which increases openness and protects researchers from suspicions of p-hacking, (2) the conversion of neuroimaging data into a standardized format (Brain Imaging Data Structure: BIDS) that enables standardized scripts to process and share neuroimaging data, and (3) the sharing of final neuroimaging results on Neurovault which allows the community to do rapid meta-analysis. Using these tools improves workflows within labs, improves the overall quality of our science and provides a potential model for other disciplines using large-scale data.

REGISTERED REPORTS FOR ECRS: ENABLING SLOW SCIENCE ON TIGHT TIMELINES

Rita Ludwig[1], *1. University of Oregon, Eugene, Oregon, United States*

Early career researchers (ECRs) may experience tension between the ideal and actual amounts of time they have to complete a scientific project. Sometimes, a timeline is truncated because a citable product is required for applications or fellowship deadlines. This scenario is especially common for researchers who use longitudinal methods, and/or those who work with hard-to-access samples. Registered reports, an open science initiative, offer one resolution to this tension. In registered reports, the steps of analysis planning, manuscript writing, and peer review occur earlier than the traditional journal article publication process. If an in principle acceptance is earned, ECRs are afforded citable, peer-reviewed acknowledgement of their scientific thinking prior to the conclusion of a research project. This talk will serve as a primer on the registered report process. I will also discuss resources for writing registered reports, and provide a list of relevant participating journals in the field of gerontology.

SESSION 590 (SYMPOSIUM)

THE ROLE OF WORK AND RETIREMENT IN COGNITIVE AND BRAIN AGING

Chair: Gizem Hueluer, *University of Zurich, Zurich, Switzerland, Switzerland*
Discussant: George W. Rebok, *Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States*

According to the "use it or lose it" hypothesis of cognitive aging, cognitive enrichment and cognitively engaging activities are associated with the maintenance of high levels of cognitive functioning in old age. Similar ideas have been brought forward with respect to characteristics of individuals' work environment, with more cognitively enriching work demands providing an optimal environment for cognitive development and maintenance. The goal of this research group is to showcase new developments in research on work, retirement and cognitive aging. Hülür et al. examine the role of perceived work environment for cohort differences in trajectories of cognitive change based on 56-year longitudinal data from the Seattle Longitudinal Study. Andel et al. use data from the Swedish Adoption/Twin Study of Aging to examine trajectories of cognitive aging before vs. after retirement with two-slope growth curve models. Zulka et al. conduct a systematic literature review on the association between retirement and cognition and examine the role of factors such as occupational experiences and the cognitive domain studied. Burzynska et al. investigate the relationship between stressful and stimulating occupational exposures and structural brain health and cognition in older age. The discussion by George Rebok will focus on how these findings contribute to our understanding of the role of occupational experiences for cognitive and brain aging and how they can be utilized to promote maintenance of cognitive functioning in old age.

COHORT DIFFERENCES IN COGNITIVE AGING: THE ROLE OF PERCEIVED WORK ENVIRONMENT

Gizem Hueluer[1] Nilam Ram[2] Sherry L. Willis[3] K. Warner Schaie[4] and Denis Gerstorf[5], *1. University of Zurich, Zurich, Switzerland, Switzerland, 2. Pennsylvania State University, University Park, Pennsylvania, United States, 3. University of washington, Seattle, Washington, United States, 4. University of Washington, Seattle, Washington, United States, 5. Humboldt University, Berlin, Berlin, Germany*

Studies of historical change on cognitive aging generally document that later-born cohorts outperform earlier-born cohorts on tests of fluid cognitive performance. It is often noted how advances in educational attainment contribute to this finding. Over the last century, work demands and characteristics have changed profoundly, with shifts from a manufacturing to service and technical economy. We used data from the Seattle Longitudinal Study to compare trajectories of cognitive change between earlier-born (1901-1938) and later-born cohorts (1939-1966). Our findings show that (a) later-born cohorts had higher levels of performance on most cognitive tasks and exhibited less decline in word fluency, (b) had more enriched perceived work environment as indicated by higher levels of worker control and innovation, with no cohort differences in work autonomy (c) these experiences were associated with higher levels of cognitive performance independent of education and consistently across cohorts. We discuss potential mechanisms underlying these associations.

THE ROLE OF RETIREMENT IN COGNITIVE AGING: RESULTS FROM THE SWEDISH ADOPTION/TWIN STUDY OF AGING

Ross Andel[1] Deborah Finkel[2] and Nancy L. Pedersen[3], *1. University of South Florida, Tampa, Florida, United States, 2. Indiana University Southeast, New Albany, Indiana, United States, 3. Karolinska Institutet, Stockholm, Stockholms Lan, Sweden*

Retirement is a major life transition that may influence the aging process. Using a two-slope growth curve model with retirement age as the pivot point, we studied change in major cognitive domains before and after retirement. Participants were 393 members of the Swedish Adoption/Twin Study of Aging who retired after the age of 50 (mean=63 years, range 51-75 years) and who were followed for over 20 years with seven testing occasions. After controlling for age, sex, and education, we observed no change in memory pre-retirement (p=.935) and significant memory decline post-retirement (Estimate=-0.17, p=.001); decline in speed, which more than doubled after retirement (Estimate=-0.20, p=.001