Causality in the Social Sciences III
Heterogeneous Causal Effects

GESIS – Leibniz Institute for the Social Sciences in Mannheim • 14-15 October 2021

Confirmed keynote speakers:
Jennie E. Brand, UCLA • **Richard Breen**, University of Oxford

Causality lies at the heart of any scientific explanation: Understanding how an intervention or treatment did or would change the course of the world or how a particular state of the world came about, requires an understanding of cause and effect. The currently dominant perspective of counterfactual causality was subject of two workshops funded by the *Akademie für Soziologie* in 2019 and 2020. The workshop "Causality in the Social Sciences III" builds on both by addressing a specific but fundamental topic in causal inference, namely effect heterogeneity.

Effect heterogeneity is present whenever individual-level causal effects deviate from the average effect, for example, when individuals—or any other unit of observation—differ in their response to an intervention or treatment. Across different social science disciplines, researchers have concluded that ignoring existing effect heterogeneity can lead to incorrect conclusions when testing hypotheses and to inefficient or even harmful policy recommendations (Bolger et al. 2019; Imai & Strauss 2011; Morgan 2001; Angrist 2004; Heckman, Smith, & Clements 1997). On the other hand, incorrectly specified models—e.g., models that do not fully account for selection bias—may detect heterogeneous effects when the true effect is homogeneous (Breen, Choi, & Holm 2015).

Traditionally, social scientists have been tackling effect heterogeneity mainly through interaction terms. While this simple approach can be effective, it is not without limitations and pitfalls (e.g., Mize 2019). Recently, technically more advanced and substantively different approaches—e.g., parametric and nonparametric techniques based on propensity scores, quantile regression models—have gained popularity and are subject of ongoing debates (Breen, Choi, & Holm 2015; Killewald & Bearak 2014; Xie, Brand, & Jann 2012, Wenz 2019, Brand et al. 2021).

The workshop "Causality in the Social Sciences III" picks up on these recent approaches and debates from three different angles:

  i.   It's complicated: Interpretation of heterogeneous effects
  ii.   Estimating heterogeneous effects with observational and experimental data
  iii. Machine learning techniques for specification search

The two-day workshop aims to provide opportunities for exchange and discussions about ongoing substantial and methodological research tackling one or several of these three specific topics. Confirmed keynotes will be delivered by **Jennie E. Brand**, Professor of Sociology and Statistics at UCLA, and **Richard Breen**, Professor of Sociology and Fellow of Nuffield College of Oxford University.

Early career researchers—PhD students and PostDocs—have the opportunity to present, discuss, and reflect on how far aspects of heterogeneity in causal effects are relevant for their research (10 minutes for presentation and 20 minutes for discussion). Each presentation will be discussed by the invited keynote speakers as well as the workshop participants. In addition, each participant is expected to thoroughly discuss two previously assigned papers that he or she will have to read before the workshop.

A **maximum of 15 presentations** will be accepted. The workshop is supported by the German *Akademie für Soziologie* and *GESIS – Leibniz Institute for the Social Sciences*. **Workshop participation is free of charge**. However, travel, accommodation, as well as lunch and dinner expenses, cannot be covered. Priority in admission will be given to members of the *Akademie für Soziologie*.

Please send your applications via e-mail to causality-workshop@gesis.org no later than 30 June 2021.

Your application should include:
a) an **abstract of the paper** that will be presented (up to 500 words);
b) a **brief CV** (up to one page).

Confirmations about acceptance will be sent out by 31 July 2021 at the latest. Accepted participants will be asked to **submit a full paper draft or extended abstract** four weeks prior to the workshop and **discuss two papers** from other participants.

Further information on the workshop will be provided on the following website: www.gesis.org/causality-workshop

We are looking forward to your contribution and to welcoming you on **14-15 October 2021** at **GESIS in Mannheim or online:**
- **If meeting in person will not be possible** due to the state of the Covid-19 pandemic in Mannheim and Germany, the workshop will be held online only.
- **If meeting in person is possible**, participants may join us at GESIS in Mannheim or online, according to their preferences.

Please send all remaining questions to causality-workshop@gesis.org.

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