Dean Knox

CONTACT INFORMATION

Operations, Information, and Decisions Department
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POSITIONS

Wharton School, University of Pennsylvania — Philadelphia, PA
Assistant Professor, Operations, Information, and Decisions Department — July 2020–
Affiliations: Analytics at Wharton; Quattrone Center for the Fair Administration of Justice

Princeton University — Princeton, NJ
Assistant Professor, Department of Politics — July 2018–July 2020
Affiliations: Center for Statistics & Machine Learning; Center for the Study of Democratic Politics

Microsoft Research — New York, NY
Postdoctoral Researcher, Computational Social Science group — July 2017–June 2018

EDUCATION

Massachusetts Institute of Technology — Cambridge, MA
Ph.D., Political Science — August 2011–May 2017
Fields: Models & Methods, Political Economy
Committee: Adam Berinsky, Fotini Christia, Danny Hidalgo, Teppei Yamamoto (chair)

Monterey Institute of International Studies — Monterey, CA
Certificate in Nonproliferation Studies — January 2009–December 2009

University of Illinois at Urbana–Champaign — Urbana–Champaign, IL
B.S., Nuclear Engineering — August 2004–May 2008

JOURNAL ARTICLES

Bocar Ba, Dean Knox, Jonathan Mummolo, and Roman Rivera. Conditionally accepted. "The Impact of Racial and Ethnic Diversity in Policing." *Science*.

Dean Knox and Christopher Lucas. Forthcoming. "A Dynamic Model of Speech for the Social Sciences." *American Political Science Review* (Manuscript).

Dean Knox, Will Lowe, and Jonathan Mummolo. 2020. "Administrative Records Mask Racially Biased Policing." *American Political Science Review* (Manuscript), Vol. 114, No. 3.

Dean Knox and Jonathan Mummolo. 2020. "Toward a General Causal Framework for the Study of Racial Bias in Policing." *Journal of Political Institutions and Political Economy*, Vol. 1 (Invited).

Fragile Families Challenge Team. 2020. "Measuring the predictability of life outcomes with a scientific mass collaboration." *Proceedings of the National Academy of Sciences* (Research Report).
Author contributions: "...M.J.S., I.L., A.T.K., **D.K.**, and S. McLanahan wrote the paper."

Dean Knox and Jonathan Mummolo. 2020. "Making Inferences about Racial Disparities in Police Violence." *Proceedings of the National Academy of Sciences* (Letter), Vol. 117, No. 3.

Samuel Mehr, Manvir Singh, **Dean Knox**, Daniel Ketter, Daniel Pickens-Jones, Stephanie Atwood, Christopher Lucas, Nori Jacoby, Alena Egner, Erin Hopkins, Rhea Howard, Joshua Hartshorne, Mariela Jennings, Jan Simson, Constance Bainbridge, Steven Pinker, Timothy O'Donnell, Max Krasnow, and Luke Glowacki. 2019. "Universality and Diversity in Human Song." *Science* (Research Article).
Author contributions: "...**D.K.** designed and implemented all analyses, with support from S.A.M. and C.L. S.A.M., **D.K.**, and M.S. designed the static figures and S.A.M. and **D.K.** created them..."

Dean Knox, Teppei Yamamoto, Matthew Baum, and Adam Berinsky. 2019. "Design, Identification, and Inference in Patient Preference Trials." *Journal of the American Statistical Association* (Applications and Case Studies).

Dean Knox. 2012. "Nuclear Security and Nuclear Emergency Response in China." *Science & Global Security*, Vol. 20, No. 1.

SUBMITTED

Cody Moser, Harry Lee-Rubin, Constance Bainbridge, Stephanie Atwood, Jan Simson, **Dean Knox**, Luke Glowack, Andrzej Galbarczyk, Grazyna Jasienska, Cody Ross, Mary Neff, Alia Martin, Laura Cirelli, Sandra Trehub, Jinqi Song, Minju Kim, Adena Schachner, Tom Vardy, Quentin Atkinson, Jan Antfolk, Purnima Madhivanan, Anand Siddaiah, Caitlyn Placek, Gul Deniz Salali, Sarai Keestra, Manvir Singh, Scott Collins, John Patton, Camila Scaff, Jonathan Stieglitz, Cristina Moya, Rohan Sagar, Brian Wood, Max Krasnow, and Samuel Mehr. "Acoustic regularities in infant-directed vocalizations across cultures." Revise & resubmit.

Dean Knox, Will Lowe, and Jonathan Mummolo. Can Racial Bias in Policing Be Credibly Estimated Using Data Contaminated by Post-Treatment Selection?

Justin Grimmer, Dean Knox, and Brandon Stewart. "Naïve regression requires weaker assumptions than factor models to adjust for multiple cause confounding."

Fotini Christia, Elizabeth Dekeyser, and Dean Knox. "The Nature and Origins of Sectarian Animosity."

IN PROGRESS

Naijia Liu, Matt Baum, Adam Berinsky, Justin de Benedictis-Kessner, Andy Guess, Dean Knox, Christopher Lucas, and Brandon Stewart. "Do Online Video Recommendation Algorithms Increase Polarization?"

Dean Knox. "`ffgrep`: Scalable Approximate String Matching."

Dean Knox and Christopher Lucas. "More than Words: How Political Rhetoric Shapes Voters' Affect and Evaluation."

Max Goplerud, Dean Knox and Christopher Lucas. "The Rhetoric of Parliamentary Debate: Measuring Conflictual Speech in New Zealand Floor Speeches."

Dean Knox, Jake Hofman, and Duncan Watts. "The Structure and Dynamics of Diffusive Conversations."

Dean Knox. "A New Model for Analyzing Paths: Determinants and Effects of U.S. Interstate Routes."

Fotini Christia, Dean Knox, and Jaffar Al-Rikabi. "Networks of Sectarianism: Experimental Evidence on Access to Services in Baghdad."

Fotini Christia and Dean Knox. "Geographic Segregation in Baghdad: Detecting Out-group Aversion in Walking Routes."

OTHER WRITING

Dean Knox and Jonathan Mummolo. 2020. "A widely touted study found no evidence of racism in police shootings. It's full of errors." *Washington Post*, 15 July.

Dean Knox and Jonathan Mummolo. 2020. "It Took Us Months to Contest a Flawed Study on Police Bias. Here's Why That's Dangerous." *Washington Post*, 28 January.

Fotini Christia, Elizabeth DeKeyser and Dean Knox. 2016. "To Karbala: Surveying Religious Shi'a from Iran and Iraq." Translated as "Ila Karbalā: Dirāsa Mashiyya 'an Shi'iat Iran Wāl-Irāq" *Dirāsāt Fikriyya, Dirasat Fikriya*. Nasr Al-Husaini, Aya Al-Raoof, Hasan Al-Asadi (trans.); Hasan Nadhem, Ali Hakam Saleh (eds.). Kufa University Press. 2018. Beirut, Lebanon.

Christia, Fotini, Elizabeth Dekeyser, and Dean Knox. 2016. "Shiites are Participating in the World's Largest Pilgrimage Today. Here is how they View the World," *Monkey Cage (Washington Post)*, 21 November 2016.

Christia, Fotini, Elizabeth Dekeyser, and Dean Knox. 2016. "Mapping Shiite Opinion: Insights from the Arba'een Pilgrimage." *Foreign Affairs*, 24 October 2016.

Jakobson, Linda and Dean Knox. 2010. "New Foreign Policy Actors in China." Stockholm: SIPRI. Translated as "Chuugoku no Atarashii Taigai Seisaku: Darega Donoyouni Kettei Shite Irunoka." 2011. Tokyo: Iwanami Shoten.

Jakobson, Linda, Paul Holtom, Dean Knox, and Peng Jingchao. 2011. "China's Energy and Security Relations with Russia." Stockholm: SIPRI.

BOOK CHAPTERS	Fotini Christia, Elizabeth Dekeyser, and Dean Knox. Forthcoming. "Piety and Religious Communalism among Shiites in Iraq and Iran." *The Oxford Handbook of Politics in Muslim Societies*, eds. Melani Cammett and Pauline Jones. Oxford University Press.
	Dean Knox. 2012. "The Comprehensive Test Ban Treaty: Foundations, Context, and Outlook." In *Handbook of Nuclear Proliferation*, ed. Harsh V. Pant. Routledge.

AWARDS, HONORS & FELLOWSHIPS

Society for Political Methodology	Gosnell Prize for Excellence in Political Methodology, 2020
Society for Political Methodology	John T. Williams dissertation prize, 2016
Society for Political Methodology	Best poster at annual summer meeting, 2015
National Science Foundation	Graduate Research Fellowship, 2013–2016
Massachusetts Institute of Technology	Presidential Graduate Fellowship, 2012–2013
Foreign Policy magazine	Best writing in global political economy, 2010

GRANTS

Naijia Liu, Matt Baum, Adam Berinsky, Justin de Benedictis-Kessner, Andy Guess, Dean Knox, Christopher Lucas, and Brandon Stewart. 2020. "Do Online Video Recommendation Algorithms Increase Affective Polarization?" Facebook Foundational Integrity Research: Misinformation and Polarization Research Award. $100,000.

Olga Russakovsky, Dean Knox, Jonathan Mummolo, and Brandon Stewart. 2020. "Making Police-Citizen Interaction Safer: Large-Scale Computational Analysis of Visual Law Enforcement Records." School of Engineering and Applied Science Innovation Research Grant. $150,000.

Dean Knox. 2019. "A Toolkit for the Quantitative Analysis of Audiovisual Speech Data." Schmidt DataX Research Award. $100,000.

Dean Knox and Andy Guess. 2019. "Do Video Personalization Algorithms Polarize Users?" Innovative Ideas in the Social Sciences, Princeton University Dean for Research. $50,000.

TEACHING

Princeton POL574: Statistical Machine Learning. Spring 2019, Spring 2020.
Princeton POL571: Probability. Fall 2018, Fall 2019.
Institute for Political Methodology summer camp. Summer 2015. Teaching assistant.
MIT 17.806: Machine Learning. Spring 2015. Teaching assistant.
MIT 17.802: Causal inference. Spring 2014. Teaching assistant.

INVITED TALKS

American Civil Liberties Union	2020
University of California, Berkeley	2020
Japanese Society for Quantitative Political Science	2020
Wharton School of Business	2019
University of California, San Diego	2019
New York University	2017
University of Southern California	2017
Brown University	2016

Duke University	2016
Emory University	2016
Michigan University	2016
New York University, Shanghai	2016
Pennsylvania State University	2016
Princeton University	2016
Rochester University	2016
University of California, San Diego	2016

CONFERENCE PRESENTATIONS

"Estimating Racial Bias with Contaminated Data"
Georgetown Law, Howard University, and The Lab @ DC Reimagining Police Stops Workshop (Online, 2020)

"Do Online Video Recommendation Algorithms Increase Polarization?"
American Political Science Association annual meeting. (Online, 2020)

"More than Words: How Political Rhetoric Shapes Voters' Affect and Evaluation"
Japanese Society for Quantitative Political Science winter meeting. (Waseda, 2020)

"The Structure and Dynamics of Diffusive Conversations"
American Political Science Association annual meeting. (Washington, D.C., 2019)

"The Bias is Built In: How Administrative Records Mask Racially Biased Policing"
Society for Political Methodology summer meeting. (MIT, 2019)
Asian Political Methodology Conference. (Doshisha, 2019)

"A Dynamic Model of Speech for the Social Sciences"
Society for Political Methodology summer meeting. (BYU, 2018)
Asian Political Methodology Conference. (SNU, 2018)

"The Nature and Origins of Sectarian Animosity."
Association for Analytical Learning about Islam and Muslim Societies conference (Princeton, 2018)

"The Rhetoric of Parliamentary Debate: Measuring Conflictual Speech in New Zealand Floor Speeches"
Midwest Political Science Association annual meeting. (Chicago, 2019)
American Political Science Association annual meeting. (Philadelpha, 2016)

"A Model for Path Data."
Society for Political Methodology, summer meeting. (Houston, 2016)
American Political Science Association annual meeting. (San Francisco, 2015)
New Faces in Political Methodology conference. (Penn State, 2015)

"Networks of Sectarianism: Experimental Evidence on Access to Services in Iraq."
Multidisciplinary University Research Initiative (MURI) meeting. (UPenn, 2016)
Midwest Political Science Association annual meeting. (Chicago, 2016) Association for Analytical Learning about Islam and Muslim Societies conference (Stanford, 2016)

"Words Don't Fit The Picture: Using Computer Vision to Measure Speaker Sentiment in Videos."
Midwest Political Science Association annual meeting. (Chicago, 2016)
NYU-CESS Experimental Political Science conference. (NYU, 2016)

"Design, Identification, and Inference in Patient Preference Trials."
Society for Political Methodology, annual summer meeting. (UGA, 2014)
Poster presentation. Atlantic Causal Inference Conference. (UPenn, 2015)

"Identifying Peer Effects under Homophily with an Instrumental Variable: Patronage and Promotions in the Chinese Bureaucracy"
Poster presentation. Society for Political Methodology, summer meeting. (UGA, 2014)
Midwest Political Science Association, annual meeting. (Chicago, IL, 2013)

"Markov Chain Simulation of Policy Diffusion."
Poster presentation. Midwest Political Science Association, annual meeting. (Chicago, IL, 2012)

SERVICE	Princeton Fellowship of Woodrow Wilson Scholars	Acting Director, 2019–2020
	Princeton Quantitative Social Science Colloquium	Faculty Co-coordinator, 2018–2020
	MIT Political Methodology Research Seminar	Student Coordinator, 2015
	MIT Political Methodology Workshop Series	Organizer, 2014
	MIT Political Economy Breakfast Series	Student Co-coordinator, 2014
	MIT Political Science Graduate Student Research Design Group	Co-organizer, 2013–2014
	Harvard-MIT-BU Chinese Politics Research Workshop	Co-organizer, 2012–2013