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# Social Vigilantism: Measuring Individual Differences in Belief Superiority and Resistance to Persuasion

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## Abstract

Social vigilantism (SV) is an enduring individual difference that assesses the tendency of individuals to impress and propagate their “superior” beliefs onto others to correct others’ more “ignorant” opinions. After establishing a reliable measure of SV, three studies showed that SV was associated with greater expressions of belief superiority (whether reacting to others holding dissimilar or similar beliefs) and greater resistance to persuasion (via increased rates of counterarguing and greater attitude stability after persuasion appeals) even after controlling for relevant individual differences (narcissism, dogmatism, psychological reactance, and need for cognition), as well as attitude importance and extremity. Thus, SV predicts expressions of belief superiority and resistance to persuasion above and beyond characteristics of the attitude and individual difference variables previously studied in the attitude literature. SV is a meaningful construct in increasing the understanding of persuasion, attitude resistance, and attitude dissemination that can be applied in a variety of psychological domains.

## Keywords

individual difference, persuasion, resistance, counterarguing, attitude change

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Everyone does have a right to their own opinions. I just think you should know how ignorant you sound when you voice them.

An anonymous participant

The individual who made the statement above had just read a list of another person’s opinions. However, rather than passively accepting that another person could hold contrasting viewpoints, the participant belittled the other person, calling him or her “ignorant.” The participant likely believed that his or her own beliefs were superior to the other person’s and would have likely made an effort to both express that superiority and to persuade the other person to alter those beliefs. We believe that these are the behavioral manifestations of an enduring individual difference we term *social vigilantism* (SV).

Vigilantes, as defined in the *Merriam-Webster Collegiate Dictionary, Eleventh Edition*, are members “of a volunteer committee organized to suppress and punish crime summarily.” We postulate that some individuals perceive the expression of dissonant beliefs, attitudes, or opinions as a social “crime” (i.e., an offense or a provocation) because these beliefs are considered ignorant or irrational. Because

social vigilantes believe that their views are superior and more accurate, these individuals feel responsible to impress and propagate their beliefs onto others for the betterment of society. In other words, we postulate that SV is an enduring individual difference that captures the tendency some individuals have to assert their “superior” beliefs onto others to correct others’ more “ignorant” opinions for the “greater good.”

Accordingly, because SV is an enduring disposition, the level of SV will habitually affect one’s interactions with and adaptations to the environment (cf. Larsen & Buss, 2002). Specifically, when approached with someone else’s opinions, people higher in SV will be inclined to propagate their superior beliefs onto others to correct others’ beliefs and will have developed defenses to resist persuasion attempts to change their attitudes.

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## The Foundations of SV: Belief Superiority and Resistance to Persuasion

It has been argued that “resistance to persuasion has been a relatively neglected phenomenon in social psychology” (Jacks & Cameron, 2003, p. 145). Much of the literature on resistance to persuasion has focused on the relations between attitude resistance and the characteristics of the attitude targeted by a persuasive message. For example, attitude strength is the tendency for an attitude to persist, be resistant to change, to affect information processing, and to affect behavior (Krosnick & Petty, 1995). Attitude strength has been attributed to several more specific attitude characteristics, such as importance to the attitude holder or extremity of the attitude (Krosnick, Boninger, Chuang, Berent, & Carnot, 1993; Visser, Krosnick, & Simmons, 2003). These attitude characteristics have been shown to predict resistance to persuasive messages in several studies (e.g., Eagly & Chaiken, 1993; Jacks & Devine, 2000; Petty & Krosnick, 1995; Zuwerink & Devine, 1996). However, we raise the possibility that resistance to persuasion can be more thoroughly understood by considering the disposition of the individual holding the attitude as well as characteristics of the attitude. We argue that, more generally, individuals differ in their tendencies to accept or resist persuasive messages and that these tendencies can be predicted by individuals’ levels of SV.

People higher in SV would resist persuasion attempts primarily by more aggressively counterarguing (i.e., provide direct rebuttals of the message argument), one of the most effective strategies used to repel persuasive messages (Abelson, 1959; Festinger & Maccoby, 1964; Jacks & Devine, 2000; Wellins, 1977)—provided that individuals are able to derive their counterarguments themselves (Cameron, Jacks, & O’Brien, 2002). By counterarguing, one may have the opportunity to point out the shortcomings in others’ arguments but also to simultaneously impress one’s beliefs. Accordingly, people higher in SV may use counterarguing as a dual-purpose mechanism for *both* maintaining and disseminating their own superior attitudes and beliefs. Furthermore, counterarguing is an effortful process and a direct form of warding off persuasive messages; thus, counterarguing is an investment that not all individuals will feel worthwhile in making and may result in confrontations of the individual delivering the messages. We propose that people higher in SV will invest the energy to counterargue more than those lower in SV.

Because people higher in SV believe that their views are right, and will counterargue to disseminate these beliefs, we predict that they should show little to no change in their beliefs following a persuasive message. That is, the higher the level of SV, the harder it will likely be to shift people’s opinions. Furthermore, we posit that people higher in SV will try to propagate their beliefs and resist persuasion attempts regardless of whether they agree with a confronting

opinion; in short, people higher in SV will take any opportunity to impress their beliefs. Thus, because people higher in SV are motivated to impress their beliefs and correct opinions regardless of the subject matter or of how ardently (or halfheartedly) they feel about a particular topic, we hypothesize that SV will offer unique predictive validity above and beyond characteristics of the attitude (e.g., the type of attitude, as well as attitude strength and extremity).

## Potential Correlates of SV

Some of the cognitions and behavioral manifestations that comprise SV could be partially accounted for by existing individual difference measures. Specifically, we predicted that SV would be positively correlated with exaggerated egocentrism (e.g., narcissism), rigidity of beliefs (e.g., dogmatism), predispositions to counterargue (e.g., reactance), and contemplative thinking (e.g., need for cognition). However, we assert that SV is a theoretically distinct construct that would have predictive ability above and beyond these other individual differences.

### Narcissism

Clinically defined, an individual with narcissistic personality disorder has characteristics that include a grandiose sense of self-importance, a preoccupation with fantasies of power, a tendency to exploit others, an unwillingness to identify with the feelings and needs of others, and arrogant behaviors and attitudes (*Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition [DSM-IV]*; American Psychiatric Association, 1994). Narcissism is also measured as an individual difference among individuals on a continuum regarding the extent to which they display these characteristics (e.g., Raskin & Terry, 1988).

Individuals higher in narcissism may perceive the presentation of opposing views as a form of negative feedback and subsequently rate the presenter of those views as less competent (Kernis & Sun, 1994; Shrauger & Kelly, 1988; Swann, Griffin, Predmore, & Gaines, 1987) or as possessing more negative personality characteristics (Morf & Rhodewalt, 1993; Smalley & Stake, 1996). For narcissists, derogating the dissenter could be a form of interpersonal self-regulation with the goal of bolstering one’s own view of the self (Morf & Rhodewalt, 2001); that is, social interactions are used to garner attention and admiration, and narcissists may accordingly disengage from others who are unwilling to provide this reinforcement (Campbell, 1999; Emmons, 1989).

By contrast, SV is a tendency some individuals have to assert their superior beliefs onto others to correct others’ more ignorant opinions. Therefore, individuals higher in SV are not motivated to gain admiration, or even social approval, from their audiences; rather, they are motivated—almost feel responsible—to impress information. Accordingly, we

predict that SV will predict counterarguing in response to the presentation of opposing (or even similar) viewpoints, while narcissism would more likely predict avoidance of or withdrawal from the presenter of the opposing beliefs.

### *Dogmatism*

Broadly, dogmatism is a closed way of thinking that is connected to an ideology of any content, an authoritarian life perspective, intolerance toward those who disagree with one's chosen ideology, positive feelings toward those who share one's ideology (Rokeach, 1960), and a relative stability of one's beliefs and attitudes over time (Kemp, 1960). People higher on dogmatism also have been shown to possess stronger beliefs and to deny opposing beliefs by labeling such beliefs as irrelevant (Rokeach, 1954).

It would appear that dogmatism and SV would be related because both constructs are associated with perceptions of belief superiority and the aversion felt toward those who do not agree with one's beliefs. We believe that SV is conceptually distinct from dogmatism despite these similarities. We do not believe it is necessary for individuals who are higher in SV to have exceptionally strong attitudes and beliefs across all subject matters; rather, we predict that social vigilantes will perceive their beliefs to be superior, whereas dogmatism would be related to attitude strength. Furthermore, reactions to dissenting opinions would likely be different between individuals higher in dogmatism and individuals higher in SV. Although dogmatism and SV may relate to perceived superiority of one's beliefs, we predict that people higher in SV will be more likely to attempt to impress their beliefs onto others. Conversely, people higher in dogmatism will be more likely to summarily dismiss, rather than engage, dissenters with efforts to persuade them to change their beliefs.

### *Reactance*

Psychological reactance theory states that individuals will exhibit reactance when they feel that they are being restricted from being able to express what had been "free behaviors" (Brehm, 1966; Brehm & Brehm, 1981). The motivational state of reactance may then produce efforts to reassert one's freedom through oppositional behavior (e.g., by resisting the restrictions, exhibiting backlash effects, or aggressing against the agent imposing restrictions; Brehm, 1966). When individuals' free behaviors are perceived to be restricted by persuasion techniques, the individuals will often resist the persuasive effort (Nimmer & Handelsman, 1992) or express the opposing message as their own (Nail, Van Leeuwen, & Powell, 1996). Furthermore, research has shown that individual differences in reactance exist and are relevant to understanding of the production and effects of reactance (Brehm & Brehm, 1981; Dowd, Milne, & Wise, 1991).

An individual's tendency to experience psychological reactance could predict counterarguing following a persuasive message. However, there is little in the theory to suggest that individuals higher in reactance would feel it necessary to reassert their restricted freedom following a persuasive message by doing no more than resisting the persuader. That is, although individuals higher in psychological reactance may counterargue following persuasive messages, we would expect that they would not be motivated to "correct" the target's opinions because the reassertion of their freedom is achieved without doing so.

### *Need for Cognition*

Need for cognition is the tendency for an individual to engage in and enjoy thinking (Cacioppo & Petty, 1982). Because counterarguing is a cognitively effortful response to the presentation of others' opinions, it is plausible that need for cognition would predict resistance to persuasion. However, we believe SV and need for cognition are empirically distinct. Need for cognition simply is a need to think more deeply about ideas—that is, to be contemplative. Thus, although need for cognition would likely predict processing of a message, it will not predict the behavioral responses (i.e., resistance to persuasion strategies) following such a message. Conversely, people high in SV are motivated to impress their beliefs onto others because they think dissemination of their beliefs and counterarguing will be worthwhile, that is, will lead to changes in other people's beliefs, regardless of whether their beliefs are in fact more "correct."

## **General Overview of Studies**

After constructing a reliable measure of SV (Study 1), we predicted that because individuals higher in SV believe that it is their responsibility to propagate their superior beliefs for the greater good, such individuals would be more inclined to impress their "superior" beliefs onto others and exhibit greater counterarguing in response to extreme opinions (Study 2). Moreover, we hypothesized that these effects hold even after accounting for relevant individual difference variables (narcissism, dogmatism, reactance, and need for cognition; Study 3), as well as participants' level of attitude extremity and importance (Study 4). We also predicted that people higher in SV would exhibit greater attitude stability after a persuasion appeal (Study 4).

## **Study 1: Construction and Reliability of the Social Vigilantism Scale (SVS)**

This study sought to identify reliable items to measure SV. We intended to create a measure that would predict individual differences in people's reaction to and resistance of persuasive messages. Therefore, the SV measure would primarily

assess people's motivation to impress their superior beliefs onto others, aversion to others' ignorant beliefs, and motivation to correct others' opinions. Furthermore, we created a "moral stability" measure to control for individuals' tendencies to believe that their beliefs are valid and relatively stable. Accordingly, face valid items to assess this tendency were administered in this study as well. Undergraduate participants completed the initial list of items and reliable scales were created and administered to additional samples to assess the scales' internal consistency and test-retest reliability.

## Method

**Participants.** Participants in each sample were undergraduate students in psychology classes participating in exchange for course credit. Sample 1 consisted of 146 undergraduates (46 men, 94 women, and 6 declined to report their gender). Sample 2 consisted of 142 undergraduates (52 men, 79 women, and 11 declined to report their gender). Sample 3 consisted of 598 undergraduates (224 males, 367 females, and 7 declined to report their gender). Sample 4 consisted of 67 undergraduates (16 males and 51 females).

**Measures.** For each of the items, participants indicated their levels of agreement with the statements on a scale from 1 (*disagree very strongly*) to 9 (*agree very strongly*).

**SV items.** We wrote 29 items that tapped the different facets of SV, including individuals' belief superiority (e.g., "I try to get people to listen to me, because what I have to say makes a lot of sense"), aversion to others' ignorant beliefs (e.g., "Some people just believe stupid things"), and motivation/responsibility to correct others' opinions (e.g., "I feel as if it is my duty to enlighten other people").

**Moral stability items.** We also wrote 14 face valid items to assess the stability and validity of individuals' moral beliefs without regard for the actual content of the individuals' moral beliefs (e.g., "I often change my mind"). These items were written so that the construct of SV could be distinguished from one's tendency to adhere to a set of valid and relatively stable beliefs and values.

**Procedure.** Participants completed the questionnaire items during their regularly scheduled class sessions in exchange for extra credit or to partially fulfill their class research participation requirement. Samples 1, 2, and 3 completed the measures once. Sample 4 completed the measures twice with a 6-week interval separating the sessions. The questionnaire was labeled "Personal Views, Ethics, and Morality" and participants were asked to complete the items honestly and silently. All participants completed the questionnaires under the conditions of anonymity.

## Results and Discussion

**Internal Consistency in Sample 1.** The participants' responses to the SV and moral stability items were subjected

**Table 1.** Items for the Social Vigilantism Scale (SVS)

1. I feel as if it is my duty to enlighten other people.
2. I feel that my ideas should be used to educate others.
3. I feel a social obligation to voice my opinion.
4. I need to win any argument about how people should live their lives.
5. Those people who are more intelligent and informed have a responsibility to educate the people around them who are less intelligent and informed.
6. I like to imagine myself in a position of authority so that I could make the important decisions around here.
7. I try to get people to listen to me, because what I have to say makes a lot of sense.
8. Some people just believe stupid things.
9. There are a lot of ignorant people in society.
10. I think that some people need to be told that their point of view is wrong.
11. If everyone saw things the way that I do, the world would be a better place.
12. It frustrates me that many people fail to consider the finer points of an issue when they take a side.
13. I often feel that other people do not base their opinions on good evidence.
14. I frequently consider writing a "letter to the editor."

to reliability analyses during which items that lowered the internal consistency as measured by Cronbach's alpha were deleted. Fourteen of the SV items survived this analysis to comprise the SVS ( $\alpha = .81$ ; the items are listed in Table 1). These items assessed beliefs about belief superiority and the responsibility of propagating one's superior beliefs (e.g., "I feel as if it is my duty to enlighten other people"), beliefs about how stupid or ignorant other people are (e.g., "Some people just believe stupid things"), and beliefs about how unreasoned people's thinking is (e.g., "I often feel that other people do not base their opinions on good evidence"). These 14 items captured different and multiple facets of the overall construct of SV and were therefore averaged together to create one mean SV composite score.

Ten of the moral stability items survived the reliability analysis and formed a single-factor Moral Stability Scale (MSS;  $\alpha = .73$ ).<sup>1</sup> Examination of the correlation between SVS and MSS scores indicates that the constructs measured by these scales are independent,  $r = .13$ ,  $p = .133$ .

**Internal Consistency in Samples 2, 3, and 4.** These results indicated that the items comprising the SVS and the MSS were internally consistent. The alpha values for the SVS in Samples 2 and 3 were .83 and .83, respectively, indicating the SVS has a good degree of internal consistency. The SVS was also internally consistent at each of the administrations for Sample 4, alphas = .85 and .88 at Times 1 and 2, respectively. The alpha values for the MSS in Samples 2, 3, and 4 (Times 1 and 2) were .66, .69, .66, and .70, respectively, indicating adequate levels of internal consistency for the MSS. Consistent with the preceding, the magnitude of

the correlations between the SVS and MSS indicate that the scales measure independent constructs,  $r_s = .08, .15, -.07,$  and  $.16, p_s = .33, < .001, .532,$  and  $.201$  for Samples 2, 3, and 4 (Times 1 and 2), respectively.

**Test–Retest Reliability in Sample 4.** The correlation between the scores participants received at Times 1 and 2 on the SVS suggested that the scale has excellent test–retest reliability,  $r = .87$ .

**Sex Differences.** Comparisons of the means for the SVS and the MSS for male and female participants revealed that male participants reported significantly higher means than did female participants on both the SVS and MSS in Samples 1, 2, and 3,  $t_s > 1.97, p_s < .05$ . Sex differences in Sample 4 only reached significance for the SVS at Time 2, but this is not surprising given that the proportion of males in this sample was substantially smaller than in the previous samples. These results suggest that these sex differences must be controlled for in any further statistical analyses.

## Study 2: Reactions to Another Individual's Extreme Opinions

In Study 2, we predicted that individuals who were higher on SV would perceive the expression of extreme views by another person as an opportunity to advocate and impress their own beliefs onto the other person. As such, we would expect individuals higher on SV to be more likely to propagate their own superior beliefs and to counterargue relative to the other person regardless of whether participants agreed with the alleged target's position. Accordingly, participants completed the SVS and then read a page-length list of a target's extremely right- or left-wing opinions. Participants then responded to the target's position in writing and explained what their goals were in writing to the target. We also had raters code participants' reactions for their expressions of belief superiority and counterarguing.

### Method

**Participants.** Undergraduates ( $N = 186$ ; 73 men, 112 women, and 1 person declined to report his or her gender) participated during a regular meeting of a social psychology class. Participation was voluntary and participants were compensated with extra credit in the course.

**Procedure.** Participants completed questionnaire packets that contained the MSS and SVS. In addition, each packet contained a one-page list of a target's opinions. Although these opinions were created for the purpose of this study, the participants were not explicitly informed that the target presenting the beliefs was fictional.<sup>2</sup> These opinions were constructed to be extreme and reflective of either a predominantly right- or left-wing political ideology. For example, the right-wing condition contained the statements "I am sick of political correctness" and "I don't hate the rich and I don't

pity the poor." The left-wing condition contained the parallel statements "I am grateful for political correctness" and "I hate the rich and I pity the poor." The opinions were thus created so that it would be unlikely that the participants reading them would agree or disagree entirely with the opinions regardless of their own political ideology. In addition, the last sentence of each opinion list was varied so that it relayed the target's opinion regarding the dissemination of his or her own opinions. In the intrusive condition, the individual stated "I believe that everyone else should agree with my opinions." In the nonintrusive condition, the individual stated "I believe that everyone has a right to his or her own opinions."

Following the list of the fictional target's opinions, participants were given the opportunity to write a response to the target. Participants were then asked to rate from 1 (*not at all*) to 9 (*very much*) how much they were persuaded by and how much they agreed with the opinions, and how important it was to express their own views, to tell the target that he or she was wrong, to try to convince the target that they themselves were right, and to try to persuade the target to agree with their own opinions.

**Ratings of participants' free responses.** Three independent raters who were unaware of the participants' responses to the other measures rated the responses that the participants wrote to the fictional target. The raters rated the responses from 1 (*very little*) to 9 (*very much*) on how much each participant did the following in his or her response: expressed superiority, tolerance, agreement that the fictional target was wrong/that the participant was right; avoided conflict; discussed own views; and tried to convince the targets of participant's own views. All qualities were rated reliably, with the effective reliabilities (Spearman-Brown formula) of the independent raters exceeding .66 in each case.

### Results and Discussion

**Reliabilities of and Relations Between the SVS and MSS.** The internal consistency for the SVS was acceptable,  $\alpha = .82$ , whereas the internal consistency for the MSS was lower,  $\alpha = .65$ . Consistent with Study 1, the scales were independent,  $r = -.08, p = .268$ .

### Data Reduction

**Participants' self-reported goals.** Principal components analysis with varimax rotation revealed that two strong factors (eigenvalues  $> 1$ ) emerged that accounted for 68.59% of the variance. The first factor was labeled Reported Counterarguing, included four items (i.e., present opinions, own opinions are right, other's opinions are wrong, convince other to agree) that loaded well ( $> .71$ ), and formed a reliable composite variable,  $\alpha = .82$ . The second factor was labeled Agree With Other, included two items (i.e., agree with other,

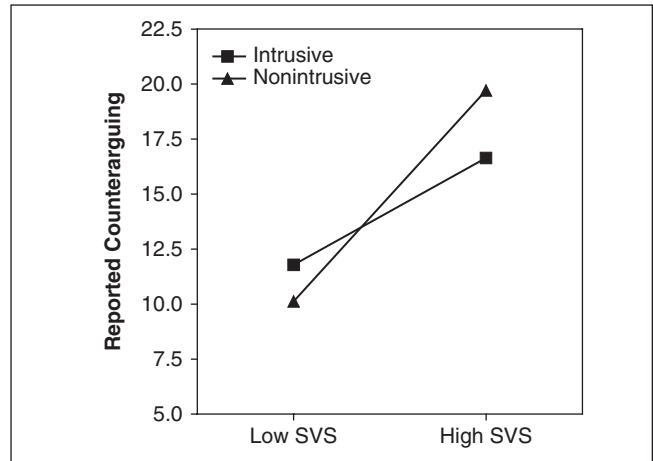
persuaded by other) that loaded well ( $>.84$ ), and formed a reliable composite variable,  $\alpha = .59$ .

**Ratings of participants' free response measures.** The ratings made by the three independent coders for each quality of the free responses were averaged before entry into a principal components analysis with varimax rotation that revealed the emergence of two strong factors (eigenvalues  $> 1$ ) that accounted for 75.88% of the variance. The first factor was labeled Actual Counterarguing, included three items (i.e., discuss own views, convince the individual, show oneself is right) that loaded well ( $>.81$ ), and formed a reliable composite variable,  $\alpha = .90$ . The second factor was labeled Actual Superiority, included five items (superiority, individual is wrong, tolerance reversed, avoided conflict reversed, agreement reversed) that loaded well ( $>.62$ ), and formed a reliable composite variable,  $\alpha = .83$ .

### Predicting Dependent Measures

**Analytic strategy.** For each of the dependent measures, hierarchical multiple regression was used to assess the unique and incremental predictive value of several predictors, specifically to evaluate the unique predictive ability of SV to predict the dependent measure after accounting for the other variables. Accordingly, six steps were entered into the analysis with all continuous predictors having been standardized before entry. Participants' sex, dummy coded as 0 (*male*) and 1 (*female*), was entered into the first step to control for sex differences on the measures. The second step added the ideological position of the opinions, dummy coded as 0 (*right-wing*) and 1 (*left-wing*). The third step added the intrusiveness of the last opinion, dummy coded as 0 (*intrusive*) and 1 (*nonintrusive*). The fourth step entered the participants' moral stability (MSS) scores. The fifth step entered the participants' SV (SVS) scores. The final step entered the product term that carried the interaction between SVS scores and intrusiveness level of the last opinion.<sup>3</sup>

**Participants' self-reported goals.** The model for the prediction of the participants' goals to Agree With Other was not significant at any step of the analysis. However, as predicted, the level of participants' Reported Counterarguing was significantly predicted by SVS scores,  $R^2$  change = .239,  $F(1, 175) = 56.06$ ,  $p < .001$ , as well as predicted by the product term carrying the interaction between SVS scores and intrusiveness,  $R^2$  change = .022,  $F(1, 174) = 5.35$ ,  $p = .022$ . First, results showed that a positive relation existed between SV and the participants' goals to counterargue against the opinionated target,  $\beta = .497$ ,  $p < .001$ . Second, simple slopes analysis revealed that the relation between SV and Reported Counterarguing was significantly positive regardless of whether the opinion was intrusive; however, the relation between SV was stronger when the last opinion was not intrusive:  $\beta$ s = .329 and .632,  $ps = .001$  and  $< .001$ , for the intrusive and nonintrusive conditions, respectively. These results are



**Figure 1.** Projected means for Reported Counterarguing of participants with high (1 SD above the mean) and low (1 SD below the mean) Social Vigilantism Scale (SVS) scores against the fictional opinionated target who was intrusive or nonintrusive in the presentation of his or her extreme opinions.

illustrated in Figure 1. In other words, participants higher on SV were more likely to show a negative reaction toward the nonintrusive target, in this case by being more likely to counterargue. Perhaps people higher in SV saw a greater opportunity to impress their beliefs on a nonintrusive target.

**Raters' assessment of counterarguing and superiority in participants' free responses.** Consistent with the results predicting the participants' ratings of their goal to counterargue, the model predicting the participants' levels of Actual Counterarguing was significant only when the fifth step entered their SVS scores,  $R^2$  change = .038,  $F(1, 179) = 7.08$ ,  $p = .009$ . As participants' levels of SV increased, counterarguing increased in their written responses to the opinionated target as assessed by the raters,  $\beta = .197$ ,  $p = .009$ .

The same pattern of results was found for the prediction of the levels of Actual Superiority that the participants showed in their written responses to the opinionated targets. Only the addition of the fifth step containing participants' SVS scores significantly improved the model,  $R^2$  change = .049,  $F(1, 178) = 9.60$ ,  $p = .002$ . Specifically, participants' expressions of belief superiority, as assessed by raters, increased as their levels of SV increased,  $\beta = .225$ ,  $p = .002$ .

Interestingly, participants' expressions of Actual Superiority mediated (Baron & Kenny, 1986) the relation between their SVS scores and their levels of Actual Counterarguing. When Actual Superiority was entered into the regression model predicting Actual Counterarguing in the step following the entry of SVS scores, the model was significantly improved,  $R^2$  change = .300,  $F(1, 178) = 81.27$ ,  $p < .001$ , indicating that higher levels of superiority were associated with higher levels of counterarguing,  $\beta = .577$ ,  $p < .001$ . Furthermore, the standardized regression coefficient for the prediction of counterarguing by SVS scores became nonsignificant,  $\beta = .062$ ,

$p = .331$ . This indicates that, consistent with the predicted nature of SV, individuals higher in SV may be more likely to counterargue against those who express extreme opinions because these participants believe that their own views are superior.

In sum, consistent with our predictions, Study 1 showed that in reaction to a target's extreme position, participants higher in SV expressed greater belief superiority and exhibited greater rates of counterarguing more than did individuals with lower levels of SV. Moreover, mediational analysis showed that when confronted by another individual's opinions, individuals with higher levels of SV likely counterargued more because of their exaggerated belief superiority.

### Study 3: Unique Prediction of Reactions to Another Individual's Extreme Opinions

This study sought to replicate the effects of Study 2, such that higher levels of SV predicted expressions of superiority and counterarguing in response to an extremely opinionated target. However, Study 3 intended to demonstrate that these effects hold even after controlling for other measures that may predict similar responses. Accordingly, the same procedure used in Study 2 was employed in Study 3, with the addition that participants completed individual measures of narcissism, dogmatism, reactance, and need for cognition so that we could assess the unique predictive power of SV on expressions of superiority and counterarguing after controlling for these individual differences.

#### Method

**Participants.** Undergraduates ( $N = 142$ ; 67 men, 70 women, and 5 declined to report their gender) voluntarily participated during the regular class meeting of an experimental psychology in exchange for extra credit.

**Procedure.** Participants completed questionnaire packets that contained the MSS, SVS, and lists of extreme right- or left-wing opinions that included a final opinion that was either intrusive or nonintrusive, and they were given the opportunity to respond to and rate the author of the opinion list. These manipulations and materials were identical to those used in Study 2. The free responses were rated by two independent raters for the same qualities and using the same procedures as in the previous study, and the ratings were again reliable (correlations between raters  $> .70$  for all qualities). However, the following additions were made to the questionnaire packets. Participants reported their agreement to all items on a 1 (*not at all*) to 9 (*very much*) scale.

**Dogmatism measure.** Dogmatism, the tendency for individuals to be close-minded and driven by adherence to ideology in their beliefs, was measured using the 20-item version (Troidahl & Powell, 1965) of the Dogmatism Scale (DS; Rokeach, 1960; Rokeach & Fruchter, 1956).

**Reactance measure.** Psychological reactance, the individual tendency to be oppositional when the individual feels he or she is being restricted, was measured using the 28-item Therapeutic Reactance Scale (TRS; Dowd et al., 1991).

**Need for cognition measure.** Need for cognition, the tendency for an individual to engage in and enjoy thinking, was measured using the 34-item Need for Cognition Scale (NFC; Cacioppo & Petty, 1982).

**Narcissism measure.** Individuals' levels of narcissism—summarily defined as an individual's possession of a grandiose sense of self-importance—was measured using the 40-item Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988).

**Additional items about goals in responses.** In addition to the items included in Study 2 that assessed the participants' goals in making responses to the opinionated target, four items were included to assess the participants' belief that it was worth it to try to change the opinionated target's opinions in their responses. The statements were that it was worth trying to change the other person's opinions, that they would be successful in changing the other's opinions, that they could convince the other person that they were right, and that they would spend time trying to change the other person's opinions.

#### Results and Discussion

**Scale Reliabilities and Intercorrelations.** The internal consistencies for all measures were in the acceptable range: MSS alpha = .69, SVS alpha = .87, DS alpha = .79, NFC alpha = .93, TRS alpha = .87, and NPI alpha = .93. The correlations among the measures are shown in Table 2. SVS scores correlated positively and significantly with scores on the measures of dogmatism, reactance, and narcissism, but not with the NFC.

#### Data Reduction

**Participants' self-reported goals.** The ratings made for the goals of participants' responses to the opinionated target were entered into a principal components analysis with varimax rotation, and three strong factors emerged (eigenvalues  $> 1$ ) that accounted for 72.97% of the variance. The first factor was labeled Reported Counterarguing, included four items (i.e., present opinions, own opinions are right, other's opinions are wrong, convince other to agree) that loaded well ( $> .77$ ), and formed a reliable composite variable, alpha = .85. The second factor was labeled Agree With Other, included two items (i.e., agree with other, persuaded by other) that loaded well ( $> .79$ ), and formed a composite variable with relatively low internal consistency, alpha = .63. The third factor was labeled Worth Arguing, included four items (i.e., successful at changing other's opinions, could convince other, how long spent changing other's opinions, worth trying to change other's opinions) that loaded well ( $> .60$ ), and formed a reliable composite variable, alpha = .85.



**Table 2.** Correlations Between Social Vigilantism, Moral Stability, Dogmatism, Need for Cognition, Reactance, and Narcissism

Measure	1	2	3	4	5	6
1. SVS	—					
2. MSS	.04	—				
3. DS	.49***	-.19*	—			
4. NFC	.02	.40***	-.27***	—		
5. TRS	.54***	.10	.25***	.15	—	
6. NPI	.47***	.21*	.28***	.09	.53***	—

Note: SVS = Social Vigilantism Scale; MSS = Moral Stability Scale; DS = Dogmatism Scale; NFC = Need for Cognition Scale; TRS = Therapeutic Reactance Scale; NPI = Narcissistic Personality Inventory.

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

**Ratings of participants' free response measures.** The ratings made by the two independent raters for the qualities of the free responses were averaged and then entered into a principal components analysis with varimax rotation. Two strong factors emerged (eigenvalues  $> 2$ ) that accounted for 62.20% of the variance onto which all but one (i.e., agreement with other) of the qualities loaded well. This item was subsequently dropped from further analyses. The first factor was labeled Actual Counterarguing, onto which three items (i.e., discuss own views, convince the individual, show oneself is right) loaded well ( $> .83$ ) and formed an internally consistent composite variable,  $\alpha = .88$ . The second factor was labeled Actual Superiority, included the remaining four items (i.e., superiority, individual is wrong, tolerance reversed, avoided conflict reversed) that loaded well ( $> .49$ ), and formed a reliable composite variable,  $\alpha = .71$ .

### Predicting Dependent Measures

**Analytic strategy.** Hierarchical multiple regression was used to assess the unique and additive prediction of the independent measures for each of the dependent measures. We predicted that the addition of the participants' SVS scores would significantly improve the prediction of the participants' reactions to the opinionated target upon its entry into the model above and beyond the predictive value of the other measures. The steps of the analyses were identical in structure to the analyses used in Study 2, except for the inclusion of the additional measures (DS, TRS, NFC, NPI) in the step before the entry of the SVS scores.

**Participants' self-reported goals.** Consistent with the results of Study 2, the prediction of the participants' goal to Agree With Other was not significant at any step of the analysis. For the prediction of Reported Counterarguing, two steps significantly improved the prediction offered by the model. The addition of the fourth step improved the model,  $R^2$  change = .098,  $F(5, 119) = 2.63$ ,  $p = .027$ . Examination of the standardized regression coefficients at this step showed that only participants' DS scores offered significant unique prediction such that higher levels of dogmatism were associated with higher levels of Reported Counterarguing,  $\beta = .267$ ,  $p = .008$ . The addition of SVS scores in the fifth step also

significantly improved the predictive value of the model,  $R^2$  change = .059,  $F(1, 118) = 8.33$ ,  $p = .005$ , such that higher levels of SV predicted higher levels of Reported Counterarguing,  $\beta = .318$ ,  $p = .005$ . This showed that, consistent with the results of Study 2 and with our hypotheses, SV is a significant predictor of individuals' reports of counterarguing above and beyond the other measures.

For the prediction of Worth Arguing, two steps improved the predictive model significantly upon entry. Participants' sex improved the model at the first step,  $R^2$  change = .032,  $F(1, 127) = 4.14$ ,  $p = .044$ , and indicated that male participants reported that it was worth arguing against the opinionated target more than did female participants,  $\beta = -.178$ ,  $p = .044$ . Of greater theoretical import, the entry of SVS scores in the fifth step significantly improved the model,  $R^2$  change = .047,  $F(1, 119) = 6.63$ ,  $p = .011$ , such that as SV scores increased, so did the belief that it was worth arguing against the opinionated target  $\beta = .286$ ,  $p = .011$ .

Collectively, these results indicate that individuals who are higher on SV are more likely to report trying to impress their beliefs onto others and more likely to think they would be successful in their attempts to impress their beliefs onto others. We therefore thought it appropriate to test the ability of Worth Arguing to mediate the relation between SV and Reported Counterarguing. That is, would individuals higher in SV be more likely to attempt to impress their beliefs onto the opinionated target because they thought they would be successful in doing so? To test this prediction, participants' Worth Arguing scores were entered into the regression model to predict Reported Counterarguing in the step that followed the entry of SVS scores. The results showed that the relation between SV and Reported Counterarguing was mediated by the participants' reported beliefs that they thought it was worth arguing. The entry of Worth Arguing significantly improved the model,  $R^2$  change = .144,  $F(1, 119) = 24.62$ ,  $p < .001$ , and showed that a positive relation existed between Worth Arguing and Reported Counterarguing,  $\beta = .407$ ,  $p < .001$ . Furthermore, the unique prediction of participants' levels of reported counterarguing was reduced from highly significant to nonsignificant levels,  $\beta = .199$ ,  $p = .057$ , upon the entry of Worth Arguing. This mediation analysis

indicates that individuals higher on SV may attempt to impress their beliefs onto others because they believe that they will be successful in their attempts.

*Raters' assessment of counterarguing and superiority in participants' free responses.* For the prediction of Actual Counterarguing that the participants' showed in their free responses to the opinionated target, two steps significantly improved the model. The entry of participants' sex in the first step improved the model significantly,  $R^2$  change = .056,  $F(1, 129) = 7.68, p = .006$ , and showed that male participants counterargued in their responses to the opinionated target less than did female participants,  $\beta = .237, p = .006$ . This result appears inconsistent with the results that show that male participants find it more worth arguing and score higher on the measures that have previously predicted reported and actual levels of counterarguing in this and previous studies. However, more consistent with our previous findings and of greater theoretical import, the entry of participants' SVS scores in the fifth step again significantly improved the model above and beyond the other predictors,  $R^2$  change = .059,  $F(1, 121) = 8.41, p = .004$ , and showed that individuals who scored higher on SV were more likely to show higher levels of counterarguing in their responses to the opinionated classmate,  $\beta = .319, p = .004$ . Furthermore, only the fifth step, that is, entry of the SVS scores, approached significance in the prediction of Actual Superiority,  $R^2$  change = .027,  $F(1, 121) = 3.728, p = .056$ . Specifically, levels of superiority expressed increased as the participants' SVS scores increased,  $\beta = .217, p = .056$ .

Collectively, results indicated that SV predicted individuals' reactions to a target's extreme opinions. Specifically, consistent with predictions, Study 3 showed that higher levels of SV were associated with greater expression of belief superiority and counterarguing, as well as a more strongly held belief that the counterarguing will successfully impress one's beliefs onto others even after controlling for individual differences in narcissism, dogmatism, reactance, and need for cognition.

#### Study 4: Resistance to Persuasion Above and Beyond Attitude Strength and Extremity

In this last study, we predicted that individuals higher in SV would exhibit greater rates of resistance to persuasion (including greater expression of belief superiority and counterarguing, as well as lower rates of attitude change) after being exposed to targets who disagreed with them, even after accounting for participants' levels of attitude strength and extremity. This study tested these predictions by exposing participants to a target's belief about sex education in public schools after they had already reported their own level of agreement with the policy. Participants were then given the chance to respond to the target in writing, to evaluate the target on several adjectives, and to

report their subsequent level of agreement with teaching sex education in public schools.

#### Method

*Participants.* Undergraduates ( $N = 117$ ; 35 men, 76 women, and 6 declined to report their gender) participated voluntarily for extra credit during the regular class meeting of a large social psychology class.

#### Procedure

*Completion of measures.* Participants received questionnaire packets that contained two sections in counterbalanced orders. One section contained the SVS and MSS and was entitled "Personal Views, Ethics, and Morality." An additional section contained items regarding participants' level of support for the teaching of sex education in public schools, a fictional classmate's opinion about sexual education, and opportunities for the participants to respond to and evaluate the classmate. This section first asked the participants to report their level of agreement with the statement "Sex education should be taught in the public schools of the United States" from 1 (*disagree very strongly*) to 9 (*agree very strongly*). Participants were also asked to rate how important this issue is to them from 1 (*not at all important*) to 9 (*extremely important*). The participants were then asked to imagine that a classmate communicated his or her<sup>4</sup> beliefs about sex education to them. This statement was manipulated so that half of the participants were randomly assigned a statement that endorsed sex education and half of the participants were randomly assigned a statement that opposed sex education. Following this statement, participants were given the opportunity to write a response to the classmate in a free response format and to rate how well each of 16 adjectives (e.g., *unpleasant, awkward, tolerant, likable, friendly, intelligent*) described the classmate from 1 (*not at all*) to 9 (*very much*). Participants were also asked to report their level of agreement with the original statement about sex education after having been exposed to their classmate's opinion.

*Ratings of participants' free responses.* Two independent raters who were unaware of the participants' responses to the other dependent measures evaluated the responses the participants wrote to the fictional classmate from 1 (*very little*) to 9 (*very much*) on how superior, hostile, tolerant, friendly, diplomatic, persuasive, intrusive, sophisticated, and rigid the responses were. All qualities were rated reliably, with the correlation between the ratings of the independent raters exceeding .57 in each case.<sup>5</sup>

#### Results and Discussion

*Reliabilities of and Relations Between the SVS and MSS.* The internal consistencies were acceptable for both the SVS and MSS, alphas = .88 and .71, respectively. The

scores on the SVS and MSS were not significantly correlated,  $r = .15$ ,  $p = .119$ .

### Data Reduction

**Participants' ratings of the classmate.** The 16 adjective ratings for the classmate were entered into a principal components analysis with varimax rotation. Four strong factors emerged (eigenvalues  $> 1$ ) that accounted for 69.56% of the variance. Five adjective ratings (*unpleasant, awkward, offensive, immoral, prejudiced*) loaded ( $>.68$ ) onto a Negative Ratings factor and formed a reliable composite variable,  $\alpha = .88$ . Six adjective ratings (*likable, friendly, intelligent, hard-working, agreeable*) loaded ( $>.55$ ) onto a Positive Ratings factor and formed an additional reliable composite variable,  $\alpha = .86$ . The remaining adjective ratings failed to load onto factors that would produce composite variables with acceptable levels of internal consistency and were deleted from further analyses.

**Ratings of participants' free responses.** The ratings by the independent raters of the participants' written responses to the fictional classmate were averaged and then entered into a principal components analysis with varimax rotation. Two strong factors emerged that accounted for 79.20% of the variance. Only the combination of the ratings that loaded ( $>.48$ ) on the first factor (superior, hostile, intrusive, rigid, friendly reversed, diplomatic reversed, and tolerant reversed) produced a reliable composite variable,  $\alpha = .93$ , labeled Aggressive Counterarguing, and the other ratings were not subsequently used in later analyses.

### Predicting Dependent Measures

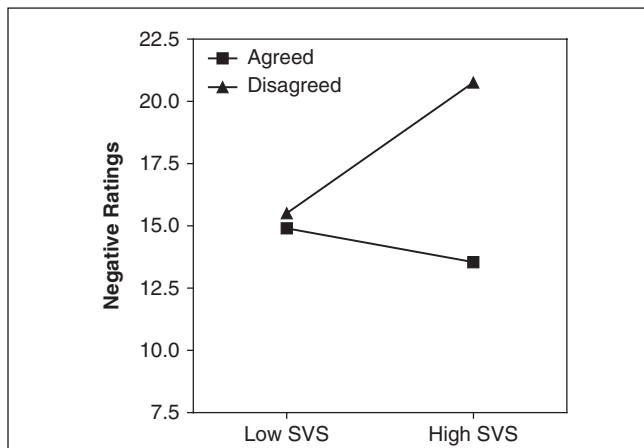
**Analytic strategy.** For each dependent measure, hierarchical multiple regression was used to assess the unique and incremental value of several predictors in accounting for variance in the dependent measure. Specifically, these analyses were constructed so that the ability of SV to predict reactions to the classmate's opinion regarding the teaching of sex education could be assessed after accounting for the prediction offered by attitude extremity and attitude importance. Seven steps were entered into the analysis, and all continuous variables were standardized before entry. The first step contained participants' sex to control for sex differences on the independent measures. The second step added the position that the classmate took regarding the teaching of sex education. Because 90.6% of the participants reported agreement with teaching sex education in public schools by choosing a value of 6 or greater on the 9-point scale, only these participants are included in the regression analyses.<sup>6</sup> The position taken by the classmate was therefore rephrased as agreement (supported sex education) or disagreement (opposed sex education) and dummy-coded 0 and 1, respectively, before entry in the second step of the analyses. The third step added the participants' reports of how important the sex education issue was to them and added an attitude extremity measure

that indicated how far from the midpoint the participants reported that their initial agreement was with teaching sex education (e.g., a value of 9 is 4 units away from the midpoint value of 5). The fourth step added the product terms that carried the interactions between attitude importance and agreement/disagreement and between attitude extremity and agreement/disagreement. The fifth step added the participants' moral stability (MSS) scores. The sixth step added the participants' SV (SVS) scores. The seventh step added the product term that carried the interaction between SV and agreement/disagreement.

**Participants' positive ratings of the classmate.** The only step of the analysis that reached significance was the second step that entered agreement/disagreement into the model predicting the participants' positive ratings of the classmate,  $R^2$  change = .081,  $F(1, 96) = 8.53$ ,  $p = .004$ . Results indicated that participants made less positive ratings of the classmate when the classmate disagreed with the participants,  $\beta = -.285$ ,  $p = .004$ .

**Participants' negative ratings of the classmate.** Three steps offered significant improvements to the model predicting the negative ratings given to the classmate by the participant. The entry of agreement/disagreement significantly improved the model at the second step of the analysis,  $R^2$  change = .055,  $F(1, 96) = 5.63$ ,  $p = .020$ , and indicated that participants rated the classmate more negatively when the classmate disagreed with the participants,  $\beta = .235$ ,  $p = .020$ . The entry of participants' moral stability scores improved the model upon entry in the fifth step of the analysis,  $R^2$  change = .055,  $F(1, 91) = 6.13$ ,  $p = .015$ , and indicated that participants who were higher in moral stability provided less negative ratings of the classmate,  $\beta = -.244$ ,  $p = .015$ . Finally, the seventh step of the analysis in which the product term carrying the interaction between SV scores and agreement/disagreement was entered significantly improved the model,  $R^2$  change = .039,  $F(1, 89) = 4.50$ ,  $p = .037$ . Simple slopes analysis (Aiken & West, 1991) revealed that although no significant relation existed between SV scores and negative ratings in the agreement condition,  $\beta = -.084$ ,  $p = .554$ , there was a significant positive relation between SV scores and negative ratings in the disagreement condition,  $\beta = .322$ ,  $p = .020$  (see Figure 2). These results show that individuals who are higher in SV are more likely than individuals who are lower in SV to dislike those who disagree with them.

**Aggressive counterarguing.** Only two steps in the analysis were significant upon entry in predicting the participants' levels of aggressive counterarguing. Results for entry of the second step indicated that the addition of agreement/disagreement did significantly improve the prediction,  $R^2$  change = .205,  $F(1, 95) = 24.58$ ,  $p < .001$ . Expectedly, examination of the standardized regression coefficients indicated that participants unsurprisingly showed higher levels of aggressive counterarguing when the classmate disagreed with them,  $\beta = .454$ ,  $p < .001$ .



**Figure 2.** Projected means for Negative Ratings for participants with high (1 SD above the mean) and low (1 SD below the mean) Social Vigilantism Scale (SVS) scores of the fictional classmate policy, who agreed or disagreed with participants about sex education policy.

Furthermore, results for the entry of the sixth step indicated that the addition of participants' SV scores significantly improved the model,  $R^2$  change = .047,  $F(1, 89) = 5.92$ ,  $p = .017$ . This showed that consistent with predictions, after controlling for the effects of attitude importance, attitude extremity, and moral stability, higher levels of SV predicted higher levels of aggressive counterarguing,  $\beta = .236$ ,  $p < .017$ . Interestingly, this effect was not qualified by an interaction between SV and agreement/disagreement when the seventh step was entered,  $R^2$  change = .017,  $F(1, 88) = 2.22$ ,  $p = .140$ . This indicates that individuals higher in SV showed the tendency to aggressively disseminate their own views to other people even when those individuals already agree with them.

**Stability of attitudes toward sex education.** A chief objective of this study was to examine how well SV could predict participants' attitude stability. Accordingly, a main dependent measure of this study was the difference between participants' initial reports of their agreement with teaching sexual education in public schools and their reports of agreement with the same policy after being exposed to the opinion of a fictional classmate. We had predicted that individuals who were higher in SV would be less likely to alter their attitudes than would individuals lower in SV, even after controlling for the individuals' reports of how important this issue was to them and for the extremity of their initial attitude. The same hierarchical multiple regression analytic strategy used in each of the preceding analyses was used to test this prediction using the difference score between their initial agreement and agreement after the classmate's opinion as the dependent variable.

Two steps improved the prediction of attitude change upon entry into the model. The third step that contained the attitude extremity and attitude importance variables significantly

improved the model upon entry,  $R^2$  change = .131,  $F(2, 95) = 7.41$ ,  $p = .001$ . Examination of the regression coefficients showed that attitude extremity,  $\beta = .297$ ,  $p = .008$ , and attitude importance,  $\beta = -.417$ ,  $p < .001$ , each predicted unique portions of the variance in attitude change. However, the entry of the sixth step that contained participants' SV scores also improved the model at near significant levels,  $R^2$  change = .033,  $F(1, 91) = 3.83$ ,  $p = .053$ ,  $\beta = -.171$ . To better illustrate the nature of SV scores with attitude stability, we used the regression equation to predict the amount of attitude change that would be projected for individuals whose SV scores were 1 SD above and below the mean. We found that although individuals who scored 1 SD below the mean were projected to show a substantial amount of attitude change (difference score = .408), individuals who scored 1 SD above the mean were projected to show virtually no attitude change (difference score = .044). Solving the regression equation for absolutely no attitude change (difference score = 0), we found that this would be expected for participants who scored 1.24 SD above the mean on SV. These results support our predictions and show that individuals who score higher on SV, compared to those who score lower, show more attitude stability and that this stability is predicted by SV above and beyond the prediction provided by the individuals' levels of attitude importance and extremity.

Overall, the results of Study 4 supported our hypotheses about the nature of SV. First, the higher the level of SV, the more negatively participants rated the target who disagreed with them. Higher levels of SV were also associated with increased levels of counterarguing. Finally, higher levels of SV were associated with higher levels of attitude stability, even after controlling for attitude importance and extremity. These results held regardless of whether the target's position aligned with the participants'. These results support our contention that SV is a unique individual difference that predicts the evaluation and behavioral responses to people who not only present extreme opinions, as in Studies 2 and 3, but to those who generally disagree with them, as in Study 4. Moreover, Study 4 highlighted not only the aggressive counterarguing exhibited by those higher in SV but also the stability of their attitudes after a persuasion appeal.

## General Discussion

SV is an enduring individual difference that assesses people's tendency to impress and propagate their "superior" beliefs onto others to correct others' more "ignorant" opinions. After establishing a reliable self-report measure of SV (Study 1), Study 2 demonstrated that higher levels of SV are associated with greater expressions of belief superiority and reported counterarguing toward a target expressing an extreme ideological opinion. It is important to note that these effects held even after controlling for participants' ratings of agreement. Study 3 showed that SV was again associated

with greater expression of belief superiority and counterarguing even after accounting for the contribution of individual difference measures of narcissism, dogmatism, reactance, and need for cognition. Study 4 showed that people higher in SV again expressed greater rates of counterarguing and evaluated dissenters more negatively but, more importantly, exhibited less attitude change after a persuasion appeal. Together, these studies demonstrate that SV is an important individual difference variable that uniquely accounts for variance above and beyond characteristics both of the individual and of the attitude previously studied in the social psychological literature.

SV did correlate moderately with other individual difference measures (narcissism, dogmatism, psychological reactance, and need for cognition) that would likely predict similar perceptions of one's own beliefs and similar reactions to the expressions of others' opinions. However, even after controlling for these measures, SV remained an empirically unique predictor of belief superiority and resistance to persuasion. That is, SV is related to these constructs with good reason, and the nature and magnitude of the relations serves as a convergent validity check of the measure of SV; however, SV does not appear to be redundant with these measures.

The exploration of SV as an individual difference that may predict resistance to persuasion is important in understanding the nature of persuasion and attitude resistance. Essentially, SV may predict that some individuals will not be successfully influenced by persuasion attempts. Our studies indicate that counterarguing was initiated by individuals higher in SV regardless of their agreement with the message or by the intrusiveness of the persuader. This suggests that these individuals may be more provoked by the mere presentation of opinions—and not by the opinions themselves—into counterarguing, using their own beliefs as ammunition against the persuasive message. By counterarguing, and by believing that it is worthwhile to disseminate one's own beliefs, individuals higher in SV may be generally more resistant to persuasion.

Furthermore, research on SV should address the efficacy of various persuasion methods based on individuals' levels of SV to identify techniques that may be more effective in circumventing the resistance to persuasion displayed by those higher in SV. In addition, because the studies reported here do not involve an actual confrontation by a persuader in person, future studies will investigate the cognitive and behavioral responses to the presentation of persuasive messages and extreme beliefs by others.

It may also be useful to further explore how SV has evolved as an individual difference. We postulate that people higher in SV have unusually strong confidence in the rightness of their beliefs, regardless of whether the beliefs can be objectively falsified (confidence in one's beliefs does not necessarily correlate with accuracy or correctness). We posit that feelings of belief superiority accumulate and strengthen

over time (starting in childhood) with repeated, multifaceted interactions with assenters that confirm the rightness of one's beliefs as well as repeated interactions with dissenters in which people higher in SV learn to "defend" the rightness of their own beliefs when confronted with a persuasive message to change their attitudes (cf. Williams, Huang, & Bargh, *in press*). We also reason that these feelings of belief superiority and rightness over time encompass not only deep-seated and important attitudes but also any attitude held (for which we have preliminarily received support in the set of current studies). Yet, our studies do not speak directly to the development of SV. Our studies have demonstrated that we can reliably and validly measure SV and that SV uniquely accounts for variance above and beyond characteristics of both the individual and the attitude previously studied in the social psychological literature. Its developmental underpinnings, however riveting, will need to be carefully investigated with further research.

Similarly, it would be fruitful to demonstrate more thoroughly the motivational nature and power of SV. For example, would people higher in SV feel more frustrated if the opportunity to impress their beliefs was impeded or thwarted? Moreover, it would be fruitful to investigate the lengths people higher in SV go to to fulfill their motivation. Would they give up their time and money to have the opportunity to propagate their superior beliefs to correct someone's misguided attitudes? Would people higher in SV sacrifice being liked by others to propagate their superior beliefs? Although we would answer in the affirmative to these questions, only further research will be able to provide evidence that people higher in SV will go "the extra mile" to have the opportunity to propagate their beliefs and sway other people's opinions. Furthermore, it would be intriguing to assess whether the effects of SV are much like goal-directed behavior; that is, once people higher in SV fulfill their motivation to impress their beliefs, would the motivation be satisfied and thus less likely to occur second time (cf. Bargh, Gollwitzer, Lee-Chai, Barndollar, & Troetschel, 2001)?<sup>7</sup>

Lastly, while these studies did attempt to evaluate the relations with other variables that are associated with similar attitudinal and behavioral responses, future work is needed to address the relations with other individual difference measures, such as different types of sociopolitical ideology (e.g., social dominance orientation) and the nature or type of attitude (e.g., sex education vs. racism). Given the scope of the literature on individual differences and attitude characteristics, we see almost endless applications of SV in all fields of psychology.

SV is a distinct and useful individual difference variable that will allow for a more comprehensive understanding of the nature of belief superiority, persuasion, and attitude resistance. It will also assist in the understanding of how individuals perceive their own beliefs as superior relative to those of others and the resultant need to perpetuate these beliefs. This is an important domain that needs to be explored

given the international conflicts that have arisen as a direct result of one group or nation attempting to assert its own beliefs (e.g., religious, political) onto other groups or nations that do not share those beliefs. SV may have been a potential factor in incidents ranging from the Spanish Inquisition to the Israeli–Palestinian religious conflicts to the September 11 terrorist attacks. Understanding the individual propensity for these cognitions and behaviors can serve to explain and, hopefully, ultimately inform interventions designed to possibly circumvent these processes.

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### Notes

1. Items for the Moral Stability Scale are available from the authors on request.
2. The fictional individual's sex was not specified to the participants.
3. An alternative data analytic strategy was used to test all of the two-, three-, and four-way interactions between SV scores, participants' sex, the ideological position of the opinions, and the intrusiveness of the last opinion. None of these interactions, beyond the interactions reported in text, reached significance in improving the regression models used to predict each of the dependent variables. Of note, the two-way interactions between SV and the ideological position of the opinions failed to improve the predictive models, suggesting that those higher in SV had similar reactions to both the right- and left-wing ideological positions.
4. The fictional individual's sex was not specified to the participants.
5. Raters also rated for the presence or absence of statements made by participants that insulted the classmate, explicitly stated that the classmate was wrong, and explicitly showed respect for the classmate's opinion. These statements were relatively infrequent. Interestingly, however, the participants who insulted the classmate ( $n = 4$ ) were significantly higher on the SVS than those who did not,  $t(114) = 2.30, p = .023$ . In addition, the participants who stated that the classmate was wrong ( $n = 16$ ) were significantly higher on the SVS than those who did not,

$t(114) = 2.78, p = .006$ , and the participants who showed respect for the classmate's opinion ( $n = 46$ ) were lower on the SVS,  $t(114) = 1.81, p = .073$ , at marginally significant levels.

6. The excluded participants were not significantly different from the included participants on the SVS.
7. We thank anonymous reviewers for suggesting these discussion points.

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