Talking for the fun of it

This talk will attempt to describe the ordinary speech of everyday situations, and will be illustrated with samples of recent speech synthesis, showing the differences between informal spontaneous conversation, where the purpose is primarily social bonding, and more directed talk, where the purpose is to impart information.

The data underlying the talk were collected at ATR as part of the JST Expressive Speech Processing project, which lasted from 1999 until 2005. This extremely large corpus of speech was collected from volunteer subjects who wore high-quality head-mounted microphones and small portable recorders while going about their daily affairs. From ongoing analyses of this corpus, we have found evidence to support the theory that conversational speech is tuned as much for the transmission of "affect" as for the transmission of "information", or propositional content.

Whereas the trend in speech technology circles is increasingly towards the processing of "emotion" in speech, this author proposes that future approaches should instead be directed more to the interpretation of information relating to interpersonal relationships (e.g., politeness, formality, warmth, sexiness, etc.,) and speaker-states (e.g., interest, hesitation, confidence, joviality, etc.,) if they are to be of practical use in processing or simulating everyday speech.

Current research into speech prosody is still largely constrained to the explanation of linguistic structures and semantic relationships in a spoken text, perhaps from a scarcity of natural conversational data (or a lack of interest in its apparently unstructured repetitiveness), and very little prosody research is being conducted into the affective uses for displaying states and relationships. However, as speaking styles become more informal, the importance of prosody increases. Approximately half the utterances in our corpus could not be adequately interpreted without information relating to the manner in which they were produced. The talk will propose a model for this other half.