

# AIDAN COMBS

*Curriculum vitae*

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## EDUCATION

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<b>PhD Candidate</b>	Duke University, Sociology <i>Qualification areas: Social Psychology and Measuring Culture Certificate in College Teaching</i>	<i>Expected May 2024</i>
<b>MA</b>	Duke University, Sociology	2021
<b>BS</b>	University of Wisconsin-Madison <i>Engineering Physics with scientific computing focus; Mathematics</i>	2018

## RESEARCH INTERESTS

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Computational social science, quantitative methods, cultural sociology, social psychology, identity, toolbuilding for social data collection and analysis

## PEER-REVIEWED JOURNAL ARTICLES

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- Combs, Aidan, Graham Tierney, Brian Guay, Friedolin Merhout, Christopher A. Bail, D. Sunshine Hillygus, and Alexander Volfovsky. 2023. "Reducing Political Polarization in the United States with a Mobile Chat Platform." *Nature Human Behavior*. [doi:10.1038/s41562-023-01655-0](https://doi.org/10.1038/s41562-023-01655-0).
- Combs, Aidan, Graham Tierney, Fatima Alqabandi, Devin Cornell, Gabriel Varela, Andrés Castro Araújo, Lisa Argyle, Alexander Volfovsky, and Christopher A. Bail. 2023. "Perceived Gender and Political Persuasion: A Social Media Field Experiment during the 2020 US Democratic Presidential Primary." *Nature Scientific Reports*. [doi:10.1038/s41598-023-39359-0](https://doi.org/10.1038/s41598-023-39359-0).
- Combs, Aidan, Robert E. Freeland, Katelin Alfaro Hudak, and Elizabeth A. Mumford. 2023. "The Effect of Occupational Status on Health: Putting the Social in Socioeconomic Status." *Heliyon* 9(11):e21766. [doi:10.1016/j.heliyon.2023.e21766](https://doi.org/10.1016/j.heliyon.2023.e21766)
- Bail, Christopher A., Brian Guay, Emily Maloney, Aidan Combs, D. Sunshine Hillygus, Friedolin Merhout, Deen Freelon, and Alexander Volfovsky. 2020. "Assessing the Impact of the Russian Internet Research Agency on the Political Attitudes and Behaviors of American Twitter Users in Late 2017." *Proceedings of the National Academy of Sciences* 117(1):243-250. [doi:10.1073/pnas.1906420116](https://doi.org/10.1073/pnas.1906420116)

Combs, Aidan, Jason J. Maldonis, Jie Feng, Zhongnan Xu, Paul M. Voyles, and Dane Morgan. 2019. "Fast Approximate STEM Image Simulations from a Machine Learning Model." *Advanced Structural and Chemical Imaging* 5(2).  
[doi:10.1186/s40679-019-0064-2](https://doi.org/10.1186/s40679-019-0064-2)

## ARTICLES IN PROGRESS

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Alfaro Hudak, Katelin, Aidan Combs, Robert E. Freeland, and Elizabeth A. Mumford. "The Occupational Status of Law Enforcement Officers and Variation Across Sociodemographic Characteristics: Quantifying Self and Public Perceptions of Prestige." *Under review*.

Combs, Aidan. "Prototypes and Boundaries; Disagreement and Entropy: Operationalizing Uncertainty in Affective Cultural Meaning at Two Levels of Analysis." *Working paper*.  
\*Winner of the 2023 Southern Sociological Society Odum Graduate Student Paper Award.

Combs, Aidan. "People Don't Know What They Don't Know: Political Knowledge and Perceptions of Influence in Political Conversation." *Working paper*.

Combs, Aidan. "All Cops are Bastards? The Effect of the Killing of George Floyd on Police Identity Meanings." *Working paper*.

Combs, Aidan and Lynn Smith-Lovin. "Emotions in Social Networks." In the *Handbook of Social Networks and Social Psychology*, edited by Dawn T. Robinson and Bryan C. Cannon. Elgar Press. *In progress*.

Vaisey, Stephen, Dawn T. Robinson, Lynn Smith-Lovin, and Aidan Combs. "The Duality of Persons and Cultural Meaning Communities: Using Belief Networks to Study Systematic Deviations from Cultural Consensus about Social Identities." *In progress*.

Hoey, Jesse, Tobias Schröder, Lynn Smith-Lovin, and Aidan Combs. "The Sociology of Emotions and Bayesian Affect Control Theory." *Invited paper, Cognition and Emotion. In progress*.

Jacobs, Susan and Aidan Combs. "Situation Definition, Polarization, and Affect Control Theory." *In progress*.

Freeland, Robert and Aidan Combs. "Public Servants or Political Hacks? The Effect of Context on Affective Meanings of Politicized Occupations." *In progress*.

Combs, Aidan and Lynn Smith-Lovin. "Multiple Identities, Uncertain Social Interactions and Mixed Emotions: Using Bayesian Probability to Model the Dynamics of Identity, Action and Emotion." *In progress*.

## R PACKAGES

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Combs, Aidan. *bayesactR*. <https://ahcombs.github.io/bayesactR/>

*An interface that allows Bayesian affect control theory simulations to be run in R, facilitating more accessible and reproducible research on identity processes in interaction*

Combs, Aidan. *actdata*. <https://ahcombs.github.io/actdata/>

*A central repository for standardized versions of all publicly available affect control theory dictionaries*

## GRANTS, FELLOWSHIPS, AND HONORS

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Odum Award for Best Graduate Student Paper, Southern Sociological Society, 2023

Vorsanger-Smith Scholar Award, Duke Sociology Department, 2023

Duke Sociology Department Research Grant, 2021 and 2022

Duke Worldview Lab Research Grant, 2021

Duke Graduate School Summer Research Fellowship, 2019, 2020, 2021

Oxford Summer Institute in Computational Social Science Project Grant, 2019

University Bookstore Academic Excellence Award, 2018

Wisconsin Hilldale Undergraduate Research Fellowship, 2017-2018

## TEACHING AND MENTORSHIP

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*Instructor of record:*

Quantitative Analysis of Sociological Data (SOCIOLOG 333), Summer 2023.

<https://soc333-sum23.github.io/>

*Introductory statistics course for sociology students, taught in R with open source materials*

*Formal pedagogy training:*

Enrolled in the Duke Certificate for College Teaching

Kenan Institute for Ethics Teaching on Purpose fellow, Fall 2022

Southern Sociological Society Striving Towards Anti-Racist Teaching in the South fellow, Spring 2022

*Teaching assistantships:*

Sociological Theory, Jessi Streib, Fall 2023

Introduction to Sociology, Craig Rawlings, Fall 2019, 2020, 2021, and 2022

The Invention and Consequences of Race, Kerry Haynie, Charmaine Royal, Nayoung Aimee Kwon, and Donald Taylor, Fall 2021

Introduction to Sociology, Ashley Harrell, Spring 2021

Leadership (MBA program elective), Angelica Leigh, Spring and Fall 2021

Negotiation (MBA program elective), Christopher Petsko, Fall 2020

Summer Institute in Computational Social Science, Christopher Bail and Matthew Salganik, Summer 2020

Social Research Methods, Jenifer Hamil-Luker, Spring 2020

*Guest lectures:*

Information Science and Studies 112, November 2022: *“Online Communication and Polarization.”*

Introduction to Sociology, October 2022: *“The Sociology of Race and Ethnicity.”*

Information Science and Studies 112, September 2021: *“Online Communication and Polarization.”*

Introduction to Sociology, March 2021: *“The Sociology of Gender.”*

*Mentorship experience:*

Program for Advanced Research in the Social Sciences fellow, 2021-2022 and 2022-2023.

*Provided research consulting to undergraduate and graduate students in the social sciences.*

Volunteer mentor with the Illinois Science and Technology Institute, 2018-2023.

*Mentored 25 high school AP Research students completing their first research projects.*

“Spatial Reasoning and Problem-Based Learning to Improve Girls’ Math Identity,” 2018-2019.

*Graduate team member on Bass Connections research project.*

Undergraduate math tutor, University of Wisconsin-Madison, 2016-2018.

*Tutored undergraduate students in math courses up to third semester calculus.*

**CONFERENCE PRESENTATIONS**

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Duality@50 Workshop, April 2024 (accepted; Ascona, Switzerland): *“The Duality of Persons and Cultural Meaning Communities: Using Belief Networks to Study Systematic Deviations from Cultural Consensus about Social Identities.”*

Group Processes Conference, August 2023 (Philadelphia): *“Prototypes and Boundaries; Disagreement and Entropy: Operationalizing Uncertainty in Affective Cultural Meaning at Two Levels of Analysis.”*

American Sociological Association, August 2023 (Philadelphia): *“‘All Cops are Bastards:’ The Effect of the Killing of George Floyd on Police Identity Meanings.”*

IC2S2: International Conference on Computational Social Science, July 2023 (Copenhagen): *“Prototypes and Boundaries; Disagreement and Entropy: Operationalizing Uncertainty in Affective Cultural Meaning at Two Levels of Analysis.”*

Southern Sociological Society, March 2023 (Myrtle Beach): *“The Effect of Occupational Status on Health: Putting the Social in Socioeconomic Status.”*

American Sociological Association, August 2022 (Los Angeles): *“Prototypes and Boundaries; Disagreement and Entropy: Operationalizing Uncertainty in Affective Cultural Meaning at Two Levels of Analysis.”*

Group Processes Conference, August 2022 (Los Angeles): *“actdata, inteRact, and bayesactR: A Suite of R Packages for Transparent and Reproducible Research with Affect Control Theory and its Bayesian Counterpart.”*

Southern Sociological Society, April 2022 (Birmingham): “*Situation Definition, Polarization, and Affect Control Theory.*”

Group Processes Conference, August 2021 (Online): “*People Don’t Know What They Don’t Know: Political Knowledge and Perceptions of Influence in Political Conversation.*”

American Sociological Association, August 2020 (Online): “*Gender Differences in Sermon Content: An Analysis of Duke University Chapel Sermons.*”

## **ACADEMIC SERVICE**

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### *Research assistantships:*

Consulting researcher, NORC at the University of Chicago, National Institute of Justice grant number 2016-IJ-CX-0021, 2022-2023.

Research assistant, Christopher Bail, Duke University, 2019-2020

Research assistant, Nona Gronert, University of Wisconsin-Madison, 2016-2018

Research assistant, Dane Morgan, University of Wisconsin-Madison, 2016-2018

### *Review:*

Ad hoc reviewer: American Behavioral Scientist, Humanities and Social Sciences Communications

### *Diversity, equity, and inclusion:*

Member of the [varycss collective](#), which promotes DEI as a way to improve the field of computational social science. 2020-2023

### *Duke University Sociology Department:*

Professional development representative, 2022-2023

Graduate student representative, 2021-2022

## **MISCELLANEA**

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**Programming languages and software:** R, Python, Flutter, Java, Stata, NVivo

**Prior work experience:** Orbital Technologies Corporation (mechanical engineering intern)