

# **The Secret Lives of Liberals and Conservatives: Personality Profiles, Interaction Styles, and the Things They Leave Behind**

**Dana R. Carney**

*Columbia University*

**John T. Jost**

*New York University*

**Samuel D. Gosling**

*University of Texas at Austin*

**Jeff Potter**

*Cambridge, Massachusetts*

---

*Although skeptics continue to doubt that most people are “ideological,” evidence suggests that meaningful left-right differences do exist and that they may be rooted in basic personality dispositions, that is, relatively stable individual differences in psychological needs, motives, and orientations toward the world. Seventy-five years of theory and research on personality and political orientation has produced a long list of dispositions, traits, and behaviors. Applying a theory of ideology as motivated social cognition and a “Big Five” framework, we find that two traits, Openness to New Experiences and Conscientiousness, parsimoniously capture many of the ways in which individual differences underlying political orientation have been conceptualized. In three studies we investigate the relationship between personality and political orientation using multiple domains and measurement techniques, including: self-reported personality assessment; nonverbal behavior in the context of social interaction; and personal possessions and the characteristics of living and working spaces. We obtained consistent and converging evidence that personality differences between liberals and conservatives are robust, replicable, and behaviorally significant, especially with respect to social (vs. economic) dimensions of ideology. In general, liberals are more open-minded, creative, curious, and*

*novelty seeking, whereas conservatives are more orderly, conventional, and better organized.*

**KEY WORDS:** Political orientation, Ideology, Liberalism, Conservatism, Personality, Openness, Conscientiousness, Nonverbal behavior

*“The individual’s pattern of thought, whatever its content, reflects his personality and is not merely an aggregate of opinions picked up helter-skelter from the ideological environment.”*

(Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950, p. 176)

Despite evidence of stark ideological polarization in American and European politics (Abramowitz & Saunders, 2005; Bishop, 2004; Bobbio, 1996; Jost, 2006), a number of sociologists, psychologists, and political scientists remain skeptical about the notion that most people are “ideological” in any stable, consistent, or profound sense (Baker, 2005; Bishop, 2005; Converse, 2000; Fiorina, Abrams, & Pope, 2006; McGuire, 1999; Zaller, 1992). There are several reasons for the skepticism, and many of these can be traced to theoretical and empirical claims first made in the 1950s and 1960s by Raymond Aron, Edward Shils, Daniel Bell, Seymour Lipset, and Philip Converse. These “end-of-ideology” proponents argued that there were no major differences between the left and right in terms of political content or psychological characteristics and that there was no compelling cognitive or motivational structure to ideologies such as liberalism and conservatism. Jost (2006) reevaluated these skeptical claims and concluded that, although ordinary citizens may fail strict tests of ideological sophistication, most people can and do use ideological constructs such as liberalism and conservatism meaningfully and appropriately and that they are indeed motivated by ideological commitments that guide (or constrain) both attitudes and behaviors.

Skepticism about the role of ideology in everyday life persists at least in part because of the ambiguity and multiplicity of definitions of the term that pervade both popular and scientific discussions (Gerring, 1997; see also Jost, 2006, pp. 652–654). In this article, we conceptualize political ideology in terms of one’s relative position on an abstract left-right (or liberal-conservative) dimension that is comprised of two core aspects that tend to be correlated with one another, namely: (a) acceptance versus rejection of inequality and (b) preference for social change vs. preservation of the societal status quo (see also Jost, Glaser, Kruglanski, & Sulloway, 2003a, 2003b; Jost, Nosek, & Gosling, 2008). The theoretical possibility we investigate in this research program is that, as Tomkins (1963) argued long ago, ideological differences between the left and right are partially rooted in basic personality dispositions. That is, ideology both reflects and reinforces individual differences in fundamental psychological needs, motives, and orientations toward the world.

## Theories of Personality and Political Orientation

For almost as long as social scientists have located political orientation on a single left-right (or, in the United States, a liberal-conservative) dimension, they have speculated about the personality characteristics that typify each ideological pole (e.g., Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Constantini & Craik, 1980; DiRenzo, 1974; Eysenck, 1954; McClosky, 1958; Tomkins, 1963). As Tetlock and Mitchell (1993) have pointed out, it is possible to generate either flattering or unflattering psychological portraits at either end of the political spectrum. The important question, from a scientific point of view, is not whether any given theory is gratifying to left-wing or right-wing audiences, but whether it possesses truth value. Obtaining an accurate understanding of the personality needs and characteristics of liberals and conservatives has taken on added urgency in the current political climate, in which people from liberal “blue” states find it increasingly difficult to understand people from conservative “red” states and vice versa (see Abramowitz & Saunders, 2005; Bishop, 2004; Rentfrow, Jost, Gosling, & Potter, 2009).

In this article, we draw on eclectic sources of data to investigate the degree to which historical speculations concerning the traits of liberals and conservatives possess genuine diagnostic utility, that is, empirical accuracy.<sup>1</sup> We address three main questions. First, does political orientation covary with basic psychological dimensions in the ways that have been suggested (but seldom comprehensively investigated) by theorists over the past several decades? Second, what, specifically, are the differences (as well as similarities) between liberals and conservatives in terms of personality profiles and dispositions, and how strong are they? Third, if there are indeed meaningful psychological differences between liberals and conservatives, how are they manifested in daily behavior?

Influential theories mapping personality profiles to political ideology were developed by Fromm (1947, 1964), Adorno et al. (1950), Tomkins (1963), Brown (1965), Bem (1970), and Wilson (1973), among others. In this section, we review a number of these perspectives, which span the last 75 years. All of these theories assume that specific “ideologies have for different individuals, different degrees of appeal, a matter that depends upon the individual’s needs and the degree to which these needs are being satisfied or frustrated” (Adorno et al., 1950, p. 2). Although the specific personality needs and characteristics under investigation (italicized below) have varied somewhat across cultural contexts and historical periods, we will show that the underlying contents identified by diverse theorists and observers converge to a remarkable degree. Moreover, these characterizations are broadly consistent with a psychological theory of political ideology as motivated social

<sup>1</sup> For purposes of simplicity in exposition we frequently use the categorical terms of “liberals” and “conservatives,” although these labels refer to opposite poles of a single, underlying dimension, and our statistical analyses treat political orientation as a continuous variable (see also Fuchs & Klingemann, 1990; Jost, 2006; Knight, 1999).

cognition (Jost et al., 2003a, 2003b) and the hypothesis that dispositional (as well as situational) differences in epistemic and existential needs to manage uncertainty and threat are linked to individual preferences for liberalism versus conservatism (Jost et al., 2007).

### *Early Theories, 1930–55*

Early accounts of personality differences between left-wingers and right-wingers focused largely on issues that would come to define the syndrome of authoritarianism. Roger Brown (1965) famously recounted the work of Nazi psychologist Erich Jaensch (1938), who proposed one of the first distinctions between two personality types with clear political significance. The J-type, according to Jaensch, was predisposed to make a good Nazi: “J made *definite, unambiguous* perceptual judgments and *persisted* in them . . . [he] would recognize that human behavior is fixed by blood, soil, and national tradition . . . would be *tough, masculine, firm*; a man you could *rely on*” (Brown, 1965, p. 478, emphasis added). By contrast, the S-Type was someone of racially mixed heredity and included Jews, “Parisians,” East Asians, and communists. As Brown observed:

The S-Type [described a] synaesthetic: one who enjoys concomitant sensation, a subjective experience from another sense than the one being stimulated, as in color hearing. Synaesthesia, which we are likely to regard as a poet’s gift, seemed to Jaensch to be a kind of *perceptual slovenliness*, the qualities of one sense carelessly mixed with those of another . . . characterized by *ambiguous* and *indefinite judgments* and to be lacking in *perseverance*. . . . The S would be a man with so-called “Liberal” views; one who would think of environment and education as the determinants of behavior; one who takes a childish wanton pleasure in being *eccentric*, S would say “*individualistic*.” (Brown, 1965, p. 477, emphasis added)

Adorno et al. (1950) accepted at least a few elements of Jaensch’s (1938) description but viewed the aggressive J-type as a societal menace, an authoritarian, a potential fascist—not as a cultural ideal. The right-wing personality type was recast as *rigid, conventional, intolerant, xenophobic*, and *obedient* to authority figures. Brown (1965) noted that “What Jaensch called ‘*stability*’ we called ‘*rigidity*’ and the flaccidity and eccentricity of Jaensch’s despised S-Type were for us the *flexibility* and individualism of the democratic equalitarian” (p. 478, emphasis added). It is remarkable that such diametrically opposed theorists as Jaensch and Adorno would advance parallel personality theories linking general psychological characteristics to specific ideological belief systems, but this is only one of many historical volleys in the longstanding effort to understand the relationship between personality and politics.

Members of the Frankfurt School—including Adorno, Fromm, Horkheimer, Reich, and others—were strongly influenced by both Karl Marx and Sigmund Freud. From Marx they inherited the notion that ideology is derived from economic class interests and material conditions of the capitalist system. But to really understand the relationship between the individual and society and the allure of political and religious ideologies, these theorists needed a psychology. What was available to them at the time was Freudian psychology, and so the members of the Frankfurt School turned to Freud's writings on character structure. For example, Freud identified one personality configuration that seemed particularly relevant to political orientation:

The people I am about to describe are noteworthy for a regular combination of the three following characteristics. They are especially *orderly*, *parsimonious*, and *obstinate* . . . 'Orderly' covers the notion of bodily *cleanliness*, as well as of *conscientiousness* in carrying out small duties and *trustworthiness* . . . Parsimony may appear in the exaggerated form of *avarice*; and obstinacy can go over into defiance, to which *rage* and *revengefulness* are easily joined . . . it seems to me incontestable that all three in some way belong together. (Freud, 1959/1991, pp. 21–26, emphasis added)

Freud referred to this collection of traits—orderliness, parsimony, and obstinacy—as the “anal character” (see also Freud, 1930/1961, pp. 40–44), but one need not retain his scatological terminology to consider the possibility that these characteristics tend to co-occur. Indeed, Sears (1936) found in a sample of 37 fraternity brothers that peer ratings of a given individual's degree of orderliness, stinginess (parsimony), and obstinacy were significantly intercorrelated at .36 or above (see also Hilgard, 1952, pp. 15–16).

Fromm (1947) built on Freud's conception of the anal character, but he renamed it the “hoarding orientation” and suggested that it was: “*Conservative*, less interested in ruthless acquisition than in methodical economic pursuits, based on sound principles and on the *preservation of what had been acquired*” (p. 81, emphasis added). Fromm described the hoarding character in some detail:

This orientation makes people have little faith in anything new they might get from the outside world; their *security* is based upon *hoarding* and *saving*, while spending is felt to be a *threat* . . . Their *miserliness* refers to money and material things as well as to feelings and thoughts . . . The hoarding person often shows a particular kind of *faithfulness* toward people and even toward memories . . . They know everything but are *sterile* and incapable of productive thinking . . . One can recognize these people too by *facial expressions* and *gestures*. Theirs is the *tight-lipped* mouth; their gestures are characteristic of the *withdrawn* attitude . . .

Another characteristic element in this attitude is pedantic *orderliness* . . . his orderliness is sterile and *rigid*. He cannot endure things out of place and will automatically rearrange them . . . His compulsive *cleanliness* is another expression of his need to undo contact with the outside world. (Fromm, 1947, pp. 65–66, emphasis added)

Although much of this description seems critical, Fromm explicitly cited both positive and negative aspects of the hoarding (or preserving) orientation. The positive traits he listed include being careful, reserved, practical, methodical, orderly, loyal, and tenacious (p. 115). On the negative side, Fromm stressed that this personality type could be stingy, cold, anxious, suspicious, stubborn, obsessional, and unimaginative.<sup>2</sup>

### *Middle Era Theories, 1955–80*

Psychological investigations of the personalities of liberals and conservatives between 1955 and 1980 built on the earlier work on authoritarianism but pondered an ever-widening circle of traits. Daryl Bem (1970, pp. 19–21) described an unpublished study by Maccoby (1968) that set out to test Fromm's (1964) theory of the left-wing "biophilous character" and the right-wing "necrophilous character":

A person with intense love of life is attracted to that which is alive, which grows, which is *free and unpredictable*. He has an *aversion to violence* and all that destroys life . . . *dislikes sterile and rigid order* . . . rejects being mechanized, becoming a *lifeless part of machine-like organization*. He enjoys life in all its manifestations in contrast to mere excitement or thrills. He believes in molding and *influencing by love, reason and example rather than by force* . . . At the other pole, there are individuals attracted to that which is *rigidly ordered, mechanical, and unalive*. These people do not like anything free and *uncontrolled*. They feel that *people must be regulated* within well-oiled machines. (Maccoby, 1968, p. 2, quoted in Bem, 1970, p. 20, emphasis added)

Maccoby and Fromm constructed a questionnaire to measure these two personality poles and found that supporters of liberal and left-wing candidates in the 1968 Presidential primaries (e.g., E. McCarthy, N. Rockefeller, and R. F. Kennedy) scored disproportionately at the "life-loving" end of the scale, whereas

<sup>2</sup> Although there has been no direct attempt to assess Fromm's (1947) theory, there is at least some factor analytic evidence that authoritarian conservatism is associated with anal (or "obsessional") characteristics (Kline & Cooper, 1984).

supporters of conservative and right-wing candidates (e.g., R. Nixon, R. Reagan, and G. Wallace) scored disproportionately at the “mechanistic” end of the scale. Bem (1970) also noted that scores on this scale predicted liberal versus conservative opinions on specific issues. The distinction between “life-loving” and “mechanistic” personality styles is noteworthy not only for its originality and the fact that it received at least some empirical support in the late 1960s, but also because of the fact that some features of the distinction (e.g., an attraction to unpredictable, unconstrained life experiences vs. self-control, orderliness, and mechanistic coordination) parallel other accounts of liberal versus conservative personality styles, including Sylvan Tomkins’ (1963) theory of ideological polarity.

According to Tomkins (1963), people adopt “ideo-affective postures” toward the world that are either leftist (stressing freedom and humanism) or rightist (focusing on rule following and normative concerns). People who “resonate” with left-wing ideologies believe that people are basically good and that the goal of society should be to foster human creativity and experience. Those who “resonate” with right-wing ideologies, by contrast, believe that people are inherently flawed and that the function of society is to set rules and limits to prevent irresponsible behavior. These differences, according to Tomkins, have important implications for emotions and their control:

The left-wing theorist stresses the *toxicity of affect control* and *inhibition*, and it therefore becomes a special case of the principle of minimizing negative affect that such *control should be kept to a minimum* . . . He is likely to stress the value both to the individual and to society of an *openness* and *tolerance* for *intrusions* of the *irrational*, of the *Dionysian* . . . The right-wing ideologist sets himself *sternly* against such intrusions and argues for the importance of controlling affects in the interest of *morality*, *achievement*, *piety* . . . he is for some *norm*, which may require *heroic mobilization* of affect and *energy* to achieve or which may require *unrelenting hostility* against those who challenge the good. (Tomkins, 1963, p. 407, emphasis added)

Like Fromm (1947), Tomkins saw advantages to both left-wing and right-wing personality styles. Whereas the former is associated with humanism, creativity, openness, and emotional expression (especially enthusiasm and excitement), the latter is associated with norm attainment, conscientiousness, and morality. Several studies have revealed that liberals score higher than conservatives on measures of sensation seeking and imaginativeness (Feather, 1979, 1984; Levin & Schalmo, 1974), whereas conservatives score higher than liberals on measures of self-control and orderliness (Constantini & Craik, 1980; Milbrath, 1962; St. Angelo & Dyson, 1968).

A “dynamic” theory of conservatism was proposed by Wilson (1973), who integrated the notion that there are emotional differences between liberals and



conservatives with earlier work on dogmatism and intolerance of ambiguity. The gist of the theory is that politically conservative individuals are driven by a “*generalized susceptibility to experiencing threat or anxiety in the face of uncertainty*” (Wilson, 1973, p. 259). Wilson and his collaborators suggested that conservatism is determined by “genetic” factors such as trait anxiety, stimulus aversion, and low IQ, as well as “environmental” factors, such as parental inconsistency and aggressiveness, low self-esteem, and low social class. Sources of threat and/or uncertainty in the social world (e.g., death, dissent, immigration, complexity, ambiguity, social change, and anarchy) were seen as prompting conservative ideological responses, including conventionalism, ethnocentrism, authoritarianism, militarism, moral rigidity, and religious dogmatism. Much of Wilson’s account has received correlational support, most especially the notion that situational and dispositional factors that produce heightened psychological needs to reduce uncertainty and threat tend to be associated with proponents of conservative (rather than liberal) ideology (see Jost et al., 2003a, for a meta-analytic review).

### *Recent Theories, 1980–2007*

Over the last quarter of a century, psychological accounts of differences between liberals and conservatives have focused largely on the dimension of *open-mindedness* versus *closed-mindedness*. Building on earlier traditions of research on authoritarianism and uncertainty avoidance, numerous studies have shown that liberals tend to score higher than conservatives on individual difference measures of openness, cognitive flexibility, and integrative complexity (e.g., Altemeyer, 1998; Sidanius, 1985; Tetlock, 1983, 1984; Tetlock, Bernzweig, & Gallant, 1985). Furthermore, conservatives tend to possess stronger personal needs for order, structure, closure, and decisiveness in comparison with liberals (e.g., Jost et al., 2003a, 2003b; Kruglanski, 2005; Van Hiel, Pandelaere, & Duriez, 2004). These findings and many others seem to fit an uncertainty-threat model of political orientation, as summarized by Jost et al. (2003a):

We regard political conservatism as an ideological belief system that is significantly (but not completely) related to motivational concerns having to do with the psychological management of uncertainty and fear. Specifically, the avoidance of uncertainty (and the striving for certainty) may be particularly tied to one core dimension of conservative thought, resistance to change. . . . Similarly, concerns with fear and threat may be linked to the second core dimension of conservatism, endorsement of inequality. . . . Although resistance to change and support for inequality are conceptually distinguishable, we have argued that they are psychologically interrelated, in part because motives pertaining to uncertainty and threat are interrelated. . . . (p. 369)



Implications of this theoretical model were further tested by Bonanno and Jost (2006); Jost et al. (2007); Amodio, Jost, Master, and Yee (2007); and Jost et al. (2008).

A longitudinal study by Block and Block (2006) revealed that many of the personality differences between liberals and conservatives that appear in adulthood are already present when children are in nursery school, long before they define themselves in terms of political orientation. Specifically, preschool children who later identified themselves as liberal were perceived by their teachers as: self-reliant, energetic, emotionally expressive, gregarious, and impulsive. By contrast, those children who later identified as conservative were seen as: rigid, inhibited, indecisive, fearful, and overcontrolled. These findings—especially in conjunction with adult data (see Jost et al., 2003a, 2003b, for a summary) and growing evidence that there is a heritable component of political attitudes (Alford, Funk, & Hibbing, 2005)—appear to substantiate the convictions of Adorno et al., Tomkins, Wilson, and many others that basic personality dimensions underlie ideological differences between the left and right. The problem, however, is that previous research on personality and political orientation over the last 75 years has been far from systematic, coordinated, or cumulative. Each investigator (or team of investigators) has merely added a new distinction or way of characterizing liberals and conservatives without attempting to develop a common or shared framework for interpreting and integrating the mass of theories and findings.

### An Integrative Taxonomy and Overview of the Current Research

In an effort to distill a core set of personality characteristics that have been theorized to distinguish between political liberals and conservatives, we have listed in Table 1 the traits that have figured most prominently in relevant psychological theories since 1930. To help organize the resulting list into thematic categories that could be used to guide our research program, we drew heavily upon conceptual and empirical contributions of the “Big Five” model of personality, which provides a useful organizing framework for classifying and measuring distinct, relatively nonoverlapping personality dimensions (e.g., Goldberg, 1992; John & Srivastava, 1999; McCrae & Costa, 1999; Wiggins, 1996). Because of the unprecedented scope, comprehensiveness, and empirical backing of the Big Five framework, we found it to be uniquely helpful as a means of cataloguing and assessing the validity of the enormous number of trait descriptions of liberals and conservatives that psychologists have generated over the last 75 years (see also Caprara & Zimbardo, 2004). Thus, for each of the descriptive traits (or clusters of traits) listed in Table 1, we have sought to identify which of the five basic personality dimensions best capture the essence of the description. The result is a remarkable consensus over more than seven decades (and across numerous cultures and languages) that the two personality dimensions that should be most related to political orientation are Openness to Experience—consistently theorized

**Table 1.** Personality Traits (and Their “Big Five” Classifications) Theorized to be Associated with Liberal (or Left-Wing) and Conservative (or Right-Wing) Orientation, 1930–2007

Liberal/Left-Wing	Conservative/Right-Wing
Slovenly, ambiguous, indifferent <sup>1</sup> (C–)	Definite, persistent, tenacious <sup>1,2,5</sup> (C+)
Eccentric, sensitive, individualistic <sup>1,3</sup> (O+)	Tough, masculine, firm <sup>1,2,3,18</sup> (C+, A–)
Open, tolerant, flexible <sup>2,3,9,20</sup> (O+)	Reliable, trustworthy, faithful, loyal <sup>1,4,5</sup> (C+, A+)
Life-loving, free, unpredictable <sup>7,8</sup> (O+, C–, E+)	Stable, consistent <sup>1,2</sup> (C+, N–)
Creative, imaginative, curious <sup>9,10,11,20</sup> (O+)	Rigid, intolerant <sup>2,3,5,7,8,15,18,20,22</sup> (O–, A–)
Expressive, enthusiastic <sup>9,22</sup> (O+, E+)	Conventional, ordinary <sup>2,3,5,18</sup> (O–, C+)
Excited, sensation-seeking <sup>9,10,11,20</sup> (O+, E+)	Obedient, conformist <sup>2,3,18</sup> (O–, C+, A+)
Desire for novelty, diversity <sup>9,20</sup> (O+)	Fearful, threatened <sup>2,15,18,20,22</sup> (N+)
Uncontrolled, impulsive <sup>9,12,13,22</sup> (C–, E+)	Xenophobic, prejudiced <sup>2,3,15,18,19</sup> (O–, A–)
Complex, nuanced <sup>16,17,18,20,21</sup> (O+)	Orderly, organized <sup>4,5,7,8,12,13,14,20</sup> (C+)
Open-minded <sup>20,21</sup> (O+)	Parsimonious, thrifty, stingy <sup>4,5</sup> (C+)
Open to experience <sup>10,11,20,23,24,25</sup> (O+)	Clean, sterile <sup>4,5,7,8</sup> (C+)
	Obstinate, stubborn <sup>4,5</sup> (O–, C+, A–)
	Aggressive, angry, vengeful <sup>2,3,4,15</sup> (A–)
	Careful, practical, methodical <sup>5</sup> (O–, C+)
	Withdrawn, reserved <sup>5,9</sup> (E–)
	Stern, cold, mechanical <sup>5,7,8,9</sup> (O–, E–, A–)
	Anxious, suspicious, obsessive <sup>5,6,15</sup> (N+)
	Self-controlled <sup>7,8,9,12,13,14</sup> (C+)
	Restrained, inhibited <sup>7,8,9,22</sup> (O–, C+, E–)
	Concerned with rules, norms <sup>7,8,9</sup> (C+)
	Moralistic <sup>9,15,18,28</sup> (O–, C+)
	Simple, decisive <sup>19,20,21</sup> (O–, C+)
	Closed-minded <sup>20,21</sup> (O–)
	Conscientious <sup>25,26,27</sup> (C+)

*Sources:* <sup>1</sup>Jaensch (1938); <sup>2</sup>Adorno et al. (1950); <sup>3</sup>Brown (1965); <sup>4</sup>Freud (1959/1991); <sup>5</sup>Fromm (1947); <sup>6</sup>Kline & Cooper (1984); <sup>7</sup>Maccoby (1968); <sup>8</sup>Bem (1970); <sup>9</sup>Tomkins (1963); <sup>10</sup>Levin & Schalmo (1974); <sup>11</sup>Feather (1984); <sup>12</sup>Milbrath (1962); <sup>13</sup>St. Angelo & Dyson (1968); <sup>14</sup>Constantini & Craik (1980); <sup>15</sup>Wilson (1973); <sup>16</sup>Tetlock (1983, 1984); <sup>17</sup>Sidanius (1985); <sup>18</sup>Altemeyer (1998); <sup>19</sup>Van Hiel, Pandelaere, & Duriez (2004); <sup>20</sup>Jost, Glaser, Kruglanski, & Sulloway (2003a, 2003b); <sup>21</sup>Kruglanski (2005); <sup>22</sup>Block & Block (2006); <sup>23</sup>McCrae (1996); <sup>24</sup>Barnea & Schwartz (1998); <sup>25</sup>Gosling, Rentfrow, & Swann (2003); <sup>26</sup>Caprara, Barbaranelli, & Zimbardo (1999); <sup>27</sup>Rentfrow, Jost, Gosling, & Potter (2009); <sup>28</sup>Haidt & Hersh (2001)

*Note.* O = “Openness to Experience”; C = “Conscientiousness”; E = “Extraversion”; A = “Agreeableness”; N = “Neuroticism”; + = “High”; – = “Low”

to be higher among liberals—and Conscientiousness—sometimes theorized to be higher among conservatives. Traits associated with the other three dimensions (Extraversion, Agreeableness, and Neuroticism) have occasionally been linked to political orientation in previous theorizing (see Table 1), but their mention has been far less frequent and consistent.

Moreover, profiles of liberals as relatively high on Openness (and low on Conscientiousness) and conservatives as relatively high on Conscientiousness (and low on Openness) fit with an integrative theory of ideology as motivated social cognition:

According to Jost et al. (2003a, 2003b), political conservatism is an ideological belief system that consists of two core components, resistance to change and opposition to equality, which serve to reduce uncertainty and threat. The idea is that there is an especially good fit between needs to reduce uncertainty and threat, on one hand, and resistance to change and acceptance of inequality, on the other, insofar as preserving the status quo allows one to maintain what is *familiar* and *known* while rejecting the risky, uncertain prospect of social change. The broader argument is that ideological differences between right and left have psychological roots: stability and hierarchy generally provide *reassurance* and *structure*, whereas change and equality imply greater *chaos* and *unpredictability*. (Jost et al., 2007, p. 990, emphasis added)

The general idea is that there is an underlying “match” or “resonance” between general psychological characteristics and the specific contents of ideological beliefs and opinions. In this sense, the liberal preference for social change and equality both reflects and reinforces motivational needs for openness, creativity, novelty, and rebelliousness, whereas the conservative preference for social stability and hierarchy both reflects and reinforces the opposing motivational pull toward order, structure, obedience, and duty (see also Jost, 2006).

Although direct attempts to understand personality differences between liberals and conservatives in terms of Big Five dimensions have been rare (e.g., see Caprara, Barbaranelli, & Zimbardo, 1999), several Big Five studies have included measures of political orientation. The largely serendipitous results derived from these studies are generally consistent with expectations gleaned from Table 1. By far the most consistent finding is that liberals tend to score higher than conservatives on self-report measures of Openness to New Experiences (e.g., Barnea & Schwartz, 1998; Ekehammar, Akrami, & Gylje, 2004; Gosling, Rentfrow, & Swann, 2003; Jost et al., 2003a, 2007; McCrae, 1996; Riemann, Grubich, Hempel, Mergl, & Richter, 1993; Sidanius, 1978; Stenner, 2005; Trapnell, 1994; Van Hiel & Mervielde, 2004). There is also some evidence that conservatives tend to score slightly higher than liberals on Conscientiousness (Caprara et al., 1999; Ekehammar et al., 2004; Gosling et al., 2003; Jost, 2006; Mehrabian, 1996; Van Hiel, Mervielde, & De Fruyt, 2004). Stenner (2005) argued that “Conscientiousness, which is primarily associated with rigidity, orderliness, and a compulsion about being in control of one’s environment . . . promotes conservatism to a considerable degree” (p. 172). There is no consistent evidence in the research literature that Neuroticism, Extroversion, or Agreeableness are reliably correlated with political orientation, although some theorists have proposed differences between liberals and conservatives on traits related to these dimensions (see Table 1).

In our first study we sought to determine definitively whether the two dimensions of Openness and Conscientiousness would adequately capture personality trait differences between liberals and conservatives, at least in the context of the

United States. We therefore examined correlations between scores on Big Five dimensions and liberalism-conservatism in six different samples. At the same time, we wanted to be sure that any personality differences were “genuine” and not merely the result of divergent self-presentational strategies adopted by liberals and conservatives. This was especially important given that many of the theories we have reviewed predict differences that would emerge only in private, nonreactive settings (e.g., cleanliness, expressiveness, and organization) or in the context of interpersonal interaction (e.g., stubbornness, enthusiasm, and withdrawal). Therefore, we went well beyond traditional self-report methods of personality assessment in Study 1 to explore more subtle, unobtrusive differences (e.g., Webb, Campbell, Schwartz, Sechrest, & Grove, 1981) with respect to nonverbal behavior and social interaction styles (Study 2) and identity claims and behavioral residue in living and working spaces (Study 3). Taken as a whole, these studies provide the most sustained and comprehensive investigation of personality differences underlying political orientation to date.

### **Study 1: Personality Differences between Liberals and Conservatives**

The goal of Study 1 was to obtain general personality profiles of liberals and conservatives to assess the accuracy of the theoretical speculations adumbrated in Table 1. It was hypothesized that, based on prior theory and research, liberals would score higher than conservatives on Openness to New Experiences, whereas conservatives would score higher than liberals on Conscientiousness. No consistent differences between liberals and conservatives on the three other Big Five dimensions (Extroversion, Agreeableness, and Neuroticism) were expected. Personality profiles were gathered in six different American samples (total  $N = 19,784$ ) by using individuals' scores on each of the Big Five personality dimensions to predict their political orientation. In this and in subsequent studies, political orientation was assessed using self-report items, as is customary in the political science literature (e.g., Knight, 1999). Although very short measures can be subject to psychometric limitations, in many cases they are effective for assessing constructs that are well understood by laypeople (e.g., Burisch, 1997; Gosling et al., 2003). The single item measure of liberalism-conservatism, which was administered to Samples 1–5, has been found in previous research to demonstrate good test-retest reliability and predictive validity (e.g., see Fuchs & Klingemann, 1990; Jost, 2006; Knight, 1999). Sample 6 completed three items, including separate measures of social and economic dimensions of ideology to investigate the possibility that personality exerts stronger effects on social (vs. economic) attitudes.

### *Method and Procedure*

*Samples 1–4.* The first four samples ( $Ns = 85, 79, 155,$  and  $1826$ ) were recruited from the University of Texas at Austin. Sixty-four percent of the

participants (across samples) were female. Racial/ethnic group identification was as follows: 60% European American, 23% Asian American, and 12% Latino; the remaining 5% were of other ethnicities. Sample 1 completed the NEO-PI-R (Costa & McCrae, 1985), which contains 240 items that are answered on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Samples 2–4 completed the 44-item Big Five Inventory (BFI; John, Donahue, & Kentle, 1991) using either a 1 (*disagree strongly*) to 7 (*agree strongly*) (Samples 2 and 4) or 1 to 5 (Sample 3) scale.

Reliability was acceptable for all five factors and all four samples: Openness ( $\alpha = .90$  for Sample 1,  $.77$  for Sample 2,  $.76$  for Sample 3, and  $.79$  for Sample 4), Conscientiousness ( $\alpha = .92, .76, .78, .77$ ), Extraversion ( $\alpha = .90, .89, .86, .87$ ), Agreeableness ( $\alpha = .89, .79, .82, .77$ ), and Neuroticism ( $\alpha = .92, .85, .79, .77$ ). Participants indicated their political orientation on a scale ranging from 1 (*liberal*) to 9 (*conservative*) for Sample 1 ( $M = 5.02, SD = 2.30$ ) and for Sample 4 ( $M = 4.95, SD = 2.23$ ). For Sample 2, the scale ranged from 1 (*liberal*) to 7 (*conservative*),  $M = 4.29, SD = 1.88$ , and for Sample 3 it ranged from 1 (*liberal*) to 5 (*conservative*),  $M = 3.17, SD = 1.15$ .

**Sample 5.** Participants in Sample 5 were similar in terms of age and educational experience, but they constituted a larger and far more representative group. They were part of the Gosling-Potter Internet Personality Project and were recruited with the use of a noncommercial, advertisement-free website through one of several channels: (1) major search engines (in response to keywords such as “personality tests”), (2) portal sites, such as Yahoo! (under directories of personality tests), (3) voluntary mailing lists that participants had previously joined, and (4) “word-of-mouth” from other visitors. We analyzed data from 17,103 American, college-attending participants between the ages of 18 and 25 years old who visited the website between March 2001 and May 2004. In terms of demographic characteristics, 68% of the sample was female, 72% identified themselves as European American, 8% as Asian American, 7% as African American, 7% as Latino, and 1% as Native American; the remaining 5% declined to provide racial/ethnic information about themselves.

Upon arrival at the website, participants opted to take a personality test. They completed the same 44-item BFI used in Samples 2–4. Scale means, standard deviations, reliabilities, and intercorrelations were consistent with those typically obtained in laboratory studies (e.g., John et al., 1991). Participants were also asked “how politically conservative-liberal are you?” They responded using a scale ranging from 1 (*extremely liberal*) to 5 (*extremely conservative*),  $M = 2.94, SD = 1.40$ . Internal consistency for each of the Big Five constructs was adequate: Openness ( $\alpha = .80$ ), Conscientiousness ( $\alpha = .81$ ), Extraversion ( $\alpha = .86$ ), Agreeableness ( $\alpha = .81$ ), and Neuroticism ( $\alpha = .83$ ).

**Sample 6.** Five hundred and thirty-six participants were recruited from the University of Texas at Austin as part of a course requirement. Sixty-nine percent of the participants were female. Of the 97% respondents who reported race, 54%

were European American, 5% were African American, 20% Asian American, and 15% Latino; the remaining 6% were of other ethnicities. Sample 6 completed the Ten Item Personality Inventory (TIPI; Gosling et al., 2003), which contains 10 items (two tapping each of the Big 5 constructs). Items were answered on a scale ranging from 1 (*disagree strongly*) to 7 (*agree strongly*). Because each subscale of the TIPI consists of only two items, Cronbach's alphas were not computed. However, as reported in Gosling et al. (2003), the TIPI is a reliable and valid measure of personality.

To gauge political orientation as well as its independent social and economic dimensions, participants responded to the following three questions on scales ranging from 1 (*extremely liberal*) to 5 (*extremely conservative*): (1) "Overall, where would you place yourself, on the following scale of liberalism-conservatism?" ( $M = 3.01$ ,  $SD = 1.01$ ); (2) "In terms of social and cultural issues (e.g., abortion, separation of church and state, affirmative action), where would you place yourself on the following scale?" ( $M = 2.91$ ,  $SD = 1.28$ ); and (3) "In terms of economic issues (e.g., taxation, welfare, privatization of social security), where would you place yourself on the following scale?" ( $M = 3.19$ ,  $SD = 1.04$ ). Because of widespread interest in differences (as well as similarities) between social and economic dimensions of political orientation (e.g., Duckitt, 2001), we report the data separately for each of these three items and also for the composite measure ( $\alpha = .83$ ).<sup>3</sup>

## Results

For each of the six samples we conducted a simultaneous regression analysis in which each of the scores on the five personality factors were used to predict participants' political orientation. This method enabled us to estimate the statistically unique contribution of each of the five personality dimensions, adjusting for the effects of the other four. Unique effects are reported as unstandardized regression coefficients ( $b$ ) along with their standard errors (SE). Prior to analysis, all variables were transformed to range from 0 to 1 so that the unstandardized regression coefficients would be directly comparable and easily interpretable (see Cohen, Cohen, Aiken, & West, 1999). Table 2 summarizes the results of these analyses.

*Samples 1–4.* The same multiple regression model was used in Samples 1–4. With regard to Sample 1, the five personality factors were significant predictors of political orientation,  $R = .46$ ,  $F(5, 84) = 4.25$ ,  $p < .01$ , and accounted for 21% of the variance. The only significant unique predictor of political orientation was Openness ( $b = -1.03$ ,  $SE = .26$ ,  $\beta = -.40$ ,  $t[79] = -3.90$ ,  $p < .001$ ; see Table 2).

<sup>3</sup> Scores on the overall liberalism-conservatism item were robustly correlated with the individual items tapping social ( $r = .74$ ,  $p < .001$ ) and economic ( $r = .63$ ,  $p < .001$ ) attitudes. The latter two items were more modestly but significantly intercorrelated ( $r = .32$ ,  $p < .001$ ).

Table 2. Relations between Big Five Personality Dimensions and Political Orientation (Study 1).

Sample	N	Personality Instrument	Political Measure	Relation with liberalism-conservatism				
				O	C	E	A	N
Sample 1	85	NEO-PI-R	Ideological self-placement	−1.03*** (.26)	.14 (.28)	.29 (.28)	.12 (.29)	−.18 (.25)
Sample 2	79	BFI	Ideological self-placement	−.13+ (.21)	.31 (.25)	.13 (.18)	−.03 (.23)	−.01 (.21)
Sample 3	155	BFI	Ideological self-placement	−.66*** (.16)	−.04 (.16)	.04 (.12)	.25 (.15)	.05 (.12)
Sample 4	1,826	BFI	Ideological self-placement	−.43*** (.05)	.11* (.05)	−.02 (.04)	.12** (.05)	−.13*** (.04)
Sample 5	17,103	BFI	Ideological self-placement	−.52*** (.02)	.15*** (.02)	.02 (.01)	.05** (.02)	−.03* (.01)
Sample 6	536	TIPI	Composite measure (3 items)	−.24** (.09)	.18* (.07)	.20** (.07)	.08 (.09)	.11+ (.07)

*Note.* Entries are unstandardized regression coefficients (*b*) from multiple regressions in which each of the Big Five scores were entered as simultaneous predictors (with standard errors listed in parentheses). Prior to analysis, all variables were transformed to a 0 to 1 scale by anchoring all variables at zero and dividing each scale by its maximum possible value. Personality instruments (“BFI,” “NEO-PI-R,” and “TIPI”) are described in the Methods section for Study 1. “O” = Openness to New Experiences; “C” = Conscientiousness; “E” = Extraversion; “A” = Agreeableness; and “N” = Neuroticism.

\* $p < .10$  \*\* $p < .05$  \*\*\* $p < .001$  (two-tailed)



Because Sample 1 completed the NEO-PI-R, which measures six specific facets of each of the Big Five factors, the relations between personality and political orientation could be examined in finer detail. Liberals scored more highly than conservatives on all of the Openness facets: Values ( $b = -1.01$ ,  $SE = .20$ ,  $\beta = -.48$ ,  $t [83] = -4.97$ ,  $p < .001$ ), Aesthetics ( $b = -.47$ ,  $SE = .15$ ,  $\beta = -.32$ ,  $t [84] = -3.05$ ,  $p < .003$ ), Actions ( $b = -.54$ ,  $SE = .21$ ,  $\beta = -.27$ ,  $t [84] = -2.56$ ,  $p < .02$ ), Ideas ( $b = -.33$ ,  $SE = .15$ ,  $\beta = -.24$ ,  $t [84] = -2.22$ ,  $p < .03$ ), Feelings ( $b = -.49$ ,  $SE = .22$ ,  $\beta = -.24$ ,  $t [84] = -2.27$ ,  $p < .03$ ), and Fantasy ( $b = -.32$ ,  $SE = .18$ ,  $\beta = -.19$ ,  $t [84] = -1.79$ ,  $p < .08$ ). They also scored more highly on the Tender-Mindedness facet of the Agreeableness subscale ( $b = -.65$ ,  $SE = .26$ ,  $\beta = -.27$ ,  $t [84] = -2.54$ ,  $p < .02$ ). Conservatives scored more highly than liberals on two of the Conscientiousness facets, Achievement-Striving ( $b = .46$ ,  $SE = .21$ ,  $\beta = .24$ ,  $t [84] = 2.26$ ,  $p < .03$ ) and Order ( $b = .32$ ,  $SE = .17$ ,  $\beta = .21$ ,  $t [84] = 1.94$ ,  $p < .06$ ). No other significant differences emerged at the facet level of analysis.

Sample 2 was the only one for which no significant effects were obtained, either with respect to individual predictors or the model as a whole. For Sample 3, the five personality factors did account for a significant amount of the variance (13%) in political orientation,  $R = .35$ ;  $F (5, 154) = 4.25$ ,  $p < .001$ . Once again, Openness emerged as the only significant predictor in the simultaneous regression model ( $b = -.66$ ,  $SE = .16$ ,  $\beta = -.33$ ,  $t [149] = -4.20$ ,  $p < .001$ ).

The regression model for Sample 4 (the largest of the university samples) revealed that the five personality factors were all significant predictors of political orientation,  $R = .25$ ;  $F (5, 1824) = 24.42$ ,  $p < .001$ ; they accounted for 6% of the variance. Openness was again the largest unique predictor of political orientation ( $b = -.43$ ,  $SE = .05$ ,  $\beta = -.22$ ,  $t [1819] = -9.48$ ,  $p < .001$ ). Three other variables exerted weak but significant effects in the regression and correlation analyses. Increased conservatism was associated with higher scores on Conscientiousness ( $b = .11$ ,  $SE = .05$ ,  $\beta = .06$ ,  $t [1819] = 2.33$ ,  $p < .02$ ) and Agreeableness ( $b = .12$ ,  $SE = .05$ ,  $\beta = .06$ ,  $t [1819] = 2.42$ ,  $p < .02$ ) and lower scores on Neuroticism ( $b = -.13$ ,  $SE = .04$ ,  $\beta = -.09$ ,  $t [1819] = -3.57$ ,  $p < .001$ ). There was no evidence that Extraversion was related to political orientation.

*Sample 5.* For the large Internet sample, the simultaneous regression model was statistically significant,  $R = .28$ ,  $F (5, 17097) = 282.37$ ,  $p < .001$ , and accounted for 8% of the variance in political orientation. As before, Openness was the largest unique predictor of political orientation ( $b = -.52$ ,  $SE = .02$ ,  $\beta = -.26$ ,  $t [17097] = -34.73$ ,  $p < .001$ ). As in all but one of the other samples, higher scores on Openness were significantly associated with increased liberalism. Conscientiousness was the second largest unique predictor of political orientation ( $b = .15$ ,  $SE = .02$ ,  $\beta = .08$ ,  $t [17097] = 10.02$ ,  $p < .001$ ), indicating that higher scores on Conscientiousness were again associated with increased conservatism.<sup>4</sup> Two other

<sup>4</sup> Because previous research has indicated that Conscientiousness statistically interacts with other personality variables to predict social behavior (King, George, & Hebl, 2005), we considered the

personality factors proved to be significant predictors of political orientation, although they accounted for a negligible amount of statistical variance. Increased conservatism was associated with slightly lower scores on Neuroticism ( $b = -.03$ ,  $SE = .01$ ,  $\beta = -.02$ ,  $t [17097] = -1.98$ ,  $p < .05$ ) and slightly higher scores on Agreeableness ( $b = .05$ ,  $SE = .02$ ,  $\beta = .02$ ,  $t [17097] = 3.05$ ,  $p < .01$ ). Extraversion was unrelated to political orientation.

The size of Sample 5 allowed us to investigate the effects of various demographic variables with considerable statistical power. We therefore conducted a stepwise regression model with sex of participant, race/ethnicity (coded as white vs. nonwhite), and socioeconomic status (SES) entered in Step 1 to determine whether the effects of the five personality variables used to predict political orientation in Step 2 would be altered after adjusting for demographic variables. We found that none of the effects of personality were substantially changed by including sex, race, or SES in the model. Not surprisingly, we found that both race/ethnicity and SES were statistically significant predictors of political orientation in Step 1, indicating that European American and higher SES individuals were more politically conservative on average than were members of ethnic minority and lower SES groups ( $b = .05$ ,  $SE = .01$ ,  $\beta = .07$ ,  $t [5557] = 5.43$ ,  $p < .001$ ;  $b = .01$ ,  $SE = .004$ ,  $\beta = .04$ ,  $t [5557] = 2.90$ ,  $p < .01$ , respectively).<sup>5</sup>

*Sample 6.* We conducted a series of multiple regression analyses in which the Big Five dimensions were used to predict the composite score as well as each of the dependent variables separately. For the composite dependent variable, we found that the model was statistically significant,  $R = .20$ ,  $F (5, 476) = 3.89$ ,  $p < .005$ , and accounted for 3% of the variance in political ideology. As before, increased Openness was associated with liberalism ( $b = -.24$ ,  $SE = .09$ ,  $\beta = -.14$ ,  $t [476] = -2.75$ ,  $p < .01$ ), and increased Conscientiousness was associated with conservatism ( $b = .18$ ,  $SE = .07$ ,  $\beta = .11$ ,  $t [476] = 2.38$ ,  $p < .02$ ). In addition, Extraversion was a significant predictor of political ideology ( $b = .20$ ,  $SE = .07$ ,  $\beta = .14$ ,  $t [476] = 2.94$ ,  $p < .01$ ), and Neuroticism was a marginally significant predictor ( $b = .11$ ,  $SE = .07$ ,  $\beta = .08$ ,  $t [476] = 1.68$ ,  $p < .10$ ). Both of these were associated with increased conservatism in Sample 6.<sup>6</sup>

possibility that Openness and Conscientiousness (the two biggest predictors in our analyses) would interact to predict political orientation. For our largest sample (Sample 5), we found that these two personality variables did indeed interact to predict political orientation ( $b = .02$ ,  $SE = .01$ ,  $\beta = .16$ ,  $t [17099] = 3.03$ ,  $p < .01$ ). After adjusting for the main effects of each personality variable, the combination of low Openness and high Conscientiousness was associated with increased conservatism. However, this interaction effect was not replicated in analyses involving any of the other four samples.

<sup>5</sup> Because past research reveals that ideological attitudes are more tightly organized for highly educated and politically sophisticated individuals (e.g., Converse, 1964; Judd, Krosnick, & Milburn, 1981; Zaller, 1992), we performed additional analyses on a larger, more diverse sample of internet respondents possessing a wider range of education levels. Somewhat surprisingly, we found no indication that correlations between personality characteristics and political orientation varied as a function of education.

<sup>6</sup> Results were similar for the single item measure of overall political orientation. The personality factors again significantly predicted the outcome variable,  $R = .20$ ,  $F (5, 476) = 4.01$ ,  $p < .001$ , and

With regard to self-reported social attitudes, the model was also statistically significant,  $R = .20$ ,  $F(5, 481) = 4.05$ ,  $p < .01$ , and accounted for 4% of the variance. Two of the five personality factors were significant unique predictors of social liberalism-conservatism, namely Openness ( $b = -.36$ ,  $SE = .12$ ,  $\beta = -.15$ ,  $t[481] = -3.02$ ,  $p < .01$ ) and Extraversion ( $b = .30$ ,  $SE = .09$ ,  $\beta = .16$ ,  $t[481] = 3.24$ ,  $p < .01$ ). Conscientiousness ( $b = .19$ ,  $SE = .10$ ,  $\beta = .09$ ,  $t[481] = 1.90$ ,  $p < .06$ ) was a marginally significant (positive) predictor of social conservatism. Interestingly, none of the five factors predicted economic orientation to a significant degree. Thus, personality differences were more likely to emerge on social (vs. economic) dimensions of ideology.

*Overall effect size estimates.* Taken as a whole, we obtained reasonably strong support for our hypotheses that (a) Openness to Experience would be negatively associated with conservatism and (b) Conscientiousness would be positively associated with conservatism. Openness was a significant negative predictor of conservatism in five of the six samples and a marginally significant predictor in the remaining sample. Conscientiousness was a significant positive predictor in three of the six samples. We conducted a meta-analysis to estimate the overall effect sizes for the relations between personality variables and political orientation. (For Sample 6 data, we included the effect size for the composite dependent measure only.) The data presented in Table 2 are represented by unstandardized regression coefficients ( $b$ ), but we used standardized coefficients to conduct the meta-analysis. These standardized coefficients were Fisher's  $z$ -transformed before weighting by sample size and then summarized. Summary statistics were transformed into the common effect size metric  $r$  for presentation. Combining participants from all six samples, the weighted mean effect size for the association between Openness and political orientation was  $r = -.25$ , which was significantly different from zero ( $Z = 11.30$ ,  $p < .001$ ). The weighted mean effect size for the association between Conscientiousness and political orientation was substantially weaker but still significant at  $r = .07$  ( $Z = 3.13$ ,  $p < .05$ ). Agreeableness, Extraversion, and Neuroticism were not consistent predictors of political orientation in general, contrary to the suppositions of Jaensch (1938) and Wilson (1973), among others.

### Discussion

In Study 1 we used the Big Five model to generate consistent and replicable personality profiles of liberals and conservatives. By taking a systematic empirical approach involving six different samples, we were able to provide fairly conclusive support for McCrae's (1996) claim that "variations in experiential Openness

accounted for 4% of the variance. The only significant unique predictors of general ideological self-placement were Openness ( $b = -.30$ ,  $SE = .09$ ,  $\beta = -.16$ ,  $t[476] = -3.16$ ,  $p < .01$ ), Conscientiousness ( $b = .21$ ,  $SE = .08$ ,  $\beta = .12$ ,  $t[476] = 2.55$ ,  $p < .02$ ), and Extraversion ( $b = .18$ ,  $SE = .07$ ,  $\beta = .12$ ,  $t[476] = 2.49$ ,  $p < .02$ ).

are the major psychological determinant of political polarities” (p. 325, emphasis omitted).<sup>7</sup> More specifically, we obtained consistent evidence that liberals do indeed score significantly higher than conservatives on Openness to New Experiences. There was also some evidence that conservatives scored slightly higher than liberals on Conscientiousness. Both of these effects seemed to be stronger for social as opposed to economic attitudes when these were asked about separately. Taken as a whole, this evidence suggests that Freud (1959/1991), Fromm (1947, 1964), Adorno et al. (1950), Tomkins (1963), Wilson (1973), and others may have accurately perceived certain links between personality and political orientation when they proposed that left-wingers are more motivated by creativity, curiosity, and diversity of experience, whereas right-wingers are more orderly, parsimonious, rigid, and more strongly motivated by self-control, norm attainment, and rule following (see also Block & Block, 2006; Jost et al., 2003a, 2003b). These results are also consistent with the listing of traits in Table 1, most of which pertain either to Openness or Conscientiousness. We found little evidence that any of the other three traits were strongly or consistently related to political orientation.

At the same time, there are obvious limitations to what can be learned on the basis of purely self-report measures of personality, and our first study says little about how personality differences between liberals and conservatives are likely to play out in everyday life. It is useful to be able to describe liberals as relatively high on Openness (but low on Conscientiousness) and conservatives as relatively high on Conscientiousness (but low on Openness), but these differences would be more meaningful if they could be observed on objective behavioral indicators that are relatively immune to self-presentational and social desirability concerns (Webb et al., 1981). More generally, we were interested in how differences in the personalities of liberals and conservatives would play out in the contexts of everyday lives.

The remaining studies address differences in terms of interaction styles and behavioral residue (i.e., the things they leave behind), thereby supplementing our analysis in Study 1 of abstract, relatively decontextualized traits with an emphasis on more contextually localized individual differences (see McAdams, 1995). Study 2 investigates differences in nonverbal behavior and interaction style to shed light on the behavioral signatures of liberals and conservatives, thereby adding depth and detail to the personality profiles we have sketched out. Finally, Study 3 focuses on objective differences in personality as reflected in the things that liberals and conservatives leave behind in the physical spaces they occupy (i.e., bedrooms and offices). These studies were designed to move well beyond explicit, pencil-and-paper, self-report measures of personality to understand similarities and differences in the private as well as public lives of liberals and conservatives.

<sup>7</sup> There is some evidence, however, suggesting that this conclusion applies better to North American and Western European contexts than to Eastern European contexts (see Thorisdottir, Jost, Liviatan, and Shrout, 2007).

## Study 2: Nonverbal Behavior and Interpersonal Styles of Liberals and Conservatives

Certain personality characteristics emerge only in specific settings and may be latent in others. As Gordon Allport famously declared, “the same heat that melts the butter, hardens the egg” (1937, p. 63). Research has indeed shown that person attributes such as altruism, self-regulation ability, cognitive prowess, social savvy, and even physical strength vary in their behavioral expression as a function of the situational context (e.g., Carlo, Eisenberg, Troyer, Switzer, & Speer, 1991; Shoda, Mischel, & Wright, 1993). Many of the traits hypothesized to differentiate liberals from conservatives would be expected to arise only in the heat of interpersonal interaction. These include traits such as expressive, excited, enthusiastic, sensitive, and tolerant—theorized to be stronger among liberals—as well as stern, cold, mechanical, withdrawn, reserved, stubborn, restrained, and inhibited—theorized to be stronger among conservatives (see Table 1).

In Study 2, we measured participants’ political orientation and coded their nonverbal behavior during structured interactions with two different conversation partners. We were especially interested in whether differences related to Openness and Conscientiousness would emerge with respect to facial expressions, nonverbal signals, and interaction style in general. Therefore, we focused on nonverbal behaviors that, according to previous research, should be most related to the personality dimensions of Openness and Conscientiousness. By measuring nonverbal (rather than verbal) behavior we were able to minimize the effects of self-presentation and social desirability (e.g., Webb et al., 1981).

To identify relevant behaviors to code, we reviewed past research on the behavioral correlates of Openness and Conscientiousness. Using a cut-off point of  $r = .20$ , we found that Openness is: (a) positively associated with expressiveness, smiling behavior, relaxed posture, and others’ ratings of friendliness and pleasantness (Borkenau & Liebler, 1995; Funder & Sneed, 1993), and (b) negatively associated with halting speech (Borkenau & Liebler, 1995). In addition, our review of the literature revealed that Conscientiousness is: (a) positively related to eye gaze and perceived responsiveness (Borkenau & Liebler, 1995), and (b) negatively related to the number of hand movements and gestures (Borkenau & Liebler, 1995) and the expression of hostility (Funder & Sneed, 1993). Our analysis therefore focused on these nonverbal cues. (It should be noted that some of these behaviors may also be related to other traits [e.g., Extraversion and Agreeableness] that are not the focus of the present research.)

### *Method*

*Participants and design.* Sixty-two undergraduates at Northeastern University (55% women, 100% European American) participated in a one-hour experiment

for partial course credit. Participants interacted with two of nine confederates (five women, four men, four European Americans, and five African Americans). There were very few differences due to sex or race of the confederate, so behavioral ratings were combined across interactions involving all nine confederates. Both confederates and experimenters were unaware of participants' ideological orientations.

*Procedure.* Participants were told that the experiment involved college students' opinions and perceptions of current or popular movies. Specifically, they would be interviewed on videotape by two different student interviewers for three-minutes each about a movie. The interviewers were actually confederates of the experimenter. Participants indicated which of 10 movies (five of which were the target movies) they had seen, and the to-be-discussed movie was selected randomly from the target movies participants had seen. Each of the five target movies was pretested ( $N = 20$ ) and selected if at least one of the five had close to a 100% chance of having been seen by the student population. The five target movies were: *As Good as it Gets*, *The Green Mile*, *The Matrix*, *Pulp Fiction*, and *Shawshank Redemption*.

During the social interactions, participants were seated alongside the confederate; both were facing slightly toward each other but also facing the video camera. Confederates were handed a sheet of questions to ask the participant. After three-minute interactions with each confederate, participants were brought into a separate room to complete the next phase of the study, which included the administration of a demographic questionnaire.<sup>8</sup> Overall political orientation was measured at the very end of the experiment on a 1 (*extremely liberal*) to 5 (*extremely conservative*) scale,  $M = 2.85$ ,  $SD = .81$ .

*Behavior assessments.* Eight coders rated the presence of eight behavioral indicators of Openness and Conscientiousness. All three minutes of each videotaped interaction were coded for the following four nonverbal/social behaviors related to Openness: body orientation (on a  $-5$  to  $+5$  scale with a 0 indicating the target person was facing the camera); expressivity (a global rating made on a 7-point scale with 7 being *extremely expressive*); speech errors (frequency); and smiles (frequency). Four behaviors reflecting Conscientiousness were also coded: detached from interaction (global rating on a 7-point scale with 7 being *extremely detached*); gaze (looking time coded in milliseconds); self-touching (any hand to head/body/limb touching coded as an instance); and hostility (global rating on a 7-point scale with 7 being *extremely hostile*). Inter-rater reliability was calculated by having a comparison coder complete a small subset (2%–8%) of the coding tasks; correspondence was high for all behaviors, with a mean inter-rater  $r$  of .81 and a range from .68 to .98.

<sup>8</sup> The topic of conversation (sociopolitical vs. mundane) was varied as a between-participants factor, but it did not moderate any results and is therefore not discussed further.

Results

Previous research has found that Openness is associated with more friendliness, more expressivity, less halting speech, and more smiling. Building on prior theorizing and results, we hypothesized that liberals would be more likely than conservatives to exhibit this general pattern of nonverbal behavior across different social interactions. To test this general hypothesis, each of the coded nonverbal behaviors was averaged across two different interaction partners and regressed onto political orientation. Prior to analysis, all variables were transformed to range from 0 to 1 so that regression coefficients would be directly comparable and easily interpretable. Additionally, interaction partners varied in expressed friendliness, body orientation, and gender, so these three variables were adjusted in all analyses reported. (The results did not differ substantially when these covariates were omitted from the model). As shown in Table 3, our predictions received relatively consistent, albeit modest support. Self-reported liberalism significantly predicted both smiling behavior ( $b = .31, SE = .14, \beta = .28, t [55] = 2.26, p < .03$ ) and body orientation toward the interaction partner ( $b = .67, SE = .27, \beta = .32, t [55] = 2.45, p < .02$ ). Liberalism was also marginally associated with greater expressiveness ( $b = .37, SE = .19, \beta = .25, t [55] = 1.92, p < .06$ ). Conservatism was marginally associated with more halting speech ( $b = .34, SE = .18, \beta = .25, t [55] = 1.92, p < .06$ ).

Table 3. Relations between Liberalism-Conservatism and Nonverbal Behavior (Study 2)

	$\beta$	$b$	SE
Behaviors related to Openness			
Body oriented toward conversation partner (+)	-.32*	-.67	.27
Expressive (+)	-.25 <sup>+</sup>	-.37	.19
Halting speech/number of pauses (-)	.25 <sup>+</sup>	.34	.18
Number of smiles (+)	-.28*	-.31	.14
Behaviors related to Conscientiousness			
Distracted/unresponsive (-)	.26*	.36	.17
Eye gaze (+)	-.15	-.18	.16
Hand movements/self-touching (-)	-.11	-.14	.17
Hostility (-)	.03	.06	.22

Note. The direction of previously observed relations between personality factors (Openness and Conscientiousness) and the coded behavior (or closely related behavior) is noted in parentheses. Prior to analysis, all variables were transformed to a 0 to 1 scale by anchoring all variables at zero and dividing each scale by its maximum possible value. In these analyses we adjusted for confederate gender, friendliness, and body orientation.

<sup>+</sup> $p < .10$  \* $p < .05$



Given that previous research has found Conscientiousness to be related to more eye gaze, less distractedness, less hand movement, and less hostility, one might expect that conservatives would be more likely than liberals to exhibit this pattern of nonverbal behavior. However, this was not the case (see Table 3). Self-reported conservatism was associated with an unresponsive, distracted interaction style in general ( $b = .36$ ,  $SE = .17$ ,  $\beta = .26$ ,  $t [55] = 2.08$ ,  $p < .04$ ). Overall political orientation was unrelated to the other three indicators of Conscientiousness (eye gaze, self-touching, and hostility).

### Discussion

Differences between liberals and conservatives with respect to Openness, as manifested in self-report measures in Study 1, played out in terms of nonverbal behavior and interpersonal interaction style in Study 2. Liberals were more expressive, smiled more, and were more engaged in conversation with confederates. Conservatives did not generally behave in ways that reflected greater Conscientiousness. In the context of the experimental situation, conservatives behaved in a more detached and disengaged manner in general. Although this behavior was not indicative of Conscientiousness, it did reflect the kind of withdrawn, reserved, inhibited, and even rigid interaction style that many theorists have associated with conservatism over the years (see Table 1).

It is, of course, possible that this particular context (a discussion about movies) was not optimal for the expression of Conscientiousness. Thus, we sought out another setting in which to make unobtrusive observations concerning aspects of Openness and Conscientiousness. One domain in which these traits are known to leave markers is in personal living and working spaces (Gosling, Ko, Mannarelli, & Morris, 2002). By examining the features of such spaces, it is possible not only to track differences between liberals and conservatives in terms of self-reported personality characteristics (Study 1) and interpersonal interaction styles (Study 2), but also in terms of behavioral residue left behind in their physical environments.

### Study 3: Room Cues and the Things They Leave Behind

The goal of Study 3 was to explore the manner in which personality differences associated with liberalism-conservatism are revealed in behavioral contexts such as personal living and working spaces. To meet this aim, the contents (i.e., “behavioral residues”) of bedrooms ( $N = 76$ ) and offices ( $N = 68$ ) were inventoried and related to occupants’ political orientation.<sup>9</sup> Although the precise

<sup>9</sup> Other analyses based on the samples investigated in Study 3 were reported in an article by Gosling et al. (2002), but that article contained no analyses involving political orientation.

theoretical connections between décor style and political orientation have yet to be fully worked out, one potential mechanism linking them draws on the finding that conservatives tend to be lower than liberals on sensation seeking (Jost et al., 2003a; Kish, 1973), which is a trait that is related to Openness. Liberals and conservatives may use their living and work environments to regulate their arousal levels, such that the relatively liberal sensation seekers prefer bright, cheerful, colorful styles of décor. A number of studies of real and virtual environments have examined the connections between style of decor and Openness and Conscientiousness (e.g., Gosling et al., 2002; Vazire & Gosling, 2004). This prior research provides some evidence that these personality dimensions are related to (or are believed to be related to) various features of decoration style. For example, the bedrooms of people who are relatively high on Openness are perceived as more distinctive by others (Gosling et al., 2002). In addition, offices that are seen as more cheerful, colorful, and decorated are perceived as belonging to occupants who are high on Openness (Gosling et al., 2002). Therefore, we predicted that rooms of liberals would possess more cues associated with Openness, including style, color, and distinctiveness, as well as containing a greater number and diversity of books, compact disks, travel documents, and art supplies. It was also predicted that rooms of conservatives would possess more cues associated with Conscientiousness, including neatness, organization, conventional forms of decoration, and a greater number of items such as calendars and cleaning supplies.

### Method

*Personal living spaces.* The personal living spaces were rooms in private houses, apartments, dormitories, co-ops, and Greek-system housing situated in an urban setting close to a large West Coast public university. Most of the rooms studied contained single occupants. Multi-occupant rooms were examined only if occupants' sections of the room could be clearly demarcated.

*Personal living space occupants.* Participants were 76 college students (68.4% female) at the University of California-Berkeley with a mean age of 21.9 years. The two largest racial/ethnic groups represented were Asian American (40.5% of the sample) and European American (36.5%); the remaining 23% identified with other racial/ethnic groups.

*Offices.* Five office locations in a large U.S. city were chosen. These locations were a commercial real estate agency, an advertising agency, a business school, an architectural firm, and a retail bank.

*Office occupants.* With the consent of management, employees at each company were given an opportunity to participate in this research. Ninety-four office occupants (59% women) with an average age of 37.03 ( $SD = 10.10$ ) years participated in this study. Occupants' ethnicities were 5% Asian, 85% White, and 10% were of other ethnicities.

*Coded features of the environments.* A broad range of environmental attributes were coded with the Personal Living Space Cue Inventory (PLSCI; Gosling, Craik, Martin, & Pryor, 2005). The first part of the PLSCI contains 43 global descriptors on which coders make bipolar ratings on 7-point scales concerning environmental attributes such as *well-lit* versus *dark*. The second part of the PLSCI contains 385 specific content items such as “ironing board.” The PLSCI was developed for use on personal living spaces (not work spaces), so most of the specific items (e.g., laundry basket) are irrelevant to work contexts. Therefore, global PLSCI items are reported for both living spaces (i.e., bedrooms/dorm rooms) and offices, whereas specific PLSCI items are reported for living spaces only. All items were selected using extensive item-generation and selection procedures (see Gosling, Craik, Martin, & Pryor, 2005).

*Procedure for global PLSCI.* Teams of research assistants independently coded each personal living space and office. Occupants’ photographs and other identifying information were covered before coders entered the living/working spaces, and coders were not permitted to communicate while making the global ratings. Guided by previous findings, only those cues that explicitly or conceptually related to Openness and/or Conscientiousness reported by Gosling et al. (2002) were examined. Coder ratings were aggregated into composites. These composite codings showed reasonable levels of reliability, with a mean coefficient alpha of .75 for personal living spaces and .62 for office spaces.

*Procedure for specific PLSCI.* Each of the assistants coded an equivalent subset of the specific content items. Coders were not permitted to touch or move any items, so their codings reflected only what could be seen by walking around the room. Coders were permitted to communicate with each other while coding specific PLSCI items in order to point out items that other coders might miss (e.g., a book on a windowsill that could be missed by the coder responsible for inventorying books). A large proportion of items were excluded for the following reasons: (a) lack of occupant control (structural items over which inhabitants have no control such as type of flooring or color of walls); (b) extreme commonality (standard furniture pieces such as chairs, desks, beds, and linens); and (c) extreme specificity (categories of items such as “books about culture” were recorded but specific book titles were not).

*Political orientation.* Occupants’ overall political orientation was measured by asking respondents to state their political views on a 1 (*liberal*) to 5 (*conservative*) scale for bedroom occupants ( $M = 2.41$ ,  $SD = .87$ ) and a 1 (*liberal*) to 7 (*conservative*) scale for office occupants ( $M = 3.07$ ,  $SD = 1.60$ ).

## Results

Prior to analysis, all variables were transformed to range from 0 to 1 so the unstandardized regression coefficients would be directly comparable and easily interpretable. Unstandardized regression coefficients and associated standard

errors depicting the relation between occupants' political orientation and room cues—especially those pertaining to Conscientiousness and Openness—are listed in Table 4. The findings are presented as unstandardized regression coefficients (*bs*) but organized in terms of the magnitude of standardized regression coefficients ( $\beta$ ), with the strongest positive predictors of conservatism listed first and the strongest positive predictors of liberalism listed last.

Conservatives' bedrooms tended to include more organizational items, including event calendars and postage stamps. They also contained more conventional decorations and items, including sports paraphernalia, flags of various types, American flags in particular, and alcohol bottles and containers. In general, conservative bedrooms were somewhat neater, cleaner, fresher, organized, and well lit. They were also significantly more likely to contain household cleaning and mending accessories such as laundry baskets, irons and ironing boards, and string or thread. These results appear to confirm theoretical contentions that concerns with cleanliness, hygiene, and order are related to political conservatism (see Table 1). Conservative offices tended to be more conventional, less stylish, and less comfortable, in comparison with liberal offices.

The bedrooms of liberals suggested that their occupants were indeed relatively high on Openness to Experience. They contained a significantly greater number and variety of books, including books about travel, ethnic issues, feminism, and music, as well as a greater number and variety of music CDs, including world music, folk music, classic and modern rock, and "oldies." Liberal bedrooms also contained a greater number of art supplies, stationery, movie tickets, and a number of items pertaining to travel, including international maps, travel documents, books about travel, and cultural memorabilia. Offices and workspaces used by liberals were judged by our coders as being more distinctive, colorful, and "fresh," and as containing more CDs and a greater variety of books.<sup>10</sup> It should be noted that because of the fairly large number of statistical tests conducted, it is possible that some of the significant findings were obtained by chance. Results, therefore, should be interpreted with caution. In all, 3.1 significant results should be expected by chance alone (62 comparisons at an alpha level of .05). Our analysis uncovered 29 statistically significant results and another 12 that were of marginal significance ( $p < .09$ , two-tailed).

## General Discussion

In three studies employing very different methods of observation we have obtained consistent and converging evidence that personality differences between liberals and conservatives are indeed robust, replicable, and behaviorally

<sup>10</sup> Statistically adjusting for individuals' scores on Openness and Conscientiousness did not alter these results. We first converted all personality variables to range from 0 to 1 and then regressed liberalism-conservatism onto each behavioral residue item, along with the two critical personality factors. There were no statistically significant departures from the findings summarized in Table 4.

**Table 4.** Relations between Political Conservatism of Occupant and Room Cues in Bedrooms and Office Spaces (Study 3)

	Relation with liberalism-conservatism			
	Bedrooms		Offices	
	$\beta$	<i>b</i> ( <i>SE</i> )	$\beta$	<i>b</i> ( <i>SE</i> )
Sports-related décor (posters, paintings, photos)	.34**	.23 (.07)	n/a	n/a
Event calendar	.31**	.27 (.10)	n/a	n/a
Postage stamps	.30**	.29 (.11)	n/a	n/a
Presence of string/thread	.29*	.33 (.12)	n/a	n/a
Iron and/or ironing board	.28*	.20 (.08)	n/a	n/a
Laundry basket	.25*	.11 (.05)	n/a	n/a
Conventional (vs. unconventional)	n/a	n/a	.25*	.02 (.01)
Any type of flag (including USA flags)	.23*	.22 (.11)	n/a	n/a
Alcohol bottles/containers	.23*	.22 (.11)	n/a	n/a
Flag of USA	.21 <sup>+</sup>	.28 (.15)	n/a	n/a
Well-lit (vs. dark)	.20 <sup>+</sup>	.27 (.15)	.10	.03 (.03)
Fresh (vs. stale)	.17	.27 (.18)	-.22 <sup>+</sup>	-.08 (.05)
Neat (vs. messy)	.16	.14 (.11)	.02	.003 (.02)
Clean (vs. dirty)	.15	.19 (.15)	.14	.03 (.03)
Modern (vs. old-fashioned)	.15	.33 (.26)	-.27*	-.10 (.04)
Colorful (vs. gloomy)	.12	.15 (.15)	-.21 <sup>+</sup>	-.07 (.04)
Stylish (vs. unstylish)	.06	.10 (.21)	-.32**	-.09 (.03)
Comfortable (vs. uncomfortable)	-.01	-.01 (.22)	-.24*	-.11 (.05)
Organized (vs. disorganized) CDs	-.10	-.11 (.13)	-.07	-.01 (.05)
Cluttered (vs. uncluttered)	-.11	-.14 (.14)	.13	.02 (.02)
Distinctive (vs. ordinary)	-.11	-.19 (.19)	-.39***	-.16 (.05)
Full (vs. empty)	-.15	-.27 (.20)	.19	.04 (.02)
Varied (vs. homogenous) CDs	-.19	-.23 (.16)	.18	.004 (.01)
Books about travel	-.21 <sup>+</sup>	-.10 (.06)	n/a	n/a
Classic rock CDs	-.22 <sup>+</sup>	-.11 (.05)	n/a	n/a
Modern rock CDs	-.22 <sup>+</sup>	-.10 (.05)	n/a	n/a
Reggae music CDs	-.22 <sup>+</sup>	-.18 (.09)	n/a	n/a
Collections (e.g., stamps, action figurines, etc.)	-.22 <sup>+</sup>	-.09 (.05)	n/a	n/a
Cultural memorabilia (e.g., trinkets brought back from vacation)	-.22 <sup>+</sup>	-.13 (.07)	n/a	n/a
Tickets for/from travel	-.22 <sup>+</sup>	-.21 (.11)	n/a	n/a
Many (vs. few) CDs	-.23*	-.28 (.14)	-.31*	-.24 (.09)
Books about ethnic topics	-.24*	-.13 (.06)	n/a	n/a
Folk music CDs	-.24*	-.12 (.06)	n/a	n/a
Tape dispenser	-.24*	-.12 (.06)	n/a	n/a
Movie tickets	-.25*	-.17 (.08)	n/a	n/a
Books about feminist topics	-.25*	-.24 (.11)	n/a	n/a
Books about music	-.25*	-.22 (.10)	n/a	n/a
Oldies music CDs	-.25*	-.22 (.10)	n/a	n/a
International maps (maps of countries other than the USA)	-.25*	-.14 (.06)	n/a	n/a
Many (vs. few) books	-.25*	-.27 (.12)	-.11	-.02 (.02)

Table 4. (cont.)

	Relation with liberalism-conservatism			
	Bedrooms		Offices	
	$\beta$	$b$ (SE)	$\beta$	$b$ (SE)
Many (vs. few) items of stationery	-.26*	-.27 (.12)	-.18	-.10 (.07)
World music CDs	-.26*	-.13 (.05)	n/a	n/a
Art supplies	-.27*	-.12 (.05)	n/a	n/a
Variety of music	-.27*	-.34 (.14)	n/a	n/a
Varied (vs. homogenous) books	-.34**	-.40 (.13)	-.29 <sup>+</sup>	-.09 (.05)

Note.  $N = 76$  for all bedroom cues except for varied (vs. homogenous) books ( $n = 73$ ), organized (vs. disorganized) CDs ( $n = 67$ ), and varied (vs. homogenous) CD's ( $n = 62$ ).  $N = 68$  for all office cues except for varied (vs. homogenous) books ( $n = 42$ ).  
<sup>+</sup> $p < .10$  \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$  (two-tailed)

significant. Our results clearly contradict Mehrabian’s (1996) conclusion that liberalism-conservatism is “consistently and strikingly unrelated to personality and temperament factors” (p. 469). On the contrary, we found support for many of the observations made by social and psychological theorists over the last 75 years or so—including Adorno et al. (1950), Fromm (1947, 1964), Tomkins (1963), Wilson (1973), Sidanius (1985), McCrae (1996), Jost et al. (2003a, 2003b), and others—concerning the ways in which personality differences covary with political orientation (see Table 1). Liberals did appear to be more open, tolerant, creative, curious, expressive, enthusiastic, and drawn to novelty and diversity, in comparison with conservatives, who appeared to be more conventional, orderly, organized, neat, clean, withdrawn, reserved, and rigid.

Most, but perhaps not all, of these differences can be understood in terms of two basic personality dimensions identified by “Big Five” researchers: Openness and Conscientiousness. These differences appeared to be greater with respect to social (vs. economic) dimensions of ideology; this makes sense given that personality both regulates and is regulated by social interaction (e.g., Mischel & Shoda, 1995). A special advantage of our final two studies is that they show personality differences between liberals and conservatives not only on self-report trait measures but also on unobtrusive, nonverbal measures of interaction style and behavioral residue (see also Amodio et al., 2007, for a study that reveals ideological differences in neurocognitive functioning and activation of the anterior cingulate cortex). Psychological differences between liberals and conservatives are not merely the superficial result of self-presentational or social desirability concerns, as some have suggested. The findings reported here add to a growing body of literature suggesting that ideological differences are more than “skin deep” (e.g., Alford et al., 2005; Block & Block, 2006; Haidt & Graham, 2007; Jost, 2006; Jost et al., 2008). This does not mean, however, that political orientation is unaffected

by situational variables; there is a good deal of evidence suggesting that environmental factors such as threat can and do produce ideological shifts (e.g., Bonanno & Jost, 2006; see also Jost, 2006, and Jost et al., 2008, for reviews).

As Bishop (2004) noted, political segregation has been growing rapidly in the United States, with an increasing number of people moving to areas with like-minded residents. We suspect that an analogous sorting process occurs with respect to career choice, insofar as people's personality and ideological inclinations affect their decisions about whether to study and practice such diverse fields as engineering and finance, in which order and structure are inherently imposed, as opposed to the arts, humanities, and even social sciences, in which creativity, openness, and cognitive flexibility are job requirements. Future research would do well to investigate political segregation in vocational choice and its connection to underlying personality needs of liberals and conservatives as well as to replicate our results in more diverse samples. Our findings to date clearly suggest that the political divide extends far beyond overtly ideological opinions to much subtler and more banal personal interests, tastes, preferences, and interaction styles.

Although our studies show clearly that there are genuine differences between liberals and conservatives, we do not wish to overstate the magnitude or significance of these differences, especially given the current, highly polarized political environment in the United States (Bishop, 2004). Most of the differences we observed were of small or moderate magnitude, at least in terms of Cohen's (1988) effect sizes (but see Hemphill, 2003, for a different view of the magnitude of effect sizes in the behavioral sciences). An obvious limitation of our research is that our studies largely investigated college students as participants, but it is important to note that our results concerning the Big Five personality dimensions are in fact highly compatible with those obtained by Stenner (2005) using more representative national and international samples (see also Rentfrow et al., 2009, for an aggregated approach to studying "regional personality" in the United States).

Our research revealed a number of similarities (as well as differences) between liberals and conservatives, and some of these were somewhat surprising. First, we observed little or no differences on personality dimensions of Extraversion, Agreeableness, or Neuroticism, despite occasional speculation that traits pertaining to these dimensions would covary with political orientation (see Tables 1 and 2). Second, although we did observe a number of differences in terms of interaction style and the orderliness and distinctiveness of personal living and office spaces, almost all of these differences were either small or moderate in magnitude (see Tables 3–4), suggesting that liberals and conservatives are not necessarily doomed as roommates or coworkers. Finally, the analyses based on Sample 6 in Study 1 suggest that personality differences are tied more strongly to social than to economic dimensions of ideology.

Political orientation appears to pervade almost every aspect of our public and private lives, possibly now more than in recent decades (see also Abramowitz & Saunders, 2005; Jost, 2006). Not only does it describe how we think about and



what we value in terms of government and society as a whole, but it also appears to leave its mark on how we behave toward others, travel, decorate our walls, clean our bodies and our homes, and on how we choose to spend our free time. A parsimonious way of summarizing these sundry differences is in terms of the personality themes of Openness and Conscientiousness. As a general rule, liberals are more open-minded in their pursuit of creativity, novelty, and diversity, whereas conservatives lead lives that are more orderly, conventional, and better organized. These basic differences may help to explain both the contours and the fault lines in the topography of ideology.

## ACKNOWLEDGMENTS

Correspondence concerning this article should be addressed to John T. Jost, Department of Psychology, New York University, 6 Washington Place, 5<sup>th</sup> Floor, New York, NY 10003. E-mail: john.jost@nyu.edu

## REFERENCES

- Abramowitz, A., & Saunders, K. (2005). Why can't we all just get along? The reality of a polarized America. *The Forum*, 3, Article 1. Available at <http://www.bepress.com/forum/vol3/iss2/art1>
- Adorno, T. W., Frenkel-Brunswick, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality*. New York: Harper.
- Alford, J. R., Funk, C. L., & Hibbing, J. R. (2005). Are political orientations genetically transmitted? *American Political Science Review*, 99, 153–167.
- Allport, G. W. (1937). *Personality: A psychological interpretation*. New York: Holt.
- Altemeyer, R. A. (1998). The other "authoritarian personality." In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 47–91). New York: Academic Press.
- Amodio, D. M., Jost, J. T., Master, S. L., & Yee, C. M. (2007). Neurocognitive correlates of liberalism and conservatism. *Nature Neuroscience*, 10, 1246–1247.
- Baker, W. (2005). *America's crisis of values*. Princeton, NJ: Princeton University Press.
- Barnea, M. F., & Schwartz, S. H. (1998). Values and voting. *Political Psychology*, 19, 17–40.
- Bem, D. J. (1970). *Beliefs, attitudes, and human affairs*. Belmont, CA: Brooks/Cole.
- Bishop, B. (2004, April 4). Split among U.S. voters so great that there is little competition in presidential contests between the parties in most U.S. countries. *American-Statesman*. Retrieved July 13, 2005, from <http://www.statesman.com>.
- Bishop, G. (2005). *The illusion of public opinion*. Lanham, MD: Rowman & Littlefield.
- Block, J., & Block, J. H. (2006). Nursery school personality and political orientation two decades later. *Journal of Research in Personality*, 40, 734–749.
- Bobbio, N. (1996). *Left and right: The philosophical basis of a political distinction*. Cambridge: Polity Press.
- Bonanno, G. A., & Jost, J. T. (2006). Conservative shift among high-exposure survivors of the September 11<sup>th</sup> terrorist attacks. *Basic and Applied Social Psychology*, 28, 311–323.
- Borkenau, P., & Liebler, A. (1995). Observable attributes as manifestations and cues of personality and intelligence. *Journal of Personality*, 63, 1–25.
- Brown, R. (1965). *Social psychology*. New York: Free Press.
- Burisch, M. (1997). Test length and validity revisited. *European Journal of Personality*, 11, 303–315.

- Caprara, G. V., Barbaranelli, C., & Zimbardo, P. G. (1999). Personality profiles and political parties. *Political Psychology*, 20, 175–197.
- Caprara, G. V., & Zimbardo, P. G. (2004). Personalizing politics: A congruency model of political preference. *American Psychologist*, 59, 581–594.
- Carlo, G., Eisenberg, N., Troyer, D., Switzer, G., & Speer, A. (1991). The altruistic personality: In what contexts is it apparent? *Journal of Personality and Social Psychology*, 61, 450–458.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2<sup>nd</sup> ed.). Hillsdale, NJ: Erlbaum.
- Cohen, P., Cohen, J., Aiken, L. S., & West, S. G. (1999). The problem of units and the circumstances for POMP. *Multivariate Behavioral Research*, 34, 315–346.
- Constantini, E., & Craik, K. H. (1980). Personality and politicians: California party leaders, 1960–1976. *Journal of Personality and Social Psychology*, 38, 641–661.
- Converse P. E. (1964). The nature of belief systems in mass publics. In D. E. Apter (Ed.), *Ideology and discontent* (pp. 206–261). New York: Free Press.
- Converse, P. E. (2000). Assessing the capacity of mass electorates. *Annual Review of Political Science*, 3, 331–353.
- Costa, P. T., Jr., & McCrae, R. R. (1985). *The NEO personality inventory manual*. Odessa, FL: Psychological Assessment Resources.
- Di Renzo, G. (Ed.) (1974). *Personality and politics*. New York: Doubleday.
- Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. *Advances in Experimental Social Psychology*, 33, 41–113.
- Ekehammar, B., Akrami, N., & Gylje, M. (2004). What matters most to prejudice: Big Five personality, social dominance orientation, or right-wing authoritarianism? *European Journal of Personality*, 18, 463–482.
- Eysenck, H. J. (1954). *The psychology of politics*. New York: Routledge.
- Feather, N. T. (1979). Value correlates of conservatism. *Journal of Personality and Social Psychology*, 37, 1617–1630.
- Feather, N. T. (1984). Protestant ethic, conservatism, and values. *Journal of Personality and Social Psychology*, 46, 1132–1141.
- Fiorina, M. P., Abrams, S. J., & Pope, J. C. (2006). *Culture war? The myth of a polarized America* (2<sup>nd</sup> ed.). New York: Longman.
- Freud, S. (1961). *Civilization and its discontents*. New York: Norton. (Original work published in 1930.)
- Freud, S. (1991). Character and anal erotism. In M. F. R. Kets de Vries & S. Perzow (Eds.), *Handbook of character studies: Psychoanalytic explorations*. Madison, WI: International University Press. (Original work published in 1959.)
- Fromm, E. (1947). *Man for himself: An inquiry into the psychology of ethics*. New York: Holt, Rinehart, and Winston.
- Fromm, E. (1964). *The heart of man*. New York: Harper.
- Fuchs, D., & Klingemann, H. D. (1990). The left-right schema. In M. K. Jennings & J. W. van Deth (Eds.), *Continuities in political action* (pp. 203–234). Berlin, Germany: deGruyter.
- Funder, D. C., & Sneed, C. D. (1993). Behavioral manifestations of personality: An ecological approach to judgmental accuracy. *Journal of Personality and Social Psychology*, 64, 479–490.
- Gerring, J. (1997). Ideology: A definitional analysis. *Political Research Quarterly*, 50, 957–994.
- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment*, 4, 26–42.
- Gosling, S. D., Craik, K. H., Martin, N. R., & Pryor, M. R. (2005). The Personal Living Space Cue Inventory: An analysis and evaluation. *Environment and Behavior*, 37, 683–705.

- Gosling, S. D., Ko, S. J., Mannarelli, T., & Morris, M. E. (2002). A room with a cue: Judgments of personality based on offices and bedrooms. *Journal of Personality and Social Psychology*, 82, 379–398.
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A very brief measure of the Big Five personality domains. *Journal of Research in Personality*, 37, 504–528.
- Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research*, 20, 98–116.
- Haidt, J., & Hersh, M. A. (2001). Sexual morality: The cultures and emotions of conservatives and liberals. *Journal of Applied Social Psychology*, 31, 191–221.
- Hemphill, J. F. (2003). Interpreting the magnitude of correlation coefficients. *American Psychologist*, 58, 78–79.
- Hilgard, E. R. (1952). Experimental approaches to psychoanalysis. In E. Pumpian-Mindlin (Ed.), *Psychoanalysis as science* (pp. 3–45). Stanford, CA: Stanford University Press.
- Jaensch, E. R. (1938). *Der Gegendtypus*. Leipzig: J.A. Barth.
- John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The "Big Five" inventory—Version 4a and 54*. Berkeley: University of California, Berkeley, Institute of Personality and Social Research.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives (pp. 102–138). In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed.). New York: Guilford.
- Jost, J. T. (2006). The end of the end of ideology. *American Psychologist*, 61, 651–670.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. (2003a). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339–375.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. (2003b). Exceptions that prove the rule: Using a theory of motivated social cognition to account for ideological incongruities and political anomalies. *Psychological Bulletin*, 129, 383–393.
- 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.
- Jost, J. T., Nosek, B. A., & Gosling, S. D. (2008). Ideology: Its resurgence in social, personality, and political psychology. *Perspectives on Psychological Science*, 3, 126–136.
- Judd, C. M., Krosnick, J. A., & Milburn, M. A. (1981). Political involvement in attitude structure in the general public. *American Sociological Review*, 46, 660–669.
- King, E. B., George, J. M., & Hebl, M. R. (2005). Linking personality to helping behaviors at work: An interactional perspective. *Journal of Personality*, 73, 585–608.
- Kish, G. B. (1973). Stimulus-seeking and conservatism. In G. D. Wilson (Ed.), *The psychology of conservatism* (pp. 197–207). London: Academic Press.
- Kline, P., & Cooper, C. (1984). A factorial analysis of the authoritarian personality. *British Journal of Psychology*, 75, 171–176.
- Knight, K. (1999). Liberalism and conservatism. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of political attitudes* (pp. 59–158). San Diego, CA: Academic Press.
- Kruglanski, A. W. (2005). *The psychology of closed mindedness*. New York: Psychology Press.
- Levin, B., & Schalmo, G. B. (1974). Self-rated liberalism is correlated with sensation seeking. *Psychological Reports*, 34, 298.
- Maccoby, M. (1968). *Polling emotional attitudes in relation to political choices*. Unpublished manuscript cited in Bem (1970).
- McAdams, D. P. (1995). What do we know when we know a person? *Journal of Personality*, 63, 365–396.
- McClosky, H. (1958). Conservatism and personality. *American Political Science Review*, 52, 27–45.

- McCrae, R. R. (1996). Social consequences of experiential openness. *Psychological Bulletin*, 120, 323–337.
- McCrae, R. R., & Costa, P. T., Jr. (1999). A five-factor theory of personality (pp. 139–153). In L. A. Pervin & O. P. John (Eds.) *Handbook of personality: Theory and research* (2nd ed.). New York: Guilford.
- McGuire, W. J. (1999). *Constructing social psychology: Creative and critical processes*. New York: Cambridge University Press.
- Mehrabian, A. (1996). Relations among political attitudes, personality, and psychopathology assessed with new measures of libertarianism and conservatism. *Basic and Applied Social Psychology*, 18, 469–491.
- Milbrath, L. (1962). Latent origins of liberalism-conservatism and party identification: A research note. *Journal of Politics*, 24, 679–688.
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dynamics, and invariance in personality structure. *Psychological Review*, 102, 246–268.
- Rentfrow, P. J., Jost, J. T., Gosling, S. D., & Potter, J. (2009). Statewide differences in personality predict voting patterns in U.S. Presidential elections, 1996–2004. In J. T. Jost, A. C. Kay, & H. Thorisdottir (Eds.), *Social and psychological bases of ideology and system justification*. New York: Oxford University Press.
- Riemann, R., Grubich, C., Hempel, S., Mergl, S., & Richter, M. (1993). Personality and attitudes towards current political topics. *Personality and Individual Differences*, 15, 313–321.
- Sears, R. R. (1936). Experimental studies of projection: I. Attribution of traits. *Journal of Social Psychology*, 7, 151–63.
- Shoda, Y., Mischel, W., & Wright, J. C. (1993). The role of situational demands and cognitive competencies in behavior organization and personality coherence. *Journal of Personality and Social Psychology*, 65, 1023–1035.
- Sidanius, J. (1978). Intolerance of ambiguity and socio-political ideology: A multidimensional analysis. *European Journal of Social Psychology*, 8, 215–235.
- Sidanius, J. (1985). Cognitive functioning and sociopolitical ideology revisited. *Political Psychology*, 6, 637–661.
- St. Angelo, D., & Dyson, J. W. (1968). Personality and political orientation. *Midwest Journal of Political Science*, 12, 202–223.
- Stenner, K. (2005). *The authoritarian dynamic*. Cambridge: Cambridge University Press.
- Tetlock, P. E. (1983). Cognitive style and political ideology. *Journal of Personality and Social Psychology*, 45, 118–126.
- Tetlock, P. E. (1984). Cognitive style and political belief systems in the British House of Commons. *Journal of Personality and Social Psychology*, 46, 365–375.
- Tetlock, P. E., Bernzweig, J., & Gallant, J. L. (1985). Supreme Court decision making: Cognitive style as a predictor of ideological consistency of voting. *Journal of Personality and Social Psychology: Personality Processes and Individual Differences*, 48, 1227–1239.
- Tetlock, P. E. & Mitchell, P. G. (1993). Liberal and conservative approaches to justice: Conflicting psychological portraits. In B. Mellers & J. Baron (Eds.), *Psychological perspectives on justice* (pp. 234–255). Cambridge: Cambridge University Press.
- Thorisdottir, H., Jost, J. T., Liviatan, I., & Shrout, P. (2007). Psychological needs and values underlying left-right political orientation: Cross-national evidence from Eastern and Western Europe. *Public Opinion Quarterly*, 71, 175–203.
- Tomkins, S. S. (1963). Left and right: A basic dimension of ideology and personality. In R. W. White (Ed.), *The study of lives* (pp. 388–411). Chicago: Atherton.
- Trapnell, P. D. (1994). Openness versus intellect: A lexical left turn. *European Journal of Personality*, 8, 273–290.

- Van Hiel, A., & Mervielde, I. (2004). Openness to Experience and boundaries in the mind: Relationships with cultural and economic conservatism. *Journal of Personality*, 72, 659–686.
- Van Hiel, A., Mervielde, I., & De Fruyt, F. (2004). The relationship between maladaptive personality and right wing ideology. *Personality and Individual Differences*, 36, 405–417.
- Van Hiel, A., Pandelaere, M., & Duriez, B. (2004). The impact of need for closure on conservative beliefs and racism: Differential mediation by authoritarian submission and authoritarian dominance. *Personality and Social Psychology Bulletin*, 30, 824–837.
- Vazire, S., & Gosling, S. D. (2004). e-Perceptions: Personality impressions based on personal websites. *Journal of Personality and Social Psychology*, 87, 123–132.
- Webb, E. J., Campbell, D. T., Schwartz, R. D., Sechrest, L. B., & Grove, J. B. (1981). *Nonreactive measures in the social sciences*. Boston: Houghton-Mifflin.
- Wiggins, J. S. (1996). *The five-factor model of personality: Theoretical perspectives*. New York: Guilford.
- Wilson, G. D. (1973). *The psychology of conservatism*. London: Academic Press.
- Zaller, J. R. (1992). *The nature and origins of mass opinion*. New York: Cambridge University Press.