

Syllabus

Psychology of Environmental Decision Making and Sustainable Behavior Executive Education Certificate Program in Conservation and Environmental Sustainability Columbia University, Spring 2013

[Class time]

[Location]

Instructors

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Course Description

Cues in our physical environment unconsciously influence our decision-making and perception of environmental risk. For example, the presence of dead plants in an environment strengthens beliefs in global warming and the presence of signs indicating that people litter actually leads others to litter more. Drawing upon a body of cutting-edge behavioral and social science research, this course explores the mental barriers to scientific communication and information processing, including the concepts of framing, biases and heuristics, and choice architecture. Learn about the difficulty that individuals and groups have in processing and responding effectively to complex environmental challenges such as climate change, natural resource consumption, and ecosystem degradation. Learn how to design policies and programs that are more effective at promoting sustainable behaviors. Based on the popular “Psychology of Climate Change Communication Guide” published by the Center for Research on Environmental Decisions (CRED) in 2009, this course will incorporate research exercises and cutting-edge research findings into an updated, classroom version of the guide.

Course Objectives

Students will gain a basic understanding of human decision making under conditions of uncertainty. The course will provide an overview of relevant research methods used in cognitive and social psychology, anthropology, and other social science disciplines. Students will explore why humans communicate and make decisions the way that we do, techniques for communicating climate change, and methods for improving decision making across a range of environmental issues including energy reduction, preparation for natural hazards, resource allocation, and more.

Course Assignment

- Case studies – students will write a short proposal to improve climate change communications in their place of work or institution of their choosing. They will utilize existing company documents and analyze them based on criteria available in the course materials and lectures.

Schedule

Number	Lecture	Topics	Readings
1	<ul style="list-style-type: none"> • Overview of class • Knowing your audience and getting their attention • Communicating scientific uncertainty • Mental model interviews • Domain Specific Risk Taking (DOSPERT) research method and exercise 	Subjective perception of risk, mental models, confirmation bias, framing, predictability	<i>CREG 2009</i> <i>Weber & Stern 2011</i>
2	<ul style="list-style-type: none"> • Translate scientific data into concrete experience • Beware the overuse of emotional appeals 	Motivating behavior change, brain processing systems, finite pool of worry, single action bias	<i>Marx et al. 2007</i> <i>Kahneman TBD</i>
3	<ul style="list-style-type: none"> • Tapping into Social Identities and Affiliation • Group Participation • Research methods in anthropology 	Group dynamics, commons dilemmas, social goals, participatory processes	<i>Peterson et al. 2010</i> <i>Krantz et al. 2008 <or other TBD></i>
4	<ul style="list-style-type: none"> • Making behavior change easier Part I 	Choice architecture, gains vs. losses, default effects	<i>Danny Gilbert biases paper</i> <i>Weber TBD</i>
5	<ul style="list-style-type: none"> • Making behavior change easier, Part II • Choice architecture in the lab • Course wrap-up 	Issues of implementation, choice architecture uses, course summary	<i>Larrick/Ungemach/Camilleri paper TBD,</i> <i>Johnson/Goldstein (2007)</i>

Class Reading

CRED (2009). The Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public.

Johnson, Goldstein (2007) Do Defaults Save Lives? Science, vol. 302, issue 5649, p. 1338-1339.

Krantz, Peterson, Arora, Milch, Orlove (2008). Individual Values and Social Goals in Environmental Decisionmaking. Decision Modeling and Behavior in Complex and Uncertain Environment.

Marx, Weber, Orlove, Leiserowitz, Krantz, Roncoli, Phillips (2007). Communication and mental processes: Experiential and analytic processing of uncertain climate information Global Environmental Change, 17 (2007).

Peterson, Broad, Orlove, Roncoli, Taddei, Velez (2010). Participatory processes and climate forecast use: Socio-cultural context, discussion, and consensus. Climate and Development 2 (2010) 14-29.

Weber, Stern (2011). Public Understanding of Climate Change in the United States. American Psychologist, May –June 2011.