

Timothy Emmanuel Brown

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Department of Bioethics & Humanities
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Research Areas

Biomedical Ethics (Neuroethics), Black/Latinx/Queer Feminist Philosophy, Aesthetic Experience

Employment

- 2021– Assistant Professor, Department of Bioethics & Humanities, University of Washington School of Medicine
- 2020–2021 NIH Postdoctoral Scholar, Department of Philosophy, University of Washington
- 2014–2019 Research Assistant, BioRobotics Lab, Center for Neurotechnology, University of Washington

Education

- 2019 PhD in Philosophy, University of Washington
Thesis: "Modulating Agency: the Moral & Aesthetic Import of Closed-Loop Deep-Brain Stimulation" under Sara Goering (Chair), Andrea Woody, and Carina Fourie
- 2014 MA in Philosophy, University of Washington
- 2008 BA in Philosophy (with Honors), University of California Santa Cruz

Publications

Forthcoming

- 2021 E. Perez, T. Brown, *Black Panther and Philosophy*. Under contract with Wiley-Blackwell.
- 2021 T. Fraczek, B. Ferleger, T. Brown, M. Thompson, A. Haddock, B. Houston, J. Ojemann, A. Ko, J. Herron, H. Chizeck, "Closing the Loop with Cortical Sensing: The Development of Adaptive Deep Brain Stimulation for Essential Tremor using the Activa PC+S," *Frontiers in Neuroscience*
- 2021 I. Dasgupta, A. Schönau, T. Brown, E. Klein, S. Goering, "Does Closed-Loop DBS for Treatment of Psychiatric Disorders Raise Salient Authenticity Concerns?" in *Artificial Intelligence in Brain and Mental Health: Ethics & Policy Issues*, in press with Springer.

Journal Articles (* peer-reviewed)

- 2021 A. Schönau, I. Dasgupta, T Brown, E. Versalovic, E. Klein, S. Goering "Mapping the Dimensions of Agency," *American Journal of Bioethics: Neuroscience*. *
- 2021 S. Goering, T. Brown, and E. Klein, "Neurotechnology ethics and relational agency." *Philosophy Compass*, e12734. *
- 2020 T. Brown, "Building Intricate Partnerships With Neurotechnology: Deep-Brain Stimulation and Relational Agency," *International Journal for Feminist Approaches to Bioethics (IJFAB)*, 13 (1): 134–154. *
- 2019 F. Gilbert, T. Brown, I. Dasgupta, H. S. Martens, E. Klein, S. Goering, "An Instrument to Capture the Phenomenology of Implantable Brain Device Use." *Neuroethics*. *
- 2019 H. Martens, T. Brown "Trusting Oneself and Others: Relational Vulnerability and DBS for Depression," *AJOB Neuroscience* 9, no. 4.
- 2019 M. Boulicault, T. Brown, "How Relationships Matter: The Need for Closer Attention to Relationality in Neuroethical Studies," *AJOB Neuroscience* 9, no. 4.
- 2018 T. Brown, "Mandatory Neurointerventions and the Risk of Racial Disparity." *AJOB Neuroscience* 9, no. 3: 156–57.
- 2018 H. Martens, and T. Brown. "Relational Autonomy and the Quantified Relationship." *The American Journal of Bioethics* 18, no. 2: 39–40.
- 2018 L. S. Sullivan, E. Klein, T. Brown, M. Sample, M. Pham, P. Tubig, R. Folland, A. Truitt, and S. Goering, "Keeping Disability in Mind: A Qualitative Study of BCI Researcher Perspectives," *Science and Engineering Ethics*, 24(2): 479-504. *
- 2017 S. Goering, T. Brown, and J. Alsarraf. "Others' Contributions to an Individual's Narrative Identity Matter." *AJOB Neuroscience* 8, no. 3: 176-178.
- 2017 J. Herron, M. Thompson, T. Brown, Howard Chizeck, Jeffrey Ojemann, and Andrew Ko. "Cortical brain computer interface for closed-loop deep brain stimulation." *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 25(11): 2180-2187. *
- 2016 T. Brown, "Neuroethics, Mental Health, and Prisons: What Does Race Have to Do with It?" *Brainstorm* 9 (1): 7-9.
- 2016 M. Thompson, J. Herron, T. Brown, H. J. Chizeck, J. Ojemann, and A. Ko, "Chronic ECoG for Sensing Movement Intention and Closed-Loop DBS with Wearable Sensors in an Essential Tremor Patient," *Journal of Neurosurgery*, 127(3): 449-708 *
- 2016 T. Brown, M. Thompson, J. Herron, A. Ko, H. J. Chizeck, and S. Goering, "Controlling Our Brains — On the Ethical Implications of Brain Computer Interface-Triggered Deep Brain Stimulation for Essential Tremor," *Brain-Computer Interfaces*, 3 (4): 165-170. *
- 2016 T. Brown, P. Moore, J. Herron, M. Thompson, T. Bonaci, H. J. Chizeck, and S. Goering, "Personal Responsibility in the Age of User-Controlled Neuroprosthetics", *Proceedings of the IEEE International Symposium on Ethics in Engineering, Science and Technology*.
- 2015 T. Brown, "A Relational Take on Advisory Brain Implant Systems." *AJOB Neuroscience*, 6, no. 4: 46–47.

- 2015 E. Klein, T. Brown, M. Sample, A. R. Truitt, and S. Goering. "Engineering the Brain: Ethical Issues and the Introduction of Neural Devices." *Hastings Center Report* 45 (6): 26–35. *
- 2012 T. Brown. "Narrative Practice Apart From Truth." *AJOB Neuroscience*, 3, no. 4: 91–92.

Public Scholarship

- 2020 T. Brown, H. Martens. "The Social Impact of Brain Machine Interfaces: Closing Remarks." The Neuroethics Blog
- 2020 T. Brown, K. Rommelfanger. "The Social Impact of Brain Machine Interfaces: Value Sensitive Design in Neurotechnology." The Neuroethics Blog
- 2020 T. Brown, A. Fink. "The Social Impact of Brain Machine Interfaces: Structural Inequality in BMI Study and Practice." The Neuroethics Blog
- 2020 T. Brown, L. Specker-Sullivan, K. Rommelfanger. "The Social Impact of Brain Machine Interfaces: Bias and (Big) Neural Data." The Neuroethics Blog
- 2020 T. Brown. "Moral Bioenhancement as a Potential Means of Oppression." The Neuroethics Blog
- 2017 T. Brown, M. Thompson. "When Neuroethicists Become Labmates." The Neuroethics Blog

Works in Progress

- * "Can I Trust This Device in my Head: Closed-loop DBS and Navigating Threats to Agency"
- * "'Are These My Feelings?' On the Trustworthiness of Biomimetic Sensory Feedback in Brain–Computer Interfaces"
- * "Anger is a Gift: Moral Enhancement as a Potential Means of Oppression"
- * "The Phenomenology of End Users of Closed-Loop Neural Devices for Treatment of Epilepsy" (with *Ishan Dasgupta*)
- * "When Ethicists Become Labmates: Lessons Learned from Embedding a Humanist in Neural Engineering Practices" (with *Margaret C. Thompson*)

Presentations (* invited, § coordinator, † poster)

- 2021 T. Brown, "Automated Neurotechnologies: Selfhood, Trust, and Partnership," Philosophy Department Colloquia, University of California Santa Cruz. *
- 2021 T. Brown, "Social Justice and BCI Research: Deep Problems & Possible Solutions," National Institutes of Health, BRAIN Initiative All-Investigators' Meeting. *
- 2021 T. Brown, "Social Justice and Brain Computer Interfaces: Mapping the Terrain," Neuromatch v3. *
- 2021 T. Brown, F. Shen, O. Matshabane, J. Kwasa "Scientific Oppression, Biological Reductionism, and the Future of Neurotechnology," International Neuroethics Society Neuroethics Webinar. *
- 2020 T. Brown., N. Martinez-Martin, K. S. Ray, A. Wexler, "Neuroethics and Race: Room for Inquiry?" American Society of Bioethics and Humanities Annual Meeting. *

- 2020 N. Farahany, I. Singh, L. Specker-Sullivan, T. Brown, N. Martinez-Martin, L. Cabrera, J. Farooqui, R. Nadler, N. Sinclair-House, "Leveraging Neuroethics in the Pursuit of Justice and Equity," International Neuroethics Society Annual Meeting. *
- 2020 T. Brown., N. Martinez-Martin, K. S. Ray, A. Wexler, "Neuroethics and Race: Room for Inquiry?" American Society of Bioethics and Humanities Annual Meeting. *
- 2020 T. Brown, "Agency, Affect, and Aesthetics: Making Sense of Lived-Experiences of Deep Brain Stimulation," Benjamin Rabinowitz Symposium in Medical Ethics: Workshop on Empathy and Emotions, University of Washington. *
- 2020 T. Summers, E. Versalovic, T. Brown, "Is it Me or the Device: Reframing DBS Patient Autonomy Concerns in Terms of Self-Trust," Feminist Approaches to Bioethics World Congress.
- 2019 T. Brown, "'Anger is a Gift': Moral Enhancement as a Potential Means of Oppression," International Neuroethics Society Annual Meeting. Chicago, Illinois. *
- 2019 T. Brown, "Deep-Brain Stimulation and the Aesthetics of Agency," International Neuroethics Society Annual Meeting. Chicago, Illinois. †
- 2019 I. Dasgupta, T. Brown, E. Klein, S. Goering, "Exploring Issues of Agency in End Users Living with Brain Computer Interfaces: Two Diverging Perspectives," International Neuroethics Society Annual Meeting. Chicago, Illinois.†
- 2019 T. Brown, J. Metcalf, "Neuro-interventions and machine bias," Joint University of Oregon–Oregon Health Sciences University Meeting: *Neuroscience, Ethics, & Law in an Era of Big Data*. Eugene, Oregon.*
- 2019 T. Brown, "Humanities Bootcamps: Strategies for programming and support," Graduate Career Consortium (GCC) Regional Meeting: Northwest and Western Canada, University of Washington.*
- 2018 K. Pratt, T. Brown, "Privacy and Policy of Neural Information," Information Ethics Roundtable, University of Copenhagen.
- 2018 T. Brown, "Lessons from Humanities Without Walls: an Alt-Ac Career Workshop," Simpson Center for the Humanities, University of Washington.*
- 2017 T Brown, N. Wilson, and D. Sarma, "Designing Inclusive Neural Technologies: A Meta-study of Brain Computer Interface Research Practices," *International Neuroethics Society Annual Meeting*. Washington, DC.†
- 2016 T. Brown and M. C. Thompson. "When Neuroethicists Become Labmates: Obstacles, Recommendations, and Metrics for Success," *International Neuroethics Society Annual Meeting*. San Diego, CA. *
- 2016 E. Klein, M. Pham, L. S. Sullivan, T. Brown, P. Tubig, R. Folland, and S. Goering. "Neuroethics in Practice: Designing Principles for Neural Engineering Research," *International Neuroethics Society Annual Meeting*. San Diego, CA.
- 2016 T. Brown. "Being in Control: On the Possibility of Brain Computer Interface-Triggered Deep Brain Stimulation for Essential Tremor," *American Society of Bioethics and Humanities Annual Meeting*, San Diego, CA. †

- 2016 T. Brown, P. Moore, J. Herron, M. Thompson, T. Bonaci, H. J. Chizeck, and S. Goering, "Personal Responsibility in the Age of User-Controlled Neuroprosthetics," IEEE International Symposium on Ethics in Engineering, Science and Technology.
- 2016 T. Brown and Laura Specker-Sullivan, "Engineering Uncertainty at the Intersection of Agency, Autonomy, and Authenticity," Bioethics: Preparing for the Unknown, Center for the Study of Ethics in Society, Western Michigan University, Kalamazoo, MI.
- 2015 T. Brown, "Who Am I When I'm in Control: The Identity Ethics of Closed-Loop Deep Brain Stimulation for Essential Tremor," *International Neuroethics Society Annual Meeting*, Chicago, IL
- 2015 T. Brown, and M. Tate, Comments on Lisa Shapiro's "What is a Philosophical Work?" and Leroy Searle's "Philosophy, Vision, and Poetic Construction: William Blake and J. M. Coetzee's Foe" at the *Roles of Fiction in Early Modern Philosophy Conference*. University of Washington.*
- 2015 P. Moore, T. Brown, J. Herron, M. Thompson, T. Bonaci, S. Goering, H. Chizeck. "Personal Responsibility in the Age of User-Controlled Neuroprosthetics." *WeRobot Conference on Robotics, Law & Policy*.
- 2014 T. Brown. "Intersectionality in Neuroethics," *American Society of Bioethics and Humanities Annual Meeting*.
- 2013 S. Goering, E. Klein, T. Brown, A. Intriago, M. Sample, and A. Truitt. "Sensorimotor Neural Prosthetics and the Relevance of Disability Perspectives," *International Neuroethics Society Annual Meeting*. †

Grants & Contracts

- 2020 MacArthur Foundation X-Grant, #154509
"Exploratory Workshops on the Social Impacts of Brain-Machine Interfaces (BMIs)." \$20,000 to support workshop expenses. Non-senior co-author with Ryan Calo, under PI Sara Goering.
- 2019– NIH Diversity Supplemental Ethics Grant for BRAIN Initiative projects, #3RF1MH117800-01S1 Supplement to RF1, "Human agency and Brain Computer Interfaces; Understanding users' experiences and developing a tool for improved consent." \$214,762 to support postdoc position. Non-senior co-author with PIs Sara Goering and Eran Klein.
- 2014-2019 NSF ERC Center for Neurotechnology Subgrant, #EEC-102872
"Closed-loop DBS for Essential Tremor: Ethical Issues in Agency, Alienation and Device Acceptance," and "Agency for individuals using engineering neural device to induce plasticity." Funding to support RA position. Non-senior co-author with PIs Sara Goering and Eran Klein.

Teaching Experience

- 2019 Instructor, University of Washington
Sophomore-level: Medical Ethics
- 2011–2014 Teaching Assistant, University of Washington

Freshman-level: Intro to Philosophy, Intro to Logic, Practical Reasoning, Moral Problems

Sophomore-level: Medical Ethics

2008–2010 **Teaching Assistant, University of California Santa Cruz**

Freshman-level: Intro to Philosophy, Philosophy & Sexuality, Philosophy of Technology

Sophomore-level: Ancient Greek Philosophy, The Rationalists

Senior-level: The Problem of Other Minds

Public & Educational Outreach

Lectures

- 2018 Neuroethics Workshop, MIT Online Science, Technology, and Engineering Community (MOSTEC) program, Massachusetts Institute of Technology
- 2017, 2018 Introducing Neuroethics, Young Scholars Program-REACH (YSP-REACH), Center for Neurotechnology, University of Washington
- 2016, 2017 Introducing Neuroethics, Math & Science Upward Bound Program, University of Washington

Mentorship

- 2016–2018 Mentor, Research Experience for Undergraduates (REU) program, Center for Neurotechnology, University of Washington
- 2017 Program Co-coordinator & Mentor, Inclusive Summer High School Institute for Philosophy (ISHIP) program, Janet Prindle Institute for Ethics at DePauw University
- 2014 Mentor, Young Scholars Program (YSP), Center for Neurotechnology, University of Washington

Public Events

- 2018 Co-coordinator and Panelist, "UW Insider Series: Ethics and the Human Technology Frontier," University of Washington
- 2017 Panelist, "Neuroscience for Everyone," Neurobiology Department, University of Washington
- 2017 Panelist, "The Human-Technology Frontier: To Enhancement and Beyond?" National Science Foundation's Futurecon at Awesomecon

Honors & Awards

- 2021 David Roscoe Award for an Early-Career Scholar's Essay on Science, Ethics, and Society, The Hastings Center
- 2020 Commencement Gonfaloniere on behalf of the Graduate School, University of Washington
- 2012–2019 Neuroethics Fellow, NSF Center for Neurotechnology (CNT), University of Washington

- 2019 James and Elisabeth Ewing Travel Award, International Neuroethics Society
- 2019 Springer Press Outstanding Poster Award, International Neuroethics Society
- 2019 Samuel and Althea Stroum Endowed Dissertation Fellow, Graduate Opportunities and Minority Achievement Program (GO-MAP), University of Washington
- 2018 Digital Humanities Summer Fellow, Simpson Center for the Humanities, University of Washington
- 2017 Oxford University Press Poster Award, International Neuroethics Society
- 2017 Fellow, Andrew W. Mellon Foundation Humanities Without Walls Pre-Doctoral Career Diversity Summer Workshop
- 2016 Oxford University Press Poster Award, International Neuroethics Society
- 2015 1st place winner, Center for Neurotechnology 2nd Annual Hackathon, University of Washington

Professional Service

Organizations

- 2021 Co-Chair, Program Committee, International Neuroethics Society
- 2020– Chair, Diversity & Inclusion Task Force, International Neuroethics Society
- 2016–2019 Member, Student/Postdoctoral Committee, International Neuroethics Society
- 2016–2018 Executive Assistant, Student Leadership Council, Center for Neurotechnology, University of Washington
- 2016 Member, Diversity Caucus, American Society for Aesthetics

Events

- 2021 Moderator & Co-organizer, Panel Discussion: Scientific Oppression, Biological Reductionism, and the Future of Neurotechnology, International Neuroethics Society
- 2020 Moderator & Co-organizer, Social Justice Listening Session, International Neuroethics Society
- 2020 Host & Co-organizer, MacArthur-supported Exploratory Workshops on the Social Impacts of Brain-Machine Interfaces (BMIs), University of Washington
- 2019 Judge, Washington State High School Ethics Bowl, Center for Philosophy for Children, University of Washington
- 2015 Volunteer Coordinator, Joint Philosophy of Social Science Roundtable & European Network for the Philosophy of the Social Sciences Conference, University of Washington
- 2012 Volunteer Coordinator, Ben Rabinowitz Symposium on Medical Ethics, Dept. of Philosophy, University of Washington
- 2014 Judge, 1st Annual Hackathon, Center for Neurotechnology, University of Washington

Departmental Committees

- 2018-2019 Graduate Program Committee, Dept. of Philosophy, University of Washington
- 2015–2017 Climate/Diversity Committee, Dept. of Philosophy, University of Washington
- 2015–2016 Faculty Hiring Committee, Dept. of Philosophy, University of Washington
- 2011 Philosophy Department Representative for Graduate Student Association, UC Santa Cruz

Peer Review for Academic Journals

- * American Journal for Bioethics: Neuroscience
- * Science and Engineering Ethics
- * Neuron
- * Neuroethics
- * Frontiers in Communication