

## Perspective shift in speech and thought event reports: A mixed-quotation analysis of indirect discourse

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There is a prevalent consensus in the literature that indirect discourse (ID), in contrast to other modes of speech and thought representation, fundamentally does not allow shifted readings of deictic expressions in English or German (cf., *inter alia*, Sharvit 2008: 355, Maier 2017: 260, Sanders 1994: 48f.). Contrary to this claim, we present the results of an experimental study which demonstrates that temporal indexicals can receive an interpretation from the point of view of the matrix clause's subject in ID if certain conditions are fulfilled. We propose that one crucial condition is that the ID matrix clause constitutes a report of a particular speech or thought *event* rather than of a mental *state*. Based on Clark and Gerrig's (1990) demonstration-based model of quotation and Walter and Hinterwimmer's (to appear) analysis of shifted emoji readings in ID, our approach entails an analysis of perspective shift in ID as a case of mixed-quotation, which we, following these authors, regard as a demonstration of the original speech/thought event.

The general assessment of the three types of speech and thought reports' perspectival properties in the literature with regard to English as well as German is as follows: In direct discourse (DD), all indexicals represent the context of the utterance's or thought's original author. In ID, in contrast, the speaker's perspective is reflected; third-person pronouns need to be used in reference to the author and spatio-temporal indexicals have to be replaced by anaphoric adverbials such as *the next day* to maintain their intended meaning, as an indexical like *tomorrow* would obligatorily have to be interpreted as referring to the day following the time of the current utterance context. Moreover, instead of the original tense forms, past tense would have to be used to convey that the event happened in the past relative to the time of utterance. This is commonly attributed to a prohibition of context-shifting, so-called 'monstrous' operators, as originally proposed by Kaplan (1989), which effectively rules out perspective shift of indexicals outside of quotational contexts such as DD reports. Finally, free indirect discourse (FID) seems to combine characteristics of both DD and ID: Spatio-temporal indexicals are shifted to the author's perspective as in DD, but personal indexicals and tense remain speaker-bound. For this reason, FID has been widely regarded as a hybrid of ID and DD in previous works on perspective shift (cf., *inter alia*, Sanders 1994: 55, Sharvit 2008: 353). There is a fervent disagreement in the literature regarding whether FID thus constitutes a counterexample to Kaplan's prohibition or not: Schlenker (2004) and Eckardt (2014), on the one hand, consider FID to be an actual case of context shift in which different types of indexicals are interpreted with respect to two different contexts. Maier (2015), on the other hand, instead analyzes FID as an instance of mixed quotation and as such, it would be exempt from Kaplan's prohibition in the first place.

With respect to ID, numerous works, such as Schlenker (2003), Anand (2006) and Deal (2020), have provided ample empirical evidence that spatio-temporal and even personal indexicals may shift to the context of the ID clause's matrix subject in languages like Amharic, Nez Perce or Zazaki. These accounts attribute context shift in ID reports in these languages to the propositional attitude verb in the matrix clause, which they describe as either representing or selecting a monstrous operator in its scope. However, all of the aforementioned approaches have in common that the potential for context shift in German or English ID is either disregarded or outright ruled out. Works that argue in favor of or provide empirical evidence

for the possibility of shifted readings in English or German ID are quite rare (see Plank 1986, Anderson 2019).

We disagree with the predominant assessment that ID in English and German does not allow perspective shift: Though personal indexicals and tense are indeed obligatorily interpreted from the speaker's context, spatio-temporal indexicals are able to reflect the author's perspective, as is the case for FID. Following Anderson's (2019) experimental work on the availability of shifted readings of *tomorrow* in English ID, we conducted an acceptability rating study (to be published in Saure (to appear)) testing the acceptability of German ID clauses containing temporal indexicals such as *heute* ('today') or *gestern* ('yesterday') in discourse contexts that are only coherent if interpreted from the perspective of the matrix subject. 32 test items were created in four conditions. A translated example of an item is given in (1) to illustrate the conditions.

- (1) Last autumn, Bernd wanted to do a thorough house cleaning due to his dust allergy. But he kept putting off cleaning, so that one morning he woke up with a clogged nose.
- ID + deictic** adverbial: Bernd thought to himself that he should have started cleaning **yesterday**.
  - DD + deictic** adverbial: "Damn, I should have started cleaning **yesterday**", thought Bernd.
  - FID + deictic** adverbial: Damn, he should have started cleaning **yesterday**!
  - ID + non-deictic** adverbial: Bernd thought to himself that he should have started cleaning **the day before**.

Participants' task was to rate the naturalness of the speech/thought report on a Likert scale from 1-7. Our hypothesis was that, contrary to what should be expected with regard to the consensus in the literature, items in the first condition would not be rated significantly less acceptable than items in the other three conditions. As Figure 1 illustrates, this turned out to be correct: ID clauses featuring a shifted temporal indexical received an overall high mean rating that did not deviate significantly from the other conditions' mean ratings.

We argue that the widespread misconception about ID not allowing perspective shift stems from a conflation of speech/thought event reports with mental state reports: Whereas DD and FID always and exclusively report events of external or internal communication, ID clauses may also contain matrix verbs describing a referent's beliefs or desires, such as *believe* or *hope*. This distinction also pertains to *think*, which is generally ambiguous between a belief state and a conscious thought event reading. The minimal variant *think to oneself*, in contrast, only allows the second reading, as evidenced by the infelicity of (2b) as opposed to (2a).

- (2) a. Mary thought for many years that Santa Clause exists.  
b. \*Mary thought to herself for many years that Santa Clause exists.

If the event reading is enforced by using the alternative phrasing *think to oneself*, perspective shift is facilitated and ID's perspectival properties in turn converge with those of FID. In particular, this directly affects the availability of *de re* readings. It has been argued in the past that ID and FID fundamentally differ in that FID only allows *de dicto* readings, whereas ID allows for a *de dicto* / *de re* ambiguity (cf. Schlenker 2004: 284; Sharvit 2008: 367). While this holds true for ID matrix clauses describing mental states, (3) shows that ID matrix clauses with a forced thought event report interpretation similarly prohibit *de re* readings:

- (3) While camping in the forest, Max wanted to play a prank on Dennis and disguised himself as Bigfoot. Dennis did not recognize him and was terrified.
- a. He thought that Max was Bigfoot. → de re reading **possible**
  - b. #Woah, Max was Bigfoot! → de re reading **impossible**
  - c. #He thought to himself that Max was Bigfoot. → de re reading **impossible**

We claim that the contrast between propositional attitude verbs denoting speech and thought events in contrast to propositional attitude verbs denoting mental states is due to the former possessing an actual form that can be quoted, whereas the latter are abstract in nature. Based on Maier's (2015, 2017) account of DD and FID and Walter & Hinterwimmer's (to appear) analysis of shifted emoji readings in ID, we analyze indexical shift in ID as instances of unmarked mixed-quotation; this entails conceptualizing quotation as an iconic act, specifically a demonstration. Such an ID demonstration constitutes a verbatim representation of specific aspects of the original speech/thought event; accordingly, shifted elements, such as temporal indexicals, resemble the words or phrases that were produced by the author in their utterance or conscious thought. We thus assume, first, following Maier (2015, 2017), that speech and thought events, in contrast to other event types, have a form and a content component, where the content is the proposition expressed by the respective speech or thought event. Secondly, we assume that propositional attitude verbs denoting speech or thought events in contrast to mental states take a proposition as its first and a demonstration as its second argument, as shown in (4d) for think (to oneself). The proposition is then interpreted as the content of the subevent  $e'$  of the respective thinking or speaking event  $e$  whose content is given, while the demonstration is interpreted as the subevent  $e''$  of  $e$  whose form is given. Since the content of the subevent  $e'$  must be a proposition, only optional material can saturate the demonstration argument of a verb denoting a speech or thought event (cf. Walter & Hinterwimmer to appear). From this it follows that local and temporal deictic adverbials in contrast to pronouns and tenses can receive a shifted interpretation in ID. Finally, regarding the question of why only *de dicto* readings are possible in the complement clauses of propositional attitude verbs denoting speech or thought events, we assume that all referential expressions contained in the propositional argument of the respective verb have to be interpreted with respect to the subject's belief worlds.

On our analysis, the sentence in (1a), repeated here as (4a), is interpreted as shown formally in simplified form in (4b), and as paraphrased in (4c).

- (4) a. Bernd thought to himself that he should have started cleaning yesterday.  
 b.  $\exists e[\text{think}(e) \wedge \text{agent}(e, \text{bernd}) \wedge \exists e' \subseteq e \exists e'' \subseteq e[\text{content}(e', \llbracket \text{that he should have started cleaning} \rrbracket) \wedge \text{SIM}(\text{form}(e''), \text{YESTERDAY})]]$ , where *SIM* requires the form of two objects or (sub-)events to resemble each other in certain respects  
 c. There is a thinking event  $e$  whose agent is Bernd and there are subevents  $e'$  and  $e''$  of  $e$  such that the content of  $e'$  is the proposition that Bernd should have started cleaning and such that the form of  $e''$  is similar to (the form of) YESTERDAY.  
 d.  $\llbracket \text{think (to oneself)} \rrbracket = \lambda p. \lambda d. \lambda x. \lambda e. [\text{think}(e) \wedge \text{agent}(e, x) \wedge \exists e' \subseteq e \exists e'' \subseteq e[\text{content}(e', p) \wedge \text{SIM}(\text{form}(e''), d)]]$

Our analysis captures the conditions under which perspective shifting is possible in ID and allows for a uniform treatment of ID and FID speech/thought event reports as cases of mixed-quotation in which the exact same perspective-dependent elements are able to represent the author's point of view rather than the speaker's default perspective.

## **Figures:**

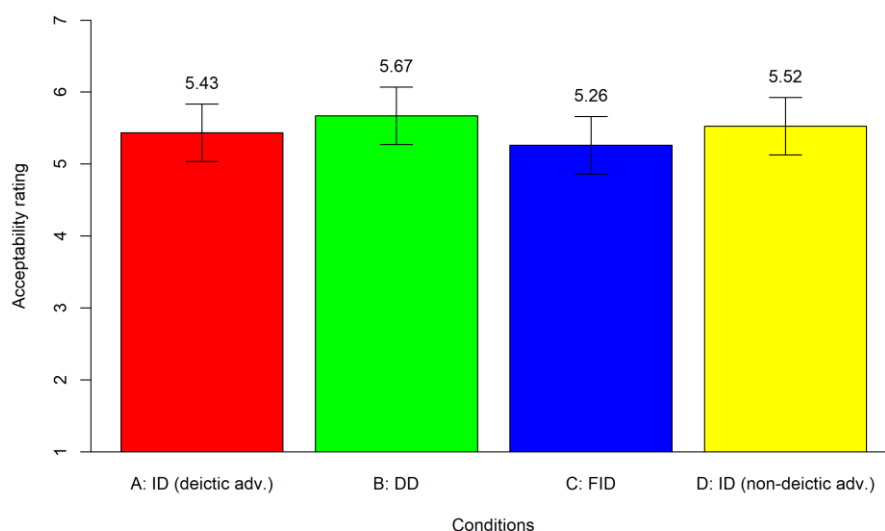


Figure 1: Mean ratings for acceptability rating study

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