Differences in the gesture kinematics of blind, blindfolded, and sighted speakers

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Abstract

The role of gestures in cognition extends beyond communication as people gesture not only when they speak but also think. This also holds for individuals who are blind from birth. However, studies showed that blind speakers produce fewer spontaneous gestures than sighted speakers when describing events. The present study aims to go beyond quantitative measures and gain insight into gesture kinematics. We compared the duration, size, and speed of path gestures (showing the trajectory of a movement) used by 20 blind, 21 blindfolded, and 21 sighted Turkish speakers when describing spatial events. Blind speakers took more time to produce larger gestures than sighted speakers, but the speed of gestures did not differ. The gestures of blindfolded speakers did not differ from those of blind and sighted speakers in any of the measures. These suggest a lifetime of blindness influences the kinematics of gesture production beyond a temporary lack of vision.

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