Political Conservatism as Motivated Social Cognition

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Analyzing political conservatism as motivated social cognition integrates theories of personality (authoritarianism, dogmatism–intolerance of ambiguity), epistemic and existential needs (for closure, regulatory focus, terror management), and ideological rationalization (social dominance, system justification). A meta-analysis (88 samples, 12 countries, 22,818 cases) confirms that several psychological variables predict political conservatism: death anxiety (weighted mean $r = .50$); system instability (.47); dogmatism–intolerance of ambiguity (.34); openness to experience (–.32); uncertainty tolerance (–.27); needs for order, structure, and closure (.26); integrative complexity (–.20); fear of threat and loss (.18); and self-esteem (–.09). The core ideology of conservatism stresses resistance to change and justification of inequality and is motivated by needs that vary situationally and dispositionally to manage uncertainty and threat.

Conservatism is a demanding mistress and is giving me a migraine.
—George F. Will, *Bunts*

For more than half a century, psychologists have been tracking the hypothesis that different psychological motives and tendencies underlie ideological differences between the political left and the right. The practice of singling out political conservatives for special study began with Adorno, Frenkel-Brunswik, Levinson, and Sanford's (1950) landmark study of authoritarianism and the fascist potential in personality. An asymmetrical focus on right-wing authoritarianism (RWA) was criticized heavily on theoretical and methodological grounds (e.g., Christie, 1954; Eysenck, 1954;

Rokeach, 1960; Shils, 1954), but it has withstood the relentless tests of time and empirical scrutiny (e.g., Altemeyer, 1981, 1988, 1996, 1998; Billig, 1984; Brown, 1965; Christie, 1991; Elms, 1969; Sidanius, 1985; W. F. Stone, 1980; W. F. Stone, Lederer, & Christie, 1993; Tetlock, 1984; Wilson, 1973c). A voluminous literature, which we review here, facilitates the comparison of cognitive styles and motivational needs of political conservatives with those of moderates, liberals, radicals, and left-wingers. In addition to classic and contemporary approaches to authoritarianism, we cover less obvious sources of theory and research on individual differences associated with dogmatism and intolerance of ambiguity, uncertainty avoidance, need for cognitive closure, and social dominance orientation (SDO) insofar as each of these psychological variables contributes to a deeper and more nuanced understanding of political conservatism.

The study of authoritarianism and other personality theories of political attitudes is often dismissed a priori as an illegitimate, value-laden attempt to correlate general psychological profiles with specific ideological beliefs (e.g., Durrheim, 1997; J. L. Martin, 2001; Ray, 1988). The psychological study of ideological conservatism is one that invites controversy (e.g., Redding, 2001; Sears, 1994; Sidanius, Pratto, & Bobo, 1996; Sniderman & Tetlock, 1986; Tetlock, 1994; Tetlock & Mitchell, 1993), but this circumstance does not mean that researchers should avoid it. Our view is that it is a legitimate empirical issue whether there are demonstrable links between a clearly defined set of psychological needs, motives, and properties and the adoption of politically conservative attitudes. The measurement of individual differences is an excellent starting point for understanding the psychological basis of political ideology, but we argue that approaching political conservatism exclusively from the standpoint of personality theory is a mistake. The hypothesis that people adopt conservative ideologies in an effort to satisfy various social–cognitive motives requires a novel theoretical perspective that overcomes two crucial limitations of traditional research on the psychology of conservatism.

First, too many measures of individual differences have conflated psychological and political variables in an attempt to measure a construct that is really a hybrid of the two. Wilson (1973c), for instance, offered an amalgamated definition of conservatism as "resistance to change and the tendency to prefer safe, traditional and conventional forms of institutions and behaviour" (p. 4). However, Wilson and Patterson's (1968) Conservatism Scale (C-Scale)—which is the psychological instrument that has been most widely used to measure conservatism—combines nonpolitical stimuli that are meant to elicit general attitudes concerning uncertainty avoidance (e.g., modern art, jazz music, horoscopes) and stimuli that have explicitly political referents (e.g., death penalty, legalized abortion, socialism, religion). The fact that such a seemingly heterogeneous scale would exhibit reasonable psychometric properties with respect to reliability and validity suggests that Wilson and his colleagues were accurately perceiving a link between general epistemic motivations and conservative ideology (see also Bagley, Wilson, & Boshier, 1970; Wilson, 1973a). Nevertheless, theoretical and empirical efforts are generally hampered by the failure to distinguish clearly between psychological and ideological variables (Sniderman & Tetlock, 1986).

Second, treating political conservatism solely as an individual-difference variable neglects growing evidence that situational factors influence the experience and expression of conservatism (e.g., Crowe & Higgins, 1997; Greenberg et al., 1990; Jost, Kruglanski, & Simon, 1999; Kruglanski & Webster, 1991; Sales & Friend, 1973; Sulloway, 1996, 2001). If classic personality theories are correct in positing that character rigidity and motivational threat are related to the holding of conservative attitudes, then system instability and other threatening circumstances should also increase conservative tendencies in the population as a whole (e.g., Fromm, 1941; McCann, 1997; Reich, 1946/1970; Sales, 1972, 1973; Sanford, 1966). In an effort to stimulate innovative approaches to the study of situations as well as dispositions that foster ideological conservatism, we cast a wide net in reviewing theories of motivated social cognition that are not conventionally regarded as political in nature, including theories of lay epistemics, regulatory focus, and terror management. Thus, we argue that tendencies toward political conservatism are influenced by a multiplicity of social–cognitive motives.

Overview

We propose that a motivated social–cognitive approach offers the greatest potential for unifying relatively diverse theories and findings related to the psychological basis of political conservatism—that is, theories and findings that link social and cognitive motives to the contents of specific political attitudes. Specifically, we distill key insights from theories of personality and individual differences, theories of epistemic and existential needs, and sociopolitical theories of ideology as individual and collective rationalizations. Following this eclectic review of theoretical perspectives, we examine the balance of evidence for and against several variants of the hypothesis that people embrace political conservatism (at least in part) because it serves to reduce fear, anxiety, and uncertainty; to avoid change, disruption, and ambiguity; and to explain, order, and justify inequality among groups and individuals. Treating political conservatism as a special case of motivated social cognition (a) goes beyond traditional individual-difference approaches; (b) maintains a clear distinction between psycholog-ical motives and political outcomes and helps to explain relations between the two; (c) highlights situational as well as dispositional variables that relate to conservatism; (d) takes into account a wider variety of epistemic, existential, and ideologically defensive motivations than has been considered previously; and (e) provides an integrative framework for understanding how these motives work together to reduce and manage fear and uncertainty.

The Motivated Social–Cognitive Perspective

To set the stage, we use the term *motivated social cognition* to refer to a number of assumptions about the relationship between people's beliefs and their motivational underpinnings (e.g., Bruner, 1957; Duckitt, 2001; Dunning, 1999; Fiske & Taylor, 1991; Greenwald, 1980; Hastorf & Cantril, 1954; Higgins, 1998; Kruglanski, 1996; Kunda, 1990; Rokeach, 1960). In the post-Freudian world, the ancient dichotomy between reason and passion is blurred, and nearly everyone is aware of the possibility that people are capable of believing what they want to believe, at least within certain limits. Our first assumption, too, is that conservative ideologies—like virtually all other belief systems—are adopted in part because they satisfy some psychological needs. This does not mean that conservatism is pathological or that conservative beliefs are necessarily false, irrational, or unprincipled. From the present perspective, most human beliefs are subjectively rational in the sense of being deduced from a set of premises to which believers subscribe (Kruglanski, 1999; Kruglanski & Thompson, 1999a, 1999b), and they are also at least partially responsive to reality constraints (Kunda, 1990). In this sense, any given person's conservatism may well be principled in that it is related logically or psychologically to other observations, values, beliefs, and premises. At the same time, adherence to principles and syllogistic reasoning do not occur in a motivational vacuum but rather in the context of a variety of virtually inescapable personal and social motivations (e.g., Hastorf & Cantril, 1954; Kunda, 1990; Lord, Ross, & Lepper, 1979) that are not necessarily consciously accessible (e.g., Kruglanski, 1996, 1999). Thus, political attitudes may well be principled (e.g., Sniderman, Piazza, Tetlock, & Kendrick, 1991; Sniderman & Tetlock, 1986) and motivationally fueled at the same time.

General Theoretical Assumptions

We find it useful to distinguish between *directional* and *nondirectional motives* involved in belief formation. Directional motives reflect the desire to reach a specific conclusion, such as that the self is worthy or valuable (e.g., Dunning, 1999; Greenwald, 1980; Kunda, 1990), that Republican leaders are benevolent and moral (e.g., Lind, 1996), that the economy will improve, or that one's position of privilege will be preserved (Sears & Funk, 1991; Sidanius, 1984). By contrast, nondirectional motives, such as the "need to know" (Rokeach, 1960), the need for nonspecific closure (Kruglanski & Webster, 1996), the fear of invalidity (Kruglanski & Freund, 1983), and the need for cognition (Cacioppo & Petty, 1982) reflect the desire to arrive at a belief or understanding, independent of its content. Both directional and nondirectional motives are assumed to affect belief formation by determining the extent of information processing (Ditto & Lopez, 1992), bringing about selective exposure to information (Frey, 1986) and affecting other modes of processing available information (Kruglanski,

1996). The possibility that we consider in this article is that a kind of matching process takes place whereby people adopt ideological belief systems (such as conservatism, RWA, and SDO) that are most likely to satisfy their psychological needs and motives (such as needs for order, structure, and closure and the avoidance of uncertainty or threat).[1]

A theoretical assumption we make is that the same motives may underlie different beliefs and that different motives may underlie the same belief. The need for self-enhancement, for example, could lead one to praise or to criticize another person, by preserving a concept of self that is either generous or superior, respectively. Similarly, the belief that a friend, spouse, or family member is praiseworthy could arise not only from self-enhancement but also from needs for impression management, cognitive consistency, and accuracy. In the context of political conservatism, this means that (a) a temporary motive (such as the need for cognitive closure or prevention focus or terror management) could lead one to express liberal as well as conservative beliefs, depending on one's chronically accessible ideology (Greenberg, Simon, Pyszczynski, Solomon, & Chatel, 1992; Jost et al., 1999; Liberman, Idson, Camacho, & Higgins, 1999), and (b) some people might adopt conservative beliefs out of a desire for certainty, whereas others adopt the same beliefs because of a threat to self-esteem or an ideological threat to the system.

From our theoretical perspective, motivational and informational influences on belief formation are not at all incompatible. On the contrary, in most cases they are both necessary, and they work together in any instance of belief formation, although their functions in the belief formation process are very different. Information serves as evidence that provides the basis for forming beliefs at either a conscious or unconscious level. Some of this evidence is derived from source expertise (Kruglanski & Thompson, 1999a, 1999b; McGuire, 1985) and "referent informational influence" (Turner, 1991), and these factors help to explain why parents and other authority figures are effective at socializing children to hold specific political beliefs (e.g., Altemeyer, 1981, 1988, 1996; Rohan & Zanna, 1998; Sears, 1983). Other information is contained in messages (or arguments) rather than sources (Kruglanski & Thompson, 1999b), and this information may be more readily assimilated when it is perceived as providing support for prior beliefs (e.g., Hastorf & Cantril, 1954; Lord et al., 1979). Thus, information often plays a rationalizing or legitimizing role in the construction and preservation of ideological belief systems.

Whether specific beliefs may be considered objectively true or false has little (or nothing) to do with the subjective reasons for believing. Arriving at desired conclusions may be considered epistemologically valid only if the evidence supports those conclusions. Motives to maintain security or resolve uncertainty or to avoid threat or prevent negative outcomes might lead one to adopt beliefs that are, for example, socially or economically conservative, but the degree to which these beliefs are rational or correct must be assessed independently of the motivations that drive them (Kruglanski, 1989). Thus, it does not follow from our motivated social–cognitive analysis that politically conservative beliefs (or any other beliefs) are false simply because they are motivated by epistemic, existential, and ideological concerns.

A motivated social–cognitive approach is one that emphasizes the interface between cognitive and motivational properties of the individual as they impact fundamental social psychological phenomena (e.g., Bruner, 1957; Dunning, 1999; Fiske & Taylor, 1991;

Greenwald, 1980; Higgins, 1998; Kruglanski, 1996; Kunda, 1990). It may be distinguished from several other psychological approaches. For instance, our approach departs from the assumptions of "cold cognitive" approaches to attitudes and social judgment, which discount motivational constructs as explanations, favoring instead information-processing limitations and mechanisms as determinants of social judgments (e.g., Hamilton & Rose, 1980; D. T. Miller & Ross, 1975; Srull & Wyer, 1979). "Hot cognitive" approaches highlight the pervasive role that affect and motivation play in attention, memory, judgment, decision making, and human reasoning, as well as highlighting the cognitive, goal-directed aspects of most motivational phenomena (e.g., Bargh & Gollwitzer, 1994; Kruglanski, 1996). Ideology is perhaps the quintessential example of hot cognition, in that people are highly motivated to perceive the world in ways that satisfy their needs, values, and prior epistemic commitments (Abelson, 1995).

Distinguishing Motivated Social Cognition From Other Theories of Conservatism

With regard to other theories of conservatism, a motivated social–cognitive perspective may be distinguished from (a) a stable individual-differences approach; (b) a pure instrumental or self-interest theory of conservatism; and (c) theories of modeling, imitation, or simple reinforcement. Although we suggest in this review that there may be individual differences associated with political conservatism (such as authoritarianism, intolerance of ambiguity, need for cognitive closure), we also argue that there should be considerable situational variation in expressions of conservative tendencies. Thus, we are influenced by personality theories of conservatism, but we find them most useful for identifying needs and motivations that may be temporarily as well as chronically accessible. This opens the door to situationalist, social psychological theorizing and research on the manifestations of political conservatism.

Past research and theory on conservatism in sociology, economics, and political science has often assumed that people adopt conservative ideologies out of self-interest (see Sears & Funk, 1991). This account fits well with data indicating increased conservatism among upper-class elites (e.g., Centers, 1949; Sidanius & Ekehammar, 1979). Although we grant that self-interest is one among many motives that are capable of influencing political attitudes and behavior, our review requires a reexamination of this issue. Specifically, many of the theories we integrate suggest that

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[1] Rokeach (1960) advanced a similar argument concerning the match between cognitive structure and ideological content:

We thus see in the case of fascism that ideological content and structure support each other. There is no incompatibility between them and thus psychological conflict is not engendered or guilt feelings aroused. For this reason, authoritarian ideological structures may be psychologically more reconcilable—more easily "attachable"—to ideologies that are antidemocratic than to those that are democratic in content. If a person's underlying motivations are served by forming a closed belief system, then it is more than likely that his motivations can also be served by embracing an ideology that is blatantly anti-equalitarian. If this is so, it would account for the somewhat greater affinity we have observed between authoritarian belief structure and conservatism than between the same belief structure and liberalism. (p. 127)

motives to overcome fear, threat, and uncertainty may be associated with increased conservatism, and some of these motives should be more pronounced among members of disadvantaged and low-status groups. As a result, the disadvantaged might embrace right-wing ideologies under some circumstances to reduce fear, anxiety, dissonance, uncertainty, or instability (e.g., Jost, Pelham, Sheldon, & Sullivan, 2003; Lane, 1962; Nias, 1973), whereas the advantaged might gravitate toward conservatism for reasons of self-interest or social dominance (e.g., Centers, 1949; Sidanius & Ekehammar, 1979; Sidanius & Pratto, 1999).

A motivated–social cognitive perspective also defies relatively straightforward theories of imitation and social learning, which assume that people are conservative because their parents (or other agents of influence) modeled conservative attitudes or behaviors. Correlations between the political attitudes of parents and their offspring generally attain statistical significance, but they leave the majority of variance unexplained (e.g., Altemeyer, 1988; Sears, 1983; Sidanius & Ekehammar, 1979; Sulloway, 1996). We do not deny that personality goals, rational self-interest, and social learning are important factors that drive conservatism, but our perspective stresses that politically conservative orientations are multiply determined by a wide variety of factors that vary personally and situationally. We argue that conservatism as a belief system is a function of many different kinds of variables, but that a matching relationship holds between certain kinds of psychological motives and specific ideological outcomes. Thus, the general assumptions of our motivated social–cognitive perspective may be applied usefully to the analysis of any coherent belief system (irrespective of content), but the specific array of epistemic, existential, and ideological motives that we review in this article uniquely characterizes political conservatism as a system of interrelated beliefs.

The Ideology of Conservatism

The ideology of conservatism has long served as subject matter for historians (e.g., Diamond, 1995; Kolko, 1963), journalists (e.g., Lind, 1996; I. F. Stone, 1989), political scientists (e.g., Carmines & Berkman, 1994; Conover & Feldman, 1981; Huntington, 1957; McClosky & Zaller, 1984), sociologists (e.g., Anderson, Zelditch, Takagi, & Whiteside, 1965; Danigelis & Cutler, 1991; Lo & Schwartz, 1998; Mannheim, 1927/1986, 1936; A. S. Miller, 1994), and philosophers (e.g., Eagleton, 1991; Habermas, 1989; Rorty, 1989). Our goal in the present article is to summon the unique analytical powers drawn from a variety of psychological theories of motivated social cognition to shed light on the anatomy of conservatism. Following Abric (2001), we argue that political conservatism, like many other complex social representations, has both a stable definitional *core* and a set of more malleable, historically changing *peripheral* associations (what Huntington, 1957, referred to as *secondary issues*). It is the ideological core of political conservatism (more than its peripheral aspects) that we hypothesize to be linked to specific social, cognitive, and motivational needs.[2]

Conceptual Definitions

Core aspects of conservative ideology. Dictionary definitions of conservatism stress "the disposition and tendency to preserve what is established; opposition to change" (Neilson, 1958, p. 568) and "the disposition in politics to maintain the existing order"

(Morris, 1976, p. 312). Traditionalism and hostility to social innovation were central to Mannheim's (1927/1986) sociological analysis of conservatism. Rossiter (1968), too, defined *situational conservatism* in the *International Encyclopedia of the Social Sciences* as "an attitude of opposition to disruptive change in the social, economic, legal, religious, political, or cultural order" (p. 291).[3] He added, "The distinguishing mark of this conservatism, as indeed it is of any brand of conservatism, is the *fear of change* [italics added], which becomes transformed in the political arena into the fear of radicalism" (p. 291). Consistent with this notion, Conover and Feldman (1981) found that the primary basis for self-definitions of liberals and conservatives has to do with acceptance of, versus resistance to, change (see also Huntington, 1957). This dimension of conservatism is captured especially well by Wilson and Patterson's (1968) C-Scale and by Altemeyer's (1996, 1998) RWA Scale.

A second core issue concerns preferences for inequality. As Giddens (1998), following Bobbio (1996), wrote, "One major criterion continually reappears in distinguishing left from right: *attitudes toward equality* [italics added]. The left favours greater equality, while the right sees society as inevitably hierarchical" (p. 40). This characterization is consistent with many historical and political definitions of conservative and right-wing ideology (Muller, 2001), and it is also reflected in several scales used to measure conservatism (Knight, 1999). Specifically, measures of political–economic conservatism (Sidanius & Ekehammar, 1979), SDO (Pratto, Sidanius, Stallworth, & Malle, 1994), and economic system justification (Jost & Thompson, 2000) all focus on attitudes toward equality.

Relations between resistance to change and acceptance of inequality. Although we believe that the two core dimensions of political conservatism—resistance to change and acceptance of inequality—are often related to one another, they are obviously distinguishable. Vivid counterexamples come to mind in which the two dimensions are negatively related to one another. For instance, there is the "conservative paradox" of right-wing revolutionaries, such as Hitler or Mussolini or Pinochet, who seem to advocate

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[2] Social scientists have debated for years whether political ideology exists at all as a coherent, internally consistent system of beliefs in the minds of individuals (e.g., Converse, 1964; Judd, Krosnick, & Milburn, 1981; Kerlinger, 1984; McGuire, 1985). Granting that ideologies—like other attitudes—possess a high degree of malleability, we argue that it is still worthwhile to consider the psychological characteristics of conservative thought. Specifically, we propose that one might distinguish between a relatively stable ideological core of conservatism comprised of resistance to change and acceptance of inequality (e.g., Giddens, 1998; Huntington, 1957; Mannheim, 1927/1986; Rossiter, 1968) and more ideologically peripheral issues (such as school busing or gun control) that are likely to vary considerably in their ideological relevance across time. Because the conservative core may be grounded in powerful and relatively stable individual needs, it may persist as a deep personality structure, the surface manifestations of which might change with the tides of social and political debate.

[3] In the most recent edition of the *International Encyclopedia of the Social Sciences*, Muller's (2001) definition of conservatism similarly stresses resistance to change (as well as belief in the legitimacy of inequality). He observed: "For conservatives, the historical survival of an institution or practice—be it marriage, monarchy, or the market—creates a *prima facie* case that it has served some need" (p. 2625). That is, what conservatives share is a tendency to rationalize existing institutions, especially those that maintain hierarchical authority.

social change in the direction of decreased egalitarianism. In at least some of these cases, what appears to be a desire for change is really "an imaginatively transfigured conception of the past with which to criticize the present" (Muller, 2001, p. 2625). There are also cases of left-wing ideologues who, once they are in power, steadfastly resist change, allegedly in the name of egalitarianism, such as Stalin or Khrushchev or Castro (see J. Martin, Scully, & Levitt, 1990). It is reasonable to suggest that some of these historical figures may be considered politically conservative, at least in the context of the systems they defended.[4]

In any case, we are not denying that liberals can be rigid defenders of the status quo or that conservatives can support change. We assume that historical and cultural variation in political systems affects both the meaning of conservatism and the strength of empirical associations between the psychological and ideological variables we investigate. To take one fairly obvious example, it seems likely that many left-wingers in totalitarian communist regimes would exhibit mental rigidity and other psychological characteristics that are often thought to be associated with right-wingers in other contexts. To be sure, social scientists in the West have undersampled these populations in developing and assessing their theories.

Despite dramatic exceptions, the two core aspects of conservatism are generally psychologically related to one another for most of the people most of the time (Muller, 2001). In part, this is because of the historical fact that traditional social arrangements have generally been more hierarchical and less egalitarian compared with nontraditional arrangements. Therefore, to resist change in general has often meant resisting increased efforts at egalitarianism; conversely, to preserve the status quo has typically entailed entrusting the present and future to the same authorities who have controlled the past. Accordingly, several common measures of political conservatism include items gauging both resistance to change and endorsement of inequality (see Knight, 1999; Sidanius, 1978, 1985; Wilson, 1973c). As most Western societies have passed through the various major revolutions and reform movements that have characterized the period since the Middle Ages, the strength of the connection between resistance to change and opposition to equality has weakened (see also Sulloway, 1996). In a hypothetical world of complete equality, it is quite plausible that the two dimensions would be uncorrelated and that conservatives would fear changes that would reduce equality.

These observations underscore the importance of investigating our hypotheses in as many different national and cultural contexts as possible, including cultures in which the status quo is relatively egalitarian and/or left-wing. Examples involving socialist or communist countries make clear that resistance to change and anti-egalitarianism are independent constructs in principle, even if they tend to be (imperfectly) correlated in most cases. Such political contexts offer the best opportunities to determine whether our specific epistemic, existential, and ideological motives are associated with allegiance to the status quo (whether left-wing or right-wing) or whether they are associated with right-wing attitudes in particular. Unfortunately, little or no empirical data are available from the major communist or formerly communist countries such as China, Russia, and Cuba. Nevertheless, we have made a special effort to seek out and incorporate results obtained in 12 different countries, including those with historical influences of socialism or communism, including Sweden (Sidanius, 1978, 1985), Poland (Golec, 2001), East Germany (Fay & Frese, 2000), West Germany

(Kemmelmeier, 1997), Italy (Chirumbolo, 2002), England (Kirton, 1978; Kohn, 1974; Nias, 1973; Rokeach, 1960; Smithers & Lobley, 1978; Tetlock, 1984), Canada (Altemeyer, 1998), and Israel (Fibert & Ressler, 1998; Florian, Mikulincer, & Hirschberger, 2001). As we reveal below, the empirical results from these countries are not generally different from those obtained in other national contexts.

Peripheral aspects of conservative ideology. Historically, conservatism as an ideological belief system has embodied many things, including the desire for order and stability, preference for gradual rather than revolutionary change (if any), adherence to preexisting social norms, idealization of authority figures, punishment of deviants, and endorsement of social and economic inequality (e.g., Eckhardt, 1991; Eysenck & Wilson, 1978; Kerlinger, 1984; Lentz, 1939; Mannheim, 1927/1986; McClosky & Zaller, 1984; Sidanius et al., 1996; W. F. Stone & Schaffner, 1988; Tomkins, 1963; Wilson, 1973c). Some of these preferences are directly related to the core aspects of ideology, whereas others are not. The fact that conservatism stands for so many different goals and affects so many areas of life means that people who are motivated to uphold conservative ideals are sometimes faced with perplexing dilemmas. The degree of complexity involved in the ideological label of conservatism not only gives George F. Will (1998) a migraine from time to time, as the opening quotation of this article suggests, but it also makes the concept of conservatism a particularly difficult one to define and to study with the methods of social science (Muller, 2001). Matters are made even more complicated by the fact that historical and cultural factors change the manifestations of conservatism. For instance, conservatism in the United States during the 1960s entailed support for the Vietnam War and opposition to civil rights, whereas conservatism in the 1990s had more to do with being tough on crime and supporting traditional moral and religious values (A. S. Miller, 1994). In post-fascist Europe, conservatives have emphasized their opposition to communism, economic redistribution, and the growth of the welfare state (Muller, 2001). But even in the context of historical and cultural variation, there is some utility in identifying major social and psychological factors that are associated with core values of ideological conservatism, as Mannheim (1927/1986) and many others have argued.[5]

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[4] The clearest example seems to be Stalin, who secretly admired Hitler and identified with several right-wing causes (including anti-Semitism). In the Soviet context, Stalin was almost certainly to the right of his political rivals, most notably Trotsky. In terms of his psychological makeup as well, Stalin appears to have had much in common with right-wing extremists (see, e.g., Birt, 1993; Bullock, 1993; Robins & Post, 1997).

[5] Our motivated social–cognitive perspective also recognizes that people might occasionally adopt conservative ideologies for reasons having little if anything to do with either acceptance of change or support for inequality. For instance, they may be motivated by (conscious or unconscious) attempts to secure the approval of conservative parents, acceptance by conservative peers, or the trust of conservative superiors. In addition, people may be drawn (e.g., by perceived self-interest) to accept peripheral elements of a conservative ideology (e.g., related to such issues as racial integration, school busing, or taxation) and eventually accept other elements of the ideology because of their association with likeminded others who share their position on local issues and also endorse core conservative positions (related to resistance to change and acceptance of inequality).

Operational Definitions

The biggest conceptual challenge we faced in reviewing the research literature was in clearly distinguishing between psychological independent variables and political dependent variables. Many available measures of conservatism confound the two types of variables, making it difficult to assess the hypothesis that a given set of psychological motives is associated with right-wing political attitudes. The dependent variables we have selected for review (a) are intended as measures of social and political attitudes rather than general psychological tendencies that are content free, (b) tap right-wing or politically conservative attitudes rather than extreme ideological opinions in general, (c) reflect methodological diversity to increase generalizability of meta-analytic results, and (d) correspond relatively well to core and, to a lesser extent, peripheral aspects of conservative ideology, as outlined above. Applying these criteria, we were able to identify studies using 88 different samples that used direct measures of political identification, conservative ideological opinion, resistance to social and political change, and/or preference for social and economic inequality. The methodological properties of several of these scales were reviewed by Knight (1999) as measures of right-wing conservatism (as contrasted with liberalism, radicalism, and left-wing ideology).

Measures stressing resistance to change.   Consistent with our conceptual definition of political conservatism, many of the studies in our review used measures that emphasized the dimension of resistance to change. Wilson and Patterson's (1968) C-Scale and Altemeyer's (1988, 1996, 1998) RWA Scale address several core and peripheral aspects of conservative ideology, but the primary focus of each is on resistance to change. The C-Scale measures the favorability of attitudes toward each of 50 items, including some that pertain to social change (mixed marriage, Sabbath observance, the theory of evolution, modern art, royalty) others that pertain to maintaining inequality (White superiority, socialism, women judges, apartheid), and still others that are peripheral (at best) to the core meaning of political conservatism (birth control, suicide, jazz music, divorce). At least three of Wilson's (1973a, p. 51) seven major dimensions of conservatism directly measure attitudes toward stability versus change (preference for conventional attitudes and institutions, religious dogmatism, resistance to scientific progress), so it is probably best thought of as a conservatism scale that stresses resistance to social and political change.

Although the construct of authoritarianism was originally used by Adorno et al. (1950) to deal primarily with attitudes toward minority groups (and therefore attitudes about social inequality), Altemeyer's (1998) RWA Scale largely emphasizes resistance to change. Items include the following: "Authorities such as parents and our national leaders generally turn out to be right about things, and the radicals and protestors are almost always wrong"; "Some young people get rebellious ideas, but as they get older they ought to become more mature and forget such things"; and "Some of the worst people in our country nowadays are those who do not respect our flag, our leaders, and the normal way things are supposed to be done." Thus, the RWA Scale largely measures ideological commitment to tradition, authority, and social convention against threats of change, protest, and political rebellion (Altemeyer, 1981, 1988, 1996, 1998).

One or both of these two instruments (the C-Scale or the RWA Scale) was administered to 31 (or 35%) of the 88 samples included

in our review. An additional 3 samples received conceptually related measures of authoritarianism versus rebelliousness (Kohn, 1974), conservatism–radicalism (Smithers & Lobley, 1978), and authoritarian conservatism (Fay & Frese, 2000), bringing the total to 39% of the samples.

Measures stressing acceptance of inequality.   A number of additional instruments used to measure right-wing political ideology (the Fascism Scale [F-Scale], the SDO Scale, the Economic System Justification Scale, and measures of general and economic conservatism) focus as much or more on attitudes toward inequality than on resistance to change. (Of course, in most societies, some degree of inequality is the status quo.) The F-Scale, for instance, measures right-wing derogation of low-status minority groups (Adorno et al., 1950), and the SDO Scale measures group-based dominance and generalized opposition to inequality (see Jost & Thompson, 2000; Sidanius & Pratto, 1999). Jost and Thompson's (2000) Economic System Justification Scale and Golec's (2001) Economic Conservatism Scale both tap the belief that large differences in income are legitimate and necessary for society. Sidanius's (1978, 1985) General Conservatism Scale includes attitude referents focusing on acceptance versus rejection of a number of changes relating to the degree of inequality in society (increased taxation of the rich, increased aid to the poor, greater equality in salaries, a female president of the United States, racial equality). These scales were administered to 26 (or 30%) of the samples included in our review.

Measures stressing political identification and issue-based conservatism.   Some studies we review measured self-reported political orientation directly (Chirumbolo, 2002; Fibert & Ressler, 1998; Golec, 2001; Jost et al., 1999; Kemmelmeier, 1997; Tetlock, 1984), and others measured conservative voting records (Gruenfeld, 1995; McCann, 1997; Tetlock, 1983; Tetlock, Bernzweig, & Gallant, 1985). Still others addressed specific issues that are related to the periphery but not necessarily to the core of political conservatism, including attitudes and behavioral decisions related to the death penalty, severity of punishment for criminals, funding for the police department, and conversion to authoritarian churches (Florian et al., 2001; Jost et al., 1999; Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989; Sales, 1972, 1973). The Political–Economic Conservatism Scale used by Rokeach (1960) and Sidanius (1978) tapped attitudes toward the specific issue of government control of industry, labor, and capitalism. In total, these measures were administered to 37 (or 42%) of the samples in our review.

Theories Relating to the Psychology of Conservatism

The most general form of the hypothesis that we investigate in this article is that there are observable empirical regularities that link specific psychological motives and processes (as independent variables) to particular ideological or political contents (as dependent variables). Many different theoretical accounts of conservatism have stressed the motivational underpinnings of conservative thought, but they have identified different needs as critical. Our review brings these diverse accounts together for the first time and integrates them. Specific variables that have been hypothesized to predict conservatism include fear and aggression (Adorno et al., 1950; Altemeyer, 1998), intolerance of ambiguity (Fibert & Ressler, 1998; Frenkel-Brunswik, 1949), rule following and negative affect (Tomkins, 1963, 1965), uncertainty avoidance (Sor-

rentino & Roney, 1986; Wilson, 1973b), need for cognitive closure (Kruglanski & Webster, 1996), personal need for structure (Altemeyer, 1998; Schaller, Boyd, Yohannes, & O'Brien, 1995; Smith & Gordon, 1998), need for prevention-oriented regulatory focus (Higgins, 1997; Liberman et al., 1999), anxiety arising from mortality salience (Greenberg et al., 1990, 1992), group-based dominance (Pratto et al., 1994; Sidanius & Pratto, 1999), and system justification tendencies (Jost & Banaji, 1994; Jost, Burgess, & Mosso, 2001). In what follows, we summarize major theoretical perspectives and use them to generate a comprehensive list of motives that are potential predictors of political conservatism. We first describe the theories and then, because many of them postulate similar motives, we review the cumulative evidence for and against each of the motives all at once.

We review several major theories that may be used to illustrate linkages between motivational and cognitive processes and social and political contents. These theories may be classified into three major categories: (a) theories of personality and individual differences, (b) theories stressing the satisfaction of epistemic and existential needs, and (c) sociopolitical theories regarding the rationalization of social systems. Taken individually, no single theory provides an adequate conceptualization of conservatism in all of its forms. By unifying these diverse theoretical perspectives, it becomes clearer that conservatism results from the intersection of social, cognitive, and motivational factors.

Personality and Individual-Difference Theories of Conservatism

The tradition of research on the personality correlates of political conservatives began with Adorno et al. (1950) and has thrived right up until the present day (e.g., Altemeyer, 1998; W. F. Stone et al., 1993). Although personality theories do not explicitly regard political conservatism to be a special case of motivated social cognition, the insights and findings garnered from these perspectives are consistent with the message we present, mainly because such theories have stressed the motivated character of personality and individual differences. Our hope is that by combining the insights gained from these personality theories with the experimental methods favored by researchers of motivated social cognition, future work will be in a better position to directly investigate the motivated and dynamic aspects of political conservatism.

The Theory of RWA

As intellectual descendants of the Frankfurt School, the authors of *The Authoritarian Personality* (Adorno et al., 1950) sought to integrate Marxist theories of ideology and social structure with Freudian theories of motivation and personality development to explain the rise of fascism throughout Europe in the 1930s and 1940s. Specifically, they proposed that harsh parenting styles brought on by economic hardship led entire generations to repress hostility toward authority figures and to replace it with an exaggerated deference and idealization of authority and tendencies to blame societal scapegoats and punish deviants (see also Reich, 1946/1970). The theory of authoritarianism holds that fear and aggressiveness resulting from parental punitiveness motivate individuals to seek predictability and control in their environments. Authoritarian attitudes, which may be elicited by situational threats, combine an anxious veneration of authority and conven-

tion with a vindictiveness toward subordinates and deviants (Altemeyer, 1998; Fromm, 1941; Peterson, Doty, & Winter, 1993; W. F. Stone et al., 1993). Authoritarianism is often taken to be synonymous with conservatism, but Wilson, theorizing that conservatism is the general factor underlying all social attitudes (Wilson, 1973b; Wilson & Patterson, 1968), contended that authoritarianism is but one manifestation of the more general factor of conservatism (Wilson, 1968).

An exhaustive effort to update theory and research on authoritarianism and to respond to various conceptual, methodological, and statistical objections has been undertaken by Altemeyer (1981, 1988, 1996, 1998). Altemeyer's (1981) model presents a more methodologically sophisticated and statistically robust approach to measuring and conceptualizing authoritarianism, distinguishing it from various response sets associated with acquiescence, and he rejects orthodox Freudian interpretations of the syndrome. Altemeyer's (1981) RWA is characterized by (a) "a high degree of submission to the authorities who are perceived to be established and legitimate"; (b) "a general aggressiveness, directed against various persons, which is perceived to be sanctioned by established authorities"; and (c) "a high degree of adherence to the social conventions which are perceived to be endorsed by society" (p. 148). This reconceptualization, which combines resistance to change and endorsement of inequality, is consistent with two newly emerging theories, social dominance theory (Pratto et al., 1994; Sidanius & Pratto, 1999) and system justification theory (Jost & Banaji, 1994; Jost et al., 2003), both of which are discussed below.

Scores on the RWA Scale have been found to predict a broad range of attitudes and behaviors related to social, economic, and political conservatism as defined in the general culture at the time. For instance, the scale has correlated reliably with political party affiliation; reactions to Watergate; pro-capitalist attitudes; severity of jury sentencing decisions; punishment of deviants; racial prejudice; homophobia; religious orthodoxy; victim blaming; and acceptance of covert governmental activities such as illegal bugging, political harassment, denial of the right to assemble, and illegal drug raids (Altemeyer, 1981, 1988, 1996, 1998). Peterson et al. (1993) reported correlational evidence linking authoritarianism to a wide variety of conservative attitudes, including opposition to environmentalism, abortion rights, diversity on university campuses, and services for AIDS patients and homeless people. Ray (1973), in questioning the discriminant validity of RWA, reported a correlation of .81 between the RWA Scale and his own conservatism scale. Altemeyer (1996, 1998) summarized the results of several studies of the attitudes of Canadian and U.S. legislators in which he found strong differences in RWA between conservative politicians and others and concluded that

> High RWA lawmakers also score higher in prejudice, and wish they could pass laws limiting the freedom of speech, freedom of the press, the right of assembly, and other freedoms guaranteed in the Bill of Rights. They want to impose strict limitations on abortion, they favor capital punishment, and they oppose tougher gun control laws. Finally, politicians answer the RWA Scale with such extraordinary levels of internal consistency, it appears the scale provides our most powerful measure of the liberal-conservative dimension in politics. (Altemeyer, 1998, p. 53)

Thus, a relatively strong relation has been established between RWA and political conservatism among political elites as well as the masses.

Altemeyer's (1998) work is also important in identifying the two main directions in which extremely conservative and authoritarian attitudes may lead. First, they may lead to an actively hostile or dominant approach to dealing with socially sanctioned scapegoats and devalued out-groups, which is also the primary focus of social dominance theory (Sidanius & Pratto, 1999; Whitley, 1999). Second, RWA may lead to a more passively submissive or deferential posture toward authorities, which would make its subscribers ideal candidates to follow the next Hitler or Mussolini (Altemeyer, 1998; Fromm, 1941; Reich, 1946/1970). Thus, extreme right-wing attitudes "lock" people into a "dominance-submissive authoritarian embrace" (Altemeyer, 1998, p. 47), and the specific manifestation of these attitudes presumably depends on the social and historical context and the motivations that are elicited from these contexts.

Intolerance of Ambiguity

Frenkel-Brunswik's work on intolerance of ambiguity was closely related to research on the authoritarian personality, but it was distinctive with regard to methodology and content. In an abstract published in 1948, she reported a study of ethnic prejudice involving the attitudes of adults and children (9 to 14 years old). Frenkel-Brunswik (1948) argued that intolerance of ambiguity constituted a general personality variable that related positively to prejudice as well as to more general social and cognitive variables. As she put it, individuals who are intolerant of ambiguity

> are significantly more often given to dichotomous conceptions of the sex roles, of the parent-child relationship, and of interpersonal relationships in general. They are less permissive and lean toward rigid categorization of cultural norms. Power–weakness, cleanliness–dirtiness, morality–immorality, conformance–divergence are the dimensions through which people are seen. . . . There is sensitivity against qualified as contrasted with unqualified statements and against perceptual ambiguity; a disinclination to think in terms of probability; a comparative inability to abandon mental sets in intellectual tasks, such as in solving mathematical problems, after they have lost their appropriateness. Relations to home discipline and to the ensuing attitude towards authority will likewise be demonstrated quantitatively. (Frenkel-Brunswik, 1948, p. 268)

Frenkel-Brunswik (1949, 1951) developed further the theory of ambiguity intolerance and elaborated the antecedent conditions of this psychological disposition and its manifold consequences. At the time, ambiguity intolerance was viewed in Freudian terms as stemming from an underlying emotional conflict involving feelings of hostility directed at one's parents combined with idealization tendencies. Although stable individual differences in the intolerance of ambiguity have been observed across many generations of researchers and participants, theoretical explanations have changed somewhat. Anticipating current perspectives on uncertainty avoidance (Hofstede, 2001; Sorrentino & Roney, 2000; Wilson, 1973b), Budner (1962), for example, defined intolerance of ambiguity as "the tendency to perceive ambiguous situations as sources of threat" (p. 29).

Intolerance of ambiguity, by increasing cognitive and motivational tendencies to seek certainty, is hypothesized to lead people to cling to the familiar, to arrive at premature conclusions, and to impose simplistic clichés and stereotypes. In a review of research on ambiguity intolerance, Furnham and Ribchester (1995) provided the following list of consequences of this tendency:

> Resistance to reversal of apparent fluctuating stimuli, the early selection and maintenance of one solution in a perceptually ambiguous situation, inability to allow for the possibility of good and bad traits in the same person, acceptance of attitude statements representing a rigid, black-white view of life, seeking for certainty, a rigid dichotomizing into fixed categories, premature closure, and remaining closed to familiar characteristics of stimuli. (p. 180)

Thus, theories of intolerance of ambiguity combine psychodynamic antecedents with a wide range of perceptual, cognitive, motivational, social, and political consequences. Arguably, it is this richness that accounts for the persistence of interest in this concept over the 50 years since its introduction.

Mental Rigidity, Dogmatism, and Closed-Mindedness

One of the persistent criticisms of Adorno et al.'s (1950) work on authoritarianism and the F-Scale designed to measure fascistic potential was that it neglected authoritarianism among left-wingers (e.g., Shils, 1954). In part to address this concern, Rokeach (1960) developed a scale of dogmatism that was meant to provide a more balanced measure of authoritarianism. The scale contained items tapping *double think*, which was defined as susceptibility to logically contradictory beliefs and denial of contradictions in one's belief system, as well as a narrow future orientation and a strong orientation toward authority. Rokeach (1960) argued that dogmatism is indicative of closed-mindedness, which he contrasted with open-mindedness:

> All belief-disbelief systems serve two powerful and conflicting sets of motives at the same time: the need for a cognitive framework to know and to understand and the need to ward off threatening aspects of reality. To the extent that the cognitive need to know is predominant and the need to ward off threat is absent, open systems should result. . . . But as the need to ward off threat becomes stronger, the cognitive need to know should become weaker, resulting in more closed belief systems. (p. 67)

Thus, Rokeach's theory, like some of its predecessors, combines elements of epistemic and existential motivation in seeking to explain social and political attitudes. In another passage, he argued further that, "if the closed or dogmatic mind is extremely resistant to change, it may be so not only because it allays anxiety but also because it satisfies the *need to know*" (Rokeach, 1960, p. 68). Rokeach's theory also seeks to combine cognitive and motivational needs in explaining ideological rigidity. Its influence clearly extends to contemporary research on the role of cognitive sophistication and integrative complexity in political ideology (e.g., Sidanius, 1985, 1988; Tetlock, 1983, 1984).

The Theory of Ideo-Affective Polarity

Several commentators (Abelson & Prentice, 1989; Alexander, 1995; Milburn, 1991; W. F. Stone, 1986; W. F. Stone & Schaffner, 1988; Thomas, 1976) have noted that Silvan Tomkins's (1963, 1965, 1987, 1995) theory of ideological polarity is one of the most fascinating accounts of the origins and implications of left-wing and right-wing thinking, but it is lamentably underresearched. It is a distinctive theory because it explicitly stresses the role of affect

and motivation in ideology and because it assumes that ideological predilections permeate nearly every domain of a person's life, including one's attitudes toward the arts, music, science, philosophy, and so on, so that "if one knows what an individual believes about the nature of literature, one would also know what he would believe about the nature of mathematics" (Tomkins, 1995, p. 117).

According to polarity theory, there exist generalized orientations (or *ideo-affective postures*) toward the world that may be regarded as belonging either to the ideological left or to the right, and they are associated with liberty and humanism in the first case and rule following and normative concerns in the second. Those who resonate with left-wing ideologies believe that people are basically good and that the purpose of society is to facilitate human growth and experience. By contrast, those who resonate with right-wing ideologies believe that people are essentially bad and that the function of society is to set rules and limits to prevent irresponsible behavior. On these issues, Tomkins's (1963, 1965, 1987, 1995) theory bears more than a passing resemblance to the theory of authoritarianism (e.g., Adorno et al., 1950).

These ideological orientations are multiply determined, according to the theory, but it is clear that one's preferences are developed early in childhood emotional life; this occurs through the acquisition of *personal scripts*, a term that refers to affectively charged memories of social situations involving the self and important others (Carlson & Brincka, 1987; Tomkins, 1987). For example, childhood experiences arising from a parental focus on the child and his or her inner self are expected to reinforce feelings of excitement, joy, surprise, distress, and shame, in turn leading the child to gravitate toward the humanistic orientation, or left-wing perspective. In contrast, more structured, punitive parenting engenders emotions such as anger and contempt, which reflect the normative orientation, or right-wing perspective (Loye, 1977; W. F. Stone, 1986; Tomkins, 1963, 1965).

Most of the empirical research relevant to the theory of ideological polarity has used a 59-item Polarity Scale developed by Tomkins (1964/1988) and updated by W. F. Stone and Schaffner (1988). Items tapping the right-wing or normative orientation include the following: "Children should be taught to obey what is right even though they may not always feel like it" and "If I break the law I should be punished for the good of society." Scores on the Polarity Scale have been found to predict reactions to presidential assassinations (Tomkins, 1995); preferences for individualistic versus sociotropic values (Carlson & Levy, 1970; de St. Aubin, 1996); attitudes toward war and peace (Eckhardt & Alcock, 1970); assumptions concerning human nature, religiosity, and political orientation (de St. Aubin, 1996; Elms, 1969); and a number of other affective responses (see W. F. Stone, 1980). The theory is groundbreaking not only in its attempt to identify affective and motivational bases of conservatism (related to anger, contempt, and the desire for punitiveness) but also in its suggestion that a disproportionate number of conservatives are driven by a motivation to establish and follow rules and norms in a wide variety of domains inside and outside of politics.

A Dynamic Theory of Conservatism as Uncertainty Avoidance

Consistent with Tomkins's (1963, 1965) and others' emphases on affective bases of ideology and with the research on intolerance of ambiguity, Wilson (1973b) proposed a dynamic theory that treats conservatism as the product of (partially unconscious) motives and needs having to do with fear and anxiety. The central tenet of the theory is that "the common basis for all the various components of the conservative attitude syndrome is a *generalized susceptibility to experiencing threat or anxiety in the face of uncertainty*" (Wilson, 1973b, p. 259). According to this perspective, conservatism is multiply determined by what Wilson (1973b) labeled *genetic* factors, such as anxiety proneness, stimulus aversion, low intelligence, and physical unattractiveness, as well as by *environmental* factors such as parental coldness, punitiveness, rigidity, inconsistency, low social class, and low self-esteem.

Wilson (1973b) hypothesized a great many different sources of threat or uncertainty, including death, anarchy, foreigners, dissent, complexity, novelty, ambiguity, and social change. Conservative attitudinal responses to these sources of uncertainty include superstition, religious dogmatism, ethnocentrism, militarism, authoritarianism, punitiveness, conventionality, and rigid morality. Despite a few recent exceptions (e.g., Fay & Frese, 2000; McAllister & Anderson, 1991), the theoretical account of conservatism as a motivated response to environmental uncertainty has been largely lost in the field of political psychology since the publication of a volume edited by Wilson (1973c) on that topic. Although Wilson's emphasis was clearly on individual differences arising from genetic and environmental influences, his theory targeted the reduction of uncertainty and threat as motives for political conservatism. Our approach to political conservatism as motivated social cognition seeks to resurrect these fruitful notions and to expand and elaborate on the ways in which conservative systems of thought are adopted to meet the epistemic and existential needs of individuals, groups, and social systems.

Epistemic and Existential Need Theories

Although the three theories of cognitive–motivational processes reviewed here involve recognition (and even assessment) of individual differences—much as theories of personality assume epistemic and existential needs—neither individual differences nor their developmental roots are accorded central research attention in these frameworks. Rather, these theories, which are like Wilson's (1973b) theory of uncertainty avoidance in other respects, place particular emphasis on the mutually constitutive role of cognitive and motivational processes in determining conservative response tendencies. We turn now to a summary of theories of lay epistemics, regulatory focus, and terror management.

Lay Epistemic Theory

In an effort to unify cognitive and motivational accounts of behavior, Kruglanski (1989) developed a theory of lay epistemics whereby knowledge and beliefs are arrived at through a process of motivated informational search. Knowledge acquisition, according to this theory, follows a two-step epistemic process of hypothesis generation and testing (Popper, 1959). Informational factors include the availability and accessibility of various knowledge structures that the individual may use to construct the relevant hypotheses and their testable implications. Often, such constructive processes can be quite labor intensive and effortful. They may require considerable mental resources, including cognitive capacity and epistemic motivation. A central motivational construct in the theory of lay epistemics is the need for cognitive closure,

which refers to the expedient desire for *any* firm belief on a given topic, as opposed to confusion and uncertainty.

A variety of factors may arouse the need for closure. These have to do with the perceived benefits and costs of possessing (or lacking) closure and may vary as a function of the person, the immediate situation, and the culture (see also Hofstede, 2001). For example, the benefits of possessing cognitive closure include the potential affordance of predictability and the guidance of action. Consistent with the notion that situations lead people to seek out nonspecific closure, Dittes (1961) found that failure-induced threat caused research participants to reach "impulsive closure" on an ambiguous task. More generally, the need for cognitive closure should be elevated in any situation in which the importance of action looms large, as under time pressure (e.g., Jost et al., 1999; Kruglanski & Freund, 1983; Shah, Kruglanski, & Thompson, 1998), ambient noise (Kruglanski & Webster, 1996), mental fatigue (D. M. Webster, Richter, & Kruglanski, 1996), or alcohol intoxication (D. M. Webster, 1994), because such states render sustained information processing to be subjectively costly.

Building on research devoted to uncertainty orientation (e.g., Sorrentino & Roney, 1986, 2000) and the personal need for structure (e.g., Schaller et al., 1995), D. M. Webster and Kruglanski (1994) developed and validated an individual-difference measure of the need for cognitive closure, the Need for Closure Scale (NFCS). This 42-item scale comprises five factors or subscales, respectively described as (a) preference for order and structure, (b) emotional discomfort associated with ambiguity, (c) impatience and impulsivity with regard to decision making, (d) desire for security and predictability, (e) closed-mindedness. Some illustrative items of this scale are "I think that having clear rules and order at work is essential for success,"; "I'd rather know bad news than stay in a state of uncertainty"; "I usually make important decisions quickly and confidently"; "I don't like to go into a situation without knowing what I can expect from it"; and "I do not usually consult many different opinions before forming my own view."

Whether evoked situationally or measured as a stable personality dimension, the need for closure has been found to produce the same consequences. Specifically, it fosters the tendency to *seize* on information that affords closure and to *freeze* on closure once it has been attained. The need for closure, whether varied situationally or measured dispositionally, has been associated with tendencies to engage in social stereotyping (Kruglanski & Freund, 1983), to succumb to primacy effects in impression formation (Kruglanski & Freund, 1983; D. M. Webster & Kruglanski, 1994), to exhibit correspondence bias in attitude attribution (D. M. Webster, 1993), to resist persuasive influence (Kruglanski, Webster, & Klem, 1993), and to reject opinion deviates (Kruglanski & Webster, 1991). If the theory of lay epistemics is correct, there are situational and dispositional factors that may encourage a general cognitive–motivational orientation toward the social world that is either open and exploratory or closed and immutable (Kruglanski & Webster, 1996).

To understand the hypothesized relation between need for closure and political conservatism (see also Golec, 2001; Jost et al., 1999), it is important to draw a distinction between the process of resisting change in general and the specific contents of and/or direction of the change. On one hand, the need for closure suggests a perpetuation of the reigning ideology, whatever its contents. Thus, increasing the need for closure among people whose accessible ideological positions are conservative would result in a stronger relation between need for closure and conservatism. Likewise, increasing the need for closure among people whose accessible ideological positions are liberal would result in a strengthened relation between need for closure and liberalism. In this sense, the lay epistemic theory supports the contention that rigidity of ideological attitudes may be associated with different ideological contents and is not necessarily restricted to right-wing conservatism (Rokeach, 1960).

On the other hand, persons with a high (vs. low) need for closure are hardly indifferent to ideological contents. Specifically, contents that promise or support epistemic stability, clarity, order, and uniformity should be preferred by high-need-for-closure persons over contents that promise their epistemic opposites (i.e., instability, ambiguity, chaos, and diversity). In this sense, a need for closure that is impartial or nonspecific (i.e., content free) becomes partial or specific with regard to contents that are explicitly related to closure (Kruglanski, 1989). To the extent that there is a match between the need for closure and certain politically conservative attitudinal contents, then conservative attitudes should be generally preferred by people who have a high need for closure (Jost et al., 1999).

Regulatory Focus Theory

Higgins (1997, 1998) proposed a regulatory focus theory that is pertinent to the psychology of conservatism. This theory distinguishes between two categories of desired goals, namely those related to advancement, growth, and aspirations (ideals) and those related to safety, security, and responsibilities (oughts). Distinct regulatory systems are presumed to address these two classes of goals. The promotion system reflects individuals' self-regulation in relation to their hopes and aspirations (ideals), and it gratifies nurturance needs. The goal of the promotion system is accomplishment. By contrast, the prevention system reflects self-regulation in relation to one's duties and obligations (oughts), and the goal of this system is safety. According to this theory, a parenting history of protection focusing on the avoidance of negative outcomes combined with the exercise of punishment as a disciplinary tool produces a strong prevention focus as a stable individual orientation. A parenting style of encouraging accomplishments by focusing on achieving positive outcomes and withdrawing love as a form of discipline produces a strong promotion focus as a stable individual orientation.

It is also plausible that an emphasis on prevention (vs. promotion) induces a heightened need for cognitive closure as one consequence of the craving for a secure and comprehensible reality. Like the theory of lay epistemics, regulatory focus theory leaves open the possibility of anchoring disproportionately on left-wing ideas (to the extent that a leftist ideology constitutes the status quo), but at the same time, the theory suggests a general preference by prevention-oriented, versus promotion-oriented, individuals for conservative over liberal ideologies, all else being equal. Finally, like the theory of lay epistemics, regulatory focus theory allows for situational as well as personality factors to drive the inclination toward conservatism.

Regulatory focus, then, has fairly obvious implications for individuals' attitudes toward stability and change, and perhaps even for left- versus right-wing preferences. Specifically, the promotion goals of accomplishment and advancement should naturally introduce a preference for change over stability, insofar as advancement

requires change. The prevention goals of safety and security, on the other hand, should favor stability over change, to the extent that stability entails predictability and hence psychological security and control. In signal-detection terms, a promotion focus is concerned with obtaining *hits* and avoiding *misses*, whereas a prevention focus is concerned with obtaining *correct rejections* and avoiding *false alarms*. Any change has the potential benefit of providing an opportunity for advancement and accomplishment (a hit) but has the potential cost of introducing an error of commission. Because such an error is of relatively low concern to persons with a promotion focus, they should be relatively open to change. By contrast, stability has the potential benefit of safety and security (a correct rejection) but has the potential cost of introducing an error of omission, which is of lesser concern to individuals with a prevention focus who, therefore, should be resistant to change. To the extent that political conservatism is motivated, at least in part, by the desire for security and stability and the avoidance of threat and change, situations inducing a prevention-oriented regulatory focus might also induce a conservative shift in the general population.

Terror Management Theory

A novel theoretical perspective suggests that conservative thoughts and behaviors may arise from motivations to make sense of the world and cope with existential crises inherent in the human experience. Terror management theory (Greenberg, Pyszczynski, & Solomon, 1986; Greenberg et al., 1990; Rosenblatt et al., 1989) posits that cultures and their attendant worldviews serve to buffer anxiety (and prevent terror) arising from the thoughts humans invariably have about their own mortality. According to terror management theory, which builds on the work of Ernest Becker (1973) and others, the denial of death is so prevalent that cultural institutions evolve as a way of coping with existential anxiety and human mortality. In this context, it is also worth noting that Wilson (1973d) listed fear of death as one of the threatening factors that might be associated with political conservatism.

Terror management theory holds that cultural worldviews or systems of meaning (e.g., religion) provide people with the means to transcend death, if only symbolically. The cornerstone of this position is that awareness of mortality, when combined with an instinct for self-preservation, creates in humans the capacity to be virtually paralyzed with fear (Arndt, Greenberg, Solomon, Pyszczynski, & Simon, 1997). Fear of death, in turn, engenders a defense of one's cultural worldview. Consequently, the theory predicts that if the salience of one's mortality is raised, the worldview will be more heavily endorsed to buffer the resulting anxiety (Greenberg et al., 1990; Rosenblatt et al., 1989). Under conditions of heightened mortality salience, defense and justification of the worldview should be intensified, thereby decreasing tolerance of opposing views and social, cultural, and political alternatives.

The relevance of terror management theory to the psychology of conservatism should be apparent. When confronted with thoughts of their own mortality (Greenberg et al., 1990; Rosenblatt et al., 1989), people appear to behave more conservatively by shunning and even punishing outsiders and those who threaten the status of cherished worldviews. This perspective is especially consistent with the notion of conservatism as motivated social cognition; terror management theory holds that social intolerance is the consequence of worldview-enhancing cognitions motivated by the need to buffer anxiety-inducing thoughts. It should be noted, however, that Greenberg et al. (1992) argued against a necessary relation between mortality salience and political conservatism. Acknowledging that most of the demonstrated effects of mortality salience have had a politically conservative or intolerant flavor, they nevertheless claimed that thoughts about death lead only to a defense of dominant values and that such values could be liberal or even, paradoxically, tolerant.

Ideological Theories of Individual and Collective Rationalization

The theories we review next differ somewhat from the cognitive–motivational process frameworks considered above. Whereas the cognitive–motivational theories focus on the individual and treat conservatism and related phenomena more or less exclusively as manifestations of epistemic and existential mechanisms, sociopolitical theories focus on the societal system and the ideological (as well as psychological) functions that political conservatism might fulfill. Theories of social dominance and system justification are useful not only for expanding the range of motives under consideration but also for clarifying the nature of the connection between political conservatism and racism, sexism, and ethnocentric intolerance (e.g., Altemeyer, 1998; Bahr & Chadwick, 1974; Jost & Banaji, 1994; Jost et al., 2001; Mercer & Cairns, 1981; Pratto, 1999; Sidanius et al., 1996; Whitley, 1999).

Social Dominance Theory

Unlike theories that seek to explain conservatism with reference to affective differences arising from parenting styles or childhood socialization, social dominance theory emphasizes evolutionary and societal factors as determinants of politically conservative (or "hierarchy-enhancing") orientations. According to social dominance theory, human societies strive to minimize group conflict by developing ideological belief systems that justify the hegemony of some groups over others (Pratto, 1999; Pratto et al., 1994; Sidanius, 1993; Sidanius & Pratto, 1999; Sidanius et al., 1996). This is achieved through the promulgation of various "legitimizing myths" such as the following: (a) "paternalistic myths," which assert that dominant groups are needed to lead and take care of subordinate groups, who are incapable of leading and taking care of themselves; (b) "reciprocal myths," which claim that a symbiotic relationship exists between dominant and subordinate groups and that both groups help each other; and (c) "sacred myths," which allege that positions of dominance and subordination are determined by God or some other divine right (see Sidanius, 1993, pp. 207–209). Ideological devices such as these are inherently conservative in content because they seek to preserve existing hierarchies of status, power, and wealth and to prevent qualitative social change (e.g., Sidanius & Pratto, 1999).

Social dominance theory holds that attitudes pertaining to social dominance are determined jointly by biology and socialization and that there are important individual differences among people with regard to SDO (e.g., Pratto et al., 1994; Sidanius & Pratto, 1999). Items from the SDO Scale tap agreement or disagreement with statements such as the following: "Some people are just more worthy than others"; "It is not a problem if some people have more of a chance in life"; and "This country would be better off if we cared less about how equal all people are." Thus, the SDO Scale

measures individual differences with respect to the motivated tendency to preserve the dominance of high-status groups such as men (rather than women), Whites (rather than Blacks and other ethnic minorities), and upper-class elites (rather than the working class). Jost and Thompson (2000) demonstrated that the SDO Scale is composed of two correlated factors or subscales, namely the desire for group-based dominance and opposition to equality. Although social dominance motives are said to be universal (e.g., Sidanius & Pratto, 1993), their strength differs considerably across groups and individuals (e.g., Jost & Thompson, 2000; Pratto, 1999; Pratto et al., 1994).

Correlations between SDO scores and those of conventional measures of political and economic conservatism average approximately .30 in a variety of national and cultural contexts (Altemeyer, 1998; Pratto, 1999; Pratto et al., 1994; Sidanius et al., 1996; Whitley & Lee, 2000). Scores on the scale have been found also to correlate reliably with identification with the Republican party, nationalism, cultural elitism, anti-Black racism, sexism, RWA, and the belief in a just world (Altemeyer, 1998; Pratto et al., 1994). The scale predicts policy attitudes that are supportive of "law and order," military spending, and capital punishment, as well as attitudes that are unsupportive of women's rights, racial equality, affirmative action, gay and lesbian rights, and environmental action (see Jost & Thompson, 2000; Pratto et al., 1994). It is of theoretical interest that, in addition to the notion of legitimizing the status quo, social dominance theory also implies the notion that increasing the degree of hierarchy or group dominance is a motivationally appealing ideological goal at least under some circumstances, such as when one belongs to a high-status group (Altemeyer, 1998; Pratto, 1999; Sidanius & Pratto, 1999).

In a very useful discussion, Altemeyer (1998) distinguished between the motivational bases of RWA and SDO. He argued that RWA best accounts for passive deference or submission to authoritarian or fascist leaders—including the tendency to "trust unworthy people who tell them what they want to hear" (Altemeyer, 1998, p. 87), whereas SDO best accounts for more active attempts to punish or humiliate derogated out-group members, that is, the desire to "become the alpha animal" (Altemeyer, 1998, p. 87). Altemeyer (1998) compared the two motivational types as follows:

> Right-wing authoritarians, who do *not* score high on [personal power, meanness, and dominance], seem to be highly prejudiced mainly because they were raised to travel in tight, ethnocentric circles; and they fear that authority and conventions are crumbling so quickly that civilization will collapse and they will be eaten in the resulting jungle. In contrast, High SDO's *already* see life as "dog eat dog" and—compared with most people—are determined to do the eating. (p. 75)

The point is that RWA and SDO—which correlate only modestly at about .20 (Altemeyer, 1998, p. 87; Sidanius & Pratto, 1999, p. 74; Whitley, 1999, p. 129)—may be motivated by somewhat different concerns, but they are both highly motivated ideologies. Together, they account for both halves of the "dominance-submissive authoritarian embrace" (Altemeyer, 1998, p. 47), and they predict more than half of the statistical variance in prejudice and ethnocentrism. One can therefore infer that the most inexorable right-wingers are those who are motivated simultaneously by fear and aggression.

System Justification Theory

We have shown above that most traditional personality theories about the functions of conservative ideology, especially theories of authoritarianism, dogmatism, and anxiety reduction, stress ego-defensive or ego-justifying aspects of conservatism, that is, the satisfaction of individual needs for security, obedience, and projection (e.g., Adorno et al., 1950; Altemeyer, 1981, 1988; Rokeach, 1960; Wilson, 1973c). Although ego-justifying motives constitute an important part of the appeal of conservatism, there are also group-justifying and system-justifying motives that are satisfied in a particularly efficient manner by right-wing ideologies (Jost & Banaji, 1994; Jost & Thompson, 2000). Social dominance theory, for example, stresses the emergence of conservative legitimizing myths as group-justifying attempts to rationalize the interests of dominant or high-status group members (Sidanius & Pratto, 1999). System justification theory focuses on the motivated tendency for people to do cognitive and ideological work on behalf of the social system, thereby perpetuating the status quo and preserving inequality (e.g., Jost, 1995; Jost & Banaji, 1994).

One of the central goals of system justification theory is to understand how and why people rationalize the existing social system, especially when their support appears to conflict with other important motives to maintain or enhance self-esteem and to maintain or enhance group standing (e.g., Jost & Banaji, 1994; Jost & Burgess, 2000; Jost & Thompson, 2000). The theory draws partially on Marxian and feminist theories of dominant ideology and on sociological theories of legitimization to explain the acceptance of conservative ideas and practices (Jost, 1995; Jost et al., 2001). It also draws on ideas from cognitive dissonance theory (Festinger, 1957) and just world theory (Lerner, 1980) to argue that people are motivated to perceive existing social arrangements as fair, legitimate, justifiable, and rational, and perhaps even natural and inevitable.

The theory of system justification is especially well suited to address relatively puzzling cases of conservatism and right-wing allegiance among members of low-status groups, such as women and members of the working class (e.g., Lane, 1962; Lipset, 1960/1981; Stacey & Green, 1971). To the extent that nearly everyone is motivated (at least to some extent) to explain and justify the status quo in such a way that it is perceived as fair and legitimate, political conservatism should cut across social classes (e.g., Jost & Banaji, 1994; Kluegel & Smith, 1986). This is consistent with the analysis of Rossiter (1968), who observed, "Situational conservatism is not confined to the well-placed and well-to-do. Persons at all levels of being and possessing may lament change in the status quo" (p. 291).

The strongest form of the system justification hypothesis, which draws also on the logic of cognitive dissonance theory, is that under certain circumstances members of disadvantaged groups would be even more likely than members of advantaged groups to support the status quo (see Jost et al., 2003). If there is indeed a motivation to justify the system to reduce ideological dissonance and defend against threats to the system's legitimacy, then it may be that those who suffer the most because of the system are also those who would have the most to explain, justify, and rationalize. One way to minimize dissonance would be to redouble one's commitment and support for the system, much as hazed initiates pledge increased loyalty to the fraternity that hazes them (e.g.,

Aronson & Mills, 1959) and, presumably, to the fraternity system in general.

An additional hypothesis that may be derived from system justification theory is that people should be motivated to defend the existing social system against threats to the stability or legitimacy of the system. If there is a defensive motivation associated with system justification, then it should be more pronounced under circumstances that threaten the status quo. This is a possibility that was suggested by early accounts of authoritarianism (e.g., Adorno et al., 1950; Fromm, 1941; Reich, 1946/1970; Sanford, 1966), but situational threats have received much less attention in recent years in comparison with the measurement of individual differences (but see Sales, 1972, 1973). Thus, we hypothesized that situations of crisis or instability in society will, generally speaking, precipitate conservative, system-justifying shifts to the political right, but only as long as the crisis situation falls short of toppling the existing regime and establishing a new status quo for people to justify and rationalize.

A Theoretical Integration of Epistemic, Existential, and Ideological Motives

Although we maintain distinctions among specific hypotheses for the purposes of assessing cumulative empirical evidence for and against each, one of the virtues of our motivated social–cognitive perspective is that it helps to integrate seemingly unrelated motives and tendencies. Specifically, we argue that a number of different epistemic motives (dogmatism–intolerance of ambiguity; cognitive complexity; closed-mindedness; uncertainty avoidance; needs for order, structure, and closure), existential motives (self-esteem, terror management, fear, threat, anger, and pessimism), and ideological motives (self-interest, group dominance, and system justification) are all related to the expression of political conservatism. Now we draw on the perspective of motivated social cognition to advance the integrative argument that epistemic, existential, and ideological motives are themselves interrelated.

Theoretical and empirical considerations lead us to conclude that virtually all of the above motives originate in psychological attempts to manage uncertainty and fear. These, in turn, are inherently related to the two core aspects of conservative thought mentioned earlier—resistance to change and the endorsement of inequality. The management of uncertainty is served by resistance to change insofar as change (by its very nature) upsets existing realities and is fraught with epistemic insecurity. Fear may be both a cause and a consequence of endorsing inequality; it breeds and justifies competition, dominance struggles, and sometimes, violent strife. Epistemic motives, by definition, govern the ways in which people seek to acquire beliefs that are certain and that help to navigate social and physical worlds that are threateningly ambiguous, complex, novel, and chaotic. Thus, epistemic needs affect the style and manner by which individuals seek to overcome uncertainty and the fear of the unknown (e.g., Kruglanski, 1989; Rokeach, 1960; Sorrentino & Roney, 2000; Wilson, 1973c).[6]

Existential motives, too, involve a desire for certainty and security that is associated with resisting rather than fostering change. Empirical work demonstrates that uncertainty-related threats and mortality salience have similar and compatible effects on social and political attitudes, suggesting that epistemic and existential motives are in fact highly interrelated (e.g., Dechesne,

Janssen, & van Knippenberg, 2000; McGregor, Zanna, Holmes, & Spencer, 2001). Epistemic commitments, it seems, help to resolve existential conflicts, and existential motives affect the search for knowledge and meaning. Insofar as knowledge and meaning are derived from extant cultural arrangements and conventionally accepted definitions of reality, the terror arising from the possibility of one's own demise may induce resistance to change (Greenberg, Porteus, Simon, & Pyszczynski, 1995; Greenberg et al., 1990).

Ideological beliefs, it has often been noted, help to reduce uncertainty and mitigate feelings of threat and worthlessness (e.g., Abelson, 1995; Adorno et al., 1950; Altemeyer, 1998; Kluegel & Smith, 1986; Lane, 1962; Rokeach, 1960; Sanford, 1966; Tomkins, 1963, 1965; Wilson, 1973c). That is, people embrace ideological belief systems at least in part because they inspire conviction and purpose. Even more specifically, it has been argued that needs for system justification arise from the motivated desire to reduce uncertainty (Hogg & Mullin, 1999), and the belief in a just world has been linked to epistemic needs to increase prediction and control and to existential needs to maintain self-esteem and provide meaning and a sense of security (e.g., Kluegel & Smith, 1986; Lerner, 1980). Authoritarianism has long been associated with rigid and dogmatic thinking styles (e.g., Altemeyer, 1998; Frenkel-Brunswik, 1948, 1949; Rokeach, 1960) and with a variety of internal and external threats (e.g., Adorno et al., 1950; McGregor et al., 2001; Sales, 1972, 1973). One of the most consistent and enduring targets of right-wing criticism has been immigration, which is often experienced as frightening, confusing, and potentially threatening to the status quo. Describing the increase in right-wing popularity in Europe following the terrorist attacks on New York and Washington of September 11, 2001, Cowell (2002) wrote that "the right appears to be benefiting from a deep-seated fear that Western Europe—cozy and prosperous—is the target of a wave of chaotic immigration" from Africa and the Middle East.

Fear, aggression, threat, and pessimism, we propose, may be reciprocally related to the endorsement of inequality. Insofar as inequality seems intrinsically linked to the struggle for dominance (Sidanius & Pratto, 1999), its engagement may exact a price in the form of fear, anxiety, and suspiciousness. Fear, in turn, may be (temporarily) allayed by admitting the reality of threat and preparing to address it by single-mindedly confronting one's foes (real or imaginary) and hence embracing inequality as a social necessity.[7]

In summary, then, we argue that fear and uncertainty are centrally linked to the core convictions of political conservatives to resist change and justify inequality, especially to the extent that the status quo breeds inequality. Whereas a plethora of motives (discussed earlier) might prompt individuals to embrace a specific

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[6] As suggested by an anonymous reviewer, it is also possible that conservatives do not fear uncertainty per se but rather are especially concerned with minimizing future negative outcomes. In this sense, it may be that a pessimistic, risk-averse prevention orientation characterizes conservatives' thinking about uncertain outcomes, which may explain why they would, for example, adopt a worst case scenario perspective with regard to military foreign policy.

[7] Although the attainment of certainty and defense against threat represent conceptually distinguishable concerns, there is a sense in which certainty is also served by inequality in the epistemic domain, namely by revering epistemic authorities (Ellis & Kruglanski, 1992), whose pronouncements may afford a quick sense of certainty.

form of conservative ideology, the core aspects of conservatism seem especially appealing to people who are situationally or dispositionally prone to experience fear or to find uncertainty aversive. Thus, a motivated social–cognitive perspective allows for the theoretical integration of a large number of variables that are relevant to overcoming fear and uncertainty in an effort to provide a coherent, though incomplete, psychological portrait of political conservatives.

Evidence Linking Epistemic, Existential, and Ideological Motives to Political Conservatism

We have reviewed several theories of individual differences, epistemic and existential needs, and individual and collective rationalization to arrive at eight specific hypotheses concerning the motivated social–cognitive bases of political conservatism. In what follows, we consider evidence for and against the hypotheses that political conservatism is significantly associated with (1) mental rigidity and closed-mindedness, including (a) increased dogmatism and intolerance of ambiguity, (b) decreased cognitive complexity, (c) decreased openness to experience, (d) uncertainty avoidance, (e) personal needs for order and structure, and (f) need for cognitive closure; (2) lowered self-esteem; (3) fear, anger, and aggression; (4) pessimism, disgust, and contempt; (5) loss prevention; (6) fear of death; (7) threat arising from social and economic deprivation; and (8) threat to the stability of the social system. We have argued that these motives are in fact related to one another psychologically, and our motivated social–cognitive perspective helps to integrate them. We now offer an integrative, meta-analytic review of research on epistemic, existential, and ideological bases of conservatism.

The data for our review come from 38 journal articles, 1 monograph, 7 chapters from books or annual volumes, and 2 conference papers involving 88 different samples studied between 1958 and 2002. Some of the original data are derived from archival sources, including speeches and interviews given by politicians and opinions and verdicts rendered by judges, whereas others are taken from experimental, field, or survey studies. The total number of research participants and individual cases is 22,818 (see Table 1). The data come from 12 different countries, with 59 of the samples (or 67% of the total) coming from the United States. The remaining samples were studied in England ($n = 8$), New Zealand (4), Australia (3), Poland (3), Sweden (2), Germany (2), Scotland (2), Israel (2), Italy (1), Canada (1), and South Africa (1). Sixty percent of the samples are exclusively composed of college or university student populations, but they account for only 37% of the total number of research participants included in our review. The remaining samples include family members, high school students, student teachers, adult extension students, nonstudent adults, professionals, politicians, judges, political activists, and religious ministers. Only one of our hypotheses (concerning system instability) was assessed exclusively with samples from the United States, and only one other hypothesis (concerning self-esteem) was assessed exclusively with student samples (including one sample of adult education students).

Epistemic Motives

By far the most convincing research on left–right differences pertains to epistemic motives associated with mental rigidity and

Table 1

Characteristics of Samples and Participants Used in Meta-Analysis

Characteristic	No. of samples	No. of cases/participants
Country of sample		
Australia	3	1,042
Canada	1	354
England	8	1,330
Germany	2	571
Israel	2	279
Italy	1	178
New Zealand	4	998
Poland	3	368
Scotland	2	58
South Africa	1	233
Sweden	2	326
United States	59	17,081
Total	87	22,818
Type of sample		
Exclusively undergraduates	53	8,522
Not exclusively undergraduates	35	14,296
Total	88	22,818

closed-mindedness. The notion that political conservatives are less flexible in their thinking than others originated with work on authoritarianism (Adorno et al., 1950), intolerance of ambiguity (Frenkel-Brunswik, 1949), and dogmatism (Rokeach, 1960), and it also played a defining role in Wilson (1973c) and colleagues' conception of conservatism as uncertainty avoidance. Christie (1954) reported significant negative correlations ranging from –.20 to –.48 between IQ and scores on the F-Scale, but researchers since then have focused on differences in cognitive style rather than ability. Research on cognitive sophistication and integrative complexity provides the soundest basis for evaluating claims linking epistemic motivation to political ideology (e.g., Gruenfeld, 1995; Sidanius, 1985, 1988; Tetlock, 1983, 1984). Recent work on personal need for structure (Schaller et al., 1995) and the need for cognitive closure (D. M. Webster & Kruglanski, 1994) helps to complete the picture.

Dogmatism

A long-standing controversy within the psychological study of ideology has to do with whether intolerance, closed-mindedness, and cognitive simplicity are associated more with right-wing attitudes than with left-wing attitudes (e.g., Eysenck, 1954; Eysenck & Wilson, 1978; Sidanius, 1985, 1988; Tetlock, 1983, 1984; Wilson, 1973c). An early and persistent criticism of the work on authoritarianism, for example, has been that, in its zeal to identify right-wing dogmatism, it has failed to diagnose the dogmatism of the left (e.g., Rokeach, 1960; Shils, 1954). Over the years, there have been numerous backers of both the rigidity-of-the-right hypothesis (e.g., Altemeyer, 1981; Christie, 1956) and the more symmetrical extremist-as-ideologue hypothesis (e.g., Ray, 1973; Shils, 1954). W. F. Stone (1980) concluded that there was virtually no evidence for the syndrome of left-wing authoritarianism and that rigidity and closed-mindedness were consistently associated more with conservative thinking styles than with their alternatives. This position has been echoed by Altemeyer (1981, 1998) and Billig (1984), among others.

This is not to say that there is no such thing as leftist extremism or dogmatism (see Barker, 1963), but even when researchers have identified an increase in dogmatism among leftists in comparison with moderates, the highest dogmatism scores are still obtained for conservatives. Rokeach's (1956) Dogmatism Scale, which has been widely used in the psychological literature, contains such ideologically neutral items as the following: "A man who does not believe in some great cause has not really lived"; "Of all the different philosophies which exist in this world there is probably only one which is correct"; and "To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side." Because the items measure general epistemic attitudes rather than specific political opinions, dogmatism is included in our review as a psychological variable predicting political contents rather than as a political dependent variable.

Even though it is measured in an ideologically neutral way, dogmatism has been found to correlate consistently with authoritarianism, political–economic conservatism, and the holding of right-wing opinions (Barker, 1963; Christie, 1991; Elms, 1969; Pettigrew, 1958; Rokeach, 1960; Smithers & Lobley, 1978; Stacey & Green, 1971). Thus, more support exists for the rigidity-of-the-right hypothesis than for its alternatives. In commenting on Shils's (1954) critique, Altemeyer (1998) concluded,

> I have yet to find a single "socialist/Communist type" who scores highly (in absolute terms) on the [Left-Wing Authoritarianism] Scale. Shils may have been right about his era, but the "authoritarian on the left" has been as scarce as hens' teeth in my samples. (p. 71)

Evidence suggests that dogmatism has been no more useful than the construct of authoritarianism for identifying rigidity of the left (see Table 2), but this has not deterred researchers from considering the possibility. Following Rokeach's (1960) lead, numerous investigators have brought a variety of methods and theories to bear on the general question of whether political conservatives are more closed-minded (i.e., mentally rigid, intolerant of ambiguity, complexity, etc.) than are liberals, moderates, and others.

Intolerance of Ambiguity

Research on ambiguity tolerance waxed and waned from the early 1950s to the late 1970s, using a wide range of measurement techniques (e.g., Block & Block, 1950; Budner, 1962; Eysenck, 1954; Feather, 1969, Sidanius, 1978, 1985). Frenkel-Brunswik (1949) assessed ambiguity tolerance using case study material obtained in interviews. Block and Block (1950) measured tolerance of ambiguity by the number of trials a participant took to establish an individual perceptual norm in the autokinetic paradigm. A number of questionnaire measures of ambiguity tolerance were devised (see Furnham & Ribchester, 1995, for a review), the first being Walk's A Scale, reproduced by O'Connor (1952). Similar tests were developed by Eysenck (1954) and Budner (1962), among others.

As hypothesized by Frenkel-Brunswik (1948), intolerance of ambiguity has been found to correlate positively with ethnocentrism (O'Connor, 1952) and authoritarianism (e.g., Kenny & Ginsberg, 1958; Pawlicki & Almquist, 1973). At least a few studies, which are summarized in Table 2, provide support for the notion that intolerance of ambiguity is associated with political conservatism (e.g., Kirton, 1978; Kohn, 1974; Sidanius, 1978). A study of Israeli university students by Fibert and Ressler (1998) found that intolerance of ambiguity scores were indeed significantly higher among moderate and extreme right-wing students compared with moderate and extreme left-wing students. The notion that conservatism is associated with intolerance of ambiguity is consistent with a great many theories, and it is implicit in ideological theories of integrative complexity. It may also provide a psychological context for understanding statements such as this one made by George W. Bush at an international conference of world leaders in Italy: "I know what I believe and I believe what I believe is right" (Sanger, 2001).[8] Our review suggests that there is a relatively strong connection between dogmatism and intolerance of ambiguity, on the one hand, and various measures of political conservatism, on the other. The weighted mean effect size (r), aggregated across 20 tests of the hypothesis conducted in five different countries involving more than 2,000 participants (see Table 2), was .34 ($p < .0001$).[9]

Integrative Complexity

There is by now a relatively large and methodologically sophisticated body of work that addresses left-wing and right-wing differences in cognitive complexity (e.g., Gruenfeld, 1995; Sidanius, 1984, 1985, 1988; Tetlock, 1983, 1984). Content-analytic techniques have been developed to measure integrative complexity, which refers to the extent of differentiation among multiple perspectives or dimensions and the higher order integration or synthesis of these differentiated components (e.g., Tetlock, 1983, 1984). Whereas prior research assessing dogmatism and rigidity among different ideological groups primarily made use of respondents drawn from the population as a whole, Tetlock's (1983, 1984; Tetlock et al., 1985) work on integrative complexity has focused on thinking styles among political elites.

In an inventive series of studies, Tetlock (1983, 1984) and his collaborators (Tetlock et al., 1985) analyzed archival data drawn from speeches and interviews with political elites. The results are often taken as evidence for Shils's (1954) contention that ideologues of the extreme left and extreme right are more dogmatic and closed-minded than political centrists, and some of the findings (e.g., Tetlock, 1984) do suggest that extreme leftists show less cognitive complexity than moderate leftists. At the same time, however, there is a clear indication in Tetlock's data that conservative ideologues are generally less integratively complex than their liberal or moderate counterparts (see Table 3). For example, a study of U.S. senatorial speeches in 1975 and 1976 indicates that politicians whose voting records were classified as either liberal or moderate showed significantly more integrative complexity than did politicians with conservative voting records, even after controlling for political party affiliation (Tetlock, 1983). These results were replicated almost exactly in a study of U.S. Supreme Court justices by Tetlock et al. (1985). In neither of these studies were liberals found to be significantly less (or more) complex in their

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[8] On another occasion, President Bush informed a British reporter: "Look, my job isn't to try to nuance. . . . My job is to tell people what I think" (Sanger, 2002).

[9] In all cases, mean rs and weighted mean rs are based on Fisher's z conversions, following procedures recommended by Rosenthal (1991). Effect sizes have been weighted by $n - 3$, as recommended by Rosenthal (1991). Confidence intervals for weighted mean rs were calculated using the formula recommended by Cooper (1998, p. 140).

Table 2
Correlations Between Dogmatism–Intolerance of Ambiguity and Political Conservatism

Psychological variable	Political variable	Pearson's *r*	Cohen's *d*	Source	Sample characteristic
Dogmatism	F-Scale (fascism)	.82***	2.87	Pettigrew (1958)	49 female University of North Carolina undergraduates
		.56**	1.35	Rokeach (1960)[a]	13 members of the student Communist Society, University College, England
	Political–economic conservatism	.13*	0.26	Rokeach (1960)	202 Michigan State University undergraduates
		.11	0.22	Rokeach (1960)	207 New York University and Brooklyn College undergraduates
		.20**	0.41	Rokeach (1960)	153 Michigan State University undergraduates
		.28***	0.58	Rokeach (1960)	186 Michigan State University undergraduates
	Authoritarianism–rebelliousness	.48***	1.09	Kohn (1974)	62 University of Reading undergraduates, England
	Conservatism–radicalism	.20***[b]	0.41	Smithers & Lobley (1978)	295 University of Bradford undergraduates, England
	C-Scale	.58***	1.42	A.C. Webster & Stewart (1973)	93 Protestant ministers, New Zealand
	C-Scale (short form)	.44***	0.98	Kirton (1978), Sample 1	286 adults, England
		.47***	1.06	Kirton (1978), Sample 2	276 adults, England
Category specificity	F-Scale (fascism)	−.03	−0.06	Pettigrew (1958)	49 female University of North Carolina undergraduates
Inflexibility	C-Scale (short form)	.59***	1.46	Kirton (1978), Sample 1	286 adults, England
		.54***	1.28	Kirton (1978), Sample 2	276 adults, England
Intolerance of ambiguity	C-Scale (short form)	.59***	1.46	Kirton (1978), Sample 1	286 adults, England
		.59***	1.46	Kirton (1978), Sample 2	276 adults, England
	Authoritarianism–rebelliousness	.67***	1.81	Kohn (1974)	62 University of Reading undergraduates, England
	General Conservatism Scale	.27***	0.56	Sidanius (1978)	192 high school students, Stockholm, Sweden
	Political–economic conservatism	.06	0.12	Sidanius (1978)	192 high school students, Stockholm, Sweden (same sample)
	Right-wing political orientation	.41***[c]	0.89	Fibert & Ressler (1998)	159 second year students, Ben-Gurion University, Israel
Mean effect size		.37***	0.82		Total (unique) N[d] = 2,173
Weighted mean effect size		.34***	0.73		
95% confidence interval		.30, .37			

Note. F-Scale = Fascism Scale; C-Scale = Conservatism Scale.
[a] Rokeach (1960, pp. 88, 121) reported correlations between dogmatism and the F-Scale ranging from .54 to .77 for multiple large samples drawn from England, New York, and Ohio. However, the samples could not be matched to correlation coefficients based on his report.   [b] Pearson's *r* was derived from the originally reported F statistic, $F(1, 292) = 12.50, p < .001$.   [c] Pearson's *r* was derived from the originally reported F statistic, $F(1, 158) = 31.52, p < .001$.   [d] When multiple tests were computed on the same sample, the sample was counted only once in the calculation of total (unique) *N*, mean effect sizes (weighted and nonweighted), and overall significance levels. Multiple effect sizes drawn from the same sample were averaged prior to inclusion in calculations of overall average effect sizes.
* $p < .10$.   ** $p < .05$.   *** $p < .001$. (All tests two-tailed, converted from one-tailed tests when necessary.)

thinking than were moderates. Gruenfeld (1995), however, failed to replicate Tetlock's (1983, 1984) results after controlling for majority versus minority opinion status; she obtained no significant differences between liberals and conservatives on integrative complexity.

Additional evidence does suggest that an overall main effect relationship holds between cognitive complexity and political con-

servatism. Tetlock's (1984) study of members of the British House of Commons revealed a moderate negative correlation between integrative complexity and ideological conservatism ($r = -.30, p < .01$). He found that the most integratively complex politicians were moderate socialists, who scored significantly higher on complexity than extreme socialists, moderate conservatives, and extreme conservatives. Tetlock, Hannum, and Micheletti (1984)

Table 3

Correlations Between Integrative Complexity and Political Conservatism

Psychological variable	Political variable	Pearson's r	Cohen's d	Source	Sample characteristic
Integrative complexity	Conservative voting record	−.44***[a]	−0.98	Tetlock (1983)	Speeches from 45 Senators, USA
	Conservative political party and orientation	−.30***	−0.63	Tetlock (1984)	Interviews with 87 members of the House of Commons, England
	Conservative voting record and orientation	−.61****[b]	−1.54	Tetlock et al. (1984), Sample 1	Speeches from 35 Senators, 82nd Congress, USA
		−.38**[c]	−0.82		Speeches from 35 Senators, 83rd Congress, USA (same sample)
		−.45***[d]	−1.01	Tetlock et al. (1984), Sample 2	Speeches from 45 Senators, 94th Congress, USA
		−.46***[e]	−1.04		Speeches from 45 Senators, 96th Congress, USA (same sample)
		.00[f]	0.00		Speeches from 45 Senators, 97th Congress, USA (same sample)
	Conservative voting record (civil liberties)	−.47**	−1.06	Tetlock et al. (1985)	Opinions from 23 Supreme Court justices, USA
	Conservative voting record (economic issues)	−.48**	−1.09	Tetlock et al. (1985)	Opinions from 23 Supreme Court justices, USA (same sample)
	Conservative voting record and orientation	.19[g]	0.39	Gruenfeld (1995), Sample 1	16 Supreme Court justices, USA
		.13[h]	0.26	Gruenfeld (1995), Sample 2	32 Supreme Court opinions, USA
		.00[i]	0.00	Gruenfeld (1995), Sample 3	24 Supreme Court cases, USA
Cognitive flexibility					
Measure 1	General Conservatism Scale	−.19**	−0.39	Sidanius (1985)	134 high school students, Stockholm, Sweden
Measure 2		−.16*	−0.32	Sidanius (1985)	134 high school students, Stockholm, Sweden (same sample)
Measure 3		−.11	−0.22	Sidanius (1985)	134 high school students, Stockholm, Sweden (same sample)
Cognitive complexity					
Measure 1		−.11	−0.22	Sidanius (1985)	134 high school students, Stockholm, Sweden (same sample)
Measure 2		−.01	−0.02	Sidanius (1985)	134 high school students, Stockholm, Sweden (same sample)
Ordination	C-Scale	−.23**[j]	−0.47	Hinze et al. (1997)	84 University of North Texas undergraduates
Functionally independent constructs		.00[k]	0.00	Hinze et al. (1997)	84 University of North Texas undergraduates (same sample)
Attributional complexity	RWA Scale	−.17***	−0.35	Altemeyer (1998)	354 University of Manitoba undergraduates, Canada
	SDO Scale	−.19****	−0.39	Altemeyer (1998)	354 University of Manitoba undergraduates, Canada (same sample)
Mean effect size		−.20****	−0.43		Total (unique) N^l = 879
Weighted mean effect size		−.20****	−0.41		
95% confidence interval		−.13, −.26			

Note. C-Scale = Conservatism Scale, RWA = Right-Wing Authoritarianism; SDO = Social Dominance Orientation.
[a] A partial r was derived from the originally reported beta statistic, $\beta = .35$, $t(39) = 3.02$, according to the formula: $r = \sqrt{t^2/(t^2 + df)}$. [b] Pearson's r was derived from the mean (Fisherized) effect size of two originally reported F statistics, one for the difference between liberals and conservatives, $F(1, 32) = 23.37$, $p < .001$, and one for the difference between moderates and conservatives, $F(1, 32) = 15.24$, $p < .001$. [c] Pearson's r was derived from the mean (Fisherized) effect size of two originally reported F statistics, one for the difference between liberals and conservatives, $F(1, 32) = 2.13$, $p < .25$, and one for the difference between moderates and conservatives, $F(1, 32) = 10.70$, $p < .01$. [d] Pearson's r was derived from the mean (Fisherized) effect size of two originally reported F statistics, one for the difference between liberals and conservatives, $F(1, 84) = 16.39$, $p < .0001$, and one for the difference between moderates and conservatives, $F(1, 84) = 12.70$, $p < .001$. [e] Pearson's r was derived from the mean (Fisherized) effect size of two originally reported F statistics, one for the difference between liberals and conservatives, $F(1, 84) = 21.68$, $p < .01$, and one for the difference between moderates and conservatives, $F(1, 84) = 23.61$, $p < .01$. [f] Tetlock et al. (1984) reported that "No significant differences existed among ideological groups in this Congress" (p. 984), so we made the conservative assumption that $r = .0$. [g] Gruenfeld (1995) reported that $F < 1.00$ for the difference between liberals ($M = 1.64$) and conservatives ($M = 1.76$), so we calculated Pearson's r on the assumption that $F = 0.50$. [h] Gruenfeld (1995) reported that $F < 1.00$ for the difference between liberals ($M = 1.38$) and conservatives ($M = 1.56$), so we calculated Pearson's r on the assumption that $F = 0.50$. [i] Gruenfeld (1995) reported no statistics for the difference between liberals ($M = 1.460$) and conservatives ($M = 1.465$), so we made the assumption that $r = 0$. [j] Pearson's r was derived from the originally reported F statistic, $F(1, 82) = 4.59$, $p = .035$. [k] Pearson's r was derived from the originally reported F statistic, $F(1, 82) = 0.007$, $p = .935$. The precise r would have been .01, but the direction of the effect was not specified by Hinze et al. (1997).
[l] When multiple tests were computed on the same sample, the sample was counted only once in the calculation of total (unique) N, mean effect sizes (weighted and nonweighted), and overall significance levels. Multiple effect sizes drawn from the same sample were averaged prior to inclusion in calculations of overall average effect sizes.
* $p < .10$.   ** $p < .05$.   *** $p < .01$.   **** $p < .001$. (All tests two-tailed, converted when necessary.)

compared the speeches of liberals and conservatives in five separate U.S. congressional sessions. They found that liberals and moderates scored significantly higher than conservatives on integrative complexity in all three Democratic-controlled Congresses. Of the two examinations by Tetlock et al. (1984) of Republican-controlled Congresses, one revealed no differences among liberals, conservatives, and moderates, and the other indicated that moderates exhibited significantly greater complexity than conservatives, whereas liberals did not differ from the other two groups. The authors concluded that their findings "lend indirect support to the rigidity-of-the-right hypothesis" and that a "general trait interpretation of integrative complexity appears to apply more readily to conservatives than to liberals and moderates" (p. 987).

Sidanius (1984, 1985, 1988) proposed context theory as an alternative to the notions that cognitive sophistication is lower among right-wing proponents or among extremist ideologues of either side (see also Sidanius & Lau, 1989). Briefly, his argument was that the relation between cognitive complexity and conservatism should depend on which specific subdimension of conservatism one is dealing with and the psychological function that is related to that subdimension. With regard to political–economic conservatism, Sidanius (1985) hypothesized that because of greater political interest and commitment, extremists of the right and left would "display *greater* [italics added] cognitive complexity, flexibility, and tolerance of ambiguity than political 'moderates'" (p. 638). By contrast, with regard to conservative social attitudes concerning issues of race and immigration, Sidanius (1985) predicted (and found) that cognitive complexity would be negatively and monotonically related to conservatism. Other evidence in support of context theory includes findings from the United States and Sweden that right- and left-wing extremists (on political and economic issues) are more likely than moderates to express political interest and to engage in active information search (Sidanius, 1984), to exhibit cognitive complexity (Sidanius, 1985, 1988), and to report high levels of self-confidence and willingness to deviate from social convention (Sidanius, 1988). It is important to note, however, that at least two studies (Sidanius, 1978, 1985) yield greater support for the notion that cognitive flexibility decreases in a linear fashion with increasing general conservatism than they did for any curvilinear prediction. Unfortunately, the studies listed in Table 3 do not provide sufficient statistical information to allow a meta-analytic test for the presence of a quadratic trend in the overall data. However, inspection of the means reported in these studies strongly suggests that the overall trend is linear rather than curvilinear, with liberals exhibiting the highest levels of integrative complexity and flexibility. Overall, we obtained a weighted mean effect size (*r*) of –.20 (*p* < .0001) for 21 tests of the relation between integrative complexity and political conservatism, assessed in four different national contexts (see Table 3).

Openness to Experience

Wilson's (1973b) psychological theory of conservatism assumes, among many other things, that conservatives are less inclined to seek out strong external stimulation in the form of other people as well as in the form of nonsocial stimuli. He interpreted findings indicating that conservatives score lower on measures of extraversion as consistent with this formulation (Wilson, 1973b, p. 262). Somewhat more direct evidence was provided by Kish (1973), who found that conservatives scored lower than others on measures of general sensation seeking (see Table 4). Joe, Jones, and Ryder (1977) obtained a correlation of –.38 between scores on an Experience Inventory Scale (including subscales of Aesthetic Sensitivity, Openness to Theoretical or Hypothetical Ideas, Indulgence in Fantasy, and Openness to Unconventional Views of Reality) and scores on Wilson and Patterson's (1968) C-Scale. A follow-up study by Joe et al. revealed that conservatives were also less likely than nonconservatives to volunteer for psychology experiments that required openness to experience (i.e., experiments on aesthetic interest, fantasy production, and sexual behavior) but not for experiments on decision making and humor. These findings are consistent with other research indicating that conservatives are less likely than others to value broad-mindedness, imagination, and "having an exciting life" (Feather, 1979, 1984).

One of Costa and MacRae's (1985) Big Five dimensions of personality addresses openness to experience. Pratto et al. (1994) found that openness to experience was correlated with low scores on the SDO Scale in at least one of their samples (*r* = –.28, *p* < .01). Jost and Thompson (2000) administered the Big Five inventory along with the Economic System Justification Scale to a sample of 393 students at the University of Maryland at College Park, and they found that system justification was associated with lower levels of openness to experience (*r* = –.19, *p* < .001). Peterson and Lane (2001), too, found that openness to experience was negatively correlated with RWA scores in a sample of college students that they followed for 4 years. Correlational results from 21 tests conducted in the United States and Australia (see Table 4) provide consistent evidence that people who hold politically conservative attitudes are generally less open to new and stimulating experiences (weighted mean *r* = –.32, *p* < .0001).

Uncertainty Avoidance

The crux of Wilson's (1973b) theory is that ambiguity and uncertainty are highly threatening to conservatives. Wilson, Ausman, and Mathews (1973) examined the artistic preferences of people who scored high and low on the C-Scale by soliciting evaluative ratings of paintings that had been classified as either simple or complex and either abstract or representational. They found that conservatives exhibited a relatively strong preference for simple rather than complex paintings and a much weaker preference for representational rather than abstract paintings (see Table 5). Similarly, it has been shown that conservatives were more likely to prefer simple poems over complex poems (Gillies & Campbell, 1985) and unambiguous over ambiguous literary texts (McAllister & Anderson, 1991). Similar results have been obtained when preferences for familiar versus unfamiliar stimuli were compared. For instance, Glasgow and Cartier (1985) demonstrated that conservatives were more likely than others to favor familiar over unfamiliar music. Converging results that political conservatives are less tolerant of ambiguity, less open to new experiences, and more avoidant of uncertainty compared with moderates and liberals may provide a psychological context for understanding why congressional Republicans and other prominent conservatives in the United States have sought unilaterally to eliminate public funding for the contemporary arts (Lehrer, 1997).

In a useful effort to apply Wilson's (1973b) theory of conser-

Table 4
Correlations Between Openness to Experience and Political Conservatism

Psychological variable	Political variable	Pearson's r	Cohen's d	Source	Sample characteristic
General Sensation Seeking	F-Scale	−.45***[a]	−1.01	Kish & Donnenwerth (1972)	42 adult extension students, USA
General Sensation Seeking (short form)	C-Scale	−.33***	−0.70	Kish (1973), Sample 1	186 undergraduates, USA
General Sensation Seeking	C-Scale	−.54***	−1.28	Kish (1973), Sample 2	51 adult extension social work students, USA
		−.48**	−1.09	Glasgow & Cartier (1985)	42 University of Nevada—Reno undergraduates
Experience Inventory		−.38***	−0.82	Joe et al. (1977), Sample 1	124 undergraduates, USA
Willingness to volunteer for experiments requiring open-mindedness		−.15*[b]	−0.30	Joe et al. (1977), Sample 2	205 undergraduates, USA
Valuing broad-mindedness		−.39***	−0.85	Feather (1979), Sample 1	558 family members (14 years and older), Adelaide, Australia
		−.43***	−0.95	Feather (1979), Sample 2	358 Flinders University undergraduates and their family members (14 years and older), Australia
		−.34***	−0.72	Feather (1984)	124 Flinders University students, Australia
Valuing imaginativeness		−.32***	−0.68	Feather (1979), Sample 1	558 family members (14 years and older), Adelaide, Australia
		−.44***	−0.98	Feather (1979), Sample 2	358 Flinders University undergraduates and their family members (14 years and older), Australia
		−.50***	−1.15	Feather (1984)	124 Flinders University students, Australia
Valuing an exciting life		−.27***	−0.56	Feather (1979), Sample 1	558 family members (14 years and older), Adelaide, Australia
		−.31***	−0.65	Feather (1979), Sample 2	358 Flinders University undergraduates and their family members (14 years and older), Australia
		−.25**	−0.52	Feather (1984)	126 Flinders University students, Australia
Openness to Experience (from the Big Five Personality Inventory)	SDO Scale	−.28**	−0.58	Pratto et al. (1994), Sample 9	97 San Jose State University undergraduates
	Economic System Justification Scale	−.19***	−0.39	Jost & Thompson (2000)	393 University of Maryland undergraduates
	RWA Scale	−.36***	−0.77	Peterson et al. (1997), Sample 1	198 University of New Hampshire undergraduates
		−.33***	−0.70	Peterson et al. (1997), Sample 2	157 parents of University of New Hampshire undergraduates
		−.31**	−0.65	Peterson & Lane (2001)	69 first-year University of New Hampshire undergraduates
		−.42***	−0.93	Peterson & Lane (2001)	69 University of New Hampshire senior undergraduates (same sample)
Mean effect size		−.35***	−0.77		Total (unique) N^c = 2,606
Weighted mean effect size		−.32***	−0.68		
95% confidence interval		−.28, −.35			

Note. F-Scale = Fascism Scale; C-Scale = Conservatism Scale; SDO = Social Dominance Orientation; RWA = Right-Wing Authoritarianism.
[a] A weighted mean r was derived from originally reported correlations for men ($r = -.81$, $n = 13$) and women ($r = -.29$, $n = 29$). [b] Pearson's r was derived from the originally reported F statistic, $F(1, 201) = 4.50$. [c] When multiple tests were computed on the same sample, the sample was counted only once in the calculation of total (unique) N, mean effect sizes (weighted and nonweighted), and overall significance levels. Multiple effect sizes drawn from the same sample were averaged prior to inclusion in calculations of overall average effect sizes.
* $p < .05$. ** $p < .01$. *** $p < .001$. (All tests two-tailed, converted when necessary.)

vatism as uncertainty reduction to the workplace, Fay and Frese (2000) used a German translation of an authoritarianism scale to investigate work-related attitudes and openness to organizational and technological innovation. This study has the virtue of distinguishing more clearly between psychological variables (acceptance vs. rejection of innovation) and ideological variables (au-

Table 5
Correlations Between Uncertainty Tolerance and Political Conservatism

Psychological variable	Political variable	Pearson's r	Cohen's d	Source	Sample characteristic
Preference for complex paintings	C-Scale	−.56***	−1.35	Wilson et al. (1973)	30 adults aged 23–34, USA
Preference for abstract paintings		−.14	−0.28	Wilson et al. (1973)	30 adults aged 23–34, USA (same sample)
Preference for complex poems		−.31*	−0.65	Gillies & Campbell (1985)	34 Glasgow University undergraduates, Scotland
Preference for modern over traditional poems		.04	0.08	Gillies & Campbell (1985)	34 Glasgow University undergraduates, Scotland (same sample)
Preference for unfamiliar music[a]		−.30**	−0.63	Glasgow & Cartier (1985)	42 University of Nevada—Reno undergraduates
Preference for complex music[a]		−.24	−0.49	Glasgow & Cartier (1985)	42 University of Nevada—Reno undergraduates (same sample)
Preference for ambiguous literary texts		−.40*[b]	−0.87	McAllister & Anderson (1991)	24 adults aged 18–46, Scotland
Comfort with job insecurity[a]		−.22***	−0.45	Atieh et al. (1987)	155 graduate and undergraduate students, USA
Preference for task variety		−.16**	−0.32	Atieh et al. (1987)	155 graduate and undergraduate students, USA (same sample)
Readiness to change at work	Authoritarian–conservatism	−.33****	−0.70	Fay & Frese (2000)	478 adults aged 20–67, East Germany
Acceptance of new technology[a]		−.23****	−0.47	Fay & Frese (2000)	478 adults aged 20–67, East Germany (same sample)
Interest in work innovation		−.42****	−0.93	Fay & Frese (2000)	478 adults aged 20–67, East Germany (same sample)
Attempts at innovation		−.21****	−0.43	Fay & Frese (2000)	478 adults aged 20–67, East Germany (same sample)
Mean effect size		−.28****	−0.58		Total (unique) N^c = 763
Weighted mean effect size		−.27****	−0.57		
95% confidence interval		−.21, −.34			

Note. C-Scale = Conservatism Scale.
[a] Variables have been rephrased from the original source (e.g., "preference for complex" rather than "preference for simple") and coefficient signs reversed accordingly to facilitate comparison with other studies and calculate meaningful mean effect sizes. [b] Pearson's r was derived from the mean of two originally reported Mann-Whitney U statistics, one for the difference in preferences between texts that were high versus low in ambiguity (U = 34.0, $p <$ .05), and one for the difference in preferences between texts that were low versus moderate in ambiguity (U = 32.5, $p <$ .05). [c] When multiple tests were computed on the same sample, the sample was counted only once in the calculation of total (unique) N, mean effect sizes (weighted and nonweighted), and overall significance levels. Multiple effect sizes drawn from the same sample were averaged prior to inclusion in calculations of overall average effect sizes.
* $p <$ .10. ** $p <$ .05. *** $p <$ .01. **** $p <$ .001. (All tests two-tailed, converted when necessary.)

thoritarianism) than is typically afforded by studies using the C-Scale. Fay and Frese (2000) found that authoritarianism was associated with an unwillingness to change work habits, a rejection of new technology, and relative disinterest in work innovation in an East German context (see Table 5). Atieh, Brief, and Vollrath (1987) found that conservatives were especially likely to value job security over task variety at work. In diverse aesthetic and organizational contexts, then, evidence from three countries suggests that conservatives are generally motivated to eschew ambiguity, novelty, and uncertainty (weighted mean r = −.27, $p <$ .0001).

Personal Needs for Order and Structure

A number of theories, including theories of authoritarianism, dogmatism, and uncertainty avoidance, imply that conservatives should have heightened motivational needs for order and structure. The research that exists is consistent with these expectations (see Table 6). For example, A. C. Webster and Stewart (1973) obtained a correlation of .24 between the need for order and scores on the C-Scale. Eisenberg-Berg and Mussen (1980) found that politically conservative adolescents were more likely to describe themselves

as neat, orderly, and organized than were liberal adolescents. Altemeyer (1998) obtained a moderate correlation of .34 between scores on Schaller et al.'s (1995) Personal Need for Structure Scale and RWA scores. This evidence is consistent not only with research on dogmatism, intolerance of ambiguity, and uncertainty avoidance but also with the notion that in the realm of political attitudes, authoritarians long for order and structure, advocating such diverse measures as firm parental discipline, comprehensive drug testing, core educational curricula, and quarantines for AIDS patients (Peterson et al., 1993).

Need for Cognitive Closure

An even more specific account of closed-mindedness exists in studies of impulsive closure and the need for cognitive closure (e.g., Dittes, 1961; D. M. Webster & Kruglanski, 1994) than in studies of dogmatism and intolerance of ambiguity. Here we consider evidence pertaining to the hypothesis that there is a match between content-free epistemic motives to make decisions that are quick, firm, and final and content-laden political attitudes associated with the right wing (see Table 6). In validating their

Table 6

Correlations Between Needs for Order, Structure, and Closure and Political Conservatism

Psychological variable	Political variable	Pearson's r	Cohen's d	Source	Sample characteristic
Need for order	C-Scale	.24*	0.49	A. C. Webster & Stewart (1973)	93 Protestant ministers, New Zealand
Personal need for structure	RWA Scale	.34***	0.72	Altemeyer (1998)	354 University of Manitoba undergraduates, Canada
	SDO Scale	.06	0.12	Altemeyer (1998)	354 University of Manitoba undergraduates, Canada (same sample)
Need for cognitive closure	F-Scale (authoritarianism)	.27**	0.56	D. M. Webster & Kruglanski (1994)	97 University of Maryland undergraduates
	Right-wing political party and orientation	.29**	0.61	Kemmelmeier (1997)	93 University of Mannheim undergraduates, Germany
	Political orientation	.23**[a]	0.48	Chirumbolo (2002)	178 undergraduates and working adults, Italy
	F-Scale (authoritarianism)	.46***[b]	1.04	Chirumbolo (2002)	178 undergraduates and working adults, Italy (same sample)
	Self-reported conservatism	.21***	0.43	Jost et al. (1999), Sample 1	613 University of Maryland undergraduates
	Self-reported conservatism	.26***	0.54	Jost et al. (1999), Sample 2	733 University of Maryland undergraduates
	Support for the death penalty	.47*	1.06	Jost et al. (1999), Sample 3	19 University of California, Santa Barbara, undergraduates
	Religious and nationalist right-wing beliefs	.27**	0.56	Golec (2001), Sample 1	119 adults aged 18–30, Poland
		.31***	0.65	Golec (2001), Sample 2	126 Warsaw School of Advanced Social Psychology students, Poland
		.82***	2.87	Golec (2001), Sample 3	122 student political activists, Poland
	Economic right-wing beliefs	−.22*	−0.45	Golec (2001), Sample 1	120 adults aged 18–30, Poland
		−.26**	−0.54	Golec (2001), Sample 2	120 Warsaw School of Advanced Social Psychology students, Poland
		.61***	1.54	Golec (2001), Sample 3	122 student political activists, Poland
	Conservative self-placement (economic issues)	−.13	−0.26	Golec (2001), Sample 1	119 adults aged 18–30, Poland
		.72***	2.08	Golec (2001), Sample 3	106 student political activists, Poland
	Conservative self-placement (social issues)	.07	0.14	Golec (2001), Sample 1	120 adults, aged 18–30, Poland
		.70***	1.96	Golec (2001), Sample 3	109 student political activists, Poland
Mean effect size		.30***	0.64		Total (unique) N^c = 2,548
Weighted mean effect size		.26***	0.54		
95% confidence interval		.22, .29			

Note. C-Scale = Conservatism Scale; RWA = Right-Wing Authoritarianism; SDO = Social Dominance Orientation; F-Scale = Fascism Scale.
[a] A partial r was derived from the originally reported beta statistic, $\beta = .25$, $t(177) = 3.17$, according to the formula $r = \sqrt{t^2/(t^2+df)}$. [b] A partial r was derived from the originally reported beta statistic, $\beta = .46$, $t(177) = 6.95$, according to the formula $r = \sqrt{t^2/(t^2+df)}$. [c] When multiple tests were computed on the same sample, the sample was counted only once in the calculation of total (unique) N, mean effect sizes (weighted and nonweighted), and overall significance levels. Multiple effect sizes drawn from the same sample were averaged prior to inclusion in calculations of overall average effect sizes.
* $p < .05$. ** $p < .01$. *** $p < .001$. (All tests two-tailed, converted when necessary.)

individual-difference scale of the need for closure, the NFCS, D. M. Webster and Kruglanski (1994) obtained a correlation of .27 between NFCS scores and authoritarianism. In two large samples of undergraduate students at the University of Maryland at College Park, Jost et al. (1999) administered batteries of measures that included the NFCS and a single-item measure of self-reported liberalism–conservatism, with several other instruments separating the two. Modest positive correlations were obtained between need for closure and conservatism in each of the samples, $r(613) = .21$, $p < .001$, and, $r(733) = .26$, $p < .001$.

A study conducted by Kemmelmeier (1997) in Germany demonstrates further that need-for-closure scores increase in a steady, monotonic fashion as one moves from left-wing to right-wing party membership. Democratic socialists scored lower on the NFCS than did members of the Green Party, who scored lower than members of the Social Democratic Party, who scored lower than members of the Free Democratic Party, who scored lower than members of the right-wing Christian Democratic Party. Results yielded no evidence for the hypothesis that extreme individuals of the left and right would exhibit greater cognitive rigidity

(e.g., Shils, 1954) nor for Sidanius's (1984, 1985) suggestion that politically extreme individuals in general would exhibit greater flexibility and sophistication in their thinking. Instead, Kemmelmeier reported a positive monotonic effect of cognitive style on political ideology such that increased needs for cognitive closure were indeed associated with membership in right-wing organizations. These results were replicated in Italy by Chirumbolo (2002).

Jost et al. (1999) hypothesized that people who scored high on the NFCS would be especially likely to support the death penalty, insofar as capital punishment implies a resolution that is unambiguous, permanent, and final. That is, an empirical connection between nonspecific epistemic motives and specific ideological opinions was postulated. An overall correlation of .47 ($p < .05$) was obtained between need for closure and endorsement of capital punishment, with the strongest NFCS subscale predictors of support for capital punishment being Discomfort With Ambiguity ($r = .66$, $p < .01$) and Preference for Order ($r = .55$, $p < .02$). Little wonder, then, that advocates of the death penalty, who tend to be politically conservative in general, frequently argue that state-sanctioned executions are beneficial because they allow victims and observers to finally experience "closure."

Research conducted in Poland by Golec (2001) corroborates the independent hypotheses that (a) the need for closure is associated with the preservation of the status quo (whether left-wing or right-wing) and (b) there is a matching tendency for people who are high on the need for closure to prefer right-wing ideologies over left-wing ideologies (perhaps especially when they are relatively high on political expertise). In two studies involving Polish citizens and students of various colleges and universities, Golec (2001) found that NFCS scores were correlated positively with religious and nationalist conservatism, but they were correlated negatively with (pro-capitalist) economic conservatism, presumably because of Poland's traditionally socialist economy (see Table 6). However, when she examined youth affiliates of various political parties (who may be regarded as relatively high in political expertise and involvement), the strongest ever associations between the (ideologically content-free) NFCS and political conservatism were observed. In a study involving 122 research participants, need for closure was strongly correlated with self-placement on scales of social conservatism ($r = .70$) and economic conservatism ($r = .72$), and it was also strongly correlated with beliefs indicating religious and nationalist conservatism ($r = .82$) as well as economic conservatism ($r = .61$). Thus, personal needs for order, structure, and closure appear to be especially well satisfied by right-wing political contents. Aggregating across 20 tests of the hypothesis in six different national contexts, we found stable and reasonably strong support for the notion that these specific epistemic motives are associated with a wide variety of politically conservative attitudes and orientations (weighted mean $r = .26$, $p < .0001$).

Existential Motives

Threats to Self-Esteem

According to theories of authoritarianism and uncertainty avoidance, people should be more likely to embrace political conservatism to the extent that their self-esteem is chronically low or otherwise threatened. Although threats to self-esteem have been shown to evoke impulsive closure (Dittes, 1961), racism (Sidanius, 1988), and out-group derogation (Fein & Spencer, 1997), there is

relatively little evidence to date linking threatened self-esteem to political conservatism per se. In arguing that a sense of inferiority leads to a generalized fear of uncertainty leading to conservatism, Wilson (1973b) appears to have relied on a single study by Boshier (1969) in which self-esteem correlated negatively at –.51 with scores on the C-Scale in a sample of continuing education students in New Zealand. One study did find that adolescent conservatives were more likely than liberals to report "worrying about doing something bad" (Eisenberg-Berg & Mussen, 1980, p. 169), but they were also more likely to see themselves as ambitious and successful.

A pair of experimental studies conducted by Sales and Friend (1973) demonstrate that inducing a failure experience can lead people to respond in an increasingly authoritarian manner. Specifically, receiving false feedback that they had performed relatively poorly on an anagram task led people to score higher on a balanced version of the F-Scale (compared with a preexperimental control condition). Conversely, receiving success feedback led people to score lower on authoritarianism. Although the effects were relatively small in magnitude and the results were presented too ambiguously to include in our meta-analysis, these experiments are important because they suggest that situational factors can influence the expression of political conservatism.[10]

In general, however, consistently supportive evidence for the self-esteem hypothesis has been hard to come by (see Table 7). For instance, Altemeyer (1998) found that individual self-esteem was uncorrelated with both RWA and SDO, but that collective self-esteem was weakly and negatively related to SDO. Pratto et al. (1994) reported that self-esteem was significantly and negatively correlated with SDO in three of their nine samples, but correlations varied widely across the nine samples. Our review, which aggregates effect sizes across 17 tests of the hypothesis involving a total of 1,558 university (or adult education) students from three different countries, leads to the conclusion that there is indeed a relationship between self-esteem and political conservatism, but it is relatively weak in magnitude (weighted mean $r = –.09$, $p < .001$), especially in comparison with our other findings.

Despite the lack of large effect sizes, Altemeyer (1998) has argued that high authoritarians respond more defensively to ego-threatening situations than do low authoritarians. Specifically, he observed that

> High RWA's asked for evidence supporting the validity of a self-esteem scale when they thought they had scored highly on it, but did not want to know about the validity of the test when told they had

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[10] In a dissertation study conducted by Jost (1996), Yale University undergraduate students were randomly assigned to experimental conditions in which they were led to believe that alumni from their university were either more or less socioeconomically successful than alumni from a comparison school (see also Jost & Burgess, 2000). This manipulation was intended to evoke feelings of low social status rather than low self-esteem (and no measures of self-esteem were taken), but the findings were very similar to those obtained by Sales and Friend (1973). Jost (1996) found that Yale students who were assigned to the low socioeconomic success condition exhibited significantly higher scores on Altemeyer's (1981) RWA Scale than did students assigned to the high socioeconomic success condition, $r(133) = .17$, $p < .05$. That is, a situational manipulation of low perceived socioeconomic status was found to increase authoritarianism, and this effect was not attributable to differences in education or other variables.

Table 7
Correlations Between Self-Esteem and Political Conservatism

Psychological variable	Political variable	Pearson's r	Cohen's d	Source	Sample characteristic
Self-esteem	C-Scale	−.51***	−1.19	Boshier (1969)	40 adult education students, New Zealand
Self-acceptance		−.13	−0.26	Boshier (1969)	40 adult education students, New Zealand (same sample)
Self/ideal discrepancy		−.30*	−0.63	Boshier (1969)	40 adult education students, New Zealand (same sample)
Ego defensiveness		.15	0.30	Wilson (1973d)	91 California State University undergraduates
Rosenberg Self-Esteem Scale	SDO Scale	−.09	−0.18	Pratto et al. (1994), Sample 1	98 University of California, Berkeley, undergraduates
		−.18***	−0.37	Pratto et al. (1994), Sample 2	403 San Jose State University undergraduates
		.09	0.18	Pratto et al. (1994), Sample 3a	80 Stanford University undergraduates
		.01	0.02	Pratto et al. (1994), Sample 3b	57 Stanford University undergraduates (subset of Sample 3a)
		.16	0.32	Pratto et al. (1994), Sample 4	90 Stanford University undergraduates
		−.23**	−0.47	Pratto et al. (1994), Sample 5	144 San Jose State University undergraduates
		−.01	−0.02	Pratto et al. (1994), Sample 6	48 Stanford University undergraduates
		−.29**	−0.61	Pratto et al. (1994), Sample 8	115 Stanford University undergraduates
		−.14	−0.28	Pratto et al. (1994), Sample 9	95 San Jose State University undergraduates
	RWA Scale	.01	0.02	Altemeyer (1998)	354 University of Manitoba undergraduates, Canada
	SDO Scale	.07	0.14	Altemeyer (1998)	354 University of Manitoba undergraduates, Canada (same sample)
Collective self-esteem	RWA Scale	.04	0.08	Altemeyer (1998)	354 University of Manitoba undergraduates, Canada (same sample)
	SDO Scale	−.08	0.16	Altemeyer (1998)	354 University of Manitoba undergraduates, Canada (same sample)
Mean effect size		−.07**	−0.14		Total (unique) N^a = 1,558
Weighted mean effect size		−.09***	−0.17		
95% confidence interval		−.04, −.13			

Note. C-Scale = Conservatism Scale; SDO = Social Dominance Orientation; RWA = Right-Wing Authoritarianism.
[a] When multiple tests were computed on the same sample, the sample was counted only once in the calculation of total (unique) *N*, mean effect sizes (weighted and nonweighted), and overall significance levels. Multiple effect sizes drawn from the same sample were averaged prior to inclusion in calculations of overall average effect sizes.
* $p < .10$.   ** $p < .01$.   *** $p < .001$. (All tests two-tailed, converted when necessary.)

scored poorly on it. They also asked to be told if they looked *un*prejudiced on the Ethnocentrism scale, but said they did not want to be informed if they scored highly in prejudice. (p. 81)

Thus, conservatives may not have lower self-esteem in general, but the possibility remains that they respond differently than others to potentially ego-threatening situations. A related possibility is that conservative ideologues are not necessarily lower in self-esteem but have less stable self-esteem. These considerations lead us to conclude that more research, especially with nonstudent samples, is needed to determine whether conservatives respond more defensively (or more aggressively) to self-related threats.

Fear, Anger, and Aggression

Although far more research exists on cognitive differences between conservatives and other people than on emotional differ-

ences, it is a persistent claim that conservatives are more likely than others to be motivated by fear, aggression, and contempt (e.g., Adorno et al., 1950; Altemeyer, 1996, 1998; Duckitt, 2001; Krugman, 2002; I. F. Stone, 1989; Tomkins, 1963, 1995). Classic and contemporary theories of authoritarianism similarly stress the possibility that conservatives are punitive toward societally sanctioned scapegoats because of underlying fear and hostility. As Altemeyer (1998) argued,

First, High RWA's are scared. They see the world as a dangerous place, as society teeters on the brink of self-destruction from evil and violence. This fear appears to *instigate* aggression in them. Second, right-wing authoritarians tend to be highly self-righteous. They think themselves much more moral and upstanding than others—a self-perception considerably aided by self-deception, their religious training, and some very efficient guilt evaporators (such as going to confession). This self-righteousness *disinhibits* their aggressive im-

pulses and releases them to act out their fear-induced hostilities. (p. 52)

Consistent with the notion that conservatives perceive the world as generally threatening, Altemeyer (1998) reported a relatively strong correlation of .49 between the perception of a dangerous world and RWA in a sample of 354 students from the University of Manitoba, Canada. Duckitt (2001) replicated this finding with several samples in New Zealand and South Africa, and he has also obtained weaker (but still significant) correlations between the perception of a dangerous world and SDO. To the extent that conservatives are more generally fearful than others, one might expect that they would also exhibit higher levels of neuroticism, but this does not generally seem to be the case (see Table 8). However, an inventive research program on the dream lives of liberals and conservatives in the United States found that Republicans reported three times as many nightmares as did Democrats (Bulkeley, 2001). This work, although speculative, suggests that fear, danger, threat, and aggression may figure more prominently in the unconscious motivations of conservatives than liberals.

A clever pair of experimental studies conducted by Lavine, Polichak, and Lodge (1999) supports the utility of a motivated social–cognitive perspective on political conservatism. Hypothesizing that right-wing authoritarians would be chronically sensitive to fear-related stimuli, these researchers used response latency measures to gauge high and low authoritarians' automatic vigilance for words that were pretested to be either high or low in threat and danger. In the first study, Lavine and colleagues found that, compared with low authoritarians, high authoritarians responded faster in a lexical decision task to nonpolitical but threatening stimuli (e.g., cancer, snake, mugger) but not to nonthreatening stimuli (e.g., telescope, tree, canteen). In a second study, research participants were primed with words that could be interpreted as threat-related or not (e.g., *arms*) and then exposed to target words that either completed (*weapons*) or failed to complete (*legs*) the threatening prime–target association. Results indicated that high authoritarians responded marginally more quickly than low authoritarians to threatening word pairs but not to nonthreatening word pairs (see Table 8). If, as it seems, conservatives are more susceptible to fear, it may help to explain why military defense spending and support for national security receive much stronger backing from conservative than liberal political leaders in the United States and elsewhere. Overall, our review of research conducted in five different countries and involving 22 tests of the hypothesis suggests that fear and threat are indeed related to political conservatism (weighted mean $r = .18$, $p < .0001$). The correlation is substantially higher if one omits the studies in which neuroticism was used as the measure of fear and threat (weighted mean $r = .30$, $p < .0001$).

Pessimism, Disgust, and Contempt

George F. Will (1998) joked that his "gloomy temperament received its conservative warp from early and prolonged exposure to the Chicago Cubs" (p. 21), a baseball team that has not won the pennant since 1945. Pessimism, he argued, is an essential characteristic of the conservative temperament: "Conservatives know the world is a dark and forbidding place where most new knowledge is false, most improvements are for the worse" (Will, 1998, p. 21). Psychologists, too, have pondered differences between the left and

right in terms of optimism–pessimism and other affective dimensions.

Tomkins (1963, 1965, 1987, 1995), for instance, proposed that left-wingers and right-wingers would resonate with different emotional experiences and that right-wingers would gravitate toward fear, anger, pessimism, disgust, and contempt. Consistent with Tomkins's theory, a study of political imagination conducted by Carlson and Brincka (1987) demonstrated that people projected different emotions onto Republican and Democratic political candidates. Specifically, people associated conservative leaders with expressions of anger, contempt, and excitement, and they associated liberal leaders with shame, distress, and joy. However, these findings may have had more to do with political stereotypes than with actual affective differences between liberals and conservatives.

In a study of emotional reactions to welfare recipients, Williams (1984) found that people who were classified as conservatives on the basis of scores on Tomkins's (1964/1988) Polarity Scale expressed greater disgust and less sympathy than did their liberal counterparts. A study of high school students also indicated that political conservatives were less likely than liberals to describe themselves as "sympathetic," and conservative boys (but not girls) were less likely to describe themselves as "loving," "tender," and "mellow" (Eisenberg-Berg & Mussen, 1980). In general, however, affective differences between the left and right are understudied relative to cognitive differences.

To explain hypothesized or observed correlations between political conservatism and fear, anger, and other negative emotions, psychologists have typically (or stereotypically) pointed the finger at parenting styles and practices. The argument that parental punitiveness produces children who grow up to hold right-wing attitudes is an assumption that is shared by theories of authoritarianism (Adorno et al., 1950; Altemeyer, 1988), ideo-affective polarity (Tomkins, 1963, 1965, 1995), uncertainty avoidance (Wilson 1973b), and regulatory focus (Rohan & Zanna, 1998). Good research linking parental behavior to the political attitudes of their children is scant and insufficient (but see Peterson, Smirles, & Wentworth, 1997) for the obvious reason that it would require 20 or 30 years of continuous snooping to do it comprehensively. There are clear methodological shortcomings associated with retrospective self-report techniques and reliance on childhood memories, and even under the best of circumstances, there are limitations to drawing causal conclusions on the basis of correlational evidence. Nevertheless, Altemeyer (1988) reported weak positive correlations between individuals' recall of parental anger and punishment strategies, on the one hand, and current RWA scores, on the other. Altemeyer (1998) found that correlations between parents' RWA scores and those of their children are more substantial, hovering around .40, with neither parent being more influential than the other (p. 85).

In an elaboration of Higgins's regulatory focus theory, Rohan and Zanna (1998) argued that right-wing parents are more likely to be demanding and punitive in stressing instrumental concerns to have good manners and to be neat and clean, whereas egalitarian parents are more likely to use warmth in stressing values relating to being considerate of others. These differences in parenting styles may help to explain why right-wing parents are apparently less close to their children in comparison with more egalitarian parents (Rohan & Zanna, 1998; Sidanius & Ekehammar, 1979). Regulatory focus theorists argue that conservatives prioritize con-

Table 8
Correlations Between Fear of Threat or Loss and Political Conservatism

Psychological variable	Political variable	Pearson's r	Cohen's d	Source	Sample characteristic
Feeling that life is changing for the worse	C-Scale	.22***	0.45	Nias (1973)	214 adults, England
Neuroticism	C-Scale	.08	0.16	Nias (1973)	214 adults, England (same sample)
		.03	0.06	Wilson (1973d)	97 student teachers aged 18–34, England
	SDO Scale	−.02	−0.04	Pratto et al. (1994), Sample 7	224 Stanford University undergraduates
		.13	0.26	Pratto et al. (1994), Sample 9	97 San Jose State University undergraduates
		−.08	−0.16	Pratto et al. (1994), Sample 11	100 Stanford University undergraduates
		.21**	0.43	Pratto et al. (1994), Sample 12	139 Stanford University undergraduates
	Economic System Justification Scale	−.02	−0.04	Jost & Thompson (2000)	395 University of Maryland undergraduates
	RWA Scale	.15**	0.30	Peterson et al. (1997), Sample 1	198 University of New Hampshire undergraduates
		−.09	−0.18	Peterson et al. (1997), Sample 2	157 parents of University of New Hampshire undergraduates
		.20*	0.41	Peterson & Lane (2001)	69 University of New Hampshire senior undergraduates
Perception of a dangerous world	RWA Scale	.49****	1.12	Altemeyer (1998)	354 University of Manitoba undergraduates, Canada
		.45****	1.01	Duckitt (2001), Sample 2	484 Aucklund University students, New Zealand
		.54****	1.28	Duckitt (2001), Sample 3	381 Aucklund University students, New Zealand
		.45****	1.01	Duckitt (2001), Sample 4	233 White Afrikaans students, South Africa
	SDO Scale	.00	0.00	Altemeyer (1998)	354 University of Manitoba undergraduates, Canada
		.15****	0.30	Duckitt (2001), Sample 2	484 Aucklund University students, New Zealand
		.21****	0.43	Duckitt (2001), Sample 3	381 Aucklund University students, New Zealand
		.29****	0.61	Duckitt (2001), Sample 4	233 White Afrikaans students, South Africa
Response latency to danger-related words	RWA Scale	.26**[a]	0.54	Lavine, Polichak, & Lodge (1999), Sample 1	94 State University of New York at Stony Brook undergraduates
Primed response facilitation to threat-related words	RWA Scale	.17*[b]	0.35	Lavine, Polichak, & Lodge (1999), Sample 2	91 State University of New York at Stony Brook undergraduates
Persuasive impact of threatening messages	RWA Scale	.30**[c]	0.63	Lavine, Burgess, et al. (1999)	44 voting-eligible undergraduates, University of Minnesota
Mean effect size		.16****	0.33		Total (unique) N[d] = 3,371
Weighted mean effect size		.18****	0.38		
95% confidence interval		.15, .22			

Note. C-Scale = Conservatism Scale; SDO = Social Dominance Orientation; RWA = Right-Wing Authoritarianism.
[a] Pearson's r was derived from the originally reported t statistic, $t(56) = 1.98$, $p < .05$. Degrees of freedom are discrepant from the sample size reported in the table because the t test involved a tertile split of the sample. [b] Pearson's r was derived from the originally reported t statistic, $t(52) = 1.28$, $p < .10$. Degrees of freedom are discrepant from the sample size reported in the table because the t test involved a tertile split of the sample. [c] Pearson's r was derived from the originally reported t statistic, $t(42) = 2.03$, $p < .05$. [d] When multiple tests were computed on the same sample, the sample was counted only once in the calculation of total (unique) N, mean effect sizes (weighted and nonweighted), and overall significance levels. Multiple effect sizes drawn from the same sample were averaged prior to inclusion in calculations of overall average effect sizes.
* $p < .10$. ** $p < .05$. *** $p < .01$. **** $p < .001$. (All tests two-tailed, converted when necessary.)

formity, tradition, and security and that they are likely to be driven by ought guides (Rohan & Zanna, 1998) and the desire to prevent negative outcomes (Crowe & Higgins, 1997). It is noteworthy that ought discrepancies (i.e., prevention-focus failures) have been related to anxiety and resentment anger (Strauman & Higgins, 1988), and these are largely the same emotional states that have been associated with political conservatism in other research programs (e.g., Altemeyer, 1998; Carlson & Levy, 1970; Sales, 1972, 1973; Tomkins, 1963, 1965). Nevertheless, more research is needed before concluding that (a) political conservatives are more pessimistic or contemptuous than others and (b) their negative emotions stem from experiences with parental aggression.

Fear and Prevention of Loss

The notion that political conservatives would be more sensitive than others to the threat of loss is inherent in theories of authoritarianism (e.g., Adorno et al., 1950; Altemeyer, 1998) and fear of uncertainty (Wilson, 1973b), and it is highly consistent with regulatory focus theory as well (e.g., Crowe & Higgins, 1997; Liberman et al., 1999). To the extent that conservatives are especially sensitive to the possibilities of loss—one reason why they wish to preserve the status quo—it follows that they should be generally more motivated by negatively framed outcomes (potential losses) than by positively framed outcomes (potential gains). This is consistent also with Tomkins's (1963, 1965, 1987, 1995) theory of ideo-affective polarity insofar as pessimism is characteristic of right-wing personalities and optimism is characteristic of left-wing personalities.

At least one study indicates that authoritarians are indeed more responsive to threatening or negatively framed persuasive messages than to positively framed messages. Five days before the 1996 U.S. presidential election, Lavine et al. (1999) presented high and low authoritarians—as classified on the basis of a short form of Altemeyer's (1998) RWA Scale—with persuasive arguments that stressed either the potential rewards of voting (e.g., "a way to express and live in accordance with important values") or the potential costs of not voting (e.g., "not voting allows others to take away your right to express your values"). This team of researchers found that high authoritarians were moved significantly more by threatening messages than by reward messages, whereas low authoritarians were marginally more influenced by the reward message than the threat message. Furthermore, these persuasive effects were found to carry over into behavioral intentions and actual voting behaviors.

Research on regulatory focus theory suggests that framing events in terms of potential losses rather than gains leads people to adopt cognitively conservative, as opposed to innovative, orientations (Crowe & Higgins, 1997; Liberman et al., 1999). For instance, Crowe and Higgins (1997) used framing manipulations (by stressing losses rather than gains) to evoke a prevention (vs. promotion) focus, which was found to be associated with relatively low cognitive complexity, high mental rigidity, a narrowing of decision-making alternatives, and conservative and repetitive response styles, as well as with inabilities to complete multifaceted tasks and to rebound from failure. Liberman et al. (1999) found that individuals in a prevention focus, whether assessed as an individual-difference dimension or induced situationally through framing manipulations, were less inclined to switch to a new, substitute task and more likely to return to an old, interrupted task.

Furthermore, individuals in a prevention focus, but not those in a promotion focus, exhibited the "endowment effect," which captures the reluctance to exchange previously acquired objects for others of equal or better value. In general, research indicates that a prevention orientation, which focuses on potential threats and losses, does facilitate cognitive conservatism, but the extension to politically conservative attitudinal contents has yet to be demonstrated conclusively. Future research would do well to address this lacuna.

Fear of Death

A relatively straightforward implication of theories of uncertainty avoidance (Wilson, 1973b) and especially theories of terror management (Greenberg et al., 1990, 1992) is that the salience of one's own mortality should increase ideological defensiveness in general and perhaps ideological conservatism in particular. High profile terrorist attacks such as those of September 11, 2001, might simultaneously increase the cognitive accessibility of death and the appeal of political conservatism. Consistent with this notion is the correlation of .54 between scores on a Fear of Death Scale and scores on the C-Scale obtained by Wilson (1973d; see Table 9). The most thorough, programmatic research to assess the effects of mortality salience on social and political attitudes has been carried out by Greenberg, Pyszczynski, Solomon, and their associates. By leading experimental research participants to anticipate the cognitive and affective experience of death (e.g., Rosenblatt et al., 1989), they have demonstrated that mortality salience leads people to defend culturally valued norms and practices to a stronger degree (Greenberg et al., 1990, 1995) and to distance themselves from, and even to derogate, out-group members to a greater extent (Harmon-Jones, Greenberg, Solomon, & Simon, 1996; McGregor et al., 2001). In addition, the fear of death has been linked to system-justifying forms of stereotyping and enhanced liking for stereotype-consistent women and minority group members (Schimel et al., 1999).

Mortality salience has also been shown to evoke greater punitiveness, and even aggression, toward those who violate cultural values. In one especially memorable study with relevance for political conservatism (Rosenblatt et al., 1989), municipal judges were found to set significantly higher bond assessments for prostitutes following a mortality salience manipulation ($M = \$455$) as compared with a control condition ($M = \$50$). Although much more research is needed on a wider set of political variables, it is conceivable that political conservatives' heightened affinities for tradition, law and order, and strict forms of parental and legal punishment (including the death penalty) are partially related to feelings of fear and threat, including fear and threat arising from chronic (or situational) mortality salience. Although we found only eight relatively clear-cut tests of the mortality salience–political conservatism hypothesis (see Table 9), and seven of these tests involved reactions to criminals, the mean-weighted effect size was very strong ($r = .50$, $p < .0001$).

In addition to a general main effect trend for mortality salience to lead people to embrace attitudes and behaviors that are generally associated with conservative and right-wing ideological positions (e.g., Adorno et al., 1950; Altemeyer, 1998; Peterson et al., 1993), there is some evidence in the terror management literature that political ideology and mortality salience interact with one another. A study by Greenberg et al. (1990, Study 2), for instance, found

Table 9
Correlations Between Mortality Salience and Political Conservatism

Psychological variable	Political variable	Pearson's r	Cohen's d	Source	Sample characteristic
Fear of death	General Conservatism Scale	.54***	1.28	Nash (1972, cited in Wilson, 1973d)	74 California State University undergraduates
Mortality salience	Bond-setting for prostitutes	.44*[a]	0.97	Rosenblatt et al. (1989), Sample 1	22 municipal court judges, USA
		.40***[b]	0.87	Rosenblatt et al. (1989), Sample 2	78 undergraduates, USA
		.65***[c]	1.71	Rosenblatt et al. (1989), Sample 3	32 undergraduates, USA
		.77***[d]	2.41	Rosenblatt et al. (1989), Sample 4	83 undergraduates, USA
		.45**[e]	1.01	Rosenblatt et al. (1989), Sample 5	36 undergraduates, USA
		.56***[f]	1.35	Rosenblatt et al. (1989), Sample 6	34 undergraduates, USA
	Severity of punishment for criminals	.23**[g]	0.46	Florian et al. (2001)	120 undergraduates from Bar-Ilan University, Israel
Mean effect size		.52***	1.26		Total (unique) N = 479
Weighted mean effect size		.50***	1.20		
95% confidence interval		.43, .57			

[a] Pearson's r was derived from the originally reported F statistic, F(1, 20) = 4.70, p < .05. [b] Pearson's r was derived from the originally reported F statistic, F(1, 47) = 8.77, p < .003. [c] Pearson's r was derived from the originally reported F statistic, F(1, 31) = 23.12, p < .0001. [d] Pearson's r was derived from the originally reported F statistic, F(1, 79) = 116.54, p < .0001. [e] Pearson's r was derived from the originally reported t statistic, t(34) = 2.94, p < .01. [f] Pearson's r was derived from the originally reported F statistic, F(1, 32) = 14.98, p < .0005. [g] Pearson's r was derived from the originally reported F statistic, F(1, 116) = 6.23, p < .05.
* p < .05. ** p < .01. *** p < .001. (All tests two-tailed, converted when necessary.)

that mortality salience led high authoritarians to derogate someone who was dissimilar to them, but it did not have this effect on low authoritarians. In another study by Greenberg et al. (1992, Study 1), mortality salience enhanced political intolerance among conservatives, but it enhanced political tolerance among liberals, presumably because tolerance is an important attribute of the cultural worldview for the latter but not the former group. As with theories of epistemic motivation and regulatory focus, we argue that needs for terror management are broad enough to be satisfied by a wide variety of attitudinal contents (see also Dechesne et al., 2000), but there seems to be a better match between the contents of politically conservative attitudes and the general underlying motive than is the case with liberal or moderate attitudes.

Threat to the Stability of the Social System

Although most contemporary research on authoritarianism addresses individual differences in social and political attitudes, the notion that system-level threats (as well as threats to one's self-concept) increase authoritarianism is part of the original theory (e.g., Adorno et al., 1950; Fromm, 1941; Reich, 1946/1970; Sanford, 1966). For example, Reich (1946/1970, p. 13) observed that as the German economy fell precipitously between 1929 and 1932, the number of votes for the Nazi party rose from 800,000 to 17 million. History suggests that people do not always move to the political right under conditions of crisis; in the United States, the same economic depression resulted in a significant left-wing movement led by Franklin D. Roosevelt. Nevertheless, the possibility remains that a threat to the stability of the social system, such as that felt in the aftermath of September 11, 2001, may increase right-wing conservatism, at least under certain circumstances.[11]

This possibility is suggested by the theory of uncertainty avoidance (Wilson, 1973b) and by the theory of system justification, which hypothesizes that (a) there is an ideological motivation to defend the existing social system against instability, threat, and attack and (b) this motivation is stronger among proponents of right-wing than of left-wing ideology (Jost et al., 2001).

There is by now substantial archival research suggesting that during times of societal crisis, people are more likely to turn to authoritarian leaders and institutions for security, stability, and structure (e.g., Doty, Peterson, & Winter, 1991; McCann, 1997; Peterson et al., 1993; Rickert, 1998; Sales, 1972, 1973). Sales (1972), for instance, found that during periods of severe economic threat (the depression years of 1930–1939), people were more likely to join authoritarian churches, such as Southern Baptist and Seventh Day Adventist, and less likely to join nonauthoritarian churches, such as Northern Baptist and Episcopalian, compared with periods of relative prosperity (1920–1930). Similarly, years of heavy unemployment in Seattle, Washington (1961, 1964, 1969, and 1970), were accompanied by higher than usual conversion rates there for an authoritarian church—Roman Catholic— and lower than usual conversion rates for a nonauthoritarian church—United Presbyterian—whereas relatively good economic years in Seattle (1962, 1965, and 1966) coincided with lower than

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[11] In the aftermath of the attacks of September 11, 2001, the *New York Times* has reported significant increases in right-wing populism in the following countries, among others: Belgium, Holland, France, Switzerland, Norway, Denmark, and Portugal (Cowell, 2002; Gordon, 2002; Judt, 2002; Krugman, 2002). Conservative or right-wing parties were already on the rise in Italy, Austria, and the United States.

usual conversion rates for the Roman Catholic Church and higher than usual conversion rates for the United Presbyterian Church.[12]

Sales (1973) reviewed disparate evidence in support of the general hypothesis that poor economic conditions in society are associated with social and cultural trends that emphasize authoritarian themes of power, toughness, cynicism, superstition, submission, and aggression. For instance, he provided evidence that literary and popular culture themes during the 1930s were significantly more conservative and authoritarian than during the 1920s. He also found that budgets in Pittsburgh, Pennsylvania, and New York City allocated more money to their police departments relative to their fire departments in the 1930s than in the 1920s despite the fact that crime fell during this time period. Doty et al. (1991) failed to replicate these differences in budgetary priorities when comparing a different, high-threat period in the United States (1978–1982) with a low-threat period (1983–1987). However, when they investigated reelection bids for highly liberal and conservative incumbents in the U.S. House of Representatives, they found that conservatives lost 2.4 percentage points and liberals gained 7.8 percentage points from the high-threat to the low-threat period. This supported the threat-conservatism hypothesis (see Table 10).

McCann (1997) recruited history professors to rate all of the U.S. presidential election years between 1788 and 1992 on the degree to which the social, economic, and political circumstances of that period were "threatening to the American established order." Results indicated that during system-threatening times, presidential candidates who were rated as high on power motivation, forcefulness, and strength were elected by larger margins of victory than during nonthreatening times. For nine tests of the hypothesis, all conducted with data from the United States but from different historical time periods, we found reasonably strong support for the notion that threats to the stability of the social system increase politically conservative choices, decisions, and judgments (weighted mean $r = .47$, $p < .0001$). As Huntington (1957) wrote, "When the foundations of society are threatened, the conservative ideology reminds men of the necessity of some institutions and desirability of the existing ones" (pp. 460–461).

Summary

Our review of the evidence indicates that there is consistent and relatively strong support for the general hypothesis that a specific set of social–cognitive motives are significantly related to political conservatism. Almost all of our specific hypotheses were corroborated. Effect sizes with absolute values of weighted mean rs ranging from .18 to .27 were obtained for variables of uncertainty avoidance; integrative complexity; needs for order, structure, and closure; and fear of threat in general. Stronger effect sizes were observed for dogmatism, intolerance of ambiguity, openness to experience, mortality salience, and system instability (with weighted mean rs ranging from .32 to .50). On the basis of this evidence, we conclude that a set of interrelated epistemic, existential, and ideological motives successfully predict the holding of politically conservative attitudes. As illustrated in Figure 1, how people respond to threatening environmental stimuli, such as fear and uncertainty, plays a significant role in the development and expression of political beliefs concerning resistance to change, inequality, and other core aspects of conservative ideology.

Concluding Remarks

We have argued that several specific motives relating to the management of fear and uncertainty are associated with the ideology of political conservatism. Our analysis in terms of motivated social cognition helps both to integrate seemingly unrelated hypotheses derived from the literature on personality and individual differences and social psychology and to expand on these hypotheses to further understand the role of situational factors in the vicissitudes of conservatism. By reviewing the results from many different studies aggregated across various behavioral domains and contexts, we found that a moderate to strong relationship does exist between an interrelated set of epistemic, existential, and ideological motives and the expression of political conservatism. In concluding, we consider issues that are deserving of future empirical attention and summarize what we have learned by viewing political conservatism through a motivated social–cognitive lens.

A Plea for Future Research

One of the most promising implications of treating political conservatism as a specific manifestation of motivated social cognition is a theoretical and practical focus on situational determinants. This is because explanations in social cognition tend to emphasize the temporary accessibility of certain attitudes, beliefs, goals, and motives and their perceived applicability to the immediate situation (e.g., Bargh & Gollwitzer, 1994; Higgins, 1996; Kruglanski, 1989). We have reviewed existing evidence concerning the effects of situationally induced threats on conservative political outcomes, but much more of interest remains to be done. Our hope is that, by underscoring the cognitive–motivational bases of political conservatism, future research will at long last address a wider range of social situations and conditions that give rise and momentum to conservative attitudes, thoughts, behaviors, and even social movements.

Although the evidence concerning the effects of threat on conservative ideology is highly instructive, other situational predictors of conservative attitudes and responses are still relatively understudied in the psychology of conservatism. Because conservatism often takes the form of a social movement that is shared by large groups of people in particular historical periods (e.g., Diamond, 1995; Habermas, 1989; Kolko, 1963; Lyons & Berlet, 1996), it may be thought of as a social norm that emerges under certain social and political circumstances. Our review indicates that too many psychological accounts of conservatism in the past have treated it solely as a dispositional orientation and not as a situational reaction, although it is true that the disposition is often hypothesized to develop in response to certain social and family situations in childhood (e.g., Adorno et al., 1950; Altemeyer, 1981, 1988; Sears, 1983; Sulloway, 1996; Tomkins, 1995). For the sake of understanding the nature of ideology, we hope future studies are

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[12] We see this research as generally supporting John Lennon's (1970) famous observation that "God is a concept by which we measure our pain" (track 10), insofar as people embrace different religious conceptions as a function of the degree of adversity and threat they experience.

Table 10
Correlations Between System Instability and Political Conservatism

Psychological variable	Political variable	Pearson's r	Cohen's d	Source	Sample characteristic
Economic threat	Conversion to authoritarian churches	.49***[a]	1.12	Sales (1972)	6,887 adults joining four churches between 1920–1939, USA
	Conversion to nonauthoritarian churches	−.44***[a,b]	−0.98	Sales (1972)	3,601 adults joining four churches between 1920–1939, USA
	City budget for police vs. fire departments	.51*[c]	1.19	Sales (1973), Study 1	Annual Pittsburgh city budget for 20 years (1920–1939)
		.77***[d]	2.41	Sales (1973), Study 1	Annual New York city budget for 20 years (1920–1939)
Societal threat (late 1960s)	City budget for police vs. fire departments	.92***[e]	4.69	Sales (1973), Study 2	State and local budget expenditures (1967–1969 vs. 1959–1964), USA
		.78*[f]	2.49	Sales (1973), Study 2	City government expenditures (1967–1969 vs. 1959–1964), USA
	Victory margins for conservative vs. liberal incumbents	.29*[g]	0.61	Doty et al. (1991)[h]	60 incumbent candidates, House of Representatives, USA
Social, economic, and political threat	Power, forcefulness, and strength of winning presidential candidate	.40*[i]	0.87	McCann (1997)	33 winning presidential candidates (1824–1964), USA
	Presidential strength—conservatism	.49**[j]	1.12	McCann (1997)	33 winning presidential candidates (1824–1964), USA (same sample)
Mean effect size		.64***	1.81		Total (unique) N[k] = 10,639 (approximate, includes people and years)
Weighted mean effect size		.47***	1.08		
95% confidence interval		.46, .49			

[a] Correlations are unweighted means aggregated across several different churches. [b] The sign on this correlation has been reversed in the calculation of mean effect sizes so that it is theoretically meaningful. Positive correlations reflect a positive relation between threat and conservatism. [c] Pearson's r was derived from the originally reported F statistic, $F(1, 18) = 6.18, p < .05$. [d] Pearson's r was derived from the originally reported F statistic, $F(1, 18) = 26.47, p < .001$. [e] Pearson's r was derived from the originally reported F statistic, $F(1, 7) = 37.17, p < .001$. [f] Pearson's r was derived from the originally reported F statistic, $F(1, 7) = 10.64, p < .025$. [g] Pearson's r was derived from the originally reported t statistic, $t(58) = 2.33, p < .05$. [h] Doty et al. (1991) also attempted to replicate Sales's (1973) analyses regarding police and fire department budgets, but reported only that there was no trend with a categorical analysis (without providing significance levels). They did, however, report a −.72 year-by-year correlation with their threat index, but express concerns about the validity of such an analytic approach. [i] Pearson's r was derived from the originally reported F statistic, $F(1, 29) = 5.66, p < .05$. [j] Pearson's r was derived from the originally reported F statistic, $F(1, 29) = 9.13, p < .01$. [k] When multiple tests were computed on the same sample, the sample was counted only once in the calculation of total (unique) N, mean effect sizes (weighted and nonweighted), and overall significance levels. Multiple effect sizes drawn from the same sample were averaged prior to inclusion in calculations of overall average effect sizes. * $p < .05$. ** $p < .01$. *** $p < .001$. (All tests two-tailed, converted when necessary.)

as successful at documenting the temporary accessibility of right-wing attitudes as studies of individual differences have been at documenting the chronic accessibility of such orientations and their correlates.

Consistent with these goals, we note that there is a strong need to go beyond purely correlational research designs, which limited the validity of the earlier personality research on authoritarianism, dogmatism, and the origins of political ideology and contributed to its eventual obscurity (see W. F. Stone et al., 1993). Thus far, the strongest experimental evidence bearing on the possibility of manipulating conservative tendencies probably comes from the mortality salience paradigm used by terror management theorists. Priming thoughts of death has been shown to increase intolerance, out-group derogation, punitive aggression, veneration of authority figures, and system justification (Florian et al., 2001; Greenberg et

al., 1990, 1995; McGregor et al., 2001; Rosenblatt et al., 1989; Schimel et al., 1999; van den Bos & Miedema, 2000). Other archival and experimental evidence suggests that social and economic threats increase authoritarian and right-wing responding (e.g., Doty et al., 1991; Jost, 1996; McCann, 1997; Reich, 1946/1970; Sales, 1972, 1973; Sales & Friend, 1973). Experimental paradigms developed in studies of the need for cognitive closure, prevention versus promotion regulatory focus, and system justification are also highly promising candidates for use in future research on situational variation in conservatism. The next generation of researchers should also strive, whenever possible, to include more direct measures of epistemic, existential, and ideological motives.

All of the motives we have reviewed are theoretically related to one or both of two core dimensions of conservative thought,
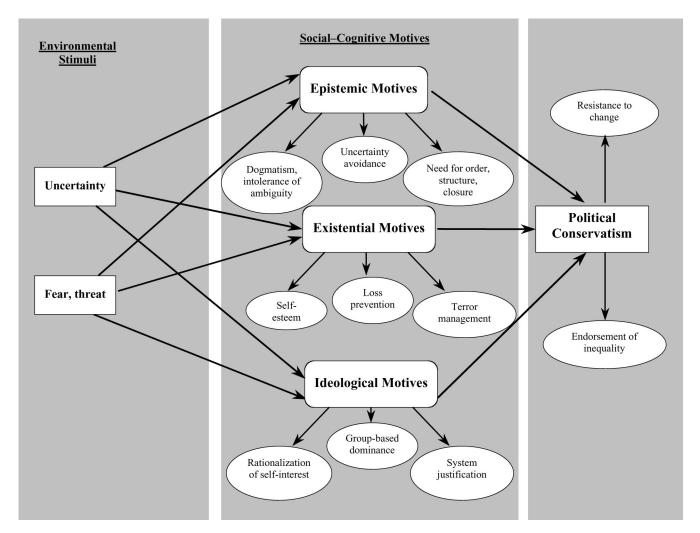
Figure 1.   An integrative model of political conservatism as motivated social cognition.

namely, resistance to change and support for inequality. The quest for certainty and ideological stability, we have argued, is linked to the goal of resisting social and political change (e.g., Wilson, 1973c). Motives pertaining to fear and threat, by comparison, are more likely to be associated with ideological support for inequality, insofar as it justifies the striving for security and dominance in social hierarchies (e.g., Sidanius & Pratto, 1999). These are theoretical points that await direct empirical confrontation, especially as regards the direction of causality. Do psychological motives cause the adoption of specific ideological beliefs concerning resistance to change and support for inequality, or do these ideological commitments carry with them psychological consequences, or both? Our review has presented consistent correlational evidence linking the psychological and the political, and our integrated theoretical framework has identified plausible interpretations of these data, but direct causal investigations are needed in the future to substantiate the particulars of our theoretical perspective.

Finally, it is also important that subsequent research reflect a wide range of political ideologies and broadly representative samples so that it does not merely address the ideological life of college students (see Sears, 1986; Whitley & Lee, 2000). On one

hand, political ideology probably has greater consistency and meaning for college-educated respondents; on the other, the ideological contents of political conservatism (and its opposites) may be different in a predominantly liberal environment such as a college campus compared with other contexts. Such locations may prove useful in future studies of social and cognitive motives associated with political liberalism, which we would also encourage. Although we have made a special effort to include nonstudent samples in our review, two thirds of the studies we reviewed were conducted with university students. The use of nonrepresentative samples stymied research progress on the authoritarian personality for many years (e.g., Hyman & Sheatsley, 1954) until it was revived by Altemeyer (1981, 1988, 1996, 1998). It is essential that contemporary researchers of political conservatism not make the same mistake.

The trend to investigate ideological opinions and right-wing tendencies in a wide variety of national contexts is one that we hope continues (e.g., Fay & Frese, 2000; Fibert & Ressler, 1998; Golec, 2001; Hamilton, Sanders, & McKearney, 1995; Jost et al., 2001; Kemmelmeier, 1997; Mercer & Cairns, 1981; Sidanius, 1984, 1985; Sidanius & Ekehammar, 1979). We reviewed research

conducted in 12 different countries: the United States, Canada, England, Scotland, Sweden, Italy, Germany, Poland, Israel, Australia, New Zealand, and South Africa. Thus, the conclusions we have reached possess a considerable degree of cultural generalizability. Nevertheless, future research—especially if conducted in traditionally socialist or communist societies in which adherence to the status quo is unconfounded with right-wing ideological orientation—would add significantly to knowledge about political conservatism as motivated social cognition. Our conviction is that important and groundbreaking advances await any researcher who is willing and able to conduct causal, experimental studies on the personal and situational determinants of conservative ideological responses in research samples that are representative and culturally diverse. We hope the present article serves as a stimulus for renewed, methodologically sophisticated attention to the psychological bases of political conservatism.

What Have We Learned?

Understanding the psychological underpinnings of conservatism has for centuries posed a challenge for historians, philosophers, and social scientists. By now, hundreds of empirical investigations have been carried out worldwide, and at least three types of theories have been offered to explicate the psychological bases of conservative and right-wing ideologies. Our contribution here has been to review and summarize this work and to integrate it within the ambitious and broad framework of motivated social cognition (see Figure 1). In doing so, we have drawn a number of conclusions, which should be made explicit in order to better understand the various ways in which political conservatism may be thought of as a form of motivated social cognition.

An important conclusion that follows from our analysis is that political attitudes and beliefs possess a strong motivational basis (e.g., Duckitt, 2001; Dunning, 1999; Fiske & Taylor, 1991; Kruglanski, 1996; Kunda, 1990). Conservative ideologies, like virtually all other belief systems, are adopted in part because they satisfy various psychological needs. To say that ideological belief systems have a strong motivational basis is not to say that they are unprincipled, unwarranted, or unresponsive to reason or evidence. Although the (partial) causes of ideological beliefs may be motivational, the reasons (and rationalizations) whereby individuals justify those beliefs to themselves and others are assessed according to informational criteria (Kruglanski, 1989, 1999).

Many different theoretical accounts of conservatism over the past 50 years have stressed motivational underpinnings, but they have identified different needs as critical. Our review brings these diverse accounts together for the first time. Variables significantly associated with conservatism, we now know, include fear and aggression (Adorno et al., 1950; Altemeyer, 1998; Lavine et al., 1999), dogmatism and intolerance of ambiguity (Fibert & Ressler, 1998; Frenkel-Brunswik, 1948; Rokeach, 1960; Sidanius, 1978), uncertainty avoidance (McGregor et al., 2001; Sorrentino & Roney, 1986; Wilson, 1973b), need for cognitive closure (Golec, 2001; Jost et al., 1999; Kemmelmeier, 1997; Kruglanski & Webster, 1996), personal need for structure (Altemeyer, 1998; Schaller et al., 1995; Smith & Gordon, 1998), terror management (Dechesne et al., 2000; Greenberg et al., 1990, 1992; Wilson, 1973d), group-based dominance (Pratto et al., 1994; Sidanius, 1993; Sidanius & Pratto, 1999), and system justification (Jost & Banaji, 1994; Jost et al., 2001; Jost & Thompson, 2000). From our

perspective, these psychological factors are capable of contributing to the adoption of conservative ideological contents, either independently or in combination.

The socially constructed nature of human belief systems (see Jost & Kruglanski, 2002) makes it unlikely that a complete explanation of conservative ideology could ever be provided in terms of a single motivational syndrome. Ideologies, like other social representations, may be thought of as possessing a core and a periphery (Abric, 2001), and each may be fueled by separate motivational concerns. The most that can be expected of a general psychological analysis is for it to partially explain the core of political conservatism because the peripheral aspects are by definition highly protean and driven by historically changing, local contexts.

We regard political conservatism as an ideological belief system that is significantly (but not completely) related to motivational concerns having to do with the psychological management of uncertainty and fear. Specifically, the avoidance of uncertainty (and the striving for certainty) may be particularly tied to one core dimension of conservative thought, resistance to change (Wilson, 1973c). Similarly, concerns with fear and threat may be linked to the second core dimension of conservatism, endorsement of inequality (Sidanius & Pratto, 1999). Although resistance to change and support for inequality are conceptually distinguishable, we have argued that they are psychologically interrelated, in part because motives pertaining to uncertainty and threat are interrelated (e.g., Dechesne et al., 2000; McGregor et al., 2001; van den Bos & Miedema, 2000).

In conclusion, our comprehensive review integrates several decades of research having to do with the psychological bases of political conservatism. Most of what is known about the psychology of conservatism fits exceedingly well with theories of motivated social cognition. The integrative framework developed here has implications for resolving historically controversial issues, and we have argued that it has great generative potential for guiding future work on the subject of conservatism. By attending to the multiple, potentially reinforcing influences of epistemic, existential, and ideological motivations involved in political conservatism, we hope that future research strengthens understanding of belief systems in general. It should also shed light on the nature of relations between the micro and the macro, that is, on the reciprocal dynamics between the needs of individual and group actors on one hand and the complex characteristics of social and political systems, institutions, and organizations on the other.

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