

When do iconic gestures facilitate word learning? The case of L2 lessons for preschoolers led by a robot or human tutor

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Abstract

Gestures help us understand language (e.g., Hostetter, 2011). However, less is known about how good gestures must be to facilitate word learning. Turkish-speaking preschoolers learned five English verbs with corresponding iconic gestures, varying in the verb-gesture match (i.e., how well the gesture represented the verb), in a one-on-one lesson led by either a human adult or the humanoid robot NAO. Our preliminary results (N = 43) suggest that the verb-gesture match predicts word learning, and this match might even be more important when the robot was the tutor (though the interaction was not statistically significant). In addition, while both tutors were effective in teaching verbs, preschoolers learned better with the robot than with the human. This study not only makes a theoretical contribution by demonstrating the effects of the match between words and iconic gestures, but also provides practical implications for designing of robot- and human-led L2 lessons.