

# Russell Ackoff Doctoral Student Fellowship for Research on Human Decision Processes and Risk Management: 2013 Application

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## The Influence of Emotional Certainty on Attitude Certainty

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**Requested Support:** \$3600

## Description of the Research Project

In consumers' daily lives, they perpetually experience different emotions evoked by the environment. These emotions, which can be incidental to the task at hand, are frequently transferred into other domains to affect attitudes and behavior. For example, an argument at work can make someone feel angry, and that anger can get transferred to other decision-making contexts. In this research, we examine the effect of incidental emotions on persuasion. Specifically, we examine an important appraisal-dimension of emotions that has not been looked at closely: certainty (Lerner and Keltner 2000), and its influence on an important determinant of attitude strength: attitude certainty. Can a certain as compared to an uncertain emotion evoked outside of the persuasion context influence the certainty of an individual's attitude, thus changing the perceived persuasiveness of the appeal, and decision to purchase?

Previous research has established the important consequences of carryover effects of incidental emotional states for judgments and decisions (DeSteno, Petty, and Rucker 2002; Vohs, Baumeister, and Loewenstein 2007). While previous scholars have examined the effect of incidental emotions and their valence on attitudes and behavior (e.g., Andrade and Ariely 2009), less work has been done on the certainty-appraisal dimension of emotions as described by Lerner and Keltner (2000).

While emotional certainty has been examined in contexts such as risky decision making and heuristic versus systematic processing (Lerner and Keltner 2001), it has not been examined in the context of attitude certainty. Just as emotional certainty is a meta-cognitive characteristic of one's affective state that represents the impression of one's emotions, attitude certainty is a meta-attitudinal characteristics of attitude strength (Bassili 1996). The term attitude strength is used to characterize the extent to which an attitude is durable and impactful, and attitude certainty is an important factor in determining attitude strength (Petty & Krosnick, 1995). Having a certain attitude is one indicator of possessing a strong attitude, which is more stable over time and more impactful on thoughts and behavior than weak attitudes. Attitudes come to possess these qualities, however, through many different paths. Combining these two constructs of emotional and attitude certainty could provide important contributions both for the emotion appraisal and attitude strength literatures.

Results from a preliminary study shows that there does seem to be a link between emotional certainty and attitude certainty. In the study, we found evidence that an emotion that is high in the certainty-appraisal dimension increased attitude certainty compared to exposure to a low certainty emotion or a neutral emotion (Hypothesis 1a). Specifically, as compared to incidental exposure to fear (a low certainty emotion), or a neutral emotional prime, incidental exposure to anger (a high certainty emotion) increased attitude certainty when the argument was clearly weak, but not when it was somewhat stronger (Hypothesis 2). The higher attitude certainty for the weak message also decreased willingness to purchase (Hypothesis 1b).

We propose that since high certainty emotions lead to heuristic processing and low certainty emotions lead to systematic processing (Tiedens and Linton 2001), a high certainty emotion will increase the subjective feeling that an individual has processed more deeply and thoroughly without increasing actual processing (Hypothesis 3). This increased certainty of subjective processing will thus lead to greater (decreased) willingness to purchase when an attitude is positive (negative).

Professor Williams and I plan to replicate the effects found in our preliminary study using other low- and high-certainty negative emotions besides fear and anger, and also use low- and high-certainty positive emotions, such as hope (low certainty) and happiness (high certainty) (Hypothesis 1c) (Smith and Ellsworth 1985). We also plan to examine more thoroughly the moderating effect of argument quality ambiguity on the effect of emotional certainty on attitude certainty. We hypothesize that the less

ambiguous the quality of the argument (either very high quality or very low quality), the greater the effect we will observe of emotional certainty on attitude certainty. We also plan to examine more thoroughly different behavioral measures of the effects of attitude certainty such as the willingness to purchase a product or participate in a behavior (Hypothesis 1b).

In the Wharton Behavioral Lab, we plan to first pretest different arguments for strength in order to determine strong and weak arguments for a product advertisement. We will then prime participants with an emotion using a clip from a movie, and then expose them to a print advertisement for a product with strong, weak, or semi-strong arguments. We will measure their attitude toward the product, attitude certainty (Rucker and Petty 2004), and how much they perceive that they elaborated on the advertisement (Barden and Petty 2008; Smith et al. 2007). Participants will then list their message-related thoughts in a thought-elaboration task in order to gauge actual thought elaboration (Cacioppo and Petty 1981), and then indicate whether they want to buy the product or not. Finally, they will complete a measure to check the depletion manipulation by indicating how tired they felt after watching the video (Baumeister, Bratslavsky, Muraven, and Tice 1998; Wan, Rucker, Tormala, and Clarkson, 2010). In the future, we plan to examine how integral emotions to the persuasive message might differ (if at all) from incidental emotions in the hypothesized effect of emotional certainty on attitude certainty. We also plan to examine how regulating an incidental or integral emotion may affect attitude certainty and persuasion.

*H1a.* Incidental exposure to a high certainty emotion will increase attitude certainty compared to exposure to a low certainty emotion or a neutral emotion.

*H1b.* Incidental exposure to a high certainty emotion will increase (decrease) willingness to purchase compared to exposure to a low certainty or neutral emotion if the attitude is positive (negative).

*H1c.* The effect of emotional certainty on attitude certainty will hold regardless of the valence of the emotion, such that both positive and certain, and negative and certain emotions will increase attitude certainty compared to being exposed to a low certainty or neutral emotion.

*H2.* The quality of the arguments in a persuasive message will moderate the effect of emotional certainty on attitude certainty, such that arguments that are less ambiguous with respect to quality (either very high or very low quality) will lead to greater attitude certainty than arguments that are more ambiguous with respect to quality (medium quality).

*H3.* Incidental exposure to a high certainty emotion will increase the certainty that one has processed thoroughly, even though actual processing will either decrease or stay the same compared to those who have been exposed to a low certainty or neutral emotion.

We plan to test the above hypotheses across six studies. Identifying the factors that make individuals susceptible to persuasion is crucial for understanding how to increase advertising effectiveness, increase compliance and health behaviors, and to protect individuals from persuasion attempts. This research will also illuminate the potentially important influence of emotional certainty on the certainty of other judgments. I believe that this research will contribute to a better understanding of how consumers process the complicated world around them and make purchase decisions that affect their mental, physical, and financial well-being. In addition to working toward a journal publication, I also intend to share my findings at the Society for Consumer Psychology Conference next year. The Wharton Marketing Department allocates some funding for research and travel, but it is only sufficient to cover a small percentage of the research and travel expenses that I intend to incur over the next year, and I currently have no other sources of funding besides the generous Ackoff grant that I received in 2012.

I am grateful for the research support that the Wharton Risk and Decision Processes Center provides students through the Ackoff Doctoral Student Fellowship program. I thank you for your consideration and welcome any questions you may have about my research.

## Estimated Budget

Data Collection (\$2 x 6 studies x 200 participants)	\$2400
Society for Consumer Psychology Conference (Feb 2014, Miami, FL)	
Conference registration	\$200
Travel (flight, taxi, parking)	\$500
Hotel (4 nights, shared by two students)	\$500
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Total Costs	\$3600
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<b>Total Requested from the Ackoff Doctoral Student Fellowship</b>	<b>\$3600</b>

## Outcome of the 2012-funded Research Project

In 2012, I was extremely fortunate to receive an Ackoff Doctoral Student Fellowship from the Wharton Risk and Decision Processes Center, and since receiving funding I have made important strides in the research project that I proposed, “Speed and Social Connection.” In addition to completing six additional experiments, I have presented the work at the two largest conferences for consumer behavior research, and am preparing the manuscript for submission for publication.

In October 2012, I attended the Association for Consumer Research conference and presented a poster of my work, “Speed and Social Connection,” made possible by the generous Ackoff funding. In March 2013, I also presented the research project in a formal talk at the Society for Consumer Psychology conference. In addition, I am organizing a symposium including this work and other scholars who research time and well-being to submit to the 2013 Association for Consumer Research conference.

The studies that Professor Mogilner and I have completed since the proposal for funding have contributed significantly to supporting our hypotheses and advancing the theories in the original proposal. Our current set of experiments demonstrates that while individuals hold positive implicit attitudes for fast speed, and negative implicit attitudes for slow speed, accepting slowness is interpersonally connecting. Using five different manipulations of fast and slow speed, we demonstrate the interpersonally connecting effect of slow speed on feelings of connectedness, feelings of connectedness to another person following a social interaction, behavior in a social interaction, and depth of connection in a social interaction.

The paper, currently titled “Do Tortoises Make Better Friends than Hares: Speed and Social Connection,” is currently being revised to incorporate the new studies that we have recently completed and that I just presented at the Society for Consumer Psychology conference on March 1<sup>st</sup>. After running one to two more studies, we will then prepare to submit the manuscript to the Journal of Consumer Research.

The funds were used primarily to support travel and accommodations for the two conferences where I presented my Ackoff-supported work. Approximately one-half of the funds was allocated to travel and accommodation expenses for the Association for Consumer Research conference, and the other half was allocated for the Society for Consumer Psychology conference.

The Ackoff Doctoral Student Fellowship made this work possible, as well as the opportunity to share it with my colleagues so that I could get new inspirations and ideas for future work. I would like to again thank the Wharton Risk and Decision Processes Center for providing this pivotal funding for doctoral students through the Ackoff Fellowships.

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