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An Amplification Perspective on Attitude Certainty

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Past research suggests that becoming more certain of an attitude strengthens that attitude, making it more resistant to persuasion and more predictive of behavior. The current research challenges this view of attitude certainty, suggesting that certainty can strengthen or weaken attitudes depending on their underlying ambivalence. In several experiments, we demonstrate that increasing attitude certainty strengthens attitudes (makes them more resistant and more predictive of behavior) when attitudes are univalent, but weakens attitudes (makes them less resistant and less predictive of behavior) when attitudes are ambivalent.

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SYMPOSIUM SUMMARY

Revisiting Consumer Confidence: New Findings and Emerging Perspectives

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SESSION OVERVIEW

Psychological confidence—that is, the general existential state of certainty or uncertainty—is a fundamental aspect of human judgment and thought. Indeed, considerable research now suggests that the confidence or certainty with which one holds one's thoughts, beliefs, and attitudes plays a crucial role in guiding the impact of those thoughts, beliefs, and attitudes on other outcomes. For instance, the more certain one is of one's attitude, the more resistant that attitude is to attack, the more stable that attitude is over time, and the more influence that attitude has over one's behavior (see Tormala and Rucker 2007). Nevertheless, despite the importance of certainty and the extensive body of research exploring its antecedents and consequences in other fields, it has been relatively understudied in the consumer domain. This symposium revisits the notion of consumer confidence by exploring new perspectives on attitude certainty and intuitive confidence. Three papers highlight the importance of these metacognitive assessments for understanding, predicting, and shaping consumer behavior.

The first paper, by Tormala and Clarkson, puts forth a new perspective on attitude certainty. These authors propose that whereas attitude certainty traditionally has been viewed as a strengthening agent, making attitudes more resistant to persuasion and more predictive of behavior, it might be more accurate to think of attitude certainty as an *amplifying* agent. In other words, rather than inevitably strengthening an attitude, certainty might accentuate the dominant effect of that attitude on thought, judgment, and behavior. In three experiments, the authors test this hypothesis by orthogonally manipulating attitude certainty and attitude ambivalence. Across experiments, they find that when ambivalence is low, becoming more certain of an attitude makes the attitude more resistant to change and more predictive of behavior. When ambivalence is high, however, becoming more certain of an attitude makes the attitude *less* resistant to change and *less* predictive of behavior. Thus, certainty has markedly different consequences depending on the structure of the underlying attitude. This research alters existing views of attitude certainty, painting a more dynamic picture of its implications for consumer thought and action.

The second paper, by Rucker and Dubois, explores a different aspect of attitude certainty. In particular, these authors examine the interpersonal transmission of certainty. Based on the logic that attitude certainty is a metacognitive assessment of an attitude and, thus, secondary to the attitude itself, they posit that certainty assessments should be less accessible than attitudes and more likely to be lost in interpersonal transmission contexts. In three experiments, participants are given favorable attitudes toward a product, with either high or low attitude certainty. When asked to write a message about the product for another individual, participants are shown to transmit their attitudes but not their attitude certainty. Consistent with the accessibility account, however, interventions that increase the accessibility of the certainty information (e.g., a certainty priming task) boost transmission. These effects have important implications for consumer behavior, particularly given the increasing prevalence of interpersonal transmission (e.g., web reviews, WOM) in real world consumer contexts.

The final paper by Nelson, Simmons, and Galak also touches upon interpersonal aspects of confidence. Specifically, these authors apply the notion of intuitive confidence to the projection, or false consensus, effect. They propose that when people form

preferences, they project these preferences onto others to a greater extent when they feel confident rather than doubtful. They further hypothesize that preference confidence can be affected by the valence of the options at hand. Two experiments provide support for this hypothesis, showing that preference confidence and projection are increased when consumers choose between positive rather than negative stimuli. A third experiment reverses this effect when participants are asked to reject, rather than choose, an option. This research enhances our understanding of projection, highlighting the role of judgment confidence in guiding perceptions of other consumers.

Taken together, the papers presented in this session highlight exciting new directions in an area that has received far too little attention in consumer research. We anticipate that this session will attract researchers interested in attitudes and persuasion, metacognition, information processing, and preferences. John Lynch, an expert on consumer decision making and the roles of accessibility and diagnosticity in guiding the impact of beliefs/attitudes on other judgments/behaviors, will provide a discussion of these three lines of inquiry, addressing their implications for consumer research and identifying potential questions for future study.

EXTENDED ABSTRACTS

“An Amplification Perspective on Attitude Certainty”

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People hold their attitudes with varying degrees of certainty. For example, two consumers might report liking a new restaurant, book, movie, or pillow to the same degree, but differ in how certain they are of that evaluation. Over the years, attitude certainty has stimulated considerable research interest (for a review see Tormala and Rucker 2007). This interest stems, at least in part, from the fact that attitude certainty is thought to have a number of important consequences for attitude-relevant outcomes. In particular, the more certain one is of one's attitude, the more predictive that attitude is of behavior (e.g., Fazio and Zanna 1978) and choice (e.g., Bizer, Tormala, Rucker, and Petty 2006) and the more resistant that attitude is to persuasion (e.g., Wu & Shaffer, 1987; Tormala and Petty 2002). These findings have been interpreted as indicating that attitude certainty inherently strengthens attitudes, making them more durable and impactful. This “crystallization hypothesis” is the dominant, if not only, view of attitude certainty in classic and contemporary research.

The Amplification Hypothesis. The current research challenges the notion that attitude certainty acts only as a strengthening agent, arguing instead that it can function as an *amplifying* agent. That is, we posit that rather than invariably strengthening an attitude, attitude certainty amplifies the dominant effect of the attitude on thought, judgment, and behavior. If the dominant effect of an attitude is to be resistant to change, for instance, increasing attitude certainty should increase that attitude's resistance, as in past research. If the dominant effect of an attitude is to be susceptible to change, however, increasing attitude certainty might increase that attitude's susceptibility.

Consider the distinction between univalent attitudes (attitudes that are primarily positive or negative in valence) and ambivalent attitudes (attitudes that consist of both positive and negative reac-

tions). It is well-documented that univalent attitudes are more resistant to persuasion than ambivalent attitudes (e.g., Armitage and Conner, 2000; Visser and Mirabile 2004). Thus, univalent and ambivalent attitudes differ in their dominant effects on attitude change. The amplification hypothesis holds that increasing attitude certainty should accentuate this difference, making univalent attitudes even more resistant to persuasion and ambivalent attitudes even less resistant to persuasion than they were to begin with. We tested this hypothesis in a series of experiments.

In our first experiment, we orthogonally manipulated ambivalence and attitude certainty by giving participants evaluatively congruent (univalent) or incongruent (ambivalent) information about a target person from a high or low credibility source. As intended, participants were more ambivalent when they received incongruent compared to congruent information, and were more certain when they received the information from a high compared to a low credibility source. Of greatest importance, later in the session we presented participants with a persuasive message about the target person and we assessed attitude change in response to this message. As predicted, there was an interaction between information congruence (univalence/ambivalence) and source credibility (high/low attitude certainty) on attitude change. When participants had univalent initial attitudes, they showed greater attitude change when the credibility manipulation gave them low rather than high attitude certainty. When participants had ambivalent initial attitudes, they showed greater attitude change when the credibility manipulation gave them high rather than low attitude certainty.

In Experiment 2, we sought to replicate these findings in a consumer setting. We presented participants with evaluatively congruent or incongruent reviews of a new department store from a high or low credibility source. Following this information, we examined the consequences of attitude certainty by presenting participants with a persuasive message about the store. As predicted by the amplification hypothesis, there was an interaction between information congruence and source credibility on attitude change in response to this second message. When participants had univalent initial attitudes (congruent information condition), they showed greater attitude change when they had low as opposed to high attitude certainty. When participants had ambivalent attitudes (incongruent information condition), this effect was significantly reversed.

In Experiment 3, we explored a different consequence of attitude certainty—the correspondence between attitudes and behavioral intentions. As noted, it is well-established that attitudes are more predictive of behavior when they are held with high compared to low certainty. The amplification hypothesis suggests that this effect might be confined to univalent attitude conditions; under ambivalent attitude conditions, attitudes might be less predictive of behavior when they are held with high compared to low certainty. To examine this issue, we presented participants with evaluatively congruent or incongruent reviews of a new department store and manipulated attitude certainty using a confidence/doubt priming task. Later in the session, participants reported their likelihood of shopping at the store. As predicted by the amplification hypothesis, greater certainty was associated with higher attitude-intention correspondence under univalent attitude conditions, but lower attitude-intention correspondence under ambivalent attitude conditions. Experiment 3 also revealed that the attitude change effect from the first two experiments was the result of thoughtful information processing.

Discussion. The current research offers support for a new conceptualization of attitude certainty. Contrary to the traditional (crystallization) view of attitude certainty as an inherently strength-

ening agent, our findings suggest that attitude certainty has dynamic effects on attitude strength that vary according to the attitude's underlying ambivalence. Specifically, increasing attitude certainty strengthens attitudes (makes them more resistant to persuasion and more influential over behavioral intentions) when those attitudes are low in ambivalence, but *weakens* attitudes (makes them less resistant to persuasion and less influential over behavioral intentions) when those attitudes are high in ambivalence. Taken together, these findings have numerous and important implications for our understanding of attitudes and attitude strength in consumer contexts.

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"The Failure to Transmit Certainty: Causes, Consequences, and Remedies"

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Consumers often share information in face to face exchanges, over email, or by leaving feedback for products on websites, such as Amazon.com or online forums. The present research examines consumers' propensity to transmit the degree of certainty associated with their attitudes when sharing their attitudes with others. Based on prior work showing that certainty is an important catalyst in motivating consumers to act on their attitudes (e.g., Basilli, 1996; Berger and Mitchell 1989; Fazio and Zanna 1978; Rucker and Petty 2004), we submit that it is important to understand how certainty is communicated from one consumer to another. Specifically, knowing whether another consumer is certain or uncertain should have an effect on a recipient's certainty.

Although not studied empirically, we believe there is reason to postulate that information regarding one's certainty or uncertainty is less likely to be expressed and thus is often lost in transmission. Whereas attitudes are primary beliefs (e.g., I like this car), attitude certainty is a metacognition or a secondary belief (e.g., how certain am I of my attitude towards the car). Compared to attitudes, we

propose that certainty, as a metacognition, is less likely to be communicated by consumers. Specifically, we suggest that because the monitoring of one's certainty requires additional effort and direction, consumers' certainty might be less accessible and thus less likely to be transmitted at the time of a communication. Indeed, work on metacognition suggests that such processes tend to operate under high levels of thinking (Tormala and Petty 2004; Rucker, Petty, and Briñol 2008). For this reason, we propose that in consumer to consumer communications, such as word of mouth, consumers' attitude certainty should be less likely to be expressed compared to their attitudes. As a result, information related to attitude certainty is likely to be lost in transmission.

That is, even when consumers hold favorable attitudes of which they are highly certain, the certainty underlying that attitude might get lost during the transmission process. Because subsequent consumers (i.e., receivers) are less likely to be aware of the certainty of the communicating consumer (i.e., sender), they might in turn be less certain of their own attitudes. More specifically, they would lack the information that the attitude is supported by a strong degree of conviction. In addition, we propose that this loss of certainty can be prevented by either alerting consumers' sending communications to their certainty or by making the senders' certainty more obvious to subsequent recipients.

Experiment 1 tested whether certainty is indeed lost in transmission more so than favorability of one's evaluation. The experiment was conducted in several phases. Participants in phase 1 read a message about a hotel. The message was positive or negative and the certainty expressed by the source of the message was either low or high. This produced initial differences in favorability and certainty among phase 1 participants. Subsequently, phase 1 participants wrote a message about the hotel that was read by another participant. This procedure was repeated until we obtained a chain of four consumers who had received a prior message and written their own message. Results indicated that although differences in expressions of favorability were stable across the chain of participants, expressions of (un)certainly decreased over time, suggesting information related to certainty was lost in transmission.

Experiment 2 tested whether the observed loss of certainty was due to its lower accessibility. A priming manipulation was used to subtly activate individuals' attention to their certainty. If the loss of certainty stems from senders not thinking about their certainty at the time of transmission, increasing consumers' awareness of their certainty before sending the message should increase its likelihood of transmission. Participants in phase 1 received an initial message from a source inducing high or low certainty about a hotel, but equally favorable attitudes. Subsequently, participants in phase 1 completed an ostensibly unrelated crossword puzzle that contained words related to certainty and uncertainty or filler words. Participants then wrote a message about the hotel that was received by participants in phase 2. Results showed that when consumers' certainty was not accessible, there was little transmission of certainty. However, when participants in phase 1 were primed with certainty/uncertainty words, they were more likely to transmit certainty. Consequently, participants in phase 2 were more certain (uncertain) when the prior participant had been certain (uncertain). Importantly, across all conditions, attitudes were positive and equivalent, suggesting an asymmetry in the transmission of attitudes and certainty. Finally, although attitudes did not differ, in both phases, participants with high certainty reported greater purchase intentions than those with low certainty.

Experiment 3 provided a further test of the asymmetrical relation between attitudes and certainty, and proposed a potential remedy to prevent the loss of certainty. Participants in phase 1 received an initial message promoting a brand of toothpaste from a

source inducing high or low certainty, but equally favorable attitudes. These participants then wrote a message about the toothpaste and reported their attitudes and certainty. Subsequently, participants in phase 2 either received a message and attitude score of one prior participant, or received the message, attitudes, *and* certainty scores of one prior participant. We found that participants in phase 2 were more likely to show a difference in certainty and behavior as a function of the prior participant's certainty when that certainty was explicitly provided. Put simply, a practical response to the loss of certainty in online venues, for instance, is simply to encourage consumers to report both their attitudes and certainty to be shared with others.

Conclusion and Contributions. The present research provides a first examination of how attitude certainty is shared and transmitted. In particular, as a secondary cognition, certainty is less accessible than attitudes and is thus more susceptible to being lost in transmission. The failure of initial consumers to communicate certainty has consequences for subsequent consumers' certainty and behavior. This work explores this failure via moderation and offers remedies regarding the loss of certainty.

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"Intuitive Confidence and the Effect of Option Valence on Preference Projection"

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People tend to project their own preferences and choices onto others. For example, when people choose whether or not to engage in an embarrassing act, they tend to think that other people will make the same decision (Ross, Green, & House, 1977). Although this *projection effect* (which is also known as the *false consensus effect*) has received considerable research attention, much of that attention has focused on investigating the implications of projection for judgmental accuracy (Dawes 1989; Hoch 1987; Hsee, Rottenstreich, and Tang 2008) rather than on understanding the psychological processes governing the projection process.

In this research, we propose that predicting the choices of others takes the form of a dual process (cf. Hoch, Davies, and Ragsdale 1986). First, people form an *intuitive judgment* by project-

ing their own preference onto others. Then, they adjust this inference on the basis of *constraint information* (e.g., knowledge of base rates; knowledge that other people may be dissimilar) that suggests that others may not share their preference. Simmons and Nelson (2006) have shown that people rely more heavily on their intuitions, and less heavily on constraint information, when they are confident in their intuitions. Following from that research, we propose that a stronger projection effect will emerge for easy, high-confident choices than for difficult, low-confident choices. This effect should emerge even when the choice options themselves are held constant.

We investigated these hypotheses by manipulating the valence of the choice options. Past research suggests that although choosing between two good options feels like an easy thing to do, choosing between two bad options feels like a difficult thing to do (Higgins 2000; Miller & Nelson, 2002). Thus, people should have greater confidence when choosing between two good options than when choosing between two bad options, and a stronger projection effect should emerge when choosing between two good options than when choosing between two bad options.

Study 1 tested this hypothesis by asking people to make choices between a certain outcome and a risky outcome (e.g., a 10% chance at \$200 or a certain gain of \$20) that offered equivalent expected values. On half of the trials, participants chose between two outcomes with positive expected values and, on the other half of trials, participants chose between two outcomes with negative expected values. After each choice, participants were asked to estimate the percentage of other participants they thought would make the same choice. As expected, people predicted that a greater percentage of others would make the same choice when they were choosing between two potential gains than when choosing between two potential losses.

In Study 2, we sought to generalize this result to a different choice scenario, and we measured decision confidence to assess whether it in fact differed between conditions. Participants were shown pairs of attractive or unattractive faces, and they were asked to choose between them. For each pair, participants rated how confident they were in their decision and they were asked to estimate the percentage of others who agreed with them. As predicted, participants were more confident when choosing between the attractive faces than when choosing between the unattractive faces. Moreover, the projection effect was stronger for choices between attractive pairs than for choices between unattractive pairs.

Studies 1 and 2 provide strong evidence for our hypothesis, but they suffer from a potentially important confound. Specifically, the positive stimuli presented on the high confidence trials were different than the negative stimuli presented on the low confidence trials. To eliminate this confound, we manipulated choice confidence by manipulating the framing of the choice task. Although asking participants to “choose” between two options makes it harder to select between two negative options than between two positive options, asking participants to “reject” one of the options may make it easier to select between two negative options than between two positive options (Higgins 2000).

In Study 3 we once again asked participants to express a preference between two attractive faces or between two unattractive faces. However, some participants were asked to “choose” which one they preferred whereas others were asked to “reject” the option they did not prefer. When participants were given the “choose” instruction, they once again expressed greater confidence and exhibited stronger projection when choosing between attractive than unattractive faces. However, when participants were given the “reject” instruction, these results reversed: Participants were more confident rejecting between two unattractive faces, and

they exhibited a stronger projection effect when choosing between unattractive faces. These results emerged even though task instruction had no effect on which options participants actually chose.

Finally, Study 4 extended this effect by manipulating the valence and extremity of the choice stimuli. On each trial, participants chose (or rejected) between two extremely positive words, two moderately positive words, two moderately negative words, or two extremely negative words. In the choice condition, decision confidence, and the projection effect, increased as the positivity of the choice set increased. In the reject condition, decision confidence, and the projection effect, *decreased* as the positivity of the choice set increased.

Together, these results provide strong support for the effect of intuitive confidence on projection. People more strongly project confident choices than uncertain ones. Moreover, this effect can account for a novel finding that we have presented here—namely, the effect of option valence on projection. Because people are often more confident when choosing between two positive options, they are more likely to believe that others would have made the same choice.

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