Nonword Repetition and Phoneme Elision in Adults Who Do and Do Not Stutter

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Abstract

The purpose of the present study was to explore the phonological working memory of adults who stutter (AWS) using a nonword repetition and a phoneme elision task. Results suggest that advancements in the phonological working memory of AWS are not comparable to those demonstrated by adults who do not stutter.

Introduction

Research suggests that children who stutter (CWS) may differ from fluent peers in their ability to process phonological information (e.g., Byrd, Conture, & Ohde, 2007).

Methods

Participants
- 14 AWS (12 males; 17 to 44 years of age).
- 14 AWNS (12 males; 20 to 46 years of age).

 Procedure

Silent construction
Properties of 48 nonwords were comparable across syllable lengths (Table 1).

Phoneme Elision Tasks
- Participant produced nonword without any phoneme
- Participant attempted accurate production of initial phoneme

Results

Research Question 1. What is the accuracy of the initial nonword repetition between AWS and AWNS?

Research Question 2. How many attempts are required to achieve accurate nonword repetition for AWS and AWNS?

Research Question 3. What is the accuracy of the initial nonword repetition between AWS and AWNS?

Results: Both groups required significantly greater number of attempts as number of syllables increased (F(3,78) = 12.162, p < .001, partial η² = .325). AWS required significantly greater number of attempts at the 7-syllable level (F(3,78) = 18.832, p < .001, partial η² = .525).

Discussion

The present study related in three main findings.

1) AWS were comparable with AWNS during nonword repetition and phoneme elision tasks at 2-, 3-, and 4-syllable level, but less accurate at the 7-syllable level.

2) Both groups required similar numbers of attempts to accurately repeat nonwords at 2-, 3-, and 4-syllables, but AWS required significantly more attempts than AWNS at 7-syllable level.

3) Multiple overt repetitions appeared to improve AWS more so than AWNS. Findings suggest similar phonological representations in AWS are less robust during encoding, or decay more rapidly during rehearsal (e.g., Anderson & Magiati, 2010).

References


