

CELIA GAERTIG

The Wharton School, University of Pennsylvania
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EDUCATION

Ph.D., Decision Processes 2014-2019

The Wharton School, University of Pennsylvania

Dissertation Title: “The Effects of Uncertainty on Consumers’ Judgments, Predictions, and Choices”

Dissertation Committee: Joseph Simmons (advisor), Deborah Small, Uri Simonsohn

B.S. in Psychology 2013

University of Freiburg (Germany)

One-year Visiting Student in Psychology 2010/2011

University of Granada (Spain)

B.A. in Business Administration 2009

DHBW Karlsruhe (Germany)

RESEARCH INTERESTS

Consumer Behavior, Judgment and Decision Making, Decision Making Under Uncertainty

PUBLICATIONS AND PAPERS UNDER REVIEW

Gaertig, C., & Simmons, J. (2018). Do People Inherently Dislike Uncertain Advice? *Psychological Science*, 29(4), 504-520.

Lewis, J., **Gaertig, C., & Simmons, J.** Extremeness Aversion Is a Cause of Anchoring. Forthcoming in *Psychological Science*.

Gaertig, C., & Simmons, J. The Psychology of Second Guesses: Implications for the Wisdom of the Inner Crowd. Under Review at *Management Science*.

Gaertig, C., & Simmons, J. Why (and When) Are Uncertain Price Promotions More Effective Than Equivalent Sure Discounts? Under Review at the *Journal of Marketing Research*.

WORKING PAPERS

Mislavsky, R. & **Gaertig, C.** 60% + 60% = 60%, but Likely + Likely = Very Likely. Working Paper.

Gaertig, C., Barasch, A., Levine, E., & Schweitzer, M. Magnitude Matters: Anger Magnitude Affects Interpersonal Perceptions and Status Conferral Decisions. Working Paper.

SELECTED RESEARCH IN PROGRESS

Gaertig, C., & Simmons, J. Does Dialectical Bootstrapping Improve The Wisdom of the Inner Crowd? Data Collection Completed.

Gaertig, C., & Simmons, J. Should Advisors Provide Confidence Intervals Around Their Estimates? Data Collection in Progress.

Kassirer, S., Levine, E., & **Gaertig, C.** Decision Makers Prefer Paternalism: On the Costs of Providing Decisional Autonomy. Data Collection in Progress.

OTHER PUBLICATIONS

Moser, A., **Gaertig, C.**, & Ruz, M. (2014). Social Information and Personal Interests Modulate Neural Activity During Economic Decision-Making. *Frontiers in Human Neuroscience*, 8:31.

Gaertig, C., Moser, A., Alguacil, S., & Ruz, M. (2012). Social Information and Economic Decision-Making in the Ultimatum Game. *Frontiers in Neuroscience*, 6:103.

CONFERENCE PRESENTATIONS (includes only presentations that I gave)

The Psychology of Second Guesses (Gaertig & Simmons)

- Behavioral Decision Research in Management Conference, Boston, MA, 2018
- JDM Preconference, Society for Personality and Social Psychology Conference (Data Blitz), Atlanta, GA, 2018
- Society for Judgment and Decision Making Conference, Vancouver, Canada, 2017
- Association for Consumer Research Conference (poster), San Diego, CA, 2017

Do People Inherently Dislike Uncertain Advice? (Gaertig & Simmons)

- Whitebox Advisors Doctoral Student Conference, Yale, NH, 2017
- Society for Consumer Psychology Conference, San Francisco, CA, 2017
- JDM Preconference, Society for Personality and Social Psychology Conference (poster), San Antonio, TX, 2017
- Society for Personality and Social Psychology Conference (poster), San Antonio, TX, 2017
- Society for Judgment and Decision Making Conference, Boston, MA, 2016

Preregistration Is Good, And This Is How To Do It (Simmons, Gaertig*, & Lewis*)

- Research Skills Workshop, Society for Consumer Psychology Conference, Dallas, TX, 2018 (*jointly presented)

Magnitude Matters: The Role of Emotion Intensity in Interpersonal Perceptions (Gaertig, Barasch, Levine, & Schweitzer)

- Association for Consumer Research Conference (poster), Berlin, Germany, 2016
- JDM Preconference, Society for Personality and Social Psychology Conference (poster), San Diego, CA, 2016
- Society for Judgment and Decision Making Conference (poster), Chicago, IL, 2015

This is Your Brain on Guns: An Empirical Investigation Into the Effects of the Use of Firearms on Judgment (Minson, Gaertig, Milkman, & Born)

- Society for Judgment and Decision Making Conference (poster), Long Beach, CA, 2014

AWARDS AND GRANTS

Jay H. Baker Retailing Center Doctoral Student Grant (\$5,000), 2018

Awarded for my project “When Do Consumers Prefer Uncertain Promotions?”

Paul R. Kleindorfer Scholar Award, 2017

Awarded to one outstanding PhD student annually in the OID Department

Winkelman Fellowship Grant, The Wharton School, 2016-2019

Awarded to one rising 3rd year PhD student annually who has shown the greatest academic job potential across all departments at Wharton (July 2016)

Emotions and Organizations Research Grant by the Katz Fund for Research on Leadership and Emotional Intelligence (\$9,340), 2016

Awarded for my project “How Does Emotion Magnitude Affect Interpersonal Perceptions?”

Wharton Risk Center Russell Ackoff Doctoral Student Fellowship Award, 2015-2019

Marjorie Weiler Prize for Excellence in Writing, 2015

Wharton Doctoral Fellowship, 2014-2019

Travel Awards

- SPSP JDM Preconference Student Paper Award & Travel Grant, 2018
- SPSP Graduate Student Travel Award, 2017
- Wharton Doctoral Student Travel Grant, 2015 & 2017
- University of Pennsylvania Graduate Student Travel Award, 2014

Study Abroad Awards

- German Academic Exchange Service DAAD Scholarship for research at Harvard, 2013
- Erasmus Program Scholarship for study abroad at the University of Granada, Spain, 2010

PROFESSIONAL SERVICE

- Reviewer, *Management Science*
- Reviewer, Society of Consumer Psychology Conference
- Research Exercise Leader, Introduction to Diversity in Doctoral Education and Scholarship (IDDEAS) for Undergraduates (Spring 2017)
- Judge, Wharton People Analytics Conference Research Paper Competition (Spring 2017)
- Organizer, Behavioral Science PhD Student Journal Club (2015-2016)
- Mentor, Wharton Society for Advancement of Women in Business Academia (2015-present)

PROFESSIONAL AFFILIATIONS

- Society for Consumer Psychology (SCP)
- Association for Consumer Research (ACR)
- Society for Judgment and Decision Making (SJDM)
- Society for Personality and Social Psychology (SPSP)

TEACHING EXPERIENCE

Guest Lecturer

- Business Research: Design Fundamentals and Applications (Undergrad, Spring 2017)

Teaching Assistant

- Decision Processes (Undergrad, Spring 2018)
- Managerial Decision Making (Executive MBA, Fall 2016)
- Managerial Decision Making (MBA, Fall 2015 & 2016)
- Foundations of Teamwork and Leadership (MBA, Summer 2015)

Undergraduate Advising

- Judgment and Decision Making Research Immersion (Undergrad, Fall 2017)

SELECTED RESEARCH EXPERIENCE PRIOR TO WHARTON

Harvard Kennedy School, Research Assistant (Full Time), 2013-2014

Faculty Advisors: Jennifer Lerner and Julia Minson

University of Freiburg, Germany, Research Assistant (Part Time), 2011-2013

Faculty Advisor: Markus Heinrichs (Laboratory for Biological Psychology)

REFERENCES

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RESEARCH ABSTRACTS

Gaertig, C., & Simmons, J. (2018). Do People Inherently Dislike Uncertain Advice? *Psychological Science, 29(4), 504-520.*

Research suggests that people prefer confident to uncertain advisors. But do people dislike uncertain *advice* itself? In 11 studies ($N = 4,806$), participants forecasted an uncertain event after receiving advice and then rated the quality of the advice (Studies 1–7, S1 and S2) or chose between two advisors (Studies 8–9). Replicating previous research, our results showed that confident advisors were judged more favorably than advisors who were “not sure.” Importantly, however, participants were *not* more likely to prefer certain advice: They did not dislike advisors who expressed uncertainty by providing ranges of outcomes, giving numerical probabilities, or saying that one event is “more likely” than another. Additionally, when faced with an explicit choice, participants were *more* likely to choose an advisor who provided uncertain advice over an advisor who provided certain advice. Our findings suggest that people do not inherently dislike uncertain advice. Advisors benefit from expressing themselves with confidence, but not from communicating false certainty.

Lewis, J., Gaertig, C., & Simmons, J. Extremeness Aversion Is a Cause of Anchoring. *Forthcoming in Psychological Science.*

When estimating unknown quantities, people insufficiently adjust from values they have previously considered, a phenomenon known as *anchoring*. We suggest that anchoring is at least partially caused by a desire to avoid making extreme adjustments. In seven studies ($N = 5,279$), we found that transparently irrelevant cues of extremeness influenced people’s adjustments from anchors. In Studies 1-6, participants were less likely to adjust beyond a particular amount when that amount was closer to the maximum allowable adjustment. For example, in Study 5,

participants were less likely to adjust by at least 6 units when they were allowed to adjust by a maximum of 6 units than by a maximum of 15 units. In Study 7, participants adjusted less after considering whether an outcome would be within a smaller distance of the anchor. These results suggest that anchoring effects may reflect a desire to avoid adjustments that feel too extreme.

Gaertig, C., & Simmons, J. The Psychology of Second Guesses: Implications for the Wisdom of the Inner Crowd. Under Review at *Management Science*.

Prior research suggests that averaging two guesses from the same person can improve quantitative judgments, an effect dubbed the “wisdom of the inner crowd.” In this article, we suggest that this effect hinges on whether people (1) resample their second guess from a similar distribution as their first guess was sampled from (what we call a Resampling Process), or (2) explicitly decide in which direction their first guess had erred before making their second guess (what we call a Choice Process). We report the results from seven studies ($N = 5,768$) in which we manipulated whether we asked participants to explicitly indicate, right before they made their second guess, whether their first guess was too high or too low, thereby inducing a Choice Process. We found that asking participants to decide whether their first guess was too high or too low before they made a second guess increased their likelihood of making a more extreme second guess. When the correct answer was not very extreme (as was often the case), this reduced people’s likelihood of making a second guess in the right direction and harmed the benefits of averaging, thus rendering the inner crowd less wise. When the correct answer was very extreme, then asking participants to indicate whether their first guess was too high or too low improved the wisdom of the inner crowd. Our findings suggest that the wisdom-of-the-inner-crowd effect is not inevitable, but rather that it hinges on the process by which people generate their second guesses.

Gaertig, C., & Simmons, J. Why (and When) Are Uncertain Price Promotions More Effective Than Equivalent Sure Discounts? Under Review at the *Journal of Marketing Research*.

Past research suggests that offering customers an uncertain promotion, such as an X% chance to get a product for free, is always more effective than providing a sure discount of equal expected value. In seven studies ($N = 11,238$), we find that uncertain price promotions are more effective than equivalent sure discounts only when those sure discounts are or seem small. Specifically, we find that uncertain promotions are relatively more effective when the sure discounts are actually smaller, when the sure discounts are made to feel smaller by presenting them alongside a larger discount, and when the sure discounts are made to feel smaller by framing them as a percentage-discount rather than a dollar amount. These findings are inconsistent with two leading explanations of consumers’ preferences for uncertain over certain promotions – diminishing sensitivity and the overweighting of small probabilities – and suggest that people’s preferences for uncertainty are more strongly tethered to their perceptions of the size of the sure outcome than they are to their perceptions of the probability of getting the uncertain reward.

Mislavsky, R. & Gaertig, C. 60% + 60% = 60%, but Likely + Likely = Very Likely. Working Paper.

How do people combine others' probability forecasts? Prior research has shown that when advisors provide *numeric* forecasts, people typically average them. For example, if two advisors think an event has a 60% chance of occurring, people also believe it has a 60% chance (more or less). However, what happens if two advisors say that an event is "likely"? In four studies, we find that people combine verbal forecasts additively, making their forecasts more extreme than the forecasts provided by each of the advisors. For example, if two advisors say something is "likely," people believe that it is "very likely." Thus, our research shows that how people interpret information from multiple advisors depends on whether the advice is communicated numerically or verbally.

Gaertig, C., Barasch, A., Levine, E., & Schweitzer, M. Magnitude Matters: Anger Magnitude Affects Interpersonal Perceptions and Status Conferral Decisions. Working Paper.

Prior research suggests that expressing anger signals competence and enables individuals to attain status. This past work, however, investigated a limited range of anger expressions, and failed to consider how the magnitude of an anger expression might moderate these relationships. Across seven studies and one supplemental study ($N = 3,295$), we demonstrate that the magnitude of an anger expression fundamentally alters its interpersonal effects. Compared to mildly or moderately angry individuals, extremely angry people are perceived to be less competent and warm, and are thus accorded less status. Importantly, we also find that comparisons *between* emotions are highly labile. Extant research, including prior anger-status research, contrasts the effects of similarly valenced emotions, such as anger and sadness. Consistent with prior work, we find that mildly angry individuals are accorded more status than mildly sad individuals. However, we also find that extremely angry individuals are accorded *less* status than extremely sad individuals and people for whom no emotion information is provided. Our findings demonstrate that contrasts between emotions are magnitude-dependent. Our findings have broad practical and theoretical implications. We call for emotion scholars to investigate a wider range of emotion stimuli when contrasting emotions.

Gaertig, C., & Simmons, J. Does Dialectical Bootstrapping Improve The Wisdom of the Inner Crowd? Data Collection Completed.

Previous work on the wisdom of the inner crowd has demonstrated that averaging two guesses from the same individual can improve quantitative judgments. Herzog and Hertwig (2014; JEP:LMC) proposed that this wisdom-of-the-inner-crowd effect can further be leveraged by asking people to think about why their first guess was off the mark before they make a second guess, an approach that they call "dialectical bootstrapping." In two studies ($N = 758$), we replicated their procedure and included a new condition in which we simply asked participants to make a second *different* guess. In line with Herzog and Hertwig (2014), we found that the

dialectical bootstrapping instructions boosted the benefits of averaging compared to not giving participants any instructions as to how to make their second guess. Importantly, however, the dialectical bootstrapping instructions did not increase the benefits of averaging beyond simply asking participants to make a second different guess. That is, simply encouraging participants to make a second *different* guess is sufficient to improve the wisdom of the inner crowd, and instructions specific to dialectical bootstrapping do not result in further improvement.

Gaertig, C., & Simmons, J. Should Advisors Provide Confidence Intervals Around Their Estimates? Data Collection in Progress.

Are advisees more or less likely to follow advice that is accompanied by a confidence interval? In six studies ($N = 5,403$), we asked participants to forecast the outcomes of upcoming sporting events. We provided them with an advisor's best guess, and we manipulated whether or not the advisor presented a confidence interval alongside that guess. We measured whether participants followed the advisor's advice while making a series of incentivized forecasts. In some studies, we found that people were equally likely to follow advice that was or was not accompanied by a confidence interval, and in other studies we found that people were *more* likely to follow advice that was accompanied by a confidence interval. Our findings indicate that people do not punish or ignore advisors who express uncertainty in the form of confidence intervals. If anything, advisees seem more rather than less likely to follow advice that is accompanied by a confidence interval.

Kassirer, S., Levine, E., & Gaertig, C. Decision Makers Prefer Paternalism: On the Costs of Providing Decisional Autonomy. Data Collection In Progress

Does increased decisional autonomy undermine confidence in experts and perceptions of their value? Across four experiments ($N = 1,700$), we find that expert advisors (e.g., doctors, financial advisors) who give advisees decisional autonomy (i.e., patient-driven choice), rather than offering paternalistic advice (i.e., expert-influenced choice) are judged to be less competent and less helpful. As a result, advisees are less likely to return to and recommend these experts. We document these results in a variety of domains and demonstrate that advisors may not anticipate these effects. These results deepen our understanding of preferences for autonomy and paternalism, and challenge the benefits of recently adopted practices in medical decision-making that prioritize autonomy.