

# An Experimental Study of the Effect of Free Indirect Discourse on Anaphor Resolution

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## Background I

- Basic idea: protagonists form a fundamental part of the mental representations people build while reading narratives.
- Uncontroversial assumption: FID serves to highlight the perspective of a protagonist. The protagonist gets assigned a special status—we have privileged access to his/her mental life.
- Less uncontroversial, but not implausible assumption: this special status should result in a higher activation of the mental representation of the protagonist's referential entry in memory.

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## Background II

- This higher activation should result in an enhanced availability of that referent during the processing of subsequent text (i.e., after processing an FID cue).
- If this is true, processes tapping into referent availability should be sensitive to manipulation of FID, among them anaphor resolution, and recall of propositional information tied to that referent.

## Pretests I

- Pretest1: quasi-experimental (1 item/condition) rating of perspective of four texts.
- N=223 students of Uni Göttingen, from different studies (linguistics, psychology, literary studies).

## Pretests II

- Sample item:

Peter schob sich an den Leuten im Flur vorbei in Richtung Küche. Seine Freunde waren schon um elf gegangen, aber er hatte beschlossen noch zu bleiben. Die Party war in vollem Gange. Die kleine Wohnung platzte fast aus allen Nähten. Auf dem Balkon drängelten sich die Raucher. Die Nachbarn hatten sich schon zweimal wegen des Lärms beschwert. **Er ging zum Kühlschrank und griff sich noch ein Bier.**

**Translation:**

*Peter elbowed his way to the kitchen through the other people on the corridor. His friends had left at 11 o'clock already, but he had decided to stay. The party was in full swing. The tiny flat was about to burst. The smokers were huddled on the balcony. The neighbors had complained about the noise twice already. **He went to the fridge and grabbed another beer.***

## Pretests III

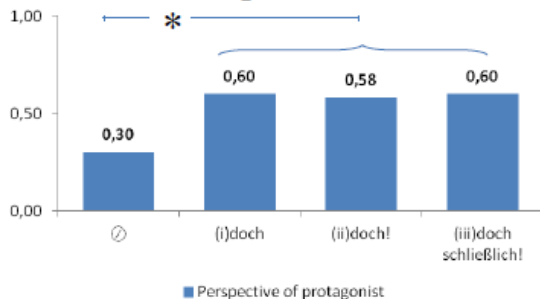
- Manipulation: fourth sentence in four versions:
  - FID Die Party war in vollem Gange.
  - FID1 Die Party war **doch** in vollem Gange.
  - FID2 Die Party war **doch** in vollem Gange!
  - FID3 Die Party war **doch schliesslich** in vollem Gange!
- Forced choice task: “Is the passage written from the perspective of the protagonist, or from that of a neutral observer?”.

## Pretests IV

- Result: overall significant effect of FID ( $z = 3.71, p < .001$ ); passages were more often judged as being written from the perspective of the protagonist more often if they contained an FID cue, than if they did not.

## Pretests V

### Relative frequencies of decision





## Pretests VI

- Pretest 2: evaluation of materials (25 participants from literary studies read 20 texts) in +FID and -FID condition (FID cued by insertion of 'doch schliesslich' and exclamation mark in sentence 4).
- Rating of comprehensibility, plausibility, and linguistic form on a 7-point Likert scale (1 = good, 7 = poor).
- No sign. effect of FID on any of the DVs.

## Pretests VII

### Mean ratings and standard deviations

<b>Scale</b>	<b>-FID</b>	<b>+FID</b>
<i>Comprehensibility</i>	5.86 (1.10)	6.00 (.99)
<i>Plausibility</i>	5.31 (1.31)	5.44 (1.40)
<i>Linguistic form</i>	4.66 (1.29)	4.74 (1.25)

## Self-paced reading experiment I

- N=27 students from different faculties, all native speakers of German, read 20 experimental texts plus 26 fillers presented on a PC. Participants were tested individually.
- Two types of FID cues used: particles ('doch schliesslich') and questions (between items factor).

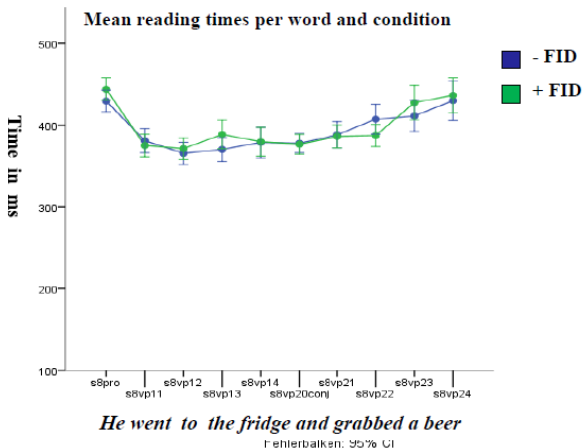
## Self-paced reading experiment II

- Self-paced reading (non-cumulative sentence-wise for sentences 1-6, word-wise for sentences 7+8); participants were asked to read at a normal pace, though carefully enough to be able to answer a comprehension question after each text (e.g. '... He went to the fridge and took another beer. — 'Did Peter take a Coke out of the fridge?'). Half of the questions inquired about an event described in the text *before* the FID cue, half of them for events described in the last sentence.
- DVs: RTs on the pronoun and subsequent words; percentage of correct responses to the comprehension question; response latencies.

## Self-paced reading experiment III

- Predictions: if FID enhances availability of the protagonist referent, RTs on the pronoun (and possibly downstream) should be lower for +FID than for -FID condition. Off-line measures (percentage correct/latencies) should be higher/lower for +FID.
- Results:

## Self-paced reading experiment IV

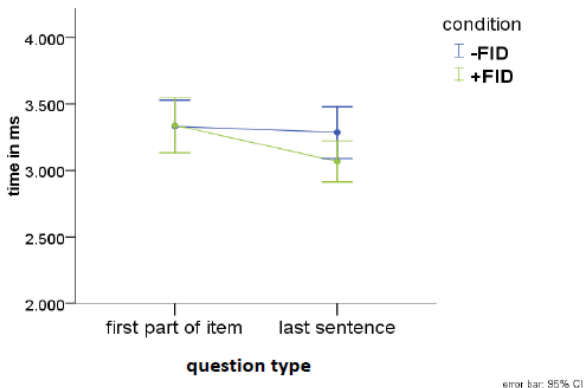


## Self-paced reading experiment V

- No sign. effect of FID on reading times.
- No sign. difference for FID type (particle vs. question).
- No sign. effect of FID or FID type on percentage of correct answer.

# Self-paced reading experiment VI

Mean answer latencies for question type and condition



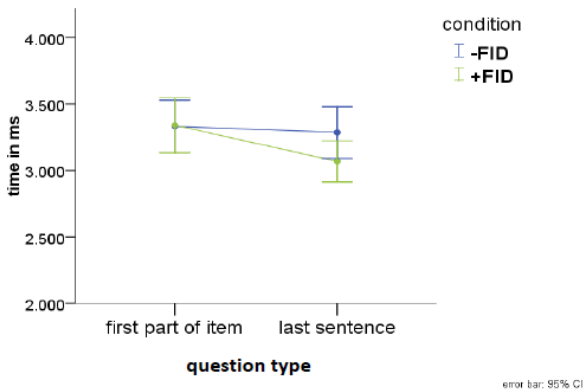


## Self-paced reading experiment VII

- **But:** sign. ME for question type ( $F = 4.41, p < .05$ ; trivial) and sign. interaction of FID and question type (early vs. late;  $F = 5.07, p < .05$ ) for response latencies:

## Self-paced reading experiment VIII

Mean answer latencies for question type and condition



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## Self-paced reading experiment IX

- When comprehension question pertained to the last sentence, FID had an effect, whereas it had none for questions pertaining to a sentence before the FID cue.

## Conclusions I

- No effect of FID on on-line processing.
- Off-line effects (cf. pretest 1, response latencies). We might conclude that FID did in fact influence the mental representation of the discourse—recall of information that was presented “in the scope” of FID was better.
- But we still are a long way of knowing what exactly is going on here.

## Conclusions II

- Follow-up study:
  - add a second protagonist
  - add coda sentence
  - add memory test (eventually testing for verbatim information)
  - change discourse structure and add more FID markers in one half of the experiment
  - cumulative presentation?
  - Add cumulativity of presentation as a between-subjects factor?

Thank you!

Slides are online under  
<http://weskott.textstrukturen.uni-goettingen.de/>