and (2).

- (1)
- Hast du **denn** die Seife gefunden?*
  - Hast du **leicht** die Seife gefunden?*
  - Hast du **etwa** die Seife gefunden?*
  - Hast du **eh** die Seife gefunden?*  
'Did you find the soap?' (+ particle contribution)

- (2)
- Was hast du **denn** gefunden?*
  - Was hast du **leicht** gefunden?*
  - \*Was hast du **etwa** gefunden?*
  - \*Was hast du **eh** gefunden?*  
'What did you find?' (+ particle contribution)

- **Note 1:** the particles place different requirements on their contexts of use (see Section 2); i.e. the grammatical examples in (1) and (2) may not be appropriate in the same contexts.
- **Note 2:** Austrian German *eh* is found in constituent questions like (2-d) if they are echo-questions, see (3-a) and (3-b). Here *eh* is arguably “only” literally repeated, i.e. *mentioned* and not *used*.

- (3)
- Was hast du **eh** gefunden?* (Echo: *Ich habe XY eh gefunden.*)  
'What did you (eh) find?'
  - Du hast **WAS eh** gefunden?*  
'You found WHAT (eh)?'

⇒ only possible for *eh* since it can occur in declaratives. *Denn*, *leicht*, and *etwa* are bad in echo-questions that echo declaratives, but felicitous in echo-questions that echo questions (see Sect.5).

---

\*This talk is based on a NELS poster and proceedings paper (Csipak & Zobel 2014) with further refinements. I want to thank Eva for discussing stages of this handout, and contributing her insights on *denn* and *etwa*.

## Outline of the talk

- Proposal for the contribution of *denn*, *leicht*, *etwa*, and *eh*
- Arguments against a partition based analysis of the contrast
- Arguments for an analysis based on the form/contribution of the sentence radical
- Checking predictions, addressing further issues
- Summary and future work

## 2 The particles: *denn*, *leicht*, *etwa*, and *eh*

### 2.1 Preliminaries on discourse particles

- Particles fit the current utterance to the previous discourse (cf. Zimmermann 2011).
- **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.
- Main focus in the formal literature on German discourse particles: *doch*, *ja*, and *wohl*.  
⇒ Only *wohl* can occur in questions, see (4).

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

⇒ we set aside *wohl* since we wanted (i) to focus on particles that occur exclusively in questions, and (ii) to investigate less well-studied particles.

- **Aim of this section:** give semi-formal proposals for the not-at-issue content contributed by *denn*, *leicht*, *etwa*, and *eh*. Notions like *invitation*, *evidence*, *expectation*, *preferences*, and discourse relations are left unanalyzed (future work).

### 2.2 Preliminaries on questions

- Interrogatives are standardly analyzed as being made up from a **sentence radical** *p* and a **question operator** ? (cf. Stenius 1967).
- **3 types of approaches** (cf. Groenendijk & Stokhof 1984, Berman 1991):
  - **Embedding approaches:** questions are always embedded under a silent performative expression; the entire structure denotes a proposition
  - **Categorical approaches:** questions denote functions; when combined with their answers, the result denotes a proposition; the approaches differ in the type of “incomplete meanings” assigned to questions and their answers (cf. Krifka 2001, 2011; von Stechow & Zimmermann 1984)
  - **Propositional approaches:** the meaning of a question is the set of its answers; the approaches differ with respect to which propositions constitute answers that are included in the set (cf. Hamblin 1958, 1973, Groenendijk & Stokhof 1984)

⇒ differ in the final denotation, but **agree on the denotation of the sentence radical**.

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

- **Polarity 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( $w$ )( $x_1$ ) $\dots$ ( $x_n$ ) (intensional relation between two or more individuals)

## 2.3 Standard German *denn*

- The particle *denn* is the best studied of those that occur only in questions (König 1977, Thurmair 1989, 1991, Grosz 2005, Kwon 2005, Bayer 2012).
- It has shortened and contracted forms—e.g. *'n*, *dn*—which seem to have acquired their own function in some German variants (see Grosz 2005 for Viennese, Bayer 2012 for Bavarian).<sup>1</sup>  
⇒ we investigate only the full form with Standard German intuitions.
- *Denn* is restricted to questions (see Thurmair 1989: 163 for qualifications):

- (5)
- |    |  |                        |
|----|--|------------------------|
| a. | <i>*Maria hat denn Schuhe gekauft.</i> | ‘Maria bought shoes.’  |
| b. | <i>Hat Maria denn Schuhe gekauft?</i>  | ‘Did Maria buy shoes?’ |
| c. | <i>*Kauf denn die Schuhe!</i>          | ‘Buy the shoes!’       |

- **Previous proposals:**

- *denn* signals that there is an ‘external reason’ for the question, such as new conflicting evidence (Kwon 2005)
- *denn* connects the question to a previously given, unexpected piece of information (asks for explanation), and therefore cannot occur discourse-initially or to change the topic (Thurmair 1989)
- *denn* needs an antecedent common ground, and is therefore bad out-of-the-blue (König 1977, Bayer 2012)

- (6) ‘An administration officer whose sole job it is to write down some individual’s address can hardly felicitously ask *Wo wohnen Sie denn?* (‘Where do you live, I am wondering?’) (Bayer 2012: 14)

- **We do not agree with these proposals.** According to our intuitions, *denn* does not necessarily connect back to an unexpected piece of information; it can occur in discourse-initial questions and questions that change the topic, and the speaker need not be opinionated about the answer (see ex. (7) and (8) below).
- **Informal proposal:** *denn* conveys that the speaker expects/invites the addressee to give a full, detailed answer (= to answer the question and elaborate on it/to give an over-informative answer).

⇒ while (6) is odd, this is not because it is out-of-the-blue; this context is not one where the speaker expects/invites an elaborated answer.

- (7) [Context: Receptionist B encounters a frazzled-looking, very confused person.]

B: *Zu wem wollen Sie **denn**?*  
‘Who do you want to talk to?’

⇒ *denn* is acceptable because the speaker expects/invites the addressee to go into an elaborate story (possibly to calm him down).

---

<sup>1</sup>We ignore two variants of *denn* that can occur in declarative sentences: temporal *denn*, a dialectal variant of *dann*, and connective *denn* (‘because’).

- **Proposal for the not-at-issue content conveyed by *denn*:**<sup>2</sup>

(8)  $[[denn]]^c(?,p)$ :  $c_S$  expects a complete/elaborate answer to  $?p$

- This predicts that in contexts where a short (not-elaborated) answer is needed or expected, *denn* is infelicitous. This is borne out.

(9) [Context: Speaker A and B are defusing a bomb.]

A: *Die Bombe explodiert in 10 Sekunden! Welchen Draht soll ich (#denn) durchschneiden?*

‘The bomb explodes in 10 seconds! Which wire should I cut?’

(10) *Wollen Sie, Alex Schneider, (#denn) Kim Lee heiraten?*

‘Do you, Alex Schneider, want to marry Kim Lee?’

- We predict that giving a mention-some answer to a question with *denn* does not follow the speaker’s expectation/invitation; these examples are indeed often odd.<sup>3</sup>

(11) A: *Wer war denn auf der Party?*

‘Who was at the party?’

B:?? *Zum Beispiel Maria.*

‘Maria, among other people.’

- In out-of-the-blue contexts (especially between people that do not know each other well), *denn* seems to be restricted to constituent questions.

(12) a. *Was machst du denn eigentlich?*

‘What are you doing?’

b. *#Kommst du denn öfter hier her?*

‘Are you coming here often?’

⇒ Seems to conform to the proposal: asking someone to elaborate on a polarity question, especially out-of-the-blue, seems pragmatically dispreferred. More insights on the pragmatics of polarity vs. constituent questions are needed.

## 2.4 Austrian German *leicht*

- *Leicht* is a genuine Austrian German particle that is restricted to interrogatives/questions.<sup>4</sup>

(13) a. *\*Die Maria hat leicht Schuhe gekauft.*

‘Maria bought shoes.’

b. *Hat die Maria leicht Schuhe gekauft?*

‘Did Maria buy shoes?’

c. *\*Kauf leicht die Schuhe!*

‘Buy the shoes.’

- *Leicht* is homophonous with the adjective *leicht* (Engl. ‘easy, light, simple’), but, as far as we know, has no connection with it. It is also not obviously a contracted version of the particle use of *vielleicht* (Engl. ‘maybe’).

(14) [Context: A father to his son who listens to loud rock music:]

*Findest du dieses Geheule vielleicht schön?*

‘Do you find this whining beautiful?’ (Thurmair 1989:194, with translations added)

⇒ *vielleicht* in polarity questions conveys a strong expectation for the negative answer.

<sup>2</sup> $c_S$  is the speaker in the utterance context  $c$  (cf. Kaplan 1978).

<sup>3</sup>Note: B’s response in (11) is okay if B follows up with a long story about Maria’s antics at the party.

<sup>4</sup>*Leicht* might occur in parts of Bavaria. To our knowledge, *leicht* has been mentioned only in Grosz (2005).

- *Leicht* can occur in constituent and polarity questions, and conveys that the speaker assumes that the answer to the question provides an explanation/the grounds for something in the current discourse context.

(15) [Context: Speaker B asks A whether he has to study certain contents for an exam in chemistry with a certain professor.]

A: *Das solltest schon lernen.*

‘You should study that.’

B: *Hat er **leicht** schon mal danach gefragt?*

‘Has he asked about that before?’<sup>5</sup>

⇒ B’s answer asks for a possible explanation for why he should study the content that A advises him to study.

- The “something in the current discourse context” is typically the content of a previous utterance, see (15). It can also be a circumstance related to a previous utterance, e.g. the manner of utterance or the fact that an utterance was made in the first place.

(16) [Context: Speaker A excitedly announces that she is going on vacation.]

B: *Wohin fährst du **leicht**?*

‘Where are you going (that you are so excited about it)?’

(17) [Context: On the New Year’s speech of Bundespräsident Fischer.]

A: *Bitte, hast eam gehört?*

‘Please, did you hear the speech?’

B: *So uninteressant is net amol mei Leben, dass i ma de anschauen muss.*

‘Not even my life is that uninteresting that I have to watch that.’

*Was hat er **leicht** gsagt?*

‘What did he say (that you bring it up/ask about it)?’<sup>6</sup>

- **Proposal for the not-at-issue content conveyed by *leicht*:**

(18)  $\llbracket \text{leicht} \rrbracket^c(?, p)$ :  $c_S$  believes that an answer to  $?p$  may provide an *explanation* for a proposition  $q$  in the common ground

- The form of the question suggests a possible explanation, i.e. the speaker has already inferred (parts of) some possible reason.

– **Polarity questions:** The sentence radical (= the positive answer) is the possible reason inferred by the speaker. The question asks for confirmation.<sup>7</sup>

– **Constituent questions:** The sentence radical denotes a property; the question suggests that the predication of this property of some individual(s) is a possible explanation. The question asks for completion (and confirmation).

- **Predictions:** *leicht* should be infelicitous in questions for which no answer has the potential to give an explanation for anything in the context.

(19) A: *Der Peter war gestern auf meiner Party.*

‘Peter came to my party yesterday.’

<sup>5</sup><http://forum.pharmapoint.at/forums/thread/90092.aspx>

<sup>6</sup><http://www.profil.at/articles/0750/560/192206/praesidentsfall>

<sup>7</sup>The bias for the positive answer might be a peculiarity of polarity questions. Krifka (p.c. in Reis & Wöllstein 2010) suggests that polarity questions might be better analyzed as ‘is  $p$  true?’ rather than ‘ $p$  or  $\neg p$ ?’.

B: *Ist er (#leicht) gut nach Hause gekommen?*  
'Did he get home okay?'

⇒ Peter's getting home okay cannot be the reason for anything A said. Hence, *leicht* is bad.

- The not-at-issue content of *leicht* also makes it perfect for *why*-questions:

(20) [Context: Speaker A asks speaker B whether B can make a specific cake for her.]

B: *Hiaz host eh amoi Brownies.*

'Now you have brownies anyway.'

A: *Jojo. Owa de schmeckn noch Mö und Wossa.*

'Yeah, yeah. But they only taste like flour and water.'

B: *HAHAHA wieso leicht?*

'Hahaha, why?'

A: *Jo wei du do zfü Wossa einhost.*

'Because you put too much water in them.'<sup>8</sup>

## 2.5 Standard German *etwa*

- As a particle, *etwa* is restricted to questions; specifically polarity questions. It cannot occur in constituent questions.<sup>9</sup>

(21) a. \**Maria hat etwa Schuhe gekauft.*

'Maria bought shoes.'

b. *Hat Maria etwa Schuhe gekauft?*

'Did Maria buy shoes?'

c. \**Kauf etwa die Schuhe!*

'Buy the shoes!'

- **Previous proposal:** *Etwa* connects the question to a previously given, unexpected piece of information. It expresses that the positive answer is more likely than the negative answer, and that the speaker prefers the negative answer to hold (Thurmair 1989: 163ff).
- We partially agree with Thurmair's analysis regarding speaker expectation; we do not agree that *etwa* always expresses the speaker's preference for the negative answer.
- **Informal proposal:** *etwa* conveys that the speaker has new evidence for the positive answer which goes against his expectation that the negative answer holds.

(22) [Context: After returning home from work, speaker A sees a glass of pasta sauce on the kitchen counter. A and B wanted to make pasta, and A was pretty sure that they didn't have enough sauce at home, but forgot to tell B to buy some.]

A: *Hast du etwa Soße gekauft?*

'Did you buy pasta sauce?'

⇒ A is happy that B apparently bought pasta sauce, and prefers B having bought pasta sauce over B not having bought pasta sauce.

⇒ since A did not ask B to buy pasta sauce, A did not expect B do buy any.

---

<sup>8</sup><http://ask.fm/sabi12345> (posts from Oct 2014)

<sup>9</sup>*Etwa* has another function in which it denotes something like *about*: *Peter ist etwa 30 Jahre alt.*—'Peter is about 30.'

- **Proposal for the not-at-issue content conveyed by *etwa*:**

(23)  $\llbracket \text{etwa} \rrbracket^c(?, p)$ :  $c_S$  has evidence for the positive answer to  $?p$  which is in conflict with  $c_S$  expectations

- **Prediction:** *etwa* is infelicitous in questions where it is impossible for the speaker to have any expectations regarding the validity of an answer.

(24) [Context: Speaker A watches B toss a coin.]

A: *Hast du (#etwa) Kopf geworfen?*  
 ‘Did you get heads?’

## 2.6 Austrian German *eh*

- The particle *eh* occurs both in Austrian and in Standard German—arguably with distinct contributions (Csipak & Zobel in prep).<sup>10</sup> Standard German *eh* occurs only in declaratives, while Austrian German *eh* can occur in declaratives and polarity interrogatives, but not in constituent interrogatives (see Introduction).

(25) a. *Die Maria hat eh Schuhe gekauft.* ‘Maria bought shoes.’  
 b. *Hat die Maria eh Schuhe gekauft?* ‘Did Maria buy shoes?’  
 c. *\*Kauf eh die Schuhe!* ‘Buy the shoes!’

- In the descriptive literature, notably Thurmair (1989), the Standard German variant of *eh* is analyzed as synonymous with the particle *sowieso*. In Austrian German *eh* and *sowieso* are distinct, and may even co-occur.

(26) *Wenn man nachgezogene Augenbrauen hat, fragt einen sowieso eh schon niemand mehr danach, weil das so viele haben.*  
 ‘If you have lined eye brows, nobody asks about them anymore because so many line their brows.’<sup>11</sup>

- **Informal proposal:** a polarity question containing Austrian German *eh* conveys that the speaker expects/hopes/prefers that the positive answer holds, but cannot discard the negative answer. Core of the contribution: **a general preference for the positive answer** is expressed.
- The preference can be grounded in quite diverse beliefs, e.g. the validity of laws/rules/regularities, other previously established obligations, or simply personal experience.

(27) [Context: Speaker A asked B to take out the trash.]

A: *Hast du eh den Mist rausgetragen?*  
 ‘Did you take out the trash?’

⇒ Since speaker A asked B to take out the trash, A prefers the requested action to be performed, but cannot be sure that B did it.

⇒ If B so far regularly took out the trash when asked, A might expect that the positive answer holds. This is not necessarily the case, though.

<sup>10</sup>We have not explored Bavarian *eh*, yet.

<sup>11</sup><http://www.psychotherapiepraxis.at/pt-forum/viewtopic.php?t=2877>

(28) [Context: There was a big traffic accident. Speaker A is curious what happened, but the area is closed off already. A asks a paramedic that might know details.]

A: *Ist eh niemand gestorben?*  
 ‘Did nobody die?’

⇒ Since speaker A is not a sociopath, she prefers that nobody died in the accident, but she cannot be sure that this is the case.

⇒ In this case, A has no knowledge about the accident, and hence cannot have any expectations regarding the positive answer.<sup>12</sup>

- **Proposal for the not-at-issue content of *eh*** (in polarity questions):<sup>13</sup>

(29)  $\llbracket eh \rrbracket^c(?, p)$ :  $c_S$  prefers the positive answer to  $?p$  to hold, but cannot discard the negative answer

⇒ Polarity questions with *eh* ask for confirmation/reassurance that the world is compatible with the speaker’s preferences.

⇒ The preference is made explicit by the sentence radical minus *eh*.

(30) [Context: It’s storming outside. A can’t see B’s kitten anywhere inside.]

A: *Ist dein Katzerl eh drinnen?* (A likes kittens.)  
 ‘Your kitten is inside, I hope?’

A’: *Ist dein Katzerl eh nicht drinnen?* (A doesn’t like kittens.)  
 ‘Your kitten is not inside, I hope?’

⇒ Best translated into English with a declarative question + “I hope” tag.

## 2.7 Intermediate summary

- *Denn* and *leicht*: constituent and polarity questions; *etwa* and *eh*: only polarity questions.
- Not-at-issue content for *denn*, *leicht*, *etwa*, and *eh*:

- (31)
- $\llbracket denn \rrbracket^c(?, p)$ :  $c_S$  expects a complete/elaborate answer to  $?p$
  - $\llbracket leicht \rrbracket^c(?, p)$ :  $c_S$  believes that an answer to  $?p$  may provide an explanation for a proposition  $q$  in the common ground
  - $\llbracket etwa \rrbracket^c(?, p)$ :  $c_S$  has evidence for the positive answer to  $?p$  which is in conflict with  $c_S$  expectations
  - $\llbracket eh \rrbracket^c(?, p)$ :  $c_S$  prefers the positive answer to  $?p$  to hold, but cannot discard the negative answer

## 3 Capturing the contrast I: why partition structure is a dead end

- **Idea:** Since the specific particle contributions are so diverse, maybe the contrast for *etwa* and *eh* regarding constituent and polarity questions results from a contrast in their semantics.

⇒ we take a look at propositional approaches.

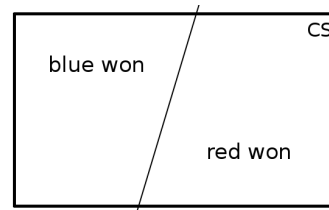
<sup>12</sup>One might assume that in this case a default expectation “no one died” is in place. But, even if the information “in traffic accidents in this area, usually someone dies” is added to the context, i.e. A has the expectation “someone died”, A could still prefer that nobody died and utter (28).

<sup>13</sup>More refinements are needed to account for the use of *eh* in declaratives.



- Some propositional approaches to question semantics assume that questions **partition the context set**<sup>14</sup> into cells corresponding to the different mutually exclusive answers to the question (cf. Groenendijk and Stokhof 1984):
  - **Polarity questions** partition the common ground into two cells, i.e. the positive and the negative answer.
  - **Constituent questions** partition the common ground into a number of cells correlating to the number of possible answers (possibly larger than two).
- **Is this difference in partition structure connected to the observation that *etwa* and *eh* cannot occur in constituent questions?**
- **No.** Assume that there are two teams, red and blue. A speaker can use both a polarity question and a constituent question to ask about the winner (with varying pragmatics):

- (32) a. *Hat das blaue Team gewonnen?*  
 ‘Did the blue team win?’  
 b. *Welches Team hat gewonnen?*  
 ‘Which team won?’



- Both questions induce the same partition into two cells: *blue won* and *red won*.<sup>15</sup>
- If the partition structure were the decisive criterion, all particles that may occur in the polarity question, should also be felicitous in the constituent question.
- **But:** Only the polarity question allows all four particles to occur.

- (33) a. *Hat **denn** das blaue Team gewonnen?*  
 b. *Hat **leicht** das blaue Team gewonnen?*  
 c. *Hat **etwa** das blaue Team gewonnen?*  
 d. *Hat **eh** das blaue Team gewonnen?*  
 ‘Did the blue team win?’ (+ particle contribution)

- (34) a. *Welches Team hat **denn** gewonnen?*  
 b. *Welches Team hat **leicht** gewonnen?*  
 c. \**Welches Team hat **etwa** gewonnen?*  
 d. \**Welches Team hat **eh** gewonnen?*  
 ‘Which team won?’ (+ particle contribution)

## 4 Capturing the contrast II: explicit identification of answers

- **New starting point:** Polarity and constituent questions differ their sentence radicals.
  - **Polarity question:**  $\lambda w.$ proposition-content( $w$ ) (proposition)
  - **Constituent question:**  $\lambda w.\lambda x.$ property-content( $w$ )( $x$ ) (property)
- **Idea:** *etwa* and *eh* are compatible with the form of the sentence radical of polarity questions, but not of constituent questions.

<sup>14</sup>The context set is the set of worlds in which all propositions in the common ground hold.

<sup>15</sup>For the constituent question, the cells *neither won* and *both won* are arguably excluded by the rules of the game at hand, e.g. volleyball.

- **Compatible in which sense?**

- For polarity and constituent questions, the form of the sentence radical relates in different ways to the set of possible answers:
  - The sentence radical of polarity questions *explicitly identifies* the positive answer.
  - The sentence radical of constituent questions is a property ( $\approx$  a partly unspecified proposition); it does not *explicitly identify* one single answer (cf. Krifka 2011).

(35) The sentence radical **explicitly identifies** an answer iff the content of the sentence radical is an element of the set of possible answers (cf. Hamblin 1973).

- Based on their not-at-issue content, the particles can be divided into two classes:
  - *etwa* and *eh* convey the speaker’s attitude towards a particular answer

(36) a.  $\llbracket \text{etwa} \rrbracket^c(? , p)$ :  $c_S$  has evidence for the positive answer to ? $p$  which is in conflict with  $c_S$  expectations  
 b.  $\llbracket \text{eh} \rrbracket^c(? , p)$ :  $c_S$  prefers the positive answer to ? $p$  to hold, but cannot discard the negative answer  
 $\Rightarrow$  **polarity questions:** the positive answer to ? $p$  = the sentence radical  $p$

- *denn* and *leicht* comment on the question as a whole

(37) a.  $\llbracket \text{denn} \rrbracket^c(? , p)$ :  $c_S$  expects a complete/elaborate answer to ? $p$   
 b.  $\llbracket \text{leicht} \rrbracket^c(? , p)$ :  $c_S$  believes that an answer to ? $p$  may provide an explanation for a proposition  $q$  in the common ground

$\Rightarrow$  Particles whose not-at-issue meaning singles out one particular answer can only do so if the sentence radical *explicitly identifies one answer*, e.g. in polarity questions.

- **Core of the proposal:** depending on the requirements of their contributed content, some particles occurring in questions are sensitive to the answers that are explicitly identified.  
 $\Rightarrow$  The contribution of *eh* and *etwa* can be restated in terms of *explicit identification*.

(38) a.  $\llbracket \text{etwa} \rrbracket^c(? , p)$ :  $c_S$  has evidence for the explicitly identified answer to ? $p$  which is in conflict with  $c_S$  expectations  
 b.  $\llbracket \text{eh} \rrbracket^c(? , p)$ :  $c_S$  prefers the explicitly identified answer to ? $p$  to hold, but cannot discard its negation

$\Rightarrow$  Since constituent questions do not explicitly identify an answer, the speaker’s evidence/preference/expectation does not have a well-defined content.

- *Explicit identification of an answer* is comparable to **highlighting in inquisitive semantics** (cf. Farkas & Roelofsen to appear). It is introduced to account for the distribution and use of polarity particles (i.e. *yes* and *no*) in answers.

$\Rightarrow$  **Observation:** *yes* and *no* are sensitive to which answers are “explicitly mentioned” by a given question (cf. Farkas & Roelofsen to appear: 15).

$\Rightarrow$  **Proposal:** For polarity questions the highlighted answer is what we identified as the question’s sentence radical, while constituent questions do not highlight any of their answers.<sup>16</sup>

- *Explicit identification of an answer* and *highlighting* share their core idea. However: we refrain from adopting inquisitive semantics; at the moment, we want to remain neutral with respect to any specific theory on question semantics.

---

<sup>16</sup>For details see Farkas & Roelofsen (to appear).

## 5 Predictions for other types of questions and open issues

We take a brief look at the data for echo-questions, alternative questions, embedded questions, and declarative questions.

### 5.1 Echo-questions

- As mentioned in the Introduction, only *eh* can occur in **echo-questions that echo declaratives**.

- (39) a. \**Du hast denn WAS gefunden?* (Echo: *Ich habe PRT XY gefunden.*)  
b. \**Du hast leicht WAS gefunden?*  
c. \**Du hast etwa WAS gefunden?*  
d. *Du hast eh WAS gefunden?*  
'You found WHAT?'

- In **echo-questions that echo questions** *denn*, *leicht*, *etwa*, and *eh* can occur, as long as they were part of the echoed question.

- (40) a. *Hat Peter denn WAS gekauft?* (Echo: *Hat Peter PRT XY gekauft?*)  
b. *Hat der Peter leicht WAS gekauft?*  
c. *Hat Peter etwa WAS gekauft?*  
d. *Hat der Peter eh WAS gekauft?*  
'Did Peter buy WHAT?'

- This distribution follows directly from the clause type restrictions for the particles.

### 5.2 Alternative questions

- **Prediction:** *etwa* and *eh* should not be able to occur in **alternative questions**, since the sentence radical does not identify a single answer. This is borne out.

- (41) a. *Hast du **denn** Deutsch oder Englisch studiert?*  
b. \*?*Hast du **leicht** Deutsch oder Englisch studiert?*  
c. \**Hast du **etwa** Deutsch oder Englisch studiert?*  
d. \**Hast du **eh** Deutsch oder Englisch studiert?*  
'Did you study German or English?'

⇒ **Note:** *etwa* and *eh* are fine in the polarity question reading of (41-c) and (41-d).

- *Leicht* seems to force a polarity question reading for alternative questions. The function of alternative questions seems to clash with the function of *leicht*.

⇒ with an alternative question containing *leicht*, the speaker would ask which of the alternatives is the reason for the previous proposition *q*; the speaker must believe that both alternatives are equally possible explanations (even if mutually exclusive); the same is asked for by a polarity question.

### 5.3 Embedded Interrogatives

- **Prediction:** the four particles behave the same in **embedded interrogatives** as in matrix questions, as long as the embedded interrogatives express a question. This is borne out.

- (42) a. *Peter fragt Paul, ob Maria **denn** kommt.* (polarity interrogative)  
 b. *Der Peter fragt den Paul, ob die Maria **leicht** kommt.*  
 c. *Peter fragt Paul, ob Maria **etwa** kommt.*  
 d. *Der Peter fragt den Paul, ob die Maria **eh** kommt.*  
 ‘Peter asks Paul whether Maria is coming.’

- (43) a. *Peter fragt Paul, wer **denn** kommt.* (constituent interrogative)  
 b. *Der Peter fragt den Paul, wer **leicht** kommt.*  
 c. *\*Peter fragt Paul, wer **etwa** kommt.*  
 d. *\*Der Peter fragt den Paul, wer **eh** kommt.*  
 ‘Peter asks Paul who is coming.’

⇒ what “expressing a question” means is unclear at the moment; possibly the presence of the question operator ? (cf. Krifka 2011).

- The attitude holder/reported speaker, e.g. Peter in (42) and (43), takes the place of the actual speaker  $c_S$  in the description of the particle contributions.

⇒ The particle contribution is **shifted to the local speaker**.

- **Observation:** Under **factive verbs** like *wissen* (‘to know’), embedded interrogatives do not express questions. Hence, only particles that can occur in declaratives/assertions can occur in these clauses.

- (44) a. *\*Peter weiß, ob Maria **denn** anruft.*  
 b. *\*Der Peter weiß, ob die Maria **leicht** anruft.*  
 c. *\*?Peter weiß, ob Maria **etwa** anruft.*  
 d. *?Der Peter weiß, ob die Maria **eh** anruft.*  
 ‘Peter knows whether Maria is coming.’

⇒ the example with *etwa* improves if the embedded question contains the negation *nicht*:  
*Peter weiß, ob Maria **nicht etwa** anruft.*

⇒ unclear if *etwa* occurring in the scope of negation under a factive verb is the same as *etwa* in ordinary polarity questions.

- (45) a. *\*Peter weiß, wer **denn** anruft.*  
 b. *\*Der Peter weiß, wer **leicht** anruft.*  
 c. *\*Peter weiß, wer **etwa** anruft.*  
 d. *?Der Peter weiß, wer **eh** anruft.*  
 ‘Peter knows who is coming.’

## 5.4 Declarative questions

- The particle occurrences in declarative questions present some new questions. The pragmatic effect of posing a declarative question is that the speaker considers it likely that the proposition expressed by the declarative is true (Krifka 2011: 1778).
- **Denn** is unacceptable in these questions; possibly because of its sentence type restriction.

- (46) a. *Warst du **denn** zu Hause?*  
 b. *\*Du warst **denn** zu Hause?*

- Despite its observed restriction to interrogatives, **leicht** can occur in declarative questions, but seems to be most felicitous in declarative questions with a second person singular subject, i.e. a declarative question about the addressee.

- (47) a. *Und apropos wehrloses Mädchen, du bist **leicht** nicht wehrlos?!*  
 ‘And speaking of defenseless girls, you are not defenseless?’<sup>17</sup>  
 b. *Du glaubst **leicht**, dass jeder von seinen Eltern bis nach dem Studium durchgefüttert werden kann?*  
 ‘You believe that everyone can live on their parents’ money until after they graduate?’<sup>18</sup>
- (48) a. *Der kommt **leicht** auch mit?*  
 ‘He’s also coming with us?’  
 b. *Ich darf das **leicht** nicht?!*  
 ‘I’m not allowed to do that?’

⇒ I find (48) marginal, but I do not seem to have clear intuitions; googling for examples, I could not find any with first or third person subjects.

- Similarly to *leicht*, *etwa* can occur in declarative questions, but only with negation in a word order that is disallowed in polarity questions.

- (49) a. *Hast du ihn **etwa nicht** angerufen?* (*etwa > nicht*)  
 b. *\*Du hast ihn **etwa nicht** angerufen?*
- (50) a. *\*Hast du ihn **nicht etwa** angerufen?* (*nicht > etwa*)  
 b. *Du hast ihn **nicht etwa** angerufen?*

⇒ seems to be the same possibly distinct *etwa* as observed in connection with (44) .

- As expected—since *eh* can occur in declaratives—*eh* is fine in declarative questions.

- (51) a. *Er hat **eh** alles versucht?*  
 ‘He tried everything?’  
 b. *Du kommst **eh** morgen, ge?*  
 ‘You’re coming tomorrow, right?’<sup>19</sup>

- Further insights are needed on the semantics and pragmatics of declarative questions.

## 6 Summary and future work

- *Denn* and *leicht*: constituent and polarity questions; *etwa* and *eh*: only polarity questions.
- Not-at-issue content for *denn*, *leicht*, *etwa*, and *eh*:

- (52) a.  $[[\text{denn}]^c(? , p)]$ :  $c_S$  expects a complete/elaborate answer to  $?p$   
 b.  $[[\text{leicht}]^c(? , p)]$ :  $c_S$  believes that an answer to  $?p$  may provide an explanation for a proposition  $q$  in the common ground  
 c.  $[[\text{etwa}]^c(? , p)]$ :  $c_S$  has evidence for the positive answer to  $?p$  which is in conflict with  $c_S$  expectations  
 d.  $[[\text{eh}]^c(? , p)]$ :  $c_S$  prefers the positive answer to  $?p$  to hold, but cannot discard the negative answer

- Based on this proposal, we argued the restriction of *etwa* and *eh* to polarity question arises because they express the speaker’s attitude on one specific answer, and only polarity questions *explicitly identify one answer*.

<sup>17</sup><http://www.wattpad.com/84947343-die-eisprinzessin-kapitel-2-erster-schultag/page/2>

<sup>18</sup><http://forum.szene1.at/viewtopic.php?f=11&t=5272&st=0&sk=t&sd=a&start=240>

<sup>19</sup>[http://ask.fm/alex\\_alex1](http://ask.fm/alex_alex1) (about 1 year ago)

- Topics for future work:
  - Flesh out the particles’ not-at-issue contents.
  - Address the (un)expected behavior of the particles discussed in Section 5 further.
  - Take a look at further types of questions, e.g. tag-questions, negative bias questions.
  - Explore the idea of preference rankings on the set of answers depending on question type, and its interaction with the particles’ contribution (Krifka 2011: 1779).

## References

- Bayer, Josef (2012) From Modal Particle to Interrogative Marker: A Study of German *denn*. In: *Functional Heads*, eds. L. Brugè, A. Cardinaletti, G. Giusti, N. Munaro & C. Poletto. Oxford University Press.
- Berman, Stephen (1991) *On the semantics and logical form of wh-clauses*. Doctoral Dissertation, University of Massachusetts, Amherst.
- Csipak, Eva and Sarah Zobel (2014) A condition on the distribution of discourse particles across types of questions. *Proceedings NELS* 44. 83–94
- Csipak, Eva and Sarah Zobel (in prep) Two kinds of *eh*. Ms.
- Farkas, Donka and Floris Roelofsen (to appear) Polar initiatives and polarity particle responses in an inquisitive discourse model. Accepted for publication in *Language*.
- Groenendijk, Jeroen and Martin Stokhof (1984) *Studies on the Semantics of Questions and the Pragmatics of Answers*. Doctoral Dissertation, University of Amsterdam.
- Grosz, Patrick (2005) “*dn*” in Viennese German. *The Syntax of a Clitic Version of the Discourse Particle “denn”*. MA Thesis, University of Vienna.
- Hamblin, C.L. (1973) Questions in Montague English. *Foundations of Language* 10: 41–53.
- Kaplan, David (1978) On the Logic of Demonstratives, **Journal of Philosophical Logic** 8: 81–98.
- König, Ekkehard (1977). Modalpartikeln in Fragesätzen. In: *Aspekte der Modalpartikeln. Studien zur deutschen Abtönung*, ed. Harald Weydt. Tübingen: Niemeyer. 115–130.
- Krifka, Manfred (2001) For a structured meaning account of questions and answers. In *Audiatur Vox Sapientia: A festschrift for Arnim von Stechow*, eds. Caroline Féry and Wolfgang Sternefeld. Berlin: Akademie-Verlag. 287–319.
- Krifka, Manfred (2011) Questions. In: *Semantics (HSK 33.2)*, eds. Klaus von Heusinger, Claudia Maienborn and Paul Portner. de Gruyter. 1742–1785
- Kwon, Min-Jae (2005) *Modalpartikeln und Satzmodus. Untersuchungen zur Syntax, Semantik und Pragmatik der deutschen Modalpartikeln*. Doctoral Dissertation, LMU München.
- Simons, Mandy, Judith Tonhauser, David Beaver and Craige Roberts (2010) What Projects and Why. In: *Proceedings of SALT 2010*.
- von Stechow, Arnim and Thomas Ede Zimmermann (1984) Term answers and contextual change. *Linguistics* 22, 3–40.
- Stenius, Erik (1967) Mood and language game. *Synthese* 17, 254–274.
- Thurmair, Maria (1989) *Modalpartikeln und ihre Kombinationen*. Tübingen: Niemeyer (LA 223)
- Thurmair, Maria (1991) Zum Gebrauch der Modalpartikel “denn” in Fragesätzen. Eine korpusbasierte Untersuchung. In: *Betriebstinguistik und Linguistikbetrieb*, eds. E. Klein, F. Pouradier Duteil, K.H. Wagner. Tübingen. 377–387.
- Weydt, Harald (1969) *Abtönungspartikel. Die deutschen Modalwörter und ihre französischen Entsprechungen*. Bad Homburg: Gehlen.
- Zimmermann, Malte (2011) Discourse particles. In: *Semantics (HSK 33.2)*, eds. Klaus von Heusinger, Claudia Maienborn and Paul Portner. de Gruyter. 2012–2038