

LINKS BETWEEN LANGUAGE, GESTURE, AND, MOTOR SKILL: A  
LONGITUDINAL STUDY OF COMMUNICATION RECOVERY  
IN ADULTS WITH BROCA'S APHASIA

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ABSTRACT

In this study, a group of six adult men with post-stroke Broca's aphasia and a matched group of men with no neurological illness (NNI) completed an object description task in speech plus gesture, speech only, and gesture only conditions. Participants with aphasia were seen at monthly intervals for 6 months beginning at 1-2 months post-onset, and the *Western Aphasia Battery (WAB)* was administered at Times 1 and 6.

Participants with aphasia demonstrated significant improvement in language over the 6-month period. However, their speech was still significantly poorer than that of the NNI group, and their communication patterns differed in a number of ways. Gesture rate was significantly higher in early recovery than that for NNI adults. The majority of gestures produced by participants with aphasia were emblems, while the NNI group primarily made use of iconics. Participants with aphasia produced significantly fewer numbers of meaningful motor movements in pantomime gesture in early recovery. Substantial individual variability was apparent within the aphasia group. These findings are suggestive of re-organization in language and gesture during the 6-month recovery period following cerebrovascular accident. They are discussed in terms of the integrated nature of processes underlying speech and gesture and potential clinical implications of gesture use as an index of language recovery in Broca's aphasia.