

Familiarization effects on intelligibility of dysarthric speech in older listeners with and without hearing loss

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Abstract

Familiarization tasks offer a promising platform for listener-targeted remediation of intelligibility disorders associated with dysarthria. To date, the body of work demonstrating improved understanding of dysarthric speech following a familiarization experience has utilized young healthy adults with normal hearing ability. The primary purpose of the present study was to examine the intelligibility effects of familiarization in older adults with and without hearing loss. Nineteen older adults (ten with and nine without hearing loss) completed a familiarization protocol consisting of three phases—pretest, familiarization, and posttest. The older adults' initial intelligibility and intelligibility improvement scores were compared to previously reported data collected from 50 younger adults. Relative to younger adults, initial intelligibility scores were significantly lower for older adults overall—although additional analysis revealed that the difference was limited to older adults with hearing loss. Key, however, is that irrespective of hearing status, the older and younger adults achieved comparable intelligibility improvement following familiarization (gain of roughly 20 percentage points). The current study extends previous findings of improved intelligibility of dysarthria following familiarization to a group of listeners who are critical to consider in listener-targeted remediation, namely, the aging caregivers and/or spouses of individuals with dysarthria.