VOICE BIOMARKERS AS POSSIBLE INDICATORS OF COGNITIVE AGING
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There is emerging evidence that measures of voice prosody are related to diagnoses of Alzheimer’s Disease and Related Disorders. The goal of this study was to examine whether voice prosody measures (pitch, pulse, voice breaks, jitter, shimmer, and amplitude) are also related to individual differences in normal cognitive aging. Data are from the Midlife in the United States Wave 2 (M2) and Wave 3 (M3) for 2693 participants (ages 42-92 at M3) who completed the M2 and M3 Brief Test of Adult Cognition by Telephone (BTACT) and had M3 voice recordings. Voice variables were measured from cognitive interviews using three cognitive tests and averaged to create a composite for each voice variable. Voice prosody was related to age, sex, education, and health, which were included as covariates. Older adults, men, and those with more health conditions had higher jitter and shimmer. Older adults, women, and those with higher education and better health had more voice breaks. Hierarchical regression models, controlling for the covariates, examined the voice composites as predictors of each cognitive measure at M3 and change over 9 years from M2 to M3. As hypothesized, higher jitter predicted lower performance and greater decline on memory, category fluency, and attention. Contrary to predictions, a lower number of voice breaks predicted worse performance and greater declines on all cognitive tests. The results suggest that voice biomarkers are related to cognitive performance and decline, and they may offer a promising approach for identifying early signs of cognitive impairment or dementia.

WHY DOES COGNITIVE RESERVE ALIGN WITH MODERN WESTERN IDEALS OF SUCCESS?
THEORETICAL & METHODOLOGICAL PROPOSALS
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Cognitive reserve (CR) is a framework that investigates discrepancies between brain pathology and cognitive decline. In explaining why individuals with similar levels of brain pathology display different levels of functional impairment, CR research focuses on factors that resemble modern, Western ideals of success: greater education, professional achievement, a self-directed life, and physically and intellectually stimulating leisure time. This theoretical paper documents this alignment between CR and modern, Western ideals of success by hypothesizing different mechanisms by which CR may operate. The focus in the CR literature has been on investigating and operationalizing the direct cognitive changes that come from intellectual cultivation, and the native abilities that are hypothesized to produce differences in both education and cognitive outcomes. This paper argues that an attention to CR’s relationship to current definitions of success presents alternative hypotheses about the mechanisms by which CR operates. Specifically, the paper outlines two potential mechanisms and frames alternative means of studying them: First, does the accrual of CR simply follow from being successful in conventional ways because of the material benefits of wealth and stability that success brings? Second, does a lack of success carry cognitive risks solely because of material deprivation, or are there additional psychosocial penalties that come from living a non-normative life—especially when that is not of one’s choosing? This paper proposes both cross-cultural and intersectional methods to begin to better understand the relationship between normative success and cognitive health.

Session 9140 (Poster)

Cognition II

ASSOCIATION BETWEEN DIET AND COGNITIVE PERFORMANCE IN ADULTS AGED 60 AND OVER: NHANES, 2011–2014
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There is limited evidence examining associations between diet and cognitive performance (CP) in older adults. We used the 2011-2014 National Health and Nutrition Examination Survey to determine if meeting dietary recommendations was associated with CP in adults 60+ years of age. Diet was based on the healthy eating index (HEI) 2015 and categorized into quintiles (higher quintiles indicating healthier diet). CP was based on word list learning, animal naming, and digit symbol substitution test, with scores above 25th percentile indicating adequate performance. Multivariate logistic regression modeling was conducted and adjusted for potential confounders. A total of 3,068 participants completed the CP tests. A slightly higher percentage of participants were female (54.0%), predominantly White (80.5%) and the largest percentage (54.7%) was 60 to 69 years of age. The mean HEI-2015 score (0-100) was 54.89 (SE = 0.56). High CP scores increased with healthier dietary quintiles. However, results were only significant (p for trend <0.05) for digit symbol substitution test when comparing those in the highest quintile (82.53%) to those in the lowest (70.23%). Compared with participants in the lowest quintile of HEI-2015, participants in the highest quintile had a two-fold increased odds of better digit symbol substitution test scores, after adjusting for confounders (Odds Ratio [OR]: 1.96, 95% Confidence Interval [CI]: 1.28-3.01). Results showed that meeting healthy diet recommendations is associated with improved digit symbol substitution test, a marker of attention, processing speed and executive function. Future research should consider the role of diet in older adults to improve cognitive performance.

CHRONIC STRESS PATTERNS AMONG OLDER ADULTS AND ASSOCIATIONS WITH COGNITIVE FUNCTIONING
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Innovation in Aging, 2021, Vol. 5, No. S1

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