

neuropsychological test performance. It was predicted that highly acculturated Hispanic-Americans to American culture would demonstrate better cognitive abilities compared to lower acculturated Hispanic-Americans.

**Participants and Methods:** The present study sample consisted of 75 neurologically and psychologically healthy Hispanic-American undergraduate students with a mean age of 19.44 (SD = 1.37). Participants were divided into two acculturation groups: high (n = 39) and low (n = 36). In addition, all the participants completed a comprehensive neuropsychological battery and background questionnaire in English. The Acculturation Rating Scale for Hispanic/Latino Americans is a 20-item scale that was utilized to create our acculturation groups. ANOVAs were used to evaluate cognitive differences between our acculturation groups.

**Results:** Results revealed that the highly acculturated group outperformed the lower acculturated group on the Weschler Adult Intelligence Scale-Third Edition vocabulary task and the Boston Naming Test,  $p's < .05$ ,  $\eta^2 = .06$ . Furthermore, results revealed that the lower acculturated group outperformed the highly acculturated group on the Trail Making Test part A and B, and Comalli Stroop part A,  $p's < .05$ ,  $\eta^2 = .06-.07$ .

**Conclusions:** As expected, the highly acculturated group demonstrated better language abilities compared to the lower acculturated group. However, in the opposite direction, the lower acculturated group outperformed the highly acculturated group on several speed attention tasks and one executive functioning task. A possible explanation why the highly acculturated participants demonstrated better language abilities may be attributed that their dominant language is English or they only spoke English. Meanwhile, the opposite could be said for lower acculturated participants that English was not their dominant language or they were bilingual speakers, for that reason they demonstrated better processing speed and executive functioning abilities. Research shows that monolinguals demonstrate better language abilities compared to bilinguals, but the opposite is found on processing speed and executive functioning tasks. Future research should investigate the relationship between bilingualism and acculturation in neuropsychological testing performance of Hispanic-Americans.

**Categories:** Cross Cultural Neuropsychology/  
Clinical Cultural Neuroscience

**Keyword 1:** acculturation

**Keyword 2:** information processing speed

**Keyword 3:** executive functions

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## 25 Exploring Phonemic and Semantic Fluency Ability Across Multiple Generations

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**Objective:** Verbal fluency tasks evaluate executive functioning by requiring a person to provide words within a certain time period that start with a certain letter (phonemic fluency) or category (semantic fluency). Research shows that age impacts test takers' phonemic and semantic verbal fluency performance. In fact, it has been suggested that phonemic verbal fluency peaks around age 30 to 39 and begins to decline at older ages. In contrast to phonemic fluency, research suggests that semantic fluency increases steadily between test takers until age 12 and begins declining around age 20. A generation is a cohort of people born within a certain period who share age and experiences. Studies show that Generation X individuals (persons born between 1965-1980) outperform Generation Y ( persons born between 1981-1995) and Generation Z individuals (persons born between 1965-1980) on the Cordoba Naming Test. To our knowledge, no study has investigated verbal fluency performance across generational groups. We predicted that Generation X individuals would outperform

individuals from Generation Y and Z on both verbal fluency measures.

**Participants and Methods:** The sample of the present study consisted of 107 participants with a mean age of 27.39 (SD = 9.16). Participants were divided into three groups: Generation X (n = 19), Generation Y (n = 52), and Generation Z (n = 36). The phonemic verbal fluency task consisted of three trials and the semantic verbal fluency task consisted of one trial, one minute each. A series of ANCOVAs with Bonferroni post-hoc tests were used to evaluate verbal fluency performance between generational groups. All participants passed performance validity testing.

**Results:** We found significant differences between our generational groups on both verbal fluency tasks. Post-hoc tests revealed that the Generation Y group outperformed both Generation X and Z groups on both verbal fluency tasks,  $p$ 's <.05,  $\eta^2 = .11-.16$ . No significant differences were found on either verbal fluency task between the Generation X and Z groups.

**Conclusions:** Contrary to our hypothesis, Generation Y individuals possessed better phonemic and semantic fluency than both Generation X and Z individuals. Meanwhile, Generation X individuals did not significantly differ on any of the verbal fluency tasks compared to Generation Z individuals. Speaking multiple languages has been shown to impact verbal fluency performance. In our sample, the Generation X and Z groups consisted primarily of bilingual speakers compared to the Generation Y group. Examining generational differences is essential to understand the unique characteristics and impact of the times in which various individuals have grown up. Future research, for instance, should evaluate the influence of bilingualism across generational groups on verbal fluency performance.

**Categories:** Cross Cultural Neuropsychology/  
Clinical Cultural Neuroscience

**Keyword 1:** verbal abilities

**Keyword 2:** aging (normal)

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## 26 Remotely Training Research Assistants in other Countries to Conduct

## Neuropsychological Tests: Lessons Learned

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**Objective:** Technological advances allow for increased international collaboration within the medical community (e.g., internet, e-mail, instant messaging, video-teleconferencing [VTC]). Partnering with clinicians and researchers across the globe allows for shared resources, particularly beneficial for underserved populations and communities with poor access to specialty resources, including neuropsychology. Along with the potential benefits of such collaborations comes challenges including language, cultural, and physical barriers. The presented findings detail important lessons learned from an ongoing research collaboration between the Einstein team (Bronx, NY) and a research group in Kerala, India, called the Kerala Einstein Study (KES), a study evaluating pre-dementia syndromes in Indian older adults. Here we highlight the training process of research assistants administering neuropsychological measures to older adults in India, by neuropsychologists in the USA.

**Participants and Methods:** One study manager and several research assistants (collectively referred to as RAs) based in India were trained by the first author, a neuropsychology post-doctoral fellow (MS) based in the US via VTC (i.e., Zoom), under supervision of a clinical neuropsychologist. RAs were trained in test administration and scoring for a variety of neuropsychological measures. RAs speak Malayalam and English; training occurred in English. Following training, VTC meetings were held to process testing experience and channels were created for ongoing administration/scoring questions and concerns (i.e., email, WhatsApp). RAs scanned and uploaded scored protocols to a protected web-based platform. MS double-scored several protocols and additional VTC meetings were held to discuss/update scoring procedures.

**Results:** Physical challenges included time difference between sites, internet connectivity, language barriers (i.e., varying English dialects) cultural considerations (e.g., some test/task