



**Culture and Evolution Workshop  
University of Maryland  
March 19 – March 20, 2015**

**Workshop Organizers**

**Michele J. Gelfand** (Cross-Cultural Psychology, University of Maryland)

Michele J. Gelfand is Professor of Psychology and Distinguished University Scholar Teacher at the University of Maryland, College Park. She received her Ph.D. in Social/Organizational Psychology from the University of Illinois. Gelfand's work explores cultural influences on conflict, negotiation, justice, and revenge; workplace diversity and discrimination; and theory and methods in cross-cultural psychology. She is the founding co-editor of the *Advances in Culture and Psychology* series (Oxford). Gelfand is the Past President of the International Association for Conflict Management, and received the Annaliese Research Award from the Alexander von Humboldt Foundation. Her work has been published in *Science*, *Proceedings of the National Academy of Sciences*, *Proceedings of the Royal Society B*, *Psychological Science*, *Annual Review of Psychology*, *Academy of Management Review*, among others.

**David Sloan Wilson** (Evos, SUNY Binghamton)

David Sloan Wilson is an evolutionary biologist and Distinguished Professor of Biological Sciences and Anthropology at Binghamton University. After earning his Ph.D. from Michigan State University, Wilson took several research positions at Harvard University, the University of Washington, and the University of California, Davis, before eventually joining Binghamton as a full professor. At Binghamton, Wilson started the Evolutionary Studies program, which unifies disciplines under the theory of evolution. In addition to exploring the biological world, Wilson's research deals with public policy, community, and religion. He communicates his work to the general public through his ScienceBlogs site and his trade books, such as *Evolution for Everyone: How Darwin's Theory Can Change the Way We Think About Our Lives*.

## Workshop participants

### **Joe Brewer** (Environmental Sciences, Consultant, Cognitive Works)

Joe Brewer is the founder of Cognitive Policy Works, and is a consultant who aims to develop integrated solutions at the intersection of advocacy, technology, and policy. His research specialties include design for systemic change, the architecture of human interaction, and incubating social innovations that promote the growth of livable and resilient communities. Brewer has formal training in Earth systems, political cognition, and open collaboration processes, and works internationally with social entrepreneurs, civic institutions, and non-profits to solve some of the most challenging problems confronting humanity.

### **Carol Ember** (Anthropology, Yale)

Carol R. Ember is President of the Human Relations Area Files at Yale University. Previously she served as Executive Director from 1996 to 2009. She is also the editor of the journal *Cross-Cultural Research* and the Past-President of the Society for Anthropological Sciences. She has served as President of the Society for Cross-Cultural Research and co-directed the Summer Institutes for Comparative Anthropological Research, which were supported by the National Science Foundation. Most of her research career has been devoted to cross-cultural research on variation in marriage, family, kin groups, gender roles, predictors of war and other forms of violence. She is interested in research that integrates the fields of anthropology as well as anthropology with other disciplines.

### **Erin Fitzgerald** (Speech and Language Processing, Cognitive Science, Electrical Engineering, Computer Engineering, Department of Defense)

Dr. Erin Fitzgerald serves as Science Advisor and Program Director for Social Sciences in the Basic Research Office of the Assistant Secretary of Defense for Research and Engineering. Since 2011 she has directed the Minerva Research Initiative, an \$18 M defense social science research program with a wide portfolio ranging from the mechanisms of radicalization to the impact of resource access on regional stability and to the changing role of the state in a globalizing world. As science advisor she also develops strategic plans for future basic research investments across the defense enterprise. Erin comes to DOD through an intergovernmental personnel agreement (IPA) with the Potomac Institute for Policy Studies, a research institute emphasizing science, technology, and national security issues facing our society. Previously she contributed to defense intelligence studies at the National Academies and worked on speech recognition technologies at Microsoft, Intel, and Raytheon BBN Technologies. Erin received her B.S. in electrical and computer engineering from Carnegie Mellon and her master's and Ph.D. degrees in electrical and computer engineering from Johns Hopkins. Her research in speech and language processing combined electrical engineering, computer science, and

cognitive science approaches for data-driven efforts in automatic speech recognition and language translation.

**Matthew Gervais** (Evolutionary Anthropology, Rutgers)

Matthew Gervais is a postdoctoral associate in the Department of Anthropology at Rutgers University. Before his work with Rutgers, Gervais was a Junior Research Fellow at the SAGE Center for the Study of the Mind. He received his M.A. and Ph.D. in Biological Anthropology from the University of California, Los Angeles. He recently earned a grant from the John Templeton Foundation and the Dissertation Year Fellowship from the UCLA Graduate Division. Gervais's expertise consists of evolutionary and cognitive anthropology and evolutionary psychology, and his research focuses on the evolution of human social relationships, the phylogeny, forms, and functions of affect, the psychology of social norms, and nonverbal communication.

**Ruthanna Gordon** (Cognitive Psychology, Intelligence Advanced Research Projects Activity)

Ruthanna Gordon received her PhD in Cognitive Psychology from Stony Brook University in 2003. As a professor at Illinois Institute of Technology, her research focused on memory, decision-making, and narrative processing—and how they affect public decision making on topics such as emerging technologies and climate change. In 2011 she took an American Association for the Advancement of Science policy fellowship with the U.S. Environmental Protection Agency, where she applied that psychological expertise to encouraging sustainable culture change both within and outside the agency. She currently works for AVIAN LLC, where she supports innovative federal research in the social sciences. Her most recent project focuses on the use of game-based studies to improve understanding of large-scale social interaction and cooperation: *Alternate Reality Games for Behavioral and Social Science Research* is now available from Carnegie Mellon's ETC Press.

**Shihui Han** (Social Neuroscience and Culture, Peking University)

Shihui Han is a professor at Peking University in the Department of Psychology, and a principle investigator at PKU-IDG/McGovern Institute for Brain Research, Peking University. He served as chair of the Department of Psychology at Peking University between 2003 and 2007. He studies cultural and genetic influences on neural substrates of social cognition such as self-referential processing, empathy, death awareness, etc. He is the founding editor of the “Culture and Brain”, an associate editor of “Social Cognitive and Affective Neuroscience” and “Acta Psychologica Sinica.” He has published over 100 peer reviewed research papers.

**Harold Hawkins** (Experimental Psychology, Human Perception and Performance, Office of Naval Research)

Dr. Hawkins received a Ph.D in Experimental Psychology at the University of Oregon in 1967, with a specialization in human perception and performance. He joined the psychology faculty at the University of South Florida as Assistant Professor that same year, and rose to the rank of tenured Full Professor in 1976. At South Florida, he taught undergraduate and graduate courses in perception, cognition, learning, research methods and statistics. In 1977 he returned to the University of Oregon to assume the Directorship of the graduate program in Applied Psychology, which included tracks in Human Factors and Industrial-Organizational Psychology. In 1985 he joined the scientific staff of the Office of Naval Research, where he has managed programs in Perceptual Science, Biosonar, Computational Vision, Auditory Computation, Virtual Environment Technology, Modeling and Simulation, Virtual At-Sea Training, and Human Behavior Modeling. The programs he currently manages at ONR focus on socio-cultural analysis, computational vision, affordable simulation-based combat training technologies, and enhancing adult cognitive capabilities through training. While in academia, he received 12 grants and contracts, and served on the Editorial Board of the journal Memory and Cognition. In addition, he has been, and remains, a regular reviewer for the Journal of Experimental Psychology: Human Perception and Performance, and Perception and Psychophysics, and has served as Editor of a special issue of the journal Neural Networks, focusing on Automatic Target recognition. He has produced numerous publications, including two edited two volumes, Auditory Computation (Springer-Verlag) and Neural Representation of Temporal Patterns (Plenum).

**Joshua Jackson** (Cross-Cultural Psychology, University of Maryland)

Joshua Conrad Jackson is a predoctoral researcher at the University of Maryland. He received his B.A. with First Class Honors from McGill University in 2013, and held a research position at University of Otago in New Zealand before joining Maryland in 2014. Josh studies the emergence and evolution of cultural norms, religious cognition, and the dynamics of natural social grouping. He is currently working as co-PI on an Otago Research Grant that explores cognitive responses to existential threat. He also serves as co-editor of the science communication group, *Useful Science*.

**Yoshi Kashima** (Cross-Cultural Psychology, University of Melbourne)

Yoshi Kashima is a professor of Psychology at University of Melbourne, and the president of the International Association for Cross-Cultural Psychology. Kashima earned his Ph.D. under Harry Triandis at the University of Illinois, and has since published over 50 articles and book chapters on the development and formation of culture over time. Kashima is a fellow for the Association for Psychological Science, and the Society for Experimental Social Psychology. He is currently working off funding from the Australian Research Council to investigate the Implicit Transmission of Embodied Culture.

## **Simon Kirby** (Linguistics and Artificial Intelligence, Culture-Language Evolution, University of Edinburgh)

Simon M. Kirby is a computational linguist, currently holding the Chair of Language Evolution at the University of Edinburgh, where he is the Director of the Graduate School, and Programme Director for the MSc in the Evolution of Language and Cognition. Kirby's research concerns the origin and evolution of language, and the unique ways that culture and biology interact in our species. He has pioneered a new approach to understanding cultural evolution of behaviors such as language called Iterated Learning. His research aims to gain a complete understanding of human nature through the complex interactions between individual learning, cultural transmission, and biological evolution in human populations.

## **Shinobu Kitayama** (Cultural Neuroscience, University of Michigan)

Shinobu Kitayama received his Ph.D. from the University of Michigan, where he is currently Collegiate Professor of Psychology and the Director of the Center for Culture, Mind, and the Brain. His research focuses on cultural variations in self, cognition, emotion, and motivation. Kitayama's article with Hazel Markus on culture and self, published in *Psychological Review* (1991), is one of the most widely cited in social and behavioral sciences. He has also pioneered the use of neuroscience measures in the investigation of the dynamic, recursive interaction between culture and the brain, thereby contributing to the emerging field of cultural neuroscience. His more recent work has explored regional, social class, as well as age differences and similarities in psychological tendencies to understand their socio-cultural underpinnings.

## **Benjamin Knott** (Trust and Influence, Air Force Office)

Ben Knott is an experimental psychologist with the Air Force Office of Scientific Research in Arlington, VA. Dr Knott manages the Trust and Influence basic research program, focused on the discovery of foundational concepts of effective influence, deterrence, and trust as it relates to autonomous systems and human-robot interaction. Past R&D activities include the study of team performance and metrics development in military settings, the impact of technology-mediated communication on decision making, the design of natural language human-machine interfaces, and investigating the effectiveness of virtual environments for training and rehabilitation. He has previously held positions with the Air Force Research Lab, General Dynamics, AT&T Labs, and Booz-Allen & Hamilton. Dr Knott completed his doctoral training at the Catholic University of America in 1999. He holds over 60 patents on human-computer interface methods and telecommunication technologies, and has published extensively in the area of human factors.

Link to the AFOSR program:

<https://community.apan.org/afosr/w/researchareas/7676.trust-and-influence.aspx>

**Richard McElreath** (Anthropology, Evolutionary Ecology, UC Davis)

Richard McElreath is a Professor in the department of Anthropology at the University of California, Davis. McElreath earned his Ph.D. at University of California, Davis, and completed post-doctorate research at the Center for Adaptive Behavior and Cognition on a Max Planck Fellowship. McElreath has since worked as an evolutionary ecologist with a focus on humans. His main research interest is in the study of social learning as a mechanism behind complex human adaptation. In this research, he uses a combination of formal evolutionary models, experiments, and ethnographic fieldwork.

**Jerry Miller** (Executive Director, The Evolution Institute)

Jerry Miller, PhD, is an Industrial-Organizational Psychologist. He spent 18 years at the University of South Florida where he created, directed, researched, and managed organizations, projects, and research that served communities and youth in economic development and job creation activities, as well as school-based and out of school intervention programs. Programs he directed include the internationally recognized Prodigy Youth Cultural Arts Program, a juvenile justice court diversion resiliency-based program for at-risk and arrested youth that has among the lowest recidivism rate in the state. He founded the College Link program that served about 2000 high school youth annually with tutoring and mentoring. He has also created micro lending programs and job development centers, and developed and oversaw training for emerging leaders in Central America. He has been awarded over 25 grants and contracts from federal, state, and local agencies and foundations and has presented his work both domestically and internationally.

**Dana Nau** (Computer Science, Evolutionary Game Theory, University of Maryland)

Dana Nau is a Professor at the University of Maryland in the Department of Computer Science and the Institute for Systems Research. He received a B.S. in Applied Mathematics from Missouri S&T in 1974, and a Ph.D. in Computer Science from Duke University in 1979. Nau is both an ACM Fellow and an AAAI Fellow. Some of his best-known accomplishments include the discovery of pathological game trees, and the SHOP, SHOP2, and Pyhop automated-planning systems. His research focuses on artificial intelligence, especially concerning the areas of automated planning and game-theoretic studies of cultural evolution.

**Andrzej Nowak** (Social Psychology, Computational Modeling, University of Warsaw)

Andrzej Nowak is currently a professor at the University of Warsaw, the Warsaw School of Social Sciences, and a permanent half-time member of the Psychology Department at Florida Atlantic University. He previously received his M.A. and Ph.D. from the

University of Warsaw. Nowak is a leading expert on the modeling and computer simulation of social processes. Using cellular automata, he has modeled the emergence of public opinion in society and linear versus non-linear societal transitions. At FAU, he conducts both simulation and experimental research in the Dynamical Social Psychology Lab in collaboration with Robin Vallacher. Current research projects include the use of cellular automata to simulate the emergence and maintenance of self-concept and linear and non-linear scenarios of societal change, the use of attractor neural networks to model interpersonal and group dynamics, and the use of coupled dynamical systems to simulate the emergence of personality through social coordination.

**Edward T. Palazzolo** (Social and Cognitive Networks, Army Research Office)

Dr. Edward T. Palazzolo is the Program Manager for Social and Cognitive Networks at the Army Research Office. His program supports research in human behavior and interaction; information and knowledge management; and methodological advancements for social network analysis. Since earning his doctorate at the University of Illinois Urbana-Champaign, he served on the faculty at The Ohio State University and Arizona State University, and was the Associate Director of a research lab at Northwestern University.

**Peter Peregrine** (Archeology, Lawrence University)

Peter Peregrine is a Professor of Anthropology at Lawrence University and a registered professional archaeologist, as well as the creator of the Peter Neal Peregrine Press. He previously received his B.A., M.A., and Ph.D., from Purdue University. His research interests include anthropological theory, the evolution of complex societies, culture contact and change, and the integration of archeology and ethnology. In addition to archaeology, Peregrine has also made a number of contributions to cross-cultural studies. The focus of his work has been on developing archeological correlates for various types of behavior, including warfare, post marital residence, and social stratification.

**Peter Richerson** (Zoology, Culture and Evolution, UC Davis)

Peter Richerson is the Distinguished Professor Emeritus of the Department of Environmental Science and Policy at the University of California, Davis, past President of the Society for Human Ecology and of the Human Behavior and Evolution Society, and President-Elect of the Evolutionary Anthropology Society. After completing his Bachelor and Ph.D. at UC Davis, he held guest professor positions at the University of California, Berkeley, Duke University, and University of Exeter, before rejoining UC Davis as a faculty member. Richerson's research investigates sociocultural evolution, human ecology, and applied and tropical limnology. In his work on cultural evolution, he uses methods of analysis of evolution developed by evolutionary biologists to study the processes of cultural evolution. His models aim to illuminate the evolutionary properties

of human culture and animal social learning, and the properties of gene-culture coevolution. Richerson was recognized as a Guggenheim Fellow in 1984, and was awarded the J.J. Stanley Prize of The School of American Research in 1989 for contributions to the human sciences.

**Patrick Roos** (Computer Science, University of Maryland)

Patrick Roos is a computational scientist at the National Cancer Institute. He received a B.A. in Discovery Informatics from the College of Charleston and an M.S. and Ph.D. in Computer Science from the University of Maryland, College Park. He has over a decade of experience working on interdisciplinary research projects at the intersection of computer science with the human and life sciences. This research has developed and applied data science and evolutionary game theoretic approaches to social modeling and simulation, decision theory, cross-cultural psychology, network science, bioinformatics, and computational aesthetics. His PhD and recent post-doc at UMD focused around computational and evolutionary game theoretic models of the emergence of cross-cultural differences in behaviors and norms.

**Adam Russell** (Cultural Anthropology, Social Anthropology, Intelligence Advanced Research Projects Activity)

Dr. Adam Russell is a Program Manager at the Intelligence Advanced Research Projects Activity (IARPA) in the Office of the Director of National Intelligence. As an anthropologist, Adam has a particular interest in understanding the influence of culture on cognition and human behaviors, which has driven the development of research efforts including the Tools for Recognizing Useful Signals of Trustworthiness (TRUST) Program, which seeks to use one person's neurophysiological signals to assess the trustworthiness of someone else, and the Strengthening Human Adaptive Reasoning and Problem-solving (SHARP) Program, which seeks to leverage advanced neuroscience to improve analysts' capabilities to draw accurate inferences from diverse data. Adam earned his BA in Cultural Anthropology from Duke University and his D.Phil. in Social Anthropology from Oxford University, where he attended as a Rhodes Scholar. While reading anthropology at Oxford, he also engaged in direct practice of cultural immersion techniques, becoming one of only a dozen Americans to represent Oxford against Cambridge in the annual rugby Varsity Match (an event that has been played continuously since 1872, save for interruptions during the two World Wars).

**Lisa Troyer** (Sociology, Psychology, Organizations, Decision Science, Army Research Office, Department of Defense, Duke University)

Dr. Lisa Troyer is a SETA contractor with the Army Research Office overseeing its extramural research program in the social and behavioral sciences. She also works with the Department of Defense on its Minerva Research Initiative to support collaborations between the DoD and academic social scientists. She received her Ph.D. from Stanford

University in Sociology, focusing on social psychology, organizations, and decision science. Previously, she was a tenured professor at the universities of Iowa, Connecticut, and Illinois, and served as an administrator at all three universities with assignments related to enhancing multidisciplinary research, diversity, and community service. Alongside her work with the Army Research Office and Minerva, she is currently a visiting professor at Duke University and has published dozens of articles in social science, engineering, and public health journals and volumes. Her current work with the US Army and the Minerva Initiative is focused on harnessing social science research to protect human rights and improve the well-being of peoples across the world.

**Peter Turchin** (Evolutionary Biology, U Conn)

Peter Turchin is a professor in the Department of Ecology and Evolutionary Biology at University of Connecticut. Turchin was trained as a theoretical biologist, and earned his Ph.D. in Zoology from Duke University. His current interests, however, lie in the field of Cultural Evolution and Historical Social Dynamics. Turchin is one of the founders of Cliodynamics, the new scientific discipline at the intersection of historical macrosociology, cliometrics, and mathematical modeling of social processes. Using cliodynamics, he has studied multilevel selection, the collapse of complex societies, and the effect of population pressure on warfare. He is also vice-president and one of the founding members of the Evolution Institute.

**Tim Waring** (Human Ecology, Culture and Evolution, Environmental Evolution, University of Maine)

Tim Waring is an Assistant Professor at the University of Maine and the Director of the U Maine Experimental Economics Laboratory. Waring earned his PhD at University of California, Davis in evolutionary ecology. His current research interests are in human culture and cooperation in relation to the environment, with a research focus on how social norms, institutions, and societies evolve, and how ecological and social forces influence them. Waring uses paradigms from experimental economics and agent-based modeling to answer his questions. Currently, he is leading a large research project on the evolution of local food organizations.

**Paul Wason** (Archaeology, John Templeton Foundation)

Paul Wason is responsible for developing new research initiatives investigating the evolution and fundamental nature of life, human life, and mind, especially as they relate to issues of meaning and purpose. Before joining the Foundation, he spent ten years at Bates College as director of foundations and corporations and as a sponsored-research administrator. An anthropologist with a specialty in prehistoric archaeology, Dr. Wason received his Ph.D. in anthropology from the State University of New York at Stony Brook and is a Phi Beta Kappa graduate of Bates College, where he earned a B.S. in biology. His research on inequality, social evolution, and archaeological theory has been published as *The Archaeology of*

*Rank* (1994).

**Harvey Whitehouse** (Social Anthropology and Cognitive Science of Religion, Oxford University)

Harvey Whitehouse is Chair of Social Anthropology and Director of the Institute of Cognitive and Evolutionary Anthropology at the University of Oxford. Whitehouse completing his PhD at the University of Cambridge under the supervision of Ernest Gellner, and followed his fieldwork in Papua New Guinea with the theory of “modes of religiosity,” which proposes that the frequency and emotionality of rituals determines the scale and structure of religious organizations. In recent years, Whitehouse’s work has expanded beyond religion to examine the role of rituals of all kinds in binding groups together and motivating inter-group competition, including warfare. This research has become increasingly global in reach with ongoing data collection now established at field sites in Singapore, Japan, New Zealand, Australia, Vanuatu, Brazil, the U.S., Spain, Croatia, the U.K., Mauritius, and Libya.