Keeping gestures in sync

Marc Swerts Tilburg University, School of Humanities and Digital Sciences, Tilburg, The Netherlands

In addition to the articulatory gestures of their vocal apparatus, speakers tend to make movements with other parts of their body as well while they produce their utterances. Just as it would be very unnatural if they would talk in a constant monotone or without any variation in tempo, rhythm or voice quality, it would likewise be extremely odd if they would stay completely immobile during the act of speaking, without producing any motions of their fingers, hands, arms, head or eyebrows. To some extent such bodily gestures may be somewhat random in nature, but it has been argued that their type and frequency can depend on the specific communicative context in which they occur, and they can also serve specific linguistic and social functions. The current paper focusses on how gestural patterns can be linked to specific features of the ongoing discourse. In particular, we will show how speakers vary gestural patterns depending on (1) prosodic variables (in particular pitch patterns) of their utterances, (2) on particular characteristics of their addressee and (3) on the metaphoric content of their messages. Regarding (1), we will show how the position of so-called beat gestures (in Dutch) is determined by the occurrence of pitch accents, and how these gestures have repercussions for the acoustic and perceptual characteristics of the accents. Regarding (2), we will show how a speaker's gestural behavior is affected by a speaker's perception or awareness of his/her addressee (e.g. whether a speaker can or cannot see his/her addressee and vice versa) and how the degree to which speakers copy a partner's gesture is dependent on its meaningfulness. Regarding (3), our talk will zoom in on how the gestures can align with metaphoric meanings, such as references to future or past events, and how the directionality of such time-marking gestures can differ between different cultures. The overview of observations to be discussed in the talk will provide insight into how speakers tend to keep their gestures in sync with prosodic, interactive and meaning-related properties of their spoken messages.