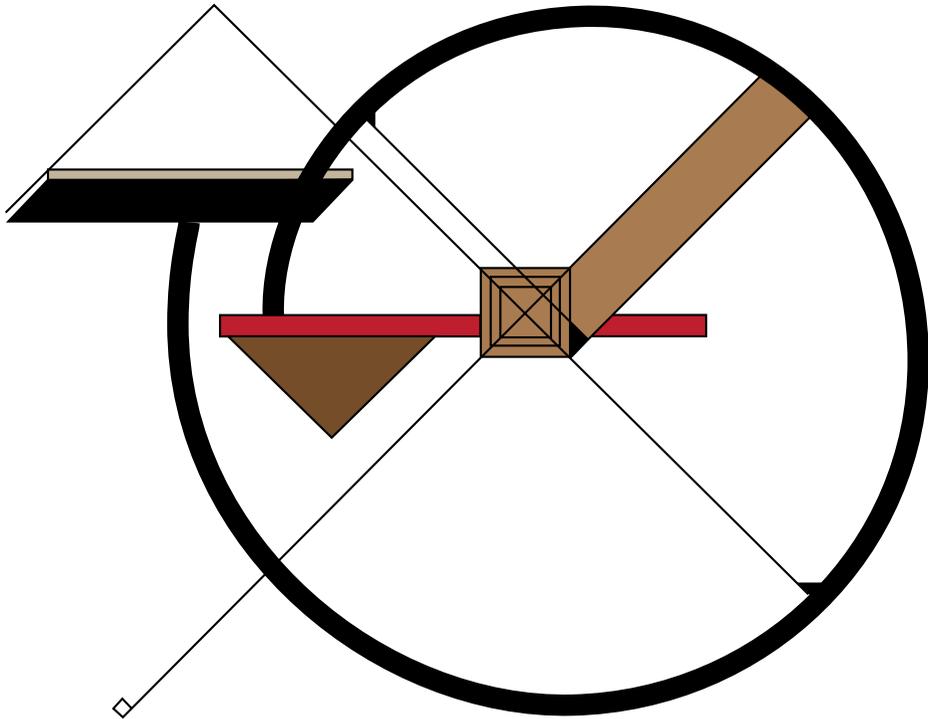

Philosophy and medicine: Explanation and prediction in population health

Cosponsored by the International Philosophy of Medicine Roundtable



NOVEMBER 22, 2013

Dear colleagues,

Welcome to today's symposium, *Philosophy and medicine: Explanation and prediction in population health*.

This event, cosponsored by the International Philosophy of Medicine Roundtable, is one in a series of Columbia University Epidemiology Scientific Symposia (CUESS), which are dedicated to exploring cutting-edge scientific topics in epidemiology and population health. The series brings together leaders in the field and aims to explore state-of-the science and to push the research agenda forward.

Today's symposium brings together leading scholars in the realms of economics, epidemiology, behavioral science, and political science to consider their differing approaches to understanding the forces that shape population health. I hope that you will find the ensuing conversation stimulating and informative.

Thanks go to Dr. Alfredo Morabia and Dr. Jeremy Simon for all their work organizing today's event, to the speakers who join us today to share their perspectives, and to the staff members who work together to make it all go smoothly.

Warm regards,

A handwritten signature in black ink that reads "Sandro Galea". The signature is written in a cursive, flowing style.

Sandro Galea, MD, DrPH

Gelman Professor and Chair

Department of Epidemiology

AGENDA

8:30 – 9:00 **BREAKFAST AND INFORMAL GREETINGS**

9:00 – 9:15 **WELCOME AND OPENING REMARKS**

Sandro Galea, MD, DrPH
Alfredo Morabia, MD, PhD

9:15 – 9:45 **CAUSATION, EXPLANATION, AND PREDICTION: PHILOSOPHICAL QUESTIONS**

Alex Broadbent, MPhil, PhD, GDL

9:45 – 10:15 **CAUSAL INFERENCE IN THE SOCIAL SCIENCES: HISTORICAL EVOLUTION**

Alfredo Morabia, MD, PhD

10:15 – 10:30 **COFFEE**

10:30 – 11:00 **EXPLANATION AND PREDICTION IN ECONOMICS AND HEALTH POLICY**

Nancy Cartwright, PhD, BSc

11:00 – 11:30 **EXPLANATION AND PREDICTION IN EPIDEMIOLOGY**

Miguel Hernan, MD, ScM, DrPH

11:30 – 12:00 **EXPLANATION AND PREDICTION IN HEALTH ECONOMICS**

Gabriella Conti, PhD

12:00 – 12:45 **EXPLANATION AND PREDICTION IN POLITICAL SCIENCE**

Jasjeet S. Sekhon, PhD

12:45 – 1:30 **LUNCH**

1:30 – 2:30 **PANEL DISCUSSION: EXPLANATION AND PREDICTION IN POPULATION HEALTH**

MODERATOR **Jeremy R. Simon, MD, PhD**

PANELISTS **Nancy Cartwright, PhD, BSc**
Alex Broadbent, MPhil, PhD, GDL
Miguel Hernan, MD, ScM, DrPH
Gabriella Conti, PhD
Jasjeet S. Sekhon, PhD

2:30 **CONCLUDING REMARKS**

Alfredo Morabia, MD, PhD

HOSTS



ALFREDO MORABIA, MD, PHD

PROFESSOR OF CLINICAL EPIDEMIOLOGY, MAILMAN SCHOOL OF PUBLIC HEALTH, COLUMBIA UNIVERSITY

PROFESSOR OF EPIDEMIOLOGY, BARRY COMMONER CENTER FOR THE BIOLOGY OF NATURAL SYSTEMS AT QUEENS COLLEGE, CITY UNIVERSITY OF NEW YORK

Alfredo Morabia, MD, PhD, is an epidemiologist and historian. He is editor of "Epidemiology in History" in the American Journal of Epidemiology and supported by the National Library of Medicine to write about the history of epidemiology. His other research is about the health effects of transportation modes, and about the long-term cardiovascular effects of the response to the World Trade Center Towers destruction.



JEREMY R. SIMON, MD, PHD

ASSOCIATE PROFESSOR OF MEDICINE, COLUMBIA UNIVERSITY MEDICAL CENTER

SCHOLAR-IN-RESIDENCE, CENTER FOR BIOETHICS, COLUMBIA UNIVERSITY

Dr. Simon trained in emergency medicine at Bellevue Hospital and obtained his PhD in Philosophy from NYU. His academic work focuses on bioethics and philosophy of medicine, in particular, metaphysical and epistemological issues in medical research and alternative medicine.

Dr. Simon is also the founding secretary of the International Philosophy of Medicine Roundtable (philosmed.org). This is the only organization devoted to the philosophical problems outside of bioethics raised by medicine and provides a forum for philosophers and others interested in these problems. It also hosts the Philosophy of Medicine Roundtable conferences, the fifth of which is being held in conjunction with the current symposium.

PARTICIPANTS



ALEX BROADBENT, MPhil, PhD, GDL

ASSOCIATE PROFESSOR OF PHILOSOPHY,
UNIVERSITY OF JOHANNESBURG

AFFILIATED RESEARCH FELLOW IN
HISTORY AND PHILOSOPHY OF SCIENCE,
UNIVERSITY OF CAMBRIDGE

Dr. Broadbent is a philosopher of science with particular interests in philosophy of epidemiology (a field he has played a leading role in establishing), philosophy of medicine, and philosophy of law, connected by the philosophical themes of causation, explanation, and prediction. He is committed to finding philosophical problems in practical contexts, and to contributing something useful concerning them. He holds a P-rating (highest for career stage) from the National Research Foundation of South Africa (2013-2018). He has published a number of articles in top ranked international journals across three disciplines (philosophy, epidemiology, law). His first book, *Philosophy of Epidemiology*, was published by Palgrave Macmillan in 2013. Another high-impact output in 2013 was Dr. Broadbent's first child, James, published by his wife Nicole.



NANCY CARTWRIGHT, PHD, BSC

PROFESSOR OF PHILOSOPHY AND
CO-DIRECTOR OF CENTRE FOR
HUMANITIES ENGAGING SCIENCE AND
SOCIETY, DURHAM UNIVERSITY

PROFESSOR OF PHILOSOPHY,
UNIVERSITY OF CALIFORNIA SAN DIEGO

Dr. Cartwright is a methodologist and philosopher of the natural and social sciences, with special focus on causation, evidence, and modeling. Her recent work has been on how to make the most of evidence in evidence-based policy.

She is a MacArthur Fellow, a fellow of the British Academy and the American Philosophical Society and a member of Leopoldina (the German National Academy of Natural Science) and the American Academy of Arts and Sciences.



GABRIELLA CONTI, PHD

SENIOR LECTURER, DEPARTMENT
OF APPLIED HEALTH RESEARCH,
UNIVERSITY COLLEGE LONDON

RESEARCH ASSOCIATE, INSTITUTE FOR
FISCAL STUDIES

RESEARCH FELLOW, NATIONAL BUREAU
OF ECONOMIC RESEARCH

Dr. Conti is a health economist whose research aims at understanding the developmental origins of health inequalities, the biological and socioeconomic pathways through which they are transmitted over the lifecourse and across generations, and the cost-effectiveness of different interventions aimed at preventing or reducing them. In joint work with Nobel Prize Winner James Heckman, she has studied the early origins of the education-health gradient, the long-term costs of early life adversity in rhesus monkeys, and the long-term health benefits of early childhood interventions. Her current research focuses on the importance of the prenatal period, in particular the effects of maternal investments in pregnancy on fetal development, and the possibility of postnatal remediation, using both observational data from ultrasound scans and experimental data from a home-visiting intervention.



MIGUEL HERNAN, MD, SCM, DRPH

PROFESSOR, DEPARTMENTS OF
EPIDEMIOLOGY AND BIostatISTICS,
HARVARD SCHOOL OF PUBLIC HEALTH

AFFILIATED FACULTY MEMBER,
HARVARD-MIT DIVISION OF HEALTH
SCIENCES AND TECHNOLOGY

ASSOCIATE DIRECTOR, HSPH PROGRAM
ON CAUSAL INFERENCE

Dr. Hernan's research and teaching focus on methods for causal inference, including comparative effectiveness of policy and clinical interventions. He teaches core courses at the Harvard School of Public Health, the Harvard Medical School, and Harvard Catalyst, and is often invited to speak at other institutions and international conferences. Dr. Hernan is principal investigator of NIH-funded projects to study pharmacological, nutritional, and lifestyle interventions to reduce the incidence of cardiovascular diseases, and to investigate the optimal use of antiretroviral therapy for HIV disease. He is co-principal investigator of projects funded by AHRQ and PCORI to compare the effectiveness and safety of clinical strategies involving erythropoiesis-stimulating agents in dialysis patients. As investigator of an NIH-funded P01 grant, he leads a project on comparative effectiveness research in cancer. He is Editor of *Epidemiology*, Associate Editor of the *American Journal of Epidemiology* and of the *Journal of the American Statistical Association*, former Associate Editor of *Biometrics*, and elected Fellow of the American Association for the Advancement of Science. He has served on committees for the Institute of Medicine and the National Research Council, and has mentored over 25 doctoral students and postdoctoral fellows.



JASJEET S. SEKHON, PHD

PROFESSOR OF POLITICAL SCIENCE
AND STATISTICS AND DIRECTOR,
CENTER FOR CAUSAL INFERENCE AND
PROGRAM EVALUATION, UNIVERSITY OF
CALIFORNIA, BERKELEY

Dr. Sekhon's current research focuses on methods for causal inference in observational and experimental studies and evaluating social science, public health and medical interventions. Dr. Sekhon has done research on elections, voting behavior and public opinion in the United States, multivariate matching methods for causal inference, machine learning algorithms for irregular optimization problems, robust estimators with bounded influence functions, health economic cost effectiveness analysis, and the philosophy and history of inference and statistics in the social sciences.

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