

# NATALIE B. AVILES

## CURRICULUM VITAE

Department of Sociology  
University of Virginia  
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Charlottesville, VA 22904

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### EMPLOYMENT

<b>University of Virginia</b>	Assistant Professor, Department of Sociology
2019-Present	
<b>Yale University</b>	Yale Presidential Postdoctoral Fellow
2018-2019	Lecturer, Sociology Department
	Co-Convener, Center for Cultural Sociology
<b>Colby College</b>	Postdoctoral Fellow, Sociology Department
2016-2018	Instructor, Sociology Department

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### EDUCATION

<b>University of California, San Diego</b>	
2016	Ph.D., Sociology and Science Studies
2011	M.A., Sociology
<b>University of California, Berkeley</b>	
2008	B.A., Sociology
	Highest Honors, Phi Beta Kappa, Alpha Kappa Delta

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### SPECIALIZATIONS

Theory | Science and Technology Studies | Health and Medicine | Culture | Comparative-Historical Methods | Political Economy | Organizations | Government and Public Policy

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### PUBLICATIONS

#### Books

**Natalie B. Aviles** (2024) *An Ungovernable Foe: Science and Policy Innovation in the U.S. National Cancer Institute*. Columbia University Press.

\*Winner, 2024 Choice Outstanding Academic Title

\*Reviewed in *Social Forces*, *Choice*, and *H-Net Reviews in the Humanities and*

### Peer-Reviewed Articles

- Natalie B. Aviles** (2024) "Pragmatism and pandemic policymaking: Bringing publics back into Greenhalgh and Engeström's pragmatist paradigm." *Social Science & Medicine* Volume 348: 116621.
- Natalie B. Aviles** (2023) "Environing innovation: Toward an ecological pragmatism of scientific practice." *Sociological Perspectives* 66(5): 853-867.
- Xiaoyuan Ma, Eric Pierce, Harsh Anand, **Natalie B. Aviles**, Paul Kunk, and Negin Alemazkoor (2023) "Prediction of response to palliative chemotherapy in patients with stage-IV gastric and esophageal cancer only after two cycles of treatment." *BMC Cancer* 23(1): 910.
- Scheffler, Robin W. and **Natalie B. Aviles** (2022) "State planning, cancer vaccine infrastructure, and the origins of the oncogene hypothesis." *Social Studies of Science* 52(2): 174-198.
- Natalie B. Aviles** (2018) "Situated practice and the emergence of ethical research: HPV vaccine development and organizational cultures of translation at the National Cancer Institute." *Science, Technology & Human Values* 43(5): 810-833.
- Natalie B. Aviles** and Isaac Ariail Reed (2017) "Ratio via machina: Three standards of mechanistic explanation in sociology." *Sociological Methods & Research* 46(4): 715-738.
- \*Reproduced in Isaac Ariail Reed (2023) *Sociology as a Human Science*. Palgrave Macmillan: pp. 133-156.
- Natalie B. Aviles** (2015) "The little death: Rigoni-Stern and the problem of sex and cancer in 20th century biomedical research." *Social Studies of Science* 45(3): 394-415.
- \*Winner of the 2015 Hacker-Mullins Student Paper Award. Science, Knowledge, and Technology Section, American Sociological Association.

### Book Chapters

- Natalie B. Aviles** (2024) "Process theories and comparative sociology: Some problems and a solution." In *After Positivism: New Approaches to Comparison in Historical Sociology*. Eds. Damon Mayrl and Nicholas H. Wilson. Columbia University Press: pp. 121-133.
- Natalie B. Aviles.** (2022) "Scientific innovation as environed social learning." In *Agency, Inquiry, and Democracy: The New Pragmatist Social Science*. Eds. Neil Gross, Christopher Winship, and Isaac Ariail Reed. Columbia University Press: pp. 231-255.

### Journalism and Editorials

- Natalie B. Aviles.** "How Federal Science Agencies Innovate in the Public Interest." *Issues in Science and Technology* 41, no. 1 (Fall 2024): 70-72.

## Book Reviews

**Natalie B. Aviles.** (2020) "Book Review of *Flatlining: Race, Work, and Health Care in the New Economy* by Adia Harvey Wingfield." *Gender & Society*. Online First: <https://doi.org/10.1177/0891243219896592>

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## MANUSCRIPTS UNDER REVIEW

### Peer-Reviewed Articles

**Natalie B. Aviles.** "A pragmatist principal-agent theory: Reimagining delegation and accountability in expert state bureaucracies." Under review at *American Sociological Review*.

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## WORKS IN PROGRESS

### Article Manuscripts

"Excavating political and moral agency from the foundations of actor-network theory."

"All culture is public culture: On meaning and mind in culture as cognition" (with Tad Skotnicki)

"Re-Engineering Sociological Naturalism for Limited Beings: A Postpositivist Embrace of the Power and Limits of Natural Science" (with Jordan Fox, Patrick Greiner, Caleb Scoville, and Tad Skotnicki)

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## HONORS & AWARDS

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| 2024 | Winner, 2024 Choice Outstanding Academic Title for <i>An Ungovernable Foe: Science and Policy Innovation in the U.S. National Cancer Institute</i> . Association of College & Research Libraries, American Library Association.                           |
| 2015 | Hacker-Mullins Student Paper Award, Science, Knowledge, and Technology Section. American Sociological Association.<br><br>Certificate of Recognition for Excellence in Undergraduate Mentoring, Sociology Department. University of California-San Diego. |
| 2014 | TA Excellence Award, Sociology Department. University of California-San Diego.<br><br>Distinguished Pass in Field Examinations. University of California-San Diego.                                                                                       |
| 2008 | Departmental Citation Honorable Mention, Sociology Department. University of California-Berkeley                                                                                                                                                          |

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## FELLOWSHIPS & GRANTS

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|------|-------------------------------------------------------------------------|
| 2023 | Summer Stipends in the Arts, Humanities and Social Sciences. University |
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	of Virginia.
2021-2022	Engineering-in-Medicine Seed Grant (with co-PIs Negin Alemazkoo and Paul Kunk). University of Virginia.
2020-2021	Bankard Fund for Political Economy. University of Virginia.
2018-2019	President's Visiting Research Fellowship. Yale University. Fellowship, Center for Cultural Sociology. Yale University.
2015-2016	University of California President's Dissertation Year Fellowship. University of California, San Diego. Center for the Humanities Dissertation Writing Fellowship. University of California, San Diego.
2014-2015	Science Studies Program Research Stipend. University of California, San Diego. Science Studies Program Travel Grant. University of California, San Diego.
2013-2014	Dean of Social Sciences Travel Fund. University of California, San Diego. Sociology Department Summer Research Grant. University of California, San Diego. Science Studies Program Research Stipend. (Declined.) University of California, San Diego. Sociology Department Travel Grant. University of California, San Diego.
2009-2013	San Diego Pre-Doctoral Diversity Fellowship. University of California-San Diego.

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## TEACHING

### University of Virginia

2019-	Assistant Professor, Sociology Department
	Graduate Courses: <ul style="list-style-type: none"> <li>• Research Design and Methods</li> <li>• Contemporary Theory</li> <li>• Sociology of Science</li> </ul>
	Undergraduate Courses: <ul style="list-style-type: none"> <li>• Medical Sociology</li> <li>• Sociology of Science and Knowledge</li> <li>• Death and Dying</li> <li>• Race and Racism in Science</li> <li>• Universal Health Care: Could it Work Here?</li> <li>• Human Biology Major Capstone Seminar</li> </ul>

### Yale University

2018-2019	Instructor, Sociology Department
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- Universal Health Care: Could It Work Here?

## Colby College

2016-2018      Instructor, Sociology Department

- Universal Health Care: Could It Work Here?
- The Life Sciences and Society
- Starting a Business or Nonprofit? Lessons from Sociology

## University of California, San Diego

2015-2016      Associate-Instructor, Sociology Department  
“Medical Sociology”

2010-2014      Teaching Assistant, Sociology Department  
“Classical Sociological Theory”; “Sociology of Health Care Issues”;  
“Introduction to Sociology”; “Introduction to Social Research  
Methods”; “Sociology of Scientific Knowledge”

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## INVITED TALKS (ABRIDGED)

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| 2025 | “An Ungovernable Foe: Science and Policy Innovation in the U.S. National Cancer Institute.” Cicourel Lecture, Department of Sociology, University of California-San Diego.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 2024 | <p>“Trajectories of the Cancer Moonshot.” Invited talk given to members of the Finnish Ministry of Economy and Employment, Ministry of Education and Culture, and various funding agencies. University of Vaasa expert lecture series.</p> <p>“On processual sociology and temporal comparison.” Book symposium for <i>After Positivism: New Approaches to Comparison in Historical Sociology</i>. Department of Sociology, The New School. New York, NY</p> <p>“An Ungovernable Foe: Science and Policy Innovation in the U.S. National Cancer Institute.”</p> <p style="padding-left: 40px;">Sociology Department book symposium. University of Virginia. Charlottesville, VA.</p> <p style="padding-left: 40px;">Sociology Department Colloquium, Colby College. Waterville, ME.</p> |
| 2023 | Keynote speaker. 2nd International Conference on the Science of Science and Innovation (ICSSI). Evanston, IL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2021 | “Vaccine Innovation and Public Health Policy in the U.S. National Cancer Institute.” Guest lecture, Graduate course on Healthcare Policy and Reform (Prof. Mary Lunn). M.D./MBA Joint Degree Program, Freeman School of Business, Tulane University.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2020 | “Vaccine Innovation and Public Health Policy in the U.S. National Cancer Institute.” Guest lecture, Graduate course on Healthcare Policy and Reform (Prof. Mary Lunn). M.D./MBA Joint Degree Program, Freeman School of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

- Business, Tulane University.
- 2018 “Governing an Ungovernable Foe: Vaccine Innovation and Public Health Policy in the U.S. National Cancer Institute.”
- Sociology Department Colloquium, University of Virginia. Charlottesville, VA.
  - Sociology Department Colloquium, University of California, Merced. Merced, CA.
  - School of History and Sociology Colloquium, Georgia Institute of Technology. Atlanta, GA.
  - Sociology and Science, Technology, and Society Department Colloquium, Vassar College.
- “Public health policy and scientific statecraft at the U.S. National Cancer Institute.” Initiative for Historical Social Science. State University of New York, Stony Brook. Long Island, NY.
- “Social learning and collective creativity in cancer virus vaccine development in the National Cancer Institute’s Intramural Research Program.” Conference on Policy, Politics and Law of Cancer (History of Cancer workshop). Solomon Center for Health Law and Policy at Yale Law School. New Haven, CT.
- 2017 “Innovation for a cure: Social Learning in the National Cancer Institute’s Vaccine Programs.”
- Sociology Department Colloquium, University of California, Berkeley. Berkeley, CA.
  - Sociology Department Colloquium, University of Chicago. Chicago, IL.
- “Innovation in a ‘culture of planning’: HPV vaccines and translational research in the National Cancer Institute.”
- Sociology Department Colloquium, University of North Carolina, Chapel Hill. Chapel Hill, NC.
  - Science, Technology, and Society Department Colloquium, Virginia Tech. Blacksburg, VA.
- “Pragmatism and social worlds analysis as a lens for studying meso-level processes in STS.” Third Conference on Sociology and Pragmatism: Renewing the Conversation. Radcliffe Institute for Advanced Study at Harvard University. Cambridge, MA.
- 2016 “Organizational cultures of translational research in the National Cancer Institute, 1991-2006.” UCSF Biomedical Knowledge Working Group Colloquium. San Francisco, CA.
- 2015 “A pragmatic process theory of organizational culture in the National Cancer Institute.” Colby College Sociology Department Colloquium Series. Waterville, ME.

“Moving targets in the War on Cancer: Toward a pragmatic event-based theory of organizational culture in the National Cancer Institute.” Junior Theorists Symposium. Chicago, IL.

“The emergence of translational research: Organizational culture and scientific practice at the National Cancer Institute, 1991-2008.” Science Studies Program Colloquium, University of California, San Diego. La Jolla, CA.

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## CONFERENCE PRESENTATIONS (ABRIDGED)

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| 2024 | “Toward a pragmatist principal-agent theory: How expert bureaucrats craft accountable policies in federal agencies.” Annual Meeting of the American Sociological Association. Section session. Montreal, QC.                                                                                                                                                                                                                                                                                                                                                                                    |
| 2023 | “Rethinking Regulatory Capture and Federal Agency Policymaking: A case study of drug development at the U.S. National Cancer Institute.” Annual Meeting of the Social Science History Association. Washington, D.C.<br>[Cancelled attendance due to medical leave.]<br><br>“Translating drug development in the public interest: Agency-led policymaking in the National Cancer Institute’s Rapid Access to Intervention Development (RAID) Program.” Annual Meeting of the Association for Public Policy Analysis and Management. Atlanta, GA.<br>[Cancelled attendance due to medical leave.] |
| 2022 | “Theorizing the Bureaucracy in the New Political Sociology of Science: Policy learning and multiple principals in research governance at the U.S. National Cancer Institute.” Regular Session. Annual Meeting of the American Sociological Association. Los Angeles, CA.                                                                                                                                                                                                                                                                                                                        |
| 2021 | “Environing Innovation: Pragmatist solutions to problems of heterogeneity and scale in the sociology of science.” Annual Meeting of the American Sociological Association. Section session. Virtual meeting.                                                                                                                                                                                                                                                                                                                                                                                    |
| 2019 | “Governing and ungovernable foe: Vaccines and public health policy at the National Cancer Institute.” Annual Meeting of the Society for Social Studies of Science, New Orleans, LA.                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2018 | “Paper cultures of human cancer virus research in the Special Virus-Leukemia Program, 1958-1969.” Annual Meeting of the American Sociological Association. Philadelphia, PA.<br><br>“Cancer vaccine innovation and the politics of public health disparities at the National Cancer Institute, 1958-2008.” Annual Meeting of the Social Science History Association. Phoenix, AZ.                                                                                                                                                                                                               |
| 2017 | “HPV vaccine development and organizational cultures of translation at the National Cancer Institute, 1991-2008.” Annual Meeting of the American Sociological Association. Montreal, QC.<br><br>“Profit and Public Good in HPV Vaccine Innovation at the National Cancer Institute.” Annual Meeting of the Society for Social Studies of Science,                                                                                                                                                                                                                                               |

	Boston, MA.
	“Managing Cancer and Cancer Researchers: Organizing Cold War Cancer Vaccine Development at the National Cancer Institute.” Annual Meeting of the Science and Democracy Network, Harvard University. Cambridge, MA.
2016	“Moving targets in the War on Cancer: A pragmatic process theory of organization in the National Cancer Institute.” Annual Meeting of the American Sociological Association. Seattle, WA.
2015	“Ratio via machina: Three standards of mechanistic explanation in sociology.” Annual Meeting of the American Sociological Association. Chicago, IL.
	“Outline for a Pragmatic Process Theory of Organizational Culture.” Annual Meeting of the Society for Social Studies of Science. Denver, CO.
2014	“The little death: The problem of cancerous sex in twentieth century biomedicine.” Annual Meeting of the American Sociological Association. San Francisco, CA.
	“Explaining HPV vaccine technology: Goal-oriented versus pragmatic models of action.” Annual Meeting of the Pacific Sociological Association. Long Beach, CA.

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## DEPARTMENTAL SERVICE

2024-2025	Graduate Admissions Committee, University of Virginia.
2023-2024	Graduate Committee, University of Virginia.
2022-2023	Distinguished Majors Program Advisor, University of Virginia. Graduate Committee, University of Virginia.
2021-2022	Distinguished Majors Program Advisor, University of Virginia. Graduate Committee, University of Virginia. Colloquium Committee, University of Virginia.
2020-2021	Distinguished Majors Program Advisor, University of Virginia. Colloquium Committee, University of Virginia.
2018-2019	Co-Convener. Center for Cultural Sociology Workshop, Yale University.
2017-2018	Session sponsor. Colby Liberal Arts Symposium, Colby College.
2015	Organizer. Undergraduate Sociology Club Diversity Forum, University of California, San Diego.
2014	Graduate Student Representative. Sociology/Science Studies Hiring Committee, University of California, San Diego. Chair. Ad Hoc Steering Committee for the Graduate Student Community Committee, University of California, San Diego. Organizer. Graduate Student Conference Planning Committee, University



of California, San Diego.

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## UNIVERSITY SERVICE

- 2024- Ad Hoc Committee on the Health, Ethics, and Society Program.  
Associate Dean for Arts & Humanities. University of Virginia.
- 2022- Human Biology Major Advisory Board Member. University of Virginia.  
Affiliate Faculty, Health, Ethics, and Society program. University of  
Virginia.

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## PROFESSIONAL SERVICE

### **American Sociological Association Leadership**

- 2024-2025 Events Committee, Section on Science, Knowledge, and Technology
- 2024 Roundtable organizer, Section on Science, Knowledge, and Technology
- 2023-2025 Council Member, Section on Science, Knowledge, and Technology
- 2021-22 Membership Committee, Section on Science, Knowledge, and Technology

### **Journal Reviewer**

Reviewer. *American Journal of Sociology (AJS)*; *American Sociological Review (ASR)*;  
*Sociological Methods & Research (SMR)*; *Gender & Society*; *Social Science & Medicine (SSM)*;  
*Social Studies of Science (SSS)*; *Sociological Perspectives*; *Qualitative Sociology*;  
*Nature Communications*

### **Academic Press Reviewer**

Reviewer. MIT Press; University of Cambridge Press.

### **Granting Agency Reviewer**

Ad hoc Reviewer. Science, Technology & Society (STS) Program, National Science  
Foundation (NSF)

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## PROFESSIONAL MEMBERSHIP

- American Sociological Association (ASA)
- Social Science History Association (SSHA)
- Society for Social Studies of Science (4S)