

Isms Dimensions: Toward a More Comprehensive and Integrative Model of Belief-System Components

Gerard Saucier
University of Oregon

Psychological research on beliefs, values, worldview, and ideology has been limited by inadequate structural models to organize the plethora of constructs. The present studies investigate the potential of a dimensional model based on lexical, dictionary-represented -ism concepts to form an organizing structural model. Four isms factors found previously in college samples are shown to replicate in community-sample data with better controls for acquiescent responding. But analyses also reveal a 5th factor involving egalitarianism and inequality-aversion, increasing the comprehensiveness of the structural model. Relations of frequently used constructs (values, authoritarianism, social dominance orientation) to the isms dimensions are detailed, demonstrating both the integrative and value-adding potentials of the model. The possibility of potential additional nonlexical factors (Trust in Government, Ethnocentrism, Xenophobia, and Nativism) is evaluated. Factors identified in these studies are demonstrated to show interesting relations with political-party preference, subjective well-being, and change over time in the Big Five personality dimensions.

Keywords: attitude measurement, individual differences, factor structure, conservatism, spirituality

Important aspects of human behavior are driven or inflected by human belief systems. Beliefs are held by individuals, and so, naturally, psychologists seek to measure aspects of such systems at the individual level. At this level, a bewildering variety of constructs are currently used in the measurement of social, political, and religious attitudes and beliefs.

Among the most widely referenced constructs in this domain are spirituality, religiosity, racism, authoritarianism, conservatism, individualism, collectivism, nationalism, liberalism, materialism, ethnocentrism, fascism, belief in God, fundamentalism, Machiavellianism, and social dominance orientation. And there are many more. The plethora of constructs is diagnostic of the vigor of researchers and the importance of this domain, but it presents a problem for those seeking a more integrative understanding, the “big picture” in the psychology of belief systems.

Some parsimonious summary of this vast domain is needed. Such a summary would identify the most prominent lines of variation within the domain, allowing a sort of taxonomy of these constructs. Or it would allow one to identify, under different terminology, primary dimensions in the space defined by the domain, just as hue, value/lightness, and chroma/saturation define such dimensions for color. Such a system or taxonomy could be called a dimensional classification. A taxonomy systematically divides phenomena into ordered groups or categories, providing a standard scientific nomenclature that facilitates communication

and aids in the accumulation of empirical findings. A dimensional classification has similar functions but relates phenomena to dimensions rather than categories. The most useful and widely used procedure for grouping a given set of phenomena (or indicators thereof) within an n -dimensional classification has traditionally been factor analysis. Factor analysis (like component analysis) can be considered a variable-reduction procedure, in which many variables are organized by a few factors that summarize the interrelations among the variables.

A Dimensional Classification of Isms

Most of the widely referenced constructs listed at the outset of this article are terms that end in -ism. Moreover, those that do not could readily convert to -ism terms (e.g., spiritualism, religionism, theism, egalitarianism). These observations suggest that studying the domain of -ism concepts might tell us something about a whole domain of constructs. Anchoring studies in a relatively objective source of variables—a dictionary—allows more comprehensiveness, the possibility of counterintuitive results, and a guarantee that the variables are socially important and generalizable beyond the immediately current historical context.

Saucier (2000) factor-analyzed questionnaire items based directly on social, political, and religious attitudes and beliefs sedimented in -ism terms in the English language. Of course, many -ism terms are highly polysemous: For example, the term *liberalism* has at least four definitions, some of them very complex, referencing the free market, the gold standard, dogmatism in theology, civil and political liberties, and the goodness of human nature. To deal with such polysemy, the optimal unit of measurement was the -ism definition, not necessarily the -ism terms per se. To deal with complex, many-part definitions, some definitions were split into two or more items to be aggregated in the main analyses. That study identified a comprehensive set of 389 items

I am grateful to Tarik Bel-Bahar, Teresa DaVigo, Amber Keele, Seraphine Shen, and Sasha Smith for assistance with this research and to Philippe Bou Malham, Lewis R. Goldberg, Kathryn Iurino, Judith Kenner, Suhasini Sanyal, and Amber Thalmayer for helpful suggestions.

Correspondence concerning this article should be addressed to Gerard Saucier, Department of Psychology, 1227 University of Oregon, Eugene, OR 97403-1227. E-mail: gsaucier@darkwing.uoregon.edu

based on 335 discrete definitions of 266 different -ism terms referring to attitudes and beliefs, drawn from the *American Heritage Dictionary*.

Factor analyses indicated a four-factor structure in an American sample; no more than four factors met a high replicability standard. Saucier (2000) labeled these four factors provisionally with Greek letters. Subsequently, Krauss (2006) replicated the main form of this four-factor structure in an analogous study with a Romanian dictionary and a Romanian sample. This replication indicates that results are not due to idiosyncrasies of a single language or dictionary.

Not content with mere Greek-letter labels, Saucier (2000) offered some initial interpretations. Later work (Saucier & Skrzypińska, 2006) led to firmer interpretations of two of the dimensions: The Alpha and Delta factors are better labeled as Tradition-oriented Religiousness and Subjective Spirituality. The former is associated with organized religion and fundamentalism, the latter with mystical experience and “being spiritual but not [necessarily] religious.” These two factors clearly concern religion and spirituality, but the other two factors do not. One (Unmitigated Self-Interest; originally Beta) involves endorsement of various forms of hedonic self-interest as a source of value and goodness in life. The other (Communal Rationalism; originally Gamma) puts emphasis on common institutions and the exercise of reason as a source of value and goodness, with implications that human nature is fundamentally good and, therefore perhaps, humans should be given considerable freedom. Communal Rationalism is roughly in accord with social-contract thinking as developed in philosophy by Hobbes, Locke, Rousseau, and, more recently, John Rawls. It harmonizes well with the norms of shared, deliberative rationality expressed in science and scholarship as well as civil government.

It is evident that the four factors involve four distinct bases or foundations for behavior, knowledge, and values. They represent what are simultaneously ethical, epistemological, and axiological foundations for an individual’s system of beliefs. Each factor involves a different kind of answer to questions like What is real and what is the most reliable source of knowledge? What determines human behavior, or is the best source of guidance for action? Who or what should be given authority? What is the ultimate “good”? The Tradition-oriented Religiousness (TR) factor provides answers involving scriptures, traditional religion, and a hierarchy of religious authority; as with all these dimensions, variation involves the degree to which such answers are endorsed versus opposed. Subjective Spirituality (SS) involves answers having to do with personal metaphysical, numinous experience, a more nonhierarchical approach to spirituality. Unmitigated Self-Interest (USI) likewise involves answers having to do with personal experience, but here the experience is of a very different, more hedonic form (the senses, pleasure, possessions, perhaps power). Finally, the Communal Rationalism (CR) factor involves answers, independent of the first three sorts, having to do with collaborative or communal rational processes, eventuating in institutions of civil government and fields of scholarship and science.

At their core, each of these dimensions apparently involves the issue of whether to “exalt”—put on a pedestal, so to speak—one sort of entity. That is, they concern whether a distinct entity (whether a concept, an object, or a supernatural or historical personage) or a class of closely related entities is accorded impor-

tance as the prime source of truth, goodness, and reality and of authority and guidance for human behavior. TR exalts (or at the low pole, derogates) scriptures and religious authority, SS exalts personal numinous experience, USI exalts personal hedonic experience, and CR exalts ideals of shared rationality. These are foundations, simultaneously ethical and epistemological and axiological (value-focused), relied on by everyday people. But everyday people clearly vary in how much they endorse such foundations.

One might alternatively say that each dimension involves one kind of entity being made sacred (vs. having its sacredness denied). This gambit is really borrowing a concept truly central to only one of the four dimensions: Tradition-oriented Religiousness. Applying in turn a root theme from each of the dimensions, one might also say that each dimension represents a debate about what is a reasonable source of guidance for society and individual behavior, or about where true self-interest lies, or where true personal enlightenment might be found.

What Shall We Call the Domain Defined by Isms?

These dimensions provide a summary of the largest content emphases in the isms domain. How shall we best label such isms? Are they beliefs, values, attitudes, worldview, or ideology? An answer requires an examination of what each of these terms means.

In a typical dictionary definition, *belief* refers to a mental state that involves acceptance, trust, and confidence in something offered (but without rigorous proof) as true or real or imbued with goodness. That is, a belief makes a representation with respect to truth, reality, or goodness, thus providing some guidance for behavior. Dictionary definitions of *ideology* often make reference to a body of ideas that are associated with and guide an individual or group. Accordingly, ideological beliefs might be considered a set of beliefs—representations about the world that might guide behavior—capable of guiding groups as well as individuals, reflecting their desires and aspirations. Definitions of *worldview* are similarly broad, emphasizing a collection of beliefs about society, life, and the universe or the overall perspective or philosophy of life organizing those beliefs, though with less overt emphasis on guidance or motivation. Such beliefs about the world are a necessary part of the human condition, because humans must adapt to an environment that has some degree of uncertainty with respect to what is true, real, or good. Worldview beliefs are less guaranteed to be evaluative than are ideological ones. In dictionaries, an *attitude* is typically just a state of mind, although for psychologists it usually implies an evaluation of a fairly specific object or entity that implies some conception (belief) about what is or is not desirable (Saucier, 2000). A *value*, in contrast is something abstract (e.g., a quality, a standard, or a principle) believed to be desirable.

Thus, overall, lexicons alone would tell us that values, attitudes, worldview, and ideology are all forms of belief. Following Geertz (1957), those beliefs that are more purely *descriptive*—those that make at least a nominal attempt to represent fact and are not primarily and directly *prescriptive*—might be called elements of worldview, with the other kinds being beliefs that overtly assign relative worth to objects or abstract entities. Attitudes evaluate the worth of a specific object, whereas values evaluate the worth of more abstract entities in the service of guiding behavior. An ideology is a larger set of beliefs that may guide individuals and

groups. Ideologies include attitudes, values, and worldview beliefs. Some useful conceptualizations of ideology are, however, a bit more specific, making it an explicitly articulated cultural model for organizing social life (Bell, 1962; Swidler, 1986), formed around an ethos (i.e., a style of regulating conduct) that arises in unsettled periods when culture is so fragmented that common sense and tradition do not rule and there is room for variant cultural models to exert influence (Swidler, 1986).

Accepting such a definition for ideology, one might apply the broader term *belief system* to a collection of beliefs, held by an individual, that may or may not be explicitly articulated and may not even be particularly coherent. Belief systems need not be explicit cultural models in the way a sociopolitical program or religious movement might be. However, they might still reflect at the individual level of what Geertz (1964) called a “cultural system”; that is, a cognitive framework people use as a knowledge structure for social reality. Individual belief systems, where they overlap, are key components of what is cultural. As thus understood, an individual belief system is roughly synonymous with a person’s mind-set.

It is reasonable to suppose that isms refer variously to all of the domains just referenced. That is, isms are belief-system components that may be part of an ideology (though they need not be) and that are likely to relate to specific attitudes, abstract values, and more descriptive worldview beliefs. For example, in Tradition-oriented Religiousness one might find worldview suppositions such as “there is a God,” the valuing of conformity to traditional ritual or scriptural text, and specific attitudes toward evolution, childbearing, or abortion. TR might find expression in an ideological program such as a identifying the nation with a religion or even a desired theocracy. But even without this it can safely, at minimum, be labeled a belief system whose components are various attitudes, values, and aspects of worldview. These components might all be captured in -ism terms. Isms capture a wide range of belief-system components.

Evaluating Isms Dimensions as a Structural Model of Belief-System Components

Isms dimensions have important strengths as a structural model and classification for belief-system components. They capture a broad range of these components, cutting across the religious, spiritual, political, and even economic and cultural domains. Importantly, the dimensions are rooted in a strong variable-selection rationale: They represent those variables *objectively* represented in a dictionary that have been sedimented in some way in collective consciousness. The dimensions do not oversimplify to the degree that many ideologies do: They do not reduce all forms of belief to a single contrast between what our movement believes and what its opponents believe. Their multidimensionality gives them the capacity to be integrative.

Previous work (Saucier, 2000, supplemented by Saucier & Skrzypińska, 2006, replicated by Krauss, 2006) indicated a rather consistent set of four factors. But this previous work has some limitations. First, four factors were extracted based on a replicability criterion, but it remains possible that one or more factors beyond the first four are useful. Second, some of the factors were defined by large sets of terms all loading in the same direction on (i.e., on the same pole of) the factor, raising the possibility that one

or more of these factors arises due to individual differences in acquiescent responding, as was arguably the case for structure in the now largely abandoned California F scale (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950). Third, the four factors seem to more heavily emphasize the spiritual than the political aspects of belief: Do they sufficiently capture political ideology, for example providing strong prediction of political party attitudes? Fourth, in the original lexical -isms studies, all data came from university/college students rather than a broader sample of adults. And fifth, except for predictive validity evidence provided by Saucier and Skrzypińska (2006), there is as yet little to demonstrate the association of isms dimensions with important criterion outcomes. The studies that follow address all five of these limitations.

The present studies address, then, several research questions, all of which concern the comprehensiveness and validity of the full set of four isms factors. Do these factors arise in a nonstudent population? Are any factors dependent on acquiescent responding? Are there additional factors in the isms domain? How comprehensive are the factors, especially with respect to previously widely used constructs? And do they predict things of importance?

Study 1 addresses the first three of these research questions. A large set of isms-related items was administered to a large community sample. The items were clustered into parcels or “item-composites” with (in most cases) balance in keying direction among the items in the set. The item-parcels were then subjected to factor analyses; the robustness of the resulting structure was examined when further content from outside the strictly defined isms domain was added.

Study 1

Method

Participants. All analyses reported here involved an adult community sample, the Eugene–Springfield Community Sample (for a description, see Grucza & Goldberg, 2007). Early in 2001, 703 participants from this sample (average age 59 years at that point, 57% female) completed a survey of beliefs and opinions used in these analyses, with each item responded to on a 1 (*strongly disagree*) to 5 (*strongly agree*) response scale. Most of these participants completed an additional omnibus questionnaire about six months later (summer 2001) including measures of values and social attitudes, and many of them completed some follow-up questionnaires in 2006 and 2008. Data from these additional questionnaires, as well as a 1998 administration of a personality inventory, are utilized in Study 2. However, Study 1 used exclusively winter 2001 data.

Measuring isms via item-composites. A useful measure of the isms factors available in these data is the Survey of Dictionary-Based Isms, Version B (SDI-B) for which the items are found in Appendix B of the original isms study (Saucier, 2000). That appendix gives 12, 15, 18, and 19 items respectively for measuring the TR (Alpha), USI (Beta), CR (Gamma), and SS (Delta) factors. Those sets of items were summed into four aggregates based on the current data.

Balanced item keying is an important consideration, given the tendency of social-attitudes factors to be influenced by individual differences in acquiescence (e.g., Bass, 1955; Peabody, 1961). A

disadvantage of using single items as the units in an analysis is a potential confound with acquiescence: yea-saying versus nay-saying tendency. If a respondent endorses a single item, it remains unclear whether the endorsement reflects agreement with the content or the item or reflects a tendency to agree regardless of content. This unclarity is removed when one has a mean response to a *set* of items (i.e., to an item-composite). Some of the items are keyed so that an agreement indicates a high score on the underlying construct, whereas other (preferably an equal number of other) items are keyed so that disagreement indicates a high score on the underlying construct. In responding to such a balanced set of items, a pure yea-sayer and a pure nay-sayer will have about the same (middle) score, whereas the contrast between high and low scores will be more substantive in nature. Another advantage of item-composites, assuming they are formed in such a way that each represents distinct substantive content, is that each one represents a specific indicator of any latent factors and a better indicator than any single item would be.

Each of the 335 ism variables from Saucier (2000) might have been converted into an item-composite. However, assuming several items per composite, this would be an inventory of impractical length. Moreover, it would have included some variables that showed very low levels of association with other ism variables and so contributed little to the structure. To avert both problems, the strategy was to represent constructs slightly broader than individual ism variables.

The goal was to develop as many item-composites as the original isms variable selection would allow, within several constraints: (a) that each item-composite represent a distinct, meaningful and important facet of content that (b) has reasonably high internal consistency and is, moreover, (c) not overly narrow in content reference, each being based on at least two dictionary-based ism items from Saucier (2000). In doing so, I took an approach influenced by Comrey (1988) and Hogan and Hogan (1995), creating for each construct a fairly tight (i.e., homogeneous) composite of four items per construct. The four-item standard allows for balanced item keying (i.e., two protrait and two contrait items), sufficient scale length for reasonable internal consistency, but brevity enough to promote efficiency of use.

The starting point for this set of item-composites was a lexical, dictionary-based collection of nearly 400 items (Saucier, 2000). Some of these items represented only parts of the complex definition of an ism term in the dictionary, and in these cases they were aggregated in the original analyses. However, in the present procedure I used the full set of 389 unaggregated items. Within this item pool, I sought to identify sets of two or more items with moderate to high intercorrelations. In this task, I utilized a combination of cluster analyses and promax-factor analyses, supplemented by a search of correlation matrices.

For each item-composite I first identified at least two core, dictionary-derived items from the original data set (responses by 500 southern California university students in 1995 and 1996; Saucier, 2000), with the general prerequisite that homogeneity be at least moderate (mean interitem $r > .25$). Then, additional candidate items were constructed with the goal of having each item-composite be a four-item set with balanced item keying.

The core items plus new candidate items were combined in a 289-item survey that was administered to a new sample of 383 Oregon university students (in 1998 and 1999), mostly young (age

18–22) persons of Euro American ancestry. New analyses using data from this sample led to an initial set of 47 item-composites, drawing on 177 items.

To this point, all scale development had used university-student samples. Next, the 177 items were administered in 2001, along with 253 additional items intended to reference other constructs (i.e., the supplementary social attitudes described below), as part of a “survey of beliefs and opinions” to the adult community sample (as noted, $N = 703$). Based on empirical patterns within this larger data set, seven item-composites were added, three pairs of item-composites combined into a single one, and one was omitted because key items were absorbed into two other item-composites.¹ Several item-composites were renamed or had items removed or added. The result was an improved set of 50 item-composites based on 196 items, with each item-composite based on two or more original ism items from the earlier study (Saucier, 2000). Of the 50 item-composites, almost all (46) had at least one reverse-keyed item, and most (29) had equal numbers of forward- and reverse-keyed items.

Table 1 documents psychometric characteristics of these item-composites. They are grouped according to the factors with which each is most associated in a subsequent table (Table 3). The internal consistency estimates (coefficient alpha) ranged from .45 to .91, with half of them .72 or higher. Such levels are consistent with the goal of achieving reliability that is sufficiently high for many research purposes (the square root of coefficient alpha sets a theoretical limit on the possible correlation with a scale, and even for $\alpha = .45$ this limit is a fairly high .67). The overall collection of item-composites is called the Survey of Dictionary-Based Isms (SDI) and is an inventory in the public domain. Items in an initial brief version of the SDI, labeled SDI-B, were included as an appendix to an earlier publication (Saucier, 2000); however, the SDI-B involves single items rather than item-composites, and it consists only of scales for the broad factors, not the 50 specific constructs included in this larger SDI.

Measuring supplementary social attitudes. Capturing the content of lexical isms does not, however, provide the broadest possible representation of the domain that isms represent. Lexicons are a repository of the most conserved aspects of language—terms that have been in use and remained in use for some time. Science is at the other extreme, of course: It develops new constructs at a far more rapid rate, and it does not wait for validation of a construct from lexicographers (who would observe its wide usage and include it in dictionaries). Constructs prominent in the contemporary research literature on social attitudes—for example, Social Dominance Orientation (Pratto, Sidanius, Stallworth, & Malle, 1994) and Right-Wing Authoritarianism (Altemeyer, 1996)—are not directly referenced in the dictionary and so were not included in the isms studied by Saucier (2000). It would be useful to supplement the isms-based scales with item clusters referencing additional constructs found in the research literature.

¹ The seven item-composites added were Pronatalism, Nativism/Restrictionism, Marxism, Antiliberal Primitivism, Aestheticism/Sensationalism, Meliorism/Neoliberalism, and Totemism/Fetishism. The three pairs of item-composites combined were Bergsonism and Reincarnationism, Commercialism and Materialist Values, Religionism and Institutionalism. The item-composite Traditionalism was omitted at this stage because its items had migrated onto other ones.

Table 1
Survey of Dictionary-Based Isms (SDI) Item-Composites

Label	No. items	Coefficient α	<i>M</i>	<i>SD</i>	Example item
Tradition-oriented Religiousness					
Nihilism/Animalism (reversed)	4	.56	4.25	0.61	The human being has a spiritual rather than an animal nature.
Spiritualism	4	.81	3.75	0.94	There are spiritual, supernatural principles that go beyond natural, material causes and laws.
<i>Theism</i>	4	.90	3.64	1.26	I believe in a personal God as creator and ruler of the world.
<i>Good–Evil Dualism</i>	4	.80	3.21	0.99	There is a struggle in the universe between the forces of good and the forces of evil.
<i>Messianism</i>	4	.91	3.20	1.31	I believe in a messiah.
Metallism	3*	.85	3.06	0.92	I am in favor of the monetary gold standard.
Sacramentalism	4	.72	3.05	0.95	Sacramental objects and ritual actions are important.
Rightism	4	.86	2.99	1.06	I believe in and support the principles of the political right.
<i>Religionism/Institutionalism</i>	4	.82	2.82	1.11	I adhere to an organized religion.
<i>Theocratism</i>	4	.81	2.53	1.03	Religion should play the most important role in civil affairs.
<i>Creationism</i>	4	.90	2.50	1.27	The account of the creation of the universe given at the beginning of the Bible is literally true.
Pronatalism	4	.78	2.39	0.88	Childbearing ought to be encouraged.
Triumphalism (Anti-Relativism)	4	.78	2.38	1.00	Moral laws are fixed, absolute, and the same everywhere.
Determinism	4	.80	2.32	0.96	All events are predetermined.
<i>Puritanicalism</i>	5*	.88	2.02	1.07	I adhere strictly and literally to a code of religion and morality.
Primitivist Antiliberalism	4*	.60	1.63	0.60	The things we get from civilization are evil.
Subjective Spirituality					
<i>Intuitionism</i>	4	.72	3.39	0.84	Enlightenment can be gained through meditation, self-contemplation, and intuition.
<i>Neoplatonism</i>	4*	.78	3.26	0.91	An individual soul can be mystically united with the single source from which all existence comes.
Pantheism	4	.63	2.93	0.86	The universe conceived of as a whole is God.
<i>Anthropopsychism</i>	5**	.78	2.73	0.89	Natural objects (and even Nature itself) have conscious life.
<i>Bergsonism/Reincarnationism</i>	4	.68	2.64	0.91	All living forms arise from a persisting natural force, a vital living spirit.
<i>Totemism/Fetishism</i>	4	.84	2.17	1.00	I believe that certain objects have magical or spiritual powers.
<i>Spiritism</i>	3*	.80	2.13	0.98	The dead communicate directly with the living.
Illusionism	4*	.74	1.73	0.70	The material world is an illusion created by the senses.
Polytheism	3*	.77	1.44	0.71	I believe in and worship more than one god.
Unmitigated Self-Interest					
<i>Aestheticism/Sensationism</i>	4***	.57	2.10	0.66	Only what is pleasant, or has pleasant consequences, is essentially good.
Physicalism	4	.75	2.07	0.77	Everything—including thought, feeling, mind, and will—can be explained in terms of matter and physical phenomena.
<i>Hedonism</i>	4	.64	2.07	0.71	The pleasures of the senses are the highest good.
<i>Materialistic Values</i>	4	.60	2.03	0.64	Worldly possessions are the greatest good and highest value in life.
<i>Egoism/Solipsism</i>	4	.64	1.97	0.67	The self is the only reality.
Ethnocentrism	4	.67	1.37	0.54	I believe in the superiority of my own ethnic group.
Communal Rationalism					
Absolutism/Monarchism (reversed)	4	.55	4.54	0.55	Absolute power in government should never be given to one person.
Constitutionalism	4*	.73	4.53	0.51	I am in favor of a constitutional form of government.
Environmentalism/Romanticism	4	.60	4.37	0.56	I favor protecting the environment from destruction and pollution.
<i>Existential Individualism</i>	3***	.45	4.23	0.55	I believe in the virtues of self-reliance and personal independence.
<i>Belief in Good Human Nature</i>	3**	.60	4.02	0.76	I believe in the natural goodness of human beings.
<i>Meliorism/Neoliberalism</i>	4***	.49	3.98	0.57	Human interests and dignity ought to prevail in our thoughts and actions.
Pragmatism	4	.51	3.70	0.56	I adhere to and am dedicated to the facts.
Systematism	5**	.59	3.80	0.57	I adhere firmly to fundamental and basic principles.
<i>Rationalism</i>	4*	.67	3.67	0.70	Reason is the prime source of both knowledge and spiritual truth.
Utilitarianism	3*	.72	3.47	0.92	The greatest happiness for the greatest number of people: this should be our ultimate goal.
Inequality-Aversion					
Classism/Elitism (reversed)	5**	.60	4.00	0.65	No one should receive favored treatment because of superior abilities, resources, or social status.
Primitivist Taoism	4	.69	3.18	0.81	It is best to live simply and in a natural environment.
Jingoism/Militarism (reversed)	4*	.78	2.95	1.01	I reject military virtues and ideals.
Nativism/Restrictionism (reversed)	4	.68	2.82	0.82	I oppose placing any restrictions on immigration.
<i>Populism/Welfarism</i>	5*	.71	2.57	0.82	The government ought to take responsibility for the individual and social welfare of its citizens.
Chauvinism/Nationalism (reversed)	4***	.71	2.47	0.78	I am militant in my devotion to and glorification of my country. (scoring for this item is reversed)

(table continues)

Table 1 (continued)

Label	No. items	Coefficient α	<i>M</i>	<i>SD</i>	Example item
<i>Communalism</i>	4	.74	2.18	0.86	I believe in communal (group or community) ownership of goods and property.
<i>Marxism</i>	4	.77	2.11	0.75	Capitalism ought to be overthrown by a revolution of the poor people in the working class.
Anarchism	3*	.62	1.65	0.63	All forms of government are oppressive and undesirable and should be abolished.

Note. $N = 703$. Item parcels are grouped according to the factor (out of five) on which they had their highest loading in Table 3 and are then ordered by descending scale means. The more central item-parcels—those most univocally related to each factor—are represented in italic type. Where an item-composite is listed as “reversed,” this means that scale means involve reflected scores (so that, e.g., Classism/Elitism is reflected into Anti-Classism/Elitism) so that all scales listed under one dimension are scored in the same direction. Scales that do not have equal numbers of forward- and reverse-keyed items are indicated with asterisks: One asterisk denotes 1 reverse-keyed item; two asterisks denote reverse-keyed items; three asterisks denote no reverse-keyed items.

To examine the effects of even wider selections of variables, the present study made use of supplementary item-composites.

To generate supplementary item-composites, I searched the research literature for commonly referenced constructs that were apparently not well captured by the isms item-composites. Most of these constructs are typically measured with scales having well over four items, but because of a desire to include as many of these constructs as possible in a single survey, I in most cases used an abbreviated set of items from the longer measure in this study. In the process of searching for additional constructs, I identified a few that have not been used much in research but that seemed to merit more attention. These were also represented in short item-composites.

Items potentially referencing such constructs were included in the latter part of the 430-item survey of beliefs and opinions. The adult community-sample data ($N = 703$) were used to finalize aggregation of candidate items into scales. A total of 160 items was retained in the final versions of the 40 item-composites for supplementary social attitudes.

Table 2 presents the 40 item-composites in this survey of Supplementary Social Attitudes (SSA), which, like the SDI, are typically four items each. Of the 40, 11 were derived from scrutiny of platforms of political parties in cross-national perspective (Janda, 1980). Six came from a compendium of measures of political attitudes (Robinson, Shaver, & Wrightsman, 1999), and two came from a companion compendium including measures of social-psychological attitudes (Robinson, Shaver, & Wrightsman, 1991). Five came from examination of the research literature, these being item-composites based on scales prominent in the literature but not included in either of the two just-cited compendia. Five were designed to target diverse aspects of feminism, and three were designed to target diverse aspects of anarchism. The other eight item-composites represented constructs that appeared to have some importance but that were referenced neither in the SDI nor the other SSA clusters, including, for example, attitudes toward abortion and contraception, aspects of libertarianism, and American political party leanings.

Analyses. The 50 isms item-composites were subjected to exploratory factor analysis (principal-factors extraction); varimax rotation was used on the grounds that a dimensional classification should in preference have orthogonal dimensions, like any representation functioning to map a domain. However, correlated (promax, $\kappa = 4$) factors were also examined to see the extent to which dimensions did indeed correlate when allowed to do so.

Regression-based factor scores were generated for the structures and were used to compare them. A prime comparison was with scores from the SDI-B (Saucier, 2000, Appendix B), which references the factors as found in the original isms study.

The prime variable selection for factor analysis was the 50 isms item-composites. The 40 supplementary item-composites were added in a secondary factor analysis in order to examine how the structure might be altered under an even wider variable selection.

Results

Isms alone. Exploratory factor analysis of the 50 isms item-composites generated an eigenvalue scree plot with the first four factors notably larger than the fifth. But the fifth was largest enough to be above the very clear “elbow” in the plot, suggesting a somewhat substantial fifth factor (see Figure 1, top). In contrast, the scree plot from the original isms study (Saucier, 2000) had an elbow between the fourth and fifth factors.

Application of another criterion agreed with selection of five factors. A parallel analysis (Horn, 1965) indicated that only five of the obtained eigenvalues were larger than the average eigenvalues of 1,000 random sets of data with 50 variables and 703 cases.²

When factors were allowed to correlate (using promax rotation, $\kappa = 4$, instead of varimax), the mean factor intercorrelation was only .13 for the four-factor solution, with the highest interfactor r value being .28. For the five-factor solution, the mean r was also low (.16), the highest r value being .47 (between SS and the new fifth factor).

Based on this observation, both four- and five-factor orthogonal solutions were examined; loadings for the 50 variables on these solutions are presented in Table 3. The two solutions were substantially similar except that one factor (corresponding most to Communal Rationalism) among the four generally split in two in the five-factor solution. Until an interpretation is offered below,

² Running analyses with maximum-likelihood rather than principal-axis factoring produced essentially identical factors but enabled a chi-square value to be obtained for each structure along with its degrees of freedom. As a fit index, RMSEA (root-mean-square error of approximation) was calculated for each solution. RMSEA decreased monotonically as more and more factors were extracted. It was .06 for four factors, but it reached the close-fit level (.05) only with the five-factor solution and then improved only by slight amounts as more factors were extracted.

Table 2
Supplementary Social Attitudes (SSA) Item-Composites

Label	Derivation	No. items	α	M	SD
American Political Party Affiliation (Republican > Democrat)	g	2	.93	2.68	1.42
Anticolonialism	b	2	.47	3.96	0.89
Caste Maintenance Orientation	a	4	.73	2.07	0.69
Communitarianism	g	4	.59	3.91	0.60
Contraception/Abortion Rights	g	4	.78	3.99	0.98
Core Libertarianism	g	5	.61	2.57	0.69
Electoral Participation	b	4	.58	2.99	0.90
Explanations of Poverty (Intrinsic)	c	6	.62	2.66	0.62
Extrinsic Religiosity	a	6	.44	2.33	0.57
Extropunitiveness	g	3	.69	3.25	0.98
Feminist Spirituality	e	4	.69	2.10	0.87
Freedom of Sexual Orientation	e	4	.81	3.63	1.05
Gender Equalitarianism (Mainstream)	e	5	.64	3.90	0.68
Gender Superiority Beliefs	e	2#	.57	1.62	0.80
Global Belief in Just World	a	6	.58	2.94	0.57
Government Ownership of Means of Production	b	4	.61	2.52	0.67
Government Role in Economic Planning	b	4	.58	2.96	0.73
Hierarchicalism (Traditional)	a	4	.55	2.00	0.67
Interference with Liberties	b	4	.60	2.29	0.85
Justice of War	c	4	.74	3.17	0.88
Libertarian Decriminalization	g	4	.83	2.61	1.12
Machiavellianism	d	6	.46	1.83	0.47
National Integration	b	4	.67	2.10	0.62
Opposition to Money and Private Property	f	4	.78	1.40	0.55
Opposition to Technology	f	3	.75	2.13	0.75
Political Alienation	c	2	.72	2.57	1.00
Protection of Civil Rights	b	4	.60	4.19	0.70
Protestant Work Ethic	c	4	.60	3.41	0.70
Quest Orientation	a	5	.80	2.71	0.95
Quota Integrationism	g	2	.56	3.13	0.92
Redistribution of Wealth	b	4	.68	3.04	0.92
Rejection of Traditional Marriage/Family	e	4	.72	1.59	0.65
Right-Wing Authoritarianism*	c/d	4	.68	2.88	0.91
Secularization of Society	b	6	.65	2.34	0.64
Sexual Freedom	f	4	.83	3.11	1.06
Social Dominance Orientation*	c	4	.41	2.02	0.60
Support of Military	b	4	.81	2.89	0.91
Supranational Integration	b	3	.70	1.69	0.75
Trust in Government	c	4	.71	2.63	0.78
Xenophobia	g	4	.71	2.45	0.76

Note. $N = 703$. Derivation: a = prominently used social-attitude measure; b = relevant to platforms of political parties in many nations; c = in compendium on measures of political attitudes; d = in compendium of measures of personality and social-psychological attitudes; e = references types of feminism; f = references types of anarchism; g = miscellaneous/other; α = coefficient alpha (internal consistency). The cluster marked with # contains gender-neutral-worded items that can be supplemented with one of two additional items whose wording is appropriate to entirely same-gender samples. The SSA version of constructs marked with an asterisk is a very brief extract of items. A more complete version was administered separately to the same sample later in the year but is not included as part of the SSA.

the fifth factor is temporarily labeled Epsilon, the fifth letter in the Greek alphabet.

The top of Table 4 provides the correlations between factor scores for the four- and five-factor solutions and the imported SDI-B aggregates. The four ism item-composite factors generally replicated the factors from the earlier study (Saucier, 2000). Matched factor scores from the four-factor solution correlated .93 with TR, .93 with SS, .90 with USI, and .73 with CR (mean $r = .87$). Four of the five factor scores from the five-factor solution correlated just as highly with SDI-B aggregates: .94 with TR, .91 with USI, .87 with SS, and .80 with CR (mean $r = .88$), whereas the fifth correlated no more than .29 with any SDI-B aggregate.

Obviously, then, the five-factor solution generated a new isms-based factor (Epsilon) beyond the four in the SDI-B. Moreover, the five-factor solution had a version of Communal Rationalism that corresponds rather more closely ($r = .80$ rather than .73) to the SDI-B version than did the one from the four-factor solution. In the four-factor solution, CR was merged with the new factor. Supporting this view, this four-factor version of CR correlated .77 with the five-factor version of CR but also $-.64$ with the new (Epsilon) factor.

Examining the salient variables on each factor in Table 3, one sees that, in terms of content, those labeled TR, USI, and SS resemble the four factors found in the original isms study (Saucier,

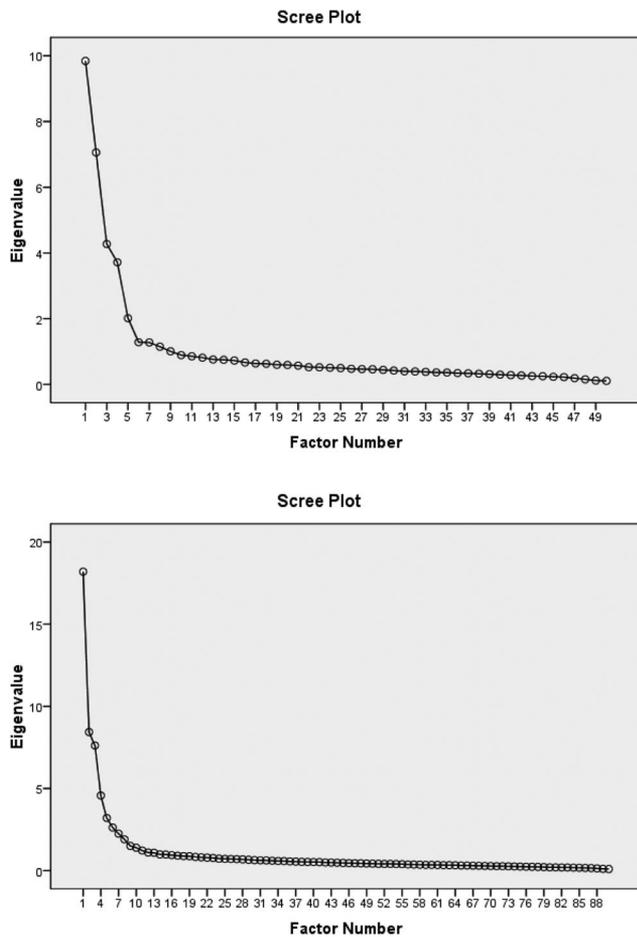


Figure 1. Eigenvalue scree plots from analysis of 50 SDI item-composites (top) and from analysis of 50 SDI as well as 40 Supplementary Social Attitude item-composites (bottom). SDI = Survey of Dictionary-Based Isms.

2000) and fit the descriptions provided in the introduction to this paper. In the case of the Communal Rationalism factor, one can perceive differences between versions in the four- and five-factor solutions. They have a common core, referencing rationalist, neo-liberal, and existentialist views, in favor of constitutions and opposed to absolute rulers. But the four-factor version has a considerably greater emphasis on pragmatic nationalism at one pole and anarchist, Marxist, and populist conceptions at the other. Most of these variables are the ones most associated with the fifth (Epsilon) factor, if as many as five factors are allowed.

The fifth (Epsilon) factor clearly involves a political left–right distinction. The particular isms referenced include many of those the left uses unflatteringly to characterize the right (e.g., jingoistic, chauvinist, elitist) and the right unflatteringly to characterize the left (e.g., Marxist, anarchist). As a group, they represent egalitarianism (i.e., an aversion to various forms of inequality) in contrast to forms of economic and national-security conservatism (which accept or accede to various forms of inequality). The label adopted henceforth for the fifth factor is Inequality-Aversion (IA), a term drawn from the field of economics that refers to resistance to inequitable outcomes (Fehr &

Schmidt, 1999); low scores on the fifth factor would indicate acceding to inequality, accepting it, or perhaps approving of it.

However, conservatism is not to be identified solely with acceptance of inequality. The IA factor has economic conservatism at its low end. This is in contrast with the TR factor, which involves mainly religious/social conservatism.

Is this IA factor truly new? The original isms study (Saucier, 2000) did find an IA-like factor but only under the following conditions: (a) when each participant's responses were standardized (Z scored, ipsatized) to have the very same mean and standard deviation as other participants and (b) when at least four factors were extracted. Within-subject standardization of responses is hazardous in sets of variables, like that one, where each kind of content is typically represented with unbalanced keying; that is why these auxiliary analyses of ipsatized data were not relied upon in the original study. But such ipsatization does remove possible effects of individual differences in acquiescent responding. This tends to indicate that the IA factor appeared in the data in the present study because of the controls on acquiescent responding (here, via use of item-composites mostly with balanced keying), which were much better than in the original isms study. None of the four factors in the original isms study appear to be dependent on acquiescent variance in the data, but the absence of a meaningful fifth factor in earlier data may have been due to the noise contributed by uncontrolled acquiescence variance.

The foregoing analyses also make clear that the original isms factors do arise in a nonstudent population and that there is one clear, very interpretable additional factor in the isms domain. But how comprehensive are these factors, and how much are they affected by an expansion of variable selection? To answer this question, one must turn to additional variables less prone to be captured (as of yet) in objective lexical sources.

Adding supplementary social attitudes. The 40 supplementary social-attitude (SSA) variables were added to the 50 isms composites, and a new factor analysis was run on the combined set of 90 variables (the SDI-SSA). The correlation matrix yielded an eigenvalue scree plot (see Figure 1, bottom) wherein the elbow in the plot appeared after the eighth factor, although the sixth through eighth factors were markedly smaller than the fifth. In agreement, parallel analysis indicated eight eigenvalues higher than those found on average in 1,000 comparable random data sets.³

When an oblique (promax) rotation was used, the factors in the eight-factor solution had, among them, some substantial intercorrelations. The mean r between factors was .31, indicating a medium correlation on average. At the high end there were five intercorrelations in the .42 to .48 range (IA with low TR, high SS, and two of the added factors, plus one linking two of the added factors with each other) and three more in the .55 to .58 range (relating two of the added factors to TR, IA, or CR). Each of the added factors had a correlation of at least .42 with the version of one of the already labeled factors (e.g., TR, IA) appearing in the eight-factor set. Although the eight factors can be forced to be orthogonal, they do not tend to stay orthogonal when unrestricted, so a correlated-factors representation is rather more suitable. It is

³ The RMSEA here also decreased monotonically as more and more factors were extracted. It was again .05 for the five-factor solution, decreasing to .04 for the eight-factor solution.

Table 3
Factor Loadings of Isms Item-Composites in Four- and Five-Factor Solutions

Item-composite	Five factors					Four factors			
	TR	SS	IA	USI	CR	TR	SS	CR-IA	USI
Religionism/Institutionalism	.89*	-.10	-.13	-.09	.03	.86*	-.08	.18	-.08
Creationism	.86*	-.11	-.03	-.04	-.21	.86*	-.16	-.07	-.04
Theism	.86*	.10	-.06	-.18	-.03	.85*	.08	.06	-.19
Messianism	.86*	.05	-.08	-.19	-.08	.86*	.01	.05	-.18
Puritanicalism	.85*	-.13	-.16	-.04	.09	.81*	-.08	.24	-.02
Theocratism	.83*	-.02	-.10	-.07	-.14	.84*	-.07	.01	-.06
Good-Evil Dualism	.68*	.05	-.08	-.06	-.03	.68*	.03	.06	-.06
Triumphalism	.54*	-.27	-.12	-.18	-.28	.57*	-.38	-.05	-.15
Rightism	.53*	-.20	-.51	.07	-.07	.59*	-.31	.31	.17
Determinism	.50*	.23	.11	.07	-.22	.52*	.16	-.25	.03
Animalism/Nihilism	-.50*	-.12	.08	.49	-.09	-.50*	-.10	-.18	.48
Spiritualism	.49*	.47	.05	-.47	-.15	.55*	.33	-.14	-.48
Pronatalism	.48*	-.15	-.09	-.05	-.27	.51*	-.25	-.10	-.03
Sacramentalism	.46*	.26	-.06	-.10	.15	.45*	.28	.14	-.11
Antiliberal Primitivism	.44*	.04	.02	.40	-.27	.47*	-.02	-.24	.39
Systematism	.36*	-.22	-.35	-.10	.35	.32	-.13	.55*	-.04
Metallism	.26*	.11	-.09	.05	.10	.25	.12	.13	.06
Bergsonism/Reincarnationism	-.01	.79*	.11	.03	-.01	.05	.69*	-.22	.00
Totemism/Fetishism	-.13	.74*	.21	.12	-.06	-.07	.66*	-.32	.07
Spiritism	.00	.70*	.13	.04	-.13	.08	.58*	-.30	.00
Anthropopsychism	-.07	.69*	.31	.15	.18	-.08	.77*	-.19	.07
Neoplatonism	.35	.68*	.09	-.13	.17	.36	.68*	-.01	-.16
Intuitionism	-.01	.64*	.23	-.05	.28	-.03	.73*	-.03	-.11
Pantheism	.29	.54*	.10	.12	.21	.28	.60*	.00	.07
Polytheism	-.16	.51*	.15	.21	-.19	-.10	.40*	-.36	.17
Illusionism	.02	.40*	.22	.40	-.12	.04	.39*	-.34	.34
Pragmatism	.01	-.36*	-.18	.14	.36	-.07	-.20	.43*	.16
Welfarism	-.17	.22	.74*	.15	.03	-.28	.41	-.47*	-.01
Marxism	-.07	.25	.71*	.20	-.18	-.14	.35	-.63*	.05
Communalism	-.17	.22	.65*	.08	-.12	-.23	.32	-.53*	-.06
Jingoism/Militarism	.42	-.15	-.57*	.12	.10	.47*	-.22	.46	.23
Chauvinism/Nationalism	.40	-.09	-.53*	.16	.35	.40	-.04	.62*	.26
Primitivism	-.06	.30	.51*	-.03	.06	-.13	.42*	-.31	-.14
Anarchism	-.04	.22	.47*	.30	-.34	-.04	.20	-.62*	.20
Elitism/Classism	-.20	-.02	-.38*	.24	-.12	-.10	-.16	.10	.32*
Nativism/Restrictionism	.03	-.02	-.23*	.13	.06	.05	-.05	.18*	.17
Aestheticism/Sensationalism	.02	.14	.09	.77*	.12	-.02	.26	-.07	.72*
Hedonism	-.16	.08	.10	.66*	.07	-.19	.18	-.10	.62*
Egoism/Solipsism	-.14	.08	-.03	.64*	.01	-.14	.11	-.07	.64*
Materialism	-.09	.02	-.30	.55*	.05	-.05	-.01	.14	.60*
Physicalism	-.40	-.36	.05	.53*	.02	-.44	-.25	-.03	.52*
Ethnocentrism	.00	.04	-.27	.46*	-.17	.08	-.07	-.02	.51*
Meliorism/Neoliberalism	.13	.02	-.14	.02	.63*	.03	.25	.56*	.03
Rationalism	-.30	-.10	-.07	.29	.52*	-.39	.12	.41*	.29
Existential Individualism	-.14	.12	-.09	-.02	.48*	-.19	.27	.40*	-.01
Constitutionalism	-.12	-.23	-.31	-.43	.48*	-.17	-.12	.63*	-.36
Belief in Good Human Nature	-.10	.28	.07	-.03	.46*	-.17	.45*	.26	-.06
Environmentalism/Romanticism	.22	-.25	-.37	.28	-.37*	.32	-.44*	-.04	.35
Utilitarianism	-.03	.09	.30	.26	.37*	-.14	.33*	.05	.17
Absolutism/Monarchism	.12	.15	.03	.21	-.32*	.18	.02	-.31*	.20

Note. $N = 703$. An asterisk denotes highest loading of each variable within each solution. Item clusters are arranged in order by magnitude of loading in the five-factor solution. TR = Tradition-oriented Religiousness; SS = Subjective Spirituality; IA = Inequality-Aversion; USI = Unmitigated Self-Interest; CR = Communal Rationalism; CR-IA = combined factor, Communal Rationalism minus Inequality-Aversion, appearing in four-factor solution.

questionable whether the three added factors truly fall outside the first five; in Table 3, each of the added factors is correlated at least .53 with one of the first five.

The four-, five-, and eight-factor solutions were examined. The wider selection four-factor solution closely resembled that in Table 3, with matching factor-score correlations of .98, .97, .96, and .89 for SS, TR, CR, and USI, respectively. As noted above, however, one of the

factors is this four-factor solution combines CR and IA (Inequality-Aversion). The five-factor solution also resembled that evident in Table 3, with separate CR and IA factors; matching factor-score correlations were .96, .94, .94, .87, and .80 for TR, USI, SS, CR, and IA respectively. Thus, with respect to the first five factors, the addition of 40 SSA variables did not fundamentally alter the structure set by the 50 isms item-composites.

Table 4

Correlations Between Factors From Four- and Five-Factor Solutions, With SDI-B Aggregates and an SDI-SSA Eight-Factor Solution

Variable	Five factors					Four factors				SDI-B item aggregates			
	TR	SS	USI	CR	IA	TR	SS	USI	CR/IA	TR	SS	USI	CR
SDI four orthogonal factors													
TR	.97*	.10	-.04	-.19	-.18								
SS	.04	.87*	.08	.41*	.31								
USI	-.03	-.02	.98*	-.03	-.20								
CR (minus IA)	.06	-.20	-.12	.77*	-.64*								
SDI-B item aggregates													
TR	.94*	-.07	-.12	-.01	-.17	.93*	-.08	-.10	.18				
SS	.05	.87*	.14	.24	.29	.04	.93*	.06	-.16				
USI	-.08	.03	.91*	.11	-.05	-.10	.13	.90*	.00				
CR	.00	-.13	.14	.80*	-.22	-.12	.17	.16	.73*				
SDI-SSA eight correlated factors													
TR	.96*	-.07	-.07	-.09	-.20	.96*	-.11	-.05	.13	.94*	-.08	-.12	-.02
SS	.01	.94*	-.04	.10	.35	.03	.93*	-.13	-.29	-.10	.90*	-.02	-.11
USI	-.12	.16	.91*	-.07	.30	-.16	.25	.83*	-.37	-.27	.30	.83*	-.01
CR	-.03	-.19	-.08	.90*	-.36	-.15	.10	-.03	.92*	.05	-.04	.03	.81*
IA (narrow)	-.33	.25	.04	.04	.78*	-.43	.42	-.11	-.49	-.41	.40	.02	-.12
Ethnocentrism/Social Dominance	.07	-.13	.53*	-.26	-.57*	.19	-.32	.64*	.11	.12	-.19	.45	.01
Trust in Government	.15	-.26	-.14	.37	-.67*	.16	-.25	-.01	.74*	.29	-.33	-.07	.40
Xenophobia/Nativism	.43	-.19	.10	.14	-.57*	.46	-.23	.21	.49	.45	-.22	.12	.26

Note. $N = 703$. An asterisk denotes correlations of .50 or greater in magnitude. SDI = Survey of Dictionary-Based Isms; SDI-B = Survey of Dictionary-Based Isms, Version B; SSA = Supplementary Social Attitudes; TR = Tradition-oriented Religiosity; SS = Subjective Spirituality; IA = Inequality-Aversion; USI = Unmitigated Self-Interest; CR = Communal Rationalism; CR-IA = combined factor, Communal Rationalism minus Inequality-Aversion, appearing in four-factor solution.

Examination of the eight-factor solution affords a view into whether additional variables might yield new dimensions.⁴ The eight factors included clearly recognizable TR, USI, SS, and CR factors. IA was present but was more narrowly focused on egalitarian ideologies. Of the three added factors, two have moderate associations with the aforementioned five. In the comparisons that follow, the oblique/correlated scores on the eight factors (from the wider variable selection) are compared with the orthogonal scores on the five factors from isms variables alone. The defining item-composites cited for each factor are those loading strongly (at least .40 in magnitude) and most highly on it across orthogonal and oblique solutions.

One of the three added factors involves trusting one's government in contrast with political alienation and anarchism. Labeled as Trust in Government (TG), it has correlation with both IA (-.67) and CR (.37) from the five-factor solution. Those scoring low on this TG factor tend to dislike inequality but evidently may generalize their distrust of government to other institutions with rationalist premises (e.g., those of science and scholarship).

A rather larger factor involves ethnocentrism, elitism/classism, social dominance orientation, caste-maintenance orientation, and materialist values versus protection of civil rights and gender equalitarianism.⁵ It draws on aspects of both IA ($r = -.57$) and USI ($r = .53$). Because of its focus on asserting the superiority of the ingroup and advancing the interest of one's ingroup by competitive or aggressive means, it is labeled Ethnocentrism/Social-Dominance (ESD).

The last factor correlated with IA (-.57) and TR (.43) and was defined by only two item-composites, which are combined to make a descriptive label for it: Xenophobia/Nativism (XN). Another item-composite with substantial loadings was extropunitiveness (i.e., harsh and punitive view of others/outside). In high XN,

foreigners and outsiders are viewed with suspicion and seen as deserving harsh treatment. XN represents a threat-oriented defensive posture toward outgroups, whereas those high on the ESD factor evince an opportunity-oriented, exploitative, and one might say "offensive" posture toward outgroups, which are viewed as inferior. This interpretive contrast draws on research on national images (see, e.g., Cottam, Dietz-Uhler, Mastors, & Preston, 2004, p. 45).

All three of these additional factors from the structure of eight correlated factors have substantial correlations with the broader IA factor from the isms variables. It might be argued that these are three of the four main subcomponents of Inequality-Aversion, the fourth subcomponent being the core egalitarianism that defines the narrower IA factor in the eight-factor structure. So one might say that *inequality-acceptance* is expressed in at least four ways: not only as a distaste for egalitarian ideologies but also as an ethnocentric and dominance-seeking attitude toward other groups, a nativistic distrust for foreigners, and a trust in the actions and policies of one's own government (which may institutionalize some forms of inequity). A reasonable alternative argument is that Ethnocentrism/Social-Dominance is a split-off part of Unmitigated Self-Interest, that part involving the self-interest of one's group rather than oneself.

⁴ A table of factor loadings for the eight-factor solution is available from the author.

⁵ Being the largest of the added factors, this Ethnocentrism/Social-Dominance (ESD) factor appears in the six-factor solution alongside the five isms factors. The average factor intercorrelation for the six factors was .20. Because such an ESD factor was not found in analyses with isms variables, evidence for it seems still rather thin, but it does seem the best candidate for an added sixth factor. As such, it is worth examining in future studies.

Discussion

This study provided a direct follow-up to analyses of Saucier (2000), which had examined the structure of items based on single-ism term definitions, using college-student samples. Here, in a community sample, item-composites based on multiple ism items were utilized so as better to control for acquiescent responding tendencies and other sources of “noise” in single items.

Present findings confirmed the four-factor structural pattern (TR, SS, USI, CR) identified in the previous study. Scales composed of items imported as markers of the four factors from Saucier (2000) were highly and discriminantly associated with four factors obtained here. Interpretations of those factors developed there (and by Saucier & Skrzyńska, 2006) still apply.

But the present study produced findings going well beyond the previous one. Most important, analyses identified a fifth factor—Inequality-Aversion—that increases the content comprehensiveness of the structural model. This new, fifth factor takes in important aspects of the left–right distinction. One pole of the dimension is anchored by item clusters endorsing communal ownership, social welfare programs, and a socialist society; the other pole involves views supportive of domination of one class, group, or nation over others (e.g., elitism, chauvinism, jingoism). This dimension is concerned foremost with attitudes toward inequalities within one’s own society, but this extends secondarily to inequalities between societies. The contrast between egalitarianism and dominance appears to correspond with that found among items measuring social dominance orientation (Ho et al., 2012), a contrast given fuller attention in Study 2. This dimension is labeled by the egalitarian pole because the ideal of equality appears to be put on a pedestal by high scorers, whereas this ideal is disregarded (or at the extreme, scoffed at) by low scorers. This makes sense if one assumes that human societies naturally generate inequalities, but people within societies differ in how much such inequalities violate their standards and ideals.

The five factors were observed to be relatively unaffected by variable selection. They continued to appear in nearly identical form even when 40 supplementary item clusters (beyond the 50 basic isms item clusters) were added to the variable selection. However, an extraction and rotation of eight factors yielded an evident split of the fifth factor, the one related to attitudes toward inequality, into four narrower subcomponents.

Study 1 focused on the robustness of isms dimensions across samples (from student to community samples) and across changes in variable selection. It did not, however, take on two other important tasks. It did not situate these dimensions in relation to constructs that have been most emphasized in the literature on attitudes and values in personality and social psychology. And it did not take stock of the capacity of these dimensions to predict important outcomes, such as voting preferences, happiness, and personality change. In Study 2, attention was given to both tasks.

Study 2

Isms dimensions make explicit a structure of attitudes, beliefs, and worldview, embodying a structural model for a broad domain of variables, analogous to what the Big Five has done for personality. But investigators already operate with implicit views or assumptions about the structure of this domain, which are discernible whenever they recognize constructs as different from one

another. A set of such variables both widely used and recognized as being mutually distinct would include (a) right-wing authoritarianism, (b) social dominance orientation, and (c) dimensions of values as defined by Shalom Schwartz. The common dimensions underlying these constructs form a received view of structure in sociopolitical attitudes.

The construct of Authoritarianism was originally rooted in analyses of an item pool emphasizing anti-Semitism and ethnocentrism items (Adorno et al., 1950). Initial measurement instruments for the construct lacked adequate reverse-keyed items for measuring the construct. Altemeyer (1981, 1996) progressively refined elements of the former authoritarianism scales into a new Right-Wing Authoritarianism (RWA) scale without these psychometric limitations. Altemeyer emphasized the ways in which RWA is a political attitude, although its correlations with other measures suggest it is even more directly related to attitudes about conventions, traditions, and religion. Like the old authoritarianism scales, RWA is highly correlated with measures of religiousness (Altemeyer, 1996; Leak & Randall, 1995). A large array of studies also documents high correlations between authoritarianism and conservatism (Billings, Guastello, & Rieke, 1993; Kline & Cooper, 1984; Rubinstein, 1996; Stone, 1980; Tarr & Lorr, 1991). RWA measures primarily what is currently labeled “social conservatism,” and it should be substantially correlated with the isms dimension of tradition-oriented religiousness.

Social Dominance Orientation (SDO; Pratto et al., 1994; Sidanius, Levin, & Pratto, 1996) is described as “a general attitudinal orientation toward intergroup relations, reflecting whether one generally prefers such relations to be equal, versus hierarchical” (Pratto et al., 1994, p. 742). SDO appears to be quite independent of conservatism, authoritarianism, and religiousness (Sidanius, Pratto, & Rabinowitz, 1994), although correlations might be substantial within certain demographic groups (Sidanius et al., 1994, 1996). SDO represents beliefs regarding social and economic inequality and the entitlement of high-status groups to dominate other groups. So it should be substantially (negatively) correlated with the isms dimension of Inequality-Aversion.

A two-dimensional structure to values is instantiated in the Schwartz Values Survey. Schwartz and Boehnke (2004) demonstrated that the basic values represented in the 10 clusters from the Schwartz Values Survey form a quasi-circumplex. That is, they reduce well to two dimensions, if one removes individual differences in response elevation by centering responses, giving all respondents the same mean. One dimension can be labeled Conservation versus Openness to Change. The other can be labeled Self-Enhancement versus Self-Transcendence.

Duckitt and Sibley (2009, 2010) asserted the priority of two distinct dimensions in sociopolitical (ideological) attitudes, one anchored by RWA and the other by SDO. Many studies (Choma, Ashton, & Hafer, 2010; Cohrs, Maes, Moschner, & Kielmann, 2005, 2007; Duriez & Van Hiel, 2002; Feather & McKee, 2012; McKee & Feather, 2008) have pointed toward an integration of the Duckitt and Sibley proposal with Schwartz values constructs. In those studies, RWA tends to be associated with Conservation values, especially security, conformity, and tradition. SDO tends to be associated especially with values that define self-enhancement: power versus universalism and benevolence.

This leads to some key questions for Study 2. How are dimensions of isms—and additional dimensions found with the addition of supplementary social attitudes—related to the structure of those constructs most salient in the literature? Are they all subsidiary facets (subcomponents) of these prominent constructs? Or, do they go beyond these constructs?

Of course, it is not enough that a structural model show relations to previous constructs in wide use, as well as “value added” in the way of intriguing new constructs. Ideally, a good structural model will demonstrate predictive relations with important other variables and outcomes, not only concurrently but also dynamically, in terms of change across time.

Attitudinal beliefs should predict political outcomes in the form of voting preferences. For American samples, given the dominant two-party system, a key indicator would be individuals’ relative preference for Republican Party versus Democratic Party positions and candidates. Because the Republican Party is commonly regarded as the more conservative, and two isms dimensions are conceptually related to two kinds of conservatism—TR with social conservatism and (low) IA with economic conservatism—these two dimensions should predict concurrent voting preferences. They should also predict preferences some years beyond that, to the extent that both isms dimensions and voting preferences reflect dispositional tendencies.

The same two dimensions might also predict happiness. A number of recent studies have identified intriguing connections between attitudinal beliefs and subjective well-being. Indications are that political conservatives are happier than liberals (Napier & Jost, 2008; but see Choma, Busseri, & Sadava, 2009). Moreover, religious people tend, to some degree, to be happier than the nonreligious (Diener, Tay, & Myers, 2011). But there is also evidence that materialistic people are less happy than the nonmaterialistic (Burroughs & Rindfleisch, 2002); materialism is a prime component of the isms USI dimension. These previous findings suggest that among isms dimensions, USI and TR (tradition-oriented religiousness) and perhaps also IA (inequality aversion) and SS (subjective spirituality) should predict subjective well-being.

Earlier work (Saucier, 2000) found at best low correlations of isms dimensions with scores for Big Five factors when the latter are defined based on lexical studies of American English (Goldberg, 1992; Saucier, 1994), although there were moderate correlations with scores representing Openness to Experience, a dimension not strictly rooted in the lexical approach (McCrae, 1990). However, attitudinal beliefs may be related to personality change. It has proved difficult to identify sources of personality change, but a standard meme in contemporary cognitive therapies (not to mention ancient Stoic philosophy) is that changes in beliefs may lead to change in affective and behavioral patterns.

Therefore, isms dimensions might be expected to predict important outcomes. Although showing no more than moderate associations with personality dimensions, they should show important relations to happiness and personality change as well as (more obviously) to political preference. An important side issue is whether these important relations are confined to the five basic factors or whether the added factors in the more fine-grained eight-factor set contribute.

Method

Political-party preference. Two political-party items were included in the SSA included in Study 1. These were “Politically, I favor the Republican party” and “Politically, I favor the Democratic party” (reverse-scored). As can be seen in Table 1, the mean response for this sample was 2.68 ($SD = 1.42$), indicating a slight Democratic-leaning tendency in this sample (as is true of the congressional district in which almost all sample members resided). But there was much variation within the sample. Indeed, this two-item scale had by far the largest standard deviation, as well as the highest coefficient alpha (.93), of any of the 90 item-composites referenced in Tables 1 and 2. The same two items administered in 2001 were given again in 2006, with retest $r = .86$.

Analyses also used scores from some widely used constructs administered to the sample in summer 2001, approximately 6 months after the isms (SDI) and SSA items from Study 1.

RWA and SDO. A set of 14 items to measure right-wing authoritarianism was selected from scales commonly used by Altemeyer (1996). A set of eight items to measure social dominance orientation was selected from among those used by Sidanius and Pratto (1999). Items for these measures used the same response scale as the isms and SSA items. Much shorter sets of items had been used to measure these two constructs in SSA item-composites; Study 2 relies on these longer and more representative scales. Ho et al. (2012) identified two consistent subcomponents in SDO items, Egalitarianism and Dominance. The eight items here include four related to Egalitarianism and four related to Dominance. These are also separately scored and analyzed.

Values dimensions. Analyses also used scores derived from the Schwartz Values Survey (SVS; Schwartz, 1992). These scores require some explanation. For the SVS, each item was responded to on a -1 (*Opposed to my values*) to $+7$ (*Of supreme importance*) response scale. Following recommendations by Schwartz (1992), those 45 value items that were associated with a single location in at least 70% of 40 international samples were selected and scored. Each item was aggregated into one of 10 clusters, with each score being an average response for items in the cluster. Individual response means were then subtracted from this average response, a “mean-centering” procedure that has the effect of removing individual differences in acquiescence. Schwartz and Boehnke (2004) demonstrated that, once mean-centering is accomplished, basic values reduce well to two dimensions. Accordingly, the 10 clusters were subjected the 10 clusters to a principal-factors analysis extracting and rotating two factors by the varimax criterion. The two factors had obvious high correspondence to those in the Schwartz and Boehnke circumplex and could be labeled with the quadrant labels these authors provided. Variables with the highest loadings on the first factor (respective loadings on both factors provided) were Self-Direction (.65, $-.04$), Stimulation (.59, .28), and Hedonism (.42, .32) on the positive pole and Conformity ($-.74$, $-.10$), Tradition ($-.67$, $-.03$), and Security ($-.43$, .17) on the negative pole. The first factor was labeled Openness to Change versus Conservation. Variables with the highest loadings on the second factor (respective loadings on both factors provided) were Power ($-.02$, .73) and Achievement (.02, .36) on the positive pole and Universalism (.48, $-.61$) and Benevolence ($-.29$, $-.47$) on the negative pole. The second factor was labeled Self-Enhancement versus Self-Transcendence.

Analyses reported here used scores on these two factors derived from the 10 values clusters.

Because recent research has begun to highlight the interaction of belief-system components with subjective well-being, analyses examined also the relation of isms dimensions to scores on the Satisfaction With Life Scale (SWLS; Pavot & Diener, 1993). This measure was completed by a large subset of the original 703 participants in both summer 2001 and winter 2008; that is, at two times 6½ years apart.

Big Five personality attributes. The 40 adjectives composing the Big Five Mini-Markers (Saucier, 1994; an abbreviated version of the 100 markers of Goldberg, 1992) were administered to the same community sample in 1998 and again in 2008.

Analyses. Factor scores, orthogonal ones for five factors from 50 isms item-composites as well as oblique ones for eight factors from the larger set of 90 item-composites, from winter 2001 data (Study 1), were utilized. These scores were correlated with measures of RWA, SDO, and values from summer 2001. For sake of parsimony, RWA, SDO, and values were reduced to two orthogonal factors, in summer 2001 data from 662 of the same community-sample respondents. In that analysis, two factors accounted for 83% of the variance; RWA and Conservation values jointly defined one factor, and SDO and self-enhancement values defined the other.

In addition, these factor scores were correlated with political-party preference in 2001 and 2006, with subjective well-being in 2001 and 2008, and with indices of change in political-party preference and in subjective well-being. These change indices were computed by treating the later (2006 or 2008) scores as criterion variables in simple regression analysis with the respective (2001) earlier score on the same measure as predictor variable; the unstandardized residual from the regression was used as the change index. This residual represents the portion of the later score that was

unpredictably different (whether higher or lower than would be predicted) from the earlier score.

A similar procedure was used for the personality variables. The 2008 scale scores were each in turn treated as criterion variables in simple regression with the respective 1998 score on the same Big Five scale as predictor variable. The unstandardized residual was the change index.

Study 1 had involved data from a single, winter 2001, administration to the community sample. Study 2 involved variables found in data from four additional time points with the same sample (in 1998, 2006, and 2008, as well as summer 2001). Thus, effective sample sizes are somewhat reduced for Study 2 analyses, to 632 for analyses involving summer 2001 data and to 405 for those involving also 1998, 2006, and 2008 data.

Results

Table 5 presents correlations between the isms dimensions and widely used previous constructs. Conservation values and Right-Wing Authoritarianism were both very highly related to Tradition-oriented Religiousness, as well as to Xenophobia/Nativism from the correlated-factors set. Social Dominance Orientation was quite strongly related to (low) Inequality-Aversion, as well as Ethnocentrism/Social-Dominance from the correlated-factors set. Self-enhancement values were related both to Unmitigated Self-Interest and (low) Inequality-Aversion but were even more strongly related to Ethnocentrism/Social-Dominance. Interestingly, the contrast between Ethnocentrism/Social-Dominance and the narrower sense of Inequality-Aversion corresponds well to the contrast between dominance and egalitarianism, identified by Ho et al. (2012) as the two main subcomponents of SDO.

Figure 2 shows correlations of both the five orthogonal and eight oblique factors (i.e., factor scores) with the common factors

Table 5
Correlations Between Factors From Present Study and Widely Used Previous Constructs

Factor-score variable	Self-Enhancement vs. Self-Transcendence	Conservation vs. Openness	RWA	SDO	SDO-e	SDO-d
Five orthogonal SDI factors						
Tradition-oriented Religiousness	.08	.66*	.76*	.12	-.15*	.05
Subjective Spirituality	-.10	-.23*	-.16*	-.06	.08	-.02
Unmitigated Self-Interest	.33*	-.03	.15*	.22*	-.04	.34*
Communal Rationalism	-.11	-.08	-.10	-.20*	.23*	-.10
Inequality-Aversion	-.44*	-.25*	-.29*	-.54*	.54*	-.34*
Eight correlated SDI-SSA factors						
Tradition-oriented Religiousness	.14	.73*	.84*	.23*	-.27*	.11
Subjective Spirituality	-.25*	-.31*	-.27*	-.27*	.28*	-.16*
Unmitigated Self-Interest	.14*	-.19*	-.04	.00	.15*	.17*
Communal Rationalism	.07	.03	.01	-.01	.04	.02
Inequality-Aversion (narrow)	-.38*	-.40*	-.49*	-.50*	.56*	-.26*
Ethnocentrism/Social-Dominance	.57*	.20*	.38*	.67*	-.54*	.58*
Trust in Government	-.22*	-.33*	-.26*	-.23*	.24*	-.13
Xenophobia/Nativism	.30*	.55*	.66*	.45*	-.42*	.31*

Note. $N = 632$. Conservation and self-enhancement variables are factor-scores from 10 mean-centered Schwartz Values Survey clusters. Conservation factor scores are reflected to make the sign of Conservation positive. Factor scores for eight correlated factors in this table (only) are derived from 90 item-composites. In alternate analysis based on factors from 88 item-composites omitting those targeting RWA and SDO, the coefficients closely resemble those shown above, differing by no more than .04 in either direction, for any coefficient. SDI = Survey of Dictionary-Based Isms; SSA = Supplementary Social Attitudes; RWA = Right-Wing Authoritarianism; SDO = Social Dominance Orientation; SDO-e = Egalitarianism (4 items); SDO-d = Dominance (4 items).

* $p < .001$.

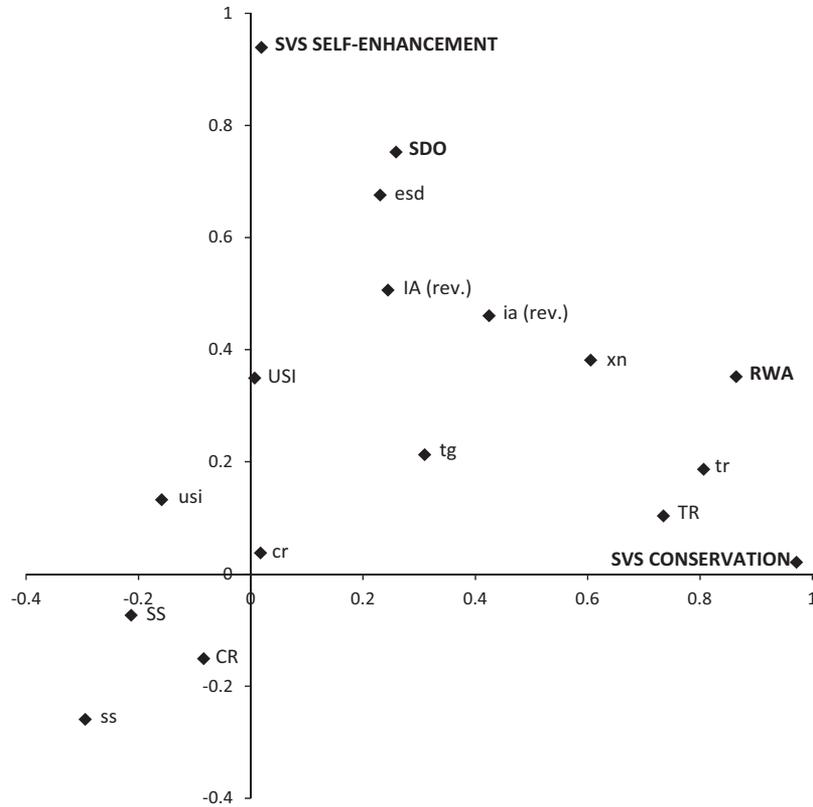


Figure 2. Bivariate scatter diagram plotting correlations between factor scores derived from values, authoritarianism, and social dominance and factor-score variables from the present study (with those from correlated-factor set labeled in lowercase letters). SVS = Schwartz Values Survey; SDO = Social Dominance Orientation; esd = ethnocentrism/social dominance; IA = Inequality-Aversion; (rev.) = reversed; USI = Unmitigated Self-Interest; xn = xenophobia/nativism; RWA = Right-Wing Authoritarianism; tg = trust in government; tr = tradition-oriented religiousness; cr = communal rationalism; SS = Subjective Spirituality.

defined by RWA, SDO, and the values dimensions (i.e., the regression-based factor scores for these two dimensions). The high projections of RWA, SDO, and values on the two axes confirm that they jointly define the factors. In the figure, IA is reversed, thus representing inequality-acceptance (vs. inequality-aversion). Orthogonal isms factors are labeled in all capital letters; oblique factors are labeled in all lowercase letters. Crucially, if the structure of the entire domain captured in Study 1 were reducible to dimensions oriented to RWA and SDO, there would be no variables close to the origin (zero on both dimensions) and all variables far from the origin. But observations, evident in [Figure 2](#), violate these expectations.

What stands out is that though some of the factors from Study 1, in a band across the upper right of the figure, overlap substantially with these “received model” dimensions, others clearly do not. TR and IA overlap the two dimensions, but USI less so, and SS and CR virtually not at all. Turning to oblique factors, TR, XN, IA, and ESD overlap substantially, but TG and SS far less, and CR and USI virtually not at all. Thus, Communal Rationalism, Subjective Spirituality, Unmitigated Self-Interest, and the Trust-in-Government factor all stand mostly outside the received two-dimensional model of sociopolitical attitudes and values. Rather than being subsidiary to the received view, they go beyond it.

Without a doubt, the received view captures key dimensions, but it does not capture all of them. Other variables also predict social and political attitudes, as the next analyses demonstrate.

[Table 6](#) provides correlations between isms dimensions and variables related to political preference, happiness, and personality change. In each case, degree of association is indicated for an earlier time of administration (1998 to 2001) and later time (2006 or 2008), as well as for the residuals indicating change from the earlier to the later time of administration. Because there is no proposal here that isms dimensions should fit within the Big Five (and so strong correlations with personality would be seen as a nuisance rather than a source of convergent validity), they are presented at the bottom of [Table 6](#), as still informative given the scientific importance of the Big Five. In [Table 6](#) there are many correlations, so to minimize Type I error a very stringent ($p < .001$) significance threshold is included. This is emphasized in how results are presented below.

For party preference, all dimensions but Unmitigated Self-Interest showed some association. The largest effects in predicting Republican-over-Democrat preference at both times were, in order from larger to smaller, low Inequality-Aversion, high Tradition-oriented Religiousness, low Subjective Spirituality, and low Communal Rationalism. One could then say that Democrats were more

Table 6
Correlations Between Isms-Dimension Factor Scores and Variables Related to Politics, Happiness, and Personality Change

Variable	Year	TR	USI	CR	SS	IA
Republican (vs. Democrat) preference	2001	.36**	.05	-.16*	-.25**	-.51**
Republican (vs. Democrat) preference	2006	.37**	.06	-.19**	-.24**	-.44**
Change in preference	2001–2006	.14*	.03	-.09	-.05	-.02
Subjective well-being (life satisfaction)	2001	.02	-.04	.15*	.02	-.09
Subjective well-being (life satisfaction)	2008	.06	-.08	.13*	-.06	-.06
Change in subjective well-being	2001–2008	.06	-.08	.04	-.10	-.01
Change in Conscientiousness	1998–2008	.07	-.10*	.09	-.03	-.05
Change in Agreeableness	1998–2008	.08	-.20**	.14*	.02	.05
Change in Emotional Stability	1998–2008	.08	-.13*	.09*	-.12*	.05
Change in Extraversion	1998–2008	.09	-.09	.06	-.03	-.01
Change in Intellect/Imagination	1998–2008	.01	-.11*	.06	.10*	.10
Big Five Conscientiousness	1998	.04	-.01	.17*	-.15*	-.08
Big Five Conscientiousness	2008	.08	-.08	.19**	-.12*	-.09
Big Five Agreeableness	1998	.08	-.15*	.15*	.15*	.19**
Big Five Agreeableness	2008	.11*	-.25**	.20**	.10	.14*
Big Five Emotional Stability	1998	-.13*	-.11*	.07	-.06	.03
Big Five Emotional Stability	2008	-.02	-.17**	.11*	-.13*	.06
Big Five Extraversion	1998	.01	-.10*	.05	.05	-.11*
Big Five Extraversion	2008	.07	-.14*	.07	.01	-.09
Big Five Intellect/Imagination	1998	-.13*	-.22**	.00	.10	.08
Big Five Intellect/Imagination	2008	-.08	-.23**	.04	.14*	.12*

Note. $N = 405$. TR = Tradition-oriented Religiousness; USI = Unmitigated Self-Interest; CR = Communal Rationalism; SS = Subjective Spirituality; IA = Inequality-Aversion.

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

egalitarian and less traditionally religious but also somewhat more inclined to subjective spirituality and communal rationalism. The five orthogonal isms dimensions predicted political preference with an R (multiple correlation) of .65 at both times of measurement (2006 as well as 2001). The eight dimensions (whether oblique or orthogonal) had a slightly higher R (.71 for 2001 preference, .68 for 2006). Prediction of change in party preference was weaker; those high on TR did tend ($r = .15$) to become more Republican over time.

As one would expect, associations of isms dimensions with subjective well-being were much less strong than for voting preferences. However, the Communal Rationalism dimension was associated with happiness or life satisfaction at both time points. The expected correlation with religiousness variables was not evident. And indicators of neither social (TR) nor economic (IA) conservatism were significantly related to happiness, although the small associations were in the expected direction. Isms dimensions were not associated with change in happiness over time.

No correlation between an ism-dimension factor score and a Big Five score exceeded the modest .25 level. Among the modest correlations, the highest linked Unmitigated Self-Interest to low Agreeableness and low Intellect/Imagination and linked Communal Rationalism to high Agreeableness and Conscientiousness. These results are consistent with the modest level of isms–personality associations reported by Saucier (2000).

Prediction of change in personality attributes across a 10-year period was generally nearly as high as the isms–personality associations. Most notably, Unmitigated Self-Interest (USI) predicted unfavorable change in four of the Big Five and nearly so for the fifth of the factors (Extraversion, $r = -.09$). The strongest effect, even significant at the stringent .001 level, was the correlation ($-.20$) between USI and change in Agreeableness. TR and IA—

the dimensions associated with two aspects of conservatism—stood out for not predicting change in any of the Big Five.

Coefficients in Table 6 indicate that isms dimensions do relate to important outcome criteria like voting preferences, happiness, and personality change. Most surprising are the many associations with personality change; eight of 25 correlations between isms and personality change were statistically significant at a .05 level, whereas by chance only 1.25 would be.

The isms dimensions represent a reduction of the attitudinal beliefs domain to only five independent sources of variance. What if one includes the additions found in the set of eight correlated factors? Table 7 presents those factors from this set having significant relations with political preference, happiness, and personality change. Ethnocentrism/Social-Dominance (ESD) substantially predicted Republican (over Democrat) preference; moreover, those high in ESD tended to become more disagreeable over time (r with Agreeableness, $-.24$). Trust in Government (TG) moderately predicted Republican (over Democrat) preference; moreover, those high in TG tended to be happier, both in the same year and 7 years later. Finally, Xenophobia/Nativism was substantially associated with Republican (over Democrat) preference and was more weakly associated with decreases in Intellect/Imagination over time. Correlations shown in Table 7 indicate that the added factors do indeed contribute to the prediction of important outcomes, providing a valuable supplement to the five isms dimensions.

Discussion

The domain of belief-system components referenced by isms and the dimensions they define clearly relates to important criterion variables. Indexing just five overarching dimensions captures a good deal of these relations but does not exhaust them. Ideally,

Table 7

Oblique SDI-SSA Factors (From Eight-Factor Solution) Most Related to Political Preference, Happiness, and Personality Change

Republican (vs. Democrat) preference, 2001	Republican (vs. Democrat) preference, 2006	5-year Republican (vs. Democrat) preference change (2001–2006)
-.66 Inequality-Aversion	-.59 Inequality-Aversion	.15 Tradition-oriented Religiousness
.48 Tradition-oriented Religiousness	.49 Tradition-oriented Religiousness	
.48 Xenophobia/Nativism	.44 Ethnocentrism/Social-Dominance	
.47 Ethnocentrism/Social-Dominance	.42 Xenophobia/Nativism	
-.41 Subjective Spirituality	-.37 Subjective Spirituality	
.34 Trust in Government	.29 Trust in Government	
-.18 Unmitigated Self-Interest	-.16 Unmitigated Self-Interest	
Subjective Well-Being, 2001	Subjective Well-Being, 2008	
.21 Trust in Government	.18 Trust in Government	
.15 Communal Rationalism	.16 Communal Rationalism	
10-year change in Conscientiousness	10-year change in Agreeableness	10-year change in Emotional Stability
.13 Communal Rationalism	-.24 Ethnocentrism/Social-Dominance	-.13 Unmitigated Self-Interest
.12 Trust in Government	-.17 Unmitigated Self-Interest	
-.11 Unmitigated Self-Interest	.10 Communal Rationalism	
10-year change in Extraversion	10-year change in Intellect/Imagination	
-.11 Unmitigated Self-Interest	.14 Subjective Spirituality	
	-.14 Xenophobia/Nativism	
	-.13 Ethnocentrism/Social-Dominance	
	.11 Inequality-Aversion	

Note. $N = 405$. Oblique = correlated. For political preference, SDI-SSA factors based on 89 item-composites (omitting political preference) were used. Only significant coefficients ($p < .05$) are shown. Correlations of .18 or greater in magnitude are $p < .001$. 10-year change was between 1998 and 2008. No factors were significantly related to change in subjective well-being. SDI = Survey of Dictionary-Based Isms; SSA = Supplementary Social Attitudes.

to capture the full range of effects and associations, one would measure at both broader and narrower levels. The same conclusion emerges from research on personality measures (Ashton, Jackson, Paunonen, Helmes, & Rothstein, 1995).

The intent of Study 2 was not definitively to establish important specific associations between isms dimensions (and more broadly the domain of attitudinal beliefs). Rather, the intent was to examine whether these dimensions might have important correlates. Thereby, one might form inferences regarding the overall utility of an isms-dimensions model.

That said, Study 2 did generate up several intriguing findings that seem to deserve further attention, pointing to new directions for theory and research. By linking political-preference changes over time to dimensions capturing a broad domain of belief-system components, one might parsimoniously encapsulate changes in the political landscape, such as the progressively greater alignment of Republican preferences with social conservatism in the 2001–2006 period. By examining relations between happiness and a very broad range of attitudinal beliefs, we might get a bigger picture view. By directing attention to the ways in which attitudinal beliefs may have dynamic impacts on personality, such as their association with change in broad behavioral dispositions over time, one might be able to better solve the riddle of how personality changes. Finally, beliefs (e.g., Ethnocentrism/Social-Dominance and Unmitigated Self-Interest) that are instrumentalist in nature or that elevate one group above others may degrade an individual's likelihood of showing sympathy and kindness. Instrumentalist beliefs may have wider effects, perhaps even leading to increased maladjustment, if that is what decrease in favorable scores on all of the Big Five factors would indicate. Of course, a disagreeable personality may also lead to instrumental beliefs, as much as the other way around.

Trust in Government was associated with subjective well-being, not just concurrently but also 7 years later. An obvious inference:

Being comfortable with—indeed, seeing some goodness and virtue in—those societal structures in place at a macrolevel conduces to happiness at an individual, microlevel. In other words, happiness may be impeded if the wider politicocultural context seems unjust, corrupt, exploitative, or oppressive. In these data, such comfort with societal structures seems to predict happiness better than it does conservatism or religiousness, the variables given greater emphasis in previous studies. Of course, as with all associations in Tables 6 and 7, the direction of effect is unclear because fuller lifespan data is not available; it may be that happiness precedes or is prerequisite for trust in government. There is some research indicating a bilateral relation between just-world beliefs and happiness (Correia, Batista, & Lima, 2009).

It is noteworthy that the two times of measurement for happiness (2001 and 2008) spanned the extent of a period in American history in which there happened to be a Republican president. It would be reasonable to expect TG (Trust in Government, and its antithesis, political alienation) to be particularly changeable across time, depending on the composition of the current government. Before firm conclusions are drawn, the long-term stability of individuals' level of TG should be examined. So should relations, across a wider range of time periods, of this variable with happiness and with other dimensions, such as inequality aversion and party preference.

There are important limitations in these data that do not allow perfect confidence in some of these Study 2 findings. First, this is but one sample (albeit a large one) representing a population from one part of the world—the United States of America. Dimensional classifications in psychology may have culture-specific elements. A dimensional classification developed within any particular population may be impacted by the issues, controversies, and concerns most recurrently emphasized within that population. To minimize this variation in emphasis, the optimal classification would demonstrate evidence of utility (e.g., shared meaning) across a wide

range of populations. Further replication of these results in a more diverse range of populations is required.

Second, belief-system dimensions were measured at only one time point, even if the criterion variables were measured at two. A better design would have three or more time points at which isms dimensions (or at least the most promising of them, such as Unmitigated Self-Interest) and the criterion variables are all measured at each occasion. Such a design would allow some estimate of slopes for all these variables, as well as multivariate modeling to enable clearer inferences regarding what is antecedent and what is consequent. Caution is especially in order in inferring any antecedent-consequent relations between attitudinal beliefs and personality change based on these data; the belief measures were administered at Year 3 in the 10-year span between measures of personality. One could just as well interpret associations as possibly indicating a mediating effect of attitudinal beliefs on personality change. And, for all we know, all of the meaningful personality change could have occurred in the first 3 years of the 10-year span, and this change could be partly responsible for the attitudinal-belief variation, rather than the other way around. There are indications that personality may in some cases affect ideology more than the other way around (Sibley & Duckitt, 2010). However, particularly given the difficulty of identifying variables that might viably predict personality change and the potential usefulness of any such identification for applied fields (e.g., psychotherapy), these limitations should not discourage further research on this topic.

Third, the personality ratings utilized in this study were entirely of the self-report type. Changes in self-report tendencies over time might reflect in part changes in self-presentation rather than real behavior-pattern changes. Thus, for example, it may be that self-interest-oriented individuals come to care less and less over time about presenting a favorable self-assessment of personality, without their actually becoming more maladjusted or having a real change in behavioral tendencies. A useful corrective to this limitation would be to use reports by knowledgeable acquaintances alongside self-reports, measuring change by both methods.

Summary and Conclusions

Both these studies involved an approach to measurement of belief-system components rooted in a lexical rationale. Necessary (though not sufficient) elements for a good model of attitudinal beliefs can be derived by converting relevant -ism terms from a dictionary into a questionnaire. One can then examine the overall structure of their various meanings based on varying individual endorsements. The structure might provide an integrative model encompassing constructs developed by the more conventional one-construct-at-a-time approach. An advantage is that variable selection is delegated to an objective external source, minimizing the subjective variable-selection bias that is an ever-present (if not typically large-scale) threat to the authoritativeness of much psychological research.

Study 1 examined whether a previous set of isms dimensions identified only in college-student samples (Krauss, 2006; Saucier, 2000) was also identifiable in a community sample with far more variation in age. It also examined whether additional dimensions might emerge in such a sample, especially given the use of relatively reliable item-composites, with mostly balanced keying,

instead of single items as the basic unit for analysis. The same four dimensions did arise but with the addition of a fifth that was only more weakly present in the previous English-language study (Saucier, 2000). Thus, these results lead to an expanded model with dimensions of Tradition-oriented Religiousness, Subjective Spirituality, Unmitigated Self-Interest, Communal Rationalism, and (the new dimension) Inequality-Aversion. These dimensions retained their character when a large number of additional item-composites, having well-grounded content but lacking as strong a lexical rationale, were added to the analysis. Although the appropriate number of factors for this wider variable selection was eight rather than five, these appeared to be best construed as eight correlated factors that do not go beyond the first five so much as define some useful finer grained aspects of them.

Study 2 examined the relation of these dimensions to (a) some of the most widely used constructs in the same domain and (b) important criterion outcome variables involving voting preference, happiness, and personality change. Right-Wing Authoritarianism, Social Dominance Orientation, and dimensions of values from the Schwartz Values Survey were found to be well integrated within these five dimensions, but some of the dimensions found here fall outside the bivariate space these attitudes and values jointly define.

The dimensions found here were quite strongly correlated with political-party preferences. They showed meaningful if much smaller correlations with subjective well-being and personality change over time. Examination of associations between factors from the full set of 90 item-composites and these criterion variables revealed a number of intriguing findings, including the following associations: (a) subjective well-being with Trust in Government and Communal Rationalism; (b) change in nearly all of the Big Five personality dimensions, always in an unfavorable direction, with aspects of Unmitigated Self-Interest; and (c) decrease in Agreeableness over time with various beliefs that assert the superiority or greater entitlement of one's own group over another. These findings suggest that isms dimensions and the broader domain of attitudinal beliefs do predict important outcomes. They also suggest that such dimensions have especially unique and interesting effects on dynamic aspects of personality, the manner in which attributes change over time.

There are broad implications of these studies for psychologists seeking to understand social and political attitudes. Prominent constructs in the field have been organized in two dimensions, but there are clearly other dimensions that contribute to such attitudes. Some involve religion and spirituality, and others touch on economic (rational self-interest, inequality) or civic-society themes. The broader model arising from the present work moves toward breaking down boundaries between political, economic, and religion-oriented domains of belief, as these can be expected to work together in the mind-sets of individuals and in the prediction of their behavior.

To optimally understand how ideologies, beliefs, and values importantly affect behavior, one must work from an adequate descriptive model. Such a model can facilitate communication and integration of empirical findings. The need for such a model in the domain of personality traits enhanced the prominence of the Big Five two decades ago. The model highlighted in the present studies addresses beliefs rather than traits, but like the Big Five it is relatively parsimonious and more comprehensive than alternatives.

References

- Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality*. New York, NY: Harper.
- Altemeyer, B. (1981). *Right-wing authoritarianism*. Winnipeg, Manitoba, Canada: University of Manitoba Press.
- Altemeyer, B. (1996). *The authoritarian specter*. Cambridge, MA: Harvard University Press.
- Ashton, M. C., Jackson, D. N., Paunonen, S. V., Helmes, E., & Rothstein, M. G. (1995). The criterion validity of broad factor scales versus specific facet scales. *Journal of Research in Personality, 29*, 432–442. doi:10.1006/jrpe.1995.1025
- Bass, B. M. (1955). Authoritarianism or acquiescence? *Journal of Abnormal and Social Psychology, 51*, 616–623. doi:10.1037/h0042890
- Bell, D. (1962). *The end of ideology: On the exhaustion of political ideas in the fifties*. (2nd ed.). New York, NY: Collier.
- Billings, S. W., Guastello, S. J., & Rieke, M. L. (1993). A comparative assessment of the construct validity of three authoritarianism measures. *Journal of Research in Personality, 27*, 328–348. doi:10.1006/jrpe.1993.1023
- Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and well-being: A conflicting values perspective. *Journal of Consumer Research, 29*, 348–370. doi:10.1086/344429
- Choma, B. L., Ashton, M. C., & Hafer, C. L. (2010). Conceptualizing political orientation in Canadian political candidates: A tale of two (correlated) dimensions. *Canadian Journal of Behavioural Science, 42*, 24–33. doi:10.1037/a0015650
- Choma, B. L., Busseri, M. A., & Sadava, S. W. (2009). Liberal and conservative political ideologies: Different routes to happiness? *Journal of Research in Personality, 43*, 502–505. doi:10.1016/j.jrp.2008.12.016
- Cohrs, J. C., Maes, J., Moschner, B., & Kielmann, S. (2005). The motivational bases of right-wing authoritarianism and social dominance orientation: Relations to values and attitudes in the aftermath of September 11, 2001. *Personality and Social Psychology Bulletin, 31*, 1425–1434. doi:10.1177/0146167205275614
- Cohrs, J. C., Maes, J., Moschner, B., & Kielmann, S. (2007). Determinants of human rights attitudes and behavior: A comparison and integration of psychological perspectives. *Political Psychology, 28*, 441–469. doi:10.1111/j.1467-9221.2007.00581.x
- Comrey, A. L. (1988). Factor-analytic methods of scale development in personality and clinical psychology. *Journal of Consulting and Clinical Psychology, 56*, 754–761. doi:10.1037/0022-006X.56.5.754
- Correia, I., Batista, M. T., & Lima, M. L. (2009). Does belief in a just world bring happiness? Causal relationships among belief in a just world, life satisfaction and mood. *Australian Journal of Psychology, 61*, 220–227. doi:10.1080/00049530802579515
- Cottam, M., Dietz-Uhler, B., Mastors, E., & Preston, T. (2004). *Introduction to political psychology*. New York, NY: Psychology Press.
- Diener, E., Tay, L., & Myers, L. G. (2011). The religion paradox: If religion makes people happy, why are so many dropping out? *Journal of Personality and Social Psychology, 101*, 1278–1290. doi:10.1037/a0024402
- Duckitt, J., & Sibley, C. G. (2009). A dual-process motivational model of ideology, politics, and prejudice. *Psychological Inquiry, 20*, 98–109. doi:10.1080/10478400903028540
- Duckitt, J., & Sibley, C. G. (2010). Personality, ideology, prejudice, and politics: A dual-process motivational model. *Journal of Personality, 78*, 1861–1893. doi:10.1111/j.1467-6494.2010.00672.x
- Duriez, B., & Van Hiel, A. (2002). The march of modern fascism: A comparison of social dominance orientation and authoritarianism. *Personality and Individual Differences, 32*, 1199–1213. doi:10.1016/S0191-8869(01)00086-1
- Feather, N. T., & McKee, I. R. (2012). Values, right-wing authoritarianism, social dominance orientation, and ambivalent attitudes toward women. *Journal of Applied Social Psychology, 42*, 2479–2504. doi:10.1111/j.1559-1816.2012.00950.x
- Fehr, E., & Schmidt, K. M. (1999). A theory of fairness, competition, and cooperation. *Quarterly Journal of Economics, 114*, 817–868. doi:10.1162/003355399556151
- Geertz, C. (1957). Ethos, world-view, and the analysis of sacred symbols. *Antioch Review, 17*, 421–437. doi:10.2307/4609997
- Geertz, C. (1964). Ideology as a cultural system. In D. E. Apter (Ed.), *Ideology and discontent* (pp. 47–76). New York, NY: Free Press.
- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment, 4*, 26–42. doi:10.1037/1040-3590.4.1.26
- Gruza, R. A., & Goldberg, L. R. (2007). The comparative validity of 11 modern personality inventories: Predictions of behavioral acts, informant reports, and clinical indicators. *Journal of Personality Assessment, 89*, 167–187. doi:10.1080/00223890701468568
- Ho, A. K., Sidanius, J., Pratto, F., Levin, S., Thomsen, L., Kteily, N., & Sheehy-Skeffington, J. (2012). Social dominance orientation: Revisiting the structure and function of a variable predicting social and political attitudes. *Personality and Social Psychology Bulletin, 38*, 583–606. doi:10.1177/0146167211432765
- Hogan, R., & Hogan, J. (1995). *Hogan Personality Inventory manual* (2nd ed.). Tulsa, OK: Hogan Assessment Systems.
- Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika, 30*, 179–185. doi:10.1007/BF02289447
- Janda, K. (1980). *Political parties: A cross-national survey*. New York, NY: Free Press.
- Kline, P., & Cooper, C. (1984). A factorial analysis of the authoritarian personality. *British Journal of Psychology, 75*, 171–176. doi:10.1111/j.2044-8295.1984.tb01888.x
- Krauss, S. (2006). Does ideology transcend culture? A preliminary examination in Romania. *Journal of Personality, 74*, 1219–1256. doi:10.1111/j.1467-6494.2006.00408.x
- Leak, G. K., & Randall, B. A. (1995). Clarification of the link between right-wing authoritarianism and religiousness: The role of religious maturity. *Journal for the Scientific Study of Religion, 34*, 245–252. doi:10.2307/1386769
- McCrae, R. R. (1990). Traits and trait names: How well is openness represented in natural languages? *European Journal of Personality, 4*, 119–129. doi:10.1002/per.2410040205
- McKee, I. R., & Feather, N. T. (2008). Revenge, retribution, and values: Social attitudes and punitive sentencing. *Social Justice Research, 21*, 138–163. doi:10.1007/s11211-008-0066-z
- Napier, J. L., & Jost, J. T. (2008). Why are conservatives happier than liberals? *Psychological Science, 19*, 565–572. doi:10.1111/j.1467-9280.2008.02124.x
- Pavot, W., & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment, 5*, 164–172. doi:10.1037/1040-3590.5.2.164
- Peabody, D. (1961). Attitude content and agreement set in scales of authoritarianism, dogmatism, anti-Semitism, and economic conservatism. *Journal of Abnormal and Social Psychology, 63*, 1–11. doi:10.1037/h0046990
- 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. doi:10.1037/0022-3514.67.4.741
- Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (Eds.). (1991). *Measures of personality and social psychological attitudes*. San Diego, CA: Academic Press.
- Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (Eds.). (1999). *Measures of political attitudes*. San Diego, CA: Academic Press.
- Rubinstein, G. (1996). Two peoples in one land: A validation study of Altemeyer's Right-Wing Authoritarianism Scale in the Palestinian and Jewish societies in Israel. *Journal of Cross-Cultural Psychology, 27*, 216–230. doi:10.1177/0022022196272005

- Saucier, G. (1994). Mini-markers: A brief version of Goldberg's unipolar Big Five markers. *Journal of Personality Assessment*, *63*, 506–516. doi:10.1207/s15327752jpa6303_8
- Saucier, G. (2000). Isms and the structure of social attitudes. *Journal of Personality and Social Psychology*, *78*, 366–385. doi:10.1037/0022-3514.78.2.366
- Saucier, G., & Skrzypińska, K. (2006). Spiritual but not religious? Evidence for two independent dispositions. *Journal of Personality*, *74*, 1257–1292. doi:10.1111/j.1467-6494.2006.00409.x
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–65). New York, NY: Academic Press. doi:10.1016/S0065-2601(08)60281-6
- Schwartz, S. H., & Boehnke, K. (2004). Evaluating the structure of human values with confirmatory factor analysis. *Journal of Research in Personality*, *38*, 230–255. doi:10.1016/S0092-6566(03)00069-2
- Sibley, C. G., & Duckitt, J. (2010). Personality bases of ideology: A one-year longitudinal study. *Journal of Social Psychology*, *150*, 540–559. doi:10.1080/00224540903365364
- Sidanius, J., Levin, S., & Pratto, F. (1996). Consensual social dominance orientation and its correlates within the hierarchical structure of American society. *International Journal of Intercultural Relations*, *20*, 385–408. doi:10.1016/0147-1767(96)00025-9
- Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York, NY: Cambridge University Press.
- Sidanius, J., Pratto, F., & Rabinowitz, J. L. (1994). Gender, ethnic status, and ideological asymmetry: A social dominance interpretation. *Journal of Cross-Cultural Psychology*, *25*, 194–216. doi:10.1177/0022022194252003
- Stone, W. F. (1980). The myth of left-wing authoritarianism. *Political Psychology*, *2*, 3–19. doi:10.2307/3790998
- Swidler, A. (1986). Culture in action: Symbols and strategies. *American Sociological Review*, *51*, 273–286. doi:10.2307/2095521
- Tarr, H., & Lorr, M. (1991). A comparison of right-wing authoritarianism, conformity, and conservatism. *Personality and Individual Differences*, *12*, 307–311. doi:10.1016/0191-8869(91)90117-T

Received January 25, 2012

Revision received November 17, 2012

Accepted January 22, 2013 ■