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# The Role of Defensive Confidence in Preference for Proattitudinal Information: How Believing That One Is Strong Can Sometimes Be a Defensive Weakness

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*This series of studies identified individuals who chronically believe that they can successfully defend their attitudes from external attack and investigated the consequences of this individual difference for selective exposure to attitude-incongruent information and, ultimately, attitude change. Studies 1 and 2 validated a measure of defensive confidence as an individual difference that is unidimensional, distinct from other personality measures, reliable over a 2-week interval, and organized as a trait that generalizes across various personal and social issues. Studies 3 and 4 provided evidence that defensive confidence decreases preference for proattitudinal information, therefore inducing greater reception of counterattitudinal materials. Study 5 demonstrated that people who are high in defensive confidence are more likely to change their attitudes as a result of exposure to counterattitudinal information and examined the perceptions that mediate this important phenomenon.*

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**Keywords:** *attitude strength; resistance; personality; persuasion; selective exposure; confidence*

**H**istorical examples abound of people who strongly advocate and defend a given attitudinal position and then change this position, becoming “converted” to points of view that oppose the ones they initially held. We argue that one reason for such changes is the degree to which individuals perceive that they can defend their attitudes from attack and that, ironically, the very strength of this trait can make them vulnerable to attitude change (Albarracín, 2002). Presumably, people who are confident that their attitudes will survive future challenges are more willing to examine evidence that both supports and contradicts their attitudes. In contrast, people who doubt their defensive ability may pre-

fer proattitudinal information over materials that challenge their perspectives (see also Byrne, 1961; Olson & Zanna, 1982b; for related views in other domains, see Tesser, 2001). Although, in many ways, denial may be a relatively primitive defense mechanism, avoiding counterattitudinal information may preserve the attitudes of people who doubt their defensive abilities. In contrast, individuals who believe that they will effectively defend themselves may willingly receive counterattitudinal information that succeeds in changing their attitudes. Obviously, once exposed to counterattitudinal information, these same individuals may actually counterargue the information more effectively than people who doubt their ability to defend their positions. Yet, even when perceived defensive ability may accurately reflect actual ability, strong messages may exert some defeating effect on all recipients, a defeat that will simply be greater when people voluntarily come into contact with them.

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Two prior lines of research are particularly relevant for our work about the influence of perceived defensive ability (here termed *defensive confidence*) on selective exposure to counterattitudinal information. First, the seminal research by McGuire and Parageorgis (1961) suggests that exposing people to counterattitudinal information can make them more resistant to persuasion than would simply bolstering their attitudes with proattitudinal arguments. Our research considers the reverse possibility that feeling more or less able to resist counterattitudinal information would produce more exposure to it. For example, Wilson, Gilbert, and Wheatley (1998) hypothesized that people are more willing to expose themselves to supraliminal messages than to subliminal messages because they incorrectly believe that supraliminal messages are easier to resist. We argue that similar theories might apply to one's general ability to defend one's attitudes. Consequently, certain individuals may be more confident and therefore more highly predisposed to confront counterattitudinal information.

This article addresses three questions. First, we were interested in determining whether people vary in defensive confidence and, if so, in analyzing the origins and structure of defensive confidence as a differentiating individual trait. Because general demographic and personality variables are often inadequate for predicting attitude change (Eagly & Chaiken, 1993), it is important to understand stable individual differences that relate specifically to people's attitudes and their responses to persuasion. In addition, we investigated whether people who are high in defensive confidence are more open to receiving counterattitudinal information and therefore change their attitudes more than people who are low in defensive confidence and doubt their defensive abilities. Identifying the consequences of defensive confidence is critical for understanding attitude change in different populations, particularly if the feeling that one is capable of defending oneself has the ironic effect of making people more vulnerable to persuasion. This ironic effect should take place whenever individuals receive strong persuasive information, which was the focus of our analysis.

*The Origins and Structure of Defensive Confidence:  
Bases for Validation of an Individual-Difference Measure*

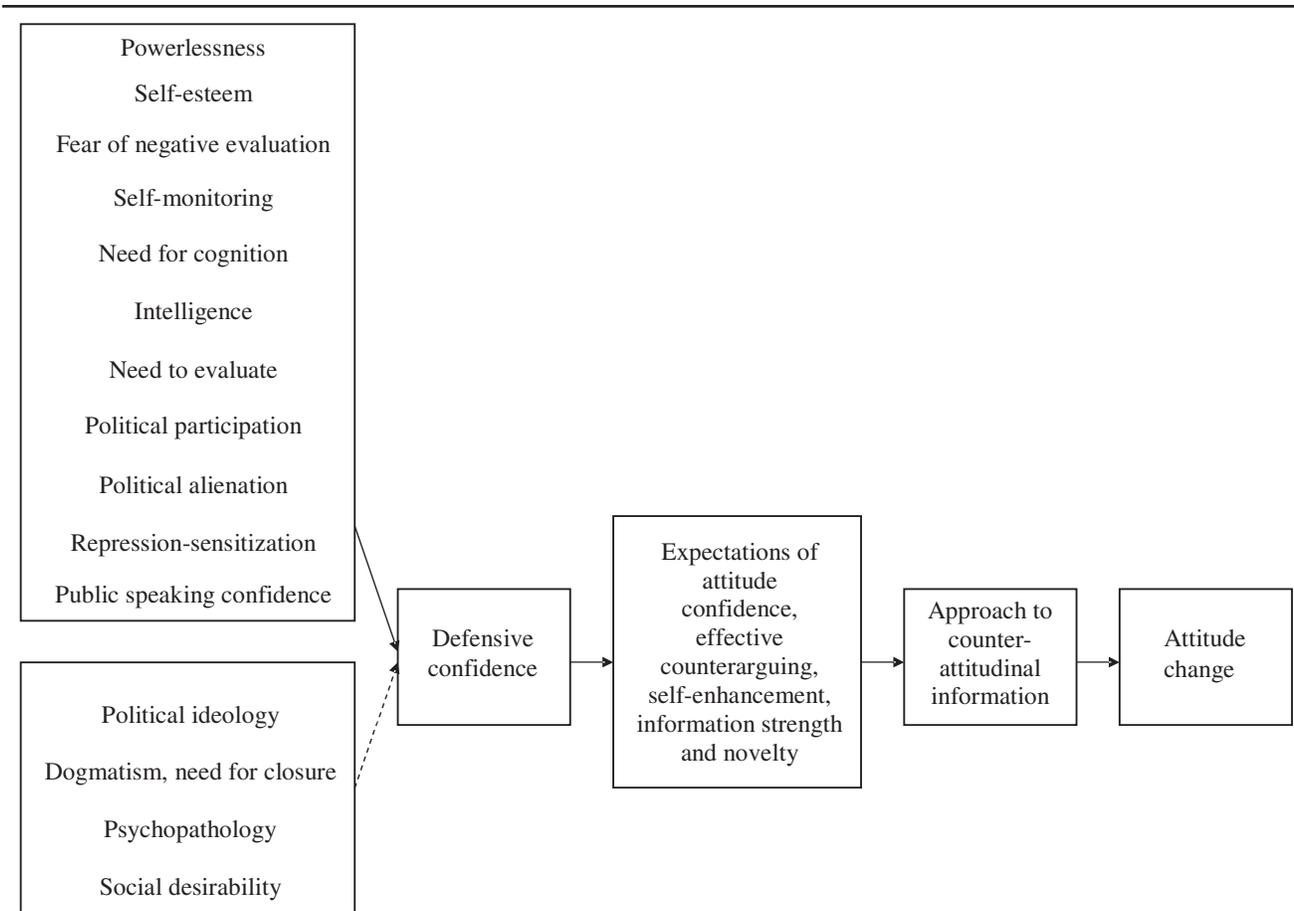
On one hand, people's confidence in their ability to defend their attitudes from attack may stem from several personality, cognitive, and social factors. For example, individuals who lack confidence in their ability to control events in their lives (Ajzen, 1991; Bandura, 1997; Rotter, 1966) and people with low self-esteem (Rosenberg, 1965) may also doubt their ability to defend

their attitudes when under attack. Similarly, because attitudinal attack often comes from social interactions with others, people who fear negative evaluation from such interaction (Watson & Friend, 1969) are likely to perceive that they will self-defend less effectively than those without these fears. Furthermore, high self-monitors (see Snyder, 1974, 1987) may perceive greater ability to self-defend simply because they are more sensitive to social information and may thus be more sensitive and reactive to external attacks to their own attitudes. Alternatively, high self-monitors may readily adapt to the attitudinal positions of other people and therefore manifest lower defensive confidence than low self-monitors.

Cognitive predispositions are also likely to influence defensive confidence. For example, people who successfully counterargue persuasive communications, such as those who are high in need for cognition or intelligence (see Petty & Cacioppo, 1986), should be more likely to develop a stronger sense of defensive confidence than individuals whose need for cognition and ability to counterargue are low. Similarly, individuals who more frequently form strong attitudes may have greater trust in their defensive ability than individuals with weak or underdeveloped attitudes. To this extent, the need to evaluate (Jarvis & Petty, 1996) may correlate highly with defensive confidence.

Furthermore, defensive confidence tends to be associated with political participation (Roper, 1965) and alienation (Malik, 1982). Individuals who are confident in their abilities to defend their own attitudes are more likely to become involved in activities that promote these attitudes. In contrast, individuals who feel that they cannot promote their own ideas through political participation (i.e., those who are politically alienated) may also feel that they cannot defend their positions when they come under attack. Thus, higher defensive confidence may have a positive correlation with political participation and a negative correlation with political alienation.

More general defense mechanisms may also correlate with defensive confidence. For instance, Olson and Zanna (1982a, 1982b; see also Zanna & Aziza, 1976) employed the Revised Repression-Sensitization Scale (Byrne, 1961) to measure tendencies to avoid threatening stimuli versus tendencies to "approach" threatening stimuli. After asking participants to choose one of a number of paintings, they found that repressors later attended less to the paintings they had not chosen, whereas sensitizers were not so selective in their postdecisional exposure to the paintings. To the extent that defensive confidence and repression-sensitization presumably correlate with selective exposure to attitude-relevant materials, chronic tendencies to repress con-



**Figure 1** The construct of defensive confidence.

NOTE: Solid lines indicate expected associations, whereas dotted lines indicate expected absence of associations.

flicting material may have a negative correlation with defensive confidence.

On the other hand, several individual differences should be unrelated to defensive confidence. For instance, given that people of different political tendencies experience attitude change (see, e.g., Aronoff, 2001), it is likely that levels of defensive confidence will be similar across left- and right-wing orientations and different degrees of dogmatism. Similarly, because people with varying levels of psychopathology appear to change their points of view (Marsella, 1975), defensive confidence should be largely independent of these factors.

In sum, defensive confidence is a hypothetical trait shared by certain individuals that correlates with certain individual differences and not others. Figure 1 summarizes the hypothetical structure of associations that we used as one way of validating the defensive confidence measure we created. The top-left box in the figure contains factors that we expected to correlate with defensive

confidence. The bottom-left box includes individual differences that are not expected to correlate with defensive confidence. In Study 1, we developed a measure of defensive confidence and correlated the Defensive Confidence Scale with previously validated scales that measure the constructs presented on the left side of Figure 1. Study 2 assessed whether defensive confidence is a trait that generalizes across various personal and social issues.

*The Influence of Defensive Confidence on Selective Exposure and Attitude Change*

Presumably, defensive confidence entails people’s perceptions that they can defend their attitudes against contradictory information coming from the environment. These perceptions of defensive capacity should lie at the heart of one’s resolution of the conflict between new information that challenges and new information that supports one’s attitudes (Festinger, 1957, 1964; see

also Cannon, 1964).<sup>1</sup> That is, individuals who trust their defensive abilities may also expect to trust their initial attitudes following attack to a greater extent than individuals who doubt their defensive abilities. Similarly, people who are high in defensive confidence should expect to more effectively counterargue the discordant information and possibly anticipate greater self-enhancement. The influence of defensive confidence on these perceptions and ultimately on approaching information and changing attitudes appears on the right side of Figure 1. We specifically assumed that defensive confidence may decrease preferences for proattitudinal information because it reduces the perception that, compared with counterattitudinal information, proattitudinal information will produce greater attitude confidence, effective counterarguing, or more self-enhancement. Moreover, because people are sometimes more likely to approach information they expect to be strong rather than weak (Frey, 1986), as well as information they expect to be novel rather than old (Frey, 1986), we examined expectations of information strength and novelty as potential mediators of the influence of defensive confidence.

We were also interested in the overall influence of defensive confidence on attitude change. We hypothesized that people who doubt their defensive abilities would be more cautious in approaching counterattitudinal information. In contrast, those who believe they will successfully self-defend may be more apt to confront information with which they disagree, thus becoming more vulnerable to attempts at persuasion. Consistent with our argument, Wilson et al. (1998) hypothesized that people's theories of mental contamination can influence actual contamination. They found that people fear subliminal persuasion but expect to resist supraliminal persuasion. On the basis of these "theories of mental contamination," participants in Wilson et al.'s (1998) work were willing to confront supraliminal persuasive messages but unwilling to be presented with subliminal material. Because supraliminal messages are more effective than subliminal ones, these naive theories produced ironic effects like the ones we postulate. In other words, when people perceive that they are able to self-defend, they engage in more risky selection of information than when people believe that they will fail at self-defense. Studies 3 through 5 examined the influence of defensive confidence on approach to proattitudinal information and on ultimate attitude change, as well as the perceptions that mediated these effects. In addition, because in Study 5 participants were actually exposed to the information they requested, we were able to examine whether the ironic, exposure-mediated effects of defensive confidence occurred even when exposed high-

defensive confidence individuals might be better at counterarguing discordant information than exposed low-defensive confidence ones.

#### STUDY 1: CONSTRUCT VALIDATION

##### *Method*

##### OVERVIEW AND PARTICIPANTS

We developed a scale to measure defensive confidence on the basis of in-depth interviews with people in the Gainesville (Florida) area. For that purpose, we first constructed a large pool of items to measure defensive confidence. Items were developed on the basis of a series of qualitative interviews with political and religious activists, as well as lay participants and students. During these qualitative interviews, participants were asked to describe the feelings and thoughts they had when their personal attitudes were under attack and to discuss their subjective experiences of attitude defense. We wrote 24 items based on these interviews. Using a principal components analysis of this pool of items, we identified statements that more generally reflected attitude strength (e.g., *I let others guide my feelings and opinions*) and questions about specific defensive exposure strategies (e.g., *For my own opinions to be strong, I have to pay attention to arguments against those opinions; I would rather think about the pros and cons of my personal attitudes; I prefer not to discuss issues I really care about unless I know the other person agrees with me*). These items were excluded based on this exploratory analysis and on the judgments of the research team. The selection procedure resulted in the 12 items presented in Table 1. Participants responded to the defensive confidence questions by providing their judgment on a scale ranging from 1 (*not at all characteristic of me*) to 5 (*extremely characteristic of me*). We obtained the sum of responses to these items as an overall index of defensive confidence after reverse-scoring relevant items. Samples 1 and 2 provided data relevant to the construct validity of the Defensive Confidence Scale. For that purpose, participants completed this scale in addition to measures of personality, cognitive style, political orientation, and verbal intelligence (see Figure 1).

##### SAMPLE 1: PARTICIPANTS AND MEASURES

The participants were 225 undergraduate students who participated in exchange for credit in their introductory psychology class. Eighty percent of them were female, mean age was 18.60, and the sample was ethnically diverse (68% European American, 3% African American, 13% Latino American, 8% Asian American, and 7% other ethnicities).

Participants from this sample completed measures of defensive confidence and 11 other individual-difference

**TABLE 1: Items, Descriptive Statistics, and Confirmatory One-Factor Analysis: Study 1**

Item	Sample 1						Sample 2					
	M	SD	S	K	FL	SE	M	SD	S	K	FL	SE
During discussions of issues I care about, I can successfully defend my ideas.	4.15	0.84	-1.30	2.52	.69	.73	4.16	0.77	-0.94	1.54	.63	.78
I have many resources to defend my point of view when I feel my ideas are under attack.	3.60	0.87	-0.50	0.30	.73	.69	3.85	0.92	-0.83	0.92	.58	.81
When I pay attention to the arguments proposed by people who disagree with me, I feel confused and cannot think. <sup>a</sup>	3.93	0.91	-0.76	0.23	.42	.91	4.06	0.90	-0.66	0.36	.80	.87
When trying to defend my point of view, I am not at all articulate. <sup>a</sup>	3.84	1.00	-0.80	0.28	.72	.69	3.94	0.96	-0.76	-0.05	.57	.82
I have developed ways of "winning" when I debate issues I care about.	3.22	1.15	-0.11	-0.81	.49	.87	3.15	1.07	-0.39	-0.56	.47	.88
I could stand by my ideas in front of anybody.	3.49	1.13	-0.37	-0.65	.67	.74	3.81	0.98	-0.66	-0.14	.58	.82
No matter what I read or hear, I am always capable of defending my feelings and opinions.	3.60	0.93	-0.38	-0.28	.56	.83	3.76	0.92	-0.44	-0.33	.69	.73
I think of myself as somebody who has enough information to defend his or her points of view.	3.77	0.93	-0.72	0.27	.78	.62	3.87	0.93	-0.50	-0.33	.79	.61
Compared to most people, I am able to maintain my own opinions regardless of what conflicting information I receive.	3.45	1.01	-0.28	-0.39	.49	.87	3.72	0.90	-0.47	0.05	.54	.84
Compared to people I know who are very successful at maintaining their point of view, I have somewhat weak, underdeveloped opinions. <sup>a</sup>	3.73	0.97	-0.66	0.10	.60	.80	3.87	1.01	-0.68	-0.40	.47	.88
I can defend my points of view when I want to.	4.12	0.86	-1.31	2.52	.64	.77	4.36	0.88	-1.09	0.89	.76	.65
I am unable to defend my own opinions successfully. <sup>a</sup>	3.92	1.04	-1.01	0.48	.53	.55	4.29	1.64	-1.25	1.64	.69	.72

NOTE: Entries are means and standard deviations, data on the sampling distribution (S = skewness; K = kurtosis) of items, and standardized factor loadings (FL) with their corresponding standard errors.

a. Item was reverse-scored.

measures. The position of the Defensive Confidence Scale varied so that the scale appeared an equal number of times in each position in the series of measures. The remaining scales were presented in one of two alternate orders. (Our findings, however, were not contingent on presentation order.) For the sake of brevity, a detailed description of each scale we used appears in Table 2. Summary indexes were computed for each scale after reversing relevant items.

#### SAMPLE 2: PARTICIPANTS AND MEASURES

One hundred and fifty-one introductory psychology students (32% male; 60% European American, 5% African American, 6% Asian American, 12% Latino American, 5% other ethnicities; mean age = 18.81) completed measures of defensive confidence and various other individual-difference measures. The measures of fear of negative evaluation, need for cognition, need to evaluate, political participation, and dogmatism were identical to the ones used with Sample 1. However, we

improved the reliability of the measures of paranoia and social desirability by modifying the response format. Thus, people read the same statements used with Sample 1 but indicated whether they agreed with each statement on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*). In addition, we replaced the earlier measure of powerlessness with a measure of doubts about self-determination (Scheussler's [1982] Scale of Doubt About Self-Determination) and included seven new scales (see Table 2).

#### SAMPLE 3

To determine if the scale to measure defensive confidence was stable over time, we obtained longitudinal data from a sample of 48 undergraduate students (85% female; 65% European American, 6% African American, 10% Latino American, 2% Asian American, 10% other ethnicities; mean age = 19.19) who completed the scale during a first session and again after 2 weeks.

TABLE 2: Description of Scales Used in Construct Validation (Study 1)

<i>Construct Being Measured</i>	<i>Scale</i>	<i>No. of Items</i>	<i>Sample Item</i>	<i>Sample Response Format</i>
Scales unique to Sample 1				
Powerlessness	Rotter's (1966) Powerlessness Scale	4	Do you feel that most of the things that happen to you are the result of your own decisions or of things over which you have no control?	0 = own decisions vs. 1 = no control
Scales common to Samples 1 and 2				
Fear of negative evaluation	Watson & Friend's (1969) Fear of Evaluation Scale	30	I react very little when other people disapprove of me	1 ( <i>not at all characteristic of me</i> ) to 5 ( <i>extremely characteristic of me</i> )
Need for cognition	Cacioppo, Petty, Kao, & Rodriguez's (1986) Need for Cognition Scale	18	Thinking is not my idea of fun	1 ( <i>not at all characteristic of me</i> ) to 5 ( <i>extremely characteristic of me</i> )
Verbal intelligence	Wechsler's (1955) Adult Intelligence Test; vocabulary subtest	35	Define audacious	0 (wrong), 1 (partially correct), 2 (correct)
Need to evaluate	Jarvis & Petty's (1996) Need to Evaluate Scale	16	I would rather have a strong opinion than no opinion at all	1 ( <i>not at all characteristic of me</i> ) to 5 ( <i>extremely characteristic of me</i> )
Political participation	Roper's (1965) Political Participation Scale	12	Check if you signed a petition in the last year	0 = not checked vs. 1 = checked
Dogmatism	Rokeach's (1954) Dogmatism Scale	40	A group that tolerates too much difference of opinion among its members cannot exist for long	1 ( <i>disagree</i> ) to 7 ( <i>agree</i> )
Need for closure	Webster & Kruglanski's (1994) Need for Closure Scale	42	I think that having clear rules and order at work is essential for success	1 ( <i>strongly disagree</i> ) to 6 ( <i>strongly agree</i> )
Authoritarianism	Altemeyer's (1969) Right-Wing Authoritarianism Scale	30	What our country really needs, instead of more civil rights, is a good stiff dose of law and order	-4 ( <i>strongly disagree</i> ) to +4 ( <i>strongly agree</i> )
Paranoia	Hathaway & McKinley's (1940) Paranoia Scale of the Minnesota Multiphasic Personality Inventory	40	If people had not had it in for me, I would have been much more successful	0 = false, 1 = true
Social desirability	Hathaway & McKinley's (1940) Lie Scale of the Minnesota Multiphasic Personality Inventory	15	My table manners are not quite as good at home as when I am out in company.	0 = true, 1 = false

(continued)

TABLE 2 (continued)

<i>Construct Being Measured</i>	<i>Scale</i>	<i>No. of Items</i>	<i>Sample Item</i>	<i>Sample Response Format</i>
Scales unique to Sample 2				
Doubts about self-determination	Scheussler's (1982) Scale of Doubt About Self-Determination	14	What happens in life is largely a matter of chance	1 ( <i>strongly disagree</i> ) to 5 ( <i>strongly agree</i> )
Repression	Byrne's (1961) Repression-Sensitization Scale	30	I never get angry	1 ( <i>strongly disagree</i> ) to 5 ( <i>strongly agree</i> )
Self-monitoring	Snyder's (1974, 1987) Self-Monitoring Scale	25	I guess I put on a show to impress people	1 ( <i>not at all characteristic of me</i> ) to 5 ( <i>extremely characteristic of me</i> )
Self-esteem	Rosenberg's (1965) Self-Esteem Scale	10	On the whole, I am satisfied with myself	1 ( <i>strongly disagree</i> ) to 5 ( <i>strongly agree</i> )
Public speaking confidence	Paul's (1966) Public Speaking Confidence Scale	30	My mind is clear when I face an audience	1 ( <i>not at all characteristic of me</i> ) to 5 ( <i>extremely characteristic of me</i> )
Fascism	Adorno, Frenkel-Brunswik, Levinson, & Sanford's (1950) F-Scale	30	Obedience and respect for authority are the most important virtues children should learn	1 ( <i>strongly disagree</i> ) to 5 ( <i>strongly agree</i> )
Social conservatism	Henningham's (1996) Social-Conservatism Scale	12	Check if you agree with the death penalty	0 = not checked vs. 1 = checked
Alienation	Malik's (1982) Political Alienation Scale	5	Sometimes governmental and political affairs look so complex that I am unable to understand them	1 ( <i>disagree</i> ) to 5 ( <i>agree</i> )

### Results and Discussion

Preliminary procedures included descriptive statistics and factor analyses, which are summarized in Table 1. As can be seen from Table 1, the scale was negatively skewed, as is typical of other individual differences in the attitude domain (see, e.g., need for cognition; Petty & Cacioppo, 1986). Calculation of descriptive statistics was followed by correlational analyses to establish the convergent validity (Tables 3 and 4) and the reliability of the scale and by traditional and structural equation regression procedures to identify the antecedents of defensive confidence.

#### CONSTRUCT STRUCTURE

Our results suggested the presence of a single construct underlying all items of the Defensive Confidence Scale. For example, in both samples of participants, principal components analyses revealed a single factor comprising the 12 items of the scale and accounting for at

least 45% of the variance.<sup>2</sup> Moreover, we fit a confirmatory one-factor model to the items of the Defensive Confidence Scale using reweighted least squares estimation methods, which adequately model skewed data on the basis of elliptical distribution theory. Goodness-of-fit indexes indicated that a one-factor model fit well (Sample 1:  $\chi^2[54] = 88.67$ ,  $p < .002$ , Comparative Fit Index [CFI] = .98, Normed Fit Index [NFI] = .95, Incremental Fit Index [IFI] = .98, standardized root mean residual [SRMR] = .05, root mean square error of approximation [RMSEA] = .05; Sample 2:  $\chi^2[54] = 164.05$ ,  $p < .001$ , CFI = .90, NFI = .86, IFI = .90, SRMR = .08, RMSEA = .10). Factor loadings, which appear in Table 1, were greater than .42 and significant at  $p < .05$  in all cases. In addition, the fit of the one-factor model did not improve when we subdivided items into positive and negative (for a test of the difference between the one- and two-factor models,  $\chi^2[1] = 1.19$ ,  $ns$ ). Thus, all relevant results supported the possibility that the 12 items we used loaded onto a single construct.

**TABLE 3: Correlations Among Different Scales: Study 1 (Sample 1)**

Variable	1	2	3	4	5	6	7	8	9	10	11	12
Cronbach's alphas	.87	.39	.95	.90	.80	.86	.72	.82	.85	.89	.60	.53
Correlations												
1. Defensive confidence	—											
2. Powerlessness	-.22**	—										
3. Fear of evaluation	-.29***	.24***	—									
4. Need for cognition	.26***	-.27***	-.05	—								
5. Verbal intelligence	.14*	-.20**	-.01	.18***	—							
6. Need to evaluate	.46***	-.10	-.17**	.22**	.10	—						
7. Political participation	.25***	-.07	-.02	.08	-.17**	.17**	—					
8. Dogmatism	.14*	.21**	.18**	-.20**	-.28***	.14*	.10	—				
9. Need for closure	.01	.01	.07	-.21**	-.21**	.12	.03	.39***	—			
10. Authoritarianism	-.02	.11	.052	-.26***	.30***	-.01*	.07	.49***	.37***	—		
11. Paranoia	0	.06	.25***	-.06	-.14*	.09	.26***	.23**	.06	.02	—	
12. Social desirability	-.05	.03	-.12	.18**	-.24***	-.12	-.07	-.03	-.01	.01	-.10	—

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

#### CONVERGENT VALIDITY

*Sample 1.* To examine the relation of defensive confidence with other individual-difference variables, we first computed simple correlations, which are summarized in Table 3. Consistent with expectations, defensive confidence correlated positively with need for cognition, verbal intelligence, need to evaluate, and political participation. Defensive confidence also correlated negatively with powerlessness and fear of negative evaluation. To examine the overall contribution of these five predictors, we regressed defensive confidence on the six predictors entered simultaneously. These six associations predicted a total 31% of the variance in defensive confidence. Standardized regression coefficients,  $\beta$ s, were .13,  $p < .03$ , for need for cognition; .09,  $ns$ , for verbal intelligence; .36,  $p < .001$ , for need to evaluate; .19,  $p < .001$ , for political participation;  $-.05$ ,  $ns$ , for powerlessness; and  $-.19$ ,  $p < .002$ , for fear of negative evaluation. These coefficients indicate that defensive confidence directly correlated with need for cognition, need to evaluate, and fear of negative evaluation, and that these predictors probably mediated the associations of defensive confidence with verbal intelligence, political participation, and powerlessness.

We also analyzed variables that we expected to be unrelated to defensive confidence. Of these variables, need for closure, authoritarianism, paranoia, and social desirability did not correlate significantly with defensive confidence (see Table 3). Dogmatism, however, had a small positive association with defensive confidence ( $r = .14$ ,  $p < .05$ ). Although we did not predict this correlation, dogmatic individuals may use information about the rigidity of their attitudes to conclude that they are actually successful at defending them. In any case, the variables that we predicted would discriminate from

defensive confidence accounted for only 1% of its variance when defensive confidence was predicted from all of them entered simultaneously. Standardized regression coefficients,  $\beta$ s, were .13 for dogmatism, .01 for right-wing authoritarianism,  $-.09$  for paranoia, and  $-.05$  for social desirability,  $ns$  in all cases. These results thus indicate that the scale had excellent discriminant validity.

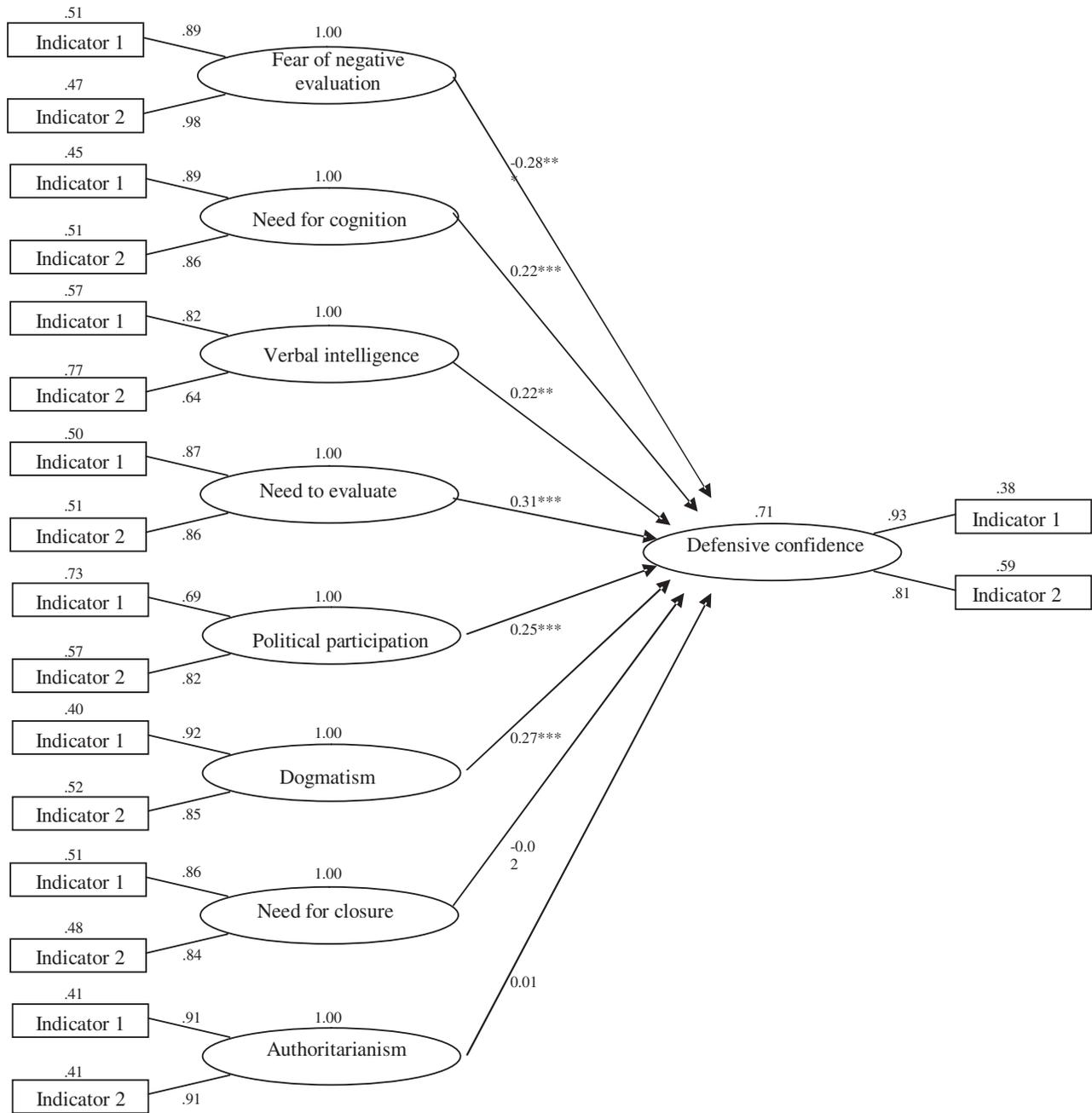
Finally, we reanalyzed the data using structural equation modeling to better isolate the relations between defensive confidence and the other individual differences we measured. In these analyses, we excluded powerlessness, paranoia, and social desirability because these factors had low reliabilities. The remaining nine variables (including defensive confidence) were represented with two indicators per measure, each created by taking the average of a random selection of half of the items from each scale. The path analysis with latent variables that we fit appears in Figure 2 ( $\chi^2[99] = 137.56$ ,  $p < .006$ , CFI = .98, NFI = .93, IFI = .98, SRMR = .04, RMSEA = .04). All factors were allowed to correlate with each other. As can be seen from the summary of findings in the figure, after taking into account measurement error, our Defensive Confidence Scale correlated positively with need for cognition, need to evaluate, political participation, dogmatism, and verbal intelligence, and negatively with fear of negative evaluation. Thus, structural equation methodologies led us to the same findings as traditional correlational methods.

*Sample 2.* Findings from Sample 2 indicated that defensive confidence correlated with doubts about self-determination, alienation, fear of evaluation, need for cognition, need to evaluate, self-monitoring, and self-esteem. Defensive confidence also correlated with public speaking confidence and political participation, suggesting that these two factors may both affect and be

**TABLE 4: Correlations Among Different Scales: Study 1 (Sample 2)**

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Cronbach's alphas	.87	.77	.70	.94	.85	.79	.75	.72	.88	.70	.93	.93	.74	.79	.73
Correlations															
1. Defensive confidence	—														
2. Doubt about self-determination	-.16*	—													
3. Alienation	-.28***	.58***	—												
4. Fear of evaluation	-.44***	.21*	.37***	—											
5. Need for cognition	.24**	-.36***	-.31***	-.34***	—										
6. Need to evaluate	.45***	-.03	-.13	-.27***	.22**	—									
7. Repression sensitization	-.11	.42***	.33***	.36***	-.08	.12	—								
8. Self-monitoring	.20*	.05	-.05	-.01	-.03	.07	.05	—							
9. Self-esteem	.32***	-.44***	-.31***	-.53***	.20*	.06	-.51***	-.01	—						
10. Political participation	.19*	-.08	-.18*	-.21*	.34***	.24**	-.05	.24**	-.05	—					
11. Public speaking confidence	.47***	-.17*	-.25**	-.43***	.32***	.21*	-.21*	.33***	.30***	.30***	—				
12. Fascism	-.14	.38***	.47***	.24**	-.40***	-.04	.06	.05	-.02	-.17*	-.09	—			
13. Social conservatism	-.15	.10	.22***	.13	-.26**	-.05	-.03	-.18*	-.05	-.04	-.31***	.48***	—		
14. Paranoia	-.14	.45***	.31***	.31***	-.08	.01	.38***	.15	-.54***	.22**	-.09	-.01	-.11	—	
15. Social desirability	.03	-.15	.18*	-.28***	.09	-.09	-.32***	-.17*	.12	.19*	.11	-.13	.19*	.02	—

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .



**Figure 2** Path analysis with latent variables: Study 1.

NOTE: All latent factors were allowed to correlate with the other latent factors. Correlations between the factors were as follows: need to evaluate and need for closure = .14, *ns*; dogmatism and need for closure = .45,  $p < .001$ ; fear of evaluation and need for closure = .07, *ns*; authoritarianism and need for closure = .42,  $p < .001$ ; political participation and need for closure = .04, *ns*; verbal ability and need for closure =  $-.23$ ,  $p < .01$ ; need for cognition and need for closure =  $-.26$ ,  $p < .01$ ; dogmatism and need to evaluate = .15,  $p < .05$ ; fear of evaluation and need to evaluate =  $-.19$ ,  $p < .01$ ; authoritarianism and need to evaluate =  $-.01$ , *ns*; political participation and need to evaluate = .23,  $p < .01$ ; verbal ability and need to evaluate = .09, *ns*; need for cognition and need to evaluate = .25,  $p < .01$ ; fear of evaluation and dogmatism = .17,  $p < .01$ ; authoritarianism and dogmatism = .55,  $p < .001$ ; political participation and dogmatism = .15,  $p < .05$ ; verbal ability and dogmatism =  $-.38$ ,  $p < .001$ ; need for cognition and dogmatism =  $-.24$ ,  $p < .01$ ; authoritarianism and fear of evaluation = .02, *ns*; political participation and fear of evaluation = .01, *ns*; verbal ability and fear of evaluation =  $-.05$ , *ns*; need for cognition and fear of evaluation =  $-.03$ , *ns*; political participation and authoritarianism = .14, *ns*; verbal ability and authoritarianism =  $-.38$ ,  $p < .001$ ; need for cognition and authoritarianism =  $-.22$ ,  $p < .01$ ; need for cognition and political participation = .09, *ns*; and need for cognition and verbal ability = .21,  $p < .01$ .

**TABLE 5: Descriptive Statistics and Confirmatory One-Factor Analysis of Defensive Confidence Across Personal and Social Issues: Study 2**

	M	SD	S	K	FL	SE
Descriptive statistics						
Abortion	45.97	8.34	-0.47	-0.14	.64	.77
Personal independence	46.45	8.79	-0.33	-0.20	.55	.83
The death penalty	44.18	8.84	-0.46	0.30	.65	.76
National prominence of football team	44.41	9.56	-0.21	-0.63	.69	.73
Gun control	39.77	11.92	-0.32	-0.63	.53	.85
Improving teaching	43.12	9.19	-0.19	-0.20	.67	.75
Correlations						
	1	2	3	4	5	6
1. Abortion	—					
2. Personal independence	.39	—				
3. The death penalty	.46	.26	—			
4. National prominence of football team	.36	.36	.53	—		
5. Gun control	.33	.26	.37	.35	—	
6. Improving teaching	.44	.46	.34	.46	.37	—

NOTE: Entries are means and standard deviations, data on the sampling distribution of defensive confidence (S = skewness; K = kurtosis), and standardized factor loadings (FL) with their corresponding standard errors.

affected by defensive confidence. In contrast, repression-sensitization was unrelated to defensive confidence. We also conducted multiple regression analyses of defensive confidence on these 10 predictors. When these 10 predictors were entered into a regression equation simultaneously, they accounted for 36% of the variance in defensive confidence. Standardized multiple regression coefficients,  $\beta$ s, were  $-.03$ , *ns*, for doubts about self-determination;  $-.07$ , *ns*, for alienation;  $-.15$ , *ns*, for fear of negative evaluation;  $-.02$ , *ns*, for need for cognition;  $.36$ ,  $p < .001$ , for need to evaluate;  $.07$ , *ns*, for repression-sensitization;  $.07$ , *ns*, for self-monitoring;  $.14$ , *ns*, for self-esteem;  $-.05$ , *ns*, for political participation; and  $.26$ ,  $p < .001$ , for public speaking confidence. This analysis suggested that defensive confidence was most directly associated with need to evaluate and public speaking confidence. Instead, doubts about self-determination, alienation, fear of evaluation, need for cognition, self-monitoring, self-esteem, and political participation were less directly related to defensive confidence through the mediation of need to evaluate and public speaking confidence. Moreover, public speaking confidence, which was not included in Study 1, probably mediated the effects of need for cognition and fear of negative evaluation, which remained as significant correlates in the regression analyses in Study 1 but were dropped in this study.

We also correlated defensive confidence with fascism, social conservatism, paranoia, and social desirability. Defensive confidence did not correlate significantly with any of these variables ( $r$ s =  $-.14$  for fascism,  $-.15$  for social conservatism,  $-.14$  for paranoia, and  $.03$  for social desirability; *ns* in all cases). Moreover, as established by a mul-

tiply regression analysis, these variables accounted for only 2% of the variance in defensive confidence.<sup>3</sup> Standardized multiple regression coefficients,  $\beta$ s, were  $-.06$ , *ns*, for fascism;  $-.16$ , *ns*, for social conservatism;  $-.12$ , *ns*, for paranoia; and  $.06$ , *ns*, for social desirability. In sum, Sample 2 complemented Sample 1 in providing evidence that our Defensive Confidence Scale had adequate discriminant validity.

#### RELIABILITY

The third sample allowed us to assess the test-retest reliability of the scale ( $\alpha$ s  $.87$  and  $.83$  at test and retest), which was satisfactory ( $r = .83$ ,  $p < .001$ ). We thus concluded that the scale had not only good internal consistency and construct validity but was also stable over time.

#### STUDY 2: EXAMINATION OF TRAIT PROPERTIES

Study 1 suggested that our defensive confidence measure had good psychometric properties. Study 2 was designed to determine whether the measure captures a trait or is issue specific. For that purpose, 146 participants (78% female; 66% European American, 8% African American, 11% Latino American, 9% Asian American, 6% other ethnicities; mean age = 18.52) completed the Defensive Confidence Scale, although this time, the items referred specifically to (a) abortion, (b) personal independence from other people, (c) the death penalty, (d) the national prominence of the university's football team, (e) gun control, and (f) increasing teaching effectiveness at the university. For example, one of the items about abortion read, "During discussions about abortion, I can successfully defend my ideas." Another item

read, "I could stand by my ideas about abortion in front of anybody." As before, participants responded to the questions on a scale from 1 (*not at all characteristic of me*) to 5 (*extremely characteristic of me*).

To analyze the structure of each issue-specific scale, we first fit our previous one-factor model separately on the items corresponding to each issue. These analyses revealed that the model satisfactorily represented the data for all six issues (in all cases,  $\chi^2[54] < 137.91$ ,  $p < .001$ , CFI  $> .95$ , NFI  $> .94$ , IFI  $> .95$ , SRMR  $< .06$ , RMSEA  $< .09$ ), suggesting that the six scales were unidimensional in nature. On the basis of these analyses, we created issue-specific defensive confidence scores by summing the 12 responses corresponding to each issue into summary subscales. Descriptive statistics for each issue-relevant scale appear in Table 5.

If defensive confidence is a trait, the measures in the study should be highly intercorrelated regardless of the issue. That is, the scores of defensive confidence obtained in reference to the different topics should load on a single factor. In contrast, if people only experience defensive confidence in relation to some topics, scores obtained for the different topics would be unlikely to load onto a single factor. The correlations in the bottom half of Table 5 were all moderate and not particularly clustered by types of issue, vaguely implying correspondence across issues. Furthermore, a principal components analysis yielded a single factor explaining 49% of the variance. Findings from confirmatory factor analyses were also consistent with the trait hypothesis. Thus, a single-factor model of all six subscales had a satisfactory fit as indicated by various goodness-of-fit indexes ( $\chi^2[9] = 14.74$ ,  $ns$ , CFI = .98, NFI = .96, IFI = .98, SRMR = .05, RMSEA = .06). All loadings were positive and highly significant (see Table 5). Moreover, we compared the one-factor solution with (a) a two-factor model with political versus nonpolitical issues ( $\chi^2[8] = 12.15$ ,  $ns$ , CFI = .97, NFI = .95, IFI = .98, SRMR = .04, RMSEA = .05;  $r$  between factors = .87) and (b) a two-factor model with university-related versus university-unrelated topics ( $\chi^2[8] = 14.77$ ,  $ns$ , CFI = .97, NFI = .94, IFI = .97, SRMR = .05, RMSEA = .08;  $r$  between factors = .96). As judged by chi-square comparisons across the competing models, the more complex models were as adequate as the more parsimonious one-factor model ( $\chi^2[1] < 2.59$  and 0.03,  $ns$  in each case). We therefore concluded that there was support for the trait hypothesis.<sup>4</sup>

#### STUDY 3: INFLUENCE OF DEFENSIVE CONFIDENCE ON INFORMATION SELECTION

##### Method

The first two studies we reported concerned our measure of defensive confidence and its psychometric prop-

erties. We showed that defensive confidence is an individual difference, distinct from other psychological variables, and reliable over time. We designed Study 3 to determine whether defensive confidence influences selective exposure to attitude-relevant information. That is, we examined whether people who doubt their defensive capacity are more likely to come into contact with proattitudinal rather than counterattitudinal information relative to individuals who are high in defensive confidence.

##### PARTICIPANTS AND PROCEDURES

Participants in this study were 40 introductory psychology students (55% female; mean age = 18.95) who participated in exchange for credit. Sessions were run in large groups of approximately 20 participants. During the first part of the study, participants completed the Defensive Confidence Scale. Then, as part of an ostensibly unrelated study, we indicated that we were conducting research for a fictitious organization, which was presented as the Bureau of Sociology Education Research. The bureau was described as a long-standing, prestigious organization responsible for collecting data to design introductory sociology textbooks. We further stated that one of the objectives of the bureau was to ensure clarity and comprehension of theories and key terms in sociology. We added that sociology education is complex because virtually all theories touch on issues that constantly shift with changes in society and that, as a result, what professors teach about these issues at one point in time may be obsolete or irrelevant at a later time. We also explained that to solve this problem, the bureau regularly presents representative students with texts designed for educational purposes that address more than one side of a given issue and provide up-to-date, accurate information on the topics.

We told participants that the study involved reading and discussing passages on either abortion or euthanasia. Moreover, we informed them that before going into the group discussion, they would have time to prepare by reading a selection of two passages, each of which would be on a different issue. After these instructions, participants received a text request form to select one of the two issues in the study. Thus, on a scale from 0 to 100, they indicated how interested they would be to read about (a) abortion from the point of view of pro-choice groups, (b) abortion from the point of view of pro-life groups, (c) euthanasia from the point of view of groups that are in favor of it, and (d) euthanasia from the point of view of groups that are against it. They also considered two pairs of choices, one pair representing the favoring and opposing sides of each topic, and ranked the options of each pair. (In the text request form, measures of ratings and rankings were presented in counterbal-

anced order, as was the order of presentation of the favoring and opposing side of each issue.) The results did not vary as a function of presentation order. Participants in this study did not receive any persuasive messages.

After participants made text selections, we explained that it was important to determine the composition of the group of students participating in the study to make sure that we had a sample with diverse points of view. Participants then indicated their attitudes toward each of the topics. To measure attitudes, we asked participants to report whether they were in favor of abortion and euthanasia by indicating the extent to which each issue was (a) *unacceptable under all circumstances* to *acceptable in all circumstances*, (b) *something they completely opposed* to *completely favored*, and (c) *definitely wrong* to *definitely right*. In all cases, participants provided their judgment on a scale from 1 to 7. The three items measuring attitudes were highly intercorrelated as indicated by Cronbach’s alpha (.91 and .90 for abortion and euthanasia, respectively). Therefore, we created overall indexes of attitudes toward abortion and euthanasia by taking the average of the three relevant measures.

*Results and Discussion*

We expected that people who are confident that they can defend their attitudes would show less bias in favor of proattitudinal information than people who are not confident in their defensive strength. To examine this hypothesis, we created measures of selective exposure concerning each issue in the study. First, we computed (a) differences in interest ratings by subtracting interest in reading materials against each issue from interest in reading materials supporting each issue. These measures reflect a relative approach to materials in favor of abortion and euthanasia. Next, we created indicator variables from the rankings to represent (b) selection of materials favoring abortion and euthanasia. Finally, we computed an overall measure of exposure that incorporated differences in preference and rankings for the alternative positions. Specifically, the overall measure comprised the sum of the standardized differences in ratings and the rankings reflecting preference for proabortion and proeuthanasia texts.<sup>5</sup>

Participants’ mean attitudes toward abortion and euthanasia were 4.08 (*SD* = 1.53) and 4.14 (*SD* = 1.27), respectively. For descriptive purposes, the correlations between attitudes and the exposure measures appear in Table 6, organized by topic and by each of the two levels of defensive confidence determined by a median split. Significant positive correlations imply that participants approached proattitudinal information to a greater extent than counterattitudinal information. Nonsignificant correlations suggest absence of

**TABLE 6: Correlations Between Attitudes Abortion and Preference for Information as a Function of Defensive Confidence: Study 3**

Analysis	Preference for	
	Proabortion Information	Proeuthanasia Information
Simple correlations		
High	.35	.28
Low	.80***	.85***
Multiple regression		
Attitudes	.64***	.68***
Defensive confidence	.13	.10
Interaction	-.27*	-.33*

NOTE: Coefficients in the top panel are Pearson correlations across high and low defensive confidence. The bottom panel presents standardized regression coefficients,  $\beta$ s. Negative interaction terms imply that the positive association between proabortion attitudes and preference for proabortion materials was higher when confidence was low rather than high. Mean attitudes about abortion were 4.07 (*SD* = 1.67) and 4.09 (*SD* = 1.41) for the high-confidence and low-confidence groups, respectively,  $F(1, 38) = .002, ns$ ; Levene’s test for equality of variances = .39, *ns*. Mean attitudes about euthanasia were 3.92 (*SD* = 1.46) and 4.39 (*SD* = 1.07) for the high-confidence and low-confidence groups, respectively,  $F(1, 38) = 1.30, ns$ ; Levene’s test for equality of variances,  $F(1, 38) = .97, ns$ .

\* $p < .05$ . \*\*\* $p < .001$ .

attitudinal selectivity. These data show that the attitudes of participants who scored high on the Defensive Confidence Scale did not significantly correlate with exposure to proattitudinal materials, indicating an open-minded approach to the material. In contrast, people who were low in defensive confidence had significant, strong positive correlations between their attitudes and bias in favor of proattitudinal information, indicating increased preference for material that confirmed their prior attitudes.

The correlations for each level of the median split only have descriptive value (see MacCallum, Zhang, Preacher, & Rucker, 2002). However, to formally test whether defensive confidence decreases bias in favor of proattitudinal information, we regressed the summary measures representing selective exposure on attitudes toward each issue, defensive confidence, and the interaction between attitudes and defensive confidence. A summary of these findings appears in the bottom section of Table 6. As predicted, the interactions were significant for both abortion and euthanasia ( $p < .05$ ). These findings thus suggest that more confident people approached proattitudinal information to a lesser extent than people who doubted their defensive ability.<sup>6</sup>

STUDY 4: INFLUENCE OF MANIPULATED DEFENSIVE CONFIDENCE ON SELECTIVE EXPOSURE

Study 1 provided evidence that people have stable perceptions about whether they defend their personal attitudes more or less effectively. These perceptions

appear to be distinct from other differences in personality and cognitive style (Study 1) and generalize across different topics (Study 2). More important, defensive confidence has important implications for people's decisions to approach information relevant to their attitudes. Study 3 showed that greater doubt in one's defensive abilities promotes a more conservative preference for proattitudinal information than confidence in one's defensive prospects.

Study 4 was designed to provide a replication of the findings in Study 3. Unlike Study 3, however, Study 4 included an experimental manipulation of defensive confidence. We asked some participants to write about an episode in which they either could confidently defend their prior attitudes or failed to do so. Following this manipulation, we gave participants an opportunity to select information that either favored or opposed abortion and observed if exposure preferences varied as a function of manipulated defensive confidence.

### Method

#### PARTICIPANTS

Participants were 15 male and 60 female introductory psychology students who participated in exchange for class credit. Sessions were run in large groups of approximately 25 to 30 participants.

#### PROCEDURES

The procedures used in this study were similar to the ones in Study 3 with two exceptions. First, defensive confidence was manipulated rather than measured. We first told participants that we were conducting a study on life events and would like to sample typical situations that college students experience. Participants in the *low-confidence* condition were asked to imagine that they were writing about their feelings about a time when they felt very insecure or doubtful about whether or not they were right in some domain and thought that anybody or anything could make them change their mind. Participants in the *high-confidence* condition were asked to imagine that they were writing about their feelings about a time when they felt very confident or sure that they were right in some domain and thought that nobody or nothing could make them change their mind. All participants were told to imagine they were writing about this experience in a letter to someone they knew and to reexperience the feelings and thoughts they had at the time and to describe them fully in the letter. This manipulation was successfully pretested with an independent group,<sup>7</sup> and similar manipulations have been used elsewhere (Petty, Briñol, & Tormala, 2002).

The procedures to measure selective exposure were the same used in Study 3, although we restricted consideration to attitudes about abortion. Thus, participants

**TABLE 7: Correlations Between Attitudes Towards Abortion and Preference for Proabortion Information as a Function of Manipulated Defensive Confidence: Study 4**

<i>Analysis</i>	<i>Preference</i>
Simple correlations	
High	.36*
Low	.69***
Multiple regression	
Attitudes	.42***
Defensive confidence	.20
Interaction	-.22*

NOTE: Coefficients in the top panel are Pearson correlations across high and low defensive confidence. The bottom panel presents standardized regression coefficients,  $\beta$ s. Negative interaction terms imply that the positive association between proabortion attitudes and preference for proabortion materials was higher when confidence was low rather than high. Mean attitudes were 3.97 ( $SD = 1.61$ ) and 3.86 ( $SD = 1.63$ ) for the high-confidence and low-confidence groups, respectively,  $F(1, 73) = .76, ns$ . Levene's test for equality of variances,  $F(1, 73) = .29, ns$ . \* $p < .05$ . \*\*\* $p < .001$ .

expressed their interest in reading the texts in favor of and against abortion, ranked each text, and manifested their attitudes about abortion. Again, we created a summary measure of preference for the proabortion text and analyzed this preference as a function of participants' attitudes, our manipulation of defensive confidence, and the interaction between these two variables.

### Results and Discussion

The findings from Study 4 appear in Table 7 and replicated the ones from the earlier study. As the table shows, participants who were induced to doubt their defensive abilities preferred proattitudinal information to a greater extent than participants who were induced to high defensive confidence. The difference between the correlations between attitudes and information preference across the two groups was statistically significant, as indicated by a significant interaction between attitudes and the defensive confidence manipulation. These findings thus replicated the results from Study 3 and provided solid grounds for an analysis of the effects of differential exposure to information on attitude change and the perceptions that mediate the observed effects.

#### STUDY 5: INFLUENCE OF DEFENSIVE CONFIDENCE ON INFORMATION SELECTION AND ATTITUDE CHANGE

Studies 3 through 4 presented preliminary evidence that individuals who trust their defensive abilities are less likely to prefer proattitudinal information relative to individuals with low defensive confidence. We conducted Study 5 to obtain a replication of this effect. In this study, participants provided a measure of defensive

confidence at the beginning of the semester. Later in the semester, we measured participants' selection of reading materials on abortion using the same procedures used in Studies 3 and 4, as well as their attitudes toward abortion.

There were, however, two differences between this study and Studies 3 and 4. First, in addition to recording reading preferences and decisions, participants actually read the text they selected. After exposure to the selected text, participants reported their attitudes toward abortion one more time. We thus were able to examine whether greater exposure to proattitudinal materials among participants who were low in defensive confidence led to greater stability in their initial attitudes relative to those of high-defensive-confidence individuals. In addition, we included assessments of attitude confidence and the potential mediators presented in Figure 1 to examine the processes that drive the influence of defensive confidence on selective approach to proattitudinal information.

### Method

#### PARTICIPANTS AND PROCEDURES

Using similar procedures as in Study 6, 193 participants (140 female and 53 male; mean age = 18.77) received a text request form with choices to make pertaining to each of the two sides of the issue in the study. Specifically, on a scale from 0 to 100, they indicated how interesting it would be to read about (a) abortion from the point of view of pro-choice groups and (b) abortion from the point of view of pro-life groups. They also considered two pairs of choices, one pair representing the favoring and opposing sides of abortion, and ranked the options of each pair. As in the earlier studies, participants' rankings and differences in ratings (i.e., interest in reading the proabortion text minus interest in reading antiabortion materials) were standardized and averaged as an overall measure of preference for proabortion materials.

#### EXPECTATION MEASURES

After participants made exposure decisions, they responded to a series of questions concerning their expectations that each of the two texts would induce confidence, effective counterarguing, and self-enhancement. They also rated the expected novelty and strength of each text. In all cases, they provided their responses on scales from 0 (*not likely*) to 10 (*likely*).

*Expectations of confidence.* Participants in the study indicated whether each of the articles was likely to make them (a) feel more confident about their attitude about abortion and (b) feel that they were right about their attitude about abortion. We subtracted responses to each item concerning the antiabortion text from responses to

each item concerning the proabortion text. We then averaged the two differences as an overall measure of differential confidence in one's attitude following exposure to the two texts ( $\alpha = .85$ ).

*Expectations of effective counterarguing.* Participants judged the likelihood that they would (a) effectively counterargue the article in favor of (against) abortion, (b) effectively refute the arguments in the article in favor of (against) abortion, (c) identify problems in the arguments in the article in favor of (against) abortion, and (d) know counterarguments for the arguments in the article in favor of (against) abortion. We subtracted responses to each item concerning the antiabortion text from responses to each item concerning the proabortion text. We then averaged the four differences as an overall measure of differential expected counterarguing across the two texts ( $\alpha = .91$ ).

*Expectations of self-enhancement.* Participants also indicated the likelihood that each article would make them feel like (a) a person of value, (b) a person with correct attitudes, (c) smart, and (d) accepted by others. We subtracted responses to each item concerning the antiabortion text from responses to each item concerning the proabortion text. We then averaged the four differences as an overall measure of differential self-enhancement induced by the two texts ( $\alpha = .85$ ).

*Expectations of novelty.* Participants further indicated the likelihood that each article would (a) teach them new things, (b) include information they did not know yet, and (c) contain material that was new to them. We subtracted responses to each item concerning the antiabortion text from responses to each item concerning the proabortion text. We then averaged the three differences as an overall measure of the differential novelty of the two texts ( $\alpha = .92$ ).

*Expectations of strength.* Participants finally indicated the likelihood that each article would be (a) strong, (b) informative, (c) useful, and (c) convincing. We subtracted responses to each item concerning the antiabortion text from responses to each item concerning the proabortion text. We then averaged the four differences as an overall measure of differential strength of the two texts ( $\alpha = .87$ ).

#### PREEXPOSURE ATTITUDES

Participants reported whether abortion was (a) *never* versus *always justified*, (b) *useless* versus *useful*, (c) *bad* versus *good*, (d) *terrible* versus *commendable*, and (e) *negative* versus *positive*. These measures were provided on scales from -5 to +5 and averaged as an overall measure of preexposure attitudes ( $\alpha = .96$ ). Mean initial attitudes were -1.57 ( $SD = 2.33$ ).

TABLE 8: Correlations as a Function of Defensive Confidence and Multiple Regression Analyses: Study 5

Variable	Exposure Measures		Expectations About Information					
	Preferences	Actual Exposure	Differential Counterarguing Success <sup>a</sup>	Differential Attitude Confidence	Differential Self-Enhancement	Differential Novelty	Differential Strength	Postexposure Attitudes
Simple correlations								
High	.30**	.30**	.38***	.21*	.41***	.24**	.43***	.37***
Low	.54***	.50***	.68***	.48***	.47***	.50***	.53***	.70***
Multiple regressions								
Attitudes	.42***	.41***	.47***	.28**	.40***	.35***	.47***	.05**
Defensive confidence	.12	.13	.07	-.02	.05	.18**	.10	.22**
Interaction	-.18**	-.15*	-.13*	-.19**	-.06	-.15*	-.10	-.22**

NOTE: Coefficients in the top panel are Pearson correlations across high and low defensive confidence. The bottom panel presents standardized regression coefficients,  $\beta$ s. Negative interaction terms imply that the positive associations between proabortion attitudes and preference, expectations, or postexposure attitudes were higher when confidence was low rather than high. Mean attitudes were  $-1.73$  ( $SD = 2.22$ ) and  $-1.30$  ( $SD = 2.50$ ) for the high-confidence and low-confidence groups, respectively,  $F(1, 191) = 1.56$ , *ns*. Levene's test for equality of variances,  $F(1, 191) = 3.37$ ,  $p < .07$ . a. In this analysis, this variable was reversed-scored so that positive numbers indicate expectations of greater counterargument in response to the counterattitudinal position.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

#### ACTUAL EXPOSURE

After participants provided a measure of their initial attitudes toward abortion, they were presented with two strong messages, one in favor of abortion and the other against. The message in favor of abortion contained strong arguments that legal abortion decreases female morbidity and mortality, that unwanted children are often psychologically unhealthy, that most unwanted pregnancies affect teens who could not properly care for the child, and that banning abortion induces "mandatory motherhood." The message opposing abortion contained strong arguments that the embryo is a human being, that abortion does not liberate women from male domination but instead institutes a "male" model of violence, that social policies must address teen pregnancies in a more constructive way, and that the consequences of abortion are devastating and reserved for women instead of men. Each message was preceded by instructions for participants to tear out the text they did not wish to read and to read the remaining text they selected. Exposure to the proabortion message was given a 1, and exposure to the antiabortion message was given a 0.

#### POSTEXPOSURE ATTITUDES

We measured attitudes before and after exposure to the persuasive messages using different scales to reduce participants' attempts to report a prior answer from memory. To measure attitudes after exposure to the selected materials, participants provided their judgment that abortion was (a) *unacceptable under all circumstances* to *acceptable in all circumstances*, (b) *something they completely opposed to completely favored*, and (c) *definitely wrong to definitely right*. These measures were provided on scales

from 1 to 7 and averaged to form an overall index of postexposure attitudes ( $\alpha = .93$ ).

#### Results

Studies 3 and 4 suggested that, as expected, people who are high in defensive confidence are less biased in favor of proattitudinal information relative to people who doubt their defensive ability. We conducted Study 5 to confirm this finding. Thus, we analyzed differential exposure to attitude-relevant materials by regressing our measure of preference for proattitudinal materials and whether or not they read the proattitudinal materials on their prior attitudes, their level of defensive confidence, and the interaction between the two. A summary of this regression analysis as well as the correlations between attitudes and the two exposure measures under high (above *Mdn*) and low (below *Mdn*) levels of defensive confidence appear in the first two columns of Table 8. As the table shows, the new analyses provided a replication of our findings in Studies 3 and 4.

Study 5 also investigated the perceptions that mediated the influence of defensive confidence on decisions to approach attitude-relevant information. A first step in showing mediation was to determine whether differential expectations about proattitudinal and counterattitudinal information indeed varied as a function of attitudes and defensive confidence. For this purpose, we first regressed the measures of differential expectations of counterarguing success, attitude confidence, self-enhancement, novelty, and strength on initial attitudes, defensive confidence, and the interaction between attitudes and defensive confidence. The data summarizing these analyses appear in the middle columns of Table 8. As the table shows, the interaction was significant for counterarguing success, attitude confi-

dence, and differential novelty. This implies that participants generally thought that they would counterargue the message less, trust their attitudes more, and find more novel information when the message was proattitudinal than when the message was counterattitudinal. However, these proattitudinal biases were stronger when people lacked defensive confidence than when they trusted their defensive abilities.

It was also important to determine whether people who are high and low in defensive confidence differ in their selection of information because of their expectations about counterarguing success, attitude confidence, and/or novelty. For that purpose, we reran the multiple regression equations to predict actual exposure to the proattitudinal text (see second column of Table 8) after adding expectations about counterarguing success, attitude confidence, and novelty to the equations. Adding differential counterarguing success, attitude confidence, and novelty reduced the interaction between attitude and defensive confidence to nonsignificance ( $p > .17$ ).<sup>8</sup> These findings signaled that the three types of perceptions could have mediated the influence of defensive confidence on selective exposure. Of the three predictors, however, only expected counterarguing success and attitude confidence remained as significant predictors of exposure preferences and were significant mediators of the interactive effect of prior attitudes and defensive confidence according to Sobel tests ( $z = 1.93$  and  $2.11$ ,  $p < .05$  in both cases). These analyses suggested that differential counterarguing success and attitude confidence mediated the influence of defensive confidence on exposure.

Finally, Study 6 examined the possibility that people who have high defensive confidence are the most vulnerable to attitude change. Thus, we regressed attitudes at retest on initial attitudes, defensive confidence, and the interaction between initial attitudes and defensive confidence. These analyses appear in the last column of Table 8 and suggest that change was indeed greater (i.e.,  $r$  between prior and poststudy attitudes was smaller) when participants were high in defensive confidence than when they were low in this trait. Moreover, when we added exposure decisions into the equation, the significant interaction between initial attitudes and defensive confidence became nonsignificant (Sobel's  $z = 1.93$ ,  $p = .055$ ), suggesting that the influence of defensive confidence on change was mediated by the exposure decisions participants made.

#### GENERAL DISCUSSION

For some time, social psychologists have suspected that people approach proattitudinal information more than materials that conflict with their attitudes (Eagly & Chaiken, 1993; Frey, 1986). They have also explored

naive theories about defense mechanisms and the potential effects of contact with threatening information (Wilson et al., 1998). However, the present research goes beyond that work in proposing a theoretical understanding of these problems and explicating the perceptions that can mediate the effects of defensive confidence on selective exposure. Studies 3 through 5 indicated that people who lack confidence in their ability to defend their attitudes prefer information that agrees with their views. In contrast, people who are confident in their ability to defend their attitudes use these attitudes as a basis for their selection decisions much less and appraise information with lesser attention to its agreement with one's own position. Study 5 showed that people who trust their defensive ability expect to counterargue attitude-inconsistent communications effectively, to continue to trust their initial attitudes despite the communication, and to receive novel information. In addition, Study 5 confirmed that chronic defensive confidence increases exposure to counterattitudinal communications and ultimately, attitude change, by mediating influences on expected counterarguing success and expected attitude confidence.

#### *The Possibility of Other Effects of Defensive Confidence*

Despite the strong support for our hypotheses, at least two conditions could potentially produce different effects of defensive confidence on selective exposure and attitude change. For example, communications are more persuasive when they contain strong arguments than when they contain weak arguments. When communications contain weak arguments, they produce either no effect or a boomerang effect, making recipients even more inclined to oppose the advocacy after receiving the communication (Johnson, Smith-McLallen, Killeya, & Levin, in press). To the extent that many counterattitudinal communications may be ineffective, greater defensive confidence will not universally produce greater attitude change. Future research may establish these contingencies in greater detail.

Another possibility is that people do not let their defensive perceptions guide their actions without attempting to control their effects. As a result, making people aware of the bias of defensive confidence could well alter the findings we reported. Such increased awareness may take place if one increases the personal relevance of the topic, conducts research under conditions on very low distraction (individual testing, greater apparent connection between the measure of defensive confidence and the exposure decisions), or studies individuals who hold strong theories about the effects of defensive confidence. As a result, the ultimate effects of defensive confidence are likely to be smaller or larger

depending on the level of salience of defensive assessment (see, e.g., Albarracin & Kumkale, 2003) and the ability and motivation to control for its potential biases (Wegener & Petty, 1995). For example, measuring defensive confidence in an independent session may decrease the salience of the perceptions of one's ability to self-defend as well as tendencies to control for the influences we identified. Consequently, a greater temporal separation between the measure of defensive confidence and the exposure decisions could either decrease or increase the effects we reported.

#### *Our Work in the Context of Past and Contemporary Research*

Our work complements prior advances in understanding resistance to persuasion. Probably the most prominent example of past research comes from McGuire and Papageorgis's (1961; McGuire, 1964) work on beliefs that are deeply held but weakly supported (i.e., "truism," e.g., brushing one's teeth frequently is beneficial). In this research, participants received a communication that contained arguments attacking a truism after having defended the truism from a mild attack or after receiving no such communication. The findings indicated that participants who received an attack after being immunized by the earlier, albeit mild, attack were better able to maintain their belief in the truism than people who were not previously inoculated. One interpretation of this finding is that realizing that one's prior attitude has survived attack strengthens one's confidence in that attitude (McGuire, 1964; Tormala & Petty, 2002). This interpretation is supported by the fact that the inoculation was equally effective regardless of whether the subsequent attack was the same or different in content relative to the arguments used in the earlier inoculation procedure.

More recently, Tormala and Petty (2002) asked participants in experimental conditions to resist messages that were described as strong or weak. The researchers found that participants had equally extreme attitudes regardless of the supposed strength of the message they resisted. However, participants were more certain about their attitudes after resisting an ostensibly strong message than after resisting an ostensibly weak message or after resisting arguments of undetermined normative strength. Tormala and Petty concluded that people interpret their personal success in protecting their attitudes from a strong attack as evidence of the correctness of their attitude, thus increasing attitude certainty. In the context of our work, Tormala and Petty's findings imply that people may develop defensive confidence after subsequent experiences of perceived success.

Research by Rucker and Petty (2002) is also relevant to our findings. These researchers presented partici-

pants with a strong ad promoting a pharmaceutical product and instructed some of these participants to list negative thoughts or to simply list their thoughts about the message. Presumably, participants who listed only negative thoughts attempted to resist the communication to a greater extent than those who were free to list positive, negative, and neutral thoughts. Findings indicated that participants were persuaded regardless of what thoughts they listed, probably because the ad was difficult to refute. Perhaps more important, participants who attempted to resist the message (and failed) were more *confident in their message-induced attitude* toward the product than those who did not make an effort to resist persuasion. However, one may become less *confident in one's ability to defend a prior position* after repeated experiences of failure following challenges to one's attitudes. In this context, one question for future research is whether failure to refute a message, which increases confidence in the attitude promoted by the message (Rucker & Petty, 2002), might nevertheless decrease general confidence in one's ability to defend one's prior attitudes. If this is the case, failure to refute a current message might immediately lead to greater persuasion, but also to later decreases in defensive confidence as conceptualized in this article.

Finally, confidence in one's defensive ability might be associated with greater attitude confidence and consequently with greater resistance when an attack is inevitable. For example, whereas our research demonstrates that defensive confidence can represent a vulnerability to attitudinal attacks, Bassili (1996; see also Tormala & Petty, 2002) demonstrated that more confident attitudes indeed resist attack. This inconsistency between the two sets of findings, however, is only apparent. In our study, greater defensive confidence decreased attitude resistance because *greater confidence increased risk in exposure* to counterattitudinal information. In a supplementary analysis of Study 5, however, we analyzed attitudes at Time 2 as a function of prior attitudes, exposure to proattitudinal or counterattitudinal information, and defensive confidence. This analysis revealed that attitudes were more in line with the counterattitudinal communication (less resistance to persuasion) when defensive confidence was low rather than high ( $M_{\text{diff}} = 1.66$  across participants with initial attitudes in favor and against abortion). Therefore, whenever persuaders can guarantee exposure to a persuasive communication, greater defensive confidence might actually represent an advantage as McGuire and Papageorgis's (1961) research documented.

#### *Closing Note*

Like prior individual-difference measures, our defensive confidence scale provides a tool for identifying clus-

ters of individuals who might be prone to adopt confirmational strategies and, thus, are vulnerable to the errors associated with such strategies. For example, because people who lack defensive confidence are less receptive to information that introduces inconsistency, these individuals may seek therapy less often if they feel that the therapist may question their perceptions of the world. Similarly, they may even seek medical assistance less frequently with the objective of maintaining unrealistic health beliefs. Lacking defensive confidence may also impede stereotype reduction and generally increase defensive strategies that may be maladaptive and isolating. The scale we developed is the first validated instrument of its kind and may contribute to the understanding and reduction of such diverse problems.

In closing, people develop chronic beliefs about their defensive abilities that direct the ways in which they seek information from their environments. Our research suggests that individuals who doubt their defensive ability have a more cautious approach to persuasive material, avoiding information that threatens to change their minds. In contrast, those who believe that they are strong and able to resist attitude change are more willing to accept challenges to their own attitudes. Although these individuals may defend themselves when the communications are weak, their attitudes are likely to succumb when they face compelling material like that which we selected. Thus, believing that one is strong can sometimes be a defensive weakness.

#### NOTES

1. Indirect evidence of the influence of confidence on selective exposure comes from Cannon's (1964) work on decision confidence. Findings indicated that people who thought that they failed on a previous intellectual problem (low confidence) were more likely to approach decision-consistent information than people who believed that they performed well (high confidence). There are, however, two problems with Cannon's findings in relation to the goals of this research. First, researchers following Cannon failed to replicate his findings (Freedman, 1965). Second, the manipulation was not designed to determine whether people perceive that they are able to defend their attitudes but, rather, temporary perceptions that one is correct in one's solution of an intellectual problem.

2. Here and in the following studies, the results from principal components and exploratory factor analyses were identical.

3. As in Study 1, we also examined the relations of defensive confidence with other measures after controlling for the error inherent to each measure. Thus, we created two indicators for each of the 15 variables in the study and fit a path model regressing defensive confidence on all the other factors in the study. This comprehensive model did not converge. However, partial models regressing defensive confidence on the dependent variables of interest replicated the results from the traditional correlational and regression analyses.

4. Of course, the finding that the measures of defensive confidence with respect to different issues load onto a single factor does not imply that the different subscales do not possess unique variance. In fact, a six-factor confirmatory analysis with two indicators per issue-specific scale had an excellent fit ( $\chi^2[39] = 161.85, p < .001$ , Comparative Fit Index [CFI] = .94, Normed Fit Index [NFI] = .92, Incremental Fit Index [IFI] = .94, standardized root mean residual [SRMR] = .03, root mean square error of approximation [RMSEA] = .15), even when the

intercorrelations among factors were significant in all cases ( $r$  between factors = from .29 to .59,  $p < .01$  in all cases).

5. Results with the individual and combined measures of preference were virtually identical. For the sake of brevity, we present the results from the overall measure of approach to proabortion and proeuthanasia information.

6. The analyses we report were performed both with difference scores and with regressions in which one of the measures that went into the difference scores was a predictor and the other was an outcome. The results from the two types of analysis were virtually identical.

7. We piloted the manipulation by asking an independent group of 38 participants to first write about each of the two episodes and to report their feelings that they are sufficiently able to defend their own attitudes without interposing the selective exposure measure. As expected, participants in the high-defensive-confidence group had stronger perceptions of defensive confidence than participants in the low-defensive-confidence group ( $M_s = 6.90$  vs.  $4.74$ ),  $F(1, 37) = 8.72$ .

8. As can be seen in Table 8, differential perceived strength and novelty did not mediate the influence of defensive confidence on approach to proattitudinal information. It is also possible, however, that these differential perceptions could act as moderators of the influence of defensive confidence on approach to information. To examine that possibility, we reran the analyses of the exposure measures as a function of attitudes, defensive confidence, and the interaction between the two but included novelty and strength in addition to the interactions between these two factors and attitudes and confidence. These analyses did not reveal any moderating effect of differential strength and novelty.

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