Treatment-related Improvement in the First Language of a Multilingual Speaker with Chronic Aphasia

Goral M. a,*, Naghibolhosseini M. b, Conner P. b

a Lehman College and the Graduate Center, The City University of New York
b The Graduate Center of The City University of New York

Introduction

Studies of aphasia treatment suggest that language treatment improves language abilities even in chronic stages post-stroke (Raymer et al., 2008). In contrast to treatment administered to monolingual speakers with aphasia, in multilingual aphasia the treated language may or may not be also a language that is actively used by the person with aphasia. The present study examines the effect of treatment in the first language – but one rarely used in over a decade – in a multilingual person with non Fluent aphasia.

Methods

Participant. This study reports on a multilingual speaker who was a native speaker of Persian, had native-like proficiency in German and high proficiency in English, and sustained a left CVA 13 years prior to the study. Following the stroke, she exhibited a selective recovery: her English was better recovered than her German and Persian and became the language she used almost exclusively.

Treatment. This report focuses on the participant’s response to treatment in Persian, her first language. We administered 30 hours of a modified constrained-induced aphasia treatment, using action pictures to elicit sentence production.

Testing. Multiple baseline measures were administered before and after therapy. Testing included an Action naming task, the Description task from the Bilingual Aphasia Test (BAT, Paradis & Libben, 1987), and a Verbal fluency test (letter and category). One test of language comprehension – the grammaticality judgment subtest of the BAT – was also administered.

Results

The results demonstrated significantly increased production in Persian following treatment, accompanied by decreased instances of code-switches to the participant’s stronger post-stroke language (English). In the Action naming task, the participant produced more target (or appropriate) verbs, and more of her sentences were complete and grammatical. In the BAT picture description test, increased numbers of complete sentences were found following treatment, as well as increased use of prepositions. In contrast, there was no change in language areas that were not targeted directly in treatment, including the number of words produced in the verbal-fluency test and performance on the grammaticality judgment task. Whereas several measures showed improved performance following treatment, there was no significant change on these measures when the testing was repeated prior to treatment.
Discussion

The results of this study demonstrated that the first language of a multilingual speaker with aphasia, a language that was severely affected by the stroke and has not been actively used for 13 years, benefited from intensive language treatment that focused on language production. Repeated measurements suggest that improvement was not associated with the participant’s mere attempt to use her potentially-attributing first language, but a direct result of the aphasia treatment administered.

Reference
