Whither Discourse and Speech Acts?

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In addition to the questions initially posed on discourse theory and speech acts (and listed in the proceedings), the panelists were asked to consider how their beliefs about discourse and speech acts had changed in the last five or so years, and in particular to consider the following two questions:

> Of what you believed about discourse five years ago, what now strikes you as most wrong?
>
> What are you less confused about now than five years ago?

The panelists papers and a glance through the proceedings of the previous two TINLAP meetings suggests that we have in fact learned a good deal and that research in discourse and speech act theory has become much more focused in the last five or so years. Several theories of discourse have been proposed to account for the structure and processing of extended sequences of utterances. In a recent paper [Grosz&Sidner86], Candy Sidner and I present one such theory and discuss a range of alternative ones. Other research has provided partial accounts for the interpretation and generation in discourse of individual expressions, clauses, and interclausal connections (e.g., [McKeown85], [Appelt85], [Groszetal83], [Mann&Thompson83] [Sidner83], [Webber83],[Hobbs79]). These theories differ in the predictions they make about discourse structure and coherence, and about the processing of various types of linguistic expressions (e.g., cue phrases, definite descriptions, and pronouns). Initial psychological investigations into various aspects of these theories are being carried out.

One of the most striking changes is that research on discourse and speech act theories now typically addresses more specific questions, a fact illustrated by the papers for this panel. In addressing the role of research on speech for discourse, Hirschberg describes results that reveal the crucial role of information provided in the speech signal; she argues that simpler solutions to many discourse problems are available only if one does not ignore speech. Perrault discusses various key problems that arise in taking seriously the intuitions underlying "speech act theory," in looking in detail at what it means to say that utterances are actions that most directly affect the mental state of the participants in the discourse; he indicates the variety of approaches being taken to specific problems within this framework and their connection to work more generally in natural-language semantics.

Another clear difference from the previous two TINLAP meetings is the more general acknowledgement of the pervasiveness of the role of intentions and plans in discourse. These affect not only the interpretation of individual utterances, but also of extended sequences of utterances and of individual phrases within an utterance. This recognition has led to a close examination of theories of planning and action; it has become clear that work in AI on planning is insufficient to support discourse

processing. Wilensky argues for much more complex notions of plans and goals to support discourse processing; he describes a range of discourse problems requiring these and indicates research directed toward developing them. Other recent research (e.g., [Pollack86], [Kautz&Allen86]) has examined the adequacy of current models of planning for plan recognition and developed alternative models better able to support discourse processing.

In brief, we seem to have gotten much closer to understanding what the problems are; there is still much to do -- and much disagreement about how -- to solve these problems.

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