

Entrainment in Human-Agent Text Communication

Ikuko Kanashiro, Kazuki Kobayashi, and Yasuhiko Kitamura

Non-verbal information such as utterance speed and switching pause create an impression of the speaker. If intelligent agents could handle such non-verbal information properly, the quality of interactions between agents and human users would improve. Entrainment is a phenomenon in which brainwave synchronization is established by means of periodic stimulus. It is reported that non-verbal information expressed by an individual entrains that expressed by another in voice communication. We have interest in how an agent can affect people through entraining the non-verbal information in text communication. Text is much easier for agents to handle than voice. Through experiments, we show that the utterance speed of an agent can entrain the duration of switching pauses used by human subjects.

Keywords: Human-agent text communication, switching pause, utterance speed, entrainment.