Clarifying reference and plans in dialogue

One of the most contentious debates in studies of language use in interaction concerns the explanatory role assigned to interlocutors' intentions. In (post) Gricean cognitive/pragmatic models of meaning (e.g. Sperber and Wilson 1987, Searle 1979, Levinson 2006), intentions play the central role: intentions are a priori mental states determining a speaker's utterance formulation. Similarly, for hearers, comprehension involves recognizing or inferring the speaker's intentions. Successful communication is idealized as involving intentional transparency between speaker and hearer, and a key problem for these models is accounting for which structures (beliefs, codes, inferences) are shared or known to be shared by interlocutors (Kecskes and Mey 2008)

By contrast, empirical approaches which focus in the first instance on how language is used in dialogue present a more nuanced view of the role of intentions: for example, in a series of maze game experiments, Garrod et al (2004) found that explicit articulation of speaker intentions is much less effective than more tacit forms of communication via collaborative feedback (e.g.h esitations, disfluencies, partial repeats, clarifications and repair). Moreover, the basic findings of dialogue research show how this collaborative feedback, which frequently occurs during a speaker's utterance, often leads to speakers adapting their own utterance mid-stream, resulting in joint productions which necessarily do not correspond to the original speaker's own intention or goal (Goodwin, 1979). Under this view, intentions, plans, and beliefs are treated as joint construals (Clark, 1996) that are emergent from the interaction.

Despite this emphasis on how co-ordination in dialogue develops via feedback, there have been very few studies that directly address the role of feedback concerning intentions. In addition most psycholinguistic studies focus primarily on reference – ignoring how the broader task-level intentions might develop over the course of the interaction.

To address these issues we report a variant of the "maze task" (Garrod et al 1987, 2004), in which participants are required to collaboratively develop sequences of steps for solving the mazes. Participants communicate with each other using an experimental chat tool (Healey and Mills 2006), which interferes with the unfolding dialogue by inserting artificial clarification requests that appear, to participants as if they originate from each other. Two kinds of clarification request were introduced: (1) Artificial "Why?" questions to query the participants' communicative intentions, (2) Fragment clarification requests (Healey et al 2003) that repeat a single word from the prior turn, querying the content of participants' referential descriptions.

We show how over the course of the interaction, interlocutors change how they treat these two kinds of clarification request: "Why?" clarification requests querying higher level plans become *easier* to respond to as co-ordination develops, while for fragment clarification requests the converse is the case: they become harder to respond to as the task progresses. Further, we show how this differential pattern is not arrived at via explicit negotiation, but through the tacit turn-by-turn feedback mechanisms of dialogue.

References

Clark, H. H. (1996). Using Language. Cambridge University Press, Cambridge, UK.

Garrod, S. and Anderson, A. (1987). Saying what you mean in dialogue. Cognition, 27:181218.

Ginzburg, J. (2011) The interactive stance – Meaning for Conversation. (To appear with Oxford University Press)

Healey, P.G.T. and Mills, G. (2006). Participation, precedence and co-ordination. In Proceedings of the 28th Annual Conference of the Cognitive Science Society, Vancouver, Canada.

Healey, P.G.T., Purver, M., King, J., Ginzburg, J. and Mills, G. J. (2003) Experimenting with Clarification in Dialogue. in Alterman, R. and Kirsh, D. (eds) Proceedings of the 25th Annual Conference of the Cognitive Science Society. Mahwah, N. J.: LEA pp. 539-544.

Kecskes, Istvan and Jacob Mey (eds.) 2008. Intention, Common Ground and the Egocentric Speaker-Hearer. Berlin/New York: Mouton de Gruyter.

Levinson, Stephen C. (2006) Cognition at the heart of human interaction. Discourse Studies 8: 85-93.

Pickering M.J. & Garrod S. (2004) Towards a mechanistic Psychology of dialogue Behavioral and Brain Sciences (27) pp 169-226

Schegloff E. A. (1992) Repair after next turn American Journal of Sociology 97(5):1295-1345.

Searle, John. (1979) .Expression and meaning: Studies in the theory of speech acts. Cambridge, England: Cambridge University.

Sperber, D. & D. Wilson (1987). Précis of Relevance: Communication and Cognition. Behavioral and Brain Science, 10, 697–754.