

David Hagmann

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EDUCATION

CARNEGIE MELLON UNIVERSITY

Doctoral Student, Behavioral Decision Research, Department of Social and Decision Sciences

Pittsburgh, PA

(expected) July 2018

M.S., Behavioral Decision Research, Department of Social and Decision Sciences

May 2015

THE WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA

Visiting Scholar, Operations, Information, and Decisions Department

Doc.Mobility Fellowship, Swiss National Science Foundation

Philadelphia, PA

July 2017 – June 2018

FORDHAM UNIVERSITY

B.A., Mathematics and Economics, Minor in Psychology

Summa cum laude

Visiting student at Columbia University, New York University, and the London School of Economics

New York, NY

January 2009 – December

2011

PUBLICATIONS

Loewenstein, George, David Hagmann, Janet Schwartz, Keith Ericson, Judd B. Kessler, Saurabh Bhargava, Jennifer Blumenthal-Barby, Thomas D'Aunno, Ben Handel, Jonathan Kolstad, David Nussbaum, Victoria Shaffer, Jonathan Skinner, Peter Ubel, & Brian J. Zikmund-Fisher. "[A Behavioral Blueprint For Improving Health Care Policy.](#)" *Behavioral Science & Policy* 3 (1): 53–66.

Behavioral policy to improve health and health care often relies on interventions, such as nudges, which target individual behaviors. But the most promising applications of behavioral insights in this area involve more far-reaching and systemic interventions. In this article, we propose a series of policies inspired by behavioral research that we believe offer the greatest potential for success. These include interventions to improve health-related behaviors, health insurance access, decisions about insurance plans, end-of-life care, and rates of medical (for example, organ and blood) donation. We conclude with a discussion of new technologies, such as electronic medical records and web- or mobile-based decision apps, which can enhance doctor and patient adherence to best medical practices. These technologies, however, also pose new challenges that can undermine the effectiveness of medical care delivery.

Golman, Russell, David Hagmann, and George Loewenstein. 2017. "[Information Avoidance.](#)" *Journal of Economic Literature* 55 (1): 96–135.

We commonly think of information as a means to an end. However, a growing theoretical and experimental literature suggests that information may directly enter the agent's utility function. This can create an incentive to avoid information, even when it is useful, free, and independent of strategic considerations. We review research documenting the occurrence of information avoidance as well as theoretical and empirical research on reasons for why people avoid information, drawing from economics, psychology, and other disciplines. The review concludes with a discussion of some of the diverse (and often costly) individual and societal consequences of information avoidance.

Golman, Russell, David Hagmann, and John H. Miller. 2015. "[Polya's Bees: A Model of Decentralized Decision-Making.](#)" *Science Advances* 1 (8): e1500253.

How do social systems make decisions with no single individual in control? We observe that a variety of natural systems, including colonies of ants and bees and perhaps even neurons in the human brain, make decentralized decisions using common processes involving information search with positive feedback and consensus choice through quorum sensing. We model this process with an urn scheme that runs until hitting a threshold, and we characterize an inherent tradeoff between the speed and the accuracy of a decision. The proposed common mechanism provides a robust and effective means by which a decentralized system can navigate the speed-accuracy tradeoff and make reasonably good, quick decisions in a variety of environments. Additionally, consensus choice exhibits systemic risk aversion even while individuals are idiosyncratically risk neutral. This too is adaptive. The model illustrates how natural systems make decentralized decisions, illuminating a mechanism that engineers of social and artificial systems could imitate.

Loewenstein, George, Cindy Bryce, David Hagmann, and Sachin Rajpal. 2015. "[Warning: You Are About to Be Nudged.](#)" *Behavioral Science & Policy* 1 (1): 35–42.

Presenting a default option is known to influence important decisions. That includes decisions regarding advance medical directives, documents people prepare to convey which medical treatments they favor in the event that they are too ill to make their wishes clear. Some observers have argued that defaults are unethical because people are typically unaware that they are being nudged toward a decision. We informed people of the presence of default options before they completed a hypothetical advance directive, or after, then gave them the opportunity to revise their decisions. The effect of the defaults persisted, despite the disclosure, suggesting that their effectiveness may not depend on deceit. These findings may help address concerns that behavioral interventions are necessarily duplicitous or manipulative.

Hagmann, David, and Troy Tassier. 2014. "[Endogenous Movement and Equilibrium Selection in Spatial Coordination Games.](#)" *Computational Economics* 44 (3): 379–95.

We study the effects of agent movement on equilibrium selection in network based spatial coordination games with Pareto dominant and risk dominant Nash equilibria. Our primary interest is in understanding how endogenous partner selection on networks influences equilibrium selection in games with multiple equilibria. We use agent based models and best response behaviors of agents to study our questions of interest. In general, we find that allowing agents to move and choose new game play partners greatly increases the probability of attaining the Pareto dominant Nash equilibrium in coordination games. We also find that agent diversity increases the ability of agents to attain larger payoffs on average.

IN PROGRESS (Draft available upon request)

Hagmann, David and George Loewenstein. "[Persuasion With Motivated Beliefs.](#)"

Considerable research finds that people derive utility not only from consumption, but also from their beliefs about themselves and the world. Rather than dispassionately updating their views in response to new information, such belief-based utility leads people to avoid information and use other strategies to protect their existing beliefs. We present a two-stage model of persuasion in the presence of belief-protecting strategies and test it in an incentive compatible persuasion experiment. Persuaders seek to shift receivers' numeric estimates related to emotionally charged topics, such as abortion and racial discrimination. We manipulate whether the persuader first acknowledges her own lack of certainty and whether she first has an opportunity to build rapport with the receiver, which our theory predicts should enhance persuasiveness, but should be irrelevant or may even go in the opposite direction under the standard account.

Ho, Emily, David Hagmann, and George Loewenstein. "**Measuring Information Preferences.**" (*R&R at Management Science*)

Advances in medical testing and widespread access to the internet have made it easier than ever to obtain information. Yet, when it comes to some of the most important decisions in life, people often choose to remain ignorant, because they fear what they may learn. We design and validate an information preference scale to measure an individual's desire to obtain or avoid information that may be unpleasant, but could improve their future decisions. The scale measures information preferences in three domains that are psychologically and materially consequential: health, consumer finance, and personal characteristics. We present tests of the scale's reliability and validity and show that the scale predicts real decisions to obtain (or avoid) information in each of the domains, as well as decisions from unrelated domains. We find that across settings, many respondents prefer to remain in a state of active ignorance even when information is freely available, and that information preferences are a stable trait but that an individual's preference for information can differ across domains. We also find that an individual's preferences for information may affect others: in a medical decision-making context, when caregivers of cancer patients score high on avoidance, the patient they care for are less likely to have an Advance Directive.

Hagmann, David, Emily Ho, and George Loewenstein. "**The Hidden Cost of Soft Paternalism: Nudging Out Effective Policies.**"

'Nudges', like enrolling employees into 401(k) plans by default, have emerged as one of the most promising recent policy developments. They offer policymakers a tool to guide behavior and improve outcomes for many, without requiring heavy-handed interventions that could force some into options that are suboptimal for them. Nudges appear costless, preserving people's freedom to choose differently than a (potentially misinformed) policymaker. We propose, however, that nudges can have an indirect cost. When heavy-handed and potentially painful policies may be more effective, nudges can provide the promise of a lower cost 'quick fix' reducing support for the costly, but more effective policies. In a series of 6 studies, we show that people perceive nudges as less painful than standard policies, and, after learning about nudges, exhibit a less favorable view of, and express less support for, more heavy-handed but arguably more effective policies. We replicate our findings with alumni of a policy school, suggesting that nudges may crowd out support for standard policies even among experts and those with potential influence over policies.

Hagmann, David, Jason Harman, and Cleotilde Gonzalez. **“Wait, Wait... Don’t Tell Me: Repeated Choices With Clustered Feedback.”**

When individuals make repeated choices between two lotteries without having a description of their payoffs, they have to form beliefs based on the observed outcomes of their choices. Previous research finds that choices differ consistently after learning about outcomes compared to having an objective description, an effect termed the description-experience gap. We introduce a new clustered feedback mechanism in which participants receive feedback consisting of individual outcomes of a number of choices at once, rather than observing the outcome immediately after making a decision. Presenting clustered feedback closes the description-experience gap and leads individuals to act as if they had a description available. We also use lotteries with rare outcomes and find that the description-experience gap is greatest when a high payoff is rare, and is closed by clustered feedback, but does not emerge when a high payoff is common.

Chin, Alycia, David Hagmann, and George Loewenstein. **“Fear and Promise of the Unknown: Explore-Exploit Decisions in the Presence of Losses.”**

In “explore-exploit” situations, decision makers must choose between exploring unknown options and exploiting known options. We study how explore-exploit decisions vary under the influence of loss aversion, predicting that (1) people will be less likely to explore if doing so can lead to losses and that (2) people will be less likely to exploit when doing so would lead to repeated losses. To examine these predictions, we use a novel computer task in which participants explore a one-dimensional environment that contains only gains or gains and losses. Across multiple studies, we find evidence for both of our predictions. Additionally, we demonstrate that loss aversion can be adaptive, leading participants in low payoff environments to higher total rewards.

WORKSHOPS

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| RUSSELL SAGE FOUNDATION Summer Institute in Computational Social Science | Durham, NC June 2018 |
| BERKELEY INITIATIVE FOR TRANSPARENCY IN THE SOCIAL SCIENCES Research Transparency and Reproducibility Training (RT2) | Amsterdam, Netherlands April 2018 |
| BRIQ WORKSHOP | Bonn, Germany July 2017 |
| BEHAVIORAL INSIGHTS GROUP, HARVARD UNIVERSITY BIG Ideas Workshop | Boston, MA June 2017 |
| BEHAVIORAL INSIGHTS GROUP, HARVARD UNIVERSITY BIG Ideas Workshop | Boston, MA August 2015 |
| RUSSELL SAGE FOUNDATION Summer Institute In Behavioral Economics | Waterville Valley, NH June 2014 – July 2014 |
| RADY SCHOOL OF MANAGEMENT, UC SAN DIEGO Spring School in Behavioral Economics | San Diego, CA March 2014 |
| NEW YORK UNIVERSITY, ABU DHABI Winter Experimental Social Sciences Institute Workshop on field experiments; emphasis on both economics and political science | Abu Dhabi, UAE January 2014 |
| MARTINOS CENTER FOR BIOMEDICAL ENGINEERING fMRI Visiting Fellowship | Boston, MA October 2013 |
| FULLERTON UNIVERSITY Advanced Training in Web-Based Research | Fullerton, CA August 2013 |
| KENNEDY SCHOOL OF GOVERNMENT, HARVARD UNIVERSITY Workshop on Behavioral Economics and Public Policy First prize in a group research design competition (\$1,000 research grant) | Boston, MA August 2013 |
| AMERICAN ECONOMIC ASSOCIATION CONTINUING EDUCATION Development Economics, with Anne Case and Angus Deaton | Denver, CO January 2011 |

INVITED PRESENTATIONS

2018

London School of Economics; Kennedy School of Government; Indiana University Bloomington

2017

University of Nottingham; University of West Bohemia, Department of Sociology; University of Economics Prague; Tilburg University, Experimental Economics Seminar; Maastricht University, Department of Finance; West Virginia University, Department of Psychiatry, Grand Rounds Seminar

2016

Center for Advanced Hindsight, Duke University

CONFERENCE PRESENTATIONS

2018

Behavioral Science and Policy Association; PolText, Hungarian Academy of Sciences; Potential Innovators in Healthcare, Indiana University Kelley School of Business; International PhD Conference in Economics, Leicester University

2017

Society for Judgment and Decision Making; Economic Science Association; Penn Center for Health Incentives and Behavioral Economics; Stanford Institute for Theoretical Economics (SITE), Experimental Economics Session; Opinion Dynamics and Collective Decisions; Early Career Behavioral Economics Conference; Thurgau Experimental Economics Meeting

2016

Society for Judgment and Decision Making; Penn Center for Health Incentives and Behavioral Economics; Foundations of Utility and Risk; Exploring Ignorance Symposium; Whitebox Advisors Graduate Student Conference, Yale University; Network for Integrated Behavioural Science

2015

International PhD Conference in Economics, Leicester University; Society for Judgment and Decision Making; Economic Science Association; Penn Center for Health Incentives and Behavioral Economics; Subjective Probability, Utility, and Decision Making (SPUDM)

2014

Society for Judgment and Decision Making; Penn Center for Health Incentives and Behavioral Economics; Network for Integrated Behavioural Science

Prior to 2014

Computational Social Science Society of America Annual Conference (2011, 2012, 2013); Eastern Economic Association Annual Conference (2012)

SERVICE

Behavioral Science and Policy Association Fellow, Health Working Group

2016-2017

Faculty Search Committee for Behavioral Economics, Department of Social and Decision

2014

Sciences, Carnegie Mellon University

Reviewer Activity

Economics: AEJ Micro, Economic Journal, Journal of Economic Psychology

Psychology: Journal of Personality and Social Psychology, Social and Personality Psychology
Compass

Interdisciplinary: Science Advances

RESEARCH POSITIONS

Research Assistant for Prof. Cleotilde Gonzalez, Carnegie Mellon University

2015 – 2016

Research Assistant for Prof. Cleotilde Gonzalez, Carnegie Mellon University

Summer 2014

Research Assistant for Prof. George Loewenstein, Carnegie Mellon University

Fall 2012

Research Assistant for Prof. Erte Xiao, Carnegie Mellon University

Summer 2012

Research Assistant for Prof. David Budescu, Fordham University

Spring 2012

Research Assistant for Prof. Gregory Bard, Fordham University

Summer 2011

PROFESSIONAL ASSOCIATIONS

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|---|----------------|
| Behavioral Science & Policy Association | 2015 – present |
| Economic Science Association | 2012 – present |
| Society for Judgment and Decision Making | 2012 – present |
| American Economic Association | 2010 – present |
| Computational Social Science Society of America | 2011 – 2015 |

TEACHING EXPERIENCE

TEACHING ASSISTANT

| | |
|---|-------------|
| Prof. Stephen Broomell, Decision Science & Policy | Spring 2017 |
| Prof. George Loewenstein, Behavioral Economics & Public Policy | Fall 2016 |
| Prof. Serguey Braguinsky, Policy Analysis I | Fall 2014 |
| Prof. Erte Xiao, Organization | Spring 2014 |
| Prof. Erte Xiao, Behavioral Economics | Fall 2013 |
| Prof. Erte Xiao, Organization | Spring 2013 |

INVITED GUEST LECTURES

| | |
|--|-----------------|
| Prof. Silvia Saccardo, Department of Social and Decision Sciences, Behavioral Economics in Organizations | Fall 2016, 2017 |
| Prof. Elif Incekara Hafalir, Tepper School of Business, Freshman Seminar | Spring 2013 |

ONE TO WORLD

Global Classroom Volunteer

New York, NY
August 2009 – August 2012

COLUMBIA UNIVERSITY COMMUNITY IMPACT

GED Substitute Teacher

New York, NY
January 2011 – May 2011

CONSULTING EXPERIENCE

IRRATIONALLY HEALTHY

Working with employers to implement health-promoting policies for employees

San Francisco, CA
July 2016

COMMON CENTS

Working with Fintech firms on incorporating behavioral economics in their products.

San Francisco, CA
April 2016

STARTUPONOMICS

Advising startups on applying insights from behavioral economics to their product design

San Francisco, CA
August 2014

IRRATIONAL LABS

Advised numerous teams at Google on implementing randomized controlled trials and on product design. Consulted for startups on improving user experience, services, and product design

San Francisco, CA
Mountain View, CA
June 2014 – July 2014

AWARDS AND HONORS

Fellowship

Doc.Mobility Fellowship, Swiss National Science Foundation (\$43,800)

July 2017 – June 2018

Awards

Doc.Mobility Fellowship, Conference Travel Award (CHF 2,000, ~\$2,000)

Graduate Student Assembly/Provost Conference Award (\$500)

July 2017

Graduate Student Assembly/Provost Conference Award (\$500)

Spring 2017

Graduate Student Assembly/Provost Conference Award (\$500)

Spring 2016

Graduate Student Small Project Help Research Grant (\$750)

Fall 2014

Graduate Student Assembly/Provost Conference Award (\$500)

Spring 2014

Honors

Omicron Delta Epsilon (Economics Honor Society), Pi Mu Epsilon (Mathematics Honor Society), Psi Chi (Psychology Honor Society), Alpha Sigma Nu (Jesuit Honor Society)

Spring 2013