Martin Devaux

Fifth Year PhD Candidate in Political Science

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Education

Columbia University, New York (US) 2020-Present
PhD, Political Science

London School of Economics, London (UK) 2018-2019
Master in Public Administration (MPA), *Distinction*

Sciences Po, Paris (France) 2016-2017
Master of Arts (MA) in Public Policy

Keio University, Tokyo (Japan) 2014-2016
Bachelor of Arts (BA) in Economics

Sciences Po, Le Havre (France) 2012-2014
Bachelor of Arts (BA) in Social Sciences

Working Papers

1. Business as (Un)usual: the Impact of Immigrant Entrepreneurship on Local Attitudes.

How do immigrant-owned businesses affect local community members' attitudes toward immigration policy? I develop a theoretical model of the net impact of immigrant-owned businesses on native residents. Economically, immigrant businesses create jobs and provide natives with goods and services sometimes previously unavailable, but they also compete with natives for customers. Culturally, these businesses serve as institutions that create contact between natives and immigrants, but they also display cultural differences that sometimes conflict with local preferences. While the literature has studied the impact of residential exposure to immigration, it has so far failed to account for exposure to businesses, which makes up a significant share of all contact outside of large cities. I test my theoretical framework using a novel dataset created by combining large-scale administrative data on all French businesses since 1994 with a name-based classification algorithm predicting the origin of business owners. I use the electoral results of the anti-immigration National Rally between 1994 and 2022 as an outcome and employ a modern difference-in-differences design in over 32,000 municipalities. I find that the impact of immigrant-businesses on local attitudes is conditional on the the economic and demographic structure of local communities.

2. Quantifying Robustness to External Validity Bias. *With Naoki Egami*

The external validity of experimental results is essential in the social sciences. Existing methods estimate causal effects in a target population, called the target population average treatment effect (T-PATE). However, these methods are sometimes difficult to implement either because it is infeasible to obtain data for the target population or because there is no target population that analysts and skeptics can agree on. We consider a different goal — quantifying how robust an experiment is to external validity bias. In particular, we propose a measure of external robustness by estimating how much different a population should be from the experimental sample to explain away the T-PATE. Large estimated external robustness implies that causal conclusions remain the same unless populations of interest are significantly different from the experimental sample. Unlike the standard generalization approach, estimation of external robustness only requires experimental data and does

not require any population data. We prove that the proposed estimator is consistent to the true external robustness under common generalization assumptions and, more importantly, has a simple interpretation even when those assumptions are violated. We provide benchmarks to help interpret the degree of external robustness in each application.

3. Decomposing Treatment Effect Heterogeneity in Multisite Experiments.

As the number of meta-analyses and multisite experiments has grown over the last few decades, researchers increasingly need robust tools to understand patterns of between-study or between-site treatment effect heterogeneity. Current methods designed to analyze heterogeneity include mixed-effect models and meta-regressions. In this paper, I propose to decompose systematic treatment effect heterogeneity into two components: population-induced heterogeneity and context-inducted heterogeneity. I propose to use a non-parametric estimation approach of this measure and show that it relies on weaker modeling assumptions than existing approaches. I argue that the proposed measure is easily interpretable and usefully complements traditionally reported meta-regression estimates.

Awards

Society for Political Methodology Travel Grant	2024
Dean's Fellowship (Columbia University)	2020
George W. Jones Award for the Best Performance by a Graduating MPA Student (LSE)	2019
Graduate Entrance Scholarship (LSE)	2018
Hirai Scholarship (Keio University)	2014

Teaching Experience

Teaching Assistant, **PhD Math Camp**, Dr. Benjamin Goodrich	Fall 2024
Teaching Assistant, **Honors Seminar**, Prof. John Huber	Fall 2023-Spring 2024
Teaching Assistant, **Statistical Theory and Causal Inference**, Prof. Naoki Egami	Spring 2023
Teaching Assistant, **Mathematics and Statistics for Political Science**, Prof. Naoki Egami	Fall 2022

Professional Research Experience

Research Assistant, Prof. John Huber	Fall 2021-Spring 2022
Associate, IDInsight	2019-2020

Presentations

Northeastern Workshop in European politics, Yale University	2024
Comparative Politics Seminar, Columbia University	2024
Political Economy Colloquium, Columbia University	Fall 2024
American Political Science Association, Philadelphia	2024
Conference of the Society for Political Methodology, UC Riverside - *Poster*	2024
Graduate Student Seminar, Columbia University	Spring 2024
Political Economy Colloquium, Columbia University	Spring 2024
American Political Science Association, Los Angeles	2023
Graduate Student Seminar, Columbia University	Spring 2023

Midwest Political Science Association, Chicago 2023

Service

Student coordinator, **Columbia Political Methodology Colloquium** Fall 2023-Spring 2024
Student coordinator, **Columbia Comparative Politics Seminar** Fall 2021-Spring 2023

Skills

Languages: French (native), Japanese (advanced), Spanish (intermediate), Punjabi (basic)
Software: R, Stata, LaTeX, Slurm, SQL