EDWARD H. CHANG

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EDUCATION

The Wharton School, University of Pennsylvania   **Expected 2020**
Ph.D. Candidate in Operations, Information, and Decisions
Dissertation Committee: Katherine Milkman (Advisor), Adam Grant, Rebecca Schaumberg, Maurice Schweitzer

Yale University   **2010**
B.A. in Mathematics and Philosophy, *summa cum laude*

PUBLICATIONS

Chang, E.H., Milkman, K.L., Gromet, D.M., Rebele, R.W., Massey, C., Duckworth, A.L., & Grant, A.M. The Mixed Effects of Online Diversity Training. Forthcoming at *Proceedings of the National Academy of Sciences*.

Chang, E.H., Milkman, K.L., Chugh, D., & Akinola, M. (2019). Diversity Thresholds: How Social Norms, Visibility, and Scrutiny Relate to Group Composition. *Academy of Management Journal*, 62(1), 144–171.

Chang, E.H. & Milkman, K.L. Improving Decisions that Impact Gender Equality in the Workplace. Forthcoming at *Organizational Dynamics*.

WORKING PAPERS

Chang, E.H.*, Kirgios, E.L.*, Rai, A., & Milkman, K.L. The Isolated Choice Effect and Its Implications for Gender Diversity in Organizations. Under review at *Management Science*. *denotes equal authorship

Kirgios, E.L., **Chang, E.H.**, & Milkman, K.L. Going It Alone: Competition Increases the Attractiveness of Minority Status. Under review at *Organizational Behavior and Human Decision Processes*.

Tang, S. & **Chang, E.H.** Can Female Stereotypes Benefit Organizations? How and Why Moral Judgments of Companies Are Influenced by CEO Gender. Working paper.

SELECTED RESEARCH IN PROGRESS

Chang, E.H. Diversity as Impression Management.

Kirgios, E.L., **Chang, E.H.**, Rai, A., & Milkman, K.L. Group Size and Diversity.

Kirgios, E.L., **Chang, E.H.**, Levine, E.E., Milkman, K.L., & Kessler, J.B. Recovering Intrinsic Motivation. (field experiment with 18k participants completed)

Kirgios, E.L., Rai, A., **Chang, E.H.**, Milkman, K.L., & Small, D.A. Pay It Forward. (field experiment with 9k participants completed)

Rai, A., **Chang, E.H.**, Sharif, M.A., Milkman, K.L., & Duckworth, A.L. Flexibility in Scheduling. (field experiment with 6k participants in progress)

AWARDS & HONORS

Paul R. Kleindorfer Scholar Award, 2018
- Awarded annually to the Operations, Information, and Decisions PhD student who is making the most outstanding progress towards the completion of their dissertation

Baker Retailing Center Grant, 2018–2020
Graduate Student Travel Award, Society for Personality and Social Psychology, 2018
Best Micro Paper Award, East Coast Doctoral Conference, 2017
Winkelman Fellowship, 2017–2020
- Awarded to two third-year PhD students who have shown the greatest academic job potential across all departments at Wharton

Russell Ackoff Doctoral Student Fellowship, 2016, 2017, 2018
Wharton Doctoral Programs Travel Grant, 2016, 2017, 2018
Graduate and Professional Student Assembly Travel Grant, 2016, 2017
Highest Rated Paper Presented by a Graduate Student at Society for Judgment and Decision Making Conference, 2016
Marjorie Weiler Prize for Excellence in Writing, 2016

CONFERENCE PRESENTATIONS

The Mixed Effects of Online Diversity Training
- Advances with Field Experiments, Boston, MA, 2018
- East Coast Doctoral Conference, New York, NY, 2018
- Society for Personality and Social Psychology, Atlanta, GA, 2018
- Society for Judgment and Decision Making, Vancouver, Canada, 2017
- Wharton-INSEAD Doctoral Consortium, Philadelphia, PA, 2017
- Academy of Management Annual Meeting, Atlanta, GA, 2017

Diversity Thresholds: How Social Norms, Visibility, and Scrutiny Affect Group Composition
- Joe Talks Webinar (for Wharton Alumni), Philadelphia, PA, 2018
- Behavioral Science and Policy Association Annual Conference, Washington, DC, 2018
- Trans-Atlantic Doctoral Conference, London, United Kingdom, 2017
- East Coast Doctoral Conference, New York, NY, 2017
- Society for Personality and Social Psychology, San Antonio, TX, 2017
  - Symposium chosen by the Diversity and Climate Committee to be the featured Diversity Symposium of SPSP 2017

- Wharton-INSEAD Doctoral Consortium, Singapore, 2016
- Society for Judgment and Decision Making, Boston, MA, 2016
- Wharton People and Organizations Conference, Philadelphia, PA, 2016
- Academy of Management Annual Meeting, Anaheim, CA, 2016
- Behavioral Decision Research in Management Conference, Toronto, Canada, 2016
- Yale Whitebox Doctoral Conference, New Haven, CT, 2016

REVIEWING

Ad Hoc Reviewer for *Organizational Behavior and Human Decision Processes*
Ad Hoc Reviewer for *Management Science*
Ad Hoc Reviewer for *Manufacturing and Service Operations Management*

SERVICE

Organizer of Doctoral Student Journal Club, 2018
Student Representative for Society of Judgment and Decision Making Executive Board, 2017–2018
Co-Organizer of Women in Business Academia Conference, 2016, 2017
Vice President of Wharton Society for Advancement of Women in Business Academia, 2017
Event Chair of Wharton Society for Advancement of Women in Business Academia, 2016
Organizer of Operations, Information, Decisions PhD Student Seminar, 2016–2018
PhD Social Chair of Operations, Information, Decisions Department, 2017

OTHER PROFESSIONAL EXPERIENCE

Machine Learning Lead, Square, 2011–2015, San Francisco, CA
Data Scientist, Redfin, 2010–2011, Seattle, WA

SELECTED RESEARCH ABSTRACTS

"Diversity Thresholds: How Social Norms, Visibility, and Scrutiny Relate to Group Composition" with Katherine L. Milkman, Dolly Chugh, and Modupe Akinola (*Academy of Management Journal*, 2019)

Across a field study and four experiments, we examine how social norms and scrutiny affect decisions about adding members of underrepresented populations (e.g., women, racial minorities) to groups. When groups are scrutinized, we theorize that decision makers strive to match the diversity observed in peer groups due to impression management concerns, thereby conforming to the descriptive social norm. We examine this first in the context of U.S. corporate boards where firms face pressure to increase gender diversity. Analyses of S&P 1500 boards reveal that significantly more boards include exactly two women (the descriptive social norm) than would be expected by chance. This overrepresentation of two-women boards–a phenomenon we call "twokenism"–is more pronounced among more visible companies, consistent with our theorizing around impression management and scrutiny. Experimental data corroborate these findings and provide support for our theoretical mechanism: decision makers are discontinuously less likely to add a woman to a board once it includes two women (the social

norm), and decision makers' likelihood of adding a woman or minority to a group is influenced by the descriptive social norms and scrutiny faced. Together, these findings provide a new perspective on the persistent underrepresentation of women and minorities in organizations.

"The Mixed Effects of Online Diversity Training" with Katherine L. Milkman, Dena M. Gromet, Robert W. Rebele, Cade Massey, Angela L. Duckworth, and Adam M. Grant (Forthcoming at *Proceedings of the National Academy of Sciences*)

We present results from a large (N=3,016) field experiment at a global organization testing whether a brief, science-based online diversity training can change attitudes and behaviors towards women in the workplace. Our pre-registered field experiment included an active placebo control and measured participants' attitudes and real workplace decisions up to twenty weeks post-intervention. Among groups whose average untreated attitudes–while still supportive of women–were relatively less supportive of women than other groups, our diversity training successfully produced attitude change but not behavior change. On the other hand, our diversity training successfully generated some behavior change among groups whose average untreated attitudes were already strongly supportive of women prior to training. This study extends our knowledge about the pathways to attitude and behavior change in the context of bias reduction. However, the results suggest that the one-off diversity trainings that are commonplace in organizations are unlikely to be stand-alone solutions for promoting equality in the workplace, particularly given their limited efficacy among those groups whose behaviors policymakers are most eager to influence.

"The Isolated Choice Effect and Its Implications for Gender Diversity in Organizations" with Erika L. Kirgios, Aneesh Rai, and Katherine L. Milkman (under review at *Management Science*)

We highlight a feature of personnel selection decisions that can influence the gender diversity of groups and teams. Specifically, we show that people are less likely to choose candidates whose gender would increase group diversity when making personnel selections in isolation (i.e., when they are responsible for selecting a single group member) than when making sets of choices (i.e., when they are responsible for selecting multiple group members). We call this the isolated choice effect. Across four preregistered experiments (n=2,103) and an archival analysis of faculty hiring data at a business school, we demonstrate that the isolated choice effect has important consequences for group diversity. When making sets of hiring and selection decisions (as opposed to making a single hire), people construct more gender-diverse groups. A mediation study shows people do not think as much about group diversity when making isolated selection choices, which drives this effect.

"Going It Alone: Competition Increases the Attractiveness of Minority Status" with Erika L. Kirgios and Katherine L. Milkman (under review at *Organizational Behavior and Human Decision Processes*)

Past research demonstrates that people prefer to affiliate with others who resemble them demographically and ideologically. However, we posit that this tendency toward homophily may

be overridden by a desire to stand out when competing for scarce opportunities. Across six experiments, we find that anticipated competition weakens people's desire to join groups including similar others. When expecting to compete against fellow group members, women prefer to join all-male groups, Black participants prefer to join all-White groups, and partisans prefer to join groups composed of members of the opposite political party at a significantly higher rate than they do in the absence of competition. Two follow-up studies show that participants' desire to stand out from other group members mediates this effect. Our findings highlight an important boundary condition to past research on homophily, shedding light on when and why minorities may prefer to join groups in which they will be underrepresented.

"Can Female Stereotypes Benefit Organizations? How and Why Moral Judgments of Companies Are Influenced by CEO Gender" with Simone Tang (working paper)

We integrate the gender stereotyping and mind perception literatures to provide a novel perspective on the benefits (and costs) of gender diversity for organizations. In particular, we show that people judge an organization more positively when its CEO is female rather than male, despite otherwise identical information regarding the organization. People perceive an organization with a female CEO as having more experiential qualities (e.g., being capable of emotions) than one with a male CEO, which subsequently increases how compassionate and socially responsible the organization seems. This effect confers advantages for organizations that commit moral transgressions: when the organization appoints a new female CEO, rather than a male CEO, after corporate misconduct, people judge the organization more positively and invest more money in it. However, there are also potential downsides to being perceived as more compassionate: consistent with expectancy violation theory, an organization that commits moral transgressions while the CEO is a woman, rather than a man, is punished more harshly. Together, our findings have theoretical and practical implications for how people perceive organizations and for diversity in the upper echelons of organizations.