

Relationship between comprehension and blink synchronization

Koki Saito

BIPROGY Inc., 1-1-1 Toyosu, Koto-ku, Tokyo, Japan

Makoto Enomoto

BIPROGY Inc., 1-1-1 Toyosu, Koto-ku, Tokyo, Japan

Haruhito Zenio

BIPROGY Inc., Tokyo, Japan

Takayuki Hoshino

BIPROGY Inc., Tokyo, Japan

Eiji Takahashi

BIPROGY Inc., Tokyo, Japan

Abstract

Blink synchronization may reflect a person's internal states. An interested listener unconsciously synchronizes their blinks to a speaker; however, it is unclear if this is related to their comprehension of what is being said. This study examined the association of blink synchronization of a listener to a speaker based on the listener's interest, comprehension, and empathy. Participants viewed a video clip explaining a research topic as a simulation of actual communication that requires comprehension, and their blinking patterns were measured using web cameras. Aspects of the internal states were assessed using a questionnaire. The findings revealed that participants with high comprehension synchronized their blinks to the speaker with a delay of a few hundred milliseconds. Additionally, levels of comprehension were significantly correlated with blink synchronization among the listeners. Therefore, blink synchronization may reflect comprehension levels in situations that require comprehension. Communication can be improved by utilizing these insights.