The Brunswik Society

30th International (Virtual) Meeting of the Brunswik Society

Free event – for Zoom link register your name, affiliation and email address with Gijs Holleman g.a.holleman@tilburguniversity.edu

Agenda
Friday 13th December 2024, 11.45-14.15 EST (16.45-19.15 GMT) via Zoom

Opening remarks – Thomas R. Stewart (University at Albany, USA)

Title: Representative design – A realistic alternative to (systematic) integrative design
Presenters/Authors: Gijs A. Holleman (Tilburg University, The Netherlands), Mandeep K. Dhami (Middlesex University, London), Ignace T. Hooge & Roy S. Hessels (Utrecht University, The Netherlands)

Abstract: In a recent article in *Behavioral and Brain Sciences*, Almaatouq et al. (2024) posit that there has never been "a workable alternative" to the 'one-at-a-time' paradigm of experimental design in the social and behavioral sciences. As a solution, they propose *integrative design*, in which researchers need to map out and make explicit the "design space of possible experiments". We disagree with Almaatouq et al. that no realistic alternative exists to the "one-at-a-time" paradigm. In our commentary (Holleman et al., 2024), we argue why Brunswik's program of representative design is a more realistic alternative than integrative design to address the problem of generalizability and commensurability in the social and behavioral sciences, because integrative design cannot guarantee the external validity and generalizability of results.

Title: Representative Stimuli Reveal Transitive Preferences
Presenters/Authors: Mattias Forsgren, Gustav Karreskog Rehbinder & Peter Juslin (Uppsala University, Sweden)

Abstract: The APA Dictionary of Psychology states that intransitive relationships "appear to be illogical and inconsistent but are often found in matters of personal preference". The studies underpinning this view have typically used monetary gambles as options. Such novel, artificial stimuli may be useful for theory testing but are not representative of the objects people choose between in their everyday lives. To make general statements, we should instead evaluate transitivity using stimuli that *are* representative ("representative design"). Across two large-sample experiments, we find that while a small number of participants have intransitive preferences for monetary gambles, we never find evidence of intransitivity for any participant across ten categories of everyday objects. The received view that preferences are "often" intransitive appears to have been a methodological artefact.

Title: Including Patients' Perspectives in Medical Case Vignettes: A Brunswikian Approach
Presenter/Authors: Marvin Kopka & Markus A. Feufel (Technische Universität Berlin, Germany)
Abstract: Case vignettes—written summaries of medical episodes—are used to evaluate digital health tools and how patients interact with them. However, traditional vignettes often fail to reflect real-world complexity, hampering generalizability. We present a framework based on Brunswik's representative design to create use-case specific vignettes from real-world patient descriptions. Comparing both types of vignettes for the decision to seek medical care, we find that laypeople become more risk-averse when using representative rather than traditional vignettes (seeking care in 91% vs. 85% of cases), and that digital health tools improve performance (between 7% and 20% more correct solutions). This suggests that representative design should be applied to prevent misjudgments of human-technology interactions with digital health.

Title: A Drift Diffusion Lens to Model Vicarious Functioning
Presenters/Authors: Florian Scholten, Lukas Schumacher & Paul Kelber (Tübingen University, Germany)
Abstract: Brunswik's vicarious functioning (VC) principle is informed by two key elements: (a) vicarious mediation, which refers to the flexible representation of the distal criterion by multiple, intermittently present cues, and (b) uncertainty about which cues to prioritize according to their ecological validity. We propose that reaction times represent a fine-grained measure of both features and present a drift-diffusion lens. Our lens integrates a dynamic transition model into a basic drift-diffusion model, allowing parameters to reflect the dynamic process of VC over time. Reanalysis of reaction time data from two experiments on the multiple-cue probability learning paradigm (Scholten & Bröder, 2024) shows that our drift-diffusion lens can account for the inductive probabilistic inference process of the naive statistician.

Title: The wisdom of the inner crowd and the wisdom of cues
Presenter/Authors: Tamara Gomilsek, Ulrich Hoffrage & Julian N. Marewski (University of Lausanne, Switzerland)
Abstract: In a recent study (Gomilsek, Hoffrage, & Marewski, 2024), we introduced a novel class of strategies to elicit the wisdom-of-the-inner-crowd. These strategies are rooted in physics, where Enrico Fermi used the back-of-the-envelope guesstimation technique. Fermian strategies prescribe decomposing an estimation problem into subtasks, solving the subtasks separately, and ultimately integrating those solutions into a final estimate. In our experiment, a similarity-based Fermian-strategy boosted the wisdom-of-the-inner-crowd even more than Herzog and Hertwig's (2009) consider-the-opposite strategy. Both Brunswik and Fermi took an analytical approach, which consisted of creating a net of cues and then integrating them. One of the differences is that Brunswik's lens model is usually used as a descriptive model, whereas Fermi's way of arriving at estimates can be conveyed as a prescriptive strategy.

Paper in Memory of Robin Hogarth: Less is more in temporally-dependent managerial environments

Presenter: Tomás Lejarraga (University of the Balearic Islands, Spain)

Abstract: While relying on small samples of experience is often considered a source of bias, managers frequently use them for making judgments and predictions. We explore how reliance on small samples of recent experience varies with the temporal structure of the information environment. Through simulations, experiments, and time-series analyses of managerial information cues, we show that people effectively use more recent samples in environments with high temporal dependence, leading to better predictions. We also find that managerial environments typically exhibit high temporal dependence. Thus, using small samples of recent experience can be ecologically rational for predictions in managerial contexts, supporting a 'less-is-more' effect."

Closing remarks – Robert M. Hamm (University of Oklahoma Health Sciences, USA)

Virtual Social/Networking Hour!!!
Friday 13th December 2024, starts 14.30 EST (19.30 GMT)
Free event – invites/link will be sent to meeting delegates

The organization team looks forward to seeing you:

Mandeep Dhami, Gijs Holleman & Esther Kaufmann