Discourse particles and their connection to sentence types, speech acts, and discourse

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Formal Approaches to Particles
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Introduction – I

**Overarching question:** What are reasons for inserting discourse particles?

Following Eckardt, Rojas-Esponda, Zimmermann, and others: “discourse navigating devices” or means to perform “discourse management”

Introduction – II

“discourse navigating devices”/“discourse management”: discourse particles make reference to the speaker’s attitudes regarding content contributed by the utterance with respect to the current state of the discourse.

For German: detailed analyses along this line (McCready & Zimmermann 2011, Kaufmann & Kaufmann 2012, Csipak & Zobel 2014, Grosz 2014a, . . .)

WANTED: a more detailed account of how the semantics and pragmatics of the host clause interact with the contribution of the particle.
Connection to models of discourse

Claim: understanding the distribution of particles provides a window into their contribution

⇒ connect discourse particle research to results on discourse models to make the effect of discourse particles more precise

⇒ Already quite some work in this area! (Gieselman & Caponigro 2010, Hogeweg et al. 2011, Rojas-Espóna 2014, Grosz 2014b, . . .)

Today’s talk

Today, we address the licensing of discourse particles.

Claims

▶ The licensing is connected to the complex interaction of the semantics/pragmatics of the host clause and the contribution of the particles.

▶ The distribution of discourse particles cannot be captured by either sensitivity to sentence types or sensitivity to the illocutionary force of the utterance.

(Similar claims are defended by Rapp 2016.)

Restrictions:
only declaratives and interrogatives + selected set of German particles
Roadmap

Introduction

Previous proposals for licensing
  Licensing by sentence type
  Licensing by illocutionary force

Discourse function matters
  Farkas & Bruce 2010
  The proposal
  Further evidence for our proposal

Conclusion
Licensing by sentence type – I

Received view:
Discourse particles are sensitive to sentence type, and are licensed if their sentence type restrictions are met.

(1) a. Er kann **halt** kochen.  
   b. #Kann er **halt** kochen?  
   c. #Was kocht er **halt**?

(2) a. #Er kann **etwa** kochen.  
   b. Kann er **etwa** kochen?  
   c. #Was kocht er **etwa**?

Motivation for German: classifications given in the descriptive literature (e.g. Thurmair 1989 among many others).
Licensing by sentence type – II

The distribution of selected particles in main clauses:

<table>
<thead>
<tr>
<th>particle</th>
<th>decl.</th>
<th>polar interr.</th>
<th>wh-interr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>denn</td>
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<td>✓</td>
</tr>
<tr>
<td>doch</td>
<td>✓</td>
<td>–</td>
<td>✓ (?)</td>
</tr>
<tr>
<td>eh</td>
<td>✓</td>
<td>– (✓)</td>
<td>–</td>
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<tr>
<td>etwa</td>
<td>–</td>
<td>✓</td>
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<td>halt</td>
<td>✓</td>
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<td>ja</td>
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<td>–</td>
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<tr>
<td>überhaupt</td>
<td>(✓)</td>
<td>(✓)</td>
<td>(✓)</td>
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<tr>
<td>wohl</td>
<td>✓</td>
<td>✓</td>
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</tr>
</tbody>
</table>

(Thurmair 1989: 49)
Licensing by sentence type – III

Resulting Hypothesis:

Discourse particles are specified for whether they can occur in:

- declaratives
- polar interrogatives
- wh-interrogatives

This completely specifies their distribution.

NB: This hypothesis is never actually addressed in the literature.
Problem: adverbial clauses – I

Adverbial clauses can host discourse particles.

For instance: In the antecedents of conditionals, we find denn, doch, eh, halt, ja, and überhaupt (of our selection of particles).

(3) Peter kann mitkommen, wenn er denn / überhaupt will.
‘Peter can join us if he DENN / ÜBERHAUPT wants to.’

(4) Wenn Peter doch / eh / halt / ja mitkommen will, ruf ich ihn an.
‘If Peter DOCH / EH / HALT / JA wants to join, I’ll call him.’
Problem: adverbial clauses – II

Particles that can occur in antecedents of conditionals:

<table>
<thead>
<tr>
<th>particle</th>
<th>decl.</th>
<th>polar</th>
<th>interv.</th>
<th>antecedent of cond.</th>
</tr>
</thead>
<tbody>
<tr>
<td>denn</td>
<td>–</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>doch</td>
<td>✓</td>
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<td>eh</td>
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<td>etwa</td>
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<td>wohl</td>
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</tbody>
</table>

problems for “declarative” problems for “interrogative”
Consequence

Possible ways to go:

- More fine grained individuation of sentence types.
  ⇒ loss of explanatory power

- Discarding sentence type as deciding factor.
Licensing by illocutionary force – I

Sentence type as the deciding factor for licensing discourse particles has been mostly discarded in the literature.

Updated received view: presence of illocutionary force in a sentence licenses particles.

Take a closer look at:

- Central assumptions of this view
- An empirical problem for this view

Coniglio (2011), Bayer & Trotzke (2015), Bayer & Obenauer (2011),
Struckmeier (2014), ...
Gutzmann (2008), Zimmermann (2008), ...
Central assumptions

- Discourse particles agree with the head of a ForceP (in the left periphery) which is specified for illocutionary force.
- The specified illocutionary force determines syntactic form and speech acts.
- Restrictions on the distribution of discourse particles are stipulated: the “right” syntactic features are specified in the lexicon.

Bayer & Trotzke (2015: 2):
“the choice of particle depends on major categories of Force”
Empirical problem: declarative questions – I

- Declarative questions ("rising declaratives") have the form of a declarative with question intonation.
- Like polar questions containing "low negation", they are used to ask a negatively biased question.

\[(5)\]

A: Peter invited me for dinner at his place tomorrow.

B: Maria ist morgen nicht zu Hause?  
(Mary is not home tomorrow?)

B’: Ist Maria morgen NICHT zu Hause?  
(Is Mary not home tomorrow?)

⇒ Declarative questions are root clauses with illocutionary force. They should have a ForceP. \textbf{Which force?}

Empirical problem: declarative questions – II

Obvious candidates for illocutionary force:
  polar interrogative (+ bias) and declarative

Assumption 1:
  same illocutionary force as a polar interrogative (+ bias)

(6) A: Peter invited me for dinner at his place tomorrow.
    B: Maria ist morgen (# etwa) nicht zu Hause?
       (Maria is not home tomorrow?)
    B’: Ist Maria morgen (etwa) NICHT zu Hause?
        (Is Maria not home tomorrow?)

⇒ Assumption 1 seems to be false.
Empirical problem: declarative questions – III

Alternative explanation for oddness of *etwa*:

- declarative questions have declarative force (which also licenses declarative word order)
- *etwa* is not specified for declarative force

**Assumption 2:** same illocutionary force as a declarative

(7) A: Peter invited me for dinner at his place tomorrow.
    B: *Peter kann* (# *halt*) *kochen*?
    B’: *Peter kann* (*halt*) *kochen*.

⇒ Assumption 2 seems to be false, as well.
Empirical problem: declarative questions – IV

Observation: declarative questions cannot host any of “our” discourse particles

<table>
<thead>
<tr>
<th>particle</th>
<th>decl.</th>
<th>polar interr.</th>
<th>decl. questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>denn</td>
<td>–</td>
<td>✓</td>
<td>–</td>
</tr>
<tr>
<td>doch</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>eh</td>
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<td>etwa</td>
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<td>✓</td>
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<td>halt</td>
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<td>überhaupt</td>
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<td>–</td>
</tr>
<tr>
<td>wohl</td>
<td>✓</td>
<td>✓</td>
<td>–</td>
</tr>
</tbody>
</table>
Consequence

Possible ways to go:

- More fine grained individuation of illocutionary force types.
  - loss of explanatory power
  - additional conceptual problems for illocutionary force accounts of embedded clauses (Rapp 2016)

- Discarding presence of ForceP as deciding factor.
Introduction

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Conclusion
Capturing the distribution – our proposal

From introduction: discourse particles

- make reference to the speaker’s attitudes regarding content contributed by the utterance
- with respect to the current state of the discourse (the current common ground and public beliefs of the interlocutors)

⇒ They “fit the utterance to the discourse context” (Zimmermann 2011)

To make this more specific: discourse model of Farkas & Bruce (2010)
The discourse model – I

Farkas & Bruce’s model distinguishes:

- **Common ground**: what the interlocutors have agreed on up until the current utterance \((cg)\)
- **Public commitments**: what the interlocutors are publicly committed to through their utterances, but which has not been generally agreed on \((DC_X\text{ for interlocutor } X)\)
- **Table**: what is currently up for discussion (the form and content) \((\approx \text{ current QUD})\)
- **Projected set**: potential future states of the common ground given the material on the Table \((ps)\)
The discourse model – II

K₁: discourse initial context state

<table>
<thead>
<tr>
<th>A</th>
<th>Table</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Ground $s_1$</td>
<td>Projected Set $ps_1 = {s_1}$</td>
<td></td>
</tr>
</tbody>
</table>

(Farkas & Bruce 2010: 91)

- No public commitments are registered for either A or B.
- No at-issue material is on the Table for discussion.
- The common ground only contains shared “background propositions”.
The discourse model – III

“Discourse function” of an utterance: the sum of all changes to the input context that results from performing the utterance

Discourse function is dependent (at least) on sentence type:

- **Declaratives**: The form S[D] and content \([S] = p\) are added to the Table (to be accepted/rejected); the speaker is committed to \(p\).
- **Polar interrogatives**: The form S[I] and content \([S] = \{p, \neg p\}\) are added to the Table (to be answered); the speaker is not committed to either \(p\) or \(\neg p\).

Non-default declaratives and polar interrogatives can depart from this default.
The discourse model – IV

Example 1: A uttered/ asserted a declarative

K₂: A asserted *Sam is home* relative to K₁

<table>
<thead>
<tr>
<th>A</th>
<th>Table</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>$p$</td>
<td>$\langle \text{Sam is home}[D]:{p} \rangle$</td>
<td></td>
</tr>
</tbody>
</table>

**Common Ground** $s₂ = s₁$  **Projected Set** $ps₂ = \{s₁ \cup \{p\}\}$

(Farkas & Bruce 2010: 91)
The discourse model – V

**Example 2:** A uttered/asked a polar interrogative

\( K_4: \) A asked *Is Sam home?* relative to \( K_1 \)

<table>
<thead>
<tr>
<th>A</th>
<th>Table</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \langle \text{Sam is home}[</td>
<td>]:{p, \neg p} \rangle )</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Common Ground</th>
<th>Projected Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>( s_4 = s_1 )</td>
<td>( ps_4 = { s_1 \cup { p }, s_1 \cup { \neg p } } )</td>
</tr>
</tbody>
</table>

(Farkas & Bruce 2010: 95)
Discourse particles and the discourse model

- Discourse particles are sensitive to the discourse function of their hosts and the make-up of the input context of the utterance.

⇒ restrictions on the make-up of the common ground \( cg \) and the public commitments of the interlocutors \( DC_X \) of the input or output contexts (similar to Farkas & Bruce’s answering moves)

- Discourse particles contribute a speaker attitude on the material in its scope as not-at-issue content (e.g. Simons et al. 2010).

⇒ all of these components determine the distribution of a particle

Zeevat 2006, Schwager 2009, Kaufmann & Kaufmann 2012
Comparison of our proposal with Matthewson 2016

- **Matthewson 2016:**
  - discourse particles contribute either (not-at-issue)
    - epistemic modality
    - discourse management

- **Csipak & Zobel 2016:** we need to consider
  - use conditions (always relative to discourse state)
  - meaning contribution (doxastic and/or bouletic attitude towards $p$)

$\Rightarrow$ We assume that discourse particles with distributional restrictions are always sensitive to the discourse state, and “mixed” contributions are possible.
Extension of Farkas & Bruce: not-at-issue content

Extend Farkas & Bruce’s model to capture “non-explicit proposals” = not-at-issue content that is added for update
(inspired by AnderBois et al. 2010, Murray 2014)

\(K_3: A\) asserted *Sam’s car is red* relative to \(K_1\)

<table>
<thead>
<tr>
<th>A</th>
<th>Table</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>(q)</td>
<td>(\langle Sam’s car is red[D]:{q}\rangle)</td>
<td></td>
</tr>
<tr>
<td>([p])</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Common Ground**
\(s_3 = s_1\)

**Projected Set**
\(ps_3 = \{(s_1 \cup \{p\}) \cup \{q\}\}\)

(Csipak & Zobel to appear: 14)

**Content \(p\) of the presupposition (Sam’s car):** that Sam has a car.
Example: *denn* in the antecedent of conditionals – I

(8) *Peter kann mitkommen, wenn er denn will.*

‘Peter can join us if he DENN wants to.’

**Condition 1**
The *cg* state $s_i$ of the input context $K_i$ and the content expressed by the host utterance must not entail $p$.

**Condition 2**
There has to be a participant $\alpha$ such that $DC_{\alpha,i}$ entails $p$, but no content on the *Table* entails $p$ (i.e., $[p] \in DC_{\alpha,i}$).

**Contribution of conditional *denn***
$\llbracket denn\rrbracket(p) : \lambda w. \text{prob}(w, p) < T$

where $T$ is at or below the threshold for assertability.

see Csipak & Zobel to appear
Example: *denn* in the antecedent of conditionals – II

(9) Eva: *Sarah and I will have Schlutzkrapfen.*
Sarah: *Wenn es denn welche gibt* (\(\Delta\)).
‘If they DENN have them.’

\(K_\ell\): after updating both utterances of (9) relative to \(K_1\)

<table>
<thead>
<tr>
<th>Eva</th>
<th>Table</th>
<th>Sarah</th>
</tr>
</thead>
<tbody>
<tr>
<td>(q)</td>
<td>(\langle S[D]:{q}\rangle)</td>
<td>(r)</td>
</tr>
<tr>
<td>([p]_{Sarah})</td>
<td></td>
<td>([denn(p)])</td>
</tr>
</tbody>
</table>

Common Ground
\(s_\ell = s_1\)
Projected Set
\(ps_\ell = \{(s_1 \cup \{p\}) \cup \{q\} \cup \{denn(p)\} \cup \{r\}\}\)

(see Csipak & Zobel to appear: 21)
Condition 1 determines the distribution of *denn*

**Condition 1:** The cg of the input context $K_i$ must not entail $p$.

⇒ **Okay:** hypothetical indicative and subjunctive conditionals and biscuit conditionals; the speaker is not committed to the truth of the antecedent proposition $p$.

(10) a. I didn’t see Peter’s car, if he has one.
    b. I would have seen Peter’s car, if he had one.
    c. There is Pizza in the fridge, if you are hungry.

⇒ **Impossible:** factual conditionals; occur in contexts where the speaker is committed to the truth of $p$.

(11) A: Look! It’s sunny outside.
    B: Great! If it’s sunny, we can have a picnic.
Prediction

**Prediction:**
If conditions on the use of particles restrict their distribution, different types of utterances with the same discourse functions / canonical contexts of use host similar sets of particles.

⇒ Borne out for:
- default declaratives/antecedents of factual conditionals
- default polar interrogatives/antecedents of hypothetical conditionals
Discourse function matters

Observation: a subset of declarative/interrogative particles are licensed in factual/hypothetical conditional antecedents, respectively.

<table>
<thead>
<tr>
<th>particle</th>
<th>decl.</th>
<th>factual ant.</th>
<th>polar interr.</th>
<th>hypoth. ant.</th>
</tr>
</thead>
<tbody>
<tr>
<td>denn</td>
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<tr>
<td>doch</td>
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<td>halt</td>
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<tr>
<td>wohl</td>
<td>✓</td>
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</tbody>
</table>
The conditional-interrogative link – I

This observation also has a bearing on the discussion in the literature of the connection between conditional antecedents and polar questions.

- Onea & Steinbach (2012) for V1-conditionals in German: antecedents with V1 word order are polar questions.
- Starr (2014): antecedents raise the question of whether their content holds or not.
- Romero (2015): antecedents directly correspond to an actual or hypothetical question in the QUD stack.
The conditional-interrogative link – II

This predicts for the distribution of discourse particles:
Only particles that do not require a commitment to $p$ can occur in conditional antecedents

(12)   *Ich will sie nicht ins Bett schicken, wenn sie morgen *ja
       ausschlafen können.*
       ‘I don’t want to send them to bed if they (JA) can sleep in tomorrow.’

(13)   *Können sie morgen *(#ja) ausschlafen?*
       ‘Can they (JA) sleep in tomorrow?’

⇒ More needs to be said!
Summary & Conclusion

- The distribution of particles is determined by the discourse state and the content and discourse function of the host utterance through conditions of use.
- Conversely, observing which particles can occur in a particular utterance allows inferences about the make-up of the discourse state and the discourse function of the host utterance.
- Their individual contributions can be modelled as (not-at-issue) speaker attitudes (doxastic/boulethic).

Investigating discourse function of utterances and particle distribution/contribution need to go hand in hand.
Thank You!

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References I


References II


References III


References IV


References V


