

### MEASUREMENT INVARIANCE OF NEGATIVE AFFECT IN AMBULATORY ASSESSMENTS OF YOUNG-OLD AND OLD-OLD ADULTS

Oliver Schilling,<sup>1</sup> Anna Lücke,<sup>2</sup> Martin Katzorreck,<sup>3</sup> Ute Kunzmann,<sup>4</sup> and Denis Gerstorff,<sup>5</sup> 1. *University of Heidelberg, Heidelberg, Baden-Württemberg, Germany*, 2. *Heidelberg University, Heidelberg, Baden-Württemberg, Germany*, 3. *University of Leipzig, Leipzig, Sachsen, Germany*, 4. *Leipzig University, Leipzig, Sachsen, Germany*, 5. *Humboldt University of Berlin, Humboldt University of Berlin, Brandenburg, Germany*

Gero-psychological research increasingly considered intense longitudinal assessments of momentary affect to address affective aging. In particular, many studies employed negative emotion item lists for ambulatory assessments of negative affect. However, frequent self-reports on emotion items within short time intervals might change alertness towards and perception of one's emotional experiences. From an item-response-theoretic point of view, this might impair the stability of item functioning in terms of item discrimination between levels of affectivity and item severity (difficulty). Thus, we examined measurement invariance of negative emotion items commonly used for ambulatory assessments of negative affect. Ambulatory assessments from the EMIL study, obtained over seven consecutive days at six occasions per day from 123 young-old (aged 66-69) and 47 old-old (86-89) adults, were analyzed. Respondents self-reported on 13 negative emotion items, using a 0-100 slider to express the degree to which they felt the respective emotion. We ran multilevel structural equation models with Bayes estimation to analyze variability of negative affect factor loadings, item intercepts, and measurement error variances across repeated measures, thus checking for metric, scalar, and strict factorial invariance. For all sets of parameters, the findings do not strongly support measurement invariance, but point at partial invariance for item subsets. Taking on literature suggesting that criteria for invariance testing should not be too restrictive to meet pragmatic measurement equivalence requirements, further analyses and our conclusions focus on strategies that might allow for acceptable degrees of differential item functioning, enabling reliable analyses of intra-individual short-term variability in negative affect.

### MEASUREMENT OF CENTRE OF PRESSURE USING THE WII BALANCE BOARD IN OLDER ADULTS WITH SIMULATED VISUAL IMPAIRMENT

Berkley Petersen, Caitlin Murphy, Aaron Johnson, and Karen Li, *Concordia University, Concordia University, Quebec, Canada*

Postural stability is a complex skill dependent upon the coordination of motor, sensory and cognitive systems. The purpose of this project was therefore to explore how older adults' balance performance is impacted by increased cognitive load, hearing loss, and simulated vision loss. Twenty-eight older adults between the ages of 50 and 93 years ( $M = 73.86$ ,  $SD = 10.43$ ) were tested. Participants underwent standard sensory acuity and cognitive functioning tests. The balance trials varied as a function of cognitive load and visual challenge resulting in five conditions: (1) eyes closed, (2) normal vision clear goggles (NV) (3) simulated low vision (20/80) goggles (LV) (4) LV and math task, (5) NV and math task. Postural

stability was assessed with three key center of pressure parameters: total path length (TPL), anterior-posterior amplitude (APA) and medial-lateral amplitude (MLA). A mixed-model ANOVA using hearing acuity as a covariate revealed significant effects of complexity in sway amplitude: (APA:  $p < .017$ ; MLA:  $p < .020$ ), while TPL approached significance ( $p < .074$ ). T-tests revealed significant ( $p < .05$ ) decreases in balance performance across all 3 centre of pressure parameters when comparing single task NV to dual-task NV, NV vs. eyes closed and single task NV vs. LV dual-task. There were significant positive correlations between hearing acuity and balance (MLA) under single task NV ( $r = .491$ ) and LV conditions ( $r = .497$ ). Results suggest the attentional demands from increased cognitive load and sensory loss lead to decreases in older adults' single- and dual-task balance performance.

## Session 9080 (Poster)

### Attitudes and Perceptions Toward Technology

#### ADAPTING TRAINING AND USE OF AN APPLICATION FOR COGNITIVELY IMPAIRED OLDER ADULTS AMIDST COVID-19

Francesca Falzarano,<sup>1</sup> Sarah Weingast,<sup>2</sup> Gabriel Gladstone-Groth,<sup>3</sup> Marco Ceruso,<sup>4</sup> and Sara Czaja,<sup>5</sup> 1. *Weill Cornell Medicine, Douglaston, New York, United States*, 2. *Weill Cornell Medicine, Weill Cornell Medicine, New York, United States*, 3. *Weill Cornell Medicine, New York, New York, United States*, 4. *Weill Cornell Med, New York, New York, United States*, 5. *Weill Cornell Medicine/Center on Aging and Behavioral Research, New York, New York, United States*

The emergence of COVID-19 and social distancing requirements have resulted in disruptions to daily life, reduced opportunities for social engagement, and diminished resource access for millions of older adults. Individuals with cognitive impairments (CI) are particularly vulnerable to risk for social isolation. This presentation will discuss the PRISM-CI pilot trial, which aims to examine the feasibility and potential efficacy of the PRISM-CI software system on enhancing connectivity and quality of life among a diverse sample of 50 older adults aged 65 and over with a CI. PRISM-CI, adapted from the PRISM system (developed by the Center for Research and Education on Aging and Technology Enhancement) for this population, is intended to support social engagement, memory, and access to resources and information. We will present data regarding the feasibility and perceived value of PRISM-CI and discuss the challenges, and strategies used, to adapt the PRISM-CI trial during the pandemic. We used a multi-modal approach to provide remote training and specialized tablet instruction that includes individualized training sessions tailored to individuals' learning needs, hobbies, and prior technology use. The adapted protocol also involves the use of remote access software for troubleshooting. We will also discuss how participant feedback guided the inclusion of additional features, such as Zoom videoconferencing and virtual library access, for the PRISM-CI application. Finally, we will demonstrate how the adaptation of the PRISM-CI protocol holds promise for the use of flexible, remote technology approaches to reach socially isolated older adults to foster psychosocial well-being.