

CURRICULUM VITAE

Ross A. Hammond

Fellow
Economic Studies Program
The Brookings Institution
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Washington, DC 20036
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PRIMARY RESEARCH INTEREST: Modeling complex dynamics of social, economic, and political systems using mathematical and agent-based computational methods

PROFESSIONAL EXPERIENCE

- Fellow, The Brookings Institution, Economic Studies Program, 2006-present
- Member, The Brookings Institution Center on Social and Economic Dynamics
- Research Consultant, Center on Social and Economic Dynamics at The Brookings Institution, Washington, D.C. (2003-2006)
- NSF IGERT IDEAS fellow, Center for the Study of Complex Systems, University of Michigan (2003–2005)
- Visiting Scholar, The Santa Fe Institute, Santa Fe, NM (spring 2003)
- Graduate Student Instructor, University of Michigan (2002)
- Research Assistant, University of Michigan (2001-2005)
- Research Modeler, The Brookings Institution, Washington D.C. (2000-2001)
- Consultant, PricewaterhouseCoopers LLP, Arlington, VA (1999-2000)

AWARDS AND PROFESSIONAL SOCIETIES

- Okun-Model Fellowship in Economics, The Brookings Institution (2006-7)
- NSF IGERT IDEAS fellowship, Center for the Study of Complex Systems, University of Michigan (January 2003 – August 2005)

- Member, The American Political Science Association (2004-present)

EDUCATION

UNIVERSITY OF MICHIGAN
Ann Arbor, Michigan
September 2001-August 2006

Ph.D., Department of Political Science. Fields of Specialization:
Comparative Politics, Political Economy and Development, Methodology,
and Complex Systems. Dissertation Chair: Robert Axelrod

WILLIAMS COLLEGE
Williamstown, Massachusetts
September 1995-June 1999

B.A. (with Honors). Double-major in Economics and Political Science with
honors thesis on dynamics of corruption.

SELECTED PUBLICATIONS

“A Complex Systems Approach to Understanding and Combating the Obesity Epidemic”. Forthcoming in *Obesity Prevention* (Elsevier, 2009).

“Brain-to-Society Systems Models of Individual Choice” with Dube, Laurette, Bechara, Antoine, Bockenholt, Ulf, Ansari, Asim, Dagher, Alain, De Sarbo, Wayne, Huang, Terry T-K, Huettel, Scott, Kooreman, Peter, and Smidts, Ale. *Marketing Letters* 19:323-336 (2008).

“Coupled Contagion Dynamics of Fear and Disease: Mathematical and Computational Explorations” with Cummings, D., Parker, J., and Epstein, J.M. Forthcoming in *PLOS_One* (2008). Earlier draft appeared as *Santa Fe Institute Working Paper* 07-12-48 (2008).

“Exploring Price-Independent Mechanisms in the Obesity Epidemic” with Epstein, Joshua. *Center on Social and Economic Dynamics Working Paper* 48 (2007).

“The Evolution of Ethnocentrism” with Axelrod, Robert. *Journal of Conflict Resolution* 50: 926-936 (2006).

“Evolution of Contingent Altruism When Cooperation is Expensive” with Axelrod, Robert. *Theoretical Population Biology*, Special Issue on “ESS Theory Today” 69(3), 333-338 (2006).

“Altruism via kin-selection strategies that rely on arbitrary tags with which they co-evolve” with Axelrod, Robert and Grafen, Alan. *Evolution* 58(8), 1833-1838 (2004).

“Population growth and collapse in a multiagent model of the Kayenta Anasazi in Long House Valley” with Axtell, Robert, Epstein, Joshua M., Dean, Jeffrey, Gummerman, George, Swedlund, Alan, Harburger, Jason, Chakravarty Shubha, Parker, Jon, and Parker, Miles. *Proceedings of the National Academy of Sciences* 99(3), 7275-7279 (2002).

“Non-explanatory equilibria: An extremely simple game with (mostly) unattainable fixed points” with Epstein, Joshua M. *Complexity* 7(4), 18-22 (2002). Reprinted in *Generative Social Science* (Princeton Press, 2006). Earlier draft appeared as *Santa Fe Institute Working Paper* 01-08-043 (2001)

“An Agent-Based Model of City Size Distributions” with Gulden, Timothy. *Brookings Center on Social and Economic Dynamics Working Paper* (accepted 2006 pending revisions)

“Endogenous Dynamics of Corruption”. *Brookings Institution Center on Social and Economic Dynamics Working Paper* 19 (1999) – revised 2006 for publication review.

WORKING PAPERS and ARTICLES UNDER REVIEW

“Inter-group Contact: Movement, In-group favoritism, and Individual Reciprocity”

“Public Health Communication, Reactance, and Smoking Dynamics: An Agent-Based Model” (with Epstein, J.M. and Parker, J.)

“Endogenous Transition Dynamics in Corruption”

“Stages in the Evolution of Ethnocentrism” (with Shultz, Thomas R. and Hartshorn, Max)

MEDIA COVERAGE

“Obesity and the Influence of Others”, Carol Graham, Ross A. Hammond, and H. Peyton Young. Op-Ed *The Washington Post* August 21, 2007.

The Social Atom, Mark Buchanan. Bloomsbury, USA May, 2007.

“Born Prejudiced”, Mark Buchanan. *The New Scientist* March 17, 2007.

“We’re Prejudiced, now what?”, Robert Burton. *Salon* October 31, 2007

“Life with the Artificial Anasazi,” Jared Diamond. *Nature* 419(6907), 2002.

“Seeing Around Corners,” Jonathan Rauch. *The Atlantic Monthly* April 2002.

RECENT MAJOR CONFERENCE PRESENTATIONS

“Complex Systems and Agent-based Modeling: Applications to Obesity and Public Health” at *Environmental Systems of Public Health Workshop* (NIH), October 2008

“Coupled Contagion Dynamics of Fear and Disease” at *International Conference of the System Dynamics Society* (Athens), July 2008

“Agent-Based Computational Modeling of Complex Social Dynamics” at *Frontiers of Statistical, Mathematical, and Computational Science Symposium* (hosted at George Washington University, Washington DC), May 2008

“Agent-Based Models and Smoking” at *Mathematical Modeling in Tobacco Control* (National Cancer Institute and University of Michigan School of Public Health), May 2008

“A Complex Systems Approach to Understanding and Reversing the Obesity Epidemic” at *The McGill Health Challenge Think Tank* (McGill University), November 2007

“Agent-based modeling and behavioral realism in social and public health models” at *Wharton Invitational Choice Symposium* (Wharton), June 2007

“Vision 2030: Securing Growth Momentum for the Future” at *The Vision 2030 Global Forum on Sustainable Development* (Seoul, Korea), December 2006

CURRENT RESEARCH GRANTS

National Institutes of Health, Institute of General Medical Sciences. Joint with Johns Hopkins Bloomberg School of Public Health (JHBSPH). Computational Models of Infectious Disease Threats. Five-year Grant for the period 4/04-4/09.

DHS University Center of Excellence Grant: Preparedness And Catastrophic Event Response (PACER) with the Johns Hopkins University Medical School and the Bloomberg School of Public Health. 07/07/06 – 07/06/09.

MAJOR COMPUTER LANGUAGES AND SOFTWARE

Java, C++, ASCAPE, RePAST, NetLOGO, Pascal, Mathematica

FOREIGN LANGUAGE TRAINING

French and Latin

PERSONAL

Citizenship: United States