

# Andrei Boutyline

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## Curriculum Vitae

### Employment

|                                  |      |   |      |
|----------------------------------|------|---|------|
| University of Michigan           |      |   |      |
| Associate Professor of Sociology | 2025 | — | ...  |
| Assistant Professor of Sociology | 2017 | — | 2025 |

### Education

|                                             |     |      |
|---------------------------------------------|-----|------|
| University of California, Berkeley          | PhD | 2017 |
| Sociology                                   | MA  | 2011 |
| New York University                         | MA  | 2009 |
| Humanities and Social Thought               |     |      |
| University of California, Berkeley          | BA  | 2004 |
| Cognitive Science, Computer Science (minor) |     |      |

### Peer-Reviewed Research

Note: asterisks (\*) indicate graduate student coauthors

- Boutyline, Andrei, and Alina Arseniev-Koehler. 2025. "Meaning in Hyperspace: Word Embeddings as Tools for Cultural Measurement." *Annual Review of Sociology* 51 (Volume 51, 2025):89–107. [doi:10.1146/annurev-soc-090324-024027](https://doi.org/10.1146/annurev-soc-090324-024027).
- Boutyline, Andrei, Alina Arseniev-Koehler(\*), and Devin Cornell(\*). 2023. "School, Studying, and Smarts: The Gender of Education Across 80 Years of American Print Media, 1930-2009." *Social Forces*. [doi:10.1093/sf/soac148](https://doi.org/10.1093/sf/soac148)
- Boutyline, Andrei. 2022. "Holding a Position: Public Opinion as Cognition in a Disorganized Field." *Poetics*. [doi:10.1016/j.poetic.2022.101710](https://doi.org/10.1016/j.poetic.2022.101710)
- Boutyline, Andrei, and Laura Sauter(\*). 2021. "Cultural Schemas: What They Are, How to Find Them, and What to Do Once You've Caught One". *American Sociological Review* 86, no. 4 (August): 728-758. [doi:10.1177/00031224211024525](https://doi.org/10.1177/00031224211024525)
- Honorable mention for Outstanding Recent Contribution in Social Psychology Award, ASA Social Psychology section, 2023
  - Honorable mention for Clifford Geertz Prize for Best Article, ASA Culture Section, 2022
- Boutyline, Andrei, Devin Cornell(\*), and Alina Arseniev-Koehler(\*). 2021. "All Roads Lead to Polenta: Cultural Attractors at the Junction of Public and Personal Culture." *Sociological Forum*. [doi:10.1111/socf.12760](https://doi.org/10.1111/socf.12760)
- Commissioned article for special issue on culture & cognition.

- Boutyline, Andrei and Stephen Vaisey. 2017. "Belief Network Analysis: A Relational Approach to Understanding the Structure of Attitudes." *American Journal of Sociology* 122, no. 5 (March): 1371-1447. [doi:10.1086/691274](https://doi.org/10.1086/691274)
- Boutyline, Andrei. 2017. "Improving the Measurement of Shared Cultural Schemas with Correlational Class Analysis: Theory and Method." *Sociological Science* 4: 353-393. May 29, 2017. [doi:10.15195/v4.a15](https://doi.org/10.15195/v4.a15)
- Graduate student paper award, ASA Mathematical Sociology Section, 2015
  - Honorable mention for graduate student paper award, ASA Methodology Section, 2016
- Boutyline, Andrei and Robb Willer. 2017. "The Social Structure of Political Echo Chambers: Variation in Ideological Homophily in Online Networks." *Political Psychology* 38, no. 3 (June): 551-569. [doi:10.1111/pops.12337](https://doi.org/10.1111/pops.12337)

## Work in Progress

- "Forging Better Axes: Methods for Estimating Semantic Dimensions with Word Embeddings", with Ethan Johnston(\*). Revise and resubmit at *Sociological Methods and Research*.
- "Semantic Structure in Large Language Model Embeddings," with Austin Kozlowski and Callin Dai (\*). Preprint: <https://arxiv.org/abs/2508.10003>
- "Discriminating Digital Doubles or Mere Prejudiced Parrots: Do Large Language Models Develop Coherent Stereotypes of Social Groups or Simply Parrot Biased Judgements?" with Alina Arsniev-Koehler
- "MMM: A More Meaningful Measure of Document – Concept Engagement via Language Models", with Alina Arsniev-Koehler and Ethan Johnston(\*)

## Patents

- Nepomniachtchi, Grigori and Andrei Boutyline. Two patents for "Method for Applying Signature Simplicity Analysis for Improving the Accuracy of Signature Validation."
- U.S. Patent No. 8,452,098 (2013) and No. 7,787,695 (2010)

## Selected Awards and Honors

- American Sociological Association, Social Psychology Section*. Honorable mention, outstanding recent contribution in social psychology award. 2023.
- American Sociological Association, Culture Section*. Honorable mention, Clifford Geertz prize for best article. 2022.
- American Sociological Association, Section on Methodology*. Honorable mention, best paper award for graduate students. 2016.
- American Sociological Association, Mathematical Sociology Section*. Winner, best paper award for graduate students. 2015.
- National Science Foundation Graduate Research Fellowship Program*. 2011 – 2014. (\$92,000).

National Science Foundation Integrated Graduate Education Research Traineeship in Politics, Economics, Psychology, and Public Policy (NSF-IGERT). 2010 – 2011. (\$30,000).

The Herbert and Rose Hirschhorn Thesis Award. Graduate School of Arts and Science, New York University. 2009.

## Invited Talks

“Meaning in Hyperspace: Word Embeddings as Models of Culture and Cognition”

- *International Computational Social Science Roundtable*, Institute for Analytical Sociology, Linköping University, Norrköping, Sweden. October 2025
- *Management and Organizations Seminar*, Ross School of Business, University of Michigan, February 2025
- Keynote talk. XXII Annual International «Vectors» Conference, April 2024
- *Worldview Lab*, Kenan Institute of Ethics, Duke University. May 2024

“Taming the Wild West: Increasing the Reliability and Validity of Cultural Measurement via Word Embeddings”

- *Polarization and Social Change Lab (PASCL)*. Sociology Dept, Stanford. May 2023.

“Cultural Schemas: What They Are, How to Find Them, and What to Do Once You've Caught One”.

- *Culture and Politics Workshop*. Pennsylvania State University. October 2020.

“School, Studying, and Smarts: The Gender of Education Across 80 Years of American Print Media, 1930-2009”

- *The Knowledge Lab*. University of Chicago. February 2020.

“What Explains The Systematic Character of Political Attitudes? Evidence from Two Novel Methods for Structural Analysis of Culture”

- *Computational Sociology Working Group*. UCLA. April 2017.
- *Theory Workshop*. Sociology Dept., University of Iowa. January 2017.
- *Morality and Hierarchy Workshop*. Sociology Dept., Stanford University. October 2016.
- *Duke Network Analysis Center*. Duke University. February 2016.

“The Field Structure of Public Opinion: Theory and Methods for a Cognitive Macro-Sociology”

- *Culture Workshop*. Sociology Department, Duke University. April 2014.
- *Laboratory for Social Research*. Sociology Dept., Stanford University. November 2013.

## Selected Conference Presentations

“Meaning in Hyperspace: Word Embeddings as Models of Culture and Cognition”

- *American Sociological Association conference*. Chicago, IL. Aug. 2025.
- *Sociological Science conference*. Ithaca, NY. Jun. 2025

“Forging Better Axes: A New Analogy-Based Technique for Improving Cultural Measurement via Word Embeddings”

- *American Sociological Association conference*. Philadelphia, PA. Aug. 2023.

“Cultural Schemas: a Conceptual Re-Orientations (with Free How-To Guide)”

- *American Sociological Association conference*. Philadelphia, PA. Aug. 2019. (*invited session*)

- “To Hold a Position: Public Opinion as Cognition in a Disorganized Field”  
 — *American Sociological Association conference*. Montreal, QC. Aug. 2017.
- “The Unbearable Linearity of Being: Measuring Complexity of ‘Culture-in-the-Mind’”  
 — *Culture & Cognition Mini-Conference* (part of ESS). Philadelphia, PA. Feb. 2017.
- “Towards a Cognitive Macro-Sociology of Culture”  
 — *American Sociological Association annual meeting*. Seattle, August 2016 (invited panel)
- “Belief Network Analysis: Findings from a Novel Structural Methodology”  
 — *American Sociological Association annual meeting*. Chicago, IL. August 2015.
- “Improving the Measurement of Shared Cultural Schemas with Correlational Class Analysis”  
 — *American Sociological Association annual meeting*. San Francisco, CA. August 2014.
- “Belief Network Analysis: A Relational Approach to Understanding the Structure of Attitudes”  
 — *American Sociological Association annual meeting*, August 2012. Denver, CO.  
 — *Political Networks conference*, June 2012. Boulder, CO.  
 — *International Network for Social Network Analysis conference (Sunbelt)*, February 2012. Redondo Beach, CA.
- “The Social Structure of Political Echo Chambers: Ideology and Political Homophily in Online Communication Networks”  
 — *Group Processes conference*. August 2013. New York, NY.  
 — *American Sociological Association annual meeting*, August 2011. Las Vegas, NV.  
 — *Political Networks conference*, June 2011. Ann Arbor, MI.  
 — *European Network of Analytical Sociologists conference*, June 2011. Paris, Fr.  
 — *International Network for Social Network Analysis (Sunbelt)*, Feb 2011. St. Pete Beach, FL.

## Teaching

*University of Michigan, Dept. of Sociology*

### Graduate

- *Culture and Cognition* Winter 2018, 2020, 2023.
- *Social Network Analysis* Winter 2019.
- *Measuring and Modeling Culture workshop* Fall 2019, Winter 2020, 2022.

### Undergraduate

- *Research Methods* Winter 2019, Fall 2019, F 2022, F 2023, W 2023, W 2024, F 2024, W 2025, W 2026.
- *Culture and Cognition* Winter 2020, 2022, 2023, 2025, 2026.
- *Introduction to Statistics* Fall 2017.

### Additional teaching interests

- *Sociology of Culture* (G, UG)
- *Computational Social Science* (G, UG)
- *Computational Text Analysis* (G)
- *Research Methods* (G)
- *Theory Construction* (G)

## Departmental Service

University of Michigan, Dept. of Sociology

|                  |                                                     |                   |
|------------------|-----------------------------------------------------|-------------------|
| Administration   | Director of Graduate Admissions & Recruitment       | 2025 —            |
| Committee member | <i>Culture and Knowledge Preliminary Exam Comm.</i> | 2019–‘20, ‘23–‘24 |
|                  | <i>Comm. on Administration of Graduate Affairs</i>  | 2018–‘19, ‘23     |
|                  | <i>Colloquium Committee</i>                         | 2019–‘20          |
|                  | <i>Committee on Graduate Admissions</i>             | 2017–‘18          |

## Professional Service

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Ad-hoc reviewer   | <i>American Journal of Sociology, American Sociological Review, Social Forces, American Journal of Political Science, Journal of Personality and Social Psychology, Demography, Poetics, Sociological Methodology, Sociological Methods &amp; Research, Sociological Theory, Social Networks, Social Psychology Quarterly, Socio-Economic Review, British Journal of Sociology, Social Science Research, Socius, and other venues</i> |  |
| Maintainer        | <i>corclass R</i> package for Correlational Class Analysis (on CRAN)                                                                                                                                                                                                                                                                                                                                                                  |  |
| Member            | <i>American Sociological Association</i>                                                                                                                                                                                                                                                                                                                                                                                              |  |
| Session Organizer | 2024. “Computational Approaches to Culture and Cognition”. <i>ASA Social Psychology Section</i> .                                                                                                                                                                                                                                                                                                                                     |  |
| Committee member  | 2020. Outstanding graduate student paper award committee. <i>ASA Mathematical Sociology section</i> .                                                                                                                                                                                                                                                                                                                                 |  |