

RESEARCHER PROFILE

Dr. Gali Weissberger

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HORIZON EUROPE TOPIC(S) OF INTEREST:

HORIZON-CL2-2022-TRANSFORMATIONS-01-10: Socio-economic effects of ageing societies

CONTRIBUTIONS TOWARD CALL TOPIC

As a potential collaborator to the specific call topic, I can take the lead on aims related to assessing cognitive functioning and financial vulnerability of older adults (e.g., poor financial literacy, financial exploitation risk or history of financial exploitation). I have extensive experience in conducting research studies that incorporate comprehensive neuropsychological assessments of cognitive functioning. These assessments span global cognition and the domains of memory, language, executive functioning, visuospatial abilities, processing speed, and motor functioning. I have also prepared and utilized experimental paradigms using both E-Prime and PsyScope X software, some of which were used in functional Magnetic Resonance Imaging studies. For example, I designed a face-name paradigm and emotional regulation task in E-Prime, and bilingual naming tasks and emotional regulation tasks in PsyScope X. I also have experience in implementing studies that examine history of financial exploitation, financial knowledge and literacy, and economic preferences of older adults. Additionally, I am well-equipped to take the lead on projects examining the impact of culture and bilingualism on cognitive and psychological outcomes, an area I focused on in my graduate studies. Living in Israel provides an excellent opportunity to investigate cultural differences and bilingual effects on various psychological, cognitive, and health outcomes. The diversity of the Israeli population and the fact that many Israeli citizens are bilingual, allows such research questions to be investigated with accessibility and precision. Finally, I have experience in pre/post-processing and analysis of structural and functional Magnetic Resonance Imaging (fMRI) and positron emission tomography (PET) data. I have conducted research with both clinical and non-clinical populations, with participants whose ages span the adult lifespan (young adults to the oldest-old).

BRIEF PROFILE

I received my PhD in Clinical Psychology, with an emphasis in Neuropsychology from the San Diego State University, University of California, San Diego Joint Doctoral Program (SDSU/UCSD JDP in Clinical Psychology) in the fall of 2015. I went on to complete an Advanced Fellowship in Geriatrics at the West Los Angeles Veteran's Administration (2015-2017), and aT32 fellowship funded by the National Institute on Aging at the University of Southern California, Leonard Davis School of Gerontology (2017-2020). In August 2020, I moved to Israel with my family to begin a position as a senior lecturer at Bar Ilan University in the Interdisciplinary Department of Social Sciences.

My research interests lie in understanding the impact of health, psychosocial, and other contextual factors on cognition, financial vulnerability, and well-being in old age. I have studied the effects of bilingualism and its neural underpinnings on cognitive aging and Alzheimer's disease in Hispanic older adults. I have also examined cultural differences in the detection and progression of Alzheimer's disease between Hispanic and White, non-Hispanic older adults. I helped develop, design, and validate a neuropsychological naming test, the Multilingual Naming Test (MINT), that is now part of the Uniform Data Set of neuropsychological tests for the National Alzheimer's Coordinating Center in the United States.

I have also studied risk factors of financial vulnerability and financial exploitation in old age, including physical and mental health, early and late-life socioeconomic status, and financial and health literacy. Through a United States National Institute of Health funded research fellowship at the University of Southern California and the infrastructure provided by Dr. Duke Han's laboratory, I investigated the neural and behavioral correlates of financial exploitation in older adults. Using resting-state functional MRI techniques, I found insular functional connectivity with temporal regions to be stronger in older adults who have been financially exploited, compared to those who have not, suggesting potential differences in trust perceptions between financially exploited and non-exploited older adults. This study is published in *Frontiers in Aging Neuroscience*. These financially exploited older adults also reported more symptoms of depression, anxiety, and sleep difficulty than non-exploited older adults, a study published in *Aging and Mental Health*. In a recently published study that received significant press attention, I found that financial abuse was the most common form of elder abuse reported to the National Center on Elder Abuse (NCEA) resource line and that family members were the most commonly alleged perpetrators. Finally, in a study published in *Archives of Gerontology and Geriatrics* in collaboration with the Rush Alzheimer's Disease Center, I found early life socioeconomic status to be associated with late life decision making in a community-based cohort of older adults. In this study, we found that financial and health literacy moderated the association such that the relationship weakened with increasing levels of literacy.

BRIEF PROFILE

My current research goals are to elucidate factors that contribute to financial vulnerability and financial exploitation in older adulthood. For example, it is well-known that loneliness and lack of social support are risk factors for financial exploitation. However, the mechanisms that underlie these associations remain to be understood. It is possible that cognitive functioning or changes to emotional regulation as one ages partially mediate or moderate this association. Additionally, the effects of ageism and various self-perceptions of aging on financial vulnerability remain to be explored. One question, for example, is whether negative self-perceptions of aging increase one's vulnerability to financial exploitation. Understanding factors that increase risk of financial exploitation of older adults is of critical importance given the large amount of money lost each year to financial exploitation world-wide and its devastating impact on the well-being of the exploited individual and his or her family.

I believe my prior research experiences will serve as an asset to a Horizon project focused on "Socio-economic effects of ageing societies." I have a strong record of publications for this early stage of my career (24; 16 first authored) and a history of securing grant funding from the National Institute on Aging in the United States (National Research Service Award, F31 AG039177; Postdoctoral fellowship T32 AG000037). I have skills in designing unique experimental paradigms to answer specific research questions using both behavioral and neuroimaging techniques. I have excellent training in the pre/post-processing and analysis of structural and functional Magnetic Resonance Imaging (fMRI) and positron emission tomography (PET) data, and in advanced quantitative methods. Aside from these technical skills, I consider myself to be an open-minded and team-oriented collaborator. I very much look forward to the possibility of forming collaborations with researchers participating in the Horizon initiative.

RELEVANT PUBLICATIONS

1. **Weissberger, G. H.**, Han, S. D., Yu, L., Barnes, L. L., Lamar, M., Bennett, D. A., & Boyle, P. A. (in press). Impact of early life socioeconomic status on decision making in older adults without dementia. *Archives of Gerontology and Geriatrics*.
2. **Weissberger, G. H.**, Núñez, R. A., Tureson, K., Gold, A., & Thames, A. D. (2021). Socioeconomic mobility and psychological and cognitive functioning in a diverse sample of adults with and without HIV. *Psychosomatic Medicine*, *83*, 218-227.
3. **Weissberger, G. H.**, Mosqueda, L., Nguyen, A. L., Axelrod, J., Nguyen, C. P., Boyle, P. A., Spreng, N., Han, S. D. (2020). Functional connectivity correlates of perceived financial exploitation in older adults. *Frontiers in Aging Neuroscience*, *12*, 583433.
4. **Weissberger, G. H.**, Goodman, M. C., Mosqueda, L., Schoen, J., Nguyen, A. L., Wilber, K., Gassoumis, Z. D., Nguyen, C. P., & Han, S. D. (2019). Elder abuse characteristics based on calls to the National Center on Elder Abuse (NCEA) Helpline. *Journal of Applied Gerontology*. Advance online publication.
5. **Weissberger, G. H.**, Mosqueda, L., Nguyen, A. L., Samek, A., Boyle, P. A., & Han, S. D. (2019). Physical and mental health correlates of perceived financial exploitation in older adults: Preliminary findings from the Finance, Cognition, and Health in Elders Study (FINCHES). *Aging and Mental Health*, *24*, 740-746.
6. **Weissberger, G. H.**, Han, S. D., Yu, L., Barnes, L. L., Bennett, D. A., & Boyle, P. A. (2019). Financial and health literacy discrepancies with cognition in older adults. *Neuropsychology*, *33*, 975-985.

BAR ILAN UNIVERSITY PROFILE

Established in 1955, Bar Ilan University (BIU) is currently one of Israel's largest universities with a total undergraduate and graduate student enrollment of 19,000. With more than 1,600 senior and junior faculty members, BIU has achieved an international reputation for academic and research excellence, especially, but not limited to the fields artificial intelligence, renewable energy, bio-medicine, brain sciences, cancer, cyber security, cognitive sciences, environment, quantum technologies, medicine, archaeology, nanotechnology and advanced materials.

Building on our past and current successes in FP6, FP7, H2020 and ERC projects, BIU is committed to strengthening its research and innovation infrastructure and supporting multidisciplinary innovative research initiatives with its 55 research centers and 60 endowed chairs. In addition, the Bar Ilan Center for Smart Cities is recognized by the EU SMART SPECIALISATION PLATFORM as a Digital Innovation Hub.

The Interdisciplinary Department of Social Sciences at Bar Ilan University was established in 1974. The department integrates the study of multiple disciplines of the Social Sciences allowing for cross-disciplinary collaborations to form with ease. As a senior lecturer in the department, I will have access to research facilities and laboratory space as needed.