

The Role of Gesture in L2 Learning: Communication, Acquisition, and Retention

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What is the role of gesture in second language (L2) acquisition? There is evidence that L2 learners use iconic (i.e., representative) gestures to convey their intended meaning when they are unable to express it effectively in the target language (McCafferty, 2002; Mori & Hayashi, 2006). Moreover, research has revealed that iconic gesture can facilitate L2 word learning (Kelly, McDevitt, & Esch, 2009), particularly when it is enacted (Tellier, 2008). The objectives of the current study were to determine (1) whether L2 learners use gesture effectively to facilitate communication in the target language, and (2) whether L2 learners' gestures promote acquisition and retention of the target language beyond the immediate communicative context.

In this study, pairs of English-speaking participants ($n=30$; age: $M=21$, $SD=4.72$) unfamiliar with Hungarian completed a novel word teaching-and-learning task. In order to examine whether participants used gesture effectively to communicate, pairs were randomly assigned to either the visible condition, in which they sat across a table from one another without occlusion, or the invisible condition, in which an opaque occluder was placed between them. In each learning trial, one member of each pair (the teacher) learned one of twenty Hungarian words via a computer with headphones, and subsequently taught the word to their partner (the learner). During the learning task, participants were video recorded using a hidden camera; iconic gestures were later identified and counted using these recordings. After the learning task, participants completed a recall test in which they produced the English translation of each Hungarian word that they had learned in order to determine whether gestures produced during the learning task affected L2 word recall.

Based on the results of the research discussed above, it was predicted that participants in the visible condition would produce more iconic gestures than participants in the invisible condition. Accordingly, an independent samples t test revealed that participants produced more iconic gestures when they were visible to one another ($M=22.70$; $SD=14.53$) than when their view of each other was occluded ($M=10.00$; $SD=12.60$), $t(29)=2.20$, $p=.04$, $d=.93$. Moreover, based on the results of the research discussed above, it was predicted that the number of gestures that participants produced during the learning task would predict their word recall accuracy after the task. Indeed, a regression analysis revealed a trend for participants' gestures to predict their word recall, $b=.116$, $t(59)=1.72$, $p=.09$. However, another regression analysis revealed that teachers' gestures failed to predict learners' word recall, $b=-.28$, $t(29)=1.04$, $p=.31$.

The results of the current study demonstrate that L2 learners use gestures appropriately to communicate with interlocutors in the target language. The observation that L2 learners produced more iconic gestures when their interlocutors were visible than when they were invisible indicates that L2 learners are aware of the communicative properties of these gestures: namely, that they convey meaning visually via iconicity (i.e., representativeness). Moreover, the results provide some evidence that L2 learners' enactment—but not mere viewing—of iconic gestures in conversational settings promotes L2 acquisition more broadly.