

Unpacking Attitude Certainty: Attitude Clarity and Attitude Correctness

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Attitude certainty has been the subject of considerable attention in the attitudes and persuasion literature. The present research identifies 2 aspects of attitude certainty and provides evidence for the distinctness of the constructs. Specifically, it is proposed that attitude certainty can be conceptualized, and empirically separated, in terms of *attitude clarity* (the subjective sense that one knows what one's attitude is) and *attitude correctness* (the subjective sense that one's attitude is correct or valid). Experiment 1 uses factor analysis and correlational data to provide evidence for viewing attitude clarity and attitude correctness as separate constructs. Experiments 2 and 3 demonstrate that attitude clarity and attitude correctness can have distinct antecedents (repeated expression and consensus feedback, respectively). Experiment 4 reveals that these constructs each play an independent role in persuasion and resistance situations. As clarity and correctness increase, attitudes become more resistant to counterattitudinal persuasive messages. These findings are discussed in relation to the existing attitude strength literature.

Keywords: attitudes, certainty, attitude strength, metacognition

Psychological certainty is a cornerstone of beliefs. In the absence of a subjective sense of certainty, people often experience a state of psychological aversion that they are motivated to reduce (Gerard & Greenbaum, 1962; Kahneman, Slovic, & Tversky, 1982; Payne, Bettman, & Johnson, 1992). Within the social judgment literature, recent research has given an increasing amount of attention to *attitude certainty*, or the sense of conviction with which one holds one's attitude (Abelson, 1988; Gross, Holtz, & Miller, 1995). Attitude certainty is a metacognitive attribute of people's attitudes (Petty, Briñol, Tormala, & Wegener, in press; Rucker & Petty, 2004; Tormala & Petty, 2002) in that it is a secondary cognition (e.g., "I am certain of my evaluation of X") attached to a primary cognition (e.g., the evaluation of X).

Over the years, a great deal has been learned about the antecedents and consequences of attitude certainty. For instance, attitude certainty is influenced by factors such as perceiving social support for one's attitude (e.g., Festinger, 1954; Visser & Mirabile, 2004), having direct versus indirect experience with an attitude object (Fazio & Zanna, 1978; Wu & Shaffer, 1987), perceiving that one has resisted (Tormala & Petty, 2002, 2004a, 2004b) or tried to resist (Rucker & Petty, 2004) persuasion, forming one's attitude in an online versus memory-based fashion (Bizer, Tormala, Rucker, & Petty, 2006), and repeatedly expressing one's attitude (Holland, Verplanken, & van Knippenberg, 2003). In terms of consequences,

attitudes held with high, rather than low, certainty yield greater attitude-behavior correspondence (e.g., Bizer et al., 2006; Fazio & Zanna, 1978; Rucker & Petty, 2004; Tormala & Petty, 2004a, 2004b), increased attitudinal persistence (e.g., Bassili, 1996), and increased resistance to persuasive attacks (e.g., Tormala & Petty, 2002; Wu & Shaffer, 1987; see also Kelley & Lamb, 1957).

The concept of attitude certainty is part of a larger body of constructs that fall under the rubric of attitude strength. In general, attitude strength refers to the durability and impactfulness of an attitude (Krosnick & Petty, 1995). Compared with weak attitudes, strong attitudes are more persistent and resistant, and they exert greater impact on thought and behavior. Attitude certainty has been found to be independent of, but correlated with, other contributors to attitude strength such as attitude accessibility, importance, extremity, and intensity (see Fabrigar, MacDonald, & Wegener, 2005; Franc, 1999; Krosnick, Boninger, Chuang, Berent, & Carnot, 1993; Visser, Bizer, & Krosnick, 2006). In fact, considerable research in the attitude strength domain has focused on understanding the distinctions between various strength features. For example, attitude importance has been distinguished from both attitude certainty (Visser, Krosnick, & Simmons, 2003) and attitude accessibility (Bizer & Krosnick, 2001).

Multiple Forms of Attitude Certainty

In short, attitude strength research has benefited from recognizing distinctions between various strength-related constructs. In the present research, we take a similar tack and suggest that research on more specific aspects of attitude certainty may also have benefits. That is, attitude certainty might not be a monolithic construct, but rather it might consist of different dimensions with unique origins and potentially important consequences. Although we do not contest the notion that global measures (and feelings) of attitude certainty are important, we submit that considering the unique facets of certainty may offer additional insight. That is, this endeavor may shed light on multiple layers of the certainty con-

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struct, which would enhance our understanding of attitude certainty and its antecedents and consequences. In the present research, we test the idea that attitude certainty is composed of at least two separate beliefs.

Attitude Correctness

First, we suggest that being certain about an attitude may reflect that one is confident that the attitude is correct, valid, or justified. This form of certainty we term *attitude correctness*. People possessing high attitude correctness might believe not only that their attitude is correct, or valid, but also that other people should have the same attitude. This characterization of attitude certainty is perhaps most common in the literature (e.g., Krosnick & Schuman, 1988; Tormala & Petty, 2002; see Gross et al., 1995), and indeed, the notion that certainty might sometimes reflect perceived correctness or validity has intuitive appeal.

Consider the origin of this perception. We theorize that perceived correctness should result from cognitive activity that aids in determining the validity of, or justification for, one's attitude. For example, it is well-documented that people sometimes engage in social comparison processes to establish the validity of their attitudes and opinions (e.g., Fazio, 1979; Festinger, 1954). When people discover that their attitudes are shared by their peers, they tend to become more certain of those attitudes (e.g., Festinger, 1954; Gerard & Orive, 1987; Orive, 1988; Visser & Mirabile, 2004). Social consensus essentially provides individuals with information about how socially "correct" their attitudes are. Thus, our prediction is that a consensus manipulation will affect perceived attitude correctness.

Attitude Clarity

Second, we posit that being certain of an attitude might sometimes reflect that one feels as though one knows what one's true attitude on a topic really is. This type of certainty we term *attitude clarity*. Although attitude certainty has not traditionally been construed in these terms, there is reason to suspect that feeling certain or uncertain of an attitude can suggest that an attitude is clear or unclear in one's mind. In a number of paradigms, it has been established that people often lack ready-made attitudes when asked to report them (e.g., Bem, 1967; Fazio, 1987; Hastie & Park, 1986). Moreover, numerous studies suggest that people sometimes lack access to their reasons for holding a given attitude (e.g., Wilson, Dunn, Kraft, & Lisle, 1989).

In contrast to attitude correctness, this feeling of attitude clarity might stem from cognitive activity that aids in expressing or becoming aware of one's attitude. For instance, past research has demonstrated that the more people activate and report their attitude toward an object or issue, the more certain of that attitude they tend to become (e.g., Holland et al., 2003). We posit that this effect should revolve more around attitude clarity than attitude correctness. Indeed, repeatedly expressing the same attitude should facilitate the subjective sense that one knows what one's attitude really is, that this attitude is not changing from one moment to the next, and that this attitude will be accurately expressed again in the future. Repeated expression should be less likely to affect perceived attitude correctness, however, as mere expression does little to boost the apparent justification for or validity of a position.

Thus, we predicted that a repeated expression manipulation would affect attitude clarity.

At first glance, attitude clarity might be viewed as a proxy for attitude accessibility (Fazio, 1995) or as the inverse of attitudinal ambivalence (Kaplan, 1972; Priester & Petty, 1996; Thompson, Zanna, & Griffin, 1995). We see clarity as related to but also distinct from these constructs. Consider accessibility. It is appealing to predict considerable overlap between attitude clarity and accessibility; the more quickly one's attitude comes to mind, the more clarity one should feel with respect to that attitude. And indeed, we expect there to be a relation between these constructs. That is, we expect accessibility to be a partial contributor to attitude clarity. However, we submit that clarity and accessibility are not entirely overlapping. In fact, it is possible that people sometimes feel as though they have greater clarity after they have had considerable time to think about and formulate their attitudes, which could manifest as longer response latencies (i.e., reduced accessibility). Furthermore, although repeated expression manipulations have been shown to increase accessibility (e.g., Fazio, 1995; Holland et al., 2003), their effect on clarity might occur through more metacognitive reasoning—for example, the perception that one has reliably reported the same attitude on a series of scales. In short, although we expect there to be an association between clarity and accessibility, we see these constructs as conceptually distinct.

We also view clarity as being distinct from attitudinal ambivalence. After all, one may feel conflicted toward an object but be subjectively sure that a conflicted attitude represents what one really thinks about the object or even that ambivalence is warranted given the available information about the object (see also Krosnick et al., 1993). Having strong ambivalence toward chocolate (e.g., liking its taste but hating its calories), for instance, would not preclude having high attitude clarity. One may be very sure that one's attitude toward chocolate is ambivalent and that it is going to remain ambivalent! We examine the relationships between accessibility, ambivalence, clarity, and correctness in this article.

Overview

In four experiments, we tested the utility of differentiating between attitude correctness and attitude clarity. Across experiments, we used different approaches to provide converging evidence of the distinct nature of these concepts. In Experiment 1, we generated several self-report items for each construct and conducted factor analyses to statistically determine the extent to which the items composed a single attitude certainty factor or distinct clarity and correctness factors. In Experiments 2 and 3, we used repeated expression and consensus feedback paradigms, respectively, to examine the potentially unique antecedents of attitude clarity and attitude correctness. In Experiment 4, we tested the effects of repeated expression and consensus feedback on attitude change in response to a counterattitudinal persuasive attack. We predicted that both repeated expression and consensus feedback would confer increased resistance to this attack but that these effects would be mediated differentially. In particular, we expected clarity to mediate the repeated expression effect on change, and we expected correctness to mediate the consensus effect on change. This overall pattern of findings, we argue, would attest to the

importance of distinguishing between attitude clarity and attitude correctness.

Experiment 1

The first experiment was designed to determine whether attitude clarity and attitude correctness could be statistically differentiated. To examine this issue, we generated a list of approximately 20 statements that probed either the extent to which one knew what one's attitude was (attitude clarity) or the extent to which one believed one's attitude was correct (attitude correctness). We then selected seven items (displayed in the Appendix) from this list with the intention of reducing the redundancy and ambiguity between and within items. Responses to these items were submitted to exploratory factor analyses.

Method

Participants and Procedure

Two samples, one consisting of 124 Indiana University undergraduates (Sample 1) and one consisting of 76 Ohio State University undergraduates (Sample 2), participated in exchange for partial course credit.

Sample 1. Upon arrival, participants in Sample 1 were greeted by a laboratory assistant who gave them a brief introduction to the experiment and escorted them to a cubicle equipped with a personal computer. All experimental materials, in this and subsequent experiments, were presented using MediaLab Research Software (Jarvis, 2004). The experiment was described as a study of social perception. At the outset of the session, participants were asked to report their attitudes toward capital punishment on a 9-point scale anchored at *against* (1) and *in favor* (9). Following the attitude measure, participants completed seven attitude clarity and correctness items (see the Appendix), each followed by a 9-point scale with anchors matched to the item wording (e.g., "How certain are you that you know what your true attitude on this topic really is?" 1 = *not certain at all*; 9 = *very certain*). All certainty items were presented in random order.

Sample 2. Participants in Sample 2 underwent the exact same procedure, except that they also completed a measure of global attitude certainty adapted from past research (e.g., Fazio & Zanna, 1978; Tormala & Petty, 2002). Specifically, these participants were asked to report how certain they were of their attitudes toward capital punishment. Responses were provided on a 9-point scale anchored at *not certain at all* (1) and *extremely certain* (9). This item appeared after the attitude item and before the clarity and correctness items.

Results

Data from each sample were submitted to exploratory factor analyses testing both one- and two-factor solutions using CEFA software (Browne, Cudeck, Tateneni, & Mels, 1998). We conducted oblique varimax rotations, which allowed factors in the two-factor solution to be correlated, and we evaluated the feasibility of the solutions in terms of factor loadings, tests of close and perfect fit, and a standard fit index (i.e., the root-mean-square error of approximation, or RMSEA; see Fabrigar, Wegener, MacCallum, & Strahan, 1999).

Sample 1

For Sample 1, the one-factor solution revealed an average factor loading of .92 for the clarity items but only .63 for the correctness items. The RMSEA for the one-factor solution was .27 (90%

confidence interval [CI] = .23, .31), indicating an unacceptable level of fit (see MacCallum, Browne, & Sugawara, 1996). Further analysis of the RMSEAs revealed that both the perfect fit (RMSEA = .00) and close fit (RMSEA < .05) hypotheses were rejected ($ps < .001$). In short, the one-factor solution did not provide acceptable fit. A two-factor solution for Sample 1 revealed that although the factors were correlated ($r = .55, p < .01$), each of the clarity items loaded strongly on the first factor, whereas each of the correctness items loaded strongly on the second factor (see Table 1). Furthermore, the clarity and correctness items demonstrated high internal consistency ($\alpha s = .93$ and $.84$, respectively). This solution provided an acceptable level of fit (RMSEA = .09; 90% CI = .00, .19), and although the perfect fit hypothesis was rejected ($p = .05$), the close fit hypothesis was not ($p = .14$).

Sample 2

Following these initial analyses, we evaluated the items once again using Sample 2. The results were consistent with our initial analysis in suggesting that a one-factor solution performed poorly. The clarity items reached an average factor loading of .94, but the correctness items had an average factor loading of only .46. Moreover, the RMSEA for the one-factor solution was again unacceptable (RMSEA = .27; 90% CI = .22, .33), and the perfect fit and close fit hypotheses were rejected ($ps < .001$). For the two-factor solution, fit was improved. Again, although the factors were correlated ($r = .44, p < .001$), each of the clarity items loaded strongly on the first factor, whereas each of the correctness items loaded strongly on the second factor (see Table 1). The clarity and correctness items again showed high internal consistency ($\alpha s = .97$ and $.82$, respectively). The two-factor solution yielded acceptable fit (RMSEA = .08; 90% CI = .00, .17), and neither the perfect fit ($p = .16$) nor the close fit ($p = .27$) hypothesis was rejected.

Finally, we also examined the manner in which attitude clarity and attitude correctness mapped onto global attitude certainty in Sample 2. As expected, both clarity ($r = .82, p < .001$) and correctness ($r = .58, p < .001$) significantly predicted attitude certainty. In fact, when we submitted attitude certainty to a simultaneous regression analysis with clarity and correctness as the

Table 1
Factor Loadings of Attitude Clarity and Attitude Correctness Items for Two Samples (Experiment 1)

Item	Factor loadings			
	Sample 1		Sample 2	
	1	2	1	2
Clarity 1	.90	.13	.94	.06
Clarity 2	.69	.29	.78	.22
Clarity 3	.75	.26	.85	.22
Clarity 4	.88	.05	.89	.11
Correctness 1	.22	.75	.11	.84
Correctness 2	-.06	.75	.00	.59
Correctness 3	.01	.91	-.07	.91

Note. Sample 1: Indiana University, $N = 124$; Sample 2: Ohio State University, $N = 76$.

predictors, both clarity ($\beta = .71, p < .001$) and correctness ($\beta = .21, p < .008$) remained significant predictors. These relations held even after we controlled for attitude extremity, which was correlated with global certainty ($r = .60, p < .001$), attitude clarity ($r = .54, p < .001$), and attitude correctness ($r = .46, p < .001$).

Discussion

In summary, two independent exploratory factor analyses converged in suggesting that a one-factor solution was not an appropriate interpretation of the data. Both analyses suggested that a two-factor solution provided better fit, lending initial support to the distinction between attitude correctness and attitude clarity. Also important, the Sample 2 data included a measure of global attitude certainty, and we found that both clarity and correctness independently contributed to general feelings of certainty. Thus, Experiment 1 suggested that clarity and correctness can be measured separately and statistically differentiated in their contributions to attitude certainty.

Experiment 2

In Experiment 2, we turned to examine the antecedents of clarity and correctness. Understanding the antecedents would further delineate the constructs by providing insight into how each form of certainty develops. We began by exploring the impact of a repeated expression manipulation on both clarity and correctness. In this experiment, participants considered a social issue and reported their attitude toward the issue once or multiple times. As noted already, we expected the attitude expression manipulation to primarily affect attitude clarity. The logic behind this prediction was that repeatedly expressing an attitude would activate that attitude and make it clearer in one's mind. The repeated expression manipulation was not expected to give people reason to view their attitude as any more correct or justified, but to the extent that attitude correctness and attitude clarity are significantly correlated, there could be a secondary effect of expression on correctness. If true, this effect would be expected to disappear upon controlling for attitude clarity.

Method

Participants

Fifty-six Indiana University undergraduates participated in exchange for partial course credit. Participants were randomly assigned to one of two attitude expression conditions (single vs. repeated). All sessions were conducted on computer.

Procedure

At the outset of the experiment, participants were led to believe that we were interested in learning about college students' attitudes on a variety of social issues. To this end, participants were told that they would be asked to report their opinions using several different assessment methods. The target issue for all participants was gun control.

After receiving a basic introduction, participants were randomly assigned to expression conditions (single vs. repeated) with a manipulation adapted from Powell and Fazio (1984). Participants in the repeated expression condition were asked to report their attitudes toward gun control on six semantic differential items ranging from 1 to 9 with the following anchors:

bad–good, unfavorable–favorable, negative–positive, harmful–beneficial, foolish–wise, and against–in favor. Participants in the single expression condition did not complete these scales.

Following the attitude scales, or the introduction to the experiment in the single expression condition, all participants received instructions that their attitudes toward various issues would be assessed with a speeded response measure. Instructions explained that a series of issues would be presented in the center of the screen, one at a time, and participants were to indicate their attitude toward each issue as quickly as possible by hitting one key (/) if they had a negative attitude toward the issue (i.e., it was a "bad idea") and another key (Z) if they had a positive attitude toward the issue (i.e., it was a "good idea"). Participants were told to indicate their attitude as quickly as possible, but without sacrificing accuracy. All participants were encouraged to try their best not to make mistakes in reporting their attitudes.

On the next screen, participants were told that before they began the main task, they would be given practice trials. At this point, participants were instructed to place their left index finger on the Z key and their right index finger on the / key. The instructions were then repeated, and participants were reminded to indicate their attitudes as quickly and accurately as possible. Participants pressed the spacebar to continue and then received three practice trials. On consecutive screens, three issues (Iraq war, nuclear power, mandatory retirement) appeared and participants indicated whether they thought each idea was good or bad. To help participants remember the response-key mapping, on each of the trials "Z (good)" appeared in the lower left corner of the screen and "/" (bad)" appeared in the lower right corner of the screen.

Following the practice trials, a new screen appeared, informing participants that they would move on to the main task and briefly reminding them of the instructions. All participants then indicated their attitudes toward a series of issues, each appearing on a separate screen in the following order: free speech, gun control, welfare, taxes, affirmative action, capital punishment, and legalized abortion. The target issue of gun control was always presented second. At this point in the experiment, then, all participants had reported their attitudes toward gun control in the speeded response task. The only difference was that some participants (i.e., those in the repeated expression condition) had also reported their attitudes toward gun control on several semantic differential scales moments earlier.

Following the speeded response task, we assessed target attitude certainty using a single global item: "How certain are you of your attitude toward gun control?" (1 = *not certain at all*; 9 = *very certain*). In addition, participants completed the attitude clarity and attitude correctness items presented in the Appendix (framed in terms of gun control). The order of the clarity and correctness items was randomized. Responses to the clarity ($\alpha = .92$) and correctness ($\alpha = .85$) items had high internal consistency, so we averaged them to form composite indices of each.

Results

Attitude Clarity Versus Attitude Correctness

First, we submitted the attitude clarity and attitude correctness data to analysis. Because clarity and correctness were correlated ($r = .68, p < .001$), we conducted two sets of analyses. First, we submitted each index to a separate analysis of variance (ANOVA) and examined the raw means across conditions. Second, we submitted each index to an analysis of covariance (ANCOVA), treating the other index as a covariate and examining adjusted means across conditions. The ANOVAs revealed an effect of attitude expression on both clarity, $F(1, 54) = 9.44, p < .004$, and correctness, $F(1, 54) = 5.30, p < .03$. Participants reported greater clarity in the repeated ($M = 7.46$) rather than single ($M = 5.84$) expression condition and greater correctness in the repeated ($M =$

6.04) rather than single ($M = 4.75$) expression condition. Of importance, though, the ANCOVAs painted a different picture. When we controlled for correctness, participants still reported greater clarity in the repeated ($M_{\text{adjusted}} = 7.07$) rather than single ($M_{\text{adjusted}} = 6.23$) expression condition, $F(1, 53) = 3.87, p = .05$. Controlling for clarity, however, participants reported equivalent levels of correctness in the repeated ($M_{\text{adjusted}} = 5.49$) and single ($M_{\text{adjusted}} = 5.30$) expression conditions ($F < 1$).

Attitude Accessibility

Next, we analyzed response latencies from the gun control item in the speeded response task. Consistent with past research (e.g., Powell & Fazio, 1984), participants reported their attitudes more quickly in the repeated ($M = 1.47$ s) rather than single ($M = 1.84$ s) expression condition, $F(1, 54) = 4.43, p < .05$. To assess whether the clarity effect was determined by or just a proxy for accessibility, we conducted a mediational analysis using the approach recommended by Baron and Kenny (1986). As established already, the attitude expression manipulation affected both response latencies and attitude clarity. Furthermore, response latencies predicted attitude clarity, $\beta = -.42, t(54) = -3.43, p = .001$. Clarity increased as response latencies decreased. When the attitude expression manipulation and response latencies were both included in a regression model predicting attitude clarity, both attitude expression, $\beta = .29, t(53) = 2.37, p < .03$, and response latencies, $\beta = -.34, t(53) = -2.78, p < .01$, were significant.

To conduct a formal test of mediation, we used the 95% CI approach of Shrout and Bolger (2002). This approach involves computing CIs around indirect effects (e.g., the effect of attitude expression on clarity through accessibility); mediation is indicated by CIs that do not contain zero (for SPSS code, see Preacher & Hayes, 2004). Results indicated a CI ranging from .03 to .96. Given that zero fell outside of the CI, attitude accessibility did play a mediating role in the clarity effect. Of importance, though, the accessibility and clarity measures were not redundant. When we controlled for accessibility, there remained a significant direct effect of attitude expression on clarity.

Global Attitude Certainty

Finally, we analyzed the global attitude certainty data. People were more certain of their attitudes in the repeated ($M = 7.18$) rather than single ($M = 5.68$) expression condition, $F(1, 54) = 6.34, p < .02$. To determine whether the attitude clarity effect was responsible for the effect of attitude expression on global certainty, we again conducted a series of regression analyses. These analyses revealed that attitude clarity predicted global certainty, $\beta = .81, t(54) = 10.31, p < .001$, and that when attitude expression and attitude clarity were entered into a regression model predicting global certainty, attitude clarity remained a significant predictor, $\beta = .81, t(53) = 9.37, p < .001$, but attitude expression did not, $\beta = .01, t(53) = 0.14, p > .89$. Thus, clarity mediated the effect of attitude expression on global certainty (95% CI = .49, 2.30). This outcome held even after we controlled for accessibility and attitude correctness.

Discussion

The results of Experiment 2 were consistent with our predictions. An attitude expression manipulation affected attitude clarity,

and this effect was partially but not completely explained by attitude accessibility. Thus, it appears that attitude accessibility did contribute to attitude clarity but that the expression manipulation had an additional effect on clarity that was not explained by accessibility. We submit that when people repeatedly express their attitude toward an issue or object, they may experience unique metacognitions that provide them with some assessment as to how surely they know their own attitude or how reliably they can express it. This clarity effect, in turn, affected global attitude certainty.

Of interest, when we examined raw means on the attitude correctness index, there was a significant effect of attitude expression. When we controlled for attitude clarity, this effect disappeared, suggesting that the effect on correctness was explained by the relation between clarity and correctness. In other words, the primary effect of the manipulation was on attitude clarity, but this effect also had implications for attitude correctness, which correlated with clarity. Perhaps the clearer people feel about their attitudes, the more correct they want those attitudes to be. As clarity increases, then, there may be a secondary effect on correctness, but this effect appears to occur downstream as a by-product of attitude clarity.

Experiment 3

In Experiment 3, we examined the effect of consensus information on attitude correctness and attitude clarity. As discussed already, there is a well-established link between consensus, or social support, and attitude certainty. The question of interest to us was whether this general association masks a more specific one between consensus and correctness. We hypothesized that information about the degree to which other individuals share one's attitude would primarily affect attitude correctness. Indeed, social support for one's attitude carries information pertaining to the perceived "social correctness" of that attitude, and it has long been established that people often look to the opinions of others to determine the correctness, or validity, of their own attitudes (e.g., Fazio, 1979; Festinger, 1954). Finding out that many people agree with one's position on a topic should not affect the extent to which one feels like one knows what one's position is, but as in Experiment 2 the correlation between correctness and clarity could create a secondary boost in clarity as correctness is elevated. If true, the clarity effect would be expected to disappear after correctness is controlled for.

Method

Participants

Forty-eight Indiana University undergraduates participated in exchange for partial course credit. The data of one participant were not used because of outlying scores (± 3 SD) on the primary dependent variables. Thus, we had a final sample of 47 participants for all analyses.

Procedure

Participants were led to believe their university was considering a new identification card policy. Participants were told that, if implemented, this policy would begin in 2 years and would require students to carry identification cards to enter any campus building. After learning about the

policy, participants were asked to report their attitudes toward it on a scale ranging from 1 (*negative*) to 9 (*positive*). Participants were then provided with consensus feedback. Specifically, following their attitude rating, all participants were reminded of their attitude score, and it was explained that the higher their score the more favorable their attitude was toward the identification card policy. Depending on their rating, participants were informed that they had a relatively favorable or unfavorable attitude toward requiring personal identification cards.¹

Participants were then randomly assigned to one of two conditions in which they were led to believe that most other students either agreed or disagreed with their attitude toward the identification card policy. All participants were given bogus feedback that a total of 2,106 students had responded to the attitude survey. In the *high consensus* condition, participants were then led to believe that 89.37% of these students had reported an attitude score in the same range as their own. In the *low consensus* condition, participants were led to believe that only 10.63% of the students surveyed reported an attitude score in the same range as their own.

Following the manipulation, we assessed global attitude certainty and then attitude clarity and correctness using the items from Experiment 2, but framed in terms of the identification card policy. The order of items was randomized for each participant. Clarity ($\alpha = .97$) and the correctness ($\alpha = .88$) items displayed high internal consistency, so they were averaged to form a composite index of each.

Results

Attitudes

On average, participants held relatively negative attitudes toward the identification card policy ($M = 4.25$, $SD = 2.23$). As expected given that the manipulation followed the attitude measure, attitudes toward the policy did not differ across consensus conditions ($F < 1$).

Attitude Clarity Versus Attitude Correctness

Most important, we examined the effect of consensus feedback on attitude correctness versus attitude clarity. Because clarity and correctness were correlated ($r = .70$, $p < .001$), we conducted two sets of analyses, using the same approach as in Experiment 2. The ANOVAs revealed a significant effect of consensus feedback on both correctness, $F(1, 45) = 8.74$, $p < .01$, and clarity, $F(1, 45) = 3.97$, $p = .05$. Participants reported greater correctness in the high ($M = 7.26$) rather than low ($M = 6.01$) consensus condition and greater clarity in the high ($M = 7.76$) rather than low ($M = 6.92$) consensus condition. As in Experiment 2, however, the ANCOVAs revealed a different pattern. Controlling for clarity, participants still reported greater correctness in the high ($M_{\text{adjusted}} = 6.99$) rather than low ($M_{\text{adjusted}} = 6.30$) consensus condition, $F(1, 44) = 4.30$, $p < .05$. When we controlled for correctness, participants reported equivalent levels of clarity in the high ($M_{\text{adjusted}} = 7.36$) and low ($M_{\text{adjusted}} = 7.34$) consensus conditions ($F < 1$).²

Global Attitude Certainty

Finally, although participants tended to be more globally certain of their attitudes when they perceived that others agreed ($M = 7.13$) rather than disagreed ($M = 6.35$) with them, this effect was not statistically significant, $F(1, 45) = 1.65$, $p < .21$.

Discussion

The results of this experiment were consistent with the notion that consensus information affects perceived attitude correctness. High agreement produced greater perceived correctness than did low agreement. As expected, then, social consensus information affects the extent to which people perceive their attitudes to have validity. Of course, it is important to highlight that before we controlled for correctness, the consensus manipulation also had an effect on attitude clarity. This result parallels the findings of Experiment 2, in which repeated expression affected correctness prior to clarity being controlled for. Consonant with the idea that the correctness effect was primary, however, controlling for correctness removed the effect of consensus on clarity, whereas controlling for clarity left the effect of consensus on correctness intact. Thus, the effect of consensus on clarity stemmed from the relation between clarity and correctness. It could be that people want to feel certain that they really do hold the attitudes they perceive to be correct. Consequently, as correctness increases so too does reported clarity, though the clarity effect appears to be secondary, taking place downstream as a by-product of correctness.

Experiment 4

In Experiment 4, we sought to examine the extent to which both attitude clarity and attitude correctness are consequential. As reviewed earlier, attitude certainty has a well-documented association with an attitude's ability to resist persuasion, remain stable, and predict behavior. High (compared with low) certainty attitudes are more persistent over time and more resistant to persuasion (e.g., Bassili, 1996) as well as more predictive of behavior (e.g., Fazio & Zanna, 1978). Any consideration of new forms of attitude certainty should demonstrate that these forms of certainty are also consequential. In Experiment 4, we explored whether clarity and correctness affected an attitude's ability to resist persuasive attack.

In short, Experiment 4 used a combination of the attitude expression and consensus paradigms to experimentally manipulate clarity and correctness. Following these manipulations, participants were presented with a persuasive message designed to attack their attitude. We assessed participants' resistance to this message by measuring attitudes both before and after they received it. If attitude clarity and attitude correctness are both meaningful and consequential, we hypothesized that they would independently predict resistance to persuasion. That is, we predicted that resistance to a counterattitudinal message would increase as attitude clarity and attitude correctness increased. The greater one's clarity,

¹ To simplify our experimental design, we told participants who reported an attitude at the midpoint of the attitude scale (5) that their attitude was relatively unfavorable. A reanalysis of the data removing these participants did not change the results appreciably. In fact, the results were slightly improved without these participants.

² Given the correlation between attitude extremity and certainty in past research (e.g., Krosnick et al., 1993), extremity was considered as an additional covariate in these analyses. Controlling for extremity did not change the outcome. In fact, we controlled for extremity in Experiment 4 as well and it did not alter any of the results. Thus, we do not address this issue further.

the more one might feel that one already knows what one thinks. The greater one's perceived correctness, the more one might feel that one already has the best position on a topic. Both of these perceptions, we hypothesized, would reduce the impact of counterattitudinal persuasive appeals.

A secondary objective of Experiment 4 was to further disentangle attitude clarity and attitude correctness from other attitude strength constructs. As noted earlier, clarity (as well as correctness) might be seen as overlapping to some degree with subjective attitudinal ambivalence. We see attitude clarity and attitude correctness as distinct from ambivalence, and we sought to provide empirical evidence for this assumption in the current experiment.

Method

Participants and Design

Ninety-four Indiana University undergraduates, prescreened to have negative attitudes toward the identification card policy used in Experiment 3, participated in exchange for partial course credit. Participants were randomly assigned to conditions in a 2 (attitude expression: single or repeated) \times 2 (consensus: high or low) between-participants factorial design. The data of 5 participants were not used because these participants failed to follow experimental instructions, resulting in a final sample of 89 participants for all analyses.

Procedure

At the outset of the experiment, it was explained to participants that a university committee was investigating student attitudes toward several campus issues, one of which was the identification card policy. Participants were then randomly assigned to one of two expression conditions (single vs. repeated). After learning about the new policy, participants in the repeated expression condition reported their attitudes toward the issue on five semantic differential items ranging from 1 to 9 with the following anchors (listed in the order presented): *bad-good*, *unfavorable-favorable*, *harmful-beneficial*, *foolish-wise*, and *negative-positive*. In the single expression condition, participants were asked to respond only to the final attitude item (*negative-positive*). This procedure, adapted from Holland et al. (2003), was modified slightly from the procedure of Experiment 2 to enable a test of attitude change. That is, we needed participants in both expression conditions to report their attitudes on a continuous measure to compute attitude change following the persuasive attack. To control for the content of the attitude item across conditions, we submitted only the *negative-positive* item to analysis.

The consensus manipulation, which always followed attitude expression, was identical to that described in Experiment 3. Participants were presented with information that led them to believe that most other students agreed or disagreed with their attitude toward the policy.

Attitude Certainty, Clarity, and Correctness

After receiving attitude consensus information, participants completed the measure of global attitude certainty used in Experiment 3. Following the global certainty index, participants were asked to report attitude clarity and attitude correctness. As in the earlier studies, these items were presented in random order. Clarity and correctness items again had high internal consistency (α s = .97 and .86, respectively), so they were averaged to form composite indices.

Subjective Attitude Ambivalence

Next, we assessed subjective ambivalence using items modified from Priester and Petty (1996). Specifically, participants reported the extent to

which they were undecided, the extent to which they felt conflicted, the extent to which they felt ambivalent, and the extent to which they had mixed feelings about the identification card policy. Responses to these items ($\alpha = .72$) were provided on scales ranging from 1 to 9 and scored such that higher numbers indicated greater subjective ambivalence. These items were combined to form a composite index.

Counterattitudinal Persuasive Message

Finally, participants were asked to read a persuasive message about the identification card policy that was ostensibly written by a representative of an Indiana University committee investigating the issue. The message, designed to be counterattitudinal and highly relevant (Petty & Cacioppo, 1986), contained several moderately strong arguments in favor of the policy. For example, it argued that the policy would enhance student safety and justifiably limit access to university resources by nonuniversity individuals. Following this message, participants once again reported attitudes on the *negative-positive* semantic differential.

Results

Attitude Clarity

We first submitted attitude clarity to a 2 \times 2 ANOVA with attitude expression and consensus as the independent variables. This analysis uncovered a main effect of attitude expression, $F(1, 85) = 5.19, p < .03$. Clarity was greater in the repeated ($M = 7.81$) rather than single ($M = 7.11$) expression condition. There was no main effect for consensus, $F(1, 85) = 2.10, p > .15$, and no interaction ($F < 1$). Because clarity was significantly correlated with correctness ($r = .54, p < .001$), we reanalyzed the clarity data controlling for correctness. Again, there was only a main effect for expression, $F(1, 84) = 8.11, p < .01$. Clarity was higher in the repeated ($M_{\text{adjusted}} = 7.82$) rather than single ($M_{\text{adjusted}} = 7.10$) expression condition.

Attitude Correctness

We next submitted the correctness data to the same 2 \times 2 ANOVA. This analysis revealed a main effect for consensus, $F(1, 85) = 9.06, p < .01$, such that participants reported greater correctness in the high ($M = 6.75$) rather than low ($M = 5.72$) consensus condition. Correctness was not affected by the attitude expression manipulation ($F < 1$) or by the interaction, $F(1, 85) = 1.47, p > .22$. To control for the correlation between correctness and clarity, we reanalyzed the correctness data treating clarity as a covariate. This analysis also revealed only a main effect for consensus, $F(1, 84) = 6.79, p < .02$, such that correctness was greater in the high ($M_{\text{adjusted}} = 6.60$) rather than low ($M_{\text{adjusted}} = 5.85$) consensus condition.

Global Attitude Certainty

Analysis of the global certainty data revealed greater certainty in the high ($M = 7.55$) rather than low ($M = 6.81$) consensus conditions, $F(1, 85) = 4.07, p < .05$. Participants also tended to report more global certainty in the repeated ($M = 7.43$) rather than single ($M = 6.89$) expression condition, but this effect did not reach significance, $F(1, 85) = 2.16, p < .15$. There was no interaction ($F < 1$). To determine whether attitude correctness mediated the significant effect of consensus on global certainty, we

conducted a series of additional analyses. We found that attitude correctness predicted global certainty, $\beta = .54$, $t(87) = 6.02$, $p < .001$, and that when both consensus and attitude correctness were entered into a regression model predicting global certainty, attitude correctness remained a significant predictor, $\beta = .53$, $t(86) = 5.54$, $p < .001$, but consensus did not, $\beta = .05$, $t(86) = 0.54$, $p > .59$. Thus, attitude correctness mediated the effect of consensus on global certainty (95% CI = .19, 1.02; see Shrout & Bolger, 2002).

Subjective Attitude Ambivalence

Subjective ambivalence was correlated with both attitude clarity ($r = -.47$, $p < .001$) and attitude correctness ($r = -.49$, $p < .001$). In general, ambivalence increased as clarity and correctness decreased. A 2×2 ANOVA on subjective ambivalence, however, failed to reveal any significant effects ($F_s < 1.04$, *ns*). Nevertheless, given the importance of distinguishing clarity and correctness from ambivalence, we reanalyzed the clarity and correctness data controlling for ambivalence. None of the effects were altered in any way.

Attitudes and Attitude Change

The primary objective of this experiment was to examine attitudes and attitude change. To begin with, we found no differences in premessage attitudes across conditions ($F_s < 1.80$, *ns*).³ Next, we submitted attitudes to a 2 (attitude expression) \times 2 (consensus) \times 2 (time: premessage vs. postmessage) mixed ANOVA with time as a within-participant variable. In this analysis, a manipulation's effect on attitude change would be indicated by an interaction between that manipulation and time on attitudes. In general, the message changed people's attitudes, as evinced by a significant difference between premessage ($M = 2.33$) and postmessage ($M = 3.19$) attitudes, $F(1, 85) = 17.67$, $p < .001$. Of greater importance, we found that both attitude expression and consensus affected attitude change. First, there was a significant Expression \times Time interaction, $F(1, 85) = 4.03$, $p < .05$, such that attitudes changed more in the single ($M_{\text{premessage}} = 2.22$, $M_{\text{postmessage}} = 3.49$), $F(1, 85) = 19.48$, $p < .001$, rather than repeated ($M_{\text{premessage}} = 2.43$, $M_{\text{postmessage}} = 2.89$), $F(1, 85) = 2.39$, $p > .12$, expression condition. There was also a significant Consensus \times Time interaction, $F(1, 85) = 8.26$, $p < .01$, such that attitudes changed more in the low ($M_{\text{premessage}} = 2.17$, $M_{\text{postmessage}} = 3.57$), $F(1, 85) = 26.53$, $p < .001$, rather than high ($M_{\text{premessage}} = 2.50$, $M_{\text{postmessage}} = 2.76$; $F < 1$) consensus condition. No other effects emerged from this analysis ($F_s < 1$).

Mediation

Finally, we examined the extent to which clarity and correctness independently mediated the effects of attitude expression and consensus on attitude change. For this test, we dummy coded the attitude expression and consensus manipulations (single expression–low consensus = 0, repeated expression–high consensus = 1) and submitted postmessage attitudes to a series of regression analyses controlling for premessage attitudes. This test enabled us to determine the extent to which clarity and correctness made independent contributions to resistance. In the first analysis, we regressed postmessage attitudes onto the attitude expression

and consensus manipulations, controlling for premessage attitudes. Postmessage attitudes were predicted by premessage attitudes, $\beta = .42$, $t(85) = 4.33$, $p < .001$; consensus, $\beta = -.26$, $t(85) = -2.67$, $p < .01$; and attitude expression, $\beta = -.18$, $t(85) = -1.92$, $p < .06$. In a second analysis, we regressed postmessage attitudes onto the two manipulations, attitude clarity and attitude correctness, controlling for premessage attitudes. In this case, postmessage attitudes were predicted by premessage attitudes, $\beta = .28$, $t(83) = 3.55$, $p < .001$; attitude clarity, $\beta = -.47$, $t(83) = -5.00$, $p < .001$; and attitude correctness, $\beta = -.19$, $t(83) = -2.00$, $p < .05$, but not by consensus feedback, $\beta = -.11$, $t(83) = -1.35$, $p > .18$, or attitude expression, $\beta = -.06$, $t(83) = -0.79$, $p = .43$. This outcome was consistent with the notion that attitude clarity and attitude correctness mediated the effects of attitude expression and consensus on attitude change.

To conduct a formal test of mediation, we again used the 95% CI approach of Shrout and Bolger (2002). The 95% CI for the indirect effect from attitude expression to postmessage attitudes through clarity (controlling for consensus, correctness, and premessage attitudes) ranged from $-.97$ to $-.12$. The 95% CI for the indirect effect from consensus to postmessage attitudes through correctness (controlling for attitude expression, clarity, and premessage attitudes) ranged from $-.61$ to $-.02$. Neither of these CIs included zero, indicating successful mediation for each effect.

Discussion

In Experiment 4 we accomplished three major objectives. First, we replicated the earlier findings with respect to differential antecedents. For example, we found that repeated attitude expression boosted attitude clarity but not attitude correctness. By contrast, consensus information boosted attitude correctness but not attitude clarity. Although we have examined just two antecedents in the current research, the findings are consistent with the notion that perceived clarity and correctness can stem from unique sources. Second, we found that clarity and correctness were not redundant with subjective ambivalence. Clarity and correctness were significantly correlated with ambivalence, but ambivalence was not influenced by the manipulations. In addition, effects on attitude clarity and attitude correctness, as a function of repeated expression and consensus, remained significant even when we controlled for ambivalence. Finally, Experiment 4 indicated that clarity and correctness are both consequential. As reviewed earlier, attitude certainty has well-documented implications for resistance to persuasion (e.g., Bassili, 1996; Tormala & Petty, 2002; Wu & Shaffer, 1987). In Experiment 4 we showed that clarity and correctness have these implications as well. As clarity and correctness increased, resistance to a subsequent persuasive attack also in-

³ Past research has shown that repeatedly expressing an attitude can produce an increase in attitude extremity (see Judd & Brauer, 1995). We did not replicate this effect in the present experiment. We suspect that the lack of replication might be because we changed the actual attitude item each time the attitude was expressed in the repeated expression condition. Perhaps using the same exact item repeatedly would have facilitated an extremity effect. In any case, this issue is not critical to our primary interest in distinguishing attitude clarity and attitude correctness, so we do not address it further.

creased. Thus, we demonstrated that clarity and correctness independently contribute to resistance to persuasive attacks.

General Discussion

Four experiments provided evidence consistent with our primary hypotheses. In Experiment 1, factor analyses highlighted two correlated factors that simultaneously predicted global attitude certainty. These factors mapped onto the proposed distinction between attitude clarity and attitude correctness. Experiments 2 and 3 tested antecedents of these constructs. As predicted, repeated expression primarily affected attitude clarity, whereas consensus feedback primarily affected attitude correctness. Experiment 2 also differentiated attitude clarity from attitude accessibility, showing that they were related but not redundant constructs. Finally, Experiment 4 differentiated clarity and correctness from subjective ambivalence and indicated that clarity and correctness independently mediated the effects of repeated expression and consensus on attitude change following a persuasive attack. Across experiments, then, we demonstrated that attitude clarity and attitude correctness are separable in terms of their antecedents and consequences. In so doing, we revealed important new layers of the attitude certainty construct.

It is worth highlighting that in the present experiments global attitude certainty did not fare as well as attitude clarity and attitude correctness. For example, we manipulated attitude expression in Experiments 2 and 4. It had a significant effect on clarity in both experiments, but its effect on global certainty reached significance only in Experiment 2. Similarly, we varied perceived consensus in Experiments 3 and 4. It had a significant effect on correctness in both experiments, but its effect on global certainty reached significance only in Experiment 4. In general, then, the effects of our manipulations on clarity and correctness were more consistent than the effects of these manipulations on global certainty. Furthermore, when the global certainty effect did reach significance, it was mediated by the more specific certainty proposed to be affected by the manipulation (clarity in Experiment 2 and correctness in Experiment 4). We suspect that clarity and correctness outperformed, and contributed to, global certainty because they offered more precise assessments of the *type* of certainty under influence.

It could be argued that global certainty was not as consistently affected by our manipulations because it was measured with a less reliable single-item indicator. Clarity and correctness, which were affected, were assessed with traditionally more reliable multi-item indicators. Although it is difficult to interpret the inconsistency of the global certainty effect, we do not believe it was a simple function of measurement (un)reliability. To begin with, the attitude certainty item we used was one that has been used successfully in a great deal of past research. Also, clarity and correctness were both assessed with multiple items yet they showed differential sensitivity to the manipulations. Most important, we reexamined the effects of our manipulations on each individual clarity and correctness item, and these analyses produced the same pattern of results as the analyses using composite indices. Thus, there is no evidence to support the notion that simple measurement reliability affected the results. Rather, we submit that the clarity and correctness measures tapped meaningfully different *concepts* that mapped more neatly onto the manipulations.

To be clear, however, our position is not that the general attitude certainty construct lacks utility or that clarity and correctness will prove more useful in all circumstances. Indeed, researchers (including us) have successfully measured global attitude certainty in an extensive body of research, and this construct has proven to be very influential. Moreover, there likely are many situations in which clarity and correctness are not easily separable. That is, not all certainty manipulations will differ in their effects on these measures. Thus, we do not endorse abandoning global attitude certainty. We do, however, suggest that by considering the distinct components of clarity and correctness, we might better understand the nature of attitude certainty and its causes and effects in some situations.

Other Antecedents

Future research should examine other factors that may independently contribute to attitude clarity versus correctness. There are a number of possibilities. The recent surge in implicit social cognition research (see Fazio & Olson, 2003, for a review) may point to one. We propose that implicit–explicit attitude discrepancies (e.g., Petty, Tormala, Briñol, & Jarvis, 2006; Wilson, Lindsey, & Schooler, 2000) might contribute to clarity but not correctness. Although Petty et al. (2006) found that such discrepancies create states of tension that exist below consciousness, it could be that under some conditions this tension can emerge into consciousness and affect clarity. For example, if one detects that one reported different attitudes on the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998) and a self-report measure, attitude clarity might suffer. The logic behind this effect would parallel the logic behind the repeated expression effect. That is, people should feel greater clarity to the extent that they perceive that they have consistently reported the same attitude, regardless of the type of measure that has been used.

Other factors might be more likely to affect attitude correctness. Recent research on resistance to persuasion, for instance, suggests that when people perceive that they have successfully counterargued persuasive attacks, particularly strong attacks or attacks from experts, they become more certain of their attitudes (Tormala & Petty, 2002, 2004a, 2004b). Similarly, when people try but fail to counterargue persuasive attacks, they become highly certain of their newly changed attitudes (Rucker & Petty, 2004). We submit that these effects might revolve around changes in attitude correctness. Indeed, counterarguing strong arguments or experts presumably implies that one already has the best or most valid arguments on a topic. Likewise, trying but failing to counterargue a strong message might imply that one has been convinced by the best or most valid arguments. These perceptions might contribute primarily to correctness.

Of course, some variables are likely to influence both clarity and correctness. Direct versus indirect experience might be one such variable. As noted earlier, direct (compared with indirect) experience with an attitude object has been found to increase global attitude certainty (e.g., Fazio & Zanna, 1978). We posit that direct experience might affect both clarity and correctness. Consider a situation in which someone meets another person for the first time and has a pleasant conversation with that person. This conversation may lead to a positive attitude that is very clear in one's mind (e.g., "Based on my conversation with her, I definitely like Lina.") and

perceived to be correct (e.g., “I know she’s nice, because I talked to her myself.”). This notion is speculative, but it may prove useful for future research.

Other Consequences

In Experiment 4, we found that clarity and correctness played independent mediating roles in persuasion versus resistance to a persuasive attack. Establishing the effect of each construct on attitude change was an important aspect of this research, just as it has been an important aspect of other attitude strength research. Of interest, though, was that although clarity and correctness appear to determine an attitude’s resistance outcomes, we have yet to examine what implications they have for resistance processes. People use a variety of strategies to defend their attitudes against attack, including counterarguing, attitude bolstering, and source derogation, among others (see Petty, Tormala, & Rucker, 2004; Wegener, Petty, Smoak, & Fabrigar, 2004). It could be that both clarity and correctness foster resistance, but through different mechanisms. For instance, perhaps correctness facilitates counterarguing, whereas clarity facilitates attitude bolstering.

Also important, clarity and correctness might sometimes have different consequences altogether. For example, past research has shown that certainty affects information processing. The less certain one is, the more one processes (e.g., Chaiken, Liberman, & Eagly, 1989; Tiedens & Linton, 2001). It could be that the clarity–correctness distinction has implications for this phenomenon. Perhaps low clarity motivates people to process, but only when they think processing will restore clarity (e.g., when a message is framed in terms of gaining self-knowledge; see Briñol, Petty, & Wheeler, 2006). When correctness is low, people may process more only when they think processing will lead to the correct judgment (e.g., when a message is framed in terms of weighing all the evidence or revealing others’ opinions).

Past research has also shown that certainty has implications for attitude–behavior correspondence. The more certain one is of an attitude, the greater impact that attitude exerts on behavior (e.g., Bizer et al., 2006). It could be that the clarity–correctness distinction permits more fine-tuned predictions of this relationship. For example, perhaps high clarity attitudes are predictive of behavior in private, but not necessarily in public, where one would be more concerned about the correctness, or appropriateness, of one’s behavior. Conversely, perhaps high correctness attitudes are more predictive of behavior in public, but not necessarily in private, where one is less concerned with what might be correct or appropriate. According to this logic, people who are high in both clarity and correctness should show high attitude–behavior correspondence irrespective of the public or private nature of the behavior in question.

Further Deconstructions

Although our focus has been on unpacking attitude certainty, it is also possible that both attitude correctness and attitude clarity could be further deconstructed. Consider attitude correctness. Our manipulation of correctness targeted people’s perceptions of the extent to which others hold the same attitude as they do. That is, there was an emphasis on normative descriptiveness in the correctness manipulation. The items we used to assess correctness

focused more on people’s perceptions of the extent to which others should hold the same attitude as they do. The emphasis in this case was more on normative prescription. Although normative prescription and description are different (e.g., Cialdini, Reno, & Kallgren, 1990), we assume the two sometimes go hand in hand. Perhaps the more people think others agree with them, the more correct they believe they are, and the more they think others should agree with them. The notion that people seek to hold and maintain correct, or valid, attitudes is deeply embedded in theories of attitudes and persuasion (e.g., Chaiken et al., 1989; Petty & Cacioppo, 1986), and social comparison is widely established as one means of securing the knowledge that one’s attitude is correct, or valid (e.g., Fazio, 1979; Festinger, 1954). In theory, though, prescriptive and descriptive aspects of attitude correctness could be separated and shown to have distinct antecedents or consequences in some instances. When people perceive their attitudes to be more correct after resisting persuasion (Tormala & Petty, 2002), for instance, there is little reason to suspect that they would also suddenly think many people share their attitude. They might think other people should share their attitude but not necessarily that they do.

Ultimately, the key determinant of overlap between prescriptive and descriptive correctness might be something as simple as the temporal precedence of one effect over the other. When descriptive correctness is increased (“I just found out people agree with me.”), prescriptive correctness might also increase (“Well, they should!”). When prescriptive correctness is increased (“People should really think about this issue the way I do.”), on the other hand, descriptive correctness seems less likely to receive a similar boost (“I wish they did.”). This analysis is speculative, of course, but we see it as a possible direction for future research. Similarly, considering potentially distinct aspects of attitude clarity—for example, knowing what one’s true attitude really is versus having other people know what one’s true attitude really is—could also prove useful in future study.

Conclusion

The present research examined a two-component model of attitude certainty, consisting of attitude clarity and attitude correctness. Factor analyses provided evidence that these constructs could be measured separately, and subsequent studies established differential antecedents of these components and independent contributions to predicting resistance to persuasive messages. Thus, these studies highlight the multiple layers of attitude certainty. Our hope is that the present research will expand our understanding not only of attitude certainty but also of attitude strength more generally. Indeed, just as certainty can be broken down into multiple components, other attitude strength variables (e.g., attitude ambivalence, attitude-relevant knowledge) might be divisible as well. Exploring this possibility could shed new light on the complex and dynamic nature of attitude strength.

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Appendix

Attitude Clarity and Attitude Correctness Items

Attitude Clarity

1. How certain are you that you know what your true attitude on this topic really is?
2. How certain are you that the attitude you expressed toward capital punishment really reflects your true thoughts and feelings?
3. To what extent is your true attitude toward capital punishment clear in your mind?
4. How certain are you that the attitude you just expressed toward capital punishment is really the attitude you have?

Attitude Correctness

1. How certain are you that your attitude toward capital punishment is the correct attitude to have?
2. To what extent do you think other people should have the same attitude as you on this issue?
3. How certain are you that of all the possible attitudes one might have toward capital punishment, your attitude reflects the right way to think and feel about the issue?

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