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Variable efficacy of rhythm and tone in melody-based interventions: Implications for the assumption of a right-hemisphere facilitation in non-fluent aphasia

Abstract

This study examines the effects of tonal and rhythmic components of a melody-based intervention on the repetition abilities of two individuals with non-fluent aphasia. The subjects presented lesions restricted to the left hemisphere and showed moderate to severe limitations on repetition tasks. An alternate-treatment design was used where pre-recorded stimuli served to guide a therapist's production of models in treatment conditions emphasising the tonal or rhythmic attributes of target utterances. The results show that, relative to baseline performance, treatment emphasising the tonal attributes of target phrases had little or no impact on the subjects' immediate or deferred repetitions of the phrases. By comparison, exercises emphasising rhythm corresponded to substantial gains in the subjects' ability to repeat target utterances. Implications are drawn with respect to the rationale of melody-based therapies, specifically on the assumption that a right-hemisphere processing of tone may facilitate fluent speech.