# From Dispositions to Goals to Ideology: Toward a Synthesis of Personality and Social Psychological Approaches to Political Orientation

Xiaowen Xu*, Jason E. Plaks and Jordan B. Peterson
*Department of Psychology, University of Toronto*

## Abstract

We review existing research on the associations between political orientation and Big Five traits such as Openness to Experience and Conscientiousness. We suggest that analyzing these traits at the *aspect* level sheds light on motivational mechanisms underlying these links. For example, we present evidence that only one of the two aspects of Conscientiousness ("Orderliness") reliably predicts conservatism. To account for this relationship, and to more generally describe how traits translate into political orientation, we present a new model, the Disposition-Goals-Ideology (DiGI) Model. The DiGI model outlines specific interrelationships among dispositions, goals, and ideological beliefs that help to shape individual differences in political orientation.

Where does political orientation come from? To answer this question, some researchers have taken a personality psychology approach and focused on relatively stable, individual differences predictors of political orientation. For instance, higher conservatism has been associated with higher Conscientiousness, lower Openness to Experience (Carney, Jost, Gosling, & Potter, 2008), higher disgust sensitivity (Inbar, Pizarro, & Bloom, 2009; Inbar, Pizarro, Iyer, & Haidt, 2012), higher generalized sensitivity to negative stimuli (Hibbing, Smith, & Alford, 2014; Joel, Burton, & Plaks, 2014), higher aversion to arousal (Tritt, Inzlicht, & Peterson, 2013, 2014), higher avoidance orientation (Janoff-Bulman, 2009; Janoff-Bulman & Carnes, 2014), and higher prevention focus (Lucas & Molden, 2011). Other researchers have taken a social psychological approach, focusing on temporary cues in the environment that shape political orientation. For example, reminders of one's mortality lead to increased endorsement of conservative social values (Landau et al., 2004; Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989), while reminders about one's good fortune lead to increased self-identification as liberal (Bryan, Dweck, Ross, Kay, & Mislavsky, 2009).

In this article, we propose, based on research from numerous laboratories including our own, a new model of political ideology that integrates both the personality and social psychology approaches. We focus on how basic dispositions may provide the foundations for social cognitive goals associated with differences in ideology. We wish to note at the outset, however, that although certain innate differences in personality may predispose people to identify with different points on the political spectrum [e.g., evidence for the heritability of both political attitudes (Alford, Funk, & Hibbing, 2005) and personality traits (Jang, Livesley, & Vernon, 1996; Renner, Kandler, Bleidorn, Riemann, & Menschik-Bendele, 2012)], it is also likely that certain political positions activate mindsets and motivational states leading to behaviors that, through processes of self-perception (Bem, 1967), reinforce differences in self-reported personality. Thus, the correlational nature of much of the research, and the psychological plausibility for the reverse direction, allow for the possibility that dispositions are both causes and consequences

of political orientation. The model we propose therefore contains bidirectional relationships between personality and politics.

## Overview

We begin by presenting the Disposition–Goals–Ideology (DiGI) Model, which elaborates how traits, dispositions, and goals work together to shape political ideology. Next, we review research documenting reliable associations between specific dispositions and political orientations. We propose that researchers may account for more variability in their data by dividing the Big Five traits into their two subcomponents, or *aspects*. Next, we highlight evidence for the motivational pathways that may mediate the links between specific dispositions and political positions. Finally, we outline how our model adds to predominant recent theoretical models of political ideology.

## The Disposition-Goals-Ideology Model

To capture the interplay between the disparate elements that comprise political orientation, we propose a hierarchical, integrative model: the Disposition-Goals-Ideology (DiGI) Model. As depicted in Figure 1, the DiGI model states that the processes contributing to political orientation are distinguished at different hierarchical levels. Adopting model structures used by previous researchers (e.g., Elliot, 2006), the DiGI model distinguishes between the *disposition*, *goal*, and *ideology* levels.
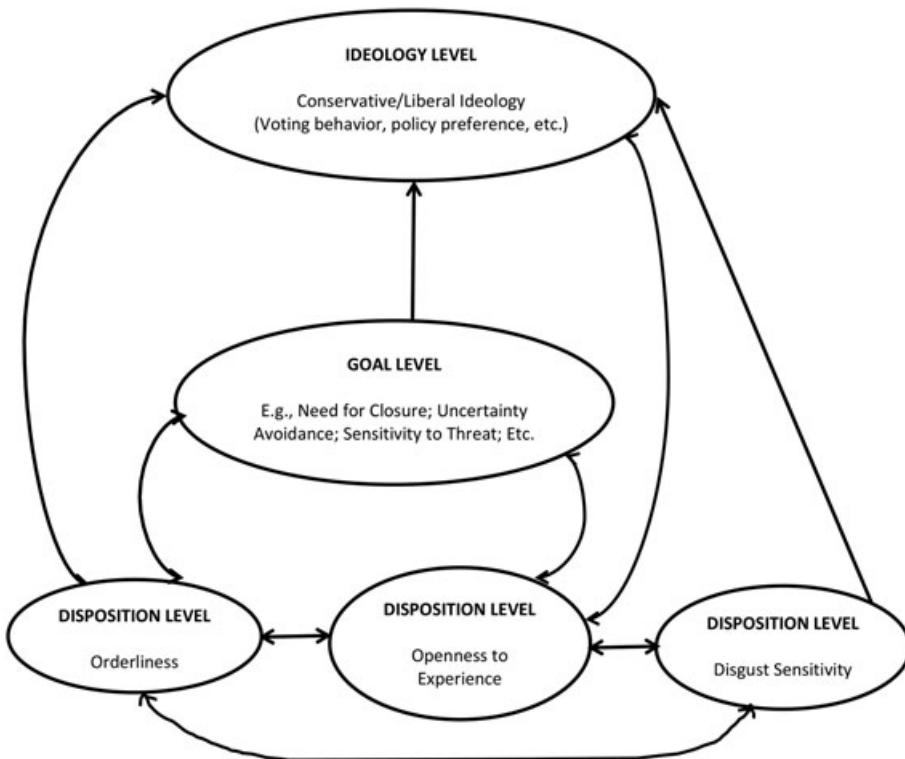


**Figure 1** The Disposition-Goals-Ideology Model.

*Disposition*

We define "disposition" as a generalized proclivity to adopt certain goals and behaviors, due to social learning history and/or biological influences. It is important to note that our definition of disposition moves beyond the Big Five traits in two ways. First, as noted, the disposition level also contains subcomponent of traits (i.e., aspects). We present evidence below that one aspect of Consciousness ("Orderliness"), but not the other ("Industriousness"), represents a particularly potent contributor to political orientation. Second, we summarize research indicating that an additional disposition not captured by the Big Five – disgust sensitivity – is likewise an important dispositional contributor. However, disposition is not destiny. According to the DiGI model, additional elements must be included to most effectively account for an individual's political orientation.

*Goals*

One such element is goals, which we define as cognitive representations of and motivations to achieve specific outcomes. The DiGI model suggests that while dispositions may directly influence ideological choices, this path is also mediated by goals. Moreover, as noted, the model proposes bidirectional relationships. On the one hand, individuals' specific dispositions (e.g., being open to novel stimuli) lead them to adopt related goals (e.g., the goal to seek novel experiences). At the same time, activation of certain goals may lead people to infer through self-perception that they possess the corresponding trait (e.g., "I am the type of person who is open to new experiences.").

*Ideology*

Although researchers have often used the terms "orientation" and "ideology" interchangeably, the DiGI model specifically operationalizes the term "orientation" to describe the general tendency for a person to favor one side of the political spectrum over the other. The term "ideology" refers to doctrinal tenets that make up each political position (e.g., pro versus anti-immigration, etc.). Thus, orientation is a more evaluative construct, while ideology is a more "cognitive" construct that refers to political content.

The DiGI model states that people select political ideologies that help to satisfy their goals. Whereas much of the previous work on political orientation has focused on the links between the goal and ideology levels (e.g., Graham, Haidt, & Nosek, 2009; Haas & Cunningham, 2014; Jost, Glaser, Kruglanski, & Sulloway, 2003; Jost et al., 2007; Malka, Soto, Inzlicht, & Lelkes, 2014; Nail, McGregor, Drinkwater, Steele, & Thompson, 2009; Shook & Fazio, 2009; etc.), or the disposition and ideology levels (Carney et al., 2008; Sibley, Osborne, & Duckitt, 2012, etc.), the DiGI model integrates all three levels. Next, we describe in detail the makeup of each level, including a summary of relevant research associated with each level.

## Disposition Level

Most people have the intuitive sense that certain types of people gravitate toward certain political views. For example, people generally believe that those who are more open to new experiences tend to identify as liberals, while those who are more orderly and structured tend to identify as conservatives. Psychologists have documented similar associations, but have also uncovered more nuanced details that may elude lay observers.

*Big Five traits and political orientation*

Numerous studies in personality and political psychology have consistently found that political liberalism is associated with higher scores on trait Openness to Experience and conservatism is associated with higher trait Conscientiousness (Carney et al., 2008; Hirsh, DeYoung, Xu, & Peterson, 2010; Mondak & Halperin, 2008; Sibley et al., 2012; Van Hiel, Kossowska, & Mervielde, 2000; Van Hiel & Mervielde, 2004; von Collani & Grumm, 2009; Xu, Mar, & Peterson, 2013, etc.). Indeed, a recent meta-analysis (Sibley et al., 2012) revealed that, across several measures of the Big Five (i.e., revised NEO Personality Inventory, Big Five Inventory, Big Five Aspect Scales, etc.), liberalism was consistently and robustly associated with Openness to Experience. That same meta-analysis found that after Openness to Experience, the trait most consistently associated with political conservatism was Conscientiousness, although with a weaker relationship (Sibley et al., 2012).

The associations between personality and political orientation remain robust across different measures of political orientation. For example, Openness to Experience has been linked with decreased right-wing attitudes (Van Hiel, Cornelis, & Roets, 2007; Van Hiel et al., 2000; von Collani & Grumm, 2009), decreased tolerance of inequality, less resistance to change (Kandler, Bleidorn, & Riemann, 2012), lower preference for conservative political parties and higher preference for liberal parties (Hirsh et al., 2010; Mondak & Halperin, 2008), and more overall liberal political orientation as measured by one-item scales (Carney et al., 2008). Meanwhile, Conscientiousness is associated with increased resistance to change and tolerance of inequality (Kandler et al., 2012), higher preference for conservative political parties (Dietrich, Lasley, Mondak, Remmel, & Turner, 2012; Hirsh et al., 2010; Vecchione, Schoen, González Castro, Cieciuch, & Pavlopoulos, 2011), and more conservative social values (Carney et al., 2008; von Collani & Grumm, 2009).

Do these personality differences between conservatives and liberals find expression in actual political behavior? The answer appears to be yes. In one study using a large sample drawn from across the United States, researchers found that state-wide differences in personality predicted state-wide voting patterns in the 1996, 2000, and 2004 US elections (Rentfrow, Jost, Gosling, & Potter, 2009). Higher state-wide Openness to Experience positively predicted votes cast for Democratic candidates (i.e., Clinton, Gore, and Kerry), whereas higher state-wide Conscientiousness negatively predicted votes cast for Democratic candidates. Similar state-wide results were found in a second sample, in which Openness to Experience predicted more liberal state-wide orientation, while Conscientiousness predicted more conservative state-wide orientation (Mondak & Canache, 2014). Another study involving participants from five European countries likewise found that higher Openness to Experience predicted voting for left-wing political parties, whereas higher Conscientiousness predicted voting for right-wing parties (Vecchione et al., 2011). These personality differences are also evident in politicians: One study reported that, among US state legislators, those who were higher in Openness tended to espouse more liberal ideology, and those who were higher in Conscientiousness identified with more conservative ideology and partisanship (Dietrich et al., 2012). In sum, the link between specific traits and political orientation is not only robust across multiple measures and samples but also holds important implications for real-life political behaviors.

*Motivational mechanisms*

Although there is considerable evidence that personality is linked with political orientation, the mechanisms underlying these associations are less well understood. Fortunately, recent research has begun to fill these gaps by focusing on specific motivational states.

A logical place to begin is with Openness to Experience, which generally exhibits the most robust association with political orientation (Sibley et al., 2012). Higher Openness to Experience is characterized by increased preference for original, creative, and complex stimuli and concepts (John, Naumann, & Soto, 2008). Likewise, higher liberalism is associated with stronger preferences for complex and unfamiliar stimuli and experiences (Jost et al., 2003). Thus, the relationship between Openness to Experience and liberalism reflects a generalized motivation to experience novel information (extending beyond the political sphere). This willingness to experience novelty can expose a person to new and complex perspectives that differ from the established norm. To the extent that such exposure to novelty proves to be a rewarding (rather than aversive) experience, it can, in turn, foster increased acceptance of such disruptions.

One important type of disruption is societal change – when traditional societal organization gives way to new social arrangements. Thus, Openness to Experience may predict liberalism because open people are more receptive to all manner of novel experiences, including societal change. Initial evidence for this model comes from a series of studies (Xu et al., 2013), in which we asked participants to complete the Big Five Aspect Scales (BFAS; DeYoung, Quilty, & Peterson, 2007), rate their political orientation, and indicate as many items as they were able to recognize from extensive lists of media domains (i.e., books and films). We found that individuals who were higher in Openness to Experience reported greater exposure to and knowledge of a variety of books and films. This wider exposure to media, in turn, predicted increased political liberalism (Xu et al., 2013). Thus, mere exposure to a greater variety of media products *in general*, even when their contents are relatively unrelated to politics, was associated with political liberalism (Xu et al., 2013).

Clearly, however, the types of media people consume matter as well. In a follow-up study (Xu & Peterson, in press), we found that higher Openness to Experience was associated with preference for media genres classified *a priori* as more "edgy," artistic, and unconventional, and a dislike for media that were classified as popular and conventional. These specific preferences, in turn, predicted increased political liberalism. Thus, it appears that open individuals are more motivated to seek novel information, whether or not related to societal change. Such experiences may, in turn, help to shape a politically liberal self-identity.

Whereas explanations for the link between Openness to Experience and liberalism may seem fairly straightforward, it is less obvious why Conscientiousness is linked with conservatism. To answer this question, it may be advantageous to break down trait Conscientiousness into its more nuanced aspects.

*The Big Ten*

Most studies on personality and political orientation made use of a trait-level model of personality. Recent work, however, has found that each of the Big Five traits can be conceptually and empirically divided into two distinct *aspects*. These aspects often provide more independent predictive power than the Big Five traits do on their own. The Big Ten aspects are as follows: Openness and Intellect (Openness to Experience), Orderliness and Industriousness (Conscientiousness), Compassion and Politeness (Agreeableness), Enthusiasm and Assertiveness (Extraversion), and Withdrawal and Volatility (Neuroticism) (DeYoung et al., 2007).

A growing number of studies provide evidence that the aspects are separately associated with important outcome variables. For instance, while the Industriousness aspect of Conscientiousness is negatively related to trait Neuroticism, its Orderliness aspect is actually positively correlated with Neuroticism after controlling for Industriousness (DeYoung et al., 2007). The ten aspects have been linked to gender differences, with women indicating that they were higher

in Orderliness, Openness, and Enthusiasm, whereas men self-reported higher Intellect and Assertiveness (Weisberg, DeYoung, & Hirsh, 2011).

The ten aspects also differentially predict cognitive outcomes. For example, the Intellect aspect of Openness to Experience is associated with general intelligence ( g), as well as verbal and nonverbal intelligence, while the Openness aspect is only associated with verbal intelligence (DeYoung, Quilty, Peterson, & Gray, 2014). Another study reported that higher Openness predicted increased interest in and reactivity to novel stimuli, while higher Intellect was associated with better perceived understanding of such stimuli (Fayn, Tiliopoulos, & MacCann, 2015).

In clinical research, the aspects have been used to distinguish between bipolar versus unipolar mood disorders, with higher Volatility, Enthusiasm, Compassion, and Industriousness predicting bipolar mood disorders, whereas increased Withdrawal predicted unipolar mood disorders (Quilty, Pelletier, DeYoung, & Bagby, 2013). Finally, neuroimaging studies have found that individuals with different levels of Withdrawal and Volatility displayed divergent patterns of amygdala responses to negative stimuli (Cunningham, Arbuckle, Jahn, Mowrer, & Abduljalil, 2010). Taken together, these results suggest that there is important, added value to decomposing the Big Five traits into their aspects. As such, an aspect-level approach may provide further understanding to the formation of political ideology.

*Big Ten aspects and ideology*

The literature on the Big Ten aspects and political ideology is comparatively newer. But the data that do exist indicate that, when it comes to predicting political orientation, the aspects matter. In one set of studies, Hirsh et al. (2010) found that when each trait's two aspects were simultaneously used to predict political orientation, it was the Openness aspect (but not the Intellect aspect) of Openness to Experience that predicted higher liberalism. For Conscientiousness, the Orderliness aspect (but *not* the Industriousness aspect) predicted increased conservatism. Most strikingly, these studies also found that the Compassion aspect of Agreeableness predicted liberalism, whereas the Politeness aspect predicted conservatism. Thus, different aspects of the same Big Five trait predicted political orientation in opposite directions. These patterns of aspect-level personality correlates of political orientation have been replicated in more recent studies (e.g., Osborne, Wootton, & Sibley, 2013; Xu et al., 2013).

What additional theoretical and empirical advances can aspect-level knowledge provide beyond what is already known at the trait-level? We suggest that aspect-level research begins to shed light on why certain dispositions are more consistently linked to political orientation. Thus, by linking aspects with political positions, we may gain a better understanding of the motivational processes associated with different political ideologies. To illustrate this idea, we focus on one aspect that appears to have a special relationship with political orientation: Orderliness.

*Orderliness and political conservatism.* Orderliness emphasizes tendencies related to a general desire to maintain structure, cleanliness, and organization (e.g., "I don't like to make a mess") (DeYoung et al., 2007). Several studies have reported that when both aspects of Conscientiousness are entered simultaneously to predict political conservatism, Orderliness, but not Industriousness, predicts conservatism (Hirsh et al., 2010; Xu & Peterson, under review).

We believe that this finding is noteworthy for two reasons. First, it may explain why the link between Conscientiousness and political orientation appears less robust than the link between Openness to Experience and political orientation (e.g., Carney et al., 2008; Sibley et al., 2012): Conservatism is only linked to one of the two aspects of Conscientiousness (Orderliness).

Second, Orderliness may represent an important dispositional building block of conservatism. Now-classic studies have linked conservatism with needs for closure and structure, as well as decreased tolerance of ambiguity and uncertainty ( Jost et al., 2003, 2007). Thus, it appears that

conservatism is, in fact, more closely related to the characteristics emphasized by Orderliness than the tendency to work hard and persevere in the face of challenges (i.e., Industriousness).

Indeed, Orderliness may be a key variable that shapes several of the defining goals and beliefs associated with the political right. Given that Orderliness is primarily concerned with maintaining structure, routine, and neatness, this can extend beyond maintaining an orderly *physical* environment to maintaining an orderly *social* environment. Therefore, Orderliness and its allied goal to maintain structure may lead people to gravitate toward ideologies that favor increased strengthening of reliable, predictable patterns of human behavior.

But why exactly are conservative individuals more concerned than liberals with organization and structure? Less research has directly examined this question, but one potential explanation may involve *anticipated negative affect*. Several researchers have found that conservative individuals, compared to their liberal counterparts, are more sensitive to negative stimuli and outcomes (Castelli & Carraro, 2011; Hibbing et al., 2014; Oxley et al., 2008; Shook & Fazio, 2009). Recently, Joel et al. (2014) provided evidence that, compared to liberals, conservatives also *anticipate* that they will feel more intense negative emotion if a negative life outcome were to occur (including outcomes that are non-political, e.g., academic and romantic outcomes). Moreover, following identical negative outcomes, conservatives actually *do* report feeling worse than liberals do (Joel et al., 2014). These findings suggest that conservatives, more so than liberals, are prone to anticipate experiencing especially strong negative emotions following negative events. One effective way to reduce the likelihood of negative outcomes is to maintain proper organization and structure in one's physical and social environment.

*Orderliness is not the opposite of Openness.* With Orderliness emphasizing the maintenance of structure, order, and familiarity, and Openness to Experience valuing creativity, aesthetics, and complexity, it may be tempting to label Orderliness as the "opposite" of Openness to Experience. However, this is unlikely to be the case. Although there exist small negative correlations between Orderliness and Openness to Experience, the effect sizes are small (*r*s below 0.15; DeYoung et al., 2007). In a recent study involving a large sample ($N > 3000$), we found a non-significant correlation between Orderliness and Openness to Experience. The correlation did become significant once we controlled for Industriousness ($r = -0.13, p < 0.001$). However, this effect size is still considered small. Importantly, it is possible for an individual to simultaneously exhibit higher phenotypes of both trait aspects. After all, the Big Ten aspects describe basic predispositions that transcend politics. Thus, an artist may value taking aesthetic risks (high Openness) *and* place importance on maintaining a tidy workspace (high Orderliness). In sum, rather than being "opposites" of one another, it is more likely that any oppositional tension that does exist between Orderliness and Openness is enhanced in the specific domain of politics.

*Relationships between traits and disgust sensitivity.* More recently, researchers have suggested that conservatism is partly rooted in biological emotional processes, especially disgust. Disgust is elicited by potentially contaminating stimuli, which from an evolutionary perspective, served to discourage people from ingesting harmful substances (Haidt, McCauley, & Rozin, 1994; Inbar, Pizarro, & Bloom, 2012). Recent work has suggested that people not only feel disgust toward physical contagions (e.g., rotten meat) but also toward social contaminations (e.g., dishonest or cheating behaviors; Chapman, Kim, Susskind, & Anderson, 2009). With respect to political orientation, research has consistently shown that individuals who are more conservative tend to be more prone to experience feelings of disgust (Inbar et al., 2009). Higher disgust sensitivity has been linked to more conservative voting patterns (Inbar et al., 2012) and increased opposition to gay marriage and abortion (Inbar et al., 2009). Even mere reminders of disgust (e.g., via

noxious smells) have been shown to increase political conservatism (Inbar, Pizarro, & Bloom, 2012).

Returning to the DiGI model, we suggest that personality traits/aspects and disgust sensitivity operate at the disposition level and that both share variance in predicting conservatism. Furthermore, the relationship between these two dispositions may very well be bidirectional. That is, individuals who are keen to avoid contaminants are also more predisposed to maintain a neat and organized environment and are less willing to engage in exploratory behaviors.

In support of this idea, research has shown that increased disgust sensitivity is indeed negatively related to Openness to Experience (Druschel & Sherman, 1999; Olatunji, Haidt, McKay, & David, 2008). In our own work, we have repeatedly found that the Orderliness aspect (but not the Industriousness aspect) of trait Conscientiousness is linked to *both* conservatism and disgust sensitivity (Xu, Chapman, & Peterson, in preparation). Across several studies with sample sizes ranging from 200 to 400, we found that individuals higher in Orderliness were both more disgust sensitive ($r$s ranging from 0.15 to 0.24, $p$s $< 0.05$), as well as more politically conservative ($r$s ranging from 0.15 to 0.18, $p$s $< 0.05$). Therefore, an orderly personality and proneness to feel disgust may both represent core dispositional foundations underlying conservative political orientation.

## Goal Level

Goals are knowledge structures representing desired outcomes that may be attainable through action (Kruglanski, 1996). Goals guide behavior and help to shape attention allocation (Fishbach & Ferguson, 2007), evaluations (Brendl & Higgins, 1996), and emotional experiences (Elliott & Dweck, 1988). The achievement of a goal is met with feelings of positivity (Fishbach & Ferguson, 2007; Higgins, 1996).

The concept of 'goals as knowledge structures' suggests that goals differ in accessibility and activation (Fishbach & Ferguson, 2007; Higgins, 1996). That is, even though people can hold goals in long-term memory, these goals are not always activated. Instead, whether a goal becomes explicitly or implicitly activated (Ferguson, 2008) and pursued depends on numerous variables, beyond the individual's dispositional tendency to activate that goal. These variables include situational cues that may activate *or inhibit* goal activation as well as cues that encourage the activation of competing goals (Fishbach & Ferguson, 2007; Kruglanski, 1996). In other words, specific dispositions can render certain goals to be more accessible, applicable, and salient (Higgins, 1996), and therefore, more likely to be pursued than others. However, simply owning a specific disposition does not necessitate that a corresponding goal will be activated. Whether the goal becomes activated depends on a range of inputs (Ferguson, 2008).

Returning to the DiGI model, how do dispositions work together with allied goals to produce political ideology? How are dispositions and goals different from one another? We propose that goals help to translate dispositions into behavior. Different dispositions (e.g., high Openness) predispose people to activate different corresponding goals (e.g., engage in novel activities). However, although an individual may be inclined to activate a corresponding goal, that goal may be suppressed by competing goals activated by cues in the environment (e.g., conforming to the cultural norms of a predominantly conservative town). As such, the disposition level alone cannot fully account for differences in ideology. Rather, dispositions "put a thumb on the scale" of goal activation – increasing the likelihood of the goal's activation. But even with this advantage of chronic accessibility, a particular goal may fail to be activated, and the corresponding behavior may not be pursued. We turn next to the links between goals that *are* successfully activated and particular ends of the political spectrum.

*Distinguishing Orderliness from need for closure*

The goal to maintain closure and certainty is closely linked to political orientation. Meta-analyses have consistently demonstrated associations between conservatism and needs for closure and structure (Jost et al., 2003). In addition, more conservative individuals also exhibit greater intolerance of ambiguity and uncertainty (Jost et al., 2003). It appears that, compared to liberals, conservatives are more motivated to seek certainty, firm beliefs, and decisive conclusions.

On the surface, Orderliness and Need for Closure (Kruglanski & Webster, 1996; Webster & Kruglanski, 1994) appear to be similar, as both relate to desires to maintain structure. Is it therefore necessary to place each construct at different levels of our model or to even view them as different constructs? We posit that, although similar, Orderliness and Need for Closure differ in generality. Orderliness refers to a more basic, generalized disposition, rooted in biological processes and early development (DeYoung et al., 2007), that affect individuals' behavior in a broad spectrum of domains of life. In contrast, Need for Closure has been characterized as specifically related to a desire to obtain definitive answers in decision–making and social cognition questions (Kruglanski & Webster, 1996; Webster & Kruglanski, 1994). Orderliness may be a more general and basic disposition that could, in fact, be a fundamental disposition that precipitates chronic high need for closure.

To test this distinction, we examined whether Orderliness and Need for Closure would differentially predict political ideology. Participants ($N = 412$) completed measures of political ideology, the BFAS, and the Need for Closure Scale (NFCS; Webster & Kruglanski, 1994). We found that although Orderliness was correlated with four of the five subscales of the NFCS (*r*s ranging from 0.17 to 0.72), by far, the highest correlation was with the NFCS "Order" subscale ($r = 0.72$, $p < 0.001$). More importantly, we found that, even after controlling for the other four NFCS subscales (Ambiguity, Closed Mindedness, Decisiveness, and Predictability), Orderliness still predicted conservatism, $\beta = -0.22$, $p < 0.001$. Thus, although Orderliness is related to Need for Closure (or more specifically, its Order subscale), these data indicate that Orderliness offers additional predictive power beyond Need for Closure alone.

*Need for threat avoidance*

The need to avoid threat, both physical and symbolic, is another motivator of conservative orientation. Much work has found that increased conservatism is related to greater fear of death and mortality salience (Jost et al., 2003). People express increased conservatism under situations of heightened societal or economic threat (Jost et al., 2003). More generally, conservative individuals show greater sensitivity to threatening and negatively valenced stimuli that are rather removed from politics (e.g., photos of open wounds, negative relationship outcomes) (Castelli & Carraro, 2011; Hibbing et al., 2014; Joel et al., 2014; Oxley et al., 2008; Shook & Fazio, 2009). These findings have also been corroborated in various real-life domains. For example, studies have found a shift toward conservatism among both self–identified liberals and conservatives, after exposure to or even mere reminders of, the September 11 attacks, a threatening and chaotic event (Bonanno & Jost, 2006; Landau et al., 2004; Nail & McGregor, 2009). The effect of threat on conservative beliefs applies not only to American samples. A recent study found that regions in the world with higher pathogen prevalence were more likely to have authoritarian governance (Murray, Schaller, & Suedfeld, 2013). Overall, then, it appears that threat motivates increased political conservatism.

We suggest that motivations to pursue order and to avoid threat might be related in that more orderly individuals are more likely to activate goals involving the minimization of threat. This is because instances of threat not only represent potential harm to the self but are often

accompanied by disruptions to the status quo. The consequence of such disturbances is often further uncertainty and chaos. Thus, orderly and conservative individuals may be highly threat-averse, not only due to the potential harm to the self but also due to the potential chaos that threats can cause. This, then, may foster the adoption of order-related goals and, ultimately, the selection of more conservative ideologies.

## Ideology Level

The accumulated evidence indicates that a key component of conservatism is the desire to ensure order and structure in order to minimize potential or actual threats, contaminants, or disruptions. The needs to manage uncertainty and threat are heavily emphasized in predominant models of ideology. For instance, the uncertainty-threat model (Jost et al., 2003, 2007) states that the social-cognitive and epistemic needs to avoid uncertainty and threat underlie two key components of conservative orientation: resistance to change and tolerance of inequality. The need to avoid uncertainty and maintain stability underlie more conservative individuals' general resistance to changes in their environment, while the need to manage threat underlie greater tolerance of inequality, or increased support of the status quo (Jost et al., 2003, 2007). At a more macro-level, social order can be attained by supporting policies and ideologies that protect people from potential causes of disorder and chaos.

The DiGI model states that support for such policies stems from the goals to reduce societal uncertainty and threat, which themselves are linked with more general dispositions toward maintaining order and avoiding contagions. More generally, people gravitate toward ideologies that match the goals associated with their dispositions. This process may not be perfect; certain individuals who are dispositionally orderly might be discouraged from adopting conservative values by external social pressures (e.g., a liberal family). However, growing evidence suggests that, on balance, people tend to find a way to harmonize their political beliefs with their personality.

## Comparison of the DiGI Model to Existing Models of Ideology

The DiGI model is rooted in – and extends – existing models of political ideology. One such model is the uncertainty-threat model of conservatism proposed by Jost and colleagues (Jost et al., 2003, 2007; Jost, Federico, & Napier 2009). This model states that conservatism is the consequence of motivated social cognition. Various epistemic (e.g., needs for closure), existential (e.g., threat management), and ideological (e.g., system justification) motivations help to shape two core dimensions of conservative ideology: Resistance to change and tolerance of inequality. The adoption of these two dimensions then provides the benefit of reducing uncertainty and threat, which conservative individuals find more aversive than liberals (Jost et al., 2007).

The DiGI model alludes to this model in its Goals and Ideology levels. What distinguished the DiGI model, however, is the addition and expansion of the Disposition level. Although descriptions of the uncertainty-threat model occasionally refer to dispositional variables (e.g., being open to ideas or being disgust sensitive; Jost et al., 2009), the concept that dispositions are fundamental predictors of ideology and that they recruit specific, corresponding goals, is not explicitly articulated. Thus, the DiGI model builds on the uncertainty-threat model by specifying an important source of politically relevant goals and how such goals translate into political behavior.

## Limitations of the DiGI Model

As a novel attempt to integrate personality and social psychological influences on political ideology, the DiGI model bears certain limitations. Perhaps the most important issue is that the

model is based primarily on research that has defined ideology in terms of social issues. Thus, the model emphasizes psychological factors that contribute to social conservatism/liberalism, but cannot account for differences in fiscal or economic conservatism/liberalism. Several studies suggest that social versus economic political orientation might stem from different sets of psychological processes (Feldman & Johnston, 2014; Malka et al., 2014). For instance, it has been suggested that greater needs for security only predict conservative positions on cultural issues, but not economic ones (Malka et al., 2014). Therefore, it may be the case that the DiGI model in its current state is more helpful for understanding the social side of conservatism/liberalism.

A related issue is that the DiGI model assumes a unidimensional operationalization of political orientation, such that conservatism and liberalism are construed as opposite ends of one continuous dimension. We have adopted this approach because the majority of studies on which the model is based have likewise adopted a unidimensional approach. However, this operationalization of convenience need not imply that political orientation must be restricted to one continuum. Indeed, there is work suggesting that political orientation is multidimensional, and that different patterns of socially and economically conservative (or liberal) individuals exist (Feldman & Huddy, 2014; Feldman & Johnston, 2014). Thus, future iterations of the DiGI model must be able to account for more nuanced subtypes of conservatism and liberalism.

Finally, we have presented evidence that the three dispositions that are relevant to informing ideology are Orderliness, Openness to Experience, and disgust sensitivity. However, we do not limit the dispositional contributors of political ideology to only those three. There are most likely other dispositional variables that play a role in shaping political orientation. As the literature moves toward a more comprehensive understanding of political orientation, more research is needed to continue to identify and catalog such variables, and explain how they relate to specific goals and policy choices.

## Conclusion

By integrating the personality and social levels of analysis into a single hierarchical model, researchers of political psychology may begin to investigate more complex pathways underlying political orientation. As such, this framework has the potential to generate new avenues of research on the psychological substrates of political differences. For examples, is it possible to experimentally manipulate levels of Orderliness or Openness to Experience, and would doing so lead to changes in a person's political ideology? How do people cope when there is a mismatch between their political "personality" and their political "environment," e.g., an open person who lives in a conservative town? We encourage future investigators of such questions to approach their work with an eye toward all three levels of analysis: dispositions, goals, and ideologies.

## Short Biographies

Xiaowen Xu is a PhD candidate in the Department of Psychology at the University of Toronto. She is interested in studying how differences in political orientation manifest in people's beliefs, social behaviors, and personality. She is also interested in examining how individual differences affect people's responses to different types of meaning threats.

Dr Jason E. Plaks is an Associate Professor in the Department of Psychology at the University of Toronto. He received his PhD from Columbia University in 2001. His research examines the intersection between motivation and cognition.

Dr Jordan B. Peterson is a Clinical Psychologist and Professor of Psychology at the University of Toronto, with two main areas of study: the psychology of belief (including religion,

mythology, and political ideology) and the assessment and improvement of personality (including the prediction of creative, academic, and industrial performance).

*Note*

* Correspondence: Department of Psychology, University of Toronto, 100 St. George Street, 4th Floor, Toronto, Ontario, M5S 3G3, Canada. Email: xiaowey.xu@mail.utoronto.ca

## References

Alford, J. R., Funk, C. L., & Hibbing, J. R. (2005). Are political orientations genetically transmitted? *American Political Science Review*, **99**, 153–167.

Bem, D. J. (1967). Self-Perception: An alternative interpretation of cognitive dissonance phenomena. *Psychological Review*, **74**, 183–200.

Bonanno, G. A., & Jost, J. T. (2006). Conservative shift among high-exposure survivors of the September 11th terrorist attacks. *Basic and Applied Social Psychology*, **28**, 311–323.

Brendl, C. M., & Higgins, E. T. (1996). Principles of judging valence: What makes events positive or negative? In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 28, pp. 95–160). San Diego, CA, US: Academic Press.

Bryan, C. J., Dweck, C. S., Ross, L., Kay, A. C., & Mislavsky, N. (2009). Ideology as mindset: Effects of personally-relevant priming on political assessments. *Journal of Experimental Social Psychology*, **45**, 890–895.

Carney, D. R., Jost, J. T., & Gosling, S. D., & Potter, J. (2008). The secret lives of liberals and conservatives: Personality profiles, interaction styles, and the things they leave behind. *Political Psychology*, **29**, 807–840.

Castelli, L., & Carraro, L. (2011). Ideology is related to basic cognitive processes involved in attitude formation. *Journal of Experimental Social Psychology*, **47**, 1013–1016.

Chapman, H. A., Kim, D. A., Susskind, J. M., & Anderson, A. K. (2009). In bad taste: Evidence for the oral origins of moral disgust. *Science*, **323**, 1222–1226.

Cunningham, W. A., Arbuckle, N. L., Jahn, A., Mowrer, S. M., & Abduljalil, A. M. (2010). Aspects of neuroticism and the amygdala: Chronic tuning from motivational styles. *Neuropsychologia*, **48**, 3399–3404.

DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10 Aspects of the Big Five. *Journal of Personality and Social Psychology*, **93**, 880–896.

DeYoung, C. G., Quilty, L. C., Peterson, J. B., & Gray, J. R. (2014). Openness to experience, intellect, and cognitive ability. *Journal of Personality Assessment*, **96**, 46–52.

Dietrich, B. J., Lasley, S., Mondak, J. J., Remmel, M. L., & Turner, J. (2012). Personality and legislative politics: The Big Five trait dimensions among U.S. state legislators. *Political Psychology*, **33**, 195–210.

Druschel, B. A., & Sherman, M. F. (1999). Disgust sensitivity as a function of the Big Five and gender. *Personality and Individual Differences*, **26**, 739–748.

Elliot, A. J. (2006). The hierarchical model of approach-avoidance motivation. *Motivation and Emotion*, **30**, 111–116.

Elliott, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology*, **54**, 5–12.

Fayn, K., Tiliopoulos, N., & MacCann, C. (2015). Interest in truth versus beauty: Intellect and Openness reflect different pathways towards interest. *Personality and Individual Differences*, **81**, 47–52.

Feldman, S., & Huddy, L. (2014). Not so simple: the multidimensional nature and diverse origins of political ideology. *Brain and Behavior Sciences*, **37**, 312–313.

Feldman, S., & Johnston, C. (2014). Understanding the determinants of political ideology: Implications of structural complexity. *Political Psychology*, **35**, 337–358.

Ferguson, M. J. (2008). On becoming ready to pursue a goal you don't know you have: Effects of nonconscious goals on evaluative readiness. *Journal of Personality and Social Psychology*, **95**, 1268–1294.

Fishbach, A., & Ferguson, M. J. (2007). The goal construct in social psychology. In A. W. Kruglanski & E. T. Higgins (Eds.), *Social Psychology: Handbook of Basic Principles* (pp. 490–515). New York: Guilford Press.

Graham, J., Haidt, J., & Nosek, B. (2009). Liberals and conservatives use different sets of moral foundations. *Journal of Personality and Social Psychology*, **96**, 1029–1046.

Haas, I. J., & Cunningham, W. A. (2014). The uncertainty paradox: Perceived threat moderates the effect of uncertainty on political tolerance. *Political Psychology*, **35**, 291–302.

Haidt, J., McCauley, C., & Rozin, P. (1994). Individual differences in sensitivity to disgust: A scale sampling seven domains of disgust elicitors. *Personality and Individual Differences*, **16**, 701–713.

Hibbing, J. R., Smith, K. B., & Alford, J. R. (2014). Differences in negativity bias underlie variations in political ideology. *Behavioral and Brain Sciences*, **37**, 297–307.

Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social Psychology: Handbook of Basic Principles* (pp. 133–168). New York: The Guilford Press.

Hirsh, J. B., DeYoung, C. G., Xu, X., & Peterson, J. B. (2010). Compassionate liberals and polite conservatives: Associations of agreeableness with political ideology and moral values. *Personality and Social Psychology Bulletin*, **36**, 655–664.

Inbar, Y., Pizarro, D. A., & Bloom, P. (2009). Conservatives are more easily disgusted than liberals. *Cognition & Emotion*, **23**, 714–725.

Inbar, Y., Pizarro, D. A., & Bloom, P. (2012). Disgusting smells cause decreased liking of gay men. *Emotion*, **12**, 23–27.

Inbar, Y., Pizarro, D. A., Iyer, R., & Haidt, J. (2012). Disgust sensitivity, political conservatism, and voting. *Social Psychological and Personality Science*, **5**, 537–544.

Jang, K. L., Livesley, W. J., & Vernon, P. A. (1996). Heritability of the Big Five personality dimensions and their facets: A twin study. *Journal of Personality*, **64**, 577–591.

Janoff-Bulman, R. (2009). To provide or protect: Motivational bases of political liberalism and conservatism. *Psychological Inquiry*, **20**, 120–128.

Janoff-Bulman, R., & Carnes, N. C. (2014). Motivation and morality: Insights into political ideology (commentary). *Behavioral and Brain Sciences*, **37**, 316–317.

Joel, S., Burton, C., & Plaks, J. E. (2014). Conservatives anticipate and experience stronger emotional reactions to negative outcomes. *Journal of Personality*, **82**, 32–43.

John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big Five trait taxonomy: History, measurement, and conceptual issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd Ed.) (pp. 114–158). New York: Guilford.

Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual Review of Psychology*, **60**, 307–333.

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, **129**, 339–375.

Jost, J. T., Napier, J. L., Thorisdottir, H., Gosling, S. D., Palfai, T. P., & Ostafin, B. (2007). Are needs to manage uncertainty and threat associated with political conservatism or ideological extremity? *Personality and Social Psychology Bulletin*, **33**, 989–1007.

Kandler, C., Bleidorn, W., & Riemann, R. (2012). Left or right? Sources of political orientation: The roles of genetic factors, cultural transmission, assortative mating, and personality. *Journal of Personality and Social Psychology*, **102**, 633–645.

Kruglanski, A. W. (1996). Goals as knowledge structures. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The Psychology of Action: Linking Cognition and Motivation to Behavior* (pp. 599–618). New York: Guilford.

Kruglanski, A. W., & Webster, D. M. (1996). Motivated closing of the mind: "Seizing" and "freezing". *Psychological Review*, **103**, 263–283.

Landau, M. J., Solomon, S., Greenberg, J., Cohen, F., Pyszczynski, T., Arndt, J., … Cook, A. (2004). Deliver us from evil: The effects of mortality salience and reminders of 9/11 on support for President George W. Bush. *Personality and Social Psychology Bulletin*, **30**, 1136–1150.

Lucas, G. M., & Molden, D. C. (2011). Motivating political preferences: Concerns with promotion and prevention as predictors of public policy attitudes. *Motivation and Emotion*, **35**, 151–164.

Malka, A., Soto, C. J., Inzlicht, M., & Lelkes, Y. (2014). Do needs for security and certainty predict cultural and economic conservatism? A cross-national analysis. *Journal of Personality and Social Psychology*, **106**, 1031–1051.

Mondak, J. J., & Canache, D. (2014). Personality and political culture in the American states. *Political Research Quarterly*, **67**, 26–41.

Mondak, J. J., & Halperin, K. d. (2008). A framework for the study of personality and political behaviour. *British Journal of Political Science*, **38**, 335–362.

Murray, D. R., Schaller, M., & Suedfeld, P. (2013). Pathogens and politics: Further evidence that parasite prevalence predicts authoritarianism. *PLoS ONE*, **8**, e6227.

Nail, P. R., & McGregor, I. (2009). Conservative shift among liberals and conservatives following 9/11/01. *Social Justice Research*, **22**, 231–240.

Nail, P. R., McGregor, I., Drinkwater, A., Steele, G., & Thompson, A. (2009). Threat causes liberals to think like conservatives. *Journal of Experimental Social Psychology*, **45**, 901–907.

Olatunji, B. O., Haidt, J., McKay, D., David, B. (2008). Core, animal reminder, and contamination disgust: Three kinds of disgust with distinct personality, behavioral, physiological, and clinical correlates. *Journal of Research in Personality* **42**, 1243–1259.

Osborne, D., Wootton, L. W., & Sibley, C. G. (2013). Are liberals agreeable or not? Politeness and compassion differentially predict political conservatism via distinct ideologies. *Social Psychology*, **44**, 354–360.

Oxley, D. R., Smith, K. B., Alford, J. R., Hibbing, M. V., Miller, J. L., Scalora, M., … Hibbing, J. R. (2008). Political attitudes vary with physiological traits. *Science*, **321**, 1667–1670.

Quilty, L. C., Pelletier, M., DeYoung, C. G., & Bagby, R. M. (2013). Hierarchical personality traits and the distinction between unipolar and bipolar disorders. *Journal of Affective Disorders*, **147**, 247–254.

Renner, W., Kandler, C., Bleidorn, W., Riemann, R., & Menschik-Bendele, J. (2012). The behavior genetics of five lexically derived domains and their facets. *Personality and Individual Differences*, **52**, 89–93.

Rentfrow, P. J., Jost, J. T., Gosling, S. D., & Potter, J. (2009). Statewide differences in personality predict voting patterns in 19962004 U. S. presidential elections. In J. T. Jost, A. C. Kay & H. Thorisdottir (Eds.), *Social and Psychological Bases of Ideology and System Justification* (pp. 314–347). Oxford: Oxford University Press.

Rosenblatt, A., Greenberg, J., Solomon, S., Pyszczynski, T., & Lyon, D. (1989). Evidence for terror management theory: I. The effects of mortality salience on reactions to those who violate or uphold cultural values. *Journal of Personality and Social Psychology*, **57**, 681–690.

Shook, N. J., & Fazio, R. H. (2009). Political ideology, exploration of novel stimuli, and attitude formation. *Journal of Experimental Social Psychology*, **45**, 995–998.

Sibley, C. G., Osborne, D., & Duckitt, J. (2012). Personality and political orientation: Meta-analysis and test of a Threat-Constraint Model. *Journal of Research in Personality*, **46**, 664–677.

Tritt, S. M., Inzlicht, M., & Peterson, J. B. (2013). Preliminary support for a generalized arousal model of political conservatism. *PLoS ONE*, **8**, e83333.

Tritt, S. M., Inzlicht, M., & Peterson, J. B. (2014). Confounding valence and arousal: What really underlies political orientation? *Behavioral and Brain Sciences*, **37**, 330–331.

Van Hiel, A., Cornelis, I., & Roets, A. (2007). The intervening role of social worldviews in the relationship between the Five-Factor Model of personality and social attitudes. *European Journal of Personality*, **21**, 131–148.

Van Hiel, A., Kossowska, M., & Mervielde, I. (2000). The relationship between openness to experience and political ideology. *Personality and Individual Differences*, **28**, 741–751.

Van Hiel, A., & Mervielde, I. (2004). Openness to experience and boundaries in the mind: Relationships with cultural and economic conservative beliefs. *Journal of Personality*, **72**, 659–686.

Vecchione, M., Schoen, H., González Castro, J. L., Cieciuch, J., Pavlopoulos, V., & Caprara, G.V. (2011). Personality correlates of party preference: The Big five in five big European countries. *Personality and Individual Differences*, **51**, 737–742.

Von Collani, G., & Grumm, M. (2009). On the dimensional structure of personality, ideological beliefs, social attitudes, and personal values. *Journal of Individual Differences*, **30**, 107–119.

Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, **67**, 1049–1062.

Weisberg, Y. J., DeYoung, C. G., & Hirsh, J. B. (2011). Gender differences in personality across the ten aspects of the Big Five. *Frontiers in Personality Science and Individual Differences*, **2**, article 178.

Xu, X., Chapman, H. A., & Peterson, J. B. (in prep). The associations between disgust sensitivity, Orderliness, and political conservatism.

Xu, X., Mar, R. A., & Peterson, J. B. (2013). Does cultural exposure partially explain the association between personality and political orientation? *Personality and Social Psychology Bulletin*, **39**, 1497–1517.

Xu, X., & Peterson, J. B. (in press). Differences in media preference mediate the link between personality and political orientation.

Xu, X., & Peterson, J. B. (under review). Beyond Openness to Experience and Conscientiousness: The Big Five personality aspect predictors of political orientation.