

**Michael H. Yeomans**  
**November 2017**  
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## **Citizenship**

Canada and United States (*dual*)

## **Education**

2014 – current: Post-Doctoral Fellow, Harvard University

2009 – 2014: University of Chicago Booth School of Business,  
Ph.D. & MBA in Behavioral Science (George Wu, advisor)

2007 – 2009: University of Waterloo, M.A. in Psychology (Derek Koehler, advisor)

2005 – 2007: University of British Columbia, CANEX Exchange (Jonathan Schooler, advisor)

2002 – 2007: University of Toronto, B.Sc. (with Honors) in Psychology and Human Biology

## **Research Interests**

Judgment & Decision-Making, Field Experiments, Machine Learning, Text Analysis.

## **Publications**

**Yeomans, M.** & Al-Ubaydli, O. How does Fundraising affect Charitable Giving? Evidence from a field experiment with volunteers.  
*Forthcoming in Journal of Economic Psychology*

**Yeomans, M.**, Reich, J. Stewart, B., Kindel, A. & Tingley, D. The Civic Mission of MOOCs: Computational Measures of Engagement Across Differences in Online Courses.  
*Forthcoming in Journal of Artificial Intelligence in Education.*

Huang, K., **Yeomans, M.**, Brooks, A.W., Minson, J. & Gino, F. (2017). It doesn't hurt to ask: Question-asking increases liking. *Journal of Personality & Social Psychology*, 113(3), 430-452.

Al-Ubaydli, O. & **Yeomans, M.** (2017) Do people donate more when they perceive a single beneficiary whom they know? A field experimental test of the identifiability effect. *Journal of Behavioral & Experimental Economics*, 66, 96-103.

**Yeomans, M.**, & Herberich, D. (2014). An experimental test of the effect of negative social norms on energy-efficient investments. *Journal of Economic Behavior & Organization*, 108, 187-197

## Manuscripts Under Review

**Yeomans, M.**, Mullainathan, S., Shah, A. & Kleinberg, J. Making Sense of Recommendations.  
*Under Review at Management Science*

Jeong, M., Minson, J., **Yeomans, M.** & Gino, F. Communicating warmth in distributive negotiations is surprisingly counter-productive.  
*Resubmit with Minor Revisions at Management Science*

**Yeomans, M.** Some Hedonic Consequences of Self-Expression in Word of Mouth.  
*Resubmit with Revisions at Journal of Consumer Psychology*

## Peer-Reviewed Conference Proceedings

**Yeomans, M.** & Reich, J. Planning to Learn: Plan-Making Encourages and Forecasts Goal Pursuit in Online Education. In *Proceedings of the Seventh International Conference on Learning Analytics & Knowledge*, 464-473. ACM.

Robinson, C., **Yeomans, M.**, Reich, J., Hulleman, C. & Gelbach, H. (2016). Forecasting Student Achievement in MOOCs with Natural Language Processing. In *Proceedings of the Sixth International Conference on Learning Analytics & Knowledge*, 383-387. ACM.

## Other Writing

**Yeomans, M.** (July 7, 2015) "What Every Manager Should Know About Machine Learning".  
*Harvard Business Review*.

## Selected Research in Progress

Politeness: An R Package  
*w. Kantor, A., Reich, J. & Tingley, D.*

Early Interventions in Online Education  
*w. Kizilcec, R., Reich, J., Rosen, Y., Tingley, D., Turkay, S., & Williams, J.*

Conditional Cash Transfers and Commitment Savings Accounts in the Dominican Republic  
*w. Frisancho, V., Karlan, D., Mullainathan, S. & Valdivia, M.*

What are we talking about? Topic Selection in Conversations  
*w. Wood Brooks, A.*

Recency in Reference Point Formation.  
*w. Wu, G & Walco, D.*

The Straw Man Effect: Natural Language of Partisan Misrepresentation

## **Awards and Fellowships**

Hillel Einhorn Memorial Fellowship, 10/2011

Faculty Poster Award, 2nd Place. Max Planck Summer Institute, 28/6/2011.

Student Poster Award, 3rd Place. Society for Judgment and Decision Making, 22/11/2010.

University of Chicago Summer Research Grant, 9/2010

Chicago Booth. Ph.D. in Managerial and Organizational Behavior Fellowship, 9/2009-8/2014.

University of Waterloo MERIT Graduate Scholarship. 9/2007 – 8/2009.

Morris Belkin Undergraduate Dissertation Award, University of British Columbia. 28/4/2007.

## **Selected Peer-Reviewed Presentations**

*Communicating Warmth in Distributive Negotiations is Surprisingly Counter-Productive.*

(w/ M. Jeong, J. Minson & F. Gino).

Poster presented at Conference on Digital Experiments, October 28, 2017,  
Cambridge, MA.

Invited talk at Rady School of Management, October 24, 2017, La Jolla, CA

Paper to be presented at Text as Data Conference, October 13, 2017, Princeton, NJ.

*Planning to Learn: Plan-Making Encourages Goal Pursuit in Online Education.* (w/ J. Reich)

Paper presented at Summer Institute for Computational Social Science,  
June 29, 2017, Princeton, NJ.

Paper presented at JDM Day, April 21, 2017, Boston, MA.

Paper presented at ACM Learning at Scale, March 12, 2017, Vancouver BC.

Invited talk at Consumer Financial Protection Bureau, December 1, 2016, Washington, DC

Paper presented at Society for Judgment and Decision-Making Conference,  
November 21, 2016, Boston, MA.

Paper presented at Conference on Digital Experimentation,  
October 15, 2016, Cambridge, MA.

Paper presented at Advances in Field Experiments Conference,  
September 16, 2016, Chicago, IL.

*The Case Against Recommendations: A Preference for Self-Expression in Word of Mouth.*

Paper presented at Behavioral Decision Research and Management Conference,  
June 11, Toronto, ON, 2016

Paper presented at JDM day, April 8, Boston, MA, 2016

Invited talk at AirBnB, January 19, 2016, San Francisco, CA

Paper presented at Society for Judgment and Decision Making, Chicago, IL, 2015

*Making Sense of Recommendations.* (w/ A. Shah, S. Mullainathan & J. Kleinberg)

Paper presented at the Academy of Management Conference,  
August 7, 2017, Atlanta, GA

Invited talk at The Wharton School, December 12, 2016, Philadelphia, PA

Paper presented at Psychology & Technology Conference,  
October 22, 2016, Los Angeles, CA.

Invited talk at Rotman School of Management, September 22, 2016, Toronto, ON.

Paper presented at Association of Consumer Research Conference,  
October 7, 2015, New Orleans, LA.

Paper presented at the Academy of Management Conference,  
August 8, 2015, Vancouver, BC.

Paper presented at Society for Consumer Psychology Summer Conference,  
August 6, 2015, Toronto, ON.

Paper presented at Society for Judgment and Decision-Making Conference,  
November 20, 2014, Long Beach, CA.

*How does Fundraising affect Charitable Giving? Evidence from a field experiment with volunteers.* (w/ O. Al-Ubaydli)

Paper presented at the Academy of Management Conference,  
August 9, 2015, Vancouver, BC.

Poster presented at Society for Judgment and Decision Making Conference,  
Nov 17, 2013, Toronto, ON

Paper presented at Society for Probability, Uncertainty & Decision-Making Conference,  
August 20, 2013, Barcelona, Spain.

Paper presented at TIBER Symposium on Psychology and Economics,  
August 18, 2013, Tilburg, The Netherlands.

*Tire Pressure Neglect.* (w/ D. Herberich)

Paper presented at Behavioral Decision Research and Management Conference,  
June 28, 2012, Boulder, CO.

Paper presented at Whitebox Conference, May 15, 2012, New Haven, CT.

Poster presented at Society for Judgment and Decision Making Conference,  
Nov 21, 2010, St. Louis, Missouri.

Poster presented at Max Planck Summer Institute in Bounded Rationality,  
June 21, 2011, Berlin, Germany.

*Imagining a Crowd Within Reduces Overconfidence.* (w/ J. Soll & D. Koehler)

Poster presented at Society for Judgment and Decision Making Conference,  
November 5, 2011, Seattle, WA.

Poster presented at Behavioral Decision Research and Management Conference,  
June 12, 2010, Pittsburgh, Pennsylvania.

Poster presented at Society for Judgment and Decision Making Conference,  
November 17, 2009, Boston, Massachusetts.

## **Teaching Assistantships**

BUS38002: Managerial Decision Making

April - June 2011; January - March 2012; April – June 2012, Jan – July 2013

Instructors: Richard Thaler (x3), George Wu, Jane Risen (x2), Cade Massey

PSYC391: Advanced Data Analysis

September - December 2007; September - December 2008

Instructor: Jonathan Fugelsang

PSYC398: Research in Memory

May 2008 - August 2008

Instructor: Colin McLeod

## **Professional Affiliations**

Society for Judgment and Decision Making (2008-present)

Academy of Management (2015-present)

Association for Consumer Research (2010-present)

## **Editorial Service**

Ad-Hoc Reviewer: Management Science, Journal of Environmental Economics and Management, Psychological Science.

## SELECTED ABSTRACTS

### **Natural Language Processing in Conversations**

#### **It doesn't hurt to ask: Question-asking increases liking.**

*(w/ Karen Huang, Alison Wood Brooks, Julia Minson, & Francesca Gino)*

Conversation is a pervasive human experience, one that is necessary to pursue intrapersonal and interpersonal goals across myriad contexts, relationships, and modes of communication (e.g., written, spoken). In the current research, we isolate the role of an understudied conversational behavior: question-asking. Across three studies of live dyadic conversations, we identify a robust and consistent relationship between question-asking and liking: people who ask more questions are better liked. When people are instructed to ask more questions, they ask more questions overall and, more specifically, they ask more follow-up questions. Asking more follow-up questions makes them appear more empathic, engaged, and responsive to their partners (compared to people who ask fewer questions). We also found that in speed-dating conversations, daters who ask more questions are more likely to get second dates. We used natural language processing and machine learning algorithms to build a “follow-up question detector” that we applied to our speed-dating data (and can be applied to any text data to more deeply understand question-asking dynamics). Despite the persistent effect we identify, people do not seem to anticipate the connection between question-asking and interpersonal liking.

#### **Communicating warmth in distributive negotiations is surprisingly counter-productive**

*(w/ Martha Jeong, Julia Minson, & Francesca Gino)*

When entering into a negotiation, individuals have the choice to enact a variety of communication styles. We test the differential impact of being “warm and friendly” versus “tough and firm” in a distributive negotiation, when first offers are held constant and concession patterns are tracked. We train a natural language processing algorithm to precisely quantify the difference between how people enact warm versus tough communication styles. We find that the two styles differ primarily in length and their expressions of politeness (Study 1). Negotiators with a tough communication style achieved better economic outcomes than negotiators with a warm communication style, both in a field experiment (Study 2) and in a laboratory experiment (Study 3). This was driven by the fact that offers delivered in tough language elicited more favorable counteroffers. We further find that the counterparts of warm versus tough negotiators did not report different levels of satisfaction or enjoyment of their interactions (Study 3). Finally, in Study 4 we document that individuals' lay beliefs are in direct opposition to our findings: participants believe that authors of warmly worded negotiation offers will be better liked and will achieve better economic outcomes.

## **Natural Language Processing in Online Education**

### **Planning to Learn: Plan-Making and Goal Pursuit in Online Education**

*(w/ Justin Reich)*

Among all of the learners in Massive Open Online Courses (MOOCs) who intend to complete a course, the majority fail to do so. This intention-action gap is found in many domains of human experience, and research in similar goal pursuit domains suggests that plan-making is a cheap and effective nudge to encourage follow-through. In a natural field experiment in three HarvardX courses, some students received open-ended planning prompts at the beginning of a course. These prompts increased course completion by 29%, and payment for certificates by 40%. This effect was largest for students enrolled in traditional schools. Furthermore, the contents of students' plans could predict which students were least likely to succeed - in particular, students whose plans focused on specific times were unlikely to complete the course. Our results suggest that planning prompts can help learners adopt productive frames of mind at the outset of a learning goal that encourage and forecast student success. We also discuss MOOCs as a model for other domains with follow-through problems.

### **The Civic Mission of MOOCs: Engagement across Political Differences in Online Forums**

*(w/ Justin Reich, Brandon Stewart, Kimia Mavon, Alex Kindel & Dustin Tingley)*

Massive Open Online Courses (MOOCs) attract diverse student bodies, and course forums could potentially be an opportunity for students with different political beliefs to engage with one another. We test whether this engagement actually takes place in two politically-themed MOOCs, on education policy and American government. We collect measures of students' political ideology, and then observe student behavior in the course discussion boards. Contrary to assertions that online spaces often become echo chambers or ideological silos, we find that students in these two political courses hold diverse political beliefs, participate equitably in forum discussions, directly engage (through replies and upvotes) with students holding opposing beliefs, and converge on a shared language rather than talking past one another. Research that focuses on the civic mission of MOOCs helps ensure that open online learning engages the same breadth of purposes that higher education aspires to serve.

## **Recommendation Systems**

### **Making Sense of Recommendations.**

*(w/ Anuj Shah, Sendhil Mullainathan & Jon Kleinberg)*

Psychologists have long recognized that algorithms can improve human judgment by making it more consistent. But those algorithms still rely on human expertise. Humans have to specify which information is relevant to a judgment. However, modern recommendation algorithms are not built on human models of judgment and they do not rely on this human expertise. These are the primary algorithms people encounter today, but we do not know how they compare to human judgment. Here, we compare computer recommender systems to human recommenders in a highly subjective domain: predicting which jokes people will find funny. We find that recommender systems outperform humans, whether strangers, friends, or family. Yet people are averse to relying on these recommender systems. This aversion partly stems from the fact that people believe the human recommendation process is easier to understand. It is not enough for recommender systems to be accurate, they must also be understood.

### **Some Hedonic Consequences of Self-Expression in Recommending**

What do people enjoy about making recommendations? The literature provides relatively little insight into the psychology of advisors, compared to their recipients. In this paper we test whether a common recommendation heuristic - egocentric projection - also has hedonic consequences, by conducting experiments that compare recommendations (suggestions for another person) to endorsements, in which people merely express their own preferences. Over four studies, people preferred endorsing over recommending. Recommenders enjoyed themselves less when they had to take their recipients' perspective, to the extent that the recipients' tastes were different from their own. These results suggest that self-expression has an intrinsic role in recommending, and that recommendation seekers can be better off asking for endorsements instead.



## **Field Experiments in Pro-Social Behavior**

### **An experimental test of the effect of negative social norms on energy-efficient investments.**

*(w/ David Herberich)*

Energy efficiency is an important economic and environmental concern, and likewise the correction of current wasteful energy practices. We document widespread “tire pressure neglect” - three-quarters of drivers waste gas driving on under-inflated tires. Negative descriptive social norms are one potential cause, but have not been tested in high-neglect environments, where those norms are widespread. This confounds the mechanism: are these norms signals of private value to consumers, or do they imply standards for social judgment from others? We conducted a field experiment at gas stations in Chicago - our intervention included treatments with information about tire pressure neglect, promotions in the form of price reductions from \$0.50 to free, a descriptive norm of behavior, and “help” in the form of air pump assistance. Treatments that only included information were ineffective, despite average fuel savings of \$10.51, but small promotions had substantial impacts. When the air pump price was free, the social norm discouraged inflation. However, when the research assistant offered help, inflation rates were buoyed by the social norm. These results highlight the importance of incentives over mere information treatments, and offer a new perspective on how information and monetary levers can influence decision-making in the presence of negative social norms.

### **How does Fundraising affect Charitable Giving? Evidence from a field experiment with volunteers.** *(w/ Omar Al-Ubaydli)*

Can fundraising solicitations have an effect on other types of giving, like volunteering? We report results from a field experiment in which a non-profit firm asked their current volunteers to donate money, in a randomly-staggered roll-out. We observe volunteers’ entire portfolio of giving to the firm - both donations, and volunteer hours before and after the call. Overall, there was some decline in volunteer hours after fundraising, and it was concentrated among newer volunteers. By contrast, long-time volunteers maintained their volunteering after the call, and were also more likely to donate in the first place. Substitution was rare, as the donors themselves did not increase their volunteer hours after donating. Our findings provide new evidence for how personal history can shape charitable giving decisions, and provide new practical guidance for fundraisers.

### **Do people donate more when they perceive a single beneficiary whom they know? A field experimental test of the identifiability effect.** *(w/ Omar Al-Ubaydli)*

According to the identifiability effect, people will donate more to a single beneficiary rather than to many beneficiaries, holding constant what the donations are actually used for. We test the identifiability effect for two novel subject pools (the suppliers and beneficiaries of volunteer labor). We also test a refinement of the identifiability effect where we vary whether or not the single beneficiary is personally known to the solicitees. While the behavior of volunteers is consistent with the identifiability effect, we find that the identifiability effect is reversed for beneficiaries of volunteer labor. Moreover, we find that making the single beneficiary personally known to the solicitees lowers donations by a statistically insignificant amount, suggesting that it does not enhance donations.