Priming and QUD versus implicatures

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Implicatures can classically be calculated on the basis of the speaker's inability to use some alternative form of words. To recover a quantity implicature on this account, the hearer must be aware that there was some stronger proposition that the speaker could have expressed. This in turn requires that the speaker is knowledgeable about the truth-value of the stronger proposition, that the stronger proposition could be expressed economically, that it would be relevant to the current discourse purpose, and that the assertion of the stronger proposition would not be impolite or face-threatening, among other considerations.

The recovery of implicatures thus also requires that the hearer is aware of the state of the speaker's knowledge and of the discourse, and can rapidly establish how the above factors might shape the speaker's communicative task. Experimental research has shown that speakers are indeed adept at juggling these considerations rapidly and online in order to arrive at target-like interpretations in cases where implicatures may or may not be intended (Breheny, Katsos and Williams 2006; Bonnefon, Feeney and Villejoubert 2009; and others).

In short, it is clear that a cooperative speaker does not have completely free rein in the choice of utterances, and that hearers can exploit this fact to draw appropriate pragmatic enrichments (and refrain from drawing others). Recent work on numerically-quantified expressions (Cummins, Sauerland and Solt 2012) demonstrates a striking instance of this phenomenon: forms such as "more than 90" are shown pragmatically to convey meanings within bounded ranges (in this case, typically 90-100), but these bounds are weakened if the expression is used in a context where "90" has already been mentioned. In such cases, "more than 90" is more typically interpreted with its pure semantic meaning, without the pragmatic upper bound. It appears that the spontaneous use of "more than 90" invites the inference that the stronger alternative "more than 100" does not hold – hence, a classical quantity implicature. By contrast, the contextually-conditioned use of "more than 90" precludes this inference, perhaps because it suggests that the alternative "more than 100" is in fact not appropriate for some other reason, and hence its falsity cannot be assumed to be the cause of its non-use.

An issue left open by this work is why the prior mention of a number undermines the implicature in this way. There are at least two possible explanations, which have not been disentangled by the experimental work so far. First, it could be due to low-level priming effects (cf. Pickering and Garrod 2004): the prior mention of a number motivates its reuse by making it more cognitively accessible to the speaker, and thus disposing the speaker to select an expression of quantity that includes that particular number where possible. Alternatively, the reuse of the number might reflect the speaker's intention to address a Question Under Discussion (Roberts 1996) raised in the preceding context which makes reference to that number, and to do so in the most direct way possible. In either case, the hearer would be entitled to reason that the speaker's choice of expression reflected a preference for reusing that particular number. Under these circumstances, the pragmatically adept hearer would be expected to conclude that the stronger quantity expression ("more than 100", in the above example) might in fact hold, but that the speaker was not inclined to use it anyway.

In this presentation, I discuss my ongoing experimental work on teasing apart these competing interpretations. The experiments involve manipulating the informational status of material in a dialogue, and exploring the consequences of that for implicature when that material is reused. In the

case of number, this includes changing whether the number is a relevant cardinality, as in the Cummins et al. (2012) experiment ("We need to sell 90 tickets…We've sold more than 90"), or is just present in the dialogue in some other capacity ("Tickets are 90 dollars…We've sold more than 90"). If the effects are due to surface priming (i.e. purely the activation of mental representations corresponding to the number), the latter case should also result in the attenuation of implicatures, whereas if they are structurally motivated, implicatures should persist as normal in this case.

More generally, both the above accounts presume that the attenuation of the implicature is explicable in classically pragmatic terms. In particular, we can hypothesise that the processing of these cases follows the pattern of the other types of implicature cancellation discussed above (such as those referring to the speaker's epistemic state or politeness). I examine how this prediction might be operationalized and tested.

I argue that this approach has the potential to offer insights into the nature of priming effects in pragmatics, but also into the way in which contextual factors such as QUD and information structure influence implicature in general. Moreover, I argue that this work can be extended to other pragmatic domains, notably including presupposition, where the prior mention of potential presupposition triggers appears to influence how these are understood upon their reuse. I consider the relevance of this to recent theoretical and experimental work on the projection behaviour of presuppositions (e.g. Simons, Tonhauser, Beaver and Roberts 2011).

References

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