DEPARTMENTAL COLLOQUIUM SERIES

October
Friday, October 8th, 2021, 3:15pm

Speaker: Richard Zinbarg, Northwestern University

Topic: Precision of measurement of a multi-item scale: Conventional wisdom (Cronbach’s alpha) and beyond (omega_hierarchical)

Abstract: When interested in estimating the proportion of scale variance due to a latent variable common to all of a scale’s indicators, the vast majority of applied researchers believe that Cronbach’s alpha is the index of choice. Whereas many methodologists are aware of problems with using Cronbach’s alpha for this purpose, few seem to be aware that there is a better alternative to Cronbach’s alpha. In this talk, I will discuss the importance of the proportion of scale variance due to a latent variable common to all of a scale’s indicators and the central problem with Cronbach’s alpha for estimating this important parameter. In addition, an alternative to Cronbach’s alpha - coefficient omegahierarchical – will be introduced and shown to overcome the positive bias often inherent in Cronbach's alpha. Finally, I will present the results of simulations testing the accuracy of several different methods for estimating omegahierarchical and conclude with recommendations regarding how to estimate omega hierarchical.

Location: LIVE via zoom

About Richard Zinbarg

December
Friday, December 10th, 2021, 3:15 pm

Speaker: Dani Bassett, University of Pennsylvania

Topic: Racial, Ethnic, and Gender Imbalances in Reference Lists of Scientific Papers

Abstract: In recent years, science has been pushed to grapple with the social and structural systems that produce vast gender and racial/ethnic imbalances in academic participation. While current discussions largely focus on the role of people in positions of power (e.g., journal editors, grant reviewers and agencies, department chairs, and society presidents), many imbalances are in fact perpetuated by researchers themselves. A key example is imbalance within citation practices, where people from marginalized groups are broadly undercited, precluding an unbiased trajectory of scientific discovery. Because of the downstream effects that citations can have on visibility and career advancement, understanding and eliminating bias in citation practices is vital for addressing inequity in our scientific community. Here I will describe our recent studies providing evidence of striking (and growing) gender and racial/ethnic imbalances in reference lists of STEM articles, and evaluate several candidate drivers of those imbalances. I will also discuss practical (and open-access) tools for the mitigation of disparity.
Bio: Prof. Bassett is the J. Peter Skirkanich Professor at the University of Pennsylvania, with appointments in the Departments of Bioengineering, Electrical & Systems Engineering, Physics & Astronomy, Neurology, and Psychiatry. They are also an external professor of the Santa Fe Institute. Bassett is most well-known for blending neural and systems engineering to identify fundamental mechanisms of cognition and disease in human brain networks. They received a B.S. in physics from Penn State University and a Ph.D. in physics from the University of Cambridge, UK as a Churchill Scholar, and as an NIH Health Sciences Scholar. Following a postdoctoral position at UC Santa Barbara, Bassett was a Junior Research Fellow at the Sage Center for the Study of the Mind. They have received multiple prestigious awards, including American Psychological Association's 'Rising Star' (2012), Alfred P Sloan Research Fellow (2014), MacArthur Fellow Genius Grant (2014), Early Academic Achievement Award from the IEEE Engineering in Medicine and Biology Society (2015), Harvard Higher Education Leader (2015), Office of Naval Research Young Investigator (2015), National Science Foundation CAREER (2016), Popular Science Brilliant 10 (2016), Lagrange Prize in Complex Systems Science (2017), Erdos-Renyi Prize in Network Science (2018), OHBM Young Investigator Award (2020), AIMBE College of Fellows (2020). Bassett is the author of more than 300 peer-reviewed publications, which have garnered over 32,000 citations, as well as numerous book chapters and teaching materials. Bassett’s work has been supported by the National Science Foundation, the National Institutes of Health, the Army Research Office, the Army Research Laboratory, the Office of Naval Research, the Department of Defense, the Alfred P Sloan Foundation, the John D and Catherine T MacArthur Foundation, the Paul Allen Foundation, the ISI Foundation, and the Center for Curiosity.

Location: LIVE via zoom

About Dani Bassett

February
Friday, February 11th, 2022, 3:15 pm
Speaker: Onnie Rogers, Northwestern University
Topic: "They're Always Gonna Notice My Natural Hair": Identity, Intersectionality and Resistance Among Black Girls

Abstract: Conducting equitable research in human development requires that we listen to and learn from the humans who have most often been excluded from and silenced in psychological research. In this talk, I discuss identity development among adolescent Black girls. Engaging an intersectional and critical qualitative approach, this analysis explores whether, when, and how Black adolescent girls (N = 60, Mage = 16.17 years) reference hair when discussing their racial and gender identities (Rogers et al., 2021). Results show that 93% of Black girls spontaneously mention hair in their interviews. Girls’ references to hair highlighted the realities of oppression (i.e., discrimination) they encounter at the intersection of race and gender as well as the way girls used hair to illustrate their resistance to white feminine beauty standards and anti-Black racism. I discuss for Black girls’ development, identity theory, and conducting equitable research.

Location: LIVE via Zoom

About Onnie Rogers
March
Friday, March 11, 2022, 3:15pm
Speaker: Priti Shah, University of Michigan
Topic: Engagment, Equity, and Achievement in Science and Math
Abstract: I will present research on increasing engagement, equity, and achievement in science and mathematics. First, I will address 3 problems (and potential interventions) related to science in the real world: that people tend not to apply their scientific reasoning skills to real-world situations, that there is lack of diversity in psychological science, and that people often dismiss or distrust science evidence. Second, I will focus on mathematics achievement and engagement. I will present an ongoing curriculum development project that is designed to increase mathematics achievement in under-resourced communities. I consider the cognitive and social correlates of mathematics learning, such as biases in attributions towards success in math. The work brings together several approaches to integrating basic cognitive psychology research and education.

Live via Zoom

About Priti Shah

April
Friday, April 8th, 2022, 3:15pm
Speaker: Nadia Brashier, Purdue University
Topic: Timing Matters When Correcting Fake News
Abstract: One proposed solution to the misinformation crisis involves flagging misleading content. But people often continue to rely on falsehoods, even after receiving explicit corrections. We tested whether this continued influence effect depends on when people receive fact-checks. In two experiments (total N = 2,683), participants read true and false headlines taken from social media. In the treatment conditions, “true” and “false” tags appeared before, during, or after participants read each headline. In a control condition, participants received no information about veracity. One week later, all participants rated the same headlines’ accuracy. Providing fact-checks after headlines improved subsequent truth discernment more than providing the same information during or before exposure. We recently replicated this finding in a follow-up study where participants (N = 1215) completed a more naturalistic task at exposure. Our results inform both the cognitive science of belief revision and social media platform design.

Location: Swift Hall Room 107

About Nadia Brashier

May
Friday, May 20, 2022, 3:15pm
Speaker: Dr. Shakira Suglia, Rollins School of Public Health

Topic: Early life adversity and cardiometabolic health: Examining mediators and modifiers

Abstract: Early life adversities which include experiences such as child maltreatment, household dysfunction, bullying, exposure to crime, discrimination, bias, and victimization are more prevalent among racial/ethnic minorities and lower SES households and are recognized as social determinants of cardiometabolic disorders. In this talk I will discuss potential pathways, including behavioral and physiological mechanisms, by which early life adversity impacts cardiometabolic health. Furthermore, I will discuss factors, such as social context, that may ameliorate or exacerbate the impact of early life adversities on cardiometabolic disease.

Location: Live via Zoom!

About Dr. Shakira Suglia

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June
Friday, June 3rd, 2022, 3:15 pm

Speaker: Elaine Walker, Emory University

Topic: Psychosis: The origins of vulnerability and the developmental course

Abstract: After decades of seeking to identify the specific gene or cognitive deficit that confers risk for psychosis, scientists’ conceptualizations of the origins of vulnerability have become more nuanced and complex in recent decades. In this presentation, some of our recent findings on the transdiagnostic trajectories in genetic high-risk and (GHR) and clinical high-risk (CHR) youth will be described. 22q11 deletion syndrome (DS) and 3q29 DS are copy number variations (mutations) that dramatically increase risk for a range of psychiatric disorders, including psychosis. Characterizing the genotype and behavioral phenotype of these GHR individuals has shed light on some of the likely neurobiological pathways to psychosis. GHR youth manifest a developmental course of nonpsychotic syndromes and attenuated psychotic syndromes that parallels the trajectories of many CHR youth who transition to clinical psychosis. MRI reveals that CHR and GHR individuals also have some brain abnormalities, including in the cerebellum, that are shared with patients diagnosed with clinical psychosis. The implications of these and other findings for understanding the transdiagnostic nature of genetic and environmental risk for serious mental illnesses will be discussed.

Location: Live via Zoom!

About Elaine Walker