

Narrative in the Natural Sciences and Humanities

February 28 - March 1, 2019

Faculty House, Columbia University



CONFERENCE ORGANIZERS

Rita Charon - Professor of Medical Humanities and Ethics and of Medicine, Columbia University Medical Center; Chair of the Department of Medical Humanities and Ethics, Columbia University

Marwa Elshakry - Associate Professor of History, Columbia University

Matteo Farinella - Presidential Scholar in Society and Neuroscience, Center for Science and Society, Columbia University

Stuart Firestein - Professor of Biological Sciences, Columbia University

Melinda Miller - Associate Director, Center for Science and Society, Columbia University

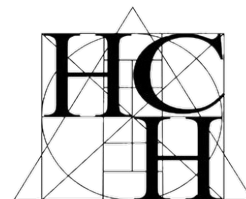
Roshana Nabi - Project Manager, Center for Science and Society, Columbia University

Pamela Smith - Seth Low Professor of History and Director of the Center for Science and Society, Columbia University

Caroline Surman - Project Assistant, Center for Science and Society, Columbia University

Front cover image courtesy of Matteo Farinella

CONFERENCE SPONSORS



The Society of Fellows and Heyman Center for the Humanities

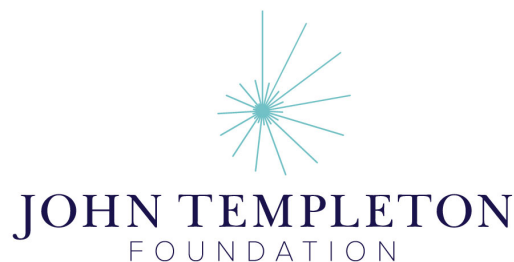
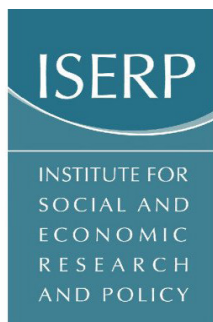


ICLS

@ 20

Celebrating the 20th Anniversary
Institute for Comparative Literature & Society
Columbia University

 COLUMBIA | NARRATIVE MEDICINE



INTRODUCTION

While all disciplines employ narrative in their work to summarize and communicate their theories, methods, and results, the realm of narrating (more colloquially known as storytelling) has traditionally been considered a literary or historical endeavor under the purview of the humanities and social sciences. This is no longer the case. As evidenced by the burgeoning fields of narrative medicine and science communication, narratives and narrating are also important tools for the natural sciences. In light of this development, the conference seeks to explore the following topics:

- What “narrative” means, and the role it plays, in the humanities, social sciences, journalism, law, the natural sciences, and medicine.
- Why humans create narratives, perspectives from literature to neuroscience.
- Narrating with “qualitative” and with “quantitative” data.
- Communicating to the public through narratives and storytelling.

This symposium follows on the conference, *Evidence: An Interdisciplinary Conversation about Knowing and Certainty*, held at Columbia University on April 21-22, 2017 and *The Success of Failure: Perspectives from the Arts, Sciences, Humanities, Education, and Law*, held at Columbia University on December 7-8, 2017. Similar in format, speakers from different disciplines have been invited to share their perspective in each session, and they will engage with each other through moderated discussion. The conference also includes a keynote lecture with author and journalist Lawrence Weschler and two workshops on science communication that will allow participants to put what they have learned from the conference into practice.

Join the conversation on Twitter with #Narrative2019.

Today's event is being photographed. Your presence in the audience grants consent to Columbia University to photograph your likeness and appearance at this event.

For more information, including speaker abstracts, visit the conference webpage at <http://scienceandsociety.columbia.edu/narrative>.

CONFERENCE SCHEDULE

Wednesday, February 27: Opening Event at CAVEAT			
Time	Speaker	Title Affiliation	Location
6:00pm-8:30pm	Opening Event: Narrating Community Power (Narrative in the Arts)		
	Kemi Ilesanmi (Moderator)	Executive Director, The Laundromat Project	CAVEAT: 21 A Clinton Street, New York, NY 10002
	Stephanie Dinkins	Artist and Associate Professor of Art, Stony Brook University	
	Rachel Falcone	Co-Founder, Storyline	
	Fred Chong Rutherford	Writer	
Thursday, February 28			
Time	Speaker	Title Affiliation	Topic
8:30am-9:00am			Registration
9:00am-9:30am			Welcome and Introduction
9:30am-10:30am	Session 1: Introduction: What Can Narrative Mean?		
	Stuart Firestein (Moderator)	Professor of Biological Sciences, Columbia University	
	Patrick Colm Hogan	Board of Trustees Distinguished Professor and Professor of English, University of Connecticut	What Stories Might Be
	Michael Shadlen	Professor of Neuroscience, Columbia University	Neuroscience and Narrative: A Rational Brain Trips on Its Tale
	Rachel Falcone	Co-Founder, Storyline	Getting to the Heart of It
Coffee Break: 10:30am - 10:45am			
10:45am-12:15pm	Session 2: The Role of Narrative in Human Life		
	Pamela Smith (Moderator)	Seth Low Professor of History and Director of the Center for Science and Society, Columbia University	
	Marianne Hirsch	Professor of English and Comparative Literature and Professor of Women's, Gender, and Sexuality Studies, Columbia University	First Person Theoretical
	Keith Oatley	Novelist and Professor Emeritus of Cognitive Psychology, University of Toronto	Narrative Art in Writers, Readers, and Audiences: Exploration, Emotions, Effects
	Rita Charon	Professor of Medical Humanities and Ethics and of Medicine at the Columbia University Medical Center; Chair of the Department of Medical Humanities and Ethics, Columbia University	The Chimera of Narrative Medicine
Lunch: 12:15pm - 2:15pm			
Visual Narrative Workshop and World Cafe (previous registration required)			
2:15pm-3:45pm	Session 3: The Role of Narrative in Human Life, continued		
	Rita Charon (Moderator)	Professor of Medical Humanities and Ethics and of Medicine at the Columbia University Medical Center; Chair of the Department of Medical Humanities and Ethics, Columbia University	
	Laura Otis	Samuel Candler Dobbs Professor of English, Emory University	How Narratives Can Invite Multi-Modal Simulation
	Rishi Goyal	Assistant Professor of Emergency Medicine and Director of the Medicine, Literature and Society major, Columbia University	Social Emergency Medicine: An Emerging Response to Societies of Control
	Lisa Zunshine	Bush-Holbrook Professor of English, University of Kentucky	Departments of Lost and Found Minds
	Robert Krulwich	Journalist, Co-host of Radiolab	Help, I Need A Metaphor
Coffee Break: 3:45pm - 4:00pm			

CONFERENCE SCHEDULE

4:00pm-5:30pm	Session 4: Narrating and Visualizing Data		
	Eileen Gillooly (Moderator)	Executive Director of the Heyman Center for the Humanities and Society of Fellows, Columbia University	
	Suresh Naidu	Associate Professor in Economics and International and Public Affairs, Columbia University	Causality in Historical Social Science
	John Tresch	Mellon Professor in Art History, History of Science and Folk Practice, Warburg Institute, University of London	"The Universe Is a Plot of God": Cosmological Narrative in Antebellum US Science and Culture
	Niall Bolger	Professor of Psychology, Columbia University	The Role of Narrative in Empirical Reports in the Natural Sciences
	Laura Kurgan	Associate Professor of Architecture Planning, and Preservation and Director of the Visual Studies Sequence in the Faculty of Architecture, Planning, and Preservation, Columbia University	Maps and Storytelling
Coffee Break: 5:30pm - 5:45 pm			
5:45pm-6:45pm	Keynote Lecture		
	Lawrence Weschler	Author and Journalist	Narrative, Register, and Credibility: The Case of Oliver Sacks
Book Signing: 6:45pm - 7:30pm			
Friday, March 1			
Time	Speaker	Title Affiliation	Topic
8:30am-9:00am			Registration
9:00am-9:15am			Welcome and Introduction
9:15am-10:45am	Session 5: Formative Narratives		
	Marwa Elshakry (Moderator)	Associate Professor of History, Columbia University	
	Harriet Ritvo	Arthur J. Conner Professor of History, Massachusetts Institute of Technology	Narrative and Evolution
	Nasser Zakariya	Assistant Professor of Rhetoric, University of California, Berkeley	Story Before Language: Narratological Debates and Natural History
	Maeve Glass	Associate Professor of Law, Columbia Law School	Constitutional Narratives
Coffee Break: 10:45am - 11:00am			
11:00am-12:30pm	Session 6: Narrative, Fiction, and Truth		
	Matteo Farinella (Moderator)	Presidential Scholar in Society and Neuroscience, Center for Science and Society, Columbia University	
	Arden Hegele	Fellow, Society of Fellows in the Humanities, Columbia University	Medical Wonders and the Romantic Novel
	Kendall Thomas	Nash Professor of Law and Director of the Center for the Study of Law and Culture, Columbia Law School	Marrying the State: Narrativity and Nationality in Obergefell v. Hodges
	Nick Lemann	Joseph Pulitzer II and Edith Pulitzer Moore Professor of Journalism and Dean Emeritus, Columbia School of Journalism	Can Narrative and Truth Co-exist?
	Stephanie Dinkins	Artist and Associate Professor of Art, Stony Brook University	Narrative, Bias, and AI
Working Lunch: 12:30pm - 2:00pm (speakers and organizers)			
2:00pm-3:30pm	Session 7: Storytelling		
	Rachel Ginsberg (Moderator)	Member of Columbia University School of the Arts' Digital Storytelling Lab	
	Ben Lillie	Co-founder of Caveat, Co-founder of the Story Collider, Physicist	The Hard Problem of Science and Storytelling
	Matteo Farinella	Presidential Scholar in Society and Neuroscience, Center for Science and Society, Columbia University	Communicating Science
	Amir Baradaran	Artist and Creative Research Associate in the Department of Computer Science, Columbia University	Animated Politics: De-Colonising Immersive Spaces
3:30pm-4:00pm	Concluding Remarks and Discussion		

MODERATOR BIOS

Rita CHARON

Rita Charon is a general internist and literary scholar who originated the field of narrative medicine. She is Professor and Chair of the Department of Medical Humanities and Ethics and Professor of Medicine at the Columbia University Vagelos College of Physicians and Surgeons. She is also Executive Director of Columbia Narrative Medicine. Her research investigates narrative medicine training, reflective practice, health care justice, and health care team effectiveness and has been supported by the National Institute of Health, the National Endowment for the Humanities, and private foundations. She has authored, co-authored, or co-edited four books on narrative medicine. She lectures and teaches internationally on narrative medicine and is widely published in leading medical and literary journals.

Marwa ELSHAKRY

Marwa Elshakry, Associate Professor of History at Columbia University, teaches on a broad range of subjects in the history of science, technology, and medicine and modern Arabic intellectual history. Her first book, entitled *Reading Darwin in Arabic*, was published in 2013 with the University of Chicago Press. Among her other publications are: “Translation” in *Blackwell Companion to the History of Science* (Wiley Press, 2016); “Islam” in Michael Saler, ed., *The Fin-de-Siècle World* (Routledge, 2014; Elshakry and Sujit Sivasundaram, eds., *Science, Race and Imperialism* [Victorian Literature and Science series: vol. 6], (Pickering and Chatto, 2012); and ‘When Science became Western: historiographical reflections’, in *Isis*, (March 2010), 98-109. She is currently working on the idea of golden ages, universal histories, and the history of science and orientalism from the eighteenth to twentieth centuries.

Matteo FARINELLA

Matteo Farinella is a Presidential Scholar in Society and Neuroscience at Columbia University, studying the use of comics and other visual narratives in science communication. Working with science journalists, educators, and cognitive neuroscientists, he aims to understand how these tools may affect the public perception of science and increase scientific literacy. He received a PhD in neuroscience from University College London in 2013. Matteo is the author of two graphic novels and a children’s book: *The Senses* (Nobrow, 2017), *Neurocomic* (Nobrow, 2013), and *Cervellopoli* (Editoriale Scienza, 2017). He has worked with universities and educational institutions around the world to make science more accessible. His illustrations won the National Science Foundation Science Visualization Challenge (2015), and have been featured in exhibitions such as the Society of Illustrators Comics and Cartoon Art Annual Exhibition (2015) and STEAM Within the Panels at the American Association for the Advancement of Science Art Gallery (2017).

Stuart FIRESTEIN

Stuart Firestein is a Professor in Columbia University’s Department of Biological Sciences where his colleagues and he study the vertebrate olfactory system, possibly the best chemical detector on the face of the planet. His laboratory seeks to answer that fundamental human question: How do I smell? Dedicated to promoting the accessibility of science to a public audience, Dr. Firestein serves as an advisor for the Alfred P. Sloan Foundation’s program for the Public Understanding of Science. Recently he was awarded the 2011 Lenfest Distinguished Columbia Faculty Award for excellence in scholarship and teaching. He is the author of *Ignorance, How It Drives Science* (2012), and *Failure: Why Science Is So Successful* (2015), both published by Oxford University Press.

MODERATOR BIOS

Eileen GILLOOLY

Eileen Gillooly is Executive Director of the Heyman Center for the Humanities and Society of Fellows and Adjunct Associate Professor of English and Comparative Literature and at the Institute for Research on Women and Gender at Columbia University. Professor Gillooly's interests include nineteenth-century literature and culture in Britain and its colonies, gender studies, public humanities, justice studies, medical and health humanities, the history of the English novel, and literary and social theory. She is the author of *Smile of Discontent: Eileen Gillooly is Executive Director of the Heyman Center for the Humanities and Society of Fellows, Adjunct Associate Professor of English and Comparative Literature and the Institute for Research on Women and Gender at Columbia University. Professor Gillooly's interests include nineteenth-century literature and culture in Britain and its colonies, gender studies, public humanities, justice studies, medical and health humanities, the five history of the English novel, and literary and social theory. She is the author of *Smile of Discontent: Humor, Gender, and Nineteenth-Century British Fiction* (University of Chicago, 1999), which was awarded the Perkins Prize by the International Society for the Study of Narrative (2001); and of essays, articles, and reviews in such publications as *Victorian Studies*, *ELH*, *Feminist Studies*, *The New York Times Book Review*, *Victorian Literary Cultures: A Critical Companion to the Nineteenth-Century Novel*, *Feminist Literary Theory: A Dictionary*, *The Victorian Comic Spirit*, *The Politics of Humour*, *Victorian Prism: Refractions of the Crystal Palace*, *Feminist Nightmares/Women at Odds*, *Contemporary Dickens*, and *A Companion to British Literature* (Wiley/Blackwell).*

Kemi ILESANMI

Kemi Ilesanmi is Executive Director of The Laundromat Project, which advances artists and neighbors as change agents in their own communities. She is inspired by the immense possibilities for joyful justice at the intersection of arts and community. She has previously worked at Creative Capital Foundation and Walker Art Center. In 2015, she was appointed by the Mayor of New York City to the Cultural Affairs Advisory Commission. She has been honored by the Metropolitan Museum and Project for Empty Space. She serves on the boards of the Joan Mitchell Foundation and The Broad Room. A graduate of Smith College, NYU, and Coro Leadership NY, she is currently a Sterling Network Fellow.

Pamela SMITH

Pamela Smith is the Seth Low Professor of History and Director of the Center for Science and Society at Columbia University. She specializes in early modern European history and the history of science. Her current research focuses on attitudes to nature in early modern Europe and the Scientific Revolution, with particular attention to craft knowledge and historical techniques. She is the author of several books, including *Making Knowledge in Early Modern Europe: Practices, Objects, and Texts, 1400-1800*; *The Body of the Artisan: Art and Experience in the Scientific Revolution*; *Merchants and Marvels: Commerce, Science and Art in Early Modern Europe*; and *The Business of Alchemy: Science and Culture in the Holy Roman Empire*.

SPEAKER BIOS

Amir BARADARAN

Amir Baradaran is a New York-based Iranian-Canadian ARtificial artist. As a Creative Research Associate and Adjunct Faculty at the Fu Foundation School of Engineering and Applied Sciences at Columbia University, Baradaran is developing iBegoo, a software that serves as a new platform to democratize the process of writing interactive stories. The software uses artificial intelligence (AI) to automate designing animations and create spherical narratives in augmented reality (AR). Baradaran is a guest speaker at His Holiness Dalai Lama's World Headquarters in Dharamsala for the Summit on Fostering Universal Ethics And Compassion Through Museums, and a member of Columbia University Digital Storytelling Lab. He is the recipient of the Knight Foundation Arts Challenge, and the founder of AnOther{AI}ra.space, a platform to decolonize arts and technology. Baradaran's praxis focuses on the {AR}ticulation of visual vocabularies that use AR and AI technologies around notions of interactivity, storytelling, po{AI}try, data-mining, failed utopias, infiltration, and identity.

Niall BOLGER

Niall Bolger, PhD, is a Professor of Psychology and former Chairperson of the Department of Psychology at Columbia University. He teaches a graduate statistics sequence on linear and mixed models as tools for psychological research, an undergraduate research methods class, and a graduate class on psychophysiological methods and analysis. His main research interests include the study of adjustment processes in close relationship using intensive longitudinal methods; laboratory-based studies of dyadic behavior, emotion, and physiology; and personality processes as they are revealed in patterns of behavior, emotion, and physiology in daily life. He is also interested in statistical methods for analyzing longitudinal and multilevel data, and was co-author of *Intensive Longitudinal Methods* (Guilford, 2013). Dr. Bolger is a Charter Member and Fellow of the Association for Psychological Science, was admitted to membership in the Society for Multivariate Experimental Psychology, and is a Fellow of the Society of Experimental Social Psychology and of the Society for Personality and Social Psychology. He has served on National Institutes of Health and National Science Foundation grant review panels, and as Associate Editor of the *Journal of Personality and Social Psychology: Interpersonal Relations and Group Processes*.

Stephanie DINKINS

Stephanie Dinkins is a transdisciplinary artist and Associate Professor of art at Stony Brook University who creates platforms for dialog about artificial intelligence as it intersects race, gender, and our future histories. She is particularly driven to work with communities of color to create more inclusive, less biased AI. Dinkins earned an MFA from the Maryland Institute College of Art and is an alumna of the Whitney Independent Studies Program. Dinkins is a 2019 Creative Capital Awardee as well as a 2018-19 Soros Equality Fellow, Data and Society Research Institute Fellow, and Sundance New Frontiers Story Lab Fellow. Dinkins is also a proud Laundromat Project (LP) alumni who continues to actively support the LP in various ways. Professor Dinkins teaches lens-based practices and emerging media at Stony Brook University.

Rachel FALCONE

Rachel Falcone is a documentary director/producer and multimedia artist. She is Executive Director and Co-Founder of Storyline, a nonprofit production company building power with story and strategy. Rachel co-directed the participatory web documentary and exhibition *Sandy Storyline* (winner of the inaugural Tribeca Film Festival Storyscapes Award). She recently produced *Water Warriors*, a short film and exhibition about a community's successful fight to protect their water from the oil and gas industry, which has toured more than 60 film festivals and won more than 10 awards. Other projects she's directed include: *Sanctuary*, a

SPEAKER BIOS

theatre commission from the Working Theatre and Housing is a Human Right—a photo-and-audio-based project about the 2008 housing crisis—that was supported by the Laundromat Project, an organization that advances artists and neighbors as change agents in their own communities.

Maeve GLASS

Maeve Glass is an Associate Professor of Law at Columbia Law School. Her scholarship and teaching focuses on constitutional law and history, the legal history of American slavery, and property law. She received her JD from Columbia Law School and her PhD in history from Princeton University. She is currently completing her first book, a new history of the origins of the United States Constitution.

Rishi GOYAL

Rishi Goyal, MD, PhD is an Assistant Professor in the Department of Emergency Medicine and the Institute of Comparative Literature at Columbia University where he is the Director of the Medicine, Literature and Society Major. He is also an Adjunct Associate Professor of Humanities at the University of Southern Denmark. His writing has appeared in *The Living Handbook of Narratology*, *Aktuel Forskning*, *Litteratur, Kultur og Medier*, and *The Los Angeles Review of Books*, among other places. He is a Co-Founding Editor of the online journal, *Synopsis: A Health Humanities Journal*, and a recipient of a recent National Endowment for the Humanities grant.

Arden HEGELE

Arden Hegele received her PhD from Columbia University in 2016. She specializes in nineteenth-century British literature and the medical humanities. Her book project argues that Romantic poetry and prose borrow formal methods from medical science, especially pathology and psychiatry. She is the author of “Romantic Autopsy and Wordsworth’s Two-Part Prelude,” which won the 2014 North American Society for the Study of Romanticism Prize for Best Graduate Student Paper and was subsequently published in *European Romantic Review*, as well as articles published or forthcoming in *Romanticism*, *Partial Answers*, *Gender and Education*, *The Byron Journal*, and *Persuasions*. Her book reviews are published or forthcoming in *Public Books*, *Review 19*, *Studies in Romanticism*, *Victorian Network*, and *Partial Answers*. She teaches in the romantic century, in the medical humanities, and from Homer to Morrison in Columbia’s Core Curriculum course, “Literature Humanities.” With Rishi Goyal, she is a Co-Founding Editor of the online journal *Synopsis: A Health Humanities Journal*.

Marianne HIRSCH

Marianne Hirsch writes about the transmission of memories of violence across generations, combining feminist theory with memory studies in global perspective. Her recent books include *The Generation of Postmemory: Writing and Visual Culture After the Holocaust* (2012), *Ghosts of Home: The Afterlife of Czernowitz in Jewish Memory* (2010), co-authored with Leo Spitzer, and, forthcoming, a co-edited volume *Women Mobilizing Memory*, and a co-authored monograph *School Photos in Liquid Time*. The Director of Columbia University’s Center for the Study of Social Difference, Hirsch teaches Comparative Literature and Gender Studies at Columbia.

Patrick Colm HOGAN

Patrick Colm Hogan is a Board of Trustees Distinguished Professor at the University of Connecticut, where he is on the faculty of the English Department, as well as the Program in Comparative Literary and Cultural Studies, and the Program in Cognitive Science. He is the author of over 20 books, including *The Mind and Its Stories: Narrative Universals and Human*

SPEAKER BIOS

Emotion (Cambridge, 2003) and *Affective Narratology: The Emotional Structure of Stories* (University of Nebraska, 2011). He is also a Co-Editor of the Literary Universals Project.

Robert KRULWICH

Robert Krulwich is co-host of *Radiolab*, WNYC's Peabody Award-winning program about 'big ideas' and now one of public radio's most popular shows. It is carried on more than 500 radio stations and its podcasts are downloaded over 9 million times each month. For 22 years, Krulwich worked in television covering science, economics, war, and technology at ABC, CBS, and PBS. He likes to experiment, pioneering animation on ABC's *Nightline* and *World News Tonight*, using dancers to illustrate hard-to-fathom economic stories at CBS, and creating an Italian opera, "Ratto Interesso" to explain how the Federal Reserve regulates interest rates on NPR. *The New York Times* described him as "a storied figure in public radio history." *TV Guide* described him as "the most inventive network reporter in television." He has won two Peabody Awards, and Emmy Awards for a cultural history of Barbie, for a *Frontline* investigation of computers and privacy, a George Polk Award and an Emmy Award for a look at the Savings & Loan bailout, and the 2010 Essay Prize from the Iowa Writers' Workshop. Krulwich also won the American Association for the Advancement of Science Science Journalism Award for a 2001 NOVA Special, "Cracking the Code of Life," The Extraordinary Communicator Award from the National Cancer Institute, and an Alfred I. Dupont-Columbia Award. Krulwich earned a BA in history from Oberlin College and a JD from Columbia University in 1974.

Laura KURGAN

Laura Kurgan is an Associate Professor of Architecture at the Graduate School of Architecture Planning and Preservation (GSAPP) at Columbia University, where she directs the Center for Spatial Research and the Visual Studies curriculum. She is the author of *Close Up at a Distance: Mapping, Technology, and Politics* (Zone Books, 2013). Her work explores the ethics and politics of digital mapping and its technologies; the art, science, and visualization of big and small data; and design environments for public engagement with maps and data. From 2004-15, she founded and directed the Spatial Information Design Lab (SIDL) at GSAPP. The SIDL "Million Dollar Blocks" project is in the permanent collection of the Museum of Modern Art in New York City, and her work has also been shown at Palais De Tokyo and the Fondation Cartier in Paris, MACBa in Barcelona and the ZKM in Karlsruhe, Germany. In 2009, Kurgan was awarded a United States Artists Rockefeller Fellowship.

Nicholas LEMANN

Nicholas Lemann served as Dean of Columbia Journalism School from 2003-13. During his deanship, the school completed its first capital fundraising campaign, added 20 members to its full-time faculty, built a student center, started its first new professional degree program since the 1930s, and launched significant new initiatives in investigative reporting, digital journalism, and executive leadership for news organizations. Now Dean Emeritus and Joseph Pulitzer II and Edith Pulitzer Moore Professor of Journalism, he also directs Columbia Global Reports, a book publishing venture, and Columbia World Projects, a new institution that implements academic research outside the university. Lemann is a staff writer at *The New Yorker*, and is on the boards of the Authors Guild, the Knight First Amendment Institute, the Thomson Reuters Founders Share Company, and the Russell Sage Foundation. He is a member of the New York Institute for the Humanities and the American Academy of Arts and Sciences.

Ben LILLIE

Ben Lillie is a high-energy particle physicist who left the ivory tower for the wilds of New York's theater district. He is obsessed with the intersection of academics and the performing arts, and is dedicated to finding new ways to blend those worlds. He is the CoFounder and

SPEAKER BIOS

CEO of Caveat, an event space on the Lower East Side for those experiments, and other forays into intelligent nightlife. He has a BA in physics from Reed College, a PhD in theoretical physics from Stanford University, and a certificate in improv comedy from the Upright Citizens Brigade Theater. He was a Postdoctoral Scholar at the University of Chicago and Argonne National Laboratory, and has published in *The Atlantic* and *Slate*. He is also the Co-Founder of The Story Collider, where people are invited to tell stories of their personal experience of science, is a Moth StorySLAM champion, and spent four years on the editorial team at TED. Find him on Twitter (@BenLillie) or at almost any Caveat show.

Suresh NAIDU

Bio not available at time of printing.

Keith OATLEY

Keith Oatley is Professor Emeritus of Cognitive Psychology at the University of Toronto, and Fellow of the Royal Society of Canada. His main research has been on emotions and on the psychology of fiction. He is author of eight books of psychology, most recently *Our Minds, Our Selves, A Brief History of Psychology*. He has also published three novels, one of which won an international prize, as well as a novella with psychological discussions of the emotions you may feel as you read it: *The Passionate Muse: Exploring Emotion in Stories*.

Laura OTIS

Trained as a neuroscientist and literary scholar, Laura Otis studies the ways that literature and science intersect. In her research, she compares scientific and literary writers' use of language—especially creative metaphors—to describe memory, identity, communication, emotion, and thought. Otis received her BS in Molecular Biophysics and Biochemistry from Yale University in 1983, her MA in Neuroscience from the University of California at San Francisco in 1988, her PhD in Comparative Literature from Cornell University in 1991, and her MFA in Fiction from Warren Wilson College in 2017. Since 2004, she has worked as a Professor of English at Emory University, where she teaches interdisciplinary courses on literature, science, and medicine. Otis is the author of *Organic Memory* (1994), *Membranes* (1999), *Networking* (2001), *Müller's Lab* (2007), *Rethinking Thought* (2016), and *Banned Emotions* (forthcoming, 2019). She has translated neurobiologist Santiago Ramón y Cajal's *Vacation Stories into English* (2001) and has edited *Literature and Science in the Nineteenth Century: An Anthology* (2002). Her current research project investigates the ways that fiction-writers cue readers to combine senses in their imaginations. Besides her academic books, Otis has written six novels, including *Clean* (2019). In 2000, she was awarded a MacArthur fellowship for creativity.

Harriet RITVO

Harriet Ritvo teaches courses in environmental history, the history of human-animal relations, and the history of natural history. She is the author of *The Dawn of Green: Manchester, Thirlmere, and Modern Environmentalism* (Chicago, 2009), *The Platypus and the Mermaid, and Other Figments of the Classifying Imagination* (Harvard, 1997), *The Animal Estate: The English and Other Creatures in the Victorian Age* (Harvard, 1987), and *Noble Cows and Hybrid Zebras: Essays on Animals and History* (Virginia, 2010). Her articles and reviews on British cultural history, environmental history, and the history of human-animal relations have appeared in a wide range of periodicals, including the *London Review of Books*, *Science*, *Daedalus*, *American Scholar*, *Technology Review*, and the *Times Literary Supplement*, as well as scholarly journals in several fields. Her current research concerns wildness and domestication.

SPEAKER BIOS

Fred Chong RUTHERFORD

Fred Chong Rutherford is a writer, producer, and performer. He studies comedy at the Upright Citizens Brigade and at the Magnet Theater. You can see him tell stories and do improv monthly with “Spooky Doings” in the basement of the Triple Crown. Fred is currently a writer on the sketch team “Gary from HR”, performing monthly on Monday nights at the Magnet Theater!

Michael SHADLEN

Michael Shadlen is a Howard Hughes Medical Research Institute Investigator and Professor of Neuroscience at Columbia University Medical School. He is a member of the Mortimer B. Zuckerman Mind Brain Behavior Institute and the Kavli Institute of Brain Science. Dr. Shadlen obtained his undergraduate and medical degrees at Brown University, and his PhD at UC Berkeley. He trained in clinical neurology at Stanford University, where he joined William T. Newsome’s lab as a Postdoctoral Fellow. He then joined the Department of Physiology and Biophysics at the University of Washington, where he remained until 2012. His research focuses primarily on the neural mechanisms that underlie decision making. He is also a jazz guitarist. Honors include the Alden Spencer Prize, the Golden Brain, the Lashley Award and elections to the American Association for the Advancement of Science and National Academy of Medicine.

Kendall THOMAS

Kendall Thomas is the Nash Professor of Law and Director of the Center for the Study of Law and Culture at Columbia University. His interdisciplinary research and writing address the intersection of law, politics, and culture, with a special interest in legal discourse, legal ideology, and the representation of individual, social, and institutional identity. In addition to essays and articles in journals and anthologies, Thomas is Co-Editor of *Critical Race Theory: Key Writings that Founded the Movement*, *What’s Left of Theory?* and *The Legacy of Brown v. Board of Education*.

John TRESCH

John Tresch is the Mellon Chair and Professor of History of Art, Science, and Folk Practice at the Warburg Institute at the University of London. He is the author of *The Romantic Machine: Utopian Science and Technology after Napoleon* (Chicago, 2012), and Co-Editor of *Aesthetics of Universal Knowledge* (Palgrave, 2016), *Bibliotechnica: Humanist Practice in Digital Times* (Fondazione Cini, 2018), and *A/V, Audio/Visual* (Grey Room, 2009). He studied anthropology, philosophy, and history of science in Chicago, Cambridge, and Paris, and taught at the University of Pennsylvania in Philadelphia before moving to London last year. His current research deals with cosmograms, or images of the universe, and the science writing of Edgar Allan Poe.

Lawrence WESCHLER

Lawrence Weschler, a graduate of Cowell College at UC Santa Cruz (1974), was for 20 years a staff writer at *The New Yorker* (1981-2001), where his work shuttled between political tragedies and cultural comedies, and then for 13 years (2001-14) the Director, now emeritus, of the New York Institute for the Humanities at NYU, where he insisted on counting the sciences as one of the crowning jewels of “the humanities.” He has been a regular contributor, among others, to the *New York Times Magazine*, *Vanity Fair*, *Harper’s*, *McSweeney’s*, *The Believer* and is the author of coming on 20 books, including *Seeing is Forgetting the Name of the Thing One Sees* (a life of artist Robert Irwin); *Mr Wilson’s Cabinet of Wonder* (on the Museum of Jurassic Technology); *Vermeer in Bosnia*; *Everything That Rises: A Book of Convergences*; *Waves Passing in the Night* (on Walter Murch in the land of the astrophysicists), and forthcoming

SPEAKER BIOS

this August, *And How Are You, Doctor Sacks?* (a biographical memoir of his 35 year friendship with the neurologist Oliver Sacks).

Nasser ZAKARIYA

Nasser Zakariya studied mathematics and physics as an undergraduate, and mathematics and the history and philosophy of science in graduate school. He received his PhD from the Harvard History of Science department, with a secondary field in film and visual studies. He has held research fellowships at the Max Planck Institute for the History of Science, the Science History Institute, New York University Tandon School of Engineering, and Yale Law School, and taught at Michigan State University. He is currently an Assistant Professor in the Department of Rhetoric at UC Berkeley. His book, *A Final Story: Science, Myth and Beginnings* was published by the University of Chicago Press in 2017.

Lisa ZUNSHINE

Lisa Zunshine is Bush-Holbrook Professor of English at the University of Kentucky, a Guggenheim Fellow, and the author and editor of eleven books, including *Why We Read Fiction*, *Strange Concepts and the Stories They Make Possible*, *Getting Inside Your Head: What Cognitive Science Can Tell Us About Popular Culture*, and *The Oxford Handbook of Cognitive Literary Studies*.

