

## Using speech acts for segmentation in user-adviser dialogue

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### ABSTRACT

One of the largest problems in natural language processing is the social and cognitive interaction in user-adviser dialogues. Within this area there are a number of important problems one of which is determining pronominal and non-pronominal reference. One model proposed to cut down search spaces for references in dialogues has been to segment those dialogues into spaces and leave searches for references within the spaces (see Grosz and Sidner, 1986). However, this model is mainly concerned with using structural constraints such as conversational cues in segmentation. The intentional models of dialogue are concerned with using speech acts to determine intention, plans and goals in dialogue but only for the sake of recognising such items (see Allen, and Perrault, 1980; Allen, 1983; Cohen, Perrault and Allen, 1982, Litman and Allen 1984).

However, a model should not only look at what one can do by saying, but look at how what one does determines what one says. Carberry (1989) has made some progress in this direction. It is proposed here that speech acts (Austin, 1975, Searle 1969, Cole and Morgan 1975) can not just be used for the sake the determination of intention but can also be used for implications on structure, and more specifically implications on the segmentation of dialogues. We show evidence for this hypothesis from a number of user-adviser dialogues collected in a Wizard-of-Oz experiment. We also hope to use this hypothesis in designing and implementing a dialogue component for the OSCON Operating System CONSULTANT natural language advisory system (See Mc Kevitt 1987, Mc Kevitt and Wilks, 1987 and Guthrie, Mc Kevitt and Wilks, 1989).

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