

EITAN SAPIRO-GHEILER

OFFICE CONTACT INFORMATION

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DOCTORAL STUDIES

Massachusetts Institute of Technology (MIT)
PhD, Economics, expected completion June 2025
DISSERTATION: “Essays in Political Economy”

DISSERTATION COMMITTEE AND REFERENCES

Professor Alexander Wolitzky
MIT Department of Economics
77 Massachusetts Avenue, E52-518
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Professor Benjamin Olken
MIT Department of Economics
77 Massachusetts Avenue, E52-542
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Professor Stephen Morris
MIT Department of Economics
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PRIOR EDUCATION

Princeton University
B.A., Economics
Summa cum laude, Phi Beta Kappa

2015–2019

GENDER

Male

CITIZENSHIP

Uruguay, USA

LANGUAGES

Spanish (native), English (native), French (fluent)

FIELDS

Primary: Political economy
Secondary: Economic theory, natural language processing

TEACHING EXPERIENCE	14.770 Graduate Political Economy I	Fall 2023
	Teaching Assistant to Profs. Abhijit Banerjee and Alexander Wolitzky	
	14.20 Undergraduate Industrial Organization	Fall 2023
	Teaching Assistant to Prof. Nancy Rose	
	14.126 Graduate Game Theory	Spring 2022
	Teaching Assistant to Profs. Muhamet Yildiz and Alexander Wolitzky	
RELEVANT POSITIONS	14.75 Undergraduate Political Economy	Spring 2022
	Teaching Assistant to Profs. Abhijit Banerjee and Benjamin Olken	
	14.770 Graduate Political Economy I	Fall 2021
	Teaching Assistant for Profs. Abhijit Banerjee and Benjamin Olken	
RELEVANT POSITIONS	Research Assistant to Prof. Alexander Wolitzky	Summer 2020–Fall 2020
FELLOWSHIPS, HONORS, AND AWARDS	National Science Foundation Graduate Research Fellowship	2019–2024
	Finalist for Best Student-Track Submission,	2019
	AAAI Conference on Artificial Intelligence	
	Princeton University Halbert White '72 Prize in Economics (Top Economics Undergraduate)	2019
	Princeton University Wolf Balleisen Memorial Prize (Best Economics Undergraduate Thesis)	2019
	Princeton University Department of Economics Junior First Prize	2018
Princeton University Shapiro Prize for Academic Excellence	2017	
PROFESSIONAL ACTIVITIES	<u>Presentations</u>	
	AAAI Conference on Artificial Intelligence (2019)	
	<u>Refereeing</u>	
	<i>PNAS</i>	
	<u>Service</u>	
	MIT Economics Behavioral Lunch organizer, 2022-2023	
PUBLICATIONS	“Persuasion with Ambiguous Receiver Preferences” <i>Economic Theory</i> , vol. 77, pp. 1173—1218 (August 2023); link to published version . I describe a Bayesian persuasion problem where Receiver has a private type representing a cutoff for choosing Sender’s preferred action, and Sender has maxmin preferences over all Receiver type distributions with known mean and bounds. This problem can be represented as a zero-sum game where Sender chooses a distribution of posterior mean beliefs that is a mean-preserving contraction of the prior over states, and an adversarial Nature chooses a Receiver type distribution with the known mean; the player with the higher realization from their chosen distribution wins. I formalize the connection between maxmin persuasion and similar games used to model political spending, all-pay auctions, and competitive persuasion. In both a standard binary-state setting and a new continuous-state setting, Sender optimally linearizes the prior distribution over states to create a distribution of posterior means that is uniform on a known interval with an atom at the lower bound of its support.	

**PUBLICATIONS
(CONT.)****“Examining Political Trustworthiness Through Text-Based Measures of Ideology”**

Proceedings of the 33rd AAAI Conference on Artificial Intelligence, vol. 33, no. 1, pp. 10029–10030 (January 2019); [link to published version](#).

This work shows the value of word-level statistical data from the US Congressional Record for studying the ideological positions and dynamic behavior of senators. Using classification techniques from machine learning, we predict senators’ party with near-perfect accuracy. We also develop text-based ideology scores to embed a politician’s ideological position in a one-dimensional policy space. Using these scores, we find that speech that diverges from voting positions may result in higher vote totals. To explain this behavior, we show that politicians use speech to move closer to their party’s average position. These results not only provide empirical support for political economy models of commitment, but also add to the growing literature of machine-learning-based text analysis in social science contexts.

**RESEARCH
PAPERS****“Strategic Opinion-Writing on Appellate Courts” (Job Market Paper)**

September 2024; [link to most recent version](#).

Ruling on thousands of cases each year, U.S. federal courts of appeals make some of the most impactful decisions in modern society. I study quasi-random three-judge appellate panels during the period 1970–2013 and show that while bipartisan panels cause a roughly 25% increase in the number of dissenting opinions compared to party-unanimous panels, the minority partisan or most politically extreme judge is no more likely to dissent than their colleagues. This novel result is incompatible with classical median-voter approaches. I reconcile the contrasting effects of partisanship on total and individual dissents through a model where judges prefer coalitions with more similar judges along both partisan and non-partisan dimensions. Using judge metadata, I find that dissimilarity across law school training and gender are associated with larger increases in dissent rates on bipartisan panels. I then introduce state-of-the-art machine learning models from natural language processing to analyze opinion text and show that those same judge characteristics also drive differences in the legal topics covered, while the effect of panel partisanship on text is minimal. More broadly, I illustrate the theoretical and empirical complexity of appellate court behavior and the need for novel approaches to study judicial polarization.

“Partisan Opinions, but Common Language: Similarities in Topic Use by Appellate Judges”

August 2024; draft available upon request.

As the final word on thousands of legal matters each year, appellate courts make some of the most impactful decisions in modern society. Understanding partisan behavior by their judges is therefore critical for the rule of law. However, judicial language is technical, making partisanship challenging to objectively measure and creating a unique opportunity for natural language processing. Using fine-tuned language embeddings from transformer models, we leverage the random assignment of individual judges to three-judge panels, and of those panels to cases, to causally estimate how discussion of legal topics on U.S. appellate courts differs across partisan environments. We show that while Democratic judges write more dispersed opinions, judges of both parties agree on average about the important topics in each legal case. Further, we demonstrate that mandatory bipartisanship does not reduce the range of

**RESEARCH
PAPERS (CONT.)**

topics considered. Judicial partisanship is thus driven by disagreements within legal issues rather than disputes about which issues apply. These results provide a clearer understanding of the structure of judicial language and open new directions for natural language processing research and impact.

“Discovery through Trial Balloons”

November 2022, [available on arXiv](#).

A principal and an agent face symmetric uncertainty about the value of two correlated projects for the agent. The principal chooses which project values to publicly discover and makes a proposal to the agent, who accepts if and only if the expected sum of values is positive. We characterize optimal discovery for various principal preferences: maximizing the probability of the grand bundle, of having at least one project approved, and of a weighted combination of projects. Our results highlight the usefulness of trial balloons: projects which are ex-ante disfavored but have higher variance than a more favored alternative. Discovering disfavored projects may be optimal even when their variance is lower than that of the alternative, so long as their disfavorability is neither too large nor too small. These conclusions rationalize the inclusion of controversial policies in omnibus bills and the presence of moonshot projects in organizations.