

The (not-)at-issue status of character viewpoint gestures

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Co-speech gestures contribute *not-at-issue meaning* by default (Ebert & Ebert, 2014). However, the experimental study that provided evidence in favor of this claim (Ebert, Ebert, & Hörnig, 2020) only investigated *observer viewpoint gestures* (OVGs). It is therefore questionable whether *character viewpoint gestures* (CVGs) also contribute not-at-issue meaning by default as they differ from OVGs in certain aspects, such as informativity (Parrill, 2010). Findings from the experimental rating study at hand suggest that although CVGs and OVGs both contribute not-at-issue meaning by default, CVGs are more at-issue than OVGs.

1 Introduction

Perspective plays an integral role in the interpretation of many different lexical items, such as relational expressions (e.g., *left* and *right*). There is a general tendency to interpret expressions as speaker-oriented (Harris, 2012). There are exceptions to this general tendency, however, as for example in instances of *free indirect discourse* where some individual's thoughts/utterances are reported without any overt marking. Therefore, the perspective of this individual becomes highly prominent in these utterances (Hinterwimmer, Patil, & Ebert, 2021). Perspective is also encoded in gesture. McNeill (1992) distinguishes between CVGs and OVGs. CVGs depict an event from a character's perspective where usually the whole body is involved when producing the gesture. A character distinct from the speaker is thus impersonated. OVGs, by contrast, encode a perspective as if an event was observed from a distance. (1) illustrates this. Square brackets indicate gesture-speech alignment.

- (1) Peter overslept this morning. He then had to [run] to the bus station. + CVG illustrating running by moving the whole body/OVG illustrating running by moving two fingers

Due to the whole body being involved when performing CVGs, they have been argued to be more informative than OVGs (Parrill, 2010) as speakers can use their whole bodies to encode gestural information. Ebert and Ebert (2014) argue that speech-accompanying gestures behave similar to appositives (Potts, 2005) and are therefore analyzed as *conventional implicatures* (CIs) in their approach. CIs project through negation (2a) and cannot be directly denied in discourse (B in (2b)). Instead, a discourse interrupting element has to be used to deny their content (B' in (2b)). Therefore, they contribute meaning that is not-at-issue, i.e., their content is not on the table for discussion (Farkas & Bruce, 2010).

- (2) a. It is not the case that I brought [a bottle of water] to the talk. #A small one is enough for me. + "big" co-speech gesture
- b. A: I brought [a bottle of water] to the talk. + "big" co-speech gesture
B: #No, the bottle isn't big.
B': Hey, wait a minute! Actually, the bottle isn't that big.

(cf. Ebert & Ebert, 2014)

The claim that gestures contribute not-at-issue meaning has been experimentally validated in Ebert et al. (2020). A shortcoming of their study was that they only tested for gestures which contributed information about an object's size or shape, which can therefore be classified as OVGs. It is unclear whether these findings can be transferred to CVGs without any adjustments as the two gesture types differ, for example, in size. Moreover, Hinterwimmer et al. (2021) hypothesize that the overall preference for CVGs observed in their experimental study might

be due to them differing from OVGs in their at-issue status. The study presented in this paper investigates this hypothesis. It is hypothesized that although CVGs and OVGs both contribute not-at-issue meaning by default, CVGs are more at-issue than OVGs.

2 Experimental study

2.1 Methods

2.1.1 Participants

60 native speakers of German participated in the study. All of them were recruited via Prolific.

2.1.2 Materials

Videotaped utterances were paired with either a matching or a mismatching picture (Figure 1). The utterances occurred in three conditions: accompanied by a CVG (3a), an OVG (3a), or a verbalization of the gestures (3b). Since unembedded verbal material is at-issue, the latter condition serves as a control condition. A sample item is given in (3). Crucially, the gestures only differed in the perspective they encoded. The study thus had a 3x2 design with the factors MODE (CVG, OVG, Verbal) and MATCH (matching picture, mismatching picture). There were 18 experimental items and 24 filler items.

Figure 1: The matching and the mismatching picture for the experimental item in (3)



(a) Matching picture



(b) Mismatching picture

- (3) a. Letzten Mittwoch hatte ich den ganzen Tag Termine überall in der Stadt. Nachdem einer der Termine länger dauerte als gedacht, musste ich mich [richtig beeilen].
 ‘Last Wednesday I had many appointments throughout the whole city. After one of the appointments took longer than expected, I had to [hurry a lot].’
CVG: running using the whole body
OVG: running with two fingers
- b. Letzten Mittwoch hatte ich den ganzen Tag Termine überall in der Stadt. Nachdem einer der Termine länger dauerte als gedacht, musste ich mich richtig beeilen **und rennen**.
 I myself really hurry and run
 ‘Last Wednesday I had many appointments throughout the whole city. After one of the appointments took longer than expected, I had to hurry a lot **and run**.’

The picture in Figure 1a matches the boldfaced parts of the utterances in (3), whereas the picture in Figure 1b does not match the boldfaced parts in (3). Based on the hypothesis that CVGs and OVGs differ with respect to their at-issue status, an interaction for the rating differences between matching and mismatching items in the CVG and OVG condition is predicted (Kroll & Rysling, 2019), which has been called *mismatch effect* in Ebert et al. (2020). Moreover, since CVGs are hypothesized to contribute not-at-issue meaning by default, it is predicted that the mismatch effect is stronger for Verbal items than for CVG items.

2.1.3 Procedure

Items were evenly distributed onto six lists according to a Latin Square design. Participants first saw the picture, then the video. They had to rate on a 7-point Likert-scale how well the picture

and the utterance matched (1 = entirely unmatching; 7 = entirely matching). The questionnaire was construed using SoSci Survey.

2.2 Results

Figure 2: Mean values and standard deviations (SDs) for each condition

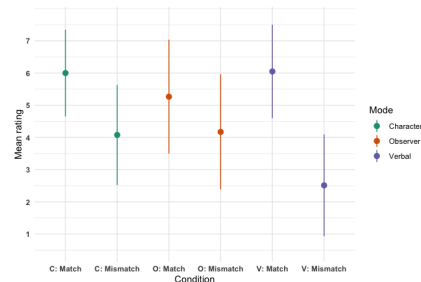


Figure 2 shows that the rating difference between match and mismatch was higher for CVG items (match: mean = 6.00, SD = 1.35; mismatch = 4.08, SD = 1.56) than for OVG items (match: mean = 5.27, SD = 1.77; mismatch: mean = 4.17, SD = 1.79). The rating difference between match and mismatch for Verbal items (match: mean = 6.05, SD = 1.45; mismatch: mean = 2.51, SD = 1.58), however, was higher than for CVG and OVG items. An ordinal mixed effects model was fitted onto the data. The output of the model is given in Table 1. It shows an interaction for the factor MATCH and the pairwise comparison between CVG and OVG for the factor MODE ($p < 0.001$). Additionally, it shows an interaction for the factor MATCH and the pairwise comparison between CVG and Verbal for the factor MODE ($p < 0.001$).

Table 1: Ordinal mixed-effects model with Mode and Match as fixed effects and participants and items as random intercepts

	Estimate	Std. Error	z value	Pr(> z)
Match	-2.857	0.139	-20.60	<0.001 ***
Mode – CVG vs. OVG	-0.423	0.136	-3.11	<0.01 **
Mode – OVG vs. V	0.394	0.143	2.76	<0.01 **
Match:Mode – CVG vs. OVG	1.176	0.273	4.30	<0.001 ***
Match:Mode – OVG vs. V	3.193	0.293	10.90	<0.001 ***

3 Discussion

The significantly lower mismatch effect for CVG items as opposed to Verbal items confirms the prediction that CVGs contribute not-at-issue meaning by default, in line with previous research (Ebert et al., 2020). Moreover, the higher mismatch effect for CVG items in comparison to OVG items confirms the hypothesis that the two gesture types differ with respect to their at-issue status. In order to bring these two findings together, a gradient approach to at-issueness (Barnes, Ebert, Hörnig, & Stender, 2022) instead of a binary approach has to be assumed. This ensures that CVGs and OVGs can both contribute not-at-issue meaning by default, but still differ with respect to their at-issue status. More specifically, CVGs are more at-issue than OVGs because the mismatch effect was significantly higher for CVG items as compared to OVG items. This interpretation is covered by the finding that not-at-issue content has a less severe impact on truth conditions than at-issue content (Kroll & Rysling, 2019).

Furthermore, the results presented can potentially account for the findings of the study reported in Hinterwimmer et al. (2021) where the authors tested for the hypothesis that gestural and linguistic perspective are preferably aligned unless there are intervening pragmatic factors overwriting this default. They conducted a forced-choice study where participants saw two identical videotaped utterances per trial, one being accompanied by a CVG and one being accompanied by an OVG. The utterance was either narrated from a character's perspective or from a narrator's, i.e., an observer's, perspective. Contrary to their hypothesis, they found an

overall preference for CVGs. This finding can be explained by the data reported here. Assume that, following Grice's (1975) cooperative principle and the conversational maxims, in particular the maxim of quantity, speakers are expected to prefer utterances which are maximally informative as long as no maxim violations take place. Furthermore, not-at-issue content does not seem to be subject to the maxim of quantity.

(4) Q: Who is at the door?

A: Peter, a famous movie director, is at the door.

Example (4) shows that the content of the appositive does not address the QUD and is therefore not-at-issue (Koev, 2018). Surprisingly, the utterance of the appositive does not seem to violate the maxim of quantity since no conversational implicature arises from the utterance of the appositive. This observation can be related to the experimental results presented here and also to Hinterwimmer et al. (2021) by assuming that the preference for linguistic and gestural perspective to be aligned can be overwritten by the principle that speakers prefer maximally informative utterances if there are no violations of the maxim of quantity. Since CVGs are more at-issue than OVGs, CVG content is more subject to the maxim of quantity than OVG content. Hence, a preference for CVGs to be aligned with a character's perspective in speech is predicted by both principles. However, a CVG preference is also predicted for utterances where an observer's perspective is expressed as they are more at-issue than OVGs and therefore more subject to the pragmatic principle that speakers prefer maximally informative utterances. This principle thus overwrites the preference for linguistic and gestural perspective to be aligned, resulting in the observed overall preference for CVGs irrespective of the linguistically expressed perspective. A more systematic investigation of the relation between not-at-issue content and the Gricean maxims is left to future research.

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