Reassessing the distinction between ad-hoc and scalar implicatures (Poster)

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Being instances of quantity implicatures, ad-hoc and scalar implicatures suggest a hearer to infer more informative utterances the speaker could have uttered, but did not. They inherently differ, however, in the way these implicatures are justified. Scalar implicatures depend on lexicalized Horn-scales, whereas ad-hoc implicatures demand salient, contextually relevant alter- native utterances. This difference has led to theoretical frameworks that emphasize a fundamental distinction between ad-hoc and scalar implicatures: Scalar implicatures can be computed virtually independent from the context (e.g. Levinson 2000), whereas ad-hoc implicatures cannot. However, other accounts suppose a common origin for both implicature types (e.g., Hirschberg 1985). When taking implicature *processing* into account, computing the more informative utterances is arguably associated with a processing cost. For ad-hoc implicatures, inferring alternative utterances presupposes thorough processing of the context, most likely inducing a cost that does not appear for scalar implicatures (but see van Tiel & Schaeken 2017) for a different approach).

We carried out a series of experiments in the Visual World Paradigm that allows us to compare within participants the incremental processing of ad-hoc and scalar implicatures (see Grodner et al. (2010) for a similar design): Do ad-hoc and scalar implicatures differ in terms of processing costs when measured online? In the experiment, participants heard an utterance like *Orok has some of the coins with an impressed heart*, referring to a picture of an orc with said coins. Until participants heard the symbol *heart*, the utterance was compatible with an orc that had some of the coins with a heart but not all of them (scalar implicature-target) and another orc that had all coins with a different symbol. For the ad-hoc implicature, the target- orc had some coins with a heart and nothing else. Analogously, there was another orc with some coins with a different symbol and some books that was compatible with the utterance until the symbol disambiguated the pictures. In both cases, Participants could identify the target-picture before they heard the symbol, if they drew the respective implicature.

Eye-tracking data points to the speed of the implicature generation process: A delay in fixations of the target indicates an additional cognitive effort. Target-fixations for the ad-hoc implicature were significantly delayed whereas fixations of the target for scalar implicatures were only tentatively slightly delayed, which points to an additional processing cost of context information for ad-hoc implicatures.

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