The Impact of Social Threat on Worldview and Ideological Attitudes

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Research has shown that social threat correlates with ideological authoritarianism, but the issues of causal direction and specificity of threat to particular ideological attitudes remain unclear. Here, a theoretical model is proposed in which social threat has an impact on authoritarianism specifically, with the effect mediated through social worldview. The model was experimentally tested with a sample of undergraduates who responded to one of three hypothetical scenarios describing a future New Zealand that was secure, threatening, or essentially unaltered. Both threat and security influenced social worldview, but only threat influenced authoritarianism, with differential effects on two factorially distinct subdimensions (conservative and authoritarian social control attitudes) and with the effects of threat mediated through worldview. There was a weak effect of threat on social dominance that was entirely mediated through authoritarianism. The findings support the proposed theoretical model of how personal and social contextual factors causally affect people’s social worldviews and ideological attitudes.

KEY WORDS: threat, worldview, ideology, authoritarianism

The theory of the authoritarian personality elaborated by Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950) was an ambitious attempt to elucidate the psychological bases of ideology, in particular of fascism, and ethnocentrism. However, their proposal that nine distinct facets of personality covaried to constitute a single basic dimension measured by their F-scale proved overambitious. When the response bias of acquiescence due to the all-positive formulation of its items was controlled, the F-scale lacked reliability and unidimensionality. As Altemeyer (1981) later showed, it appeared to be measuring several poorly related factors, and this was reflected in its rather weak and inconsistent associations with important validity criteria of authoritarianism.

These and other problems with the approach led to a general loss of interest in the theory of an authoritarian personality. However, in 1981 Altemeyer’s own
research revived the approach. He refined the construct of authoritarianism to only three of the original components, which his research suggested did covary strongly enough to constitute a unitary dimension (conventionalism, authoritarian submission, and authoritarian aggression), and which he successfully measured with his Right-Wing Authoritarianism (RWA) scale.

Later, during the 1990s, Sidanius and Pratto (1993, 1999; Pratto, 1999; Pratto, Sidanius, Stallworth, & Malle, 1994) proposed a second individual difference dimension, social dominance orientation (measured by their SDO scale), that also seemed fundamental to an understanding of individual differences in ideology and ethnocentrism. They conceptualized social dominance orientation as a “general attitudinal orientation toward intergroup relations, reflecting whether one generally prefers such relations to be equal versus hierarchical” and the “extent to which one desires that one’s ingroup dominate and be superior to outgroups” (Pratto et al., 1994).

Research has shown that both the RWA and SDO scales powerfully predict a wide range of political, ideological, and intergroup phenomena (Altemeyer, 1988, 1998; Sidanius & Pratto, 1999). Despite this, the two scales seem relatively independent, often being nonsignificantly or only weakly correlated with each other (Altemeyer, 1998; McFarland, 1998; McFarland & Adelson, 1996; Sidanius & Pratto, 1999). Altemeyer (1998) has therefore suggested that the RWA and SDO scales measure two different kinds of authoritarian personality, with both determining a basic susceptibility to right-wing politics and ideology.

This view—that the RWA and SDO scales measure dimensions of personality—can be seriously questioned, however. Commentators have pointed out that the items of the RWA scale, and its predecessor the F-scale, do not pertain to personality traits and behavior, but rather express social attitudes and beliefs of a broadly ideological nature (Feldman & Stenner, 1997; Goertzel, 1987; Saucier, 2000; Stone, Lederer, & Christie, 1993, p. 232; Verkuyten & Hagendoorn, 1998). This seems clear from even a cursory inspection of RWA items such as “What our country really needs is a strong, determined leader who will crush evil, and take us back to the true path” and “Everyone should have their own lifestyle, religious beliefs, and sexual preferences, even if it makes them different from everyone else” (Altemeyer, 1996). Similarly, the items of the SDO scale, such as “We should strive to make incomes as equal as possible” and “Inferior groups should stay in their place” (Pratto et al., 1994), are also clearly statements of social attitude and belief. Sidanius and Pratto, while occasionally referring to SDO as a dimension of personality (see Pratto et al., 1994), seem to have more commonly described it as a measure of enduring beliefs (see Sidanius & Pratto, 1999).

Both the RWA and SDO scales therefore seem more appropriately viewed as measuring social attitude or ideological belief dimensions, rather than personality. Items such as those of the RWA and SDO scales express evaluative beliefs about the nature, structure, and organization of society and about individuals’ proper roles, conduct, and place within and in relation to society and other impor-
tant social groups. In contrast, personality pertains to individuals’ relatively enduring dispositions to behave in consistent ways across situations. The items of personality scales are thus typically statements of how individuals habitually behave in or across situations.

The view of the RWA and SDO scales as measuring social or ideological attitudes was supported by a review of research showing that investigations of the structure of sociopolitical attitudes and sociocultural values have typically revealed two roughly orthogonal dimensions, with one corresponding closely to RWA and the other to SDO (Duckitt, 2001, see table 3). Investigators have usually labeled the RWA-like dimension as social conservatism, traditionalism, or collectivism versus personal freedom, openness, or individualism, and the SDO-like dimension as economic conservatism, belief in inequality, or power distance versus social welfare, egalitarianism, or humanitarianism. Moreover, the social conservatism dimension of social attitudes, when reliably measured, has correlated powerfully with the RWA scale and scaled with it as a single general factor or dimension (Forsyth, 1980; Raden, 1999; Saucier, 2000). For example, Saucier (2000) obtained a correlation of .77 between the RWA scale and a well-established attitudinal measure of social conservatism—Wilson’s (1973) conservatism scale.

There is another compelling reason why authoritarianism seems better conceptualized as a dimension of ideological social attitudes rather than of personality. Research suggests that authoritarianism may be highly reactive to and powerfully influenced by the social situation. A number of studies have shown that social threat is strongly correlated with authoritarianism, although personal threats are not (Feldman & Stenner, 1997; Peterson, Doty, & Winter, 1993; Rickert, 1998). Further, several experimental and longitudinal studies have suggested that this relationship may be causal, with increased social threat causing heightened authoritarianism (Doty, Peterson, & Winter, 1991; McCann & Stewin, 1990; Sales, 1972, 1973; Sales & Friend, 1973). Altemeyer (1988, pp. 290–310), for example, showed that when students were given scenarios in which a future Canadian society was in economic and political crisis with escalating crime, unemployment, and terrorism, their RWA scores increased substantially.

It is possible, however, that both the social situation and personality may influence ideological attitudes such as RWA and SDO. Adorno et al. (1950) originally suggested this, although their actual investigation focused solely on the presumed influence of personality. More recently, Duckitt (2000, 2001) has proposed a model in which these two dimensions of ideological attitudes—authoritarianism and social dominance—are viewed as expressing motivational goals that have been made salient or activated for individuals, both by their social worldviews (i.e., their beliefs about the nature of their social environments) and by their personalities.

According to this model, high RWA would express the motivational goal of social control and security, activated by a view of the world as dangerous and threatening. Low RWA would express the opposing motivational goal of personal
freedom and autonomy, activated by a view of the social world as safe, secure, and stable. The causal personality dimension would be that of social conformity versus autonomy. Being higher in dispositional social conformity would create a greater readiness to perceive threats to the existing social order and to see the social world as dangerous and threatening. High social conformity would also have a direct impact on authoritarian attitudes by making the motivational goal of social control, security, and stability salient for the individual.

In the case of SDO, the model proposes that the underlying personality dimension is that of tough- versus tender-mindedness, characterized by the opposing traits of being hard, tough, ruthless, and unfeeling to others, as opposed to compassionate, generous, caring, and altruistic. Tough-minded personalities would tend to adopt a view of the world as a ruthlessly competitive jungle in which the strong win and the weak lose, which would tend to activate the motivational goals of power, dominance, and superiority over others, which in turn would be expressed in high SDO. Tender-minded personalities, on the other hand, would tend to adopt the directly opposing view of the social world as a place of cooperative and altruistic harmony in which people care for, help, and share with each other. This would make salient the motivational goal of altruistic social concern, which would be expressed in low SDO.

Social worldviews are conceptualized as individuals’ beliefs about the nature of the social world—that is, what others are like, how they can be expected to behave toward one, and how one should therefore respond or behave toward them (see Ross, 1993). They would be influenced by individuals’ socialization and personality, and hence would be fairly stable over time. However, they would also directly reflect social reality. Consequently, when social situations change dramatically in an apparently enduring fashion—either becoming more dangerous and threatening, or becoming more like a competitive jungle—individuals’ social worldview beliefs should change correspondingly. These changes in individuals’ worldviews would then activate the motivational goals of either social control and security (thereby increasing authoritarian ideological beliefs) or power, dominance, and superiority over others (thereby increasing social dominance ideological beliefs). Thus, the model suggests that social situations will have an impact on ideological beliefs, such as authoritarianism or social dominance, through changing individuals’ worldviews—that is, their conscious interpretations and beliefs about the nature of their social realities.

This causal model of personality, social situation, worldview, and ideological attitudes is summarized in Figure 1 (see also Duckitt, 2000, 2001). Thus, two kinds of social situations—threatening, dangerous situations and competitive jungle-like situations—directly influence individuals’ worldviews, which are also influenced by the two personality dimensions of social conformity and tough-mindedness, respectively. These two worldview and personality dimensions then determine the two ideological attitude dimensions of authoritarianism and social dominance, as shown.
The model also proposes causal links between the two personality, worldview, and ideological attitude systems. First, because extreme tough-mindedness is socially deviant, conforming persons seem less likely to be, or to report being, high on tough-mindedness. Second, seeing the social world as a competitive jungle seems likely to cause it to be seen as more dangerous and threatening, rather than the reverse. Third, pressures for cognitive consistency could result in RWA and SDO having positive causal impacts on each other, at least in more ideologized societies in which politics was organized along a single left (low RWA and low SDO) versus right (high RWA and high SDO) dimension.

Recent research has supported the model. One set of studies showed that the personality dimensions of social conformity and tough-mindedness could be reliably measured and related as expected to ideological attitudes (Duckitt, 2001, study 1). Both personality constructs were measured by asking participants to rate how “characteristic or uncharacteristic” a set of personality trait terms were “of their personality and behavior.” Examples were “obedient,” “respectful,” “unpredictable,” and “rebellious” for social conformity, and “ruthless,” “brutal,” “soft-hearted,” and “sympathetic” for tough-mindedness. Social conformity was strongly correlated with RWA but not with SDO, whereas tough-mindedness was correlated with SDO but not with RWA. Another set of studies using structural equations modeling with latent variables showed excellent overall fit for the model of the causal relationships proposed between the two personality, two worldview,
and two ideological attitude dimensions with each other and with intergroup attitudes for large samples in New Zealand, South Africa, and the United States (Duckitt, 2001, 2002). These studies also confirmed all the individual causal paths proposed by the model, except for an originally suggested direct path from tough-mindedness to SDO, which was then dropped from the model, and is therefore not shown in Figure 1 here.

None of this research, however, examined the impact of social situations on ideological attitudes. The present research sets out to rectify this, at least in part, by investigating the effect of social environmental threat on worldview and ideological attitudes. The model suggests that a social environment that is threatening and dangerous will increase authoritarian attitudes. However, the effect will not be direct or automatic. Such a shift in the social environment will only affect authoritarianism if it changes individuals’ worldview—that is, their belief that the social world really has become a dangerous and threatening place. A shift in worldview would presumably happen when individuals see particular social changes as really significant and potentially enduring. Thus, any effect of social threat on authoritarianism should be entirely mediated through change in this worldview. According to the model, social threat should also have an impact specifically on authoritarian rather than social dominance attitudes. Thus, any increase in social dominance attitudes due to social threat should be entirely mediated through increased authoritarianism.

There is one respect in which the impact of social threat on authoritarianism may be more complex than shown in this model. Evidence from numerous studies suggests that authoritarianism or social conservatism does constitute a single broad dimension (Altemeyer, 1981; Comrey & Newmeyer, 1965; Sidanius & Ekehammar, 1976; Wilson, 1970). However, most of these studies also suggest the existence of several possible subdimensions (Comrey & Newmeyer, 1965; Sidanius & Ekehammar, 1976; Wilson, 1970), which raises the possibility that subdimensions might be differentially influenced by social threat.

Altemeyer (1981) himself conceptualized the RWA scale as measuring the covariation of three distinct components: conventionalism, authoritarian submission, and authoritarian aggression. Almost all factor-analytic studies of the RWA scale have used exploratory factor analysis, and obtained two factors, with one consisting mainly of protrait items (with agreement indicating high authoritarianism) and the other of contrait items (with agreement indicating low authoritarianism). These studies have invariably concluded that these two factors seemed to be direction-of-wording or method factors and that the RWA scale thus seemed to be unidimensional with respect to item content (e.g., Altemeyer, 1981, 1996; Duckitt, 1993). However, many RWA items combine two or sometimes all three of Altemeyer’s components in the same statement, and this may well have prevented “content” subdimensions from emerging more clearly in exploratory factor analyses.

The distinction between components or subdimensions of authoritarianism
that seems particularly relevant in considering the impact of social threat is one that commentators have frequently suggested: a distinction between authoritarianism proper and conservatism (e.g., Adorno et al., 1950; Altemeyer, 1988, p. 8; Martin, 2001; Ray, 1985). This distinction would see authoritarianism proper as comprising Altemeyer’s authoritarian aggression component—that is, support for tough, harsh, punitive, repressive social control. Conservatism would comprise the conventionalism and authoritarian submission components—that is, conformity to and respect for traditional, old-fashioned, conventional social values, institutions, and authorities.

If authoritarianism proper and conservatism can be empirically distinguished, it is possible that social threat might have a more powerful impact on the former than the latter, at least in the short term. Thus, if the social environment suddenly became threatening and dangerous, individuals might rapidly shift their ideological beliefs and attitudes to support and endorse authoritarian social control, whereas the beliefs and values involved in conventional conservatism might show little or no immediate change. Conventional conservatism would then change more slowly over time as the changed beliefs in authoritarian social control became thoroughly internalized and began to generalize. Threat-generated changes in conventional conservatism would thus tend to be mediated through change in authoritarian social control. The current research therefore investigated the possibility of empirically separating these two aspects of authoritarianism-conservatism to observe whether they might be differentially affected by social threat, and if so, whether changes in conservatism would be mediated through change in authoritarianism proper.

Social threat was manipulated using future scenarios modeled on those used by Altemeyer (1988) but comprehensively adapted to reflect the situation in New Zealand. However, whereas Altemeyer used only “threat” versus “control” future scenarios, this study added a “secure future” scenario that depicted a more prosperous, stable, safe, and secure New Zealand. This condition was expected to have effects opposite to the threat condition. It should shift individuals’ worldview to a safer, more secure one than in the control condition, and should reduce authoritarianism, which might mediate corresponding reductions in social dominance and conventional conservatism.

Method

Participants and Procedure

The sample consisted of 280 introductory psychology students, of whom 67% were female. Their mean age was 20.5 years (SD = 4.76). The participants were randomly assigned to one of three groups: the threat group (n = 91), the secure group (n = 95), or the control group (n = 94), each of which received a different future scenario.
The three scenarios each asked respondents to imagine themselves 10 years in the future. The social threat scenario (Appendix A) described a future New Zealand that had experienced 8 years of serious economic decline and social disintegration with high rates of crime, violence, and social conflict. The secure future scenario (Appendix B) described a future New Zealand that had enjoyed 8 years of an economic boom and social harmony, with virtually nonexistent rates of crime, unemployment, and poverty. The control scenario (Appendix C) described a future New Zealand that was essentially unchanged from the present—that is, a fairly prosperous and reasonably secure society with some social tensions and economic problems. The participants were asked to read the future scenario and then respond to a questionnaire as they would if the scenario were true.

**Measures**

*Belief in a dangerous, threatening versus safe, stable, and secure social world* was measured with the 12 items of Altemeyer’s (1988) Belief in a Dangerous World scale plus two new specially written items (“I live in a society that is safe, stable, and secure where virtually all people are good and decent” and “We live in a dangerous society in which good, decent, and moral people’s values and way of life are threatened by bad people”). These 14 items were fully balanced against acquiescence and had an $\alpha$ coefficient of .88 in this study.

*Social dominance orientation* was measured with 12 items randomly sampled from the full SDO scale (Pratto et al., 1994) so as to give equal numbers of protrait and contrait items. The $\alpha$ coefficient in this study was .80.

*Authoritarianism* was measured with 20 items randomly sampled from Altemeyer’s (1996) RWA scale so as to give 10 protrait and 10 contrait items. The $\alpha$ coefficient for these 20 items was .84. Two judges working independently then classified these 20 items into those primarily tapping authoritarian social control (i.e., support for or opposition to tough, harsh, punitive, repressive social control of deviance, protest, and dissidence) and those tapping conventional conservatism (i.e., conformity to and respect for traditional, old-fashioned, conventional social values, institutions, and authorities). The judges classified seven items as measuring authoritarian social control and 12 items as measuring conventional conservatism with 100% agreement (see Appendices D and E for item texts). One item could not be classified, as it seemed to tap both constructs (“We should treat protestors and radicals with open arms and open minds, since new ideas are the lifeblood of progressive change”). These two authoritarianism subscales were not balanced; the seven authoritarian social control items were all protrait items, whereas the 12 conventional conservatism items included three protrait and nine contrait items. Inspection of the full 30 items of the 1996 RWA scale showed that this imbalance, with social control items predominantly protrait and conventionalism items predominantly contrait, closely mirrored the full scale. These two sub-
scales were satisfactorily reliable, with $\alpha$ coefficients of .85 for authoritarian social control and .82 for conventional conservatism.

**Results**

*RWA: One Content Dimension or Two?*

An initial exploratory principal components analysis of all 20 RWA items was conducted, and a scree test (Cattell, 1966) suggested a two-factor solution, with the first two eigenvalues well above 1 (5.1 and 3.3) and the remainder forming a scree (eigenvalues of 1.19 and below). Irrespective of the method of analysis (principal components or principal factors) or method of rotation, the rotated factors were clearly defined, with all the protrait items loading on one factor and all contrait items on the other. However, the interpretation of these as just method factors seems problematic because of the strong correlation between content and direction of wording, with most contrait items expressing conventional conservatism and most protrait items expressing authoritarian social control. Consequently, confirmatory factor analysis was used to test and compare one- and two-factor solutions with and without method factors to control for direction-of-wording effects.

Thus, the first model was a single-factor solution with one factor loading on all 20 RWA items. This was compared to a model in which the seven authoritarian social control items loaded on one factor and the 12 conservatism items on a second factor. The next two models tested the same one- and two-factor solutions but with two correlated method factors to control direction-of-wording effects, with all protrait items loading on one method factor and all contrait items loading on a second method factor in addition to their loadings on the one–or two–content factors (Marsh & Grayson, 1995). These two models would therefore test the fit of one– versus two–content factor solutions with the variance due to direction of wording controlled.

Maximum likelihood estimation was used for the confirmatory factor analyses. Overall model fit was assessed according to Hu and Bentler’s (1999) recommendations. Their investigation of the optimal cutoff values of standard maximum likelihood LISREL fit indices suggested that good fit would be best indicated by values close to or better than .06 for RMSEA (root mean square error of approximation), .08 for SRMR (standardized root mean square residual), and .95 for CFI (comparative fit index) and GFI (goodness-of-fit index). In the case of GFI, Steiger (1989) and others (Maiti & Mukerjee, 1990) have noted that Jöreskog and Sörbom’s (1993) widely used index of sample GFI will be biased downward when degrees of freedom are large relative to sample size, and proposed a correction to GFI that provides a more robust population estimate. Because this study tested large models relative to sample size, Steiger’s (1989) corrected population GFI (also referred to as population gamma index) was used rather than Jöreskog and...
Table 1. Goodness-of-Fit Indices for Confirmatory Factor Analyses of One- and Two-Factor RWA Item Models With and Without Method Factors to Control Direction-of-Wording Effects (N = 262)

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>RMSEA</th>
<th>SRMR</th>
<th>CFI</th>
<th>GFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Models with only content factors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One content factor</td>
<td>976.5</td>
<td>170</td>
<td>5.74</td>
<td>.182</td>
<td>.139</td>
<td>.50</td>
<td>.64</td>
</tr>
<tr>
<td>Two content factors</td>
<td>438.1</td>
<td>151</td>
<td>2.90</td>
<td>.088</td>
<td>.093</td>
<td>.89</td>
<td>.81</td>
</tr>
<tr>
<td>Models with content and method factors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One content, two method factors</td>
<td>301.5</td>
<td>149</td>
<td>2.02</td>
<td>.060</td>
<td>.051</td>
<td>.91</td>
<td>.95</td>
</tr>
<tr>
<td>Two content, two method factors</td>
<td>222.9</td>
<td>131</td>
<td>1.70</td>
<td>.049</td>
<td>.050</td>
<td>.94</td>
<td>.97</td>
</tr>
</tbody>
</table>

Sörbom’s (1993) sample GFI. Finally, the rule of thumb for very large models, where $\chi^2$ values tend to be large, of viewing a $\chi^2$/df ratio of less than 2 as a criterion of good fit was also used (Shumacker & Lomax, 1996).

Table 1 shows the goodness-of-fit indices for the four models tested. The fit indices for the single-factor RWA solution indicated very poor fit of model to data. The fit indices for the two-factor solution were also above those recommended by Hu and Bentler (1999) for acceptable fit, but did indicate far superior fit for this solution than for the one-factor model, with the $\chi^2$ difference = 538.4 with df = 19 ($p < .00001$). If the one-factor model was recomputed using only the 19 items used for the two-factor solution (i.e., those items that it had been possible to categorize as social control and conservatism items), fit for the one-factor model was essentially similar to that obtained for the full 20 items ($\chi^2 = 918.0$, df = 152, $\chi^2$/df = 6.03, RMSEA = .192, SRMR = .140, CFI = .63, GFI = .50).

The two models with method factors produced much better fit. The single-factor solution with two correlated method factors had four of the indices indicating just acceptable fit; the fifth index, CFI, was somewhat below the recommended .95 level. The solution with the two content factors of authoritarian social control and conventional conservatism, and two method factors, produced good fit on all five indices. The fit of this model was also significantly better than the fit of the one-content factor, two-method factor solution ($\chi^2$ difference = 78.6, df = 18, $p < .0001$). The correlation between the two content factors was .29.

However, comparing these one- and two-content factor solutions might be misleading if the single item that could not be classified as conservative or authoritarian social control (and therefore was not included in the two-content factor solution) was a particularly weak item. The one-content factor, two-method factor solution was therefore recomputed discarding that item. The fit indices for the 19 RWA items ($\chi^2 = 247.6$, df = 132, $\chi^2$/df = 1.88, RMSEA = .056, SRMR = .048, CFI = .93, GFI = .96) were better than those for the 20 items. Nonetheless, they were still significantly poorer than those for the two-content factor, two-method factor solution ($\chi^2$ difference = 24.7, df = 1, $p < .0001$). These confirmatory factor analyses therefore provided clear empirical support for the distinction between
Table 2. Means and Standard Deviations for the Worldview and Ideological Attitude Measures in the Three Scenario Conditions, and ANOVA F values for the Comparison of Means for Each Measure (N = 266 to 268)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Secure scenario M</th>
<th>SD</th>
<th>Control scenario M</th>
<th>SD</th>
<th>Threat scenario M</th>
<th>SD</th>
<th>ANOVA F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous world</td>
<td>-0.79a</td>
<td>1.33</td>
<td>0.11b</td>
<td>1.10</td>
<td>1.18c</td>
<td>1.16</td>
<td>60.83**</td>
</tr>
<tr>
<td>SDO</td>
<td>-1.73a</td>
<td>1.25</td>
<td>-1.68a</td>
<td>0.97</td>
<td>-1.36b</td>
<td>1.13</td>
<td>2.85t</td>
</tr>
<tr>
<td>Authoritarianism</td>
<td>-0.45a</td>
<td>1.37</td>
<td>-0.28a</td>
<td>1.32</td>
<td>0.32b</td>
<td>1.35</td>
<td>8.04**</td>
</tr>
<tr>
<td>Conservatism</td>
<td>-0.87a</td>
<td>1.37</td>
<td>-1.08a</td>
<td>1.23</td>
<td>-0.93a</td>
<td>1.25</td>
<td>0.61</td>
</tr>
</tbody>
</table>

Note. The means are item means, with a possible range of +4 to -4. Means with different superscripts differ significantly (p < .05).

The two RWA dimensions, with the two-factor solution producing significantly better fit than the one-factor solution for models with and without method factors.¹

A second empirical test of the distinction between these two RWA dimensions was whether they would correlate differently with other variables. SDO did correlate more strongly with authoritarian social control (r = .26, n = 263, p < .0001) than with conventional conservatism (r = .15, n = 263, p < .05), but the difference was nonsignificant (p = .11). However, the correlation of dangerous world beliefs with authoritarian social control (r = .54, n = 265, p < .0001) was markedly stronger than with conventional conservatism (r = .22, n = 263, p < .0001), and the difference was significant (p < .0001).

The confirmatory factor analyses suggest that the two content factors that were initially identified conceptually—authoritarian and conservative attitudes—provided a better empirical fit for the RWA items than did a single content factor. This distinction was supported by the significantly different correlations between these two factors and dangerous world beliefs.

Effects of the Scenarios on Worldview and Ideological Attitudes

Table 2 shows the means and standard deviations for the dangerous world belief and the ideological attitudes scales for the three scenario conditions, the results of analyses of variance (ANOVAs) comparing the means for each measure, and a follow-up Newman-Keuls multiple comparison test between pairs of means. The effect on worldview beliefs was powerful and significant, with dangerous world beliefs in the threat condition significantly higher than in the control con-

¹ We also applied confirmatory factor analysis with method factors to control for direction-of-wording effects and obtained acceptable fit indices for a one-content factor solution for both the SDO and Dangerous World scales, suggesting that these two scales seemed to be adequately unidimensional.
dition, and significantly higher in the control condition than in the security condition. Thus, the effect on worldview was almost perfectly linear.

The impact of scenario condition on authoritarianism was also significant, with the authoritarian attitudes significantly higher in the threat condition than in both the control and security conditions, which did not differ from each other. The pattern for SDO was similar but the effects were weaker. Thus, the overall F test was only marginally significant. The threat condition SDO mean was higher than both the control and security condition means, with the difference again only marginally significant in both cases, whereas the control and security means were very similar and did not differ significantly. Finally, the effect of scenario manipulation on conservatism was nonsignificant overall, and none of the three means differed significantly from each other.

In summary, the security scenario significantly reduced dangerous world beliefs compared to the control or baseline condition, but had no effect on any of the ideological attitude measures. The threat condition, by contrast, significantly increased both dangerous world beliefs and authoritarian attitudes compared to the control condition, produced a marginally significant increase in SDO, and did not significantly affect conservative attitudes.

Testing a Causal Model of the Effects of Threat on Worldview and Ideological Attitudes

A LISREL path analysis was used to test the theoretical model diagrammed in Figure 1 of how threat would affect ideological attitudes. Because the security scenario had not affected ideological attitudes, only the threat condition versus the control condition was used as a dichotomous exogenous variable in the analysis. Two models were tested using maximum likelihood estimation. The first model (“full model”) tested all feasible causal paths; the second (“basic model”) tested only those paths found to be significant in the first analysis. This two-step procedure was used so that the full model would directly test the significance of both the paths that the model expected to be significant and those expected to be nonsignificant. Thus, the full model tested the significance of the predicted direct effect of threat on dangerous world beliefs as well as the significance of the nonpredicted paths from threat to the three ideological attitude variables. It also therefore tested whether dangerous world beliefs had the expected direct effect on authoritarian attitudes and had unexpected direct effects on SDO and conservative attitudes.

Figure 2 shows the standardized path coefficients that were obtained for the full model. The fit indices indicated good overall fit for the model ($\chi^2 = .68$, $df = 1$, $p = .41$, RMSEA = 0.0, SRMR = .015, CFI = 1.0, GFI = 1.0). However, as predicted, only the paths from threat to dangerous world beliefs, from dangerous world beliefs to authoritarianism and conservatism, and from authoritarianism to SDO and conservatism were significant. The direct paths from threat to all three
ideological attitude variables were nonsignificant, and the direct path from dangerous world beliefs to SDO was nonsignificant. The basic model with the non-significant paths deleted had equivalently excellent fit indices ($\chi^2 = 4.09$, $df = 5$, $p = .54$, RMSEA = 0.0, SRMR = .034, CFI = 1.0, GFI = .99) with the path coefficients again all significant and little or not at all changed in magnitude from those in the full model.

These findings are thus completely consistent with the theoretical model suggesting that scenario threat will not have direct effects on ideological attitudes, and that the effect of threat on RWA will be mediated through dangerous world beliefs. These findings also suggest that the marginally significant effect of threat on SDO was also entirely mediated, in this case through both dangerous world beliefs and authoritarian attitudes, and that there were significant direct paths from dangerous world beliefs and authoritarian attitudes to conservative social attitudes.

Discussion

The results have several important implications. One implication concerns the dimensionality of the RWA scale. A second implication concerns the differential effects of the security and threat manipulations on ideological attitudes. Finally, the results have implications for the proposed theoretical model of how threat might influence ideological attitudes.
The confirmatory factor analyses of the 20 RWA items suggested that two content factors—authoritarian attitudes (authoritarian aggression items) and conservative attitudes (conventionalism and authoritarian submission items)—provided a better empirical fit for these items than did a single content factor. This distinction was supported by these two factors having significantly different correlations with dangerous world beliefs and being differentially influenced by the social threat scenario. Thus, even though conservative attitudes and authoritarian social control attitudes were related and could both form part of a more general higher order dimension, these findings do seem to suggest that they constitute factorially distinct primary dimensions that correlate quite differently with important external variables such as threat and dangerous world beliefs.

Although Altemeyer (1981, 1988, 1996, 1998) has repeatedly claimed that the RWA scale is unidimensional, this rests on the interpretation of the two factors consistently obtained in exploratory factor analyses as direction-of-wording method factors. However, the classification of the RWA items used in this study revealed a major confound between item content and direction of wording. The protrait items were almost entirely authoritarian and the contrait items conservative. Classifying the 30 items of the full RWA scale in the same way revealed that all 11 items classified as authoritarian were protrait, whereas 15 of the 17 items classified as conservative were contrait (two items, both protrait, could not be classified, as they seemed to tap both authoritarian and conservative attitudes).

This psychometric deficiency of the RWA scale probably derives largely from its having been constructed in an entirely data-driven empirical fashion. Altemeyer (1981) conceptualized authoritarianism as the covariation of conventionalism, authoritarian submission, and authoritarian aggression, and defined these three component constructs. However, he did not attempt to write and systematically content-validate items specifically measuring each component, in which case it would have been necessary to generate and retain equal numbers of protrait and contrait items for each. Instead, he simply collected or wrote large pools of items that he seemed to intuitively regard as tapping one or more of these constructs, and then selected items for the RWA scale on the basis of item total correlations maintaining a balance between direction of wording in the overall scale, but not maintaining a balance between the three content areas or for direction of wording within these three content areas.

A second important implication of the findings derives from the differential effects of the security and threat manipulations on ideological attitudes. Although the threat scenario affected ideological attitudes as expected, the security scenario did not. In contrast to the control or baseline scenario, the threat scenario increased authoritarianism and social dominance, whereas the security scenario had no effect on either. Why this asymmetry?

There are two possible methodological explanations. One is the possibility of a ceiling effect: If New Zealand was already viewed as a basically secure, safe, and stable society, further increases in prosperity, security, and stability might
have little significance. The other explanation arises from the differing length of the two scenarios. The security scenario was shorter and less detailed than the threat scenario and the failure to equate the two scenarios in these respects might therefore have resulted in the security having less impact on the participants. It is not possible to discount these two explanations entirely, but there is an important finding that militates against both.

Both the security and threat scenarios had highly significant impacts on dangerous world beliefs, with dangerous world beliefs increased by the threat scenario and decreased by the security scenario in comparison to the control scenario. This effect was almost entirely linear, indicating similar effect magnitudes for the threat and security scenarios. This confirms that the “secure” future New Zealand was indeed seen as safer and more secure than the future depicted in the control scenario. The Belief in a Dangerous World scale thus served as a manipulation check for the research by demonstrating that the scenarios had the expected effects on participants’ social worldviews.

Why, then, did the security scenario not affect ideological attitudes, and authoritarianism specifically, while threat did? It is possible that reducing social threat and making societies safer and more secure might not have the immediate effects on authoritarian attitudes that increasing threat seems to have, but instead could have only longer term, time-lagged effects. There is evidence that this might be so. Survey research by political culture theorists, such as Ronald Inglehart (1990; Abramson & Inglehart, 1995), suggests that increasing prosperity and security in advanced industrial societies has been associated with shifts in social values that would be closely associated with decreased authoritarianism and democratic political cultures (i.e., postmaterialist values). However, these shifts to more postmaterialist values have occurred slowly, perhaps primarily intergenerationally, through long periods of life experience and socialization establishing a deeply rooted sense of interpersonal trust and satisfaction. In contrast, Abramson and Inglehart’s (1995) findings suggest that postmaterialist values decrease much more sharply during periods of economic instability.

The historical record also seems replete with examples of threatening and dangerous social situations evidently leading to rapid and dramatic shifts toward more authoritarian social attitudes. The political and economic crisis that catapulted the Nazis from electoral obscurity to political power in just a few years in 1930s Germany is one. Thus, it may simply be more adaptive (or seem more adaptive) for individuals to rapidly shift their values and ideological attitudes toward greater authoritarianism when confronted by increased threat from their social environment, but to respond much more slowly to decreased social threat.

The results also have implications for the proposed theoretical model of how threat might influence ideological attitudes. The LISREL analyses suggested that, as predicted by the model, the effect of threat on ideological attitudes was solely mediated through social worldview and was specific to authoritarian attitudes. The marginally significant increase in social dominance resulting from threat was
entirely accounted for by the increase in authoritarianism. Neither social threat nor belief in a dangerous world had significant direct paths to social dominance.

The research reported here, of course, did not test the entire model diagrammed in Figure 1, only that part of the model concerned with the effects of social threat on ideological attitudes. The model also proposes that when the social situation comes to be seen as a ruthlessly competitive jungle in which the strong win and the weak lose, this worldview will have an impact on social dominance and not authoritarian ideological attitudes. This aspect of the model still needs to be tested empirically.

A second aspect of the full model shown in Figure 1 that was not tested was that pertaining to the hypothesized effect of social conformity on worldview and authoritarian attitudes. Previous research did test these paths and found a significant path from social conformity to dangerous world beliefs and a strong path to RWA (Duckitt, 2001). This prior research did not, however, investigate the joint effects of personality and social situation on worldview and ideological attitudes. An interesting possibility is that social conformity and situational threat might interact in determining dangerous world beliefs and RWA. Thus, only persons high in social conformity might react to situational threat by seeing the social world as more dangerous and adopting more authoritarian attitudes. Such an interaction would be consistent with prior findings by Feldman and Stenner (1997) and Rickert (1998). This possibility would not invalidate the current findings, because randomization would mean that individuals varying in social conformity should be equally distributed in different threat conditions. It would, however, suggest that the effects of threat on ideological attitudes might be more complex than are suggested by the current findings, with only certain persons reacting to threat with increased authoritarianism and not others. This possibility clearly needs to be investigated in future research.

In one respect, the current findings did suggest a more complex picture than that proposed by the theoretical model. Authoritarian attitudes, as measured by the RWA scale, seemed to involve two distinct factors: authoritarian social control and conservatism. The LISREL analyses provided further support for this distinction by showing that the threat-induced changes in dangerous world beliefs had a powerful path to authoritarianism proper, but only a relatively weak path to conservative attitudes. This is consistent with the hypothesis that when individu-

\[ \text{We are indebted to an anonymous reviewer for this suggestion.} \]

\[ \text{A somewhat different possible interaction could also be derived from Feldman and Stenner's (1997) finding that authoritarians might be more sensitive to threat. Thus, authoritarianism might influence individuals' reaction to the threat scenario, with high authoritarians showing a stronger tendency to increase dangerous world beliefs in the threat than in the non-threat conditions (i.e., threat \times authoritarianism} \rightarrow \text{worldview). In order to assess this, we tested for homogeneity of slopes for authoritarianism on dangerous world beliefs for three authoritarianism indices: the full RWA scale, the authoritarian social control subscale, and the conservatism subscale. None of the analyses indicated significant differences between the slopes, although the regressions were weakest in the secure condition.} \]
als see their social environments becoming markedly more dangerous and threat-
ening, they rapidly and strongly shift their social and ideological attitudes to
support and endorse authoritarian social control, perhaps because such measures
may seem to have immediate adaptive value in the situation. On the other hand,
the attitudes and beliefs involved in conventional conservatism—which also
involves the idea of social control, but in a much more abstract, symbolic, and
indirect manner—may change much more slowly. The LISREL path analysis
suggested the hypothesis that changes in conservative attitudes might result from
both shifts in dangerous world beliefs and changes in authoritarian social control
attitudes.

Finally, a potential limitation of this study merits discussion. Could it be that
New Zealand might simply be too stable, prosperous, and secure a society for the
threat scenario to have been realistic for the participants? This seems unlikely for
a number of reasons. First, the scenario manipulation did produce effects on both
dangerous world beliefs and ideological attitudes. Second, as already indicated,
the central findings, such as the impact of increasing social threat on heightening
authoritarian attitudes and the failure of decreasing threat to lower authoritarian
attitudes, seem consistent with the historical record and with a great deal of social
research (see Abramson & Inglehart, 1995; Inglehart, 1990). Third, the utility of
similar scenario manipulations has also been demonstrated in prior research using
college student samples, such as that by Altemeyer (1988) and others (e.g.,

Fourth, in pilot testing of these scenarios, participants indicated that they
found the scenarios plausible and realistic, as intended. Although New Zealand is
prosperous and stable relative to poorer developing countries, its prosperity and
security has seemed increasingly fragile and threatened during the past half-
century. During this period it has experienced a gradual but steady decline in gross
national product relative to other countries, moving from the ninth wealthiest
country in the world in the 1950s to 39th today, largely because of a long-term
adverse shift in the terms of trade for its primary agricultural exports. As a result,
harsh neoliberal economic policies were introduced during the 1980s and early
1990s and successive governments have severely cut back its originally generous
welfare system (Kelsey, 1997). There has been an ongoing debate during the past
decade on how the country might try to reverse its steady decline and generate
new export industries. There have been marked increases in income inequality
and in poverty (Department of Statistics, 1991). Crime, particularly violent crime,
has shown dramatic increases over this period. For example, between 1965 and
1985 there were percentage increases in murder of 421%, in serious assault of
642%, and of aggravated robbery of 2,954% (Roper report, 1987). The threat
scenario therefore derived its realism for participants specifically because it
merely exaggerated very real fears and concerns among New Zealanders and
played on a very real sense of vulnerability and threat.

However, findings based on students’ responses to hypothetical scenarios are
not equivalent to those derived from real social situations. The important advantage of using scenarios is that they enable highly specific social changes and situations to be modeled in order to test precise predictions from explicit theoretical models, as was the case in this research. Nevertheless, all such findings should ultimately be checked against data obtained in real social situations.

APPENDIX A: Social Threat Scenario

Imagine that you are 10 years in the future. For you personally, your situation is basically as you expected or planned it to be. Thus, your personal affairs concerning partnering, children, marriage, jobs, career, friends are much as you wanted and planned them to be. And you still live in New Zealand. However, while your personal affairs have not changed unexpectedly, there have been dramatic and far-reaching changes in New Zealand, the country in which you live.

The last 8 years have been very bad ones for New Zealand society. Problems which seemed manageable in the 1990s have become very serious now. Prices for New Zealand’s main exports, which had been declining slowly in the long term during the latter half of the 20th century, started decreasing quite sharply. Increased protectionism internationally has made it more difficult for New Zealand to export to important American and Asian markets. The oil and gas fields off the Taranaki coast have also been exhausted and no new finds made. Opening up new innovative businesses or moving into new high-tech industries might have saved the economy but somehow either the initiative or the capacity just wasn’t there. Instead there has been a steady increase in unemployment over the past 8 years, which has by now reached levels well over 25%. The economic situation has been markedly worsened by militant action by unions and workers, with a number of protracted and unpleasant strikes, go-slows and acrimonious industrial disputes. A number of factories in closing have blamed these industrial actions and union demands for wage levels that were simply no longer realistic. To make things worse, rising unemployment in Australia resulted in that government placing strict entry restrictions on New Zealanders, making this option difficult or impossible for most.

This situation has been accompanied by catastrophic social changes. Crime has increased enormously. Almost every home gets burgled a few times a year. Seriously violent crimes such as murder, rape, and aggravated assault have become common. Muggings occur everywhere, and the streets have become dangerous places for everyone, particularly at night. Nobody dreams of walking alone in any areas at night. Gangs of violent thugs, often armed with knives and sometimes with guns, seem to control large areas of cities and roam about unhindered, attacking and mugging anyone they encounter. Not surprisingly, the only industry doing well has been the home security industry. Almost all homes now have alarms, and are surrounded by high walls and locked gates. But despite this, home invasions at night have become common, and are increasingly associated with
brutal acts of violence against householders, often murder or rape. The police simply seem incapable of doing much, and appear to have largely given up serious attempts to control crime.

The country has had several government changes, but none of the new governments has seemed able to cope with the situation. The economic crisis has meant big cuts in benefits of all kinds, and each new government has reacted mainly by raising foreign loans to try to increase government spending. These “quick fixes” have just worsened the situation by creating inflation with rocketing prices of almost everything and huge increases in interest rates that have squeezed mortgage holders and ruined many small businesses. Responsible people in the community have urged that policies be adopted that could tackle the underlying economic and social problems. However, these efforts have been largely neutralized by irresponsible politicians trying to capitalize on popular discontent by advocating these short-sighted quick-fix policies, such as borrowing more and more heavily from international banks and dragging the country ever deeper into debt. Popular anger and discontent has been increasing, channeled by populist agitators and street politicians from fringe left- and right-wing organizations who have taken advantage of the crisis to gain supporters. While not commanding much of the vote in elections, these new radical fringe movements have organized increasingly violent street demonstrations, often fighting with each other, and rampaging through the streets setting cars on fire and smashing windows. The police have been completely ineffective in dealing with this violence, appearing to lack the resources, training and perhaps even the will to do much about it.

All in all, therefore, from a reasonably safe and stable society, New Zealand in a mere 8 years has become one of the more violent, dangerous, and unstable countries in the world.

Now after imagining yourself in this future situation 10 years from now, please complete the following items as if you were in that future. Please read each item carefully. You will probably find that in some cases your answer in this imaginary future might be different to what it would be today in the present, while for other items your answers won’t be much different. It’s important therefore that you read each item carefully and select your answers carefully, being at all times mindful of the future situation in which you are answering.

APPENDIX B: Secure Future Scenario

Imagine that you are 10 years in the future. For you personally, your situation is basically as you expected or planned it to be. Thus, your personal affairs concerning partnering, children, marriage, jobs, career, friends are much as you wanted and planned them to be. And you still live in New Zealand. However, while your personal affairs have not changed unexpectedly, there have been dramatic and far-reaching changes in New Zealand, the country in which you live.
The last 8 years have been a period of social stability and harmony and of exceptionally high and sustained economic growth. Eight years ago a series of rich offshore oil strikes off the Taranaki coast stimulated an economic boom which has continued unabated. The oil discoveries were of extremely high-grade oil in shallow waters, which made extraction easy and cheap without any environmental damage or risks, and using high technology and low labor extraction techniques so there was little social dislocation or movement of people. At about the same time as the oil strikes there were major improvements in the term of trade for New Zealand’s traditional exports that began to produce much higher revenues. These export and oil revenues not only stimulated an economic boom but enabled an economic transformation in the country characterized by massive investments in education and technology which is in the process of transforming New Zealand into a high-tech economy with a highly skilled, educated labor force.

The economic boom and transformation has meant major social changes in New Zealand. The country has now had full employment for a number of years with rapidly rising wages and general prosperity. Virtually everyone completes 12 years of school education and most people now acquire some kind of advanced tertiary qualifications. With this, crime and delinquency have virtually vanished. People leave their doors open at night and single people, male and female, can go wherever they wish at any hours without any fear of being mugged or attacked. New Zealand has become known as the safest country in the world. Similarly, the ethnic and intergroup tensions that had characterized the 1990s have vanished. Some constitutional and other changes were harmoniously agreed upon about 5 years ago which settled all grievances to everyone’s satisfaction. Today New Zealand is a model of ethnic and intergroup harmony in which different groups work and live together all contributing to a model society. With the world in general experiencing peaceful and prosperous times, many New Zealanders today believe that they live in the best of all possible times, with all indications being of continued prosperity, security, and progress. Tourists to New Zealand are struck by how friendly, decent, hardworking, honest, trustworthy, and just plain nice everyone is, and how clean, beautiful, and well cared for the environment is.

Now after imagining yourself in this future situation 10 years from now, please complete the following items as if you were in that future. Please read each item carefully. You will probably find that in some cases your answer in this imaginary future might be different to what it would be today in the present, while for other items your answers won’t be much different. It’s important therefore that you read each item carefully and select your answers carefully, being at all times mindful of the future situation in which you are answering.

**APPENDIX C: Control Scenario**

Imagine that you are 10 years in the future. For you personally, your situation is basically as you expected or planned it to be. Thus, your personal affairs
concerning partnering, children, marriage, jobs, career, friends are much as you wanted and planned them to be. You still live in New Zealand, which is much as it is today. That is, there are moderate but not serious social problems. Inflation is low and economic growth has been at a reasonable level, though not as high as in neighboring countries like Australia. About 6 to 7% of the workforce is unemployed, which is quite similar to what it is today. The country remains a stable and reasonably prosperous one.

Now after imagining yourself in this future situation 10 years from now, please complete the following items as if you were in that future. Please read each item carefully. You will probably find that in some cases your answer in this imaginary future might be different to what it would be today in the present, while for other items your answers won’t be much different. It’s important therefore that you read each item carefully and select your answers carefully, being at all times mindful of the future situation in which you are answering.

APPENDIX D: RWA Items Classified as Primarily Expressing Conservative Attitudes (conventionalism and authoritarian submission)

Obedience and respect for authority are the most important virtues children should learn.

There is nothing wrong with premarital sexual intercourse.

Nobody should stick to the “straight and narrow.” Instead people should break loose and try out lots of different ideas and experiences.

It may be considered old-fashioned by some, but having a decent, respectable appearance is still the mark of a gentleman, and especially, a lady.

Homosexuals and feminists should be praised for being brave enough to defy “traditional family values.”

Atheists and others who have rebelled against the established religions are no doubt every bit as good and virtuous as those who attend church regularly.

People should pay less attention to the Bible and the other old-fashioned forms of religious guidance, and instead develop their own personal standards of what is moral and immoral.

The real keys to the “good life” are obedience, discipline, and sticking to the straight and narrow.

A lot of our rules concerning modesty and sexual behaviour are just customs which are not necessarily any better or holier than those which other people follow.

Gays and lesbians are just as healthy and moral as anyone else.

A “woman’s place” should be wherever she wants to be. The days when women are submissive to their husbands and social conventions belong strictly to the past.

Our country needs free thinkers who have the courage to defy traditional ways, even if this upsets many people.
APPENDIX E: RWA Items Classified as Primarily Expressing Authoritarian Social Control Attitudes (authoritarian aggression)

The facts on crime, sexual immorality, and the recent public disorders all show we have to crack down harder on deviant groups and troublemakers, if we are going to save our moral standards and preserve law and order.

Our country will be great if we honour the ways of our forefathers, do what the authorities tell us to do, and get rid of the “rotten apples” who are ruining everything.

What our country really needs is a strong determined leader who will crush evil, and take us back to our true path.

The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas.

Our country will be destroyed someday if we do not smash the perversions eating away at our moral fibre and traditional beliefs.

The situation in our country is getting so serious, the strongest methods would be justified if they eliminated the troublemakers and got us back to our true path.

What our country really needs instead of more “civil rights” is a good stiff dose of law and order.

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REFERENCES


