

# David R. Morrow

Curriculum Vitae (Last updated January 31, 2024)

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## Academic Appointments

American University, Washington, DC

- Senior Fellow, Institute for Carbon Removal Law and Policy (2022–present)
- Director of Research, Institute for Carbon Removal Law and Policy (2018–2022)
- Director of Research, Forum for Climate Engineering Assessment (2018–2022)
- Faculty Fellow, Forum for Climate Engineering Assessment (2015–2018)

George Mason University, Fairfax, VA

- Research Fellow, Institute for Philosophy & Public Policy (2014–present)

University of Alabama at Birmingham, Birmingham, AL

- Assistant Professor of Philosophy (2010–2014)

Hunter College, The City University of New York, New York, NY

- Graduate Assistant and Adjunct Lecturer (2005–2009)

## Education

M.A. in Public Policy, University of Chicago, Chicago, IL, June 2010

Ph.D. in Philosophy, Graduate Center, City University of New York, New York, NY, May 2009

B.A. in Philosophy, Johns Hopkins University, Baltimore, MD, May 2003

B.Mus. in Trumpet Performance, Peabody Conservatory, Baltimore, MD, May 2003

## Publications

### Books

Melchert, N. & **D.R. Morrow**. 2022. *The Great Conversation: A Historical Introduction to Philosophy*, 9th edition. New York: Oxford Univ. Press. (Co-author since 8th edition, 2018.)

**Morrow, D.R.** 2019. *Values in Climate Policy*. London: Rowman & Littlefield Intl.

**Morrow, D.R.** & A. Weston. 2019. *A Workbook for Arguments: A Complete Course in Critical Thinking*, 3rd edition. Indianapolis: Hackett. (First edition, 2012)

**Morrow, D.R.** 2018. *Moral Reasoning: A Text and Reader on Ethics and Contemporary Moral Issues*. New York: Oxford Univ. Press.

**Morrow, D.R.** 2017. *Giving Reasons: An Extremely Short Introduction to Critical Thinking*. Hackett.

## Journal Articles

- Ampah, J.D., C. Jin, H. Liu, S. Afrane, H. Adun, **D. Morrow**, & D. Ho. 2024. “Prioritizing Non-Carbon Dioxide Removal Mitigation Strategies Could Reduce the Negative Impacts Associated with Large-Scale Reliance on Negative Emissions.” *Environmental Science & Technology* [Early Online Access].
- Morrow, D.R.**, R. Apeaning & G. Guard. 2023. “GCAM-CDR v1.0: Enhancing the Representation of Carbon Dioxide Removal Technologies and Policies in an Integrated Assessment Model”, *Geoscientific Model Development* 16 (3): 1105–1118.
- Cooley, S.R., S. Klinsky, **D.R. Morrow**, & T. Satterfield. 2023. “Sociotechnical Considerations about Ocean Carbon Dioxide Removal.” *Annual Review of Marine Science* 15: 41–66.
- MacMartin, D.G., D. Visoni, B. Kravitz, J.H. Richter, T. Felgenhauer, W.R. Lee, **D.R. Morrow**, E.A. Parson, & M. Sugiyama. 2022. “Scenarios for Modeling Solar Radiation Modification.” *Proceedings of the National Academy of Sciences* 119 (33): e2202230119.
- Morrow, D.R.** 2021. “Is There a Role for Carbon Capture and Storage in a Just Transition?” *One Earth* 4 (11): 1546–1547.
- Honneger, M., W. Burns & **D.R. Morrow** 2021. “Is Carbon Removal ‘Mitigation of Climate Change’?” *Review of European, Comparative & International Environmental Law* 30 (3): 327–335.
- L.M. Pereira, **D.R. Morrow**, V. Aquila, B. Beckage, S. Beckbesinger, L. Beukes, H.J. Buck, C.J. Carlson, O. Geden, A.P. Jones, et al. “From fAIrplay to Climate Wars: Making Climate Change Scenarios More Dynamic, Creative, and Integrative.” *Ecology and Society* 26 (4): 30.
- Jinnah, S., **D. Morrow** & S. Nicholson. 2021. “Splitting Climate Engineering Governance: How Problem Structure Shapes Institutional Design.” *Global Policy* 12.
- Jebari, J., O. Táíwò, T.M. Andrews, V. Aquila, B. Beckage, M. Belaia, M. Clifford, J. Fuhrman, D.P. Keller, K.J. Mach, **D.R. Morrow**, et al. 2021. “From Moral Hazard to Risk-Response Feedback.” *Climate Risk Management* 22: 100324.
- Pasek, A., **D. Morrow**, W. Lee, & T. Felgenhauer. 2021. “Reflections on a Hypothetical Decentralized Grassroots Deployment Solar Geoengineering Scenario.” *Futures* 132: 102811.
- Morrow, D.R.**, M.S. Thompson, A. Anderson, M. Batres, H.J. Buck, K. Dooley, O. Geden, A. Ghosh, S. Low, A. Njamnshi, J. Noël, O.O. Táíwò, S. Talati & J. Wilcox. 2020. “Principles for Thinking about Carbon Dioxide Removal in Just Climate Policy.” *One Earth*, 3 (2): 150–153.
- Morrow, D.R.** 2020. “A Mission-Driven Research Program for Solar Geoengineering Could Promote Legitimacy and Justice.” *Critical Review of International Social and Political Philosophy* 23 (5): 618–640.
- Buck, H.J., J. Fuhrman, **D.R. Morrow**, D.L. Sanchez & F.M. Wang. 2020. “Adaptation and Carbon Removal.” *One Earth*, 4 (3): 425–35.
- Gupta, A., I. Möller, F. Biermann, S. Jinnah, P. Kashwan, V. Mathur, **D.R. Morrow** & S. Nicholson. 2020. “Anticipatory Governance of Solar Geoengineering: Conflicting Visions of the Future and Their Links to Governance Proposals.” *Current Opinion in Environmental Sustainability*, 45: 10–19.

- Flegal, J.A., A.-M. Hubert, **D.R. Morrow** & J.B. Moreno-Cruz. 2019. “Solar Geoengineering: Scientific, Legal, Ethical, and Economic Frameworks.” *Annual Review of Environment and Resources* 44: 10.1–10.25.
- Jinnah, S., S. Nicholson, **D.R. Morrow**, et al. 2019. “Governing Climate Engineering: A Proposal for Immediate Governance of Solar Radiation Management.” *Sustainability* 11: 3954.
- Morrow, D.R.** 2018. “Putting the Tollgate Principles into Practice.” *Ethics, Policy & Environment* 21 (2): 175–77.
- Morrow, D.R.** 2017. “Fairness in Allocating the Global Emissions Budget.” *Environmental Values* 26: 669–691.
- Morrow, D.R.** 2016. “Climate Sins of Our Fathers? Historical Accountability in Distributing Emissions Rights.” *Ethics, Policy & Environment* 19 (3): 335–349.
- Morrow, D.R.** & T. Svoboda. 2016. “Geoengineering and Non-Ideal Theory.” *Public Affairs Quarterly* 30 (1): 85–104.
- Morrow, D.R.** 2015. “Wants and Needs in Mitigation Policy.” *Climatic Change* 130 (3): 335–345.
- Mizrahi, M. & **D.R. Morrow**. 2015. “Does Conceivability Entail Metaphysical Possibility?” *Ratio* 28 (1): 1–13.
- Morrow, D.R.** 2014. “Understanding the Mitigation Obstruction Argument Against Climate Engineering.” *Philosophical Transactions of the Royal Society A* 372: 20140062.
- Morrow, D.R.** 2014. “Starting a Flood to Stop a Fire? Some Moral Constraints on Solar Radiation Management.” *Ethics, Policy & Environment* 17 (2): 123–38.
- Morrow, D.R.** 2014. “When Technologies Make Good People Do Bad Things: Another Argument Against the Value-Neutrality of Technologies.” *Sci. & Eng. Ethics* 20 (2): 329–43.
- Morrow, D.R.** 2014. “Why Geoengineering Is a Public Good, Even if It Is Bad.” *Climatic Change* 123(2): 95–100.
- Morrow, D.R.** & C.A. Sula. 2011. “Naturalized Metaphilosophy.” *Synthèse* 182 (2): 297–313.
- Morrow, D.R.**, R.E. Kopp & M. Oppenheimer. 2009. “Toward Ethical Norms and Institutions for Climate Engineering Research.” *Environmental Research Letters* 4
- Morrow, D.** 2009. “Moral Psychology and the ‘Mencian Creature’.” *Philosophical Psychology* 22(3): 281–304.

## Book Chapters

- Morrow, D.** 2023. “The Values Built into Technologies.” *Technology Ethics: A Philosophical Introduction and Readings*, ed. G. J. Robinson & J. Y. Tsou. Taylor & Francis.
- Morrow, D.R.** 2022. “Moral Bases of Responses to Climate Change.” *The Routledge Companion to Environmental Ethics*, ed. B. Hale, A. Light & L. Lawhon. Routledge.
- Morrow, D.R.** 2020. “Geoengineering.” In *Essential Concepts of Global Environmental Governance*, ed. J.-F. Morin & A. Orsini. Routledge.

- Morrow, D.R.**, R.E. Kopp & M. Oppenheimer. 2019. “Research Ethics and Geoengineering.” In *Geoengineering Our Climate: Science, Ethics and Governance*, ed. J. Blackstock & C. Miller. Earthscan.
- Luwesi, C.N., D.A. Doke & **D.R. Morrow**. 2016. “Solar Geoengineering: Technology-Based Climate Intervention or Compromising Social Justice in Africa?” In *Climate Justice and Geoengineering: Ethics and Policy in the Anthropocene*, ed. C. Preston. London: Rowman & Littlefield International.
- Morrow, D.R.**, R.E. Kopp & M. Oppenheimer. 2013. “Political Legitimacy in Decisions About Experiments in Solar Radiation Management.” In *Climate Change Geoengineering: Philosophical Perspectives, Legal Issues, and Governance Frameworks*, ed. W.C.G. Burns & A. Strauss. Cambridge University Press.

## Software

- Apeaning, R., G. Guard & **D. R. Morrow**. 2022. *GCAM-CDR 1.0.2*. doi 10.5281/zenodo.7261646 [An integrated assessment model for studying the role of carbon removal technologies and policies in possible climate futures, based on the Global Change Analysis Model]

## Selected Other Publications

- Morrow, D.R.** & S. Nicholson. 2021. *Sustainable Carbon Removal*. Washington, DC: Institute for Carbon Removal Law and Policy, American University.
- Morrow, D.R.** & M.S. Thompson. 2020. “Remove, Reduce, Recycle: Clarifying the Overlap between Carbon Removal and CCUS.” ICRLP Working Paper No. 2. Washington, DC: Institute for Carbon Removal Law and Policy, American University.
- Morrow, D.R.**, H.J. Buck, W.C.G. Burns, S. Nicholson & C. Turkaly. 2018. *Why Talk About Carbon Removal?* Washington, DC: Institute for Carbon Removal Law and Policy, American University.
- Chhetri, N., et al. 2018. *Governing Solar Radiation Management*. Washington, DC: Forum for Climate Engineering Assessment, American University.
- Morrow, D.R.** 2017. “International Governance of Climate Engineering: A Survey of Reports on Climate Engineering, 2009–2015.” FCEA Working Paper No. 1.
- Morrow, D.R.** 2014. “Geoengineering.” In *Ethics, Science, Technology & Engineering: A Global Resource*, ed. J. B. Holbrook. Cengage.

## Selected Conference Presentations & Invited Lectures

- Panelist, “Would Solar Geoengineering Crowd Out Emissions Cuts? The ‘Moral Hazard’ Risk Examined,” Workshop on *Solar Geoengineering Futures: Interdisciplinary Research to Inform Decisionmaking*, Resources for the Future, Washington, DC, Sep 28, 2023

“Climate Justice and Carbon Removal”

Ben Rabinowitz Workshop on Environmental Ethics: Climate Justice in Broader Perspective, University of Washington (virtual), February 5, 2021

Climate Ethics Workshop: Bridging Gaps of Affluence, Nation and Time, Princeton University (virtual), Aug 2020

Warren Steinkraus Lecture, SUNY Oswego, Oswego, New York, Oct 18, 2018

“Ethical Issues in Ocean Carbon Dioxide Removal,” US National Academy of Science (virtual), Jan 19, 2021

“Large-Scale Carbon Removal and the Sustainable Development Goals,” Carnegie Climate Governance Initiative Webinar, Sep 23, 2020

“Ethical Issues in Carbon Dioxide Removal,” Community Climate Intervention Workshop Webinar, National Center for Atmospheric Research, Boulder, CO (virtual), Aug 26, 2020

“Interactions Between Components of a Climate Policy Portfolio”

Workshop: Towards an interdisciplinary knowledge community on the critical understanding of emergent climate system intervention technologies in Southeast Asia, Bali, Indonesia (virtual), Nov 8, 2019

Sixth International Summer School on Geoengineering, Banff, Alberta, Aug 6, 2019

“Understanding the Slippery Slope Argument Against Climate Engineering Research”

Forum for Philosophy, Engineering & Technology, University of Maryland, May 31, 2018.

International Association for Environmental Philosophy group session at the Eastern Division Meeting of the American Philosophical Association, Baltimore, MD, Jan 4, 2017.

Climate Engineering Research Symposium 2015: Current State and Future Perspectives, Berlin, Germany, Jul 7–10, 2015.

“Is It Morally Permissible to Research Solar Radiation Management?” Forum for Climate Engineering Assessment, American University, Washington, DC. Oct 8, 2015.

“Fairness in Allocating the Global Emissions Budget,” Workshop on the Ethics of Climate Change and Climate Engineering, University of Kiel, Germany, Jul 20–21, 2015.

“The Moral Evaluation of Risk Compensation in Climate Engineering,” University of Hamburg, Germany, Jul 14, 2015.

“Fairness in Allocating the Global Emissions Budget,” George Mason University, Nov. 18, 2014.

“Non-Ideal Theory and Geoengineering” (with Toby Svoboda).

Annual Meeting of the International Society for Environmental Ethics. Allenspark, CO. Jun. 17–20, 2014.

Rocky Mountain Ethics Congress (RoME VII). Boulder, CO. Aug 7–10, 2014.

Climate Engineering Conference 2014: Critical Global Discussions. Berlin, Germany. Aug. 18–21, 2014.

“The Ethics of Intentional Risk Shifting,” Climate Engineering Conference 2014: Critical Global Discussions, Berlin, Germany. Aug. 18–21, 2014.

“Climate Sins of Our Fathers? Historical Accountability in Allocating Emissions Rights.”

International Association for Environmental Philosophy group session at the Eastern Division Meeting of the APA. Baltimore, MD. Dec. 27–30, 2013.

Rocky Mountain Ethics Congress (RoME VI). University of Colorado, Boulder. Boulder, CO. Aug. 8–11, 2013.

“Wants and Needs in Mitigation Policy.” Multi-Disciplinary Perspectives on Climate Ethics Workshop. Como, Italy. Sep. 26–27, 2013.

“Fairness in Allocating the Global Carbon Budget.”

8th Annual International Conference on Applied Ethics. University of Hokkaido. Sapporo, Japan. Nov. 1–3, 2013.

International Society for Environmental Ethics group session at the Central Division Meeting of the American Philosophical Association. Feb. 22, 2013.

“Why Act-Consequentialism Collapses Into Rule-Consequentialism.” Rocky Mountain Ethics Congress (RoME V). University of Colorado, Boulder. Boulder, CO. Aug. 9–12, 2012.

“A Proposal for the Governance of Solar Radiation Management Research”. Conference on Science, Policy, and Social Values. Center for Values in Medicine, Science, and Technology. University of Texas at Dallas. Richardson, TX. Apr. 13–14, 2012.

“Research Ethics and Geoengineering.” Conference on “Geoengineering Our Climate.” Centre for International Governance Innovation. Ottawa, ON. Jan. 19–20, 2012.

Poster presentation: “A Proposal for International Regulation of Experiments in Solar Radiation Management.” American Geophysical Union. San Francisco, CA. Dec. 8, 2011.

“Adaptive Preferences and a Theory of Desirability.” Rocky Mountain Ethics Congress (RoME IV). University of Colorado, Boulder. Boulder, CO. Aug. 4–7, 2011.

“Practical Coherence: A Constructivist Solution to Some Naturalistic Doubts About Moral Intuitions.” Naturalisms in Ethics Conference. University of Auckland, Auckland, New Zealand. Jul. 14–15, 2011.

“Ethical Principles for Trials of Climate Intervention Technologies.” Asilomar International Conference on Climate Intervention Technologies. Asilomar, CA, Mar. 23, 2010.

## Grants Received

Alfred P. Sloan Foundation, “Estimating the impact of carbon removal portfolios on mitigation pathways in integrated assessment models” (2020–2022)

New York Community Trust, “Next Steps with an NGO Network and Carbon Removal” (2021–2022)

Preston-Warner Ventures, Unrestricted Grant for the Institute for Carbon Removal Law & Policy (2021–2022)

## Teaching Experience

### American University

Climate Policy Analysis; Introduction to Research Methods in Intl. Relations

### George Mason University

Environmental Ethics; Happiness and the Good Life

### University of Alabama at Birmingham (UAB)

**Ethics & Political Philosophy:** Climate Change & Global Justice; Ethics: Good & Evil [Moral Theory]; Social & Political Philosophy; Contemporary Moral Issues

**Economics:** Economics, Institutions & Law [Mechanism Design, Information Economics]; Cooperation & Competition [Game Theory]

**Other:** Practical Reasoning

### Hunter College, City University of New York

**Ethics:** Moral Philosophy; Ethics & Society; Introduction to Ethics

**Other:** Introduction to Logic & Critical Thinking

## Supervisory Experience

Raphael Apeaning, Postdoctoral Researcher (American Univ. 2020–2022)

Garrett Guard, Research Asst. (2021–2022), Undergraduate Thesis (American Univ., 2019)

Ian Hoppe, Undergraduate Thesis (UAB Philosophy, 2012)

Josh Zaslowsky, Undergraduate Thesis (UAB Philosophy, 2012)

## Teaching Awards

Outstanding Professor Award, UAB Early Medical School Acceptance Program, 2012–13

Outstanding Faculty Award, UAB Disability Support Services, Fall 2011