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Pragmatics meets Reasoning: The Interpretation of Conditional Utterances

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Introduction

Current theories of reasoning regularly incorporate some „independently motivated pragmatic comprehension processes“ (Braine et al., 1995: 264). One of the dominant concepts of utterance comprehension is Grice's (1989) conversational implicature. Grice argues that hearers frequently infer more than the literal meaning of an utterance, and that these inferences show distinctive properties. The purpose of this presentation will be, first, to test experimentally whether these 'Gricean properties' distinguish implicatures from other inferences, and second, to develop a processing model of pragmatic comprehension.

Tests for Implicature

Grice (1989) describes the following features of conversational implicature: an inference schema is supposed to guide from the literal meaning to the implied one (*calculability*); an implicature can be cancelled by adding new premises to the original set (*cancellability*); last, an implicature cannot be deleted simply by changing the words of an utterance (*non-detachability*). These features have been tested in three computer-based experiments, using conditional phrases as targets. Conditionals appear to be appropriate as a starting point, because their implicature leads to the well-documented biconditional interpretation (see Evans, Newstead & Byrne, 1993).

Subjects first read the brief description of an everyday scene, where a person uttered either a conditional promise (e.g. „If you allocate the resources, our sales will double“) or a conditional warning („If you drive fast, you will pay a fine“). Then, subjects performed a task that mirrored one of the characteristics mentioned above. According to the hypothesis, implicatures should possess each of the three features, while other, deductive inferences, should not. The data supply only partial evidence for the hypothesis: Non-detachability is a distinctive feature, while cancellability is not, and calculability can be reduced to the criterion 'mutual knowledge of speaker and addressee'.

Processing Model

The experimental findings -both frequencies and reaction times- lead to the following model of utterance processing. Pragmatic interpretation starts immediately after the utterance recognition phase is completed. The addressee builds up a speaker intention representation (see 1, right

column). This involves conversion from linguistic surface structure to a more abstract, propositional format (2). Then the individual utterance will be mapped on a speech act category (3). This pre-processing speeds up logical-semantic evaluation, where the addressee has to check which possible events or actions are compatible with the utterance (4) and then prepare for action. To summarize, the main steps are the following:

1. Representation of speaker intentions
2. Surface-to-type conversion
3. Utterance categorization
4. Truth-value assignment to consequences
5. Situation-dependent inferences

This model may be seen as an addendum to established theories of reasoning, as a component that tackles the early phase of discourse comprehension rather than subsequent, more complex inferences (5). The model fits particularly well into the revised Heuristic-Analytic theory (Evans & Over 1996), namely in its heuristic component.

Conclusion

The experimental assessment of the Gricean conversational implicature provides only partial evidence for its defining features *calculability*, *cancellability* and *non-detachability*. However, the need for an explicit, testable model of pragmatic processing -preceding reasoning- is obvious, and this model will be the main topic of the presentation.

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