CONFIDENCE VS. DOUBT: DIFFERENTIAL PROCESSING OF PROATTITUDINAL AND COUNTERATTITUDINAL INFORMATION

Introduction

The certainty with which people hold their opinions can vary greatly across topics and across individuals. Uncertainty has been characterized as a psychologically uncomfortable state—one that people should often be motivated to alleviate (Petty, Briñol, Tormala, & Wegener, 2007). Consistent with this conceptualization, some classic research has shown that low levels of attitude certainty are associated with increased processing of related stimulus information (Chaiken, Liberman, & Eagly, 1989; Edwards, 2003). For example, imagine that you are uncertain of your opinion toward a controversial government policy. As a way to bolster the certainty of your opinion, you would likely engage in more effortful thinking toward a message about this policy compared to a person who is highly certain of their attitude. According to the sufficiency principle of the Heuristic Systematic Model (Chaiken et al., 1989), the person that is highly certain of their attitude would avoid engaging in effortful thought toward the message as a means to conserve cognitive resources. Since they are sure of their stance, they would not need to bolster their confidence, and they accordingly would not put much effort into processing the message. Given that one’s attitude certainty is often one of the first salient reactions to a persuasive appeal, it is no surprise that attitude certainty impacts information processing in such a meaningful fashion.

In addition to attitude certainty, a persuasive appeal’s pro- or counterattitudinal nature (whether the appeal is commensurate with or discrepant from one’s currently held attitude) should also be an immediately salient reaction to a persuasive appeal. Thus, message position should also guide information processing. The interplay of attitude certainty and message
position was recently documented by Jules, Clark, Wegener, and Tormala (2012). Jules et al. (2012) hypothesized that when people hold an uncertain attitude, a proattitudinal message should be viewed as capable of increasing their confidence because the message will relay information that agrees with their current attitude on the issue. This convergence should motivate message recipients to process the proattitudinal message as a way to bolster their attitude certainty and alleviate any doubt. Jules et al. (2012) further hypothesized that counterattitudinal information should be viewed as less likely to enhance attitude certainty (relative to proattitudinal information) and perhaps more likely to increase doubt since it will advocate a position that is inconsistent with currently held views. These beliefs should motivate uncertain message recipients to avoid processing counterattitudinal messages. Jules et al. (2012) found evidence in support of these predictions in studies that measured existing differences in certainty toward message-relevant attitudes. Participants who were uncertain about their specific attitudes processed proattitudinal information more than counterattitudinal information. Critically, this effect was mediated by participants’ expectations that the message would increase their attitude certainty. In other words, participants expected that the message would most increase their attitude certainty when it was proattitudinal and they accordingly processed proattitudinal appeals more than counterattitudinal appeals.

The present research sought additional evidence for the critical role of certainty in information processing—in this case by manipulating global feelings of confidence or doubt prior to receiving a persuasive message. If general feelings of confidence or doubt lead to processing effects that are similar to those observed with attitude-specific feelings of confidence, this would more strongly implicate the need for certainty as an important driver of selective information processing. Specifically, we expected that people induced to feel doubt would
process proattitudinal information more than counterattitudinal information while people induced to feel confident would not preferentially process either type of information.

**Method**

**Participants and Design**

One hundred and ninety-four University of Iowa undergraduates participated in exchange for partial course credit. The design was a 2 (Message Position: Proattitudinal vs. Counterattitudinal) x 2 (Global Certainty: Confidence vs. Doubt) x 2 (Argument Quality: Strong vs. Weak) between-subjects design.

**Procedure**

All materials were presented on a computer with MediaLab software. As part of a cover story, participants were told they would assess the readability of a written communication. Participants first read short summaries of three potential topics (airbag safety laws, university service programs, and marijuana legalization) that they would be reading about later in the study. Global feelings of confidence or doubt were manipulated. Participants were then presented with a message that advocated for the institution of university service programs. After the message, participants completed dependent measures and were debriefed.

**Independent Variables**

**Message position.** After participants read a brief summary about university service programs (a variant of work-study arrangements), but before they read the full text of the actual message, they reported pre-message attitudes toward the programs via a single 9-point scale (anchors: definitely opposed - definitely in favor). The extent to which the position of the
forthcoming appeal was discrepant from pre-message attitudes was based on this measure \((M = 4.39, SD = 2.42)\).

**Global certainty.** Once the initial ratings of attitude topics were completed, participants were told that the computer would randomly select a message for them to assess. During the selection of this message, participants were asked to complete an unrelated “life experience survey.” This survey acted as the manipulation of their global feelings of certainty. Participants spent three minutes writing about two instances from their lives when they either experienced feelings of confidence or doubt (adapted from Petty, Brñol, & Tormala, 2002). They then completed several filler measures about the experiences that they wrote about.

**Argument quality.** Participants were presented with the message titled “In Support of ‘University Service.’” This message contained a set of either strong or weak arguments that advocated for the institution of the university service program (adapted from Wegener, Petty, & Smith, 1995). For example, in the strong version of the message, it is argued that cost-savings garnered by the university service program could be redirected toward faculty hiring budgets and increased course catalogues. However, the weak version of the message argued that the university service program would teach students to learn how to better maximize their leisure time. This variable is critical for the assessment of information processing. If the consumption of strong and weak arguments leads to statistically different post-message attitudes, we can conclude that participants effortfully processed the message. If the consumption of strong and weak arguments do not lead to statistically different post-message attitudes, we can conclude that participants did not effortfully process the message since strong arguments should lead to more favorable attitudes than comparatively weak arguments.
**Dependent measure.** Participants reported their post-message attitude toward the university service program on nine 9-point scales (e.g., bad-good; negative-positive, foolish-wise). Responses were averaged to form a single index ($\alpha = .98$).

**Results**

Recall that all participants read either strong or weak arguments that were in favor of instituting university service programs. The pro- or counterattitudinal nature of this message was determined by measuring participants’ pre-message attitudes toward this topic. The message was considered proattitudinal for participants whose pre-message attitudes were one standard deviation above the mean. The message was considered counterattitudinal for participants who pre-message attitudes were one standard deviation below the mean. According to our hypotheses, participants that were induced to feel doubt should have processed the message more when it was proattitudinal and participants that were induced to feel confidence should not have displayed differential processing of the message.

A centered regression revealed the hypothesized Certainty x Message Position x Argument Quality interaction, $b = -.53$, $t(186) = -2.34$, $p = .020$, $r = .17$ (see Figure 1). When participants were induced to feel doubtful, argument quality had a significant effect on post-message attitudes when the message was relatively proattitudinal, $b = 1.84$, $t(186) = 3.54$, $p = .001$. In other words, strong proattitudinal arguments led to more favorable attitudes toward the university service program than weak proattitudinal arguments when participants experienced feelings of doubt. Conversely, argument quality had no influence in doubt conditions when the message was viewed as counterattitudinal, $b = .38$, $t < 1, p > .48$. Strong counterattitudinal and weak counterattitudinal arguments didn’t lead to statistically different levels of attitude favorability when participants felt doubtful.
The opposite pattern emerged in conditions where participants were induced to feel confident. The quality of the message arguments influenced persuasion when the message was viewed as relatively counterattitudinal, $b = 1.54$, $t(186) = 2.88$, $p = .004$. When confident participants read counterattitudinal information, strong arguments in favor of establishing the university service program led to more favorable attitudes than weak arguments did. However, post-message attitudes did not differ as a function of argument quality when the appeal was perceived as largely proattitudinal, $b = .45$, $t < 1$, $p > .42$. Strong counterattitudinal and weak proattitudinal arguments didn’t lead to statistically different levels of attitude favorability when participants felt confident.

Taken together, these results indicate that people who are experiencing feelings of doubt tend to process proattitudinal information more while people who are experiencing feelings of confidence tend to process counterattitudinal information more. These findings are in line with the hypothesis that a need for certainty drives differential processing preferences. In other words, it appears that doubtful people process proattitudinal information in an attempt to bolster their feelings of confidence and certainty.

**Discussion**

The current findings lend additional support for the notion that message position plays an important role in the relationship between confidence and information processing in persuasion. When participants felt doubtful, evidence suggests that they carefully processed the message when it was relatively proattitudinal and presumably capable of increasing their confidence. When the message was inconsistent with existing attitudes or counterattitudinal, results suggest that participants engaged in less scrutiny of the information—presumably because the appeal was viewed as unlikely to enhance their confidence. Combined with the results of Jules et al. (2012),
it seems clear that doubtful people, whether they are experiencing general feelings of doubt or only topic-specific feelings of doubt, process proattitudinal information in order to augment their confidence. Our other critical finding, the fact that confident people processed counterattitudinal information, was not accounted for by our hypotheses. This finding was surprising because the well-supported sufficiency principle of the Heuristic Systematic Model (Chaiken et al., 1989) predicts that confident people should not have significantly processed either type of information. Since they were already confident about their stance, those people should have instead conserved cognitive resources and engaged in negligible amounts of processing of both counter- and proattitudinal information. We posit that, consistent with a need for certainty, confident people processed counterattitudinal information in order to preemptively debunk counterarguments and remove any threats to their state of confidence/certainty. Future research is needed to address this assertion since the current study had no measures of ego threat or measures of counterargumentative motivation.
References


Appendix A

Figure 1. Favorability of Post-message Attitudes toward University Service Programs

Confident

Doubtful