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Cross-language study of age perception by elderly listeners

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Recent studies show that perception of speaker's age is influenced by a listener's familiarity with the speaker's language. However, these results were based on young adult listeners. The current study examines whether language familiarity influences the perception of speaker's age in elderly listeners. The vowel stimuli was prepared from the sustained vowel /i/ collected from 30 native speakers of American English and 30 native speaker of Japanese. The sentence stimuli was taken from the reading of the North Wind and the Sun by these 60 speakers (in their native language). Fifteen elderly native speakers of English (mean age 73.5 years, range from 67 to 84 years) listened to both stimuli types and estimated the age of speakers. Correlation between perceived age and chronological age was moderate for the sentence stimuli, but weak for the vowel stimuli. Correlation between perceived age and chronological age was stronger when the listeners judged sentence stimuli in their native language than when they judged sentence stimuli in the foreign language ($r=0.74$ versus $r=0.63$). The vowel stimuli did not show the effect of speaker language. The results suggest that linguistic information has a critical role in age perception, regardless of listener's age.