

The Contingent, Contextual Nature of the Relationship Between Needs for Security and Certainty and Political Preferences: Evidence and Implications

Christopher M. Federico
University of Minnesota

Ariel Malka
Yeshiva University

Research on the dispositional origins of political preferences is flourishing, and the primary conclusion drawn from this work is that stronger needs for security and certainty attract people to a broad-based politically conservative ideology. Though this literature covers much ground, most integrative assessments of it have paid insufficient attention to the presence and implications of contingencies in the relationship between dispositional attributes and political attitudes. In this article, we review research showing that relationships between needs for security and certainty and political preferences vary considerably—sometimes to the point of directional shifts—on the basis of (1) issue domain and (2) contextual factors governing the content and volume of political discourse individuals are exposed to. On the basis of this evidence, we argue that relationships between dispositional attributes and political preferences vary in the extent to which they reflect an organic functional resonance between dispositions and preferences or identity-expressive motivation to adopt a political attitude merely because it is discursively packaged with other need-congruent attitudes. We contend that such a distinction is critical to gaining a realistic understanding of the origins and nature of ideological belief systems, and we consequently recommend an increased focus on issue-based and contextual variation in relationships between dispositions and political preferences.

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Why do individuals' political preferences lean to the left or to the right? To put it mildly, a great amount of social-scientific ink has been spilled addressing this question. Some perspectives suggest that political preferences are a function of interests associated with the positions of the social groups one belongs to, with members of more powerful groups adopting more conservative views (e.g., Bobo, 1999; Huber & Form, 1973; Kluegel & Smith, 1986; Marx & Engels, 1846/1970; Runciman, 1966; Sears & Funk, 1991; Sidanius & Pratto, 1999; Weeden & Kurzban, 2014). Other approaches have focused more closely on social relationships, with a sizable body of research suggesting that people adopt the political attitudes and beliefs that are normative in the reference groups with which they identify (Berelson, Lazarsfeld, & McPhee, 1954; Merton, 1957; Newcomb, 1943) or common within their families or social networks (Huckfeldt, Johnson, & Sprague, 2004; Jennings & Niemi, 1981;

Jost, Ledgerwood, & Hardin, 2008; Sears & Levy, 2003). Last but not least, research in political science zeroes in on the role of political parties, arguing that individuals acquire the preferences enunciated by the leaders of the parties they identify with (Campbell, Converse, Miller, & Stokes, 1960; Goren, 2005; Lenz, 2013; Zaller, 1992).

Approaches like these share a common thread: They focus on the *social* or *contextual* roots of citizens' political preferences. However, another long-standing line of work emphasizes a very different basis for political attitudes and behavior: individual differences in psychological dispositions (Jost, Federico, & Napier, 2009). Modern interest in this topic can be traced as far back as Max Weber's discussion of "elective affinities," a concept used to explain how certain political ideas appeal to certain types of people (Weber, 1948; see also Gerth & Mills, 1953; Jost et al., 2009; Lasswell, 1948, 1958; Mannheim, 1936). Empirical work in this area took off after World War II, as Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950), Allport (1954), Eysenck (1954), Lipset (1960), McClosky (1958), Rokeach (1960), Tomkins (1963), Wilson (1973), and others presented evidence that variables broadly reflective of *needs for security and certainty*—or alternatively, *existential and epistemic needs*—reliably correlate with certain types of political preferences. Though interest in this topic became dormant in the following decades, research on the connection between needs for security and certainty and political preferences has experienced a renaissance in the last decade and a half (Gerber, Huber, Doherty, & Dowling, 2011; Jost et al., 2009; Jost, Federico, & Napier, 2013; Jost, Glaser, Kruglanski, & Sulloway, 2003; Jost, Sterling, & Stern, 2017; Mondak, 2010). Indeed, research suggests that the explanatory power of these variables is substantial relative to that of basic demographic variables (Caprara, Schwartz, Capanna, Vecchione, & Barbaranelli, 2006; Gerber, Huber, Doherty, Dowling, & Ha, 2010).

This new wave of work has had a remarkable impact on the study of political attitudes and behavior in a relatively short period of time. A perspective that was considered dated and moribund as recently as the 1990s now generates findings that receive notable attention in top outlets in both psychology (e.g., Jost et al., 2003) and political science (e.g., Gerber et al., 2010), not to mention the popular press (e.g., Isenberg, 2012; Mooney, 2012). Moreover, research addressing how existential and epistemic needs relate to mass politics has become a key area of inquiry in the interdisciplinary field of political psychology, rivaling perennially significant topics like political cognition, elite decision-making, and intergroup relations (Huddy, Sears, & Levy, 2013). As a consequence, the relevance of prepolitical psychological variables to the study of political attitudes and behavior is no longer doubted.

As researchers with a keen interest of our own in the nexus between psychological dispositions and political attitudes, we welcome this development. However, we also agree with those contending that the conventional understanding of the nature of the relationship between dispositional attributes (especially those pertaining to needs for security and certainty) and political attitudes has become excessively narrow and somewhat misleading (e.g., Duckitt & Sibley, 2009; Feldman & Johnston, 2014; Morgan & Wisneski, 2017; Proulx & Brandt, 2017). Most overviews and meta-analyses of the growing literature on this topic have duly catalogued documented empirical relationships between numerous psychological variables and political preferences (Jost et al., 2003; Jost, Sterling, & Stern, 2017; Jost, Stern, Rule, & Sterling, 2017; Van Hiel, Onraet, & De Pauw, 2010). These steps toward integration have made important contributions. Nevertheless, we contend that they ignore, understate, or fail to recognize the implications of a crucial aspect of relationships between existential and epistemic variables and political preferences: the extent to which many of these relationships are *contingent* on other, usually contextual factors (see Morgan & Wisneski, 2017). As we shall detail, research increasingly suggests that the connections between needs for security and certainty and political attitudes are moderated by both issue domain and exposure to political-information environments

that provide cues about how specific political positions are packaged together into broader ideologies by elites, and how well different political positions “fit” with people’s underlying psychological needs. This, we contend, has implications for our understanding of the motives that underlie political belief systems and the nature of ideology.

We will argue that a particularly important implication is that the balance of evidence runs against the conventional wisdom within psychology that culturally and economically right-wing (versus left-wing) views are *psychologically* constrained to cohere by virtue of a common link with underlying needs for security and certainty (Johnston et al., 2017; Johnston & Wronski, 2014; Malka, Soto, Inzlicht, & Lelkes, 2014; Malka, Lelkes, & Soto, 2017; Malka & Soto, 2014). Rather, we contend, needs for security and certainty are reliably linked with right-wing cultural preferences but also sometimes relate to left-wing economic preferences because of the material protection and security that redistributive policy provides. Furthermore, links between needs for security and certainty and right-wing economic preferences are only evident among certain subgroups due to a combination of elite packaging of cultural and economic issues into ideologies (e.g., Converse, 1964; Noel, 2013) and identity-expressive motivation to adopt ideologically “correct” views (e.g., Johnston et al., 2017; Kahan, 2015; Malka & Lelkes, 2010).

A more general implication that follows from this is that relationships between dispositional attributes and political preference vary in the degree to which they are dependent on exposure to ideological “menus” (see Sniderman & Bullock, 2004) that package substantively distinct attitudes together into ideological and/or partisan bundles (Johnston et al., 2017; Malka & Soto, 2014). Sometimes relationships between dispositions and political preferences reflect an organic functional resonance between the two, as specified in a long history of psychological research (Adorno et al., 1950; Jost et al., 2003; Wilson, 1973). Other times, however, these relationships reflect an identity-expressive motivation to adopt political attitudes merely because they are discursively packaged with other need-congruent attitudes. In other words, links between dispositions and political attitudes vary in the extent to which they are conditional on the way in which the latter are packaged into ideologies and partisan platforms. We contend that attention to such variation is critical to gaining a realistic understanding of the origins and nature of ideological belief systems. We consequently recommend a more explicit focus on issue-based and contextual variation in the links between dispositional attributes and political preferences.

The Psychological Bases of Political Preferences

The starting point for the argument we develop here is a long line of inquiry on the basic human dispositions that attract people to the political left versus the political right. By far the most studied dispositional characteristics in this line of work are those pertaining to how individuals manage threat and uncertainty. To provide context for our broader argument, we begin by reviewing the basic conclusions reached in this body of research. This literature has been reviewed extensively elsewhere (Federico, 2015; Gerber et al. 2011; Hibbing, Smith, & Alford, 2014; Johnston et al., 2017; Jost et al., 2003, 2009, 2013; Jost, Sterling, et al., 2017; Jost, Stern, et al., 2017; Mondak, 2010), so we cover it relatively briefly here. We then discuss ways in which this literature has overlooked or inadequately recognized the extent and implications of contingencies in the relationship between core psychological dispositions and political preferences.

Existential and Epistemic Needs as Antecedents of Political Attitudes and Behavior

As noted above, current perspectives on the psychological foundations of ideology suggest that political attitudes and behavior are rooted in the degree to which individuals experience “*existential needs* to maintain safety and security and to minimize danger and threat” and

“*epistemic needs* to attain certainty, order, and structure” (Jost et al., 2013, p. 236).¹ In general, individuals with strong needs to reduce insecurity and minimize uncertainty are said to be attracted to the political right and its emphases on stability and hierarchy, whereas those who are more tolerant of insecurity and uncertainty are said to gravitate toward the left and its openness to change and preference for equality (Jost et al., 2003, 2008, 2009, 2013; Jost, Stern, et al., 2017; Thorisdottir, Jost, Liviatan, & Shrout, 2007). This linkage between a set of dispositions and attraction to the ideological right versus left is described in terms of the capacity for political outcomes and policies to help satisfy underlying psychological needs. Thorisdottir et al. (2007) put it as follows: “[T]here is a special resonance or match between motives to reduce uncertainty and threat, and the two core aspects of right-wing ideology, resistance to change and acceptance of inequality” (p. 179).

Authoritarianism. Evidence cited in support of this type of functional connection between psychological needs and political preferences comes from an extensive body of research on individual differences that reflect desires for security and certainty. With respect to variables indicative of desires for security, *authoritarianism* is one of the most robust predictors of conservative self-identification and social attitudes (Federico, Fisher, & Deason, 2011; Federico, Hunt, & Ergun, 2009; Hetherington & Weiler, 2009; Jost et al., 2003, 2009). Individuals high in authoritarianism defer to authority and conventional social mores, and they are especially hostile to individuals and groups who deviate from the norm (Adorno et al., 1950; Altemeyer, 1996; Stenner, 2005). Multiple lines of research suggest that authoritarianism is rooted in an enduring sensitivity to insecurity and threat (Duckitt & Sibley, 2010; Feldman, 2003; Feldman & Stenner, 1997; Hetherington & Suhay, 2011; Hetherington & Weiler, 2009; Lavine et al., 1999; Lavine, Lodge, Polichak, & Taber et al., 2002; Stenner, 2005). Hetherington and Weiler (2009), for example, argue that citizens high in authoritarianism are more likely to perceive a given situation as threatening generally and show correspondingly higher levels of social conservatism as a way of reducing the insecurity and uncertainty associated with normative threats.

Loss aversion and threat sensitivity. Of course, authoritarianism encompasses a number of themes beyond mere sensitivity to insecurity. More directly, individual differences in *loss aversion*—the tendency to place a stronger emphasis on avoiding losses than on achieving equivalent gains (e.g., Kahneman & Tversky, 1979)—have been found in several studies to correlate with certain indicators of conservatism (Carraro, Castelli, & Machiella, 2011; Castelli & Carraro, 2011; Cornwell & Higgins, 2013; Dodd et al., 2012; Hibbing et al., 2014; Janoff-Bulman, 2009; Janoff-Bulman, Sheikh, & Baldacci, 2008; Shook & Clay, 2011; Shook & Fazio, 2009; Vigil, 2010), further supporting the notion of a relationship between threat sensitivity and conservatism (see also Duckitt, 2001; Duckitt & Sibley, 2010; Onraet, Van Hiel, Dhont, & Pattyn, 2013). Similarly, other recent studies have identified ways in which social liberals and social conservatives differ with respect to basic physiological processes connected with responses to threat (see Hibbing et al., 2014, for a review). For example, Oxley et al. (2008) found a substantively and statistically significant difference in physiological responses to threatening images and unexpected noise across individuals who adopted conservative versus liberal positions on a selection of social attitudes.

¹ For the purposes of this review, we will interchangeably refer to this key set of psychological variables as “needs for security and certainty,” “existential and epistemic needs,” and “core psychological dispositions.” Of course, other individual differences that do not pertain precisely to existential and epistemic needs have been linked to political preferences (e.g., Duckitt, 2001; Osborne, Wootton, & Sibley, 2013). However, in the present review, we limit our focus to variables indicative of or broadly relevant to needs for security and certainty. We do so because the variables that fall into this cluster are the ones that account for the dominant conceptual focus and the vast majority of investigations in the area of personality and politics (e.g., Johnston et al., 2017; Jost et al., 2009, 2013; Jost, Sterling, et al., 2017; Jost, Stern, et al., 2017; Malka et al., 2014). Nonetheless, as we note in the conclusion, the framework we advance for studying disposition-political attitude relationships can be extended to dispositions beyond those relevant to needs for security and certainty (Johnston et al., 2017; Malka & Soto, 2014).

Needs for certainty and cognitive closure. With respect to needs for certainty, many studies have found a relationship between the *need for cognitive closure* and aspects of political conservatism (Jost et al., 2009). People who are high in the need for closure dislike uncertainty, and this leads them to reach conclusions quickly and then hold onto those conclusions even in the face of challenging information (Kruglanski, 2004; Kruglanski & Webster, 1996; Kruglanski, Pierro, Mannetti, & DeGrada, 2006; Webster & Kruglanski, 1994). Not surprisingly, this preference for the cognitive status quo tends to covary with an attraction to certain positions favoring the political status quo: Individuals who are high in the need for closure are often found to lean to the right on several social issues, ideological and partisan identifications, and voting behavior (Chirumbolo, Areni, & Sensales, 2004; Federico, Deason, & Fisher, 2012; Federico & Goren, 2009; Jost et al., 2008; Kimmelmeier, 1997; Van Hiel, Pandelaere, & Duriez, 2004; Van Hiel et al., 2010). Other variables indicative of a desire for certainty, such as the tendency to avoid risk taking (Kam, 2012; Kam & Simas, 2012), have shown a similar correlation with certain conservative preferences, as have variables indicative of an *inability* to manage uncertainty (e.g., low intellectual ability; e.g., Kimmelmeier, 2008).

Values and morality. The connection between needs for security and certainty and political preferences is also illustrated by research on the general structure of human values and morality. For example, Schwartz's (1992, 1994) model of human values focuses on 10 basic value domains: universalism, benevolence, tradition, conformity, security, power, achievement, hedonism, stimulation, and self-direction. Of these, the values of tradition, conformity, security, stimulation, and self-direction are especially relevant. The first three form a cluster of *conservation values* that serve common motivational goals of self-restraint and the preservation of social order, while the latter two comprise an *openness* cluster that serves goals for progress and change. The value axis that contrasts these competing sets of motives is particularly germane to security and certainty (Bilsky & Schwartz, 1994; Duckitt & Sibley, 2010; Olver & Mooradian, 2003). Accordingly, endorsement of conservation (versus openness) values is reliably correlated with indicators of social conservatism across nations (Caprara et al., 2006; Goren, 2012; Malka et al., 2014; Schwartz, 2007; Thorisdottir et al., 2007).

Similarly, moral foundations theory (Haidt, 2012) identifies a subset of moral concerns that are especially reflective of needs for security and certainty. Specifically, the *binding* moral foundations—focused on ingroup loyalty, deference to authority, and preservation of moral purity—protect group cohesion and thereby provide individuals with security and certainty about social life (Cornwell & Higgins, 2013; Federico, Ekstrom, Reifen Tagar, & Williams, 2016; Federico, Weber, Ergun, & Hunt, 2013). These are distinguished from the *individualizing* foundations, which focus on protecting others from harm and guaranteeing fairness in relationships. Consistent with the idea that binding moral concerns reflect needs for security and certainty, those who place a strong emphasis on binding foundations are more likely to identify as conservative (Graham, Haidt, & Nosek, 2009; Haidt, 2012) and to adopt attitudes favoring traditional morality (Koleva, Graham, Iyer, Ditto, & Haidt, 2012; Malka et al., 2016).

Disgust sensitivity. Another threat-related variable examined in studies of political preferences is disgust sensitivity, which taps individual differences in the tendency to respond aversively to disgusting stimuli (e.g., Olatunji et al., 2007; see also Terrizzi, Shook, & McDaniel, 2013). Broadly speaking, disgust is thought to serve an evolved protective function: It alerts individuals to the presence of biological contaminants or sources of disease (Curtis & Biran, 2001). Moreover, disgust sensitivity is closely linked with the purity foundation discussed in moral-foundations theory (Horberg, Oveis, Keltner, & Cohen, 2009). Indeed, some perspectives suggest that concerns about moral purity or religious sanctity—which alert individuals to the threat of *moral contamination*—essentially co-opt disgust-related mechanisms that originally evolved to protect against biological contamination (Haidt, 2012). In general, then, disgust sensitivity is a kind of threat sensitivity. Individuals high in disgust sensitivity can be thought of as having a strong need for security in the context of biological threats, much as authoritarians can be thought of as having a high need for security in the face of threats to

social cohesion. Consistent with this account, individual differences in disgust sensitivity and disgust manipulations have been found to predict certain conservative political preferences, (e.g., Helzer & Pizarro, 2011; Inbar, Pizarro, & Bloom, 2012; Terrizzi et al., 2010).

The Big Five personality traits. The political implications of dispositions related to existential and epistemic needs are also evident in research on basic personality traits (Gerber et al., 2010; McCrae, 1996; Mondak, 2010). In personality psychology, the “Big Five” or the five-factor model is currently the most influential model of the structure of human personality traits (McCrae & Costa, 2003). Based on factor analyses of trait-adjective and personality description ratings, the Big Five approach models individual differences in personality in terms of five broad dimensions: *Extraversion*, or sociability and assertiveness; *Agreeableness*, oriented around cooperation and concern for others; *Conscientiousness*, based on concern for duty and self-control; *Emotional Stability*, or freedom from negative affect; and *Openness to Experience*, or one’s orientation toward novelty and complexity. Two of these dimensions are reliably associated with many political attitudes: Openness to Experience correlates with liberal stances, whereas Conscientiousness correlates with conservative stances (Carney, Jost, Gosling, & Potter, 2008; Gerber et al., 2010, 2011; Mondak, 2010; Van Hiel & Mervielde, 2004). The connection between these two dimensions and needs for security and certainty are clear. The preference for novelty associated with Openness reflects low levels of uncertainty aversion, whereas Conscientiousness in part reflects a need for order in the service of avoiding the insecurity that might result from a chaotic social environment (Mondak, 2010).²

Contingencies in the Relationship Between Psychological Variables and Politics?

In sum, decades of research provide evidence that political preferences have a deeper basis in fundamental existential and epistemic needs. Indeed, as research on this topic has exploded, efforts to review and integrate its diverse strands have proliferated as well (e.g., Federico, 2015; Gerber et al., 2011; Jost et al., 2009, 2013). We have drawn on these previous efforts at integration in the preceding review. However, efforts to make sense of this burgeoning literature have often underemphasized or failed to recognize the implications of a key issue: the presence of predictable and psychologically meaningful *contingencies* in this relationship. Rather, reviews have often focused on providing a run-down and classification of various main-effect relationships between variables indicative of needs for security and certainty and political preferences. However, as we will show, research increasingly suggests that the relationship between these dispositions and political preferences varies in regular and considerable ways, which have important theoretical implications.

In one respect, we find it surprising that the main conclusion drawn from this literature has little to do with contingencies in the relationship between existential and epistemic needs and political preferences. Since personality and social psychology’s formative postwar era, the field has broadly emphasized that attitudes and behavior are a function not just of persons or their environments, but the *interaction* between the two—an understanding summed up in Kurt Lewin’s (1936) famous $b = f(P, E)$ formulation (see also Snyder, 2011). Thus, the conventional wisdom within this research area stands out as an odd exception to the broadly interactionist ethos of work on the consequences of individual differences. It is all the more unusual given that the domain of politics is one in which well-defined features of the social environment—such as institutions, parties and their leaders, and the weight of nations’ unique cultures—constrain the outlooks and choices of individuals (e.g., Gerth & Mills, 1953; Lipset, 1960; March & Olsen, 2006).

Despite this, the possibility of contingencies in the relationship between core psychological needs and politics is clearly implied by recent theorizing on the topic (e.g., Gerber et al., 2010; Mondak, 2010; Morgan & Wisneski, 2017). In particular, Jost et al. (2009) distinguished between two

² Some evidence suggests that it is the “openness” rather than the “intellect” aspect of Openness to Experience that relates most strongly to political attitudes (Hirsh, DeYoung, Xu, & Peterson, 2010)

psychological components of ideology. On one hand, the *motivational substructure* is the ensemble of needs, traits, and motives that attract individuals to one ideological position or another. On the other hand, the *discursive superstructure* is the interlocking set of values, assertions about reality, and positions that the political-information environment associates with a particular ideological belief system. Whereas the motivational substructure consists of relatively universal but individually variable psychological imperatives, the discursive superstructure is historically variable and socially constructed.

Drawing on this framework, we will argue for the importance of two broad sources of variability in the relationship between needs for security and certainty and right- versus left-wing political preference: issue domain and political context. With regard to issue domain, we contend that the ability of a right-wing or left-wing political position to help satisfy needs for security and certainty will depend on the content domain of that position. For example, socially conservative positions that support traditional values (e.g., opposition to gay marriage) may relatively consistently satisfy needs for security and certainty, while economically conservative positions (e.g., opposition to increased unemployment benefits) may thwart the same needs for certain individuals by reducing insurance against uncontrollable risks such as layoffs and serious illness (see Johnson et al., 2017; Malka et al., 2014).

With regard to political context, we will argue that the variable nature of the discursive *content* of belief systems—specifically, how substantively distinct political attitudes are packaged by elites into ideological and partisan clusters, and the extent to which a person is aware of this packaging—constitutes a key contingency in the link between needs for security and certainty and political attitudes. Political stances acquire a larger partisan or ideological meaning in the context of a particular political-information environment, and these contextually constructed meanings can influence how dispositions align with political stances. Sometimes this dependence of meaning on context can produce societal-level variation in the relationship between existential and epistemic needs and a given political orientation. For instance, an allegiance to the political left (e.g., identification with a traditionally socialist party) may reflect a preference for the status quo in nations with a recent history of rule by the left (e.g., in postcommunist nations; see Marks, Hooghe, Nelson, & Edwards, 2006). In contexts like this, support for the left would satisfy rather than thwart needs for security and certainty, since it would represent a preference for the politically familiar. In societies where the left has traditionally represented change, we might expect the opposite.

However, even within a single society, discursive variability implies that individual differences in awareness of the content of socially diffused belief systems can impact whether and how underlying dispositions impact political preferences. Consistent with this, research on opinion formation in political science strongly emphasizes that only members of the mass public who are politically engaged enough to receive cues from political elites (e.g., party leaders) acquire an understanding of “what goes with what” ideologically (see Converse, 1964, 2006; Federico, 2015; Sniderman, Brody, & Tetlock, 1991; Zaller, 1992). By extension, this suggests that individuals who receive sufficient information about the content of different ideological options will sometimes adopt issue attitudes merely because these attitudes happen to be discursively bundled with other attitudes that resonate with their underlying psychological dispositions. In this way, certain links between dispositional characteristics and political attitudes will result indirectly from a combination of elite opinion leadership that packages different issue positions together into partisan or ideological bundles and individuals’ expressive motivation to adopt positions that signal partisan or ideological identity.

In the next two sections of this article, we review research on contingencies in the relationship between core psychological needs and political preferences as a function of issue domain and political context, respectively. We do so with an eye toward fleshing out the implications of the variable and discursive character of ideologies for the psychological origins of political preferences. With respect to issue domain, we focus largely on a body of results suggesting that existential and epistemic needs relate differently to attitudes regarding social issues (e.g., same-sex marriage, abortion, etc.) and economic issues (e.g., redistribution, regulation of business, etc.). With respect to political context, we

review three lines of research suggesting that the relationship between existential and epistemic needs and political preferences depends on exposure to broader information environments that imbue those preferences with social, ideological, and partisan meaning. These include studies indicating that: (1) Cultural context moderates the relationship between existential and epistemic needs and political preferences, (2) the relationship between existential and epistemic needs and political preferences varies in strength—and, in key instances, direction—as a function of political engagement, and (3) the relationship between core psychological needs and political preferences varies on the basis of naturally occurring and experimentally manipulated changes in political messaging. Then, in the final section, we note implications for scholarly understanding of the nature and origins of political ideology and make specific methodological recommendations for future research in this area.

Variation Across Issue Domain: The Differing Psychological Foundations of Social and Economic Opinion

The extensive literature on the link between existential and epistemic needs and political preferences has focused on a wide variety of variables on the political side of the equation (see Jost et al., 2009, 2013). Many studies have focused on broad political identities or “predispositions” (Sears, 1993; Zaller, 1992), most commonly ideological self-placement and partisanship (e.g., Federico, 2015; Johnston et al., 2017). Others have focused on composites of issue preferences (e.g., Federico et al., 2012), often giving heavy weight to or exclusively sampling of sociocultural aspects of politics (e.g., Altemeyer, 1996; Wilson, 1973). The usual conclusion drawn in reviews of such findings is that conservative issue positions—like conservative identifications—correlate with greater needs for security and certainty (e.g., Jost et al., 2003, 2009). Indeed, this conclusion is often distilled to a simple psychological account of ideology sometimes referred to as the “rigidity of the right” model (Tetlock, 1984), which posits that needs for security and certainty naturally attract people to a broad-based right-wing ideology because traditional norms and preservation of economic hierarchy help satisfy such needs.

Rigidity-of-the-right perspectives often suffer from a major shortcoming, however: They underemphasize or altogether fail to address possible asymmetries in this relationship across issue domain. Though issue positions are often treated as interchangeable representatives of a general left-right tendency, an extensive body of findings suggests that issue attitudes in different domains do not ideologically cohere for many citizens (e.g., Baldassari & Gelman, 2008; Converse, 1964; Federico, 2015; Kinder & Kalmoe, 2017; Malka, 2014). This frequent lack of coherence has important implications for the nature and origins of ideological belief systems.

Political domains may be divided in any of a number of ways, but it is most common to focus on two broad dimensions: *economic attitudes* dealing with issues such as social welfare, redistribution, and government spending and regulation and *social attitudes* dealing with issues such as abortion, same-sex marriage, and immigration. These two preference dimensions to some extent map on to a pair of broad value dimensions that have been emphasized in the psychological literature—a dimension corresponding to preferences for more versus less equality and a dimension corresponding to preferences for change versus stability and tradition (Braithwaite, 1997; Duckitt, 2001; Jost et al., 2003; Schwartz, 1992; Stangor & Leary, 2006). But the connection is imperfect, as equality value is applicable to both the economic (e.g., tax and spending policy) and the cultural (e.g., LGBTQ rights) domains and preference for change versus stability can apply to both of these domains as well (Brewer, 2003; Everett, 2013; Malka, Lelkes, & Holzer, 2017).

An important advantage of focusing on the cultural and economic policy preference dimensions is that these axes are quite useful for characterizing elite partisan political competition within democracies (Benoit & Laver, 2006; Huber & Inglehart, 1995), with “the traditional left/right economic cleavage” (Dalton, 2009, p. 161) recognized as a particularly widespread and durable reflection of right versus left partisan differences (e.g., Benoit & Laver, 2006; Kitschelt, 2004; Kitschelt, Hawkins,

Luna, Rosas, & Zechmeister, 2010; Marks et al., 2006; McCarty, Poole, & Rosenthal, 2006; Poole & Rosenthal, 2007). As for mass publics, survey evidence supports this two-factor issue structure over a single-factor right versus left issue structure (Carmines, Ensley, & Wagner, 2012; Duckitt & Sibley, 2010; Evans, Heath, & Lalljee, 1996; Feldman & Johnston, 2014; Fleishman, 1988; Johnston et al., 2017; Knoke, 1979; Shafer & Claggett, 1995; Treier & Hillygus, 2009; see also Layman & Carsey, 2002), and it often suggests that the two dimensions are not consistently aligned with one another (e.g., Malka, Lelkes, & Soto, 2017; Petersen, 2015; Weeden & Kurzban, 2016).

Despite abundant evidence that issue attitudes are best characterized in terms of at least two dimensions, studies often fail to address whether needs for security and certainty have the same correlates across issue domains. We contend that variability across issue domains ought to be placed front and center in theory and research on the psychological bases of political attitudes and that a failure to do so has yielded misleading conclusions about the way in which existential and epistemic needs relate to political preferences. In particular, as Feldman and Johnston (2014) have pointed out, theoretical perspectives have implicitly or explicitly assumed that the economic and social domains are tightly constrained and commonly influenced by bottom-up psychological processes. Like Feldman and Johnston (2014), however, we argue that while needs for security and certainty reliably predict conservatism in the social domain, they often do not predict conservatism in the ideologically and politically central economic domain (Federico, Johnston, & Lavine, 2014; Feldman & Huddy, 2014; Johnston et al., 2017; Malka & Soto, 2015; see also Weeden & Kurzban, 2016). In this section, we review a growing body of evidence for this assertion.³

Asymmetry in the Issue Correlates of Authoritarianism

Consider, first of all, asymmetry in the issue correlates of authoritarianism. To recap, authoritarianism represents individual differences in need for social uniformity, order, structure, and certainty, all buttressed by sensitivity to threats and a valuing of obedience (e.g., Duckitt, 2001; Hetherington & Weiler, 2009; Stenner, 2005). For the sake of clarity, we note at the outset that we avoid research using measures of authoritarianism that include explicit political content (e.g., Adorno et al., 1950; Altemeyer, 1996; see Feldman, 2003; Jost et al., 2003; Malka, Lelkes, et al., 2017). Instead, we focus on research that operationalizes authoritarianism without invoking politically conservative content, primarily by using a brief measure of preferred child-rearing values (Federico et al., 2011; Feldman, 2003; Hetherington & Weiler, 2009; Stenner, 2005).

Evidence using this type of prepolitical authoritarianism measure suggests that the construct predicts cultural but not economic conservatism. For example, Cizmar, Layman, McTague, Pearson-Merkowitz, and Spivey (2014) found that while authoritarianism has reliably predicted social conservatism in nationally representative American samples over multiple decades, its effects on economic conservatism have been near zero and directionally inconsistent. Clifford, Jewell, and Waggoner (2015), Feldman and Johnston (2014), and Stenner (2005) find a similar asymmetry: Authoritarianism reliably predicts conservative preferences on social issues, but not on economic ones. Finally, moving from the realm of policy attitudes to core political values, Federico and his colleagues (2011) found that authoritarianism was more strongly related to moral traditionalism than opposition to equality. This is significant, given that research on values and policy judgment finds that moral traditionalism best predicts attitudes in the social-policy domain, whereas opposition to equality better predicts attitudes in the economic domain (Goren, 2012).

³ To be sure, examining main effects of existential and epistemic needs on domain-specific attitudes is an approach that possesses substantial shortcomings. This is because such domain-specific effects often themselves vary across aspects of social context, as we will show in subsequent sections. However, the point of this section is to show that issue domain does indeed constitute a major source of variability in the relationship between needs for security and certainty and political attitudes. Issue domain, we contend, is a good place to start when building a comprehensive model of heterogeneity in the effects of psychological attributes on political attitudes.

Studies with slightly different methodologies find similar results. For example, Crowson (2009) examined the correlates of “dogmatic aggression,” a measure that taps directly into hostility toward those with different values and beliefs. Using data from a community sample, he found that this construct predicted social conservatism but not economic conservatism (see also Crawford, Brandt, Inbar, Chambers, & Motyl, 2017). Similarly, using cross-national data from the fourth wave of the World Values Survey, Napier and Jost (2008) found that authoritarianism items tapping obedience, cynicism, moral absolutism, and conventionalism reliably correlated with social conservatism but displayed small and directionally inconsistent correlations with economic preferences.

Asymmetry in the Issue Correlates of Other Forms of Threat Sensitivity

A core element of authoritarianism is that it involves a heightened sensitivity to threat (Lavine et al., 1999, 2002), especially threats to social order (Duckitt & Sibley, 2010). As noted previously, other indices of threat sensitivity have also been found to correlate with certain conservative preferences. However, a close look at studies involving these variables also suggests an asymmetry in their relationships with conservatism across the social and economic domains (Hibbing et al., 2014). For example, Crowson (2009) found that fear of death predicted social conservatism but not economic conservatism. Similarly, Janoff-Bulman and her colleagues (2008) found that motivation to avoid negative outcomes was associated with a social-conservatism attitude composite but not an attitude composite consisting mostly of economically conservative content. And numerous studies find that trait neuroticism has near-zero or negative relationships with economic conservatism (although relations between neuroticism and social conservatism are not reliable either; Carney et al., 2008; Clifford et al., 2015; Fatke, 2016; Gerber et al., 2010; Jost & Thompson, 2000; Mondak, 2010; Yilmaz & Saribay, 2016).

Oftentimes when measures of threat sensitivity are examined in relation to political preferences, the underlying theory only specifies linkages with cultural attitudes having to do with protecting the social unit against outsiders or transgressors (e.g., Hatemi, McDermott, Eaves, Kendler, & Neale, 2017; Oxley et al., 2008). Oxley et al. (2008), for example, predicted that physiological responsiveness to threatening images and unexpected noise would predict political positions reflecting concern “with protecting the interests of the participants’ group, defined as the United States in mid-2007, from threats” (p. 1668). Though this study is often cited as evidence that threat sensitivity predicts political conservatism (e.g., Jost & Amodio, 2012, p. 60; see Crawford, 2017), Oxley et al. (2008) asserted that “we do not label these collections of policy positions as either ‘liberal’ or ‘conservative’ because we measure only one aspect of ideologies and exclude other aspects such as positions on economic issues” (p. 1668). Indeed, while Oxley et al. (2008) found relationships between threat sensitivity and an attitude index involving conservative cultural and defense-related positions (e.g., abortion, immigration, Patriot Act, warrantless searches), they found no such relationship with economic conservatism. Somewhat similar findings were obtained by Choma and Hodson (2017): Threat was related to higher right-wing authoritarianism (which is closely linked with cultural conservatism) but lower levels of social dominance orientation (which reflects a blend of economically and culturally conservative content).

Research on naturally occurring and experimentally manipulated threats is often cited in support of the hypothesis of “conservative shift” in response to threat. However, the political preferences examined as dependent variables in this research frequently exclude or undersample economic content, focusing mainly on cultural content, aggressive military policy, patriotism, or support of leaders (e.g., Bonano & Jost, 2006; Lambert et al., 2010; Nail, McGregor, Drinkwater, Steele, & Thompson, 2009). To give one example, the vast majority of the studies reviewed in a meta-analysis of mortality salience effects on political attitudes used measures of the latter dealing with candidate support, cultural conservatism, or support for aggressive military policy (Burke, Kosloff, & Landau, 2013). To give another example, Bonano and Jost (2006) sampled 46 high-impact survivors of the 9/11 attacks

and found that the number of them reporting a perception that they had become more conservative since the attack exceeded the number of them reporting a perception that they had become more liberal. Support for military action and patriotism, increased religiosity postattack, and desire for revenge all predicted likelihood of conservative shift. Thus, the self-perceived conservative shift appears to have resulted from violence-related attitudes, patriotism, and increased religiosity. The role of economic attitudes was not gauged.

But in addition to these causes of conservative shift, a well-known public opinion phenomenon was likely at work. During crises and onset of military conflict, American presidents tend to enjoy a “rally ‘round the flag” effect in which they experience a temporary surge in approval (Berinsky, 2009; Mueller, 1970). President George W. Bush enjoyed a particularly strong surge because of the magnitude of the 9/11 attacks (Erikson & Tedin, 2010). In this vein, Nail and McGregor (2009) compared political attitudes of a sample assessed one year prior to the attacks and a sample assessed two months after the attacks (neither of which was nationally representative). The latter sample was substantially more supportive of President Bush and substantially more supportive of increased military spending.

One has to look hard to find studies in which shifts in economic preferences are observed as a function of situational threat. Nail and McGregor (2009) found a near-significant difference in support of socialized medicine between separate pre-9/11 and post-9/11 convenience samples. Thorisdottir and Jost (2011, Study 4) found that a manipulation of threat among delegates at an Icelandic national party convention was associated with increased issue conservatism using a measure that largely, but not exclusively, tapped economic content (although they did not find an influence of this manipulation on self-rated conservatism). But other experimental research suggests that threat yields economically left-wing views. For example, Brown-Ianuzzi, Lundberg, Kay, and Payne (2015) found that manipulated threats to one’s perceived social status yielded more left-wing economic preferences. Napier, Huang, Vonasch, and Bargh (2017) recently took the novel approach of manipulating feelings of safety among self-identified conservatives and Republicans. They found that this safety manipulation lowered the conservatism of their social preferences, but not of their economic preferences, suggesting that “socially (but not economically) conservative attitudes are driven, at least in part, by needs for safety and security” (p. 1). And, as we discuss below, Petruscu and Parkinson (2014) found that disgust manipulations also lead to left-wing economic preferences. Clearly, type of threat matters, as does political attitude domain (Crawford, 2017; Kettle & Salerno, 2017; Lambert et al., 2010).

Research on the political correlates of disgust and disgust sensitivity—factors linked to how people respond to threats of biological contamination (Rozin & Haidt, 2013)—also provides evidence for asymmetry across issue domains. As mentioned previously, a number of findings suggest that disgust sensitivity correlates with conservative self-identification (Helzer & Pizzaro, 2011; Inbar, Pizarro, Iyer, & Haidt, 2012; Inbar, Pizarro, & Bloom, 2009; Smith, Oxley, Hibbing, Alford, & Hibbing, 2011). However, other studies reveal null effects or mixed evidence across disgust measures (Kam & Estes, 2016; Malka et al., 2016; Tybur, Merriman, Caldwell Hooper, McDonald, & Naverette, 2010). Meanwhile, measured and manipulated disgust sensitivity have been found to relate to some forms of social conservatism, although this evidence has also been inconsistent across social conservatism measures and across studies (Crawford, Inbar, & Maloney, 2014; Inbar et al., 2009; Inbar et al., 2012; Inbar, Pizzaro, Knobe, & Bloom, 2009; Malka et al., 2016; Terrizzi, Shook, & Ventis, 2010).

Meanwhile, manipulated disgust and measured disgust sensitivity tend not to relate to economic conservatism (Inbar et al., 2012; Kam & Estes, 2010; Malka et al., 2016; Petruscu & Parkinson, 2014; Smith et al., 2011; Terrizzi et al., 2010; but see Brenner & Inbar, 2015). In fact, one set of studies demonstrated an effect of manipulated incidental disgust on economic liberalism (Petruscu & Parkinson, 2014), and another showed a correlation between individual differences in disgust sensitivity and a preference for greater food-safety regulation (a form of government intervention in the economy; Kam & Estes, 2016). And not surprisingly, disgust-related variables predict moral traditionalism more

strongly than egalitarianism (which has relevance to both economic and cultural preferences; Tybur et al., 2016; Tybur et al., 2010).

A relatively small number of studies have shown links between threat sensitivity indicators and economically right-wing views. For example, Nilsson and Jost (2016) found that both death anxiety and belief in a dangerous world predicted economic system justification, while also predicting an index of social conservatism (i.e., RWA). Similarly, Hennes, Nam, Stern, and Jost (2012) found that death anxiety predicted economic system justification along with several socially conservative issue positions (e.g., tighter immigration policy). Jost and his colleagues (2007) also found that belief in a dangerous world predicted opposition to economic equality. However, the findings outlined in this section suggest that an association between economic conservatism and nonpolitical forms of threat usually does not emerge in empirical work.⁴

Asymmetry in the Issue Correlates of Needs for Certainty and Closure

Similar results have been found in studies examining relationships between issue attitudes and variables indicative of needs for certainty. When domain-specific attitude measures are used, analyses reveal that needs for certainty consistently predict social conservatism but are weakly and inconsistently related to economic attitudes. For example, using representative samples from the American National Election Studies (ANES), Feldman and Johnston (2014) found that need for cognition—which represents a relatively *low* need for certainty—predicted left-wing cultural views but did not correlate with economic views, while the need for cognitive closure predicted right-wing cultural, but not economic, views. In a sample of Turkish students, Yilmaz and Saribay (2016) found that need for closure predicted social conservatism but showed a weak (but significant) negative link with economic conservatism. In a random sample of voters from Muncie, Indiana, Johnson, and Tamney (2001) found that dogmatism related to social conservatism but left-wing economic views. In a sample of Italian students, Chirumbolo et al. (2004) found that those high in need for cognitive closure were more anti-immigrant, nationalistic, autocratic, religious, and averse to pluralism and multiculturalism than were those low in need for closure, but those high and low in need for closure did not differ from one another in either of two economic attitudes: support of free enterprise and support of the welfare state. Van Hiel et al. (2004) found that need for simple structure was correlated with cultural conservatism but not economic conservatism. Kossowska and Van Hiel (2003, Study 2) found that need for cognitive closure predicted conservative cultural preferences but *left-wing* economic preferences in a Polish sample. Paralleling this, other studies that separately measure political value dimensions having to do with moral traditionalism (closely linked to social attitudes) and opposition to equality (more closely linked to economic issues) find that needs for certainty, closure, and simple structure relate more strongly to the former than the latter (Federico, Ergun, & Hunt, 2014; Jost et al., 2007; Van Hiel et al., 2004).

Research on the political correlates of cognitive ability, which has often been linked to cognitive style and orientations toward uncertainty (e.g., Fleischhauer et al., 2010), dovetails with the above findings. Specifically, a number of recent studies have found that low intelligence (in particular, low

⁴ As scholars have pointed out, it is important to attend closely to the measures and manipulations used in research on threat and political attitudes (Crawford, 2017; Malka et al., 2017; Reyna, 2017; Tritt, Peterson, Page-Gould, & Inzlicht, 2016). For example, in unpublished data, Gosling and Pennebaker (2014) report positive, significant correlations between fears of terrorism and ISIS and economic conservatism (see Jost, Stern, et al., 2017). However, the presence of explicit political content in these threat measures makes us cautious about interpreting the results as evidence of relationships between psychological variables and economic attitudes. Consistent with this, less partisan fears (e.g., of snakes and the Ebola virus) were uncorrelated with economic conservatism in the same data. Similarly, Thorisdottir and Jost (2011, Study 3) manipulated feelings of threat by altering the scale labels on items pertaining to the threat of terrorism; their finding that increased threat lead to greater self-reported conservatism should be interpreted in the context of one particular type of politicized threat (as opposed to threat of police brutality against Blacks or threat of climate change). Indeed, politicized content is present in many of the measures and manipulations in the studies reviewed in Jost, Stern, et al.'s (2017) recent meta-analysis.

verbal ability; see Ludeke, Rasmussen, & DeYoung, 2017) predicts right-wing social-issue positions but left-wing positions on economic matters (Brandt & Crawford, 2016, supplementary material, p. 18; Carl, 2014; Kemmelmeier, 2008; Onraet et al., 2015). Also consistent with the above findings, Cichocka, Bilewicz, Jost, Marrouch, and Witkowska (2016) found that grammatical preference for nouns (theorized to help satisfy needs for structure, predictability, and order) predicted social, but not economic, conservatism.

Other research on the correlates of needs for certainty has produced mixed evidence with respect to the economic domain, while continuing to show consistent relationships between these needs and social conservatism. Using Canadian student samples, for example, Choma and her colleagues (2012) found that intolerance of ambiguity and dogmatism consistently predicted social-issue conservatism but were more weakly (and only inconsistently) related to economic conservatism (for similar results using a composite index of uncertainty avoidance, see Jost et al., 2007, Study 3). Similarly, across several student and Internet convenience samples, Deppe et al. (2015) and Talhelm et al. (2015) found that individuals who relied on a more analytic (as opposed to intuitive) style of thinking were consistently and substantially higher in social conservatism. However, the results also suggested that analytic-thinking style tended to be unrelated or relatively weakly related to economic conservatism. Furthermore, the one study from these articles that used a representative national sample (Deppe et al., 2015, Study 2) found that analytic-thinking style correlated with social, but not economic, conservatism.

In the study discussed previously, Crowson (2009) also found consistent evidence that individual differences pertaining to closed cognitive style predicted social conservatism, but very little evidence that they predict economic conservatism. Need for cognition, need for structure, and need to evaluate did not predict economic conservatism at all, and dogmatism's relationship with economic conservatism did not survive controls for social conservatism. Indeed, only a measure of "belief in certain knowledge" (tapping the perception that knowledge is unchanging and definite) predicted economic conservatism after controlling for social conservatism. Similarly, in a student sample, Nilsson and Jost (2016) found a significant relationship between need for closure and economic system justification, though the relationship was not replicated in a second Mturk sample and was weaker than the comparable relationship between need for closure and a measure of conservative social values (i.e., RWA). And whereas Cichocka et al. (2016) found that the need-for-structure facet of the need for closure predicted social but not economic conservatism, the Decisiveness facet predicted economic but not social conservatism (but see Van Hiel et al., 2004).

Finally, a handful of studies reveal roughly similar relationships between needs for certainty and attitudes in the social and economic domains (see Jost, Sterling, et al., 2017, for details). For example, Cornelis and Van Hiel (2006) found the need-for-structure facet of the need for closure predicted both social and economic conservatism in samples of Belgian students, while Sterling, Jost, and Pennycook (2016) found that Mturk respondents who scored higher in a measure of bias and heuristic correction were lower in both social conservatism and support for free-market ideology. Everett (2016) found that dogmatism predicted social conservatism relatively strongly and displayed a weaker relationship with economic conservatism as well. Lastly, Hennes et al. (2012) found that need for closure related to economic system justification in a convenience sample. Thus, while some studies do find significant relationships between needs for certainty and attitudes in the economic domain, such studies are clearly in the minority, and the observed relationships are often weaker and less consistent than those involving socially conservative attitudes.

Asymmetry in the Issue Correlates of Values and Morality

Research examining the issue-attitude correlates of values and morality tells a similar story. In this vein, research on conservation versus openness to change values, which reflect a prioritization of conformity, security, and tradition over stimulation and self-direction, shows the usual domain-based

asymmetry. For example, Duriez, Van Hiel, and Kossowska (2005) found that conservation values were correlated with social conservatism across a variety of contexts, but inconsistently (and more weakly) associated with economic preferences. Specifically, prioritizing conservation over openness values was uncorrelated with economic conservatism in five Belgian samples, correlated with left-wing economic views in a Polish student sample, and correlated with right-wing economic views in a Belgian activist sample. Similarly, using data from 15 nations, Schwartz and his colleagues (2014) found that conservation values reliably predicted social conservatism but had effects on economic attitudes that varied in direction across postcommunist and Western nations—a cross-national asymmetry that we discuss further in a subsequent section. Finally, using World Values Survey data, Malka and his colleagues (2014) found that conservation values reliably predicted social conservatism but had a small pooled *negative* effect on economically right-wing views (see Johnston et al., 2017, for a closer look at the American case using this dataset).

Research on other moral predispositions shows a similar pattern. For example, research on the dual-process model of ideology (e.g., Duckitt, 2001; Duckitt & Sibley, 2010; Duckitt, Wagner, du Plessis, & Birum, 2002) has shown that attributes such as social conformity and belief in a dangerous world reliably and strongly predict right-wing authoritarianism (a form of social conservatism), while predicting social dominance orientation (a generalized form of antiegalitarianism that is often strongly linked to economic attitudes) only weakly and inconsistently. In the context of moral foundations theory (Haidt, 2012), research also provides evidence of a similar asymmetry (e.g., Iyer, Koleva, Graham, Ditto, & Haidt, 2012; Malka et al., 2016; Weber & Federico, 2013).

Asymmetry in the Issue Correlates of the Big Five Personality Traits

As noted previously, research finds that two of the Big Five traits—Openness to Experience and Conscientiousness—are consistently associated with political preferences. Whereas Openness usually predicts liberalism, Conscientiousness typically predicts conservatism. Some research has examined these traits as correlates of cultural and economic attitudes independently, and this work has revealed mixed evidence regarding whether the relationships are symmetrical or asymmetrical across attitude domains.

Regarding Openness to Experience, Carney and her colleagues (2008) found that this dimension was inversely related to social conservatism but unrelated to economic conservatism. Yilmaz & Saribay (2016, Study 2) found the same thing using a Turkish student sample. Similarly, using cross-national data spanning 21 nations, Fatke (2016) found that Openness predicted liberal social attitudes (though only in democratic countries) but was unrelated to economic attitudes (although see Ludeke & Larsen, 2017). However, other studies provide evidence for symmetry. Gerber and his colleagues (2010), for example, found that Openness predicted both social *and* economic liberalism in a large Internet sample of registered voters, with the trait being only slightly more predictive of attitudes on the social dimension. Similarly, Mondak (2010) found that Openness to Experience was most strongly and consistently associated with liberalism on social issues (especially abortion and the war in Iraq) but also predicted liberal preferences on one economic issue, that is, support for federal income tax cuts. Finally, in the same study discussed previously, Clifford and his colleagues (2015) found that Openness predicted liberal positions on both social and economic issues in three samples of adults.

The story is similar in the case of Conscientiousness. In the studies cited above, Carney et al. (2008), Mondak (2010), and Yilmaz and Saribaby (2016, Study 2) found that Conscientiousness was associated with (at least some) socially conservative issue positions but was unrelated to conservatism on economic issues. Again, however, not all studies suggest asymmetry. For example, Gerber et al. (2010) found that Conscientiousness was associated with both social and economic conservatism, though its relationship with social attitudes was slightly stronger. And Clifford et al. (2015) found that

Conscientiousness predicted both social and economic conservatism in their American datasets, while Fatke (2016) found a similar result in the cross-national data he examined.

In sum, some studies show that the Big Five traits of Openness and Conscientiousness have asymmetrical correlates across the cultural and economic domains, whereas other studies provide evidence for symmetrical correlates. As we will discuss later, there are contextual sources of variability in these relationships that clear up some of this confusion.

Asymmetry in the Issue Correlates of Religiosity: Parallels With Needs for Security and Certainty

Religiosity—a widely studied individual difference variable in public opinion research—has numerous links with the existential and epistemic dispositions that we consider in this review. Indeed, research suggests that religiosity—as an orientation that furnishes individuals with an orderly framework for making sense of reality—is consistently related to indicators of needs for security and certainty (e.g., Jost et al., 2014; Saraglou, 2002a, 2002b; Vail et al., 2010).⁵ Moreover, analyses using genetically informative designs indicate that religiosity is both stable and heritable and that the overlap between religiosity and key existential and epistemic needs may be due to shared genetic influences (Friesen & Ksiazkiewicz, 2014; Lewis & Bates, 2013).

Interestingly, religiosity is frequently “assumed into” measures of conservatism in that it is treated as an inherent component of a broad conservative syndrome (e.g., Altemeyer, 1996; Wilson, 1973; see political measures used in studies meta-analyzed in Jost et al., 2003; Jost, Sterling, et al., 2017; Jost, Stern, et al., 2017; Van Hiel et al., 2010). This approach is problematic because it precludes investigation of variability in how religiosity relates to conservative positions on substantive matters across different political domains and contexts (Malka, 2013; Malka et al., 2017). Given its robust ties to needs for security and certainty, we might expect religiosity to relate more strongly and consistently to social conservatism than economic conservatism. Indeed, religiosity has its largest and most reliable links with issues related to sexual morality (Davis & Robinson, 1996; Friesen & Ksiazkiewicz, 2014; Jost et al., 2014; Layman, 2001; Malka, Lelkes, Srivastava, Cohen, & Miller, 2012).

As for other forms of conservatism, some evidence suggests small overall effects of religiosity on right-wing attitudes (Friesen & Ksiazkiewicz, 2014; Jost et al., 2014; Malka et al., 2012) that vary in strength, and even direction, across denominations (Layman & Green, 2005) and levels of exposure to political discourse (Malka et al., 2012; Malka & Soto, 2011). We discuss these sources of variability in subsequent sections. Furthermore, religiosity has sometimes been shown to predict left-wing positions on torture and the death penalty (Malka and Soto, 2011; Malka et al., 2012) and “economic communitarianism” involving expressed concern for the well-being of immigrants (Van Heuvelen & Robinson, 2017; see also Bohman & Hjerm, 2014). With respect to economics in particular, evidence does not suggest a durable link with right-wing economic views (see Malka, 2013, for a review). Some studies suggest that religiosity predicts liberal positions on certain economic matters (Davis & Robinson, 1996, 1999a, 1999b) whereas others suggest that it has null or inconsistent relationships with economic attitudes (Feldman & Johnston 2014; Guiso, Sapienza, & Zingales, 2003; Hayward & Kemmelmeier, 2011; Yilmaz & Saribay, 2016, Study 2). Moreover, Malka and his colleagues (2011) show that religiosity as a disposition may actually have two conflicting effects on support for social welfare. Although it directly *promotes* support for social welfare policy by encouraging a prosocial value orientation, it also indirectly *weakens* support for social welfare policy by attracting individuals

⁵ Note that we use the term “religiosity” to refer to individual differences in degree of religious involvement and commitment (e.g., Malka, 2013), differentiating it from “religious affiliation” in the sense of self-affiliation with a specific religious belief system and community. In this respect, religiosity can be thought of as an underlying psychological inclination tapping the level of commitment and involvement that individuals experience in the context of a particular belief system and community.

to political conservatism. Thus, religiosity relates differentially to attitudes in the social and economic domains in much the same way as other dispositions pertaining to needs for security and certainty.

Summary

The evidence reviewed in this section reveals that many of the characteristics presumed to underlie “conservatism” in general are more strongly and consistently related to social conservatism than economic conservatism. With respect to economic conservatism, relationships tend to be weak and to even vary in direction. Even within the domain of social issues, we see some variability in the extent to which certain indicators of needs for security and certainty are associated with issue preferences. Given the centrality of economics to the left-right divide in politics across a variety of societies, the poor performance of existential and epistemic needs as predictors in the economic realm is problematic for any general approach to the origins of citizens’ political preferences. As such, this asymmetry calls out for further explanation. In an effort to make sense of it, we return to the case of economic issues in subsequent sections and review evidence that the weak main-effect relationship between needs for security and certainty and economic-policy preferences masks sizable and important variation in this relationship across political contexts and across individuals varying in political engagement.

Variation Across Political-Information Environment: Cultural Context, Political Engagement, and Political Messaging

We argue that links between needs for security and certainty and political preferences are conditional on several factors in a way that is not sufficiently captured by the conventional wisdom about political ideology within psychology. We have so far shown that many attributes pertaining to needs for security and certainty reliably predict cultural conservatism, but, as a whole, display relations with economic conservatism that tend to be close to zero and to vary in direction across studies and measures. In this section, we will review evidence that, in addition to varying across issue domains, certain connections between needs for security and certainty and political attitudes vary across aspects of the political-information environment. We organize this section into three subsections, each of which focuses on a source of contextual variability that reflects differences in the content or volume of political information exposure.

Variation Across Cultural Contexts and Groups

In recent decades, psychologists have increasingly recognized cross-cultural variability in many putatively “basic” psychological processes (A. B. Cohen, 2009; D. Cohen, 2001; Markus & Kitayama, 1991). Despite this increased recognition, research on the relationship between needs for security and certainty and political preferences has usually ignored variation across cultural contexts. Rather, main-effects theorizing has predominated, as scholars often focus on overall relationships between psychological variables and political preferences and neglect to consider potential heterogeneity in these relationships across subgroups. Nevertheless, a number of studies have now addressed cross-cultural variability in the bases of political preferences. The methodology of this research often differs from that typical of psychological science in that large representative samples from one or more nations are studied. The findings of these studies suggest that relationships between core psychological needs and specific political attitudes vary meaningfully across national political contexts and key cultural-group memberships. In this subsection, we focus on three areas of contextual variability that are supported by a body of empirical findings: residence in a postcommunist nation, the degree of “modernization,” or “WEIRDNESS” (see Henrich, Heine, & Norenzayan, 2010) of one’s national context, and religious and racial/ethnic group membership in the United States. We argue that cross-cultural variation in the political implications of needs for security and certainty is largely attributable

to differences in political-information environment—specifically, differences in how political preferences are packaged into ideological bundles by elites.

Postcommunist status. The most commonly studied source of cultural variability in this research area is that between Western European nations and postcommunist Central and Eastern European nations. Most studies addressing the links between dispositional attributes and political preferences use “Western” samples—mainly from the United States and other Western liberal democracies. However, it has been theorized that within formerly communist countries—which were dominated by an egalitarian ideology during the Cold War—people with strong needs for security and certainty will favor economic policies characteristic of “the old (left-wing) ways of doing things” (Thorisdottir et al., 2007, p. 182). This is consistent with our view that relationships between core psychological needs and political preferences are constructed on the basis of information about how elites ideologically package different sets of attitudes. Specifically, as Marks et al. (2006) note, political parties in postcommunist Europe have tended to combine either left-wing economic views with right-wing cultural views, or right-wing economic views with left-wing cultural views (see Marks et al., 2006, Figures 1 and 2, pp. 158–159). This, the authors argued, is rooted in the lines of conflict shaped by varying reactions to the Communist regimes. Specifically,

Communist regimes delivered more economic equality than market economies and suppressed public dissent and alternative lifestyles. Reform in these societies has combined the demand for free markets and democratic opening of the political process. Political parties that cater to transition losers try to blunt reform by emphasizing its polar opposite—economic equality and traditional authority Political parties that represent transition winners repudiate authoritarianism and state control over the economy precisely because they seek a clean break with the past. (Marks et al., 2006, p. 159)

Thus, in contrast to citizens of the West, citizens of Central and Eastern European societies have tended to receive messages that free-market economic views go with cultural progressivism while redistributive economics goes with traditionalism. This would lead one to expect that those high in needs for security and certainty will favor left-wing economics and those low in such needs will favor right-wing economics in these societies.

Cross-national survey evidence supports this conclusion. First of all, the typical relationship between needs for security and certainty and right-wing (vs. left-wing) self-identification is not present—and is often reversed—in postcommunist nations. Using European Social Survey data from 2002, for example, Thorisdottir and her colleagues (2007) found that rule following related to right-wing identification in Western but not Eastern Europe, that need for security related to right-wing identification in Western Europe but left-wing identification in Eastern Europe, and that Openness to Experience related to left-wing identification in Western Europe but right-wing identification in Eastern Europe (see Roets, Cornelis, & Van Hiel, 2014, for similar results involving Openness). Similarly, Piurko, Schwartz, and Davidov (2011) found that conservation values predicted right-wing identification in Western European countries but not in Eastern European ones. Kelemen, Szabo, Meszaros, Laszlo, and Forgas (2014) found that Hungarians identifying with the left and the right did not differ in need for cognition, need for order, decisiveness, discomfort with ambiguity, closed mindedness, or authoritarianism (although in some cases there were curvilinear effects such that extremists of both left and right were more cognitively closed). Finally, using World Values Survey data from 51 nations, Malka et al. (2014) found that a measure of needs for security and certainty—gauging Schwartz’s (1992) conservation versus openness values axis—predicted right-wing identification in Western nations, but left-wing identification in postcommunist nations. Thus, the link between needs for security and certainty and right-wing self-identification does not generally apply to postcommunist nations, where it often appears to reverse.

The reason for expecting that these needs would not predict right-wing identification in postcommunist national contexts relates specifically to economic preferences. Those who prioritize security and order should favor the “traditional” left-wing economic positions that have been packaged together with cultural traditionalism by elites (Marks et al., 2006; Thorisdottir et al., 2007). Consistent with this argument, Malka et al. (2014) also found that needs for security and certainty predicted left-wing economic attitudes more strongly in postcommunist nations than in other nations. Similarly, using convenience samples from 20 nations, Schwartz et al. (2014) found that preference for conservation values over openness values predicted left-wing economic views in postcommunist nations but right-wing economic views in other nations. Other studies tell a similar story. For example, Kossowska and Van Hiel (2003, Study 2) found that the need for closure predicted right-wing economic attitudes in a Flemish sample but left-wing economic attitudes in a Polish sample. Moreover, Van Hiel et al. (2005) found that conservation values predicted left-wing economic views in a Polish sample but were uncorrelated with economic attitudes in five out of six Belgian samples (see also Golec, 2002).

It is commonly assumed that right-wing cultural and economic attitudes go together naturally, with ideological constraint across these domains driven by common existential and epistemic needs (e.g., Adorno et al., 1950; Jost et al., 2003). But the above findings suggest that bottom-up dispositional influences might yield a different type of belief-system structure in postcommunist nations, where elites structure preferences differently. Indeed, Malka et al. (2017) found *negative* correlations between right-wing views in the economic and social domains in the vast majority of postcommunist nations in the World Values Survey.

Thus, within postcommunist nations, the classic “rigidity of the right” model is turned on its head in many ways—especially with respect to economic preferences. While this has been acknowledged theoretically (e.g., Kossowska & Van Hiel, 2003; Thorisdottir et al., 2007), it is more typically asserted (or assumed that) the connection between needs for security and certainty and right-leaning preferences is broadly applicable across cultures and issue domains. However, as our earlier review shows, the balance of evidence from research with representative national samples is not consistent with this conclusion. To understand these results, it is important to focus on another major source of cross-cultural variability—what has been termed WEIRDness (Henrich et al., 2010).

WEIRDness. WEIRD is an acronym for “Western, Educated, Industrialized, Rich, and Democratic,” a summary of the typical composition of samples used in psychological research. Recent theorizing suggests a variety of reasons why reliance on WEIRD samples may distort our understanding of basic psychological processes, leading us to miss important forms of cultural variability (Henrich et al., 2010). A similar problem may prevail in studies of how existential and epistemic needs relate to political preferences (Malka et al., 2017). One hint about this comes from a meta-analysis by Sibley, Osborne, and Duckitt (2012). These researchers proposed that the relationship between Big Five Openness to Experience and identification with the political right would only be present within low-threat cultural contexts, which are disproportionately WEIRD. This, they argued, was because high-threat contexts block those low in dispositional needs for security and certainty from feeling a basic sense of security that would enable them to support progressive social change. Consistent with this, their meta-analysis found that Openness predicted liberal identification in low-threat but not high-threat contexts.

However, recent perspectives suggest that variation of this sort across types of societies might be even more dramatic. In particular, higher levels of development (and concomitant cultural changes) may reverse a psychologically functional relationship between needs for security and certainty and preferences for greater redistribution and intervention in the economy (Johnston et al., 2017; Johnston & Wronski, 2015; Malka et al., 2014; Malka & Soto, 2015; Malka et al., 2017). As we review in later sections, left-leaning economic policies aim to provide security, stability, comfort, and protection, which those with high needs for security and certainty will often prioritize. Conversely, those low in such needs will often favor right-leaning, market-oriented policies because they provide greater freedom and opportunity for gain—even if this comes at the expense of greater risk. This “instrumental”

influence of core psychological needs on economic attitudes (see Johnston et al., 2017) is diametrically opposite to the usual rigidity-of-the-right prediction. But this instrumental influence is not always decisive, and this is where cultural shifts associated with development come in.

Highly developed nations—the kinds most often sampled in this area of research—tend to undergo a series of cultural changes such that more citizens move away from traditional norms concerning sexual morality (Adamczyk & Pitt, 2009; Inglehart & Welzel, 2005; Norris & Inglehart, 2011). This results in a “lifestyle” politics cleavage that pits traditional views in areas such as sexual morality against progressive cultural views. This cultural cleavage often gets assimilated to the predominant left-right economic cleavage at the elite level (e.g., Benoit & Laver, 2006; Layman & Carsey, 2002; Lefkofridi, Wagner, & Willmann 2014). In WEIRD societies, economically right-wing parties have most often appealed to moral traditionalists who are uncomfortable with progressive social changes while economically left-wing parties have most often appealed to cultural progressives who embrace such changes. Both types of parties attempt to intellectually integrate their respective lifestyle politics stances into a broader ideology that includes their economic worldviews (e.g., Noel, 2013). Because of this “creative synthesis” on the part of elites (Converse, 1964), the politically engaged segment of the population receives and internalizes messages that cultural traditionalism goes with economically free-market views under a “conservative” or right-wing banner while cultural progressivism goes with economically redistributive views under a “liberal” or left-wing banner. Furthermore, the tendency for self-expressive values to become highly operative in politically and economically developed societies enhances people’s motivation to bolster a coherent right-wing or left-wing identity, as defined by the attitude packages and their associated rationales supplied by elites.

How might these societal changes associated with development impact the relationship between existential and epistemic needs and economic preferences? As described above, those high in needs for security and certainty are naturally attracted to culturally traditional views, which promise stability and order. Conversely, those low in such needs favor the freedom and opportunity associated with the progressive separation from traditional norms. But when traditional cultural norms are coupled with free-market economic views under a conservative banner while progressive cultural views are coupled with redistributive economic views under a left-wing banner, politically engaged people in WEIRD contexts will tend to adopt an entire identity-consistent ideological package for symbolically self-expressive reasons. Thus, while there are direct, instrumental forces compelling needs for security and certainty to go with left-wing economic views, these forces should be counteracted when a lifestyle-politics cleavage is salient and has been integrated with the traditional-economics cleavage to form broad-based right-wing and left-wing packages.

Indeed, evidence from World Values Survey data discussed previously (Malka et al., 2014; Malka et al., 2017) suggests important cross-cultural variability in the relationship between needs for security and certainty and economic preferences. On average, high needs for security and certainty went with left-wing economic views while low needs for security and certainty went with right-wing economic views. But this relationship was wiped out, and sometimes reversed, among politically engaged citizens of societies characterized by a high degree of modernization and whose elites packaged social and economic positions together in an ideologically consistent fashion (Malka et al., 2014). That is, within societies where an important lifestyle-politics cleavage is likely to have emerged and to have become incorporated into the left-right axis, the link between needs for security and left-wing economics is attenuated and sometimes even reversed. Of course, these are the types of WEIRD societies that are most often studied in research on the relationship between psychological and political variables, and whose samples have provided the empirical basis for the dominant rigidity-of-the-right conclusion. Inattention to this source of cross-cultural heterogeneity may thus result in misleading conclusions about the psychological bases of political preferences.

Religiosity, religious affiliation, and race in the United States. We have discussed variability in the relationship between existential and epistemic needs and political preferences across national

contexts. Other work has addressed variability in the bases of political preferences across cultural groups within the United States. Previously we noted that religiosity is bound up with many of the same core psychological needs that have been identified as antecedents of political preferences (Jost et al., 2016). As such, the argument we offer in this section suggests that the political correlates of religiosity may vary in important ways across core cultural groupings. In this vein, religious denomination and race appear to play moderating roles.

Religious affiliations within the United States are best conceptualized as “ethno-religious” groups (Guth, Kellstedt, Smidt, & Green, 2006; Layman & Green, 2006; Malka et al., 2012), and national survey evidence has reliably shown differences in the links between religiosity and economic attitudes as a function of ethno-religious grouping. What accounts for these differences? As Layman (2001) has noted, the differing ways in which religiosity has come to relate to political attitudes across religious groups “cannot be understood apart from the incentives and actions of actors within the political party system” (p. 17). As we emphasize more generally, this is fundamentally about attitude packaging, since politically engaged religious “group leaders package attitudes for mass consumption and communal interaction promotes and reinforces such packaging” (Layman & Green, 2006, p. 65).

Consider, for example, how the relationship between religiosity and economic preferences varies across ethno-religious groups within the United States. White Evangelical Protestants show strong, reliable associations between religiosity and conservative social welfare attitudes, whereas other major ethno-religious groups do not (Guth et al., 2004; Layman & Green, 2006; Malka et al., 2012). This is because of elite packaging: The Republican Party has increasingly drawn support from this group by packaging traditional sexual morality with right-wing economics, and religious elites have tied these together with the historical Protestant focus on individualism, self-reliance, and ascetic morality (Layman, 2001). However, among Black Protestants, religiosity often predicts left-wing economic attitudes (Layman & Green, 2006; Malka et al., 2012). This is consistent with the historical focus of Black Protestant churches on the rectification of past injustice and their packaging of religious traditionalism with such a progressive economic and racial focus (Layman, 2001; Roof & McKinney, 1987; Wilcox & Larsen, 2006; see also Philpot, 2017).

Indeed, aside from religiosity, personality traits themselves might structure some political attitudes differently among Black Americans and White Americans. For example, Gerber et al. (2012) found that many personality-politics relationships present among White Americans were not present among Black Americans. Johnston et al. (2017) found that while a variety of measures tapping needs for security and certainty had opposite effects on economic attitudes as a function of political engagement among Whites and Latinos, they did not predict economic attitudes among any subset of Black Americans. Finally, MacWilliams (2016) found that while authoritarianism relates to cultural conservatism among both Black and White Americans, Blacks tend to adopt left-wing social welfare views regardless of their levels of authoritarianism.

Summary. There is much more to learn about cross-cultural variability in the bases of political preferences, as the bulk of research on the psychological origins of political preferences focuses on main effects that are explicitly or implicitly assumed to be homogenous across cultural subgroups. However, the relatively small amount of research on cross-cultural variability in these relationships reveals that while many links between existential and epistemic needs and attitudes in the social domain have impressive cross-cultural stability, relationships between these needs and attitudes in the economic domain often varies as a function of cultural context. And there is good reason to believe that the operative contextual feature driving this variability is the elite packaging of political attitudes.

Variability Across Levels of Political Engagement

As we have shown, research suggests that the interface between needs for security and certainty and political preferences depends on how the ideological meaning of those preferences is constructed in different cultural contexts. However, even within a single culture, not all individuals will be equally

aware of those meanings. Ideologies are not facts of nature. The actual networks of values, beliefs, and issue positions implied by abstractions like “liberalism” and “conservatism”—that is, discursive superstructures—are social constructions. Moreover, the work of constructing and disseminating the ideological packages that make up the menu of political discussion is overwhelmingly the province of a narrow group of political elites. The most important of these are elected officials and party leaders (Campbell et al., 1960; Federico, 2015; Kinder, 2006; Zaller, 1992), and behind them, a stratum of “coalition merchants” and “academic scribblers” who often provide rationales for the packaging of various political goals (Noel, 2013). To the extent that members of the mass public develop organized belief systems, they must learn them from political elites (Campbell et al., 1960; Kinder, 1998, 2006; Layman & Carsey, 2002; McClosky & Zaller, 1984; Zaller, 1992). Importantly, this learning of ideological content from elites is quite uneven in the mass public. Only members of the mass public who are politically engaged—that is, interested and informed—enough to receive cues from elites acquire an understanding of “what goes with what” ideologically. As a result, understanding of the left/right distinction and ideological constraint among attitudes is more pronounced among the engaged (Converse, 1964, 2006; Federico, 2015; Federico & Schneider, 2007; Zaller, 1992).

That the formation of ideological connections *among* political preferences is so highly conditional on political engagement suggests that engagement may also be necessary for citizens to “correctly” select the political identities and preferences that “match” their basic psychological inclinations (Johnston et al., 2017). There are two reasons for this. First, the engaged are more likely to have acquired information—in the form of elite cues and signals—about which core positions, goals, and themes are implied by different ideological and partisan identities (Converse, 1964; Sniderman et al., 1991; Zaller, 1992). That is, they are more likely to be aware of the content and meaning of various items on the political menu (Sniderman & Bullock, 2004). This should strengthen the *ability* of the politically engaged to select into political identities that match their underlying psychological needs. Second, politically engaged people are more likely to care about what their political identities and preferences say about them as a person (Johnston et al., 2017; Kahan, 2015; Sears, 1993; Somin, 2006; see also Katz, 1960; Smith, Bruner, & White, 1956). This should strengthen the *motivation* of the politically engaged to adopt identities and preferences that express existential and epistemic needs.

In the remainder of this section, we review recent work providing evidence for this prediction. We begin by discussing work on how engagement strengthens the relationship between needs for security and certainty and key political identities (e.g., ideology and partisanship). We then turn to research on how engagement moderates the relationship between these needs and issue preferences, with an eye to how this process varies across issue domains. In this regard, we emphasize the uniqueness of the economic domain, showing that engagement actually *reverses* the direction of the relationship between existential and epistemic needs and economic preferences.

Psychological variables, engagement, and political identity. Given the role of ideological and partisan identities in shaping other social attitudes (e.g., Federico & Schneider, 2007; Malka & Lelkes, 2010; Zaller, 1992), it is especially important to understand how political engagement impacts the extent to which people sort into different ideological and partisan identities on the basis of core psychological needs. We argue that the *sociocultural* content associated with different ideological and partisan identities should be especially important to this process of dispositional sorting. In earlier sections, we reviewed work indicating that needs for security and certainty are more strongly and consistently related to preferences in the social realm than the economic realm. Thus, dispositional sorting is most likely to occur when ideological and partisan identities differ noticeably in their overall orientation toward the preservation and enforcement of traditional social values and their positions on social issues (e.g., LGBTQ rights, immigration, etc.). Given that ideological and partisan groupings in both the United States and Europe have become clearly differentiated with respect to this “new politics” sociocultural dimension (see Johnston et al., 2017; Kitschelt, 2004; Kriesi et al., 2006), and given that

politically engaged individuals will be especially aware of this differentiation, we should therefore find stronger relationships between existential and epistemic needs and political identifications among the engaged.

In the last decade, a number of one-off studies have examined this prediction. Many of these studies have focused on authoritarianism. For example, Federico, Fisher, and Deason (2011) used nationally representative samples of American adults from the 2000 and 2004 American National Election Studies (ANES) to explore variation in the relationship between authoritarianism (measured using child-rearing preferences; Stenner, 2005) and ideological self-placement as a function of political information (see Delli Carpini & Keeter, 1996). Their results indicated that authoritarianism was strongly associated with conservative identification among the well-informed but unrelated to it among the poorly informed.

This asymmetric effect of authoritarianism extends to both other political identities and other operationalizations of political engagement. In this vein, Federico and Reifen-Tagar (2014) used nationally representative data from the 2004 and 2008 ANES to demonstrate that the relationship between authoritarianism and identification with the Republican Party (versus the Democratic Party) in the United States was stronger among the engaged. However, rather than using information as an engagement measure, they relied on self-reported education (a variable reliably connected to, and often used as a proxy for, political engagement; see Sniderman et al., 1991). They found that the relationship between authoritarianism and Republican identification was strong and positive among those with a college degree, but not significantly different from zero among those who had not completed a college degree.

Similar results have been found with respect to the relationship between ideology and worldviews linked to authoritarianism. Along these lines, Duckitt (2001) argues that a key factor underlying authoritarianism is a view of the world as a dangerous, threatening place. Insofar as this is the case, we might also expect to find that individuals who view the world as dangerous are also more likely to identify as conservative if they are more engaged. Consistent with this argument, Federico et al. (2009) found that undergraduates who viewed the world as a dangerous place identified more strongly as conservative if they were also relatively high in political information.

Importantly, the moderating effect of political engagement extends beyond authoritarianism to other variables linked to needs for security and certainty. For example, Federico and Goren (2009) found that the need for cognitive closure predicted conservative ideological self-placement among those high in political information, but not among those low in information. Similarly, using a unique 1966 sample of 95 American foreign service officers, Kimmelmeier (2007) found that a measure of cognitive rigidity (whose content was quite similar to that of the modern Need for Closure scale) was more strongly predictive of ideological conservatism among those who expressed a strong interest in politics. This pattern also extends to a Big Five personality trait that is closely linked to need for certainty: Openness to Experience (which implies a *low* need for certainty; McCrae & Costa, 2003; see also Johnston et al., 2017). In this vein, using a national sample of over 15,000 American adults, Osborne and Sibley (2012) found that openness was strongly associated with liberal ideological identification and Democratic party identification among individuals high in political information (see also Leone, Chirumbolo, & Desimoni, 2012). Extending this result, they also found in national samples of both Americans and New Zealanders that openness was more strongly associated with left-leaning vote preferences among the well-informed. Moreover, in a second study, Osborne and Sibley (2015) found that education (as opposed to information) also strengthened the relationship between openness and liberal self-identification in a sample of over 6,000 New Zealand voters.

Finally, religiosity also relates differently to at least some political identities as a function of political engagement. As noted previously, religiosity tends to relate consistently to conservative attitudes in the traditional-morality domain. Thus, to the extent that elites from competing parties have diverged in their social-issue positions, citizens varying in religiosity should sort into different parties

at the mass level. However, this should be most evident among those individuals most likely to be aware of this elite divergence, that is, the politically engaged (Johnson et al., 2017). Along these lines, Malka and his colleagues (2012) found that religiosity was more strongly associated with Republican partisanship (but not conservative ideological identification) among respondents in the ANES who were higher in political information and interest. This result was consistent across most major denominational categories in the United States. Thus, variation in the relationship between religiosity and political identification follows a pattern similar to that shown by needs for security and certainty.

This accumulation of evidence for the moderating role of political engagement from individual studies is also reinforced by the results of two broad, integrative studies. One of these focused on the American context whereas the other was more comparative in nature. With respect to the former, Johnston et al. (2017) looked at data from over 10 different national samples of American adults and found that needs for security and certainty were more strongly associated with both ideological self-placement and party identification among survey respondents who were higher in political information and interest. This result was consistent across a wide variety of variables tapping needs for certainty and security, including authoritarianism, need for closure, the Conscientiousness and Openness to Experience dimensions of the Big Five, preference for conservation over openness values, and endorsement of binding moral foundations.

Complementing these American findings, Malka et al. (2014) used the 2005–2008 World Values Survey data reviewed in previous sections to examine variation in the relationship between needs for security and certainty and ideological self-placement as a function of political engagement. As noted previously, Malka and his colleagues operationalized needs for security and certainty using items from the Schwartz Value Survey (Schwartz, 1992). Using this large international sample, they found a pattern of results within non-postcommunist nations that was similar to what Johnson et al. (2017) found in the American context: Individuals with high needs for security and certainty were more likely to identify with the political right if they were also high in political engagement (operationalized in this study as a composite of interest in politics and news media exposure).

Psychological variables, engagement, and issue preferences. Engagement should also have a similar moderating effect on the relationship between core psychological needs and issue preferences. If engaged individuals are more likely to be sorted into different ideological and partisan identities on the basis of needs for security and certainty, they should in turn be more likely to adopt the issue positions associated with those identities in elite political discourse. In part, this should occur because the engaged are more likely to receive signals from like-minded elites about what issue positions go with their ideological and partisan identities (Converse, 1964; Zaller, 1992). However, it should also occur for expressive reasons: Citizens who are more informed about and interested in politics adopt the positions associated with their ideological or partisan identities in order to signal their social allegiances (Johnston et al., 2017).

A few recent studies provide evidence consistent with this prediction. For example, using data from a nationally representative sample of 1,511 American adults, Federico and Ekstrom (2017) found that the relationship between the need for closure and conservatism on a political issue composite was stronger among those who scored higher on a test of political information. Similarly, in the large national sample of New Zealand adults discussed in the previous section, Osborne and Sibley (2015) found that individuals who were low in Openness to Experience were more likely to adopt conservative positions on several political issues to the extent that they were highly educated. With respect to the related variable of religiosity, Malka et al. (2012) also found stronger effects of religious involvement on an issue-composite measure of conservatism among those higher in political information and interest.

The special case of economic preferences. Similar to what we have described elsewhere, the economic realm also has unique dynamics as far as the moderating effect of engagement is concerned. As we argue above, the domain of economics is unique in that evidence for the usual main-effect

relationship between needs for security and certainty and conservative preferences is weak and inconsistent (Johnston et al., 2017; Malka et al., 2017). But why is this? Recent studies suggest that these weak main effects may actually mask *strong* but *opposed* relationships between core psychological needs and economic preferences among individuals differing in political engagement (Federico et al., 2014; Johnston et al., 2017; Malka & Soto, 2015; Malka et al., 2014). The theories guiding these studies posit that engagement should actually *reverse* the relationship between needs for security and certainty and economic preferences, rather than merely strengthening it. Specifically, strong needs for security and certainty should predict *right-leaning* economic preferences among those *high* in political engagement, but *left-leaning* economic preferences among those *low* in engagement.

This reversal is made possible by the fact that economic issues are relatively “hard” ones for most citizens; they are relatively technical in nature and do not have a fixed subjective meaning that resonates with needs for security and certainty in the same way for all citizens (Carmines & Stimson, 1980; Johnston & Wronski, 2015). This may be contrasted with the relatively “easy” nature of social issues, whose symbolic content touches directly on disputes about preserving traditional values and upholding current social norms—disputes which organically resonate with needs for security and certainty (e.g., Johnston et al., 2017; Malka & Soto, 2015).

That economic positions invite a flexibility in the meanings and interpretations ascribed to them allows engagement to shift the process of economic attitude formation in important ways. Among the engaged, the process is the expressive one outlined above: Needs for security and certainty shape economic attitudes *indirectly* by influencing (1) which political identities individuals are attracted to (often on the basis of the cultural connotations of those identities) and (2) whether people take cues about what to believe from elites on the right or the left. Once sorted into different ideological and partisan identities as a function of core psychological needs, engaged individuals attend to the economic positions of ideological and partisan elites they trust and adopt those positions as a way of symbolically expressing their political identities. Those low in needs for security and certainty adopt the preferences for greater redistribution and government intervention typically supported by elites on the left, while those high in needs for security and certainty adopt the free-market positions traditionally supported by elites on the right. Thus, in Malka and Soto’s (2015) terms, engagement makes economic judgment more dependent on the menu of ideological options offered by elites.

In contrast, among the unengaged, needs for security and certainty should shape economic attitudes *directly* by influencing how much individuals prefer that the government provide protection against the risks inherent in free-market capitalism (e.g., unemployment, loss of income due to illness) by redistributing income and regulating economic activity (Duch & Rueda, 2015; Moene & Wallerstein, 2001; Rehm, 2009; Weeden & Kurzban, 2014). When engagement is low, the risk aversion implied by high needs for security and certainty should lead to a preference for insurance in the form of greater redistribution and regulation, whereas the greater tolerance for risk implied by relatively low needs for security and certainty should reduce the demand for such insurance and shift economic opinion in a more market-oriented direction. In a sense, economic attitudes among the unengaged are *instrumental by default*. To once again use Malka and Soto’s (2015) terms, in the absence of strong ideological or partisan identifications, economic judgment becomes independent of the symbolic ideological menu offered by elites (Federico et al., 2014; Johnston et al., 2017).

Evidence for the reversal hypothesis comes from the integrative studies by Johnston et al. (2017) and Malka et al. (2014) discussed previously (see also Achterberg & Houtman, 2009; Duriez et al., 2005; Golec, 2002). Focusing on the American case, Johnston et al. (2017) conducted 21 different tests of the reversal hypothesis using data from 10 different national datasets collected over a span of 20 years. They found that needs for security and certainty were associated with support for limited government and free markets in 21 out of 21 tests among the engaged and support for greater redistribution and intervention in 17 out of 21 tests among the unengaged. This pattern held across numerous indicators of needs for security and certainty, including authoritarianism, need for closure, the

Openness to Experience and Conscientiousness dimensions of the Big Five, preference for conservation over openness values, and risk aversion. Moreover, it held across measures of both economic issue attitudes (e.g., attitudes toward government-guaranteed jobs and income) and broader economic values (i.e., preferences for government intervention versus the free market).

Using the 2005–2008 World Values Survey data discussed earlier, Malka and his colleagues (2014) conducted a similar analysis in a multinational context. Consistent with the reversal hypothesis, they found that their value-based index of needs for security and certainty was associated with right-wing, market-oriented economic preferences among those highly engaged with politics and left-wing, interventionist economic preferences among those low in political engagement. Moreover, confirming the unique status of attitudes in the economic domain, they also found no interest-based reversal in the direction of the relationship between needs for security and certainty and social-issue preferences (e.g., abortion, gay rights, immigration, etc.). Those with strong needs for security and certainty tended to be culturally conservative regardless of engagement level.

Importantly, these two studies also imply that engagement will produce a reversal effect only when elite partisans and ideologues consistently pair free-market economics with social conservatism and pair support for an active government role in the economy with social liberalism. As noted previously, dispositional sorting into political groups is mainly fueled by ideological and partisan differences on the sociocultural dimension. If these sociocultural differences are not packaged together with ideologically matching economic positions, then dispositional sorting is unlikely to produce a reversal in the economic realm.

Among other things, this suggests that the reversal effect should evaporate in the case of economic issue positions that do not clearly fit into established ideologies of the left or the right. Johnston et al. (2017) argue that international trade is one such issue in the American context. Though opposition to free trade is an interventionist, market-curbing position in economic terms, elites in the United States do not clearly divide on the issue as a function of ideology: Protectionism has both liberal (e.g., Bernie Sanders) and conservative (e.g., Donald Trump) proponents, as does free trade. Moreover, opposition to free trade often takes on a nationalistic flavor that causes it to resonate more strongly than domestic interventionist positions with those high in needs for security and certainty (Johnston, 2013). Consistent with this argument, Johnston and his colleagues (2017) find that authoritarianism is positively associated with support for government intervention in the form of import restrictions regardless of engagement.

From a different angle, the above argument about when the reversal effect should disappear also suggests nation-level variation in the extent to which engagement flips the relationship between core psychological needs and economic preferences. In this vein, Malka and his colleagues (2014; see also Malka et al., 2017) argue that the reversal effect should be found only in nations where political elites package free-market capitalism with social conservatism and package support for redistribution and regulation with social liberalism. Consistent with this prediction, Malka et al. (2014) found that political engagement reversed the direction of the relationship between needs for security and certainty and economic preferences only in nations where economic and social conservatism are ideologically correlated with one another at the aggregate level. In contexts where this was *not* the case, needs for security and certainty were consistently associated with support for greater government intervention in the economy. Thus, both United States and international data suggest that the reversal effect is itself contingent on how economic positions are “built into” broader ideological belief systems by political elites in different contexts.

Summary. Taken together, these findings provide evidence that engagement moderates the relationship between existential and epistemic needs and political preferences in several important ways. Most fundamentally, engagement strengthens the tendency for individuals high in needs for security and certainty to dispositionally sort into right-leaning ideological and partisan identifications. Since those high in political engagement tend to adopt issue positions that are congruent with ideological

and partisan identities, this process of dispositional sorting also generally results in a stronger relationship between needs for security and certainty and conservative issue attitudes among the engaged. However, the nature of this effect is unique in the case of economic preferences. As long as free-market economic stances are packaged together with social conservatism in a particular political context, engagement reverses the relationship between core psychological needs and economic preferences: Needs for security and certainty predict a free-market orientation among the engaged, but support for greater redistribution and regulation of the economy among the unengaged.

The Impact of Political Messaging

We have described how existential and epistemic needs are more likely to predict certain political preferences among individuals who are highly politically engaged. In part, the knowledge afforded by political engagement comes in the form of meaning-giving signals sent by political elites about the thematic and programmatic content of competing political positions (e.g., Federico, 2015; Zaller, 1992). In other words, engagement matters in part because it reflects exposure to a broader political-information environment on a habitual basis. If this is the case, then political messages that ascribe a larger meaning to political positions should also alter the relationship between needs for security and certainty and political preferences.

In this section, we review work suggesting that this is the case. Perhaps the most significant features of messaging in this regard are the cues indicating that a particular political group (or individual associated with that group) holds a particular stance on a political issue (Druckman, Peterson, & Slothuus, 2013; Malka, 2014). Because political parties play a primary role in structuring political conflict (Sniderman & Bullock, 2004), the most consequential group cues are those that indicate where a particular party stands on an issue. Similarly, because the right-left dimension pervades and structures political discourse, signals that particular issue stances are linked with a particular ideological label constitute an important class of political cues as well (Federico & Schneider, 2007; Malka & Lelkes, 2010). As such, most of the studies we review here focus on the effects of variation in messages concerning the issue positions taken by partisan and ideological groups. We begin by reviewing research that tracks over-time changes in the correlates of needs for security and certainty as a function of real-world variation in the content and strength of elite signals about the stances associated with different partisan and ideological identities. We then review studies that take a more direct approach by experimentally manipulating exposure to partisan and ideological signals of various kinds. Finally, we focus on the moderating influence of messages that increase awareness of threats to safety or social order, which play an important role in politically activating needs for security and certainty.

Consequences of over-time variation in elite signals. A number of studies suggest that divergence in the political stances of elites from opposite sides of the political spectrum have strengthened the impact of existential and epistemic needs on partisan and ideological sorting. In this regard, research in political science indicates a clear pattern of growing ideological polarization between Democratic and Republican congressional officials in recent decades: Democratic leaders have moved to the left, and Republican leaders have moved even more strongly to the right (e.g., McCarty et al., 2006; see also Layman, Carsey, Green, Herrera, & Cooperman, 2010). This divergence has sent an increasingly strong informational signal that the parties offer very different ideological programs, leading in turn to increased polarization of politically engaged partisans (Abramowitz, 2010; Baldassari & Gelman, 2008; Layman & Carsey, 2002; Lelkes, 2016; Levendusky, 2009).

Importantly, a number of analyses suggest that elite polarization in the United States over recent decades has been most pronounced with respect to views on social issues. Though party leaders have long been divided on issues related to redistribution and economic equality, they have diverged in their opinions on matters like sexual morality, religion, and race only in more recent decades (Carmines & Stimson, 1989; Hetherington & Weiler, 2009; Johnston et al., 2017; Layman, 2001; Layman, Carsey, & Horowitz, 2006). To the extent that social issues resonate especially strongly with

needs for security and certainty—as we have argued—then we should see an increasingly strong relationship between these needs and political identifications.

Changes of this kind are especially evident with respect to the political consequences of authoritarianism. For example, Hetherington and Weiler (2009) found that the relationship between authoritarianism and identification with the Republican Party increased from 1992 to 2004, a period marked by especially acrimonious partisan conflict over social issues. Reinforcing this, they found a similar trend in the strength of the relationship between authoritarianism and Republican presidential voting. Expanding on Hetherington and Weiler's (2009) analysis, Cizmar and her colleagues (2014) looked at variation in the political correlates of authoritarianism over an even longer period of modern American history, from 1952 to 2008. Their results were similar: Since the middle of the twentieth century, authoritarianism has become increasingly predictive of Republican partisanship and Republican presidential voting. Importantly, both Hetherington and Weiler (2009) and Cizmar et al. (2014) found relatively stable relationships between authoritarianism and various issue preferences over time. This strongly suggests that the changes in the relationships between authoritarianism, partisanship, and presidential voting that they observed were due to changes in the parties' *issue reputations*, as opposed to changes in the relationship between authoritarianism and attitudes toward the issues themselves.

As we have argued elsewhere in this review, variation in the political correlates of religiosity often tracks those of needs for security and certainty; religiosity, again, is bound up with the latter psychologically (e.g., Jost et al., 2016; Kay, Gaucher, Napier, Callan, & Laurin, 2008). Accordingly, other studies suggest parallel shifts in the relationship between religiosity and political identifications over roughly the same period of American history. In perhaps the best-known study of this relationship, Layman (2001) found that denominational differences in partisan identification have been joined by religiosity-based differences in partisanship that transcend denominational boundaries. Among American Whites, greater religiosity is now associated with higher levels of Republican identification and voting across affiliations (e.g., Malka et al., 2012; Patrikios, 2008; Putnam & Campbell, 2010).

An important feature of polarization in the contemporary American political-information environment is its asymmetric nature. As a number of studies suggest, Republican elites have moved faster and farther to the right than Democratic elites have moved to the left (Mann & Ornstein, 2012; McCarty et al., 2006). This suggests that cues about the content of different partisan and ideological menu options may be stronger on the right than on the left in the present era. If this is the case, then sorting as a function of core psychological needs among the politically engaged should be especially strong among individuals whose dispositions should attract them to the right. Consistent with this hypothesis, Federico and Reifen Tagar (2014) found that education strengthened the tendency for those high in authoritarianism to prefer Republican identification to partisan independence, but *not* the tendency for those low in authoritarianism to prefer Democratic identification to independence. Thus, asymmetric polarization may lead to especially strong sorting pressures among the engaged on the right side of the spectrum at this particular juncture in American history.

Finally, regularly occurring shifts in the intensity of political-information flows may strengthen the impact of needs for security and certainty on political preferences. Major electoral campaigns provide a case in point. Campaigns represent an especially favorable environment for political learning and preference formation (Campbell et al., 1960), and research suggests that individuals' vote preferences become increasingly predictable from basic predispositions as campaigns unfold (Berelson, et al., 1954; Gelman & King, 1993; Sears, 1993; Sears & Valentino, 1997). Recently, Ekstrom and Federico (2017) found that this logic applies to personality traits as well. Using longitudinal data from the 2008 Cooperative Campaign Analysis Project, they found that the Openness to Experience and Conscientiousness dimensions became increasingly predictive of candidate preferences as the 2008 campaign proceeded. Individuals higher in Openness became more likely to prefer Barack Obama over John McCain the longer the campaign went on, whereas those higher in Conscientiousness

became more likely to prefer McCain over Obama as the campaign continued. Importantly, additional analyses suggested that these shifts were found chiefly among those most exposed to the campaign, that is, the politically engaged. Thus, campaigns may play an important role in bringing preferences into line with citizens' basic psychological inclinations.

Experimental research on the consequences of political messaging. More direct evidence for the impact of political messaging on the relationship between core psychological needs and political preferences comes from experimental studies. These studies typically vary individuals' exposure to *cues* about the issue positions taken by different partisan and/or ideological groups or, similarly, vary signals that shift the meaning of various issue positions by *framing* them differently (e.g., Johnston et al., 2017; for more general examples, see Bullock, 2011; Cohen, 2003; Druckman et al., 2013; Goren, Federico, & Kittilson, 2009; Kam, 2005; Malka & Lelkes, 2010). By situationally shifting the political-information environment, these studies typically demonstrate that partisan or ideological cues strengthen the relationship between needs for security and certainty and issue attitudes by tying issue positions to the polarized cultural reputations of the parties (Johnston et al., 2017). These effects are especially strong with respect to economic issues, whose symbolic meaning is not otherwise obvious (as noted previously).

In this vein, Johnston and Wronski (2015) randomly assigned individuals to either receive or not receive cues that tie the Democratic and Republican parties to the liberal and conservative positions (respectively) on social and economic issues. They then examined the relationship between a composite index of needs for security and certainty (combining measures of authoritarianism, conservation versus openness values, and need for closure) and opinion on the issues in each condition. They found a strong relationship between needs for security and certainty and social conservatism regardless of whether or not cues were provided. However, needs for security and certainty predicted economic conservatism to a greater extent among those who were provided with partisan cues.

More recently, Johnston et al. (2017) conducted several experimental studies that elaborated on Johnston and Wronski's (2015) analyses. In the first of these studies, they examined the relationship between the same composite measure of needs for security and certainty and attitudes toward a suite of economic issues in a national sample of American adults. Respondents were randomly assigned to a control condition or to conditions where they received cues indicating that conservatives or Republicans took right-leaning issue positions and liberals or Democrats took left-leaning positions. Echoing Johnston and Wronski's (2015) results, they found that needs for security and certainty were more strongly predictive of conservative economic preferences among individuals who were cued. However, consistent with the notion that partisan and ideological labels only activate core psychological needs when individuals are aware of the symbolic cultural meaning of those labels, this effect was found only among politically engaged respondents.

Johnston and his colleagues extended this analysis in a survey experiment administered to a national sample of respondents to the 2012 Cooperative Congressional Election Study. In this experiment, respondents were randomly assigned to answer a series of questions about economic issues in either a control condition (where no cues were provided), a condition where they received "stereotypical" political cues about the issues (e.g., indicating that Republicans, Republican candidates, or conservatives took *right-leaning* positions on them), or a condition where they received "counterstereotypical" cues about the issues (e.g., indicating that Republicans, Republican candidates, or conservatives took *left-leaning* positions on them). They then examined the relationship between support of binding moral foundations (an indicator of needs for security and certainty; see Haidt, 2012) and attitudes toward the target issues. To the extent that counterstereotypical political cues interfere with the ability to link needs for security and certainty with conservative issue positions, the relationship between binding morality and economic conservatism should be weaker in the counterstereotypical-cue condition. This is indeed what Johnston et al. (2017) found. Again, however,

this effect was limited to politically engaged respondents, who should best be able to discern the symbolic meaning of partisan and ideological labels.

In a final analysis, Johnston et al. (2017) used data from an experiment included in the 2014 Cooperative Congressional Election Study to examine the effects of what they called *cultural signaling*: the pairing of positions on economic issues with conservative or liberal positions on social issues. As noted previously, Johnston and his colleagues argue that economic positions are complex and typically without inherent cultural meaning. They acquire meaning that resonates with needs for security and certainty only when linked to objects that are already potent cultural symbols, such as partisan labels. However, this can also be accomplished by directly associating positions on economic issues with positions on social issues. This logic suggests that needs for security and certainty should predict support for conservative economic positions more strongly when those positions are linked to conservative rather than liberal social-issue positions.

To examine this, Johnston and his colleagues randomly assigned survey respondents to one of two conditions after having measured authoritarianism in an earlier part of the study. In both conditions, respondents read about two candidates, one who took conservative positions on economic issues and another who took liberal positions on these issues. In one condition, the candidates took social-issue positions which ideologically matched their economic positions (e.g., the candidate who took liberal economic positions was also in favor of legal abortion and gun control). In the other condition, the candidates took social-issue positions that were ideologically opposed to their economic positions. Respondents were then asked whether they preferred the liberal positions or the conservative positions taken by the candidates on the economic issues. Johnston et al. (2017) found that authoritarianism was associated with a preference for conservative economic positions only in the condition where those positions were paired with conservative social-issue positions; the relationship was null in the other condition, where economic conservatism was paired with social liberalism. Again, this interactive effect was found only among individuals high in political engagement, consistent with the idea that engaged citizens with varying needs for security and certainty are more likely to evaluate policies in different ways when the cultural meaning of those policies is made clear.

Consequences of threat messages. The evidence we have reviewed so far in this section focuses on political messaging that increases awareness of the symbolic content of competing political alternatives. However, political messaging may also boost the political impact of existential and epistemic needs by heightening the salience of threats in an individual's political-information environment. In this respect, research suggests that individuals with strong needs for security and certainty tend to be highly sensitive to threat and loss (e.g., Duckitt & Sibley, 2010; Hibbing et al., 2014; Lavine et al., 1999, 2002). If this is the case, then exposure to information about threats should polarize political attitudes as a function of these needs. Those strongly motivated to attain security and certainty should adopt political views aimed at reinforcing social order and group boundaries whereas those who are more tolerant of insecurity and uncertainty should move in the opposite direction (Stenner, 2005). Contemporary research on authoritarianism illustrates this dynamic well. For example, in multiple correlational and experimental studies, Stenner (2005) finds that authoritarianism predicts support for intolerant, punitive social policies more strongly when individuals received messages indicating that societal consensus about important values is under threat (for similar results, see Feldman, 2003; Feldman & Stenner, 1997; but see also Hetherington & Weiler, 2009).

Other studies suggest that terrorism may play an especially important role in activating the predisposition to authoritarianism. For instance, in survey experiments conducted in the United States and Mexico, Merolla and Zechmeister (2009) find that exposure to terror-threat messages leads those high in authoritarianism to adopt attitudes that are more socially conservative, intolerant of outgroups, and punitive. This basic result has been conceptually replicated in correlational studies that simply measure threat perceptions (e.g., Cohrs, Kielmann, Maes, & Moschner, 2005; Kossowska et al., 2011). Moreover, in a sample of Polish undergraduates, Golec de Zavala, Cislak, and Wesolowska (2010)

found a similar interaction involving the need for closure. In their data, participants high in need for closure were more likely to display hostility toward Arabs and Muslims if they also perceived a high risk of Islamist terrorism. However, this interaction was found only among conservatives, who the researchers argued would be more open to responding to intergroup threats with hostility.

Other researchers have argued that messages emphasizing the growth of racial, ethnic, and religious diversity in one's immediate context should strengthen the relationship between needs for security and certainty and intolerant attitudes. This hypothesis follows from a long line of work suggesting that higher levels of diversity will be especially threatening to dominant groups (e.g., Blalock, 1967; Key, 1949). In two experimental tests of this hypothesis, Cohrs and Ibler (2009) randomly assigned Germans to one of two message conditions. In the high-threat condition, participants were told that the Turkish population was integrating poorly and giving rise to Turkish-nationalist and Islamist groups; in the low-threat condition, participants were provided with a neutral message about Turks in Germany. They found that authoritarianism predicted hostile attitudes toward Turks only among those assigned to the high-threat condition. Similarly, in a study using a large Mturk sample, Johnston, Newman, and Velez (2015) found that the relationship between need for closure and perception of cultural threat was stronger among respondents who were randomly assigned to receive a message about the growth of the Latino population in American cities. In turn, the higher sense of threat among these individuals predicted support for more restrictive immigration policies.

Studies that have measured subjective or objective social diversity have conceptually replicated these results. For example, Velez and Lavine (2017) found a stronger relationship between authoritarianism and intolerance toward outgroups among individuals living in areas with higher levels of racial diversity (see also Van Assche, Roest, Dhont, & Van Hiel, 2014). Similarly, Johnston et al. (2015) found a stronger relationship between authoritarianism and perceived cultural threat among individuals in areas where the Latino population had grown more in recent years. In turn, the heightened sense of cultural threat among these individuals was associated with greater support for immigration restriction.

Summary. In sum, research on the impact of political messaging reinforces our general argument about the role of exposure to political-information environments. First, real-world increases in the strength of elite signals about competing political options make it easier for citizens to select political orientations and preferences that match their core psychological needs. Similarly, experimentally manipulated partisan and ideological cues that inform or remind citizens of different political groups' issue commitments strengthen the impact of existential and epistemic needs on judgments about political issues. Finally, political signals that make societal threats more salient also strengthen the relationship between needs for security and certainty and intolerant sociopolitical attitudes. Political messaging, as such, may serve as a kind of information subsidy that allows individuals to more readily bring basic needs, motives, and traits to bear on sometimes complex political judgments.

Summary and Implications

A long tradition of research provides evidence that political preferences relate to a variety of dispositions linked to needs for security and certainty. The primary conclusion that has been drawn from this work is that strong needs for security and certainty invariably produce a functional affinity for a broad-based right-wing political ideology. New research in this rapidly expanding area frequently echoes this conclusion while giving little attention to the presence and implications of issue-based and contextual variability in disposition-political attitude relationships.

The present review suggests that the magnitude of such variability is often understated and its implications often underappreciated. Specifically, we reach the following substantive conclusions. First, many attributes pertaining to needs for security and certainty are strongly and reliably associated with social conservatism, but not the free-market and antireistributive economic views that are

central to right-wing politics. Second, the relationship between needs for security and certainty and right-wing preferences is, in key respects, conditional on exposure to aspects of the political-information environment that impart a larger meaning to political stances. Specifically, relationships between needs for security and certainty and key political preferences vary as a function of (1) how different attitudes are bundled together into competing ideological and partisan packages in an individual's cultural context; (2) the extent to which individuals are politically engaged enough to be aware of this menu of competing political options; and (3) whether political messaging provides clear cues about the meaning of different political choices or highlights threats.

So, where do these findings leave us with respect to a general understanding of the interface between core psychological needs and political views? On one hand, we believe that they reinforce the extant conclusion that needs for security and certainty relate to political preferences in systematic ways. In this respect, we do not challenge the core notion of "elective affinity" that has guided research in this area—that is, the idea that individuals will gravitate toward political identities and attitudes on the basis of the level of security and certainty they desire (e.g., Jost et al., 2003, 2009, 2012). The formation of political preferences is not psychologically arbitrary: Not all political preferences are equally congruent with or likely to co-occur with all psychological characteristics.

Where our view departs from the conventional psychological understanding of ideology concerns the manner in which needs for security and certainty interact with contextual factors to yield elective affinities. To return to Jost et al.'s (2009) terms, preference formation in the political realm reflects a complex interplay between a "motivational substructure" of individual needs, traits, and motives and the (socially constructed) menu of political options that make up the "discursive superstructure" in a given political context. The question is, what components of the discursive superstructure appeal to individuals on the basis of their underlying needs, and why? In the conventional account, the broad right-wing and left-wing packages attract people based on those people's underlying psychological needs. There is, in the conventional view, a functional link between a right-wing attitude package—which upholds traditional cultural norms and resists destabilization of economic hierarchy—and needs pertaining to predictability, order, security, conformity, stability, and certainty. Likewise, the conventional view specifies a functional link between a left-wing attitude package—which embraces progressive cultural change and disrupts the prevailing economic hierarchy—and needs pertaining to openness, stimulation, individuality, self-direction, and uniqueness.

The account that we advance here differs in this respect (see Federico et al., 2014; Johnston et al., 2017; Johnston & Wronski, 2015; Malka et al., 2014; Malka & Soto, 2015). Whereas the conventional account specifies a psychological source of right-versus-left attitude constraint rooted in individual-level variation in needs for security and certainty, our account specifies that the *direct functional links* between needs for security and certainty and political preference may operate in *opposite ideological directions* across the cultural and economic domains. The positions that organically and instrumentally satisfy needs for security and certainty are, we contend, right-wing in the cultural domain but often left-wing in the economic domain.

A second way in which our account differs from the conventional view concerns variation in the specific form of motivation that links underlying needs for security and certainty with domain-specific political preferences. The conventional account mainly focuses on how the specific contents of political policies and outcomes functionally resonate with underlying psychological needs. Conservative cultural and economic policies, for example, organically satisfy certain needs, according to this view. Our account, on the other hand, posits a prominent role for identity-expressive motivation in the link between needs for security and certainty and economic attitudes. Whereas we argue that people high in needs for security and certainty will have a natural reason to find left-wing economic attitudes to be attractive, when right-wing economic attitudes are discursively packaged with right-wing cultural views, identity-expressive motivation will lead people who have high needs for security and certainty and are aware of this packaging to adopt the "ideologically appropriate" right-wing economic views

(Johnston et al., 2017; Malka et al., 2014). Thus, in the case of the relationship between needs for security and certainty and economic preference, the direction itself will vary depending on the nature and degree of exposure to elite political discourse.

Distinguishing Menu-Independent and Menu-Dependent Influence

In a broader sense, we recommend that scholars focus to a greater extent on variation in the motivational processes underlying dispositional attributes with specific political positions and how this corresponds with contextual variation in features of—and degree of exposure to—the political-information environment. One such process is organic and instrumental in that it is based on a resonance between the content of the political position and the psychological needs which the political position can help satisfy. The other process is discursively based, expressive, and indirect: It is a by-product of political positions being discursively linked with other organically need-satisfying political positions under a broad political identity that one is expressively motivated to signal.

The view we advance is that the nature of links between dispositions and political preferences varies along a continuum from direct and organic to indirect and expressive and that such variation should be an explicit focus of researchers. This raises an important question, however: Since political attitudes are always formed within the context of a political-information environment, does it ever make sense to talk about truly organic or intrinsic links between dispositions and political attitudes? In a trivial sense, there are no relationships between needs for security and certainty (or any dispositional attributes for that matter) and political preferences that are wholly independent of a political-information environment. In general, people will not hold policy or political preferences (at least not in the way in which they are formulated in a modern society) unless there exists politically or socially generated discourse that defines the matter as a political issue. For example, almost no one (save a few unusually inventive people) will form a political opinion about abortion unless they receive information that abortion is a procedure that exists and whose morality is debated. The same is true for spending on government social programs, the death penalty, and so on. Very few people would independently conceive of these matters and form an opinion about them if they were not implicated as part of a broader political discourse.

Acknowledging that all political preferences are formed within an informational context, we contend that the essential feature of the continuum we describe above has to do with the degree to which the link between core psychological needs and political preferences is menu-independent versus menu-dependent (Malka & Soto, 2015). As we have discussed, political elites strategically bundle substantively distinct political preferences and attempt to “sell” these bundles as ideologies to the general public. Some people are familiar with the content of the elite ideological bundles and some people are not. To the extent that the relationship between a particular psychological need and a specific political preference is apparent among those who are not aware of these bundles, this suggests that the relationship between the two is not dependent on the “creative synthesis” of elites (Converse, 1964). This often implies a directly functional, organic, or instrumental link between needs and politics: The policy—discovered in the context of a political-information environment—is favored independently of its packaging with other issues, often because it is expected to yield need-satisfying social outcomes for the person (e.g., Jost et al., 2003; Wilson, 1973). If, however, the relationship between needs and political preferences only appears (or appears more strongly, or in a different direction) under conditions of exposure to messages about elite-generated menu options, this would suggest some degree of menu-dependence for this relationship. Such a relationship is likely to be rooted, at least in part, in identity-expressive motivation to adopt an issue position because it is bundled with more directly need-satisfying issue positions (Johnston et al., 2017). Such menu-dependent and expressive motivation can sometimes lead one to adopt an issue position where one would otherwise have held a neutral preference, sometimes reinforce an issue position that also happens to organically resonate with one’s underlying needs, and sometimes (as is the case with needs for security and

certainty and economic attitudes) compel one to adopt an issue position that is opposite of the position one might have “organically” preferred.

This theoretical framework for understanding disposition-political attitude links implies a specific methodological framework for studying them (Johnston et al., 2017; Malka & Soto, 2015). Specifically, research on the dispositional origins of political preferences would benefit from consistently (1) measuring distinct preference dimensions—especially the cultural and economic ones—with separate items that uniquely apply to each dimension and (2) measuring and testing the implications of variation in the content and volume of exposure to political discourse. As we have discussed, such variation can take the form of differences across political-information environments and differences in level of exposure to political discourse within a single information environment. As many investigations of relationships between core psychological needs and political preferences are one-off studies within a single cultural context, it is particularly useful to measure variation in degree of political-discourse exposure, using measures such as political information (Federico et al., 2012) or self-reported political engagement (e.g., Malka et al., 2016).

Extending This Framework to Future Research

We believe that this framework can be fruitfully extended to research on the links between political preferences and dispositional characteristics other than needs for security and certainty. The example of individual differences in racial attitudes and their relationship to economic policy preferences within the United States is instructive here. We have advocated for separate assessment of cultural and economic preferences, but of course economic preferences often have a cultural component to them—as suggested by evidence that views concerning social welfare programs in the United States often have racial undertones (Carmines & Stimson, 1989; Ellis & Stimson, 2012; Gilens, 1996). But it is important to acknowledge that such linkages between cultural and economic attitudes are driven by political discourse, and they therefore vary across historical period and degree of attention to such discourse. For the first 30 years after the New Deal, when the contemporary conservative versus liberal economic cleavage became prominent, the left-leaning, economically interventionist Democratic Party was, if anything, more opposed to Black civil rights than the right-leaning, market-oriented Republican Party (Carmines & Stimson, 1989; Gerring, 1998). This changed during the 1960s, with passage of historic civil-rights legislation and the passage and implementation of antipoverty programs that were viewed by many White Americans as favoring urban Black communities (Carmines & Stimson, 1989; Ellis & Stimson, 2012). In these years, support for social welfare and support for civil rights became linked under a superordinate “liberal” posture, and conservative political elites began earnest efforts to attract racially conservative White (mostly Southern) voters, mixing an anti-welfare/proindividualism message with a go-slow message on civil rights. This strategy has persisted, but it does not reflect an enduring organic coherence between “conservative” positions on civil rights and opposition to redistributive social welfare policy. Thus, dispositional attributes (e.g., racial resentment) that organically attract people to racially conservative positions would be expected to have different relationships with social welfare preferences depending on the degree to which people are exposed to discourse connecting these two issue domains with one another as part of a broader ideological posture.

Tesler’s (2012) research on racial resentment and health-care preferences illustrates this. What should racial resentment among White Americans have to do with their healthcare preferences? One view on this matter stems from the conventional psychological model of political ideology, which posits that underlying psychological motives to reduce uncertainty and manage threat lead to a general tolerance of inequality, which should have implications for both views about racial inequality and opinion about healthcare policies which are, in essence, economically redistributive (Jost et al., 2003). But this view runs into the challenges we described above—the packaging of racial and economic positions has varied over the course of American political history. Culturally and racially conservative

White Southerners were an essential part of the New Deal coalition until political elites began to link a subtle “state’s rights” form of racial hostility with a broader economic worldview emphasizing individualism and market economics (Bobo, Kluegel, & Smith, 1997; Carmines & Stimson, 1989; Kinder & Mendelberg, 2000). Tesler’s (2012) work suggests that the election of President Obama, and the linking of healthcare reform with him, has caused racially resentful White Americans to become less supportive of healthcare reform. For example, correlations between racial resentment and healthcare attitudes were notably stronger in the fall of 2009—after President Obama had taken up the cause of healthcare reform—than they had been in prior decades. And experimental evidence suggests that this altered relationship between racial views and healthcare policy preference was the result of cues linking healthcare reform to Obama. Specifically, attitudes about identical healthcare reform plans were more strongly linked with racial resentment when they were attributed to President Obama than when they were attributed to President Clinton (see also Knowles, Lowery, & Schaumberg, 2010). Thus, these relationships between racial resentment and an economic policy preference appear to be menu-dependent and expressive, rather than menu-independent and instrumental (Johnston et al., 2017; Malka & Soto, 2015). Furthermore, this example highlights the potential inferential problems associated with the usage of generalized egalitarianism measures (e.g., social dominance orientation) when studying relationships between psychological dispositions and political preferences. These measures, which either explicitly or implicitly combine cultural and economic content, are not suitable for understanding the implications of contextual variability in the degree to which economic policies are infused with cultural content by strategically acting elites.

In a similar way, we encourage application of this framework to understanding the political correlates of a wider range of characteristics beyond those we have focused on in this review. For example, it would be useful to distinguish menu-independent and menu-dependent links between political preferences and individual differences in tough versus tender mindedness (Duckitt et al., 2002; Eysenck, 1954), self-enhancement versus self-transcendence values (Schwartz, 1992), anger (Kettle & Salerno, 2017), and the Politeness and Compassion facets of Agreeableness (Hirsh et al., 2010; Osborne et al., 2013). Moreover, research on the physiological correlates of political preferences has not to our knowledge examined the implications of variation in discourse exposure for links between physiological attributes and domain-specific political preferences (see Jost & Amodio, 2012). Doing so would provide leverage for investigating which links between physiological attributes and political preferences are independent of the packaging of attitudes into ideologies and which are by-products of such discursive packaging. Finally, future work might apply this framework to understanding how variation in political discourse that structures different cultural preferences (e.g., regarding sexual morality and immigration) impacts relationships between dispositions and political preferences (see Daenekindt, de Koster, & van der Waal, 2017). For example, religiosity relates most directly to views about sexual morality, and links between religiosity and attitudes toward other cultural matters, such as immigration and death penalty, might vary as a function of the discursive structuring of cultural attitudes (e.g., Malka et al., 2012).

Conclusion

In sum, we have endeavored to present an integrative perspective on the interface between existential and epistemic needs and political preferences—one that attends systematically to both the role of individual differences and contextual factors. In doing so, we have taken an expansive, interdisciplinary approach, incorporating insights from both research in personality and social psychology and a long-standing tradition of work on the nature of mass belief systems in political science. We see the general framework advanced here as one that might be useful for combining historical insight about the nature of shifting ideological and partisan coalitions with social-scientific research on the dispositional origins of political preference. Naturally, we do not see our contribution as the final word. Rather, we hope that our approach will encourage other researchers to attend to the full panoply of

processes responsible for the translation of psychological dispositions into political identifications and attitudes.

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Correspondence concerning this article should be addressed to Christopher M. Federico, Department of Psychology, University of Minnesota, 75 East River Road, Minneapolis, MN 55455. E-mail: federico@umn.edu.

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