

Looking like a human: How conversation analytic work on gaze direction in human interaction can be relevant for design and analysis of robotic interaction

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Abstract

A crucial aspect of the development of language in children has been concerned with pragmatics – a field which explores the ways in which interaction is successfully accomplished. One aspect of this is concerned with the sequential implicativeness of our actions – that is what do particular behaviours accomplish given the specific turn by turn interactive sequence in which they occur. This paper seeks to consider some aspects of this by reference to conversation analytic work on gaze in adult interaction. In this way the paper attempts to provide a brief overview of some of the ways that our thinking about robot - human interaction can be deepened by an appreciation of conversation analytic work. In particular it argues that the empirical basis of conversation analysis (henceforth CA) offers a wonderful treasure-trove of understandings about how humans accomplish social interaction. The understanding that CA provides is derived from careful empirical scrutiny and therefore it is able to offer a perspective on interaction that is sensitive to minute detail rather than crude applications of global concepts. Thus this paper provides a provisional inspection of a small fraction of CA literature concerning the use of gaze in interaction and thinks through the relevance that this might have for the design and understanding of interacting robots. Whilst CA provides a complex understanding of human interaction, predominantly derived from the everyday talk of adults, this paper argues that the approach can provide both an idealised target of communication competence and perhaps more important a means of understanding instances of human-robot interaction. In this way CA may usefully supplement other approaches to communicative competence in work on interacting robots.