

## **The dimensionality of American political attitudes: tensions between equality and freedom in the wake of September 11**

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Initiatives which are intended to reduce the risk of a terrorist attack may impact not only civil liberties including privacy, but civil rights or equality as well. In the present paper, we consider conceptual tradeoffs among attitudes towards security, civil liberties and civil rights, and examine the psychometric structure of these attitudes in both congressional ratings and survey data. An examination of ipsative preferences, a circumplex analysis and analyses of latent structure converge in supporting the position that tradeoffs in post-9/11 America are multidimensional, and serve as a reminder that concerns for security are balanced by not one but two distinct motives, one concerned with freedom and civil liberties, the other with equality and civil rights.

**Keywords:** terrorism; security; measurement; civil liberties; civil rights; privacy; equality

### **Introduction**

The idea that the threat of terrorism<sup>1</sup> has given rise to a simple “tradeoff” between security and civil liberties appears to be both widely shared and little questioned in post-9/11 America. One of the less intrusive and more familiar manifestations of this seeming tradeoff occurs at the airport, where we may endure long lines and luggage searches in order to reduce the likelihood that weapons will be brought into the passenger cabin. Yet the question of how closely passengers should be examined, or how much information government needs in order to maintain a reasonable level of safety, addresses only one issue in a complex field. It ignores a second concern, and that is whether or not all passengers should be equally likely to be detained as subjects of more intensive investigation and therefore receive equal treatment.

In focusing on the relationship between security and liberty, this concern for equality has been largely overlooked, yet it is precisely under conditions of perceived threat that equal opportunity and equal protection are most vulnerable (Gerstenfeld, 2002). In the present paper, we consider conceptual tradeoffs among liberty, equality and security and examine the psychometric structure of individual differences with which these values are held in post-9/11 America.

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### *The relationship between civil liberties and civil rights*

Civil liberties and civil rights are core liberal values which, across time and across governments, show substantial covariation. Despite this covariation, civil liberties and civil rights are distinct: civil liberties may be understood as protections of citizens from an overreaching government, while civil rights are fundamentally concerned with equal citizenship and equal protection (Lowi, Ginsberg, & Shepsle, 2002). Tensions between liberties and rights sometimes arise. Pornography, for example, may be defended on civil libertarian grounds, yet, to the extent that pornography is considered to subjugate women, it constitutes an assault on civil rights (Grey, 1992). Probably the best known conflict between civil liberties and civil rights in recent years was when the American Civil Liberties Union (ACLU) defended the right of a group of American Nazis to march through the community of Skokie, Illinois, at a time when many of its residents were Holocaust survivors and their kin (Strum, 1999). We believe that, as with pornography and the march on Skokie, the perceived threat of terrorism in general and the events of September 11, 2001 in particular laid bare potential tensions between, on the one hand, freedom and civil liberties and, on the other, equality and civil rights.

### *Analysis of congressional ratings*

There are several ways in which potential tensions between civil liberties and civil rights may be examined. One approach is to consider the most prominent non-governmental organizations focusing on these values, namely, the ACLU and the National Association for the Advancement of Colored People (NAACP). As both organizations provide annual ratings of members of the United States Congress, the correlation between these sets of ratings can provide an empirical index of the similarity of the values of the ACLU and the NAACP, and hence a measure of the real-world convergence, or lack of convergence, between civil liberties and civil rights in contemporary America. Across members of the 107th Congress, the correlation between these two sets of ratings is 0.90 (Project Vote Smart, 2004).

The high correlation between ACLU and NAACP ratings indicates a common core of liberal interests, one which is closely associated with political party membership. When the two sets of congressional ratings are standardized and summed, the highest 218 composite scores all belong to Democrats (and one Independent), and the 125 lowest scores all belong to Republicans. Yet although the sum of the standardized ACLU and NAACP ratings provides a robust index of party membership, the difference between the two ratings is arguably more interesting, as it provides an index of the extent to which the legislator is oriented towards issues favored by the ACLU (civil liberties including privacy) as opposed to those favored by the NAACP (civil rights and equality). Differences between highly correlated variables such as these are typically noisy and unreliable (Nunnally, 1978), but the difference between the ACLU and the NAACP ratings is coherent. The 20 members of Congress whose standardized ACLU ratings most exceeded their NAACP ratings were all Republicans; the 46 members whose NAACP ratings most exceeded their ACLU ratings were all Democrats. The difference between the ACLU and the NAACP ratings is coherent, in part, because the concern for civil liberties is associated with libertarianism as well as liberalism, while civil rights is associated only with the latter.

*Measures of political attitudes in the context of the civil liberties – civil rights distinction*

The analysis of congressional ratings suggests that civil liberties and civil rights are distinguishable values, each of which may be injured in the quest for greater security. These values are differentially reflected in the two most prominent contemporary measures of political conservatism, the scales measuring Right Wing Authoritarianism (RWA; Altemeyer, 1996) and Social Dominance Orientation (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994). RWA is a multifaceted construct which includes components of submission (to those in power), aggression (against those perceived as lower in status) and conventionality. As with earlier measures of authoritarianism (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950), RWA is associated both with intolerance and a preference for powerful, secure government. High scorers on RWA show both an antipathy to civil rights (higher scores on measures of racial prejudice and a greater willingness to stigmatize outgroups) and an indifference towards civil liberties (greater acceptance of governmental phone tapping). SDO is a narrower construct concerned with the desire for group-based dominance and “the acceptance of ideologies that legitimize inequality” (Sidanius, Pratto, van Laar, & Levin, 2004, p. 848). Consequently, whereas the RWA scale appears related to security concerns and, inversely, to both civil rights and civil liberties, SDO appears narrower, reflecting primarily a disinterest in civil rights.

***Psychology, security and the signal detection of terrorism***

In contemporary Western democracies, concerns about terrorist activity are pervasive. In the United States, the Department of Homeland Security (DHS) is a cabinet-level agency whose mission includes not only the deterrence of future terrorist activity but also the *detection* of existing terrorist threats (DHS, 2004). While psychology can inform political and diplomatic initiatives aimed at deterrence (see, e.g. Oskamp & Schultz, 2005, Chapter 15), it may be particularly valuable in illuminating detection, as the detection (and misdetection) of threat may be understood as a form of perceptual decision made under conditions of uncertainty. As a problem in detection, the identification of terrorist threats may be illuminated by Signal Detection Theory (SDT; Swets, Tanner, & Birdsall, 1961). SDT is not merely of interest to the cognitive psychologist concerned with perception, but can be used to advantage for any problem in which measurement is imperfect and different decision strategies carry with them different costs and benefits. Examples of applications of SDT in personality and political psychologies include the challenge of detecting faking on personality tests and the evaluation of ballot integrity in political contests, as well as the assessment of apparent terrorist threats (Lanning, 1989, 2002, 2008).

In SDT, a background of noise of varying strength masks a signal that also varies in strength. Under conditions of uncertainty, “noise” and “signal + noise” may be depicted as overlapping distributions along a single dimension of subjective magnitude. In the present case, the distributions define individuals who are *in fact* safe and dangerous, respectively, yet lie on an underlying dimension of *apparent* risk. The distance between the peaks of the distributions ( $d'$ ) reflects the amount of information available for the detection problem, and the decision threshold ( $\beta$ ) represents the limit above which any stimulus person is treated as “dangerous”. As each distribution is bifurcated by  $\beta$ , four areas are produced. For example, when the problem is one of “detecting persons carrying weapons at an airport”, a true positive (hit) occurs when an individual carrying a gun is stopped by airport security and a true negative (correct

rejection) occurs when an unarmed individual is allowed to board. In addition to these two correct decisions, there are also two possible incorrect decisions: a false negative (miss) occurs when an armed individual is not detained, and a false positive (false alarm) occurs when an innocent individual is prevented from boarding.

There is a tradeoff between the two types of errors. Sensitivity can be increased (reducing the probability of a miss) by lowering the decision threshold  $\beta$  for calling people “terrorists”, but at the cost of an increase in false alarms. Conversely, specificity can be increased (reducing the probability of a false alarm) by increasing  $\beta$ , but this will lead to a higher likelihood of a miss. For a given amount of threat, the only way to finesse this tradeoff between misses and false alarms is by improving the ability to distinguish between safe and dangerous populations or, in signal detection terms, by increasing  $d'$ .

A signal detection analysis of terrorism illuminates the distinction between the values of rights and liberties. That is, there are two approaches to reducing error, and each carries different social consequences. In the airport scenario, reducing the threshold  $\beta$  will lead more people to be detained on the basis of the limited and necessarily superficial cues available to security personnel. An increased reliance on imperfect cues such as gender, age, apparent ethnicity, clothing or the presence of facial hair, invariably constitutes a form of profiling, which can be understood to inflict an injury to *civil rights*. Alternatively, if  $d'$  is increased then airport security can make decisions that are more fair, more accurate and less arbitrary. However, there is a cost here as well:  $d'$  may also be understood as “information”, and an increase in information is attainable only through information gathering activities such as credit card monitoring, data mining and automated surveillance.<sup>2</sup> Government-sponsored activities such as these may be perceived as intrusive or as an invasion of privacy, and as therefore injurious to *civil liberties*.

SDT can be used not just to illuminate the tradeoff between civil liberties and civil rights, but also the role of a third parameter, that is the magnitude of perceived threat or the concern for security. The optimal threshold  $\beta$  is determined not only by the relative costs of misses and false alarms, but also the relative size of the two distributions (Lanning, 1989; Meehl & Rosen, 1954). Where there are many terrorists, the threshold should be set low. Thus, greater concern for the value of *security* may be anchored not just in a greater perceived cost of terrorist activity and a lower perceived cost of detaining innocent individuals, but also in the belief that there are many terrorists among us.

### ***The present study***

Under conditions of terrorist threat, attitudes towards security, civil rights and civil liberties might plausibly take several forms. One alternative is that they may be best understood in terms of a single tradeoff: for example, the executive branch of the United States Government maintains, it has been argued, that actions such as wiretaps, surveillance and the internment of suspected “enemy combatants” are necessary to protect homeland security. Such a tradeoff between civil liberties and security is also reflected in American public opinion, as the perception of a continued terrorist threat is positively associated with the willingness to sacrifice civil liberties (Davis & Silver, 2004). This single-tradeoff conception of civil liberties and security can be represented by a one-dimensional model of attitudes.

Alternatively, the tradeoffs may be more complex, involving not just security and civil liberties such as privacy, but also the issue of equal treatment and equal protection.

A three-way tradeoff between security, civil liberties and civil rights requires a two-dimensional model. Although two dimensional models of political attitudes or values are not new (e.g. Eysenck, 1975; Rokeach, 1973; Schwartz & Boehnke, 2004), the implications of such a model for understanding civil liberties, civil rights and security in post-9/11 America have not yet been fully considered.

Finally, a third possibility is to reject the idea of tradeoffs altogether. Graber (2005) argues that tradeoffs between security and civil liberties are neither logically necessary nor historically typical, as numerous prior American military engagements have led to increases rather than decreases in both governmental and popular support for civil liberties. If no tradeoffs exist, and security, civil liberties and civil rights are independent, then three dimensions would be required to represent relations among measures of these attitudes.

In the present study, we use several methods to examine these tradeoffs and the dimensionality of contemporary attitudes towards civil liberties, civil rights and security.

## **Method**

### ***Participants***

An Internet-based survey was posted for a period of several weeks during spring 2004. During that time, a total of 1120 individuals responded to all or part of the survey. Participants included a small number (44) of students at a large multicampus university in the southeastern United States who participated in exchange for experimental credit in general psychology and other undergraduate courses. The remaining participants were solicited both via word-of-mouth and an Internet-based advertisement which appeared in response to web (Google™) searches related to “Iraq poll” and similar keywords.<sup>3</sup> Participants were assured of anonymity and revealed no individuating information. An inspection of internet protocol (IP) addresses revealed that a substantial majority of responses (88%) originated in the United States. The remainder were drawn from 39 other countries, only two of which (Canada and India) were the source of more than 1% of survey responses.

### ***Procedure***

A 60-item survey was developed to assess post-9/11 attitudes towards civil rights, civil liberties and security. The survey consisted of two parts. The first part consisted of two items which asked respondents to choose the most and least important of the three values of “homeland security”, “the right to privacy” and “trying to treat all Americans (Arabs and non-Arabs) equally”.

Following the two forced-choice items, respondents were presented with 58 questionnaire items, each of which was accompanied by a seven-point Likert scale. These items included the 14-item SDO scale (Pratto et al., 1994), eight items from RWA (Altemeyer, 1996) and 36 new items intended to measure three additional constructs, i.e. concerns regarding civil liberties, concerns about security and egalitarian vs “Anti-Arab” and “Anti-Islamic” sentiments. While the terms “Arab” and “Islamic” clearly denote different phenomena – the first cultural and linguistic, the second religious – they came to connote, in the eyes of many in post 9/11 America, interchangeable terms descriptive of an ill-defined enemy (e.g. Gabriel, 2006). These items were presented in a single random order to all participants, with responses

Table 1. Security, privacy and equality towards Arabs and Muslims: sample items.

Item text	Mean	SD
<i>Attitudes towards security (eight items, <math>\alpha = 0.76</math>)</i>		
Because there is no greater threat to the world than terrorism, we must do everything in our power to stop it.	4.76	2.20
Even if it takes an extra hour at the airport, every passenger should be subject to a full body and luggage search.	3.66	2.15
<i>I think that the threat of another terrorist attack has been overstated.</i>	3.27	2.21
<i>Attitudes toward liberty, freedom, and privacy (13 items, 0.92)</i>		
Our highest priority as a nation must be to preserve freedom rather than prevent terrorism.	4.37	2.11
It is never right for the government to read a person's mail or email.	4.22	2.15
<i>I'd be willing to surrender certain aspects of my personal privacy if it would guarantee an increase in security.</i>	3.99	2.17
<i>Anti-Arab/anti-Muslim sentiments (15 items, 0.92)</i>		
<i>Muslims value peace and love.</i>	4.27	1.97
America must restrict Arab immigration if it is to increase homeland security.	3.88	2.28
When it comes down to it, each American life means more than the lives of a dozen Arabs.	2.36	2.08

Note: Italicized items are reverse-keyed. All items are scored on a seven-point scale, with high scores denoting agreement;  $n = 621$ . Alpha coefficients are provided as indices of internal consistency.

required for every item on each page of the survey. A free-response field for comments was presented after each of the two sections of the survey. Sample items are provided in Table 1; the remaining items are available from the first author.<sup>4</sup>

### Data filtering

Internet-based surveys are typically completed in an unmonitored environment, and consequently in a potentially haphazard fashion. In recognition of this, and because the initial sample size was sufficiently large, analyses were undertaken on a restricted subset of the protocols as well as on the entire sample. Of the 1120 participants who began the survey, 322 (28.8%) were dropped because they did not complete all 60 items. Of the remaining 798 participants, 127 (15.9%) were not included in the restricted sample because they responded too quickly, i.e. they took less than 4 minutes to complete one page of the survey which included 30 items. Four additional participants were dropped because they gave the same answer to the two questions concerning "most" and "least" important values (see below). Finally, because our primary interest in the present study is in attitudes among respondents within America, we culled 46 remaining protocols whose IP addresses identified them as outside of the United States. This left us with a sample of 621 respondents.

## Results

### *Forced choice ordering of privacy, security and equality*

The first two questions of the survey asked respondents to choose the most and least important of three values: preserving homeland security, protecting the right to



privacy and trying to treat all Americans (Arabs and non-Arabs) equally. In response to the “most important” question, roughly half of the respondents (309, 50%) endorsed security, with fewer choosing privacy (162, 26%) or equality (147, 24%).

Responses to the question concerning “least important” are informative concerning dimensionality. Perfect support for a unidimensional model would be indicated only if one of the three values were never chosen as “least important”, while a more complex surface would be indicated if each of the three values were seen as least important by a substantial number of respondents.<sup>5</sup> Our results appear closer to the second of these alternatives, as equality was chosen as “least important” by 293 (47%) participants, security by 167 (27%) and privacy by 161 (26%).

The conjoint pattern of responses to the “most” and “least” important items constitutes an ipsative measure which effectively ranks the values of security (S), civil liberties/privacy (P) and civil rights/equality (E) for each respondent. Ipsative measures such as this lend themselves to a typological understanding of personality (e.g. Block, 1971; Hart, Hofmann, Edelstein & Keller, 1997), and the six possible orderings of the three values can be thought of as forming six types, (e.g. a “PSE” type which values privacy most and equality least).

In Figure 1, each of the six types is represented by a bubble, with area proportional to the number of respondents and location based on the ordering of the three values. Here, the four open bubbles at the top of the graph can be arranged along a single

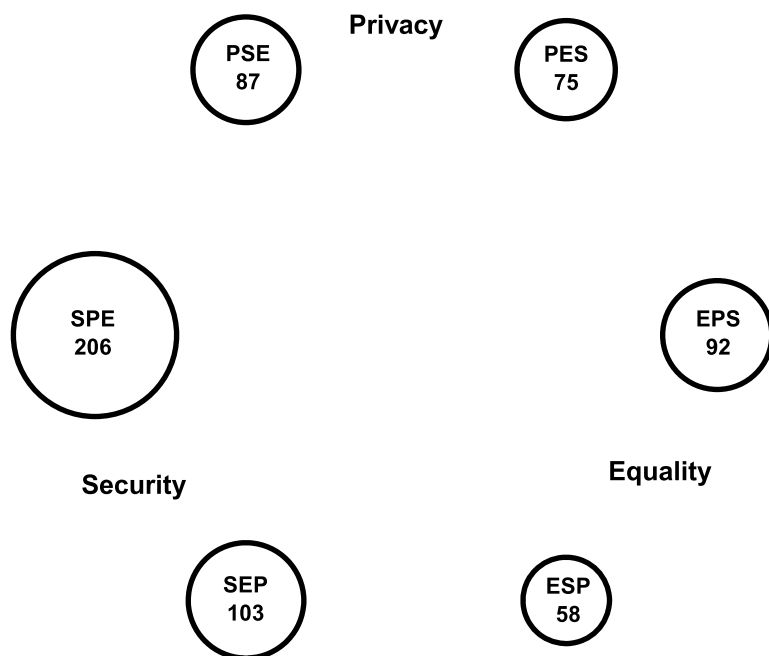


Figure 1. Bubble chart showing bidimensionality of the values of security (S), privacy (P) and equality (E). Each bubble represents a preferred ordering, with area proportional to the number of respondents and location based on the ordering of the three values. For example, 206 respondents chose security as most important and equality as least; this is represented by the large bubble near “Security” and far from “Equality”. The two bubbles at the bottom of the chart represent the 26% of respondents who chose privacy as least important of the three values; these responses cannot be accurately placed on a security–privacy–equality continuum.

dimension of security–privacy–equality, while the two spotted bubbles, representing the 26% of respondents who chose privacy as least important of the three values, cannot. The bidimensionality suggested by this initial result indicates that individuals differ not just in the extent to which they value “security”, but also in the relative value they assign to civil liberties such as privacy and civil rights or equality.

### *Correlations among summary measures of attitudes*

Summary measures of SDO, Anti-Arab/Anti-Muslim Attitudes (AAAMA), RWA and attitudes toward security and liberty were constructed by reversing 24 negatively keyed items, then averaging responses to items within each domain. These five scales ranged from eight to 15 items in length, with alphas from 0.76 to 0.92 (median = 0.90). Correlations among the measures are shown in Table 2. Schwartz (1994) has argued that correlations among measures such as these may be represented in a two-dimensional circumplex, with axes of Openness to change and Self-transcendence. We examined the fit of a circumplex model by examining ordinal properties of the correlation matrix, in particular the extent to which correlations progressively decrease as one moves away from the main diagonal toward more conceptually dissimilar variables. Of the 20 pair-wise comparisons among the off-diagonal correlations shown in Table 2, 19 show the predicted pattern, giving rise to a correspondence index (CI; Hubert & Arabie, 1987) of 0.90, and indicating strong ordinal support for a two-dimensional model. A randomization test (Hubert & Arabie, 1987; Gurtman & Pincus, 2000) revealed similar support for the model, as the ordering of variables shown in Table 2 was superior to that for any of the 59 other distinct permutations of these variables ( $p < 0.02$ ). These results are illustrated in Figure 2, in which Schwartz’s preferred dimensions are used to label the two rotated principal components that underlie the empirical correlations among our five measures. The adequacy of the two dimensions to account for these correlations is indicated by the fact that commonalities were high, ranging from 0.78 to 0.88, placing all five measures close to the unit circle. Although not all regions of the circle are sampled by the present set of five variables, their ordering appears essentially consistent with Schwartz’s circumplex model.

### *Structural models of attitude data*

Another approach to dimensionality is given by confirmatory factor analysis. Fifteen clusters were constructed, in order to provide three indicators for each of

Table 2. Correlations among summary measures of sociopolitical attitudes.

	SDO	AAAMA	RWA	Security	Liberty
SDO		0.70	0.63	0.38	−0.46
AAAMA	0.70		0.71	0.58	−0.55
RWA	0.63	0.73		0.64	−0.61
Security	0.40	0.60	0.67		−0.64
Liberty	−0.46	−0.54	−0.60	−0.67	

Note: RWA = Right Wing Authoritarianism. SDO = Social Dominance Orientation. AAAMA = Anti-Arab/Anti-Muslim Attitudes. Entries below diagonal are derived from screened sample of American respondents ( $n = 621$ ). Above-diagonal entries are based on all available respondents ( $n = 931$ ).



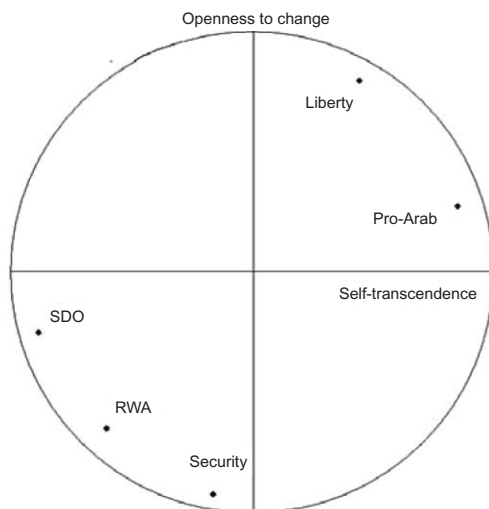


Figure 2. Circumplex representation of correlations among sociopolitical values. Loadings of measures of five sociopolitical attitudes on two Varimax-rotated principal components. SDO = Social Dominance Orientation. RWA = Right Wing Authoritarianism. For clarity of exposition, items measuring attitudes towards Arabs/Muslims are coded in the “pro” rather than “anti” direction.

the five constructs under investigation (Duckitt, Wagner, du Plessis, & Birum 2002). These clusters included between two and six items, with alphas ranging from 0.60 to 0.84 (median = 0.79). The software program AMOS 4.0 (Arbuckle & Wothke, 1999) was used to explore the goodness-of-fit of a series of structural models. The fit of these models was assessed using the chi-square statistic, the comparative fit index (CFI; Bentler, 1990), and the root mean square error of approximation (RMSEA; Browne & Cudeck, 1993). The CFI index is a measure of the fit of the model in comparison with a baseline null model, with values greater than 0.95 indicating a well-fitting model (Hu & Bentler, 1999). The RMSEA index provides a measure of the difference between the population covariance matrices predicted by the model and sampled by the data. This measure is effectively adjusted for the complexity of the model, with values less than 0.08 indicating a reasonable fit (Byrne, 2001).

Tests and comparisons of the seven models are summarized in Table 3. In model 1, all items loaded on a single latent factor of conservatism. As expected, this model fit the data poorly (CFI = 0.740, RMSEA = 0.178), indicating that no general factor was sufficient and/or that coherent subsets of the clusters could be articulated. Model 2, with five orthogonal factors, also fit poorly (CFI = 0.653, RMSEA = 0.205). In model 3, these latent factors were allowed to correlate. This model can be thought of as descriptive rather than explanatory, in that no higher-order causal factors are posited to explain the relationships among the latent factors (Fletcher, Simpson, & Thomas, 2000; Marsh & Hocevar, 1985). As expected, this descriptive model fit the data reasonably well (CFI = 0.957, RMSEA = 0.077).

The remaining models include higher-order factors which attempt to account for the covariance among the primary latent factors seen in model 3. Model 4 includes a single second-order factor which, as in model 1, is labeled “conservatism”. Although

Table 3. Confirmatory factor analyses: Fit indices and comparisons of models.

	Model		Fit statistics				Comparison of nested models			
	First-order factors	Second-order factors	RMSEA	CFI	Chi-square	df	Comparison model	Change in CFI	Change in Chi-sq	d.f.
<i>Baseline and descriptive models</i>										
Null	0	0	0.323	—	6884	105	—	—	—	—
Model 1	1	0	0.178	0.74	1853	90	null	0.74	5031	15
Model 2	5	0	0.205	0.653	2439	90	null	0.653	4445	15
Model 3	5	0	0.077	0.957	374	80	2	0.304	2065	10
<i>Higher-order models</i>										
Model 4	5	1	0.088	0.94	495	85	2	0.287	1944	5
Model 5a	5	2	0.078	0.954	394	82	4	0.014	101	3
Model 5b	5	2	0.080	0.951	414	83	2	0.297	2025	7
Model 6	5	3	0.083	0.950	423	81	—	—	—	—

Note: CFI = comparative fit index; RMSEA = root mean squared error of approximation;  $n = 621$ .

the fit of model 4, with one single second-order factor, was superior to that of models 1 and 2, it did not approach the fit of model 3, indicating that more than one second-order factor would be needed to map the domain (CFI = 0.940, RMSEA = 0.088).

In the best fitting model (model 5a) the conservatism factor of model 4 is supplemented by an “equality” factor. This model echoes Saucier’s (2000) analysis of the correlational structure of attitude nouns (“-isms”), in which a broad “alphaism” factor associated with religiosity, authoritarianism and conservatism was followed by a narrower “betaism” factor characterized by egoism vs egalitarianism and associated with SDO. Equivalently, the two latent second-order factors of model 5a may be conceptualized as two orthogonal axes on a coordinate plane, with all five constructs showing substantial loadings on the conservatism dimension and only three (social dominance, anti-Arab/Muslim attitudes and authoritarianism) loading on the equality dimension. In this model, with its general higher-order factor of conservatism supplemented by a narrower equality factor, fit was improved (CFI = 0.954, RMSEA = 0.078). As illustrated in Figure 3, loadings for first-order factors ranged from 0.36 to 0.96 (median = 0.84). Loadings for the second-order Conservatism factor were all substantial (0.67 to 0.92), while for the Equality factor, loadings were significant but were smaller in magnitude for Anti-Arab attitudes (0.36) and RWA (0.21) than for SDO (0.74).

Other models with two second-order factors showed similar results, and were superior both to models based on a single dimension (or tradeoff) as well as to models in which there are no tradeoffs (i.e. three independent dimensions of equality, security and privacy). Model 5b is derived from the political distinction between civil rights and civil liberties noted above. In this model, the two second-order factors are correlated and conceptualized as civil rights orientation (CRO) and civil liberties orientation (CLO), with CRO hypothesized to underlie social dominance and anti-Arab/Muslim attitudes, CLO linked to security and surveillance, and authoritarianism related to both factors. Results for this model, with two oblique factors of civil liberties orientation and civil rights orientation, were similar to those of model 5a (CFI = 0.951, RMSEA = 0.080). Finally, model 6 includes three higher-order factors including conservatism, concern with equality and concern with freedom; this more complex model effectively subsumes both of the higher-order structures posited by the preceding two models. This model could not be identified without constraining two additional parameters. Once specified, this last model also provided an adequate fit to the data (CFI = 0.950, RMSEA = 0.083).

### *Comparisons of nested models*

Because of its sensitivity to sample size, relatively small changes in the chi-square statistic can achieve statistical significance. Consequently, changes in indices such as the CFI and RMSEA should also be considered in comparing the fit of a series of models (Fletcher et al., 2000). Of the models which did not specify second-order factors, each of these three indices indicated that model 3 fit better than models 1 or 2. Of the models which did specify second-order factors, models 5a and 5b, with two such factors, fit better than model 4. Model 6, with three higher-order factors, did not improve on the two-factor models 5a and 5b. These results support a two-dimensional conception of sociopolitical attitudes, and reject a narrow unidimensional tradeoff between liberty and security.

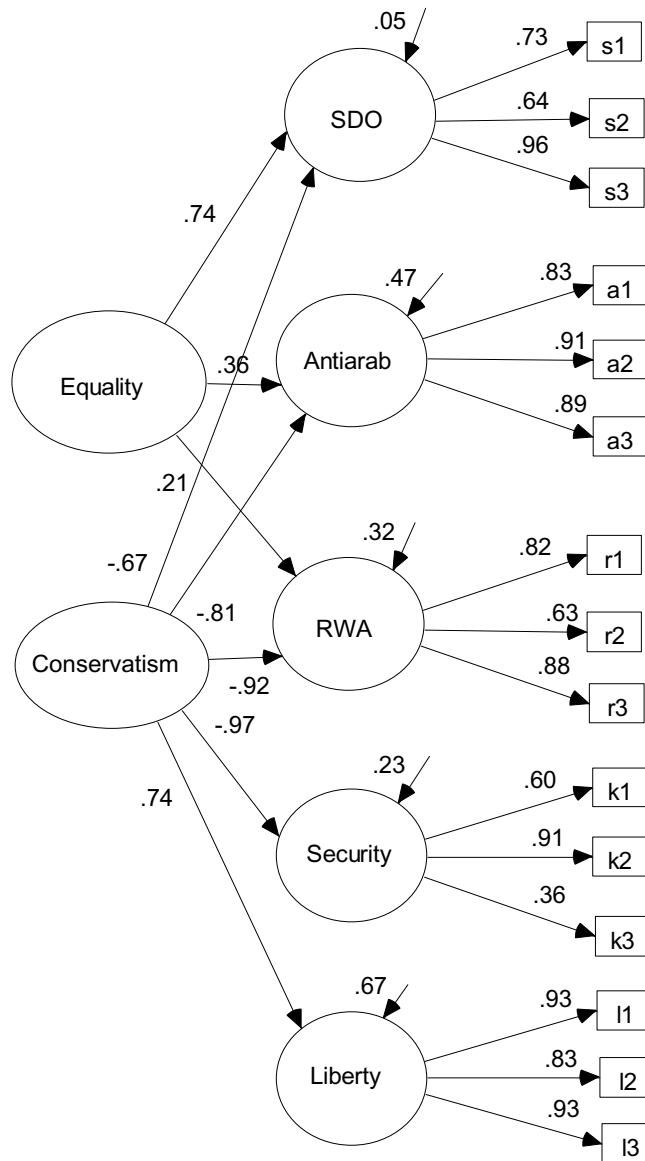


Figure 3. Structural model showing two second-order factors: A broad second-order conservatism factor and a narrower equality factor. Five mid-level constructs include Social Dominance Orientation (SDO) and Right Wing Authoritarianism (RWA). Model fit statistics: CFI = 0.954, RMSEA = 0.078. Standardized weights are shown.

## Discussion

In post-9/11 America, tensions exist not only between security and civil liberties, but also between each of these and civil rights. These tensions are reflected in the multidimensionality of democratic values, as shown in five separate lines of evidence.

First, in our application of signal detection theory, we used what was in essence a *Gedanken* experiment to examine tradeoffs among security, equality and privacy,

showing that a given level of domestic risk may be reduced only by information gathering, implying an injury to privacy and civil liberties, or by the selective detention of individuals based on superficial cues, implying unequal treatment and an impingement upon civil rights. Second, in our analysis of NAACP and ACLU congressional ratings, we found that difference scores were coherent, indicating that the preference for rights over liberties, or vice-versa, is at the very least non-random.

In addition, three analyses of new data were reported. These data were gathered using the Internet, a methodology which, even with the careful screening of responses used here, is less than ideal. Despite this, results were coherent. In the results of the ipsative portion of our survey, we found support for a two-dimensional model, as rankings of privacy, security and equality could not be represented using a single Guttman scale. Further, we found that two dimensions were necessary and that a circumplex was largely sufficient to account for the correlational structure of five manifest measures of attitudes. Finally, in our analyses of latent structure, we found the fit of two-factor models to be superior to that of a single factor model.

### *Dimensionality and transitivity*

In the absence of a forced-choice design, the majority of Americans will endorse ideals such as equality and security, but there is substantial slippage between broad claims about values such as these and behavior, as witnessed, for example, by the fact that a normative belief in the importance of privacy exists side-by-side with a widespread willingness to surrender personal information on the Internet (Caftori & Teicher, 2002). When the relationship between liberty and security is examined using an ipsative or forced-choice technique, the apparent slippage between broad and narrow values disappears (Peffley, Knigge, & Hurwitz, 2001).

Although an ipsative format imposes a negative correlation between items, and reduces the rank or dimensionality of their correlation matrix, evidence for multidimensionality was found in the brief ipsative measure included at the beginning of our survey. Here, a unidimensional model (such as left-right or liberal-conservative) would have been supported if, for example, privacy had typically been chosen as falling between a conservative interest in security and a liberal interest in equality, or if equality had typically fallen between security and privacy. Instead, we found that all possible rank orders of the three values were chosen by substantial numbers of respondents.

The endorsement of all possible orderings of privacy, security and equality seen in Figure 1 indicates multidimensionality or between-individual intransitivity. For at least some individuals, there is the suggestion of within-individual intransitivity or instability as well. That is, of the 1120 individuals who responded to the questions concerning the ranking of these attitudes, fully 249 (22%) took the time to qualify or express written concerns about their answers. The majority of these comments expressed a need to explain or justify the rankings, or a discomfort with having to choose one value as "least important". (For example, one respondent wrote "The 1st question seemed easy, after moving to the 2nd questions, I found myself rethinking the 1st. Im [sic] staying with Trying to treat all Americans as equals. I don't feel the two references as important. For the 2nd question, I will skip that one, if the page allows. Guess not!") Verbal reports such as this suggest that the difficulties of scaling civil liberties, civil rights and security occur not only between individuals, but within individuals as well (Tetlock, 1986).

### *The meaning of the attitude measures*

Although the primary focus of the present inquiry is to examine the nature of tradeoffs between security, civil rights and civil liberties in post-9/11 America, it is appropriate to consider the deeper significance of these values as well. Political attitudes can be understood in a “hot” rather than “cold” context, as the product of motives and affective states rather than simply the output of an information processing system. There is substantial empirical support for the hypothesis that intrapsychic defenses play a role in the dynamics of conservatism (Jost, Glaser, Kruglanski, & Sulloway, 2003). The psychological roots of liberalism warrant close consideration as well.

Given the role of the shared family environment in the ontogenesis of political attitudes (Oniszczenko & Jakubowska, 2005), the liberal cathexis of civil liberties and civil rights may be rooted in early experience, and may be understood as serving important functions for the individual. For example, while an unquestioning need for security and the embracing of authority may have its roots in anxiety and a need for structure (Adorno et al., 1951; Fromm, 1941), anti-authoritarianism or rebelliousness may be the product of not just transient motives such as reactance (Brehm, 2000), but also longstanding personality characteristics including narcissism (Wink & Donohue, 1997). While a disinterest in equality may reflect a need to believe in the *status quo* or a system justification motive (Jost et al., 2003), the embrace of civil rights is likely motivated as well, possibly rooted in a justice motive (Lerner, 2003). Interestingly, a sensitivity to justice and equality is not exclusive to humans, but appears also to be shared with cooperative primates such as the capuchin monkey, suggesting that the motive may be evolutionarily based (Brosnan & de Waal, 2003). The potential evolutionary significance of the justice motive suggests that the concern for equality may, together with concerns for freedom and security, provide a non-arbitrary basis for understanding the psychological foundations of political motives.

### *One dimension or two?*

Although  $d'$  and  $\beta$  can serve as analogues to the values of liberty and equality, the logical independence of the two SDT parameters is not generally reflected in empirical indicators of the two values. Historically, concerns for civil rights and civil liberties have covaried: for example, incursions upon civil liberties have been disproportionately levied against vulnerable groups, and the advances of the civil rights movement could not have occurred without new restraints against arbitrary actions of law enforcement agencies in the American South (Cole, 2004; Strain, 2005). Today, the empirical link between civil liberties and civil rights remains potent. Within the 107th Congress, the correlation between ratings by the ACLU and the NAACP was 0.90. Within our sample, the correlation between two latent factors described as freedom and equality in one of our structural models (model 5b) was 0.84. These substantial empirical correlations and conceptual relationships underscore the fact that, at least at this place and time, while two dimensions may be useful in understanding sociopolitical attitudes, the first of these dimensions – akin to Saucier’s (2000) “alphaism” dimension – is broader and more implicative than the second dimension of equality or betaism.

The shifting, context-dependent relationships between indicators of security, civil liberties and civil rights suggests that both one-dimensional and two-dimensional representations of political attitudes may have value, a situation which is analogous to that framing the domain of psychopathology and its covarying components of



depression and anxiety. Although indicators of attitudes toward civil liberties and civil rights are typically related, they remain conceptually distinct, particularly in post-9/11 America.

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### Notes

1. Although contemporary international organizations have not been able to reach a consensus on the meaning of terrorism, an early definition was proposed by the League of Nations, which maintained that terrorism consisted of “criminal acts [that are] directed against a State and [are] intended or calculated to create a state of terror in the minds of particular persons or a group of persons” (League of Nations, 1937).
2. Technologies such as data mining are properly understood as forms of “information gathering”, and not merely “information winnowing”. Because information refers to the amount of value or meaning in a message (Shannon, 1948), an unfiltered morass of data may constitute no information at all.
3. The text of the advertisement read “Let your voice be heard – a scientific survey of attitudes about privacy, security & equality”.
4. We thank Mustafa Abu Sway for his assistance in writing and evaluating survey items.
5. To illustrate the role of “least important” choices, consider responses to the question “Which of the following is *least* accurate in describing your height: 4', 5' or 6'?” Because height is unidimensional, the second response option should never be chosen.

### Notes on contributors

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### References

- Adorno, T.W., Frenkel-Brunswik, E., Levinson, D.J., & Sanford, R.N. (1950). *The authoritarian personality*. New York: Harper.
- Altemeyer, R.A. (1996). *The authoritarian specter*. Cambridge, MA: Harvard University Press.
- Arbuckle, J.L. & Wothke, W. (1999). *Amos 4.0 user's guide*. Chicago, IL: SmallWaters.
- Bentler, P.M. (1990) Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238–246.
- Block, J. (1971). *Lives through time*. Berkeley, CA: Bancroft Books.
- Brehm, J.W. (2000). Reactance. *Encyclopedia of psychology*, Vol. 7 (pp. 10–12). Washington, DC: American Psychological Association.

- Brosnan, S.F. & de Waal, F.B.M. (2003). Monkeys reject unequal pay. *Nature*, 425, 297–299.
- Browne, M.W. & Cudeck, R. (1993). Alternative ways of assessing model fit. In K.A. Bollen & J.S. Long (Eds.). *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.
- Byrne, B.M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Chicago, IL: SmallWaters.
- Caftori, N. & Teicher, S. (2002). Information privacy issues in the information age. *Proceedings of the Cork, Ireland informing science 2002 conference*. Retrieved on February 15, 2006 from <http://proceedings.informingscience.org/IS2002Proceedings/papers/Cafto212Infor.pdf>.
- Cole, D. (2004). Uncle Sam is watching you. *New York Review*, 51, 56–60.
- Davis, D.W., & Silver, B.D. (2004). Civil liberties vs. security: Public opinion in the context of the terrorist attacks on America. *American Journal of Political Science*, 48, 28–46.
- Department of Homeland Security (2004). *Securing our homeland: U.S. Department of Homeland Security Strategic Plan*. Washington, DC: Author.
- Duckitt, J., Wagner, C., du Plessis, I., & Birum, I. (2002) The psychological bases of ideology and prejudice: Testing a dual process model. *Journal of Personality & Social Psychology*, 83, 75–93.
- Eysenck, H.J. (1975). The structure of social attitudes. *British Journal of Social & Clinical Psychology*, 14, 323–331.
- Fletcher, G.J.O., Simpson, J.A., & Thomas, G. (2000) The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality & Social Psychology Bulletin*, 26, 340–354.
- Fomm, E. (1941). *Escape from freedom*. New York: Farrar and Rhinehart.
- Gabriel, B. (2006). *Because they hate: A survivor of Islamic terror warns America*. New York: St. Martins Press.
- Gerstenfeld, P.B. (2002). A time to hate: Situational antecedents of intergroup bias. *Analyses of Social Issues and Public Policy* 2, 61–67.
- Graber, M.A. (2005). Civil liberties in wartime I. Retrieved February 15, 2006 from <http://balkin.blogspot.com/2004/08/civil-liberties-in-wartime-i.html>.
- Grey, T.C. (1992). Civil rights vs. civil liberties: the case of discriminatory verbal harassment. *The Journal of Higher Education*, 63, 485–516.
- Gurtman, M.B., & Pincus, A.L. (2000). Interpersonal adjective scales: confirmation of circumplex structure from multiple perspectives. *Personality & Social Psychology Bulletin*, 26, 374–384.
- Hart, D., Hofmann, V., Edelstein, W., & Keller, M. (1997). The relation of childhood personality types to adolescent behavior and development: a longitudinal study of Icelandic children. *Developmental Psychology*, 33, 195–205.
- Hu, L. & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.
- Hubert, L. & Arabie, P. (1987). Evaluating order hypotheses within proximity matrices. *Psychological Bulletin*, 102, 172–178.
- Jost, J.T., Glaser, J., Kruglanski, A.W., & Sulloway, F.J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339–375.
- Lanning, K. (1989). The detection of invalid response patterns on the California Psychological Inventory. *Applied Psychological Measurement*, 13, 45–56.
- Lanning, K. (2002). Reflections on September 11th: Lessons from four psychological perspectives. *Analyses of Social Issues and Public Policy*, 2, 27–34.
- Lanning, K. (2008). Voting, democracy and disenfranchisement in the United States: A social psychological perspective. *Journal of Social Issues*, 64, 431–446.
- League of Nations. (1937). *Convention for the prevention and punishment of terrorism* (no. officiel C.546 (1).M.383 (1).1937.V).
- Lerner, M.J. (2003). The justice motive: Where social psychologists found it, how they lost it, and why they might not find it again. *Personality and Social Psychology Review*, 7, 388–399.
- Lowi, T.J., Ginsberg, B., & Shepsle, K.A. (2002). *American Government: Power and purpose, 7e*. New York: Norton

- Marsh, H.W. & Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First- and higher order factor models and their invariance across groups. *Psychological Bulletin*, 97, 562–582.
- Meehl, P.E. & Rosen, A. (1954). Antecedent probability and the efficiency of psychometric signs, patterns or cutting scores. *Psychological Bulletin*, 52, 194–216.
- Nunnally, J.C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw Hill.
- Oniszczenko, W. & Jakubowska, U. (2005). Genetic determinants and personality correlates of sociopolitical attitudes in a Polish sample. *Twin Research*, 8, 47–52.
- Oskamp, S. & Schultz, P.W. (2005). *Attitudes and opinions* (3rd ed.). Hillsdale, NJ: Erlbaum.
- Peffley, M., Knigge, P., & Hurwitz, J. (2001). A multiple values model of political tolerance. *Political Research Quarterly*, 54, 379–406.
- Pratto, F., Sidanius, J., Stallworth, L.M., & Malle, B.F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67, 741–763.
- Project Vote Smart. (2004). *Interest group ratings*. Retrieved August 26, 2004 from <http://vote-smart.org>.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Saucier, G. (2000) Isms and the structure of social attitudes. *Journal of Personality and Social Psychology*, 78, 366–385.
- Schwartz, S.H. (1994). Are there universal aspects in the structure and contents of human values? *Journal of Social Issues*, 50, 19–45.
- Schwartz, S.H. & Boehnke, K. (2004). Evaluating the structure of human values with confirmatory factor analysis. *Journal of research in personality*, 38, 230–255.
- Shannon, C.E. (1948). A mathematical theory of communication. *Bell System Technical Journal*, 27, 379–423 and 623–656.
- Sidanius, J., Pratto, F., van Laar, C., & Levin, S. (2004). Social dominance theory: Its agenda and method. *Political Psychology*, 25, 845–880.
- Strain, C. (2005). *Pure fire: Self-defense as activism in the civil rights era*. Athens, GA: University of Georgia Press.
- Strum, P. (1999). *When the Nazis came to Skokie: Freedom for the speech we hate*. Lawrence, KS: University of Kansas Press.
- Swets, J.A., Tanner, W.P., & Birdsall, T.G. (1961). Decision processes in perception. *Psychological Review*, 68, 301–340.
- Tetlock, P.E. (1986) A value pluralism model of ideological reasoning. *Journal of Personality and Social Psychology*, 50, 819–827.
- Wink, P.E. & Donahue, K. (1997). The relation between two types of narcissism and boredom. *Journal of Research in Personality*, 31, 136–140.