

Personality and Political Preferences Over Time:
Evidence From a Multi-Wave Longitudinal Study

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Word count: 6,232

Keywords: political preferences, ideology, openness, conscientiousness

The datasets and code needed to replicate our results can be found at the following link:

<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/UACRXA>

Abstract

Objective: To investigate how the relations between the Big Five personality traits and political preferences develop over a campaign.

Method: We rely on a 6-wave nationwide longitudinal survey from the 2008 U.S. election that included 20,000 respondents. Mean age: 49 ($SD=15$). 53% of respondents were women, 47% men. 82% were White, 8% Black, 6% Hispanic/Latino, 1% Asian, 1% Native American, and 2% other. Survey weights were applied to approximate a representative sample of the U.S. population. N s for reported analyses range from 5,160 to 12,535.

Results: First, conscientiousness and openness to experience were significantly associated with changes in outcomes over time, such that individuals higher in conscientiousness and lower in openness tended to become more conservative, identify as more Republican, and evaluate John McCain more favorably relative to Barack Obama. Second, the effects of personality on candidate evaluations were mediated by partisanship and ideology. Finally, we find that the relations between traits and late-campaign candidate evaluations are stronger than those between traits and early-campaign candidate evaluations.

Conclusions: Personality plays an important and dynamic role in the formation and change of political preferences over the course of political campaigns—a role which is not entirely visible in cross-sectional analyses.

Personality and Political Preferences Over Time: Evidence From a Multi-Wave Longitudinal Study

A growing body of research suggests that individual differences in psychological traits predict political preferences as powerfully (or almost as powerfully) as differences in race, income, and other demographic characteristics that are often thought to be the key drivers of political division (Carney, Jost, Gosling, & Potter, 2008; Gerber, Huber, Doherty, & Dowling, 2011). In particular, research suggests that two dimensions of the “Big Five” model of personality (McCrae & Costa, 2003)—*openness to experience* and *conscientiousness*—reliably predict political attitudes, with the former predisposing individuals to adopt liberal preferences and the latter predisposing them to adopt conservative preferences (Gerber et al., 2011). However, almost all analyses of the connection between these key dimensions of personality and political preferences have been cross-sectional, shedding little light on how the interface between personality and politics evolves over time. In the present study, we fill this gap by looking at (1) whether personality traits predict *changes* in political preferences *over a campaign*, (2) what intervening variables might mediate this change, and (3) how this process might be reflected in cross-sectional associations between personality and political preferences. To address these questions, we take advantage of a longitudinal study of political attitudes conducted during the 2008 election. We begin with a brief review of prior work on the links between personality traits and political preferences.

Personality as an Antecedent of Political Orientations and Attitudes

As noted above, the key message from research on the psychological foundations of political attitudes is that the latter can be predicted from individual differences in psychological characteristics (Federico, 2011; Jost, Glaser, Kruglanski, & Sulloway, 2003; see also Amodio, Jost, Master, & Yee, 2007; Hibbing, Smith, & Alford, 2013). Conceptually, the basis for this linkage turns on the extent to which various political preferences—ranging from ideology and partisanship to specific issue attitudes—support or challenge the *status quo* and the values, institutions, and forms of

social hierarchy it implies. In brief, conservative preferences amount to an endorsement of the “tried and true” over the uncertainty inherent in social change, whereas liberal preferences reflect a greater willingness to embrace change despite risks (Jost & Hunyady, 2005).

Research has profitably employed the “Big Five” or five-factor model of personality to provide an account of how personality relates to political preferences (Carney et al., 2008; Hirsh, DeYoung, Xu, & Peterson, 2010; Mondak, 2010). Using analyses of personality adjectives found in everyday language, this integrative model boils variation in personality down to five key trait dimensions (McCrae & Costa, 1999, 2003). The dimensions reflect central tendencies—they average over the variation introduced by particular situations to characterize a person’s typical behavior. They include *extraversion*, one’s level of sociability and assertiveness; *agreeableness*, one’s level of altruism and concern for others; *conscientiousness*, one’s level of concern for duty, responsibility, and impulse control; *emotional stability*, one’s level of even-temperedness or freedom from negative emotion; and *openness to experience*, one’s level of interest in novelty, complexity, and originality. Research finds that these dimensions are relatively stable over time (e.g., Caspi, Roberts, & Shiner, 2005; Gosling, Rentfrow, & Swann 2003; McCrae & Costa, 2003), partly heritable (e.g., Bouchard & Loehlin, 2001; Plomin, DeFries, & McClearn, 1990), and consequential (Gosling, 2008; Ozer & Benet-Martinez, 2006).

Of the five traits, two have emerged as robust predictors of political preferences—*openness to experience* and *conscientiousness* (for reviews, see Gerber et al., 2011; Mondak, 2010).¹ Openness to experience has clear implications for the extent to which people tolerate uncertainty and ambiguity.

¹ Previous research notes a positive association between emotional stability and *economic* conservatism (Gerber et al., 2010). Because we are interested in the association between personality traits and general political preferences, we make no specific predictions concerning this trait.

As social change evokes at least some uncertainty, individuals high in openness to experience should be inclined to liberalism and less inclined to conservatism. Though openness tends to be the strongest Big Five predictor of political preferences (Gerber et al., 2011), conscientiousness is the runner-up, with effects that are consistent but somewhat weaker than those of openness.

Conscientious individuals tend to value order and responsibility. To the extent that conservatism promotes (and liberalism challenges) stability, duty, and obedience, individual differences in conscientiousness should predict differences in political preferences. Accordingly, both conscientiousness and openness to experience significantly predict ideological self-placement (Mondak & Halperin, 2008; Gerber, Huber, Doherty, Dowling, & Ha, 2010; Carney et al., 2008), values (Hirsh et al., 2010; Caprara, Vecchione, & Schwartz, 2009), partisanship (Caprara, Schwartz, Capanna, Vecchione, & Barbaranelli, 2006; Schoen & Schumann, 2007), and vote choice (Barbaranelli, Caprara, Vecchione, & Fraley, 2007; Caprara et al., 2006).

Although behavioral scientists have invested substantial effort in exploring the relationship between the Big Five and political preferences, nearly all of this work has been cross-sectional in nature. This suggests a serious gap in our understanding of the interface between personality and politics, as it remains unclear how the relationship between personality and politics unfolds over time. In the current study, we aim to fill this gap, using longitudinal data to track changes in political preferences over time as a function of individual differences in openness and conscientiousness. Our prediction is that traits do exert some influence on political preferences—but that they influence some preferences more directly than others.

The Current Study: How Political Preferences Change as a Function of Personality

The first goal of the present investigation is to test the plausibility of the hypothesis that personality traits influence political preferences. We acknowledge that longitudinal data do not permit the same strong causal inferences that an experiment might; however, an experimental

manipulation of the Big Five personality traits is of course unlikely to prove practicable. However, our longitudinal data do allow us to (1) examine whether individual differences in personality (assessed at a single time) *predict* over-time changes in political preferences, (2) rule out reverse causal impacts of attitudes on personality, and (3) control for the effects of any omitted variables whose effects are entirely “baked in” to the dependent variable prior to our initial observation (Finkel, 1995). Results consistent with our hypotheses would therefore provide at least suggestive evidence of a causal path. Equally important, though, is the fact that results *inconsistent* with our hypotheses would also tell us something valuable—if a longitudinal survey with over 10,000 respondents shows no evidence of an impact of personality traits on changes in political preferences, then it would seem very unlikely that personality traits drive changes in political attitudes during political campaigns. In short, null results would suggest that any effect of personality on political preferences would need to operate either before the observed campaign or over a longer period of time. In this way, either positive or null results would clarify the role of personality in the political domain.

We examine these changes in an especially important context: that of a presidential campaign. Campaigns play a key role in allowing citizens to adopt preferences consistent with their “fundamental” inclinations and characteristics (Andersen, Tilley, & Heath, 2005; Arceneaux, 2006; Finkel, 1993; Gelman & King, 1993; Kaplan, Park, & Gelman, 2012; Stevenson & Vavreck, 2000; Zaller, 1992; see also Berelson, Lazarsfeld, & McPhee, 1954; Sears 1993). Campaigns exert this effect by promoting learning and activation. Campaigns help citizens *learn* because more people come into contact with political ideas and information in the months preceding an election than at any other time in the four-year election cycle (e.g., Sears & Valentino, 1997; Valentino & Sears, 1998). Campaigns also *activate latent preferences*—because they culminate in an important decision that encourages citizens to use the information they receive (Campbell, Converse, Miller, & Stokes, 1960), and because existing preferences may themselves become stronger as campaigns provide

more information to support them (Lodge & Taber, 2013; Tesser, 1978). We argue that personality traits are meaningful predispositions in the political context, predicting the adoption of some political attitudes over others. We therefore predict that campaigns may guide citizens to adopt preferences that “match” their psychological dispositions.

We focus on two clusters of political preferences: campaign-specific attitudes and political identities. By campaign-specific attitudes, we mean evaluations of objects specific to a particular campaign. In the present context, these above all include evaluations of the presidential candidates in a presidential-election year—specifically, *comparative candidate evaluations*, or the extent to which citizens evaluate one candidate more positively than the other. By political identities, we refer to *party identification* and *ideology*. These commonly serve as the average citizen’s point of departure in making other political judgments (i.e., votes), and are generally regarded as the most important and influential preferences that the average citizen holds in the political realm (Campbell et al., 1960; Goren, 2012; Zaller, 1992).

Given the role of campaigns in forging attitudes toward a specific set of candidates in advance of a vote, we are especially interested in how personality predicts changes in candidate evaluations. Should we find evidence that personality traits predict changes in candidate evaluation, a second goal of our study is to examine how this change occurs—by what process do traits and candidate evaluations come to align? We argue that some political attitudes should *mediate* the effects of traits on other such preferences. Specifically, we predict that openness and conscientiousness most directly influence individuals’ political identities (i.e., party identification and ideology) but are only indirectly tied to their attitudes toward specific political candidates. That is, we suspect that individuals’ traits incline them to identify with political labels like “Democrat” or “liberal” and then to adopt attitudes toward specific candidates based on that identification. For example, someone high in openness might simply be more drawn to the Democratic Party or to “liberalism” as a

whole, and once they identify as such, come to evaluate Barack Obama more favorably than his Republican opponents. We favor this possibility over alternatives (e.g., that issue positions or candidate evaluations are primary mediators) because a sizeable body of research suggests that the influence of political identities on more concrete political preferences tends to be stronger than the impact of the latter on the former (Achen & Bartels, 2016; Lenz, 2012). So although openness and conscientiousness should be related to evaluations of specific candidates, party identification and self-reported ideology should mediate these relations.

Multi-wave longitudinal analyses allow us to test this prediction, as they permit us to determine whether changes in political identities predict changes in candidate evaluations. We draw on data from the 2008 American presidential campaign to maximize the amount of change available for analysis. Given that the 2008 election presented voters with two non-incumbent candidates during the last months of an unpopular presidency and the first months of a severe recession, political attitudes *and* identities may have been particularly subject to change during this period. Thus, the 2008 campaign affords us an excellent opportunity to test whether personality-related changes in party identification and ideology precede and account for changes in candidate preferences.

Our final goal is to examine the role of campaigns in forging the link between personality and political preferences. We expect personality to predict changes in political preferences in part because campaigns encourage people to identify and support the parties and candidates whose platforms most appeal to their psychological predispositions. If campaigns have this effect, then the alignment between personality and political preferences ought to grow stronger as the campaign goes on (i.e., as citizens continue to learn and think about the current election's political stimuli). In short, we predict not only that personality should predict changes in preferences over time, but also that these changes that personality predicts in candidate evaluations will be sufficiently widespread

and pronounced that the strength of the relationship between personality and candidate evaluations should visibly increase from the beginning of the campaign to the end. That said, we have less reason to suspect that the relationship between personality traits and political identities would be similarly variable during this time. Identities are more stable over time than other political preferences (Green, Palmquist, & Schickler 2002; Jennings, 1992; Krosnick, 1991), and there is also evidence that they become crystallized before early adulthood (Sears & Valentino, 1997). For this reason, we expect link between personality and political identities to be more consistent throughout the campaign than the link between personality and candidate evaluations.

Overview and Hypotheses

In sum, our goal in the present study is to move beyond a simple, cross-sectional analysis of the political implications of the Big Five personality traits and focus on how the interface between personality and politics evolves over the course of a key temporal setting for political learning: a major political campaign. To do this, we turn to data from the 2007-2008 Cooperative Campaign Analysis Project, a national longitudinal study of political attitudes conducted during the historic 2008 presidential campaign. We examine the following hypotheses:

H1: Two Big Five dimensions—openness to experience and conscientiousness—should predict changes in political preferences over the campaign, including changes in ideology, party identification, and campaign-specific attitudes (i.e., those toward John McCain and Barack Obama). Greater (lower) openness should predict shifts toward liberal (conservative) preferences, whereas higher (lower) conscientiousness should predict shifts toward conservative (liberal) preferences.

H2: The effects of openness and conscientiousness on campaign-specific attitudes should be mediated by changes in party identification and ideology. That is, we predict that personality influences political preferences through political identification—influencing the broad partisan and ideological identities that individuals adopt, which in turn influence campaign-specific attitudes.

H3: We focus on a U.S. presidential campaign because campaigns have been found to be a particularly important and dynamic time of political-attitude change, in which preferences are brought into line with fundamental predispositions (Kaplan et al., 2012). We predict that the end result of these changes will be that openness and conscientiousness will be stronger predictors of campaign-specific attitudes at the end of the campaign than at the beginning (**H3a**). However, given the greater stability of political identities like partisanship and ideology, we predict that no such difference will emerge for these outcomes (**H3b**). These hypotheses are grounded in our expectation that the changes in identification that actually occur will probably be much smaller than those that occur in attitudes toward Obama and McCain.

Method

Data

Our data come from the 2007–2008 Cooperative Campaign Analysis Project (CCAP; Jackman & Vavreck, 2009). The CCAP is a panel study of 20,000 registered voters conducted via the internet. The study consisted of six waves from December 2007 to November 2008; five waves were fielded before the 2008 election, and one was fielded after. The survey was administered by YouGov/Polimetrix, Inc., and it employed a mix of sampling and matching techniques to approximate a random digit dialing sample (for methodological details, see Vavreck & Rivers, 2008). Given the nature of our hypotheses, we restrict our analyses to respondents who: (1) completed wave 1 (in December 2007) and waves 4 and 5 (in September and October 2008); (2) completed the personality measures and demographics during wave 1; and (3) provided responses to all variables.

Measures

We describe our key model variables below; additional details can be found in the online appendix. To ease model interpretation, all continuous variables were recoded to run from 0 to 1 unless otherwise indicated.

Big Five. The CCAP included the Ten Item Personality Inventory (TIPI; Gosling, Rentfrow, and Swann, 2003), a short measure of the Big Five. Respondents were presented with ten trait pairs. In the set of respondents we use here, the TIPI was assessed in wave 1 (December 2007). There were two pairs for each Big Five dimension, one of which was reversed. The pairs were preceded by the stem, “I see myself as,” and responses to each were given on a seven-point scale ranging from *disagree strongly* to *agree strongly*. Responses to the items were recoded so that higher scores indicated higher levels of each trait, and each recoded pair was averaged to form scales for each dimension. All scales were recoded to run 0-1 (i.e., $M = 0.52$, $SD = 0.25$, for extraversion; $M = 0.72$, $SD = 0.19$, for agreeableness; $M = 0.77$, $SD = 0.19$, for conscientiousness; $M = 0.68$, $SD = 0.22$, for emotional stability; and $M = 0.70$, $SD = 0.20$, for openness to experience).

Given its short length, the TIPI does have somewhat diminished psychometric properties (Credé, Harms, Niehorster, & Gaye-Valentine, 2012). The inter-item reliabilities for our scales, for example, were generally low (i.e., $\alpha = 0.61$ for extraversion; $\alpha = 0.35$ for agreeableness; $\alpha = 0.51$ for conscientiousness; $\alpha = 0.63$ for emotional stability; and $\alpha = 0.42$ for openness to experience). That said, we believe that use of the TIPI is reasonable in the present context. First, Cronbach’s α does not provide a particularly meaningful index of the TIPI’s reliability. Each Big Five trait is a multifaceted, bipolar construct, and low inter-item correlations are a necessary consequence of the TIPI’s intentional design to maximize “breadth of coverage” (Gosling et al., 2003, p. 516) with only two items per trait; essentially, the TIPI attempts to measure the *union* of the facets that comprise each trait rather than their *intersection* (McCrae, 2015). In short, we would expect the items for each TIPI trait to be only weakly related to one another. Second, TIPI scores have been found to be reliable *over time*. Because the CCAP only assessed the Big Five in one wave, we cannot estimate the test-retest reliability of the scale in our own sample, but at least two studies (Gerber, Huber, Doherty, & Dowling, 2012; Gosling et al., 2003) have found that TIPI scores are quite stable over

time (in Gosling et al., Pearson test-retest correlations were $r = 0.77$ for extraversion, $r = 0.71$ for agreeableness, $r = 0.76$ for conscientiousness, $r = 0.70$ for emotional stability, $r = 0.80$ for openness; in Gerber et al., polychoric test-retest correlations were $r = 0.82$ for extraversion, $r = 0.70$ for agreeableness, $r = 0.70$ for conscientiousness, $r = 0.73$ for emotional stability, $r = 0.68$ for openness).² These test-retest correlations provide a more appropriate index of the TIPI's reliability than alphas do (Kline, 2000; Woods & Hampson, 2005), and they are roughly similar to test-retest numbers for longer inventories (Gosling et al., 2003). Third, TIPI scores are highly correlated with longer measures of the Big Five (Gosling et al., 2003). Fourth, research that has used the TIPI to predict left-right orientation (e.g., Gerber et al., 2011) has observed associations that very closely match those reported by research that has used other measures (e.g., Barbaranelli et al., 2007; Mondak & Halperin, 2008). This convergent pattern of results with respect to the predictive validity of the TIPI suggests that the instrument is a reasonably valid measure of the Big Five traits in this context (McCrae, 2015, p. 106). Finally, the CCAP is a large national survey. Inclusion of a longer personality instrument would have been prohibitively expensive and time-consuming, and the limitations of the TIPI are offset by the fact that the survey was able to reach a large representative sample in which other personality assessments would be impracticable.

Political identities. The CCAP assessed two key political identities at multiple points during the campaign, allowing us to see how individuals' standing decisions in the political realm evolve over the course of a campaign. First, in wave 1 (December 2007) and wave 5 (October 2008), ***party identification*** was measured using a set of branching items. Responses to these items were coded to form a seven-point scale: strong Democrat, weak Democrat, lean Democrat, Independent, lean Republican, weak Republican, strong Republican. Higher scores indicate greater identification

² The test-retest interval used by Gosling et al. (2003) was 6 weeks. The test-retest interval used by Gerber et al. (2012) varied across participants, who were surveyed before and after the 2010 U.S. mid-term election, but it ranged from 6 to 60 days ($M = 26$ days).

with the GOP ($M = 0.48$, $SD = 0.39$, in wave 1; $M = 0.47$, $SD = 0.39$, in wave 5). Second, in wave 1 and wave 5, *ideology*—that is, individuals' identification as liberal or a conservative—was measured using a single item. Responses included: very liberal, liberal, moderate, conservative, and very conservative. Higher scores indicate greater conservatism ($M = 0.54$, $SD = 0.30$, in wave 1; $M = 0.55$, $SD = 0.29$, in wave 5).

Comparative candidate evaluations. To gauge respondents' evaluations of the eventual 2008 presidential candidates relative to one another, ratings of John McCain and Barack Obama were used to generate three difference scores at multiple times. Each difference score was constructed by subtracting ratings of Obama from ratings of McCain; thus, scores on each difference indicate a more right-leaning preference. Once each difference was computed, the result was recoded to run from 0-1. An *evaluative difference* measure was constructed in wave 1 (December 2007) and wave 5 (October 2008) using general favorability ratings of the candidates. Respondents were presented with a list of candidates, including McCain and Obama. Responses were given on a five-point scale ranging from *very favorable* to *very unfavorable*; prior to the calculation of differences, responses were recoded so that higher scores indicated more positive ratings ($M = 0.49$, $SD = 0.23$, in wave 1; $M = 0.48$, $SD = 0.37$, in wave 5). Next, a *trust difference* measure was constructed in wave 1 and wave 5 using ratings of the candidates' trustworthiness. Respondents were presented with the same candidate list, including McCain and Obama. Difference scores were calculated using these responses ($M = 0.52$, $SD = 0.22$, in wave 1; $M = 0.52$, $SD = 0.36$, in wave 5). Finally, a *leadership difference* measure was generated in wave 1 and wave 4 using general ratings of the degree to which each candidate was seen as a strong leader; leadership was not measured in wave 5. Respondents were presented with a list of candidates, including McCain and Obama. As

before, differences were computed from these responses ($M = 0.55$, $SD = 0.22$, in wave 1; $M = 0.55$, $SD = 0.34$, in wave 4).³

Demographics. These included *age*, *income* (recoded to run from 0-1), *gender*, *education* (five ordered categories, recoded to run 0-1: less than high school, high-school degree, some college or two-year college degree, college graduate, advanced degree), whether the respondent was *Black*, and whether the respondent was *Latino*. These variables were assessed in wave 1 (December 2007).

Results

Do Political Attitudes Evolve Across Campaigns as a Function of Personality?

Hypothesis 1 predicts that openness to experience and conscientiousness should predict changes in political identities and comparative candidate evaluations during the 2008 campaign. To test this hypothesis, the two identities and the three comparative evaluations—measured in fall 2008—were regressed on the Big Five, the controls, and a set of fixed-effect dummy variables representing respondent state in the CCAP data. Five regressions were carried out, one for each dependent variable. Because we are interested in change over the course of the campaign, each regression also included the lagged value of its dependent variable from December 2007 as a control; this corrects for potential feedback effects in the regressions, giving us greater purchase on the direction of the personality-politics relationship (Finkel, 1995). To maximize the efficiency of our estimates, the five regressions were estimated simultaneously using seemingly unrelated regressions (which accounts for correlation between errors for the multiple outcomes), with robust

³ We use difference scores for each type of evaluation as a way of summarizing respondents' overall preference across the two candidates. However, given problems associated with difference scores (Cronbach & Furby, 1970), we repeated our key analyses using evaluations of each candidate separately. These revealed a substantively identical pattern of results, with the signs for conscientiousness and openness reversing across candidates (e.g., with conscientiousness predicting more positive evaluations of McCain and more negative evaluations of Obama).

standard errors clustered by state (Greene, 2002). Survey weights were applied. Additional estimation details can be found in the online appendix.

The results of this analysis are summarized in Table 1, and a graphical illustration is provided in Figure 1. Since all variables are either dummy variables or have been re-scaled to run from 0-1, each coefficient indicates the change in the dependent variable—as a proportion of its full range—associated with going from one group to the other of a dichotomous variable or from the minimum to the maximum value of a continuous variable. This coding accounts in part for the relatively small size of the coefficients.⁴

Looking first at the equations for the political identities, we see that openness to experience in December 2007 was associated with an increase in liberalism and Democratic identification from December 2007 to October 2008 (both $p < 0.01$). Conscientiousness in December 2007 was also associated with an increase in conservative identification over the same period ($p < 0.05$). We also observed an unexpected positive association between extraversion and increases in conservatism from December 2007 to October 2008 ($p < 0.01$). Turning to the comparative campaign evaluations, we see stronger relationships. Openness in December 2007 was associated with a decrease in the tendency to evaluate John McCain more positively than Barack Obama, trust McCain more than Obama, and see McCain as a stronger leader than Obama (all $p < 0.001$). The coefficient for openness again exceeded those of the other four traits in absolute magnitude. Conscientiousness in December 2007 was associated with an increase in the tendency to rate John McCain more positively than Barack Obama (all $p < 0.001$). Again, the models revealed a few unexpected results.

⁴ In the appendix, we provide additional information on the comparative size of the personality effects by presenting a version of the Table 1 analysis in which all dependent variables, lagged dependent variables, and personality dimensions were standardized (see Table A1).

In particular, emotional stability in December 2007 was associated with an increase in the tendency to rate McCain more positively than Obama across all three comparative evaluations ($p < 0.001$ for the evaluative and leadership differences; $p < 0.05$ for trust). Moreover, agreeableness in December 2007 was associated with a reduced tendency to evaluate McCain more positively than Obama ($p < 0.05$). In sum, results were consistent with Hypothesis 1.

[Figure 1]

Do Political Identities Mediate the Effects of Personality on Campaign-Specific Attitudes?

Hypothesis 2 predicts that the effects of openness and conscientiousness on campaign-specific attitudes should be mediated by changes in party identification and ideology. We can leverage the multi-wave structure of the CCAP to build mediation models that allow for stronger inferences than other non-experimental designs would allow. We use the five waves between December 2007 and October 2008 (for the evaluative difference and the trust difference) and the four waves between December 2007 and September 2008 (for the leadership difference) to estimate a cross-lagged panel model for longitudinal data (CLPM; Selig & Preacher, 2009). To assess indirect effects, this model assesses both changes in mediators as a function of independent variables and changes in the dependent variable as a function of mediators. A schematic of this model is shown in Figure 2.⁵ Besides the paths shown in this figure, we also allow correlations between all December 2007 variables, per the usual CLPM specifications. In the version of the CLPM we use here, we allow personality to affect ideology and partisanship only in January 2008; personality is also allowed to have direct effects on candidate evaluations in all waves after December 2007.⁶

⁵ Note that the model for the leadership-difference variable uses only the four waves between December 2007 and September 2008. As such, it does not include any of the October 2008 variables or paths shown in Figure A2.

⁶ Alternate model runs in which personality was also allowed to have effects on the mediators in January, March 2008, and September 2008 produced similar results.

[Figure 2]

The direct and indirect effects of personality on September 2008 or October 2008 comparative candidate evaluations from these models are summarized in Table 2; both unstandardized and standardized effect estimates are provided.⁷ Looking first at the direct effect estimates, we see significant effects for the impact of agreeableness openness on changes in the leadership-difference variable ($p < 0.05$). All other direct effects fail to reach significance. In contrast, conscientiousness and openness have significant indirect effects on all three comparative candidate evaluations. Taken together, these findings indicate that political identities play a crucial role in mediating the relationship between openness and conscientiousness on the one hand, and candidate evaluations on the other. It is worth noting that we obtain this result despite the fact that (as we might expect) changes in party identification and ideology tended to be much smaller in magnitude than changes in candidate evaluations. Apparently, relatively small personality-related shifts in political identity are sufficient to substantially alter some campaign-specific attitudes.

Do Campaigns Strengthen the Predictive Power of Personality?

Finally, Hypothesis 3 predicts (a) that openness to experience and conscientiousness should more strongly predict late-campaign candidate evaluations than early-campaign evaluations; and (b) that this shift should be less dramatic—if present at all—for political identities. To examine this hypothesis, we estimated a pair of equations for each outcome variable: one equation predicted scores on the outcome prior to the 2008 primary season (December 2007), and the other predicted scores on the outcome near the end the campaign (either September or October of 2008). In these

⁷ Note that the sample sizes for these models again differ from those in previous analyses; this is due to the addition of variables from the January 2008, March 2008, and September 2008 waves, which result in different numbers of valid cases for the analysis.

analyses, all predictors were measured in December 2007; these independent variables included the Big Five, the same set of controls as before, and a set of fixed-effect dummy variables representing state. To maximize efficiency and facilitate comparisons between models, the pair of equations for each outcome variable was estimated simultaneously using seemingly unrelated regressions (which accounts for the correlation between the errors for the equations in each pair), with robust standard errors clustered by state. Survey weights were applied in all models. Additional estimation details for these models can be found in the online appendix.⁸

We again find strong coefficients for personality. More important, though, we find that the predictive power of openness to experience and conscientiousness is relatively invariant regardless of whether respondents' December 2007 or October 2008 self-reports of their political identities are being predicted. At both the beginning and the end of the 2008 campaign, openness and conscientiousness are similarly predictive of party identification (i.e., $b=-0.27$ versus $b=-0.30$, for openness; $b=0.14$ versus $b=0.15$, for conscientiousness) and ideology (i.e., $b=-0.33$ versus $b=-0.29$, for openness; $b=0.15$ versus $b=0.14$, for conscientiousness), in the predicted directions. Once again, unexpected positive associations between emotional stability and Republican partisanship and conservatism emerged (all $ps<.001$). However, the predictive power of this dimension did not change appreciably across the two time periods. For illustrative purposes, the effects of conscientiousness, emotional stability, and openness are graphed in Figure 3 for the two political

⁸ These models *do not* contain lagged dependent variables. They examine the relationship between personality and each outcome at different times, rather than *changes* in the outcomes over time. Given that we are comparing coefficients across equations, we do not provide standardized estimates in the appendix as we did for the Table 1 analysis. We adopt this strategy of focusing solely on the unstandardized estimates because comparisons of standardized coefficients may be affected by differences in the variances of the dependent variables across time periods (Pedhazur, 1997)

identities as measured in December 2007 and October 2008. Detailed estimates for these models are provided in Table A2 in our supplemental materials.

[Figure 3]

To confirm these patterns, we ran additional analyses in which the coefficient for a given personality dimension on each political identity was constrained to equality across the two equations for each outcome. We did this for the three trait dimensions that had notable effects, i.e., conscientiousness, emotional stability, and openness. Wald F-tests indicated that this constraint produced no decrement in fit for either conscientiousness or stability (both $F_s < 1$, $p_s > .60$). Though the constraint did produce a significant decline in fit for openness, $F(1, 50) = 5.51$, $p < .05$, this result was driven by the openness coefficient being significantly *smaller* in the October 2008 model (i.e., $b = -0.29$ versus $b = -0.33$). This is the opposite of what would be expected if the campaign were strengthening the predictive power of personality. For ideology, Wald F-tests indicated that the constraint produced no significant decrease in model fit for any of the three personality dimensions: $F_s < 1$, $p_s > .50$, for conscientiousness and stability; $F(1, 50) = 1.68$, $p > .20$, for openness.

In contrast, we did observe increases in the predictive power of selected Big Five dimensions over the campaign for comparative candidate evaluations (see Table 3). Again, these estimates reveal strong coefficients for personality, with estimates generally exceeding all others aside from the racial-group dummies in absolute magnitude. More to the point, though, the coefficients for openness are notably larger in the fall 2008 models than in the December 2007 models (i.e., $b = -0.32$ versus $b = -0.13$, for the evaluative difference; $b = -0.31$ versus $b = -0.16$, for the trust difference; and $b = -0.31$ versus $b = -0.14$, for the leadership difference). Similarly, the coefficients for conscientiousness are all at least twice as large in the fall 2008 models as they are in the December 2007 models (i.e., $b = 0.14$ versus $b = 0.05$, for the evaluative difference; $b = 0.17$ versus $b = 0.06$, for the trust difference; and $b = 0.17$ versus $b = 0.06$, for the leadership difference). All of these coefficients had the expected sign.

Finally, unexpected results for emotional stability were once again found, such that greater emotional stability was associated with a stronger tendency to rate McCain more positively than Obama at all times. The coefficients for this dimension are at least three times as large in fall 2008 as they are in December 2007 (i.e., $b=0.16$ versus $b=0.03$, for the evaluative difference; $b=0.12$ versus $b=0.04$, for the trust difference; and $b=0.12$ versus $b=0.04$, for the leadership difference). Again, to illustrate, slopes for conscientiousness, emotional stability, and openness are graphed in Figure 4 for each of the three candidate evaluation variables as measured in December 2007 and the fall 2008 waves. Compared to the graphs shown in Figure 3 for the political identities, the slopes for each personality dimension clearly vary depending on whether the outcome was measured at the outset of the campaign or near its end.⁹

[Figure 4]

As a formal test, we again ran analyses in which the effect of a given personality dimension on each outcome was constrained to equality across the two equations for each outcome. As before,

⁹ We also estimated relationships between traits and March candidate evaluations to ensure that changes in traits' predictive power were not limited to the primary season during which the candidates emerged as standard-bearers for their parties and may have merely "absorbed" any pre-existing relationship between personality and partisanship. The coefficients for openness increased consistently over time for the difference in overall evaluation ($b_{December}=-0.13$, $b_{March}=-0.26$, $b_{October}=-0.32$), trustworthiness ($b_{December}=-0.16$, $b_{March}=-0.21$, $b_{October}=-0.31$), and leadership ($b_{December}=-0.14$, $b_{March}=-0.21$, $b_{September}=-0.31$). The coefficient for conscientiousness increased consistently for trustworthiness ($b_{December}=0.06$, $b_{March}=0.14$, $b_{October}=0.17$) and leadership ($b_{December}=0.06$, $b_{March}=0.13$, $b_{September}=0.17$) but less so for the evaluative difference measure ($b_{December}=0.05$, $b_{March}=0.15$, $b_{October}=0.14$). All coefficients were significant at $p < 0.001$. Thus, while some of the overall December 2006 to Fall 2008 change in the relationship between personality and candidate evaluations may be due to the "coronation" effect of parties simply selecting a candidate, the fact that the shift in predictive power continues even *after* the primary season suggests a steady, continuous effect of campaigns on the crystallization of relationships between predispositions and preferences.

this was done for conscientiousness, emotional stability, and openness. For the evaluative difference, Wald F-tests indicated that the constraint produced a significant decline in fit in all cases: $F(1, 50) = 16.52, p < .001$, for conscientiousness; $F(1, 50) = 22.64, p < .001$, for emotional stability; and $F(1, 50) = 77.35, p < .001$, for openness. For the trust difference, all constraints produced a significant decrease in fit as well: $F(1, 50) = 23.74, p < .001$, for conscientiousness; $F(1, 50) = 8.66, p < .01$, for emotional stability; and $F(1, 50) = 37.91, p < .001$, for openness. Last but not least, for the leadership difference, all constraints similarly produced a significant drop in model fit: $F(1, 50) = 36.06, p < .001$, for conscientiousness; $F(1, 50) = 18.13, p < .001$, for emotional stability; and $F(1, 50) = 33.33, p < .001$, for openness.

In sum, our data indicate that personality became more predictive of campaign-specific evaluations over the course of the 2008 campaign, suggesting that campaigns encourage citizens to adopt the political preferences that are most consistent with their psychological predispositions. Importantly, our results also suggest that a purely cross-sectional investigation that had examined correlations between personality traits and candidate evaluations would have yielded different results depending on when during the campaign these variables were assessed.

Discussion

Previous research has amply documented associations between personality and political preferences. However, we know little about how personality shapes political preferences over time or how the relationship between personality and politics changes over time in the context of major political events. Focusing on the 2008 presidential campaign, we use longitudinal data from a large national survey to address these gaps in our understanding. We find that individual differences in openness to experience and conscientiousness reliably predict change in political identities and comparative evaluations of opposed candidates. These results were strongest with respect to candidate evaluations specific to the 2008 campaign, as opposed to bedrock political identities likely

to have been formed prior to the campaign. That said, the small changes that political identities undergo appear to be consequential, insofar as they seem to account for the bulk of the changes we observed in candidate evaluations. Furthermore, we find evidence that the link between personality and campaign-specific preferences becomes substantially stronger during campaigns, whereas the link between personality and political identities remains relatively stable.

These findings add to the growing body of evidence that psychological variables can have important political consequences. First, we find that the associations previously observed in cross-sectional research also emerge when personality is used to predict changes in political attitudes over time. Thus, we find evidence that personality is not merely associated with political preferences, but with *changes* in preferences over time; the effects of personality at the beginning of the campaign predicted political preferences near the end of the campaign even while controlling for preferences at the beginning of the campaign (Finkel, 1995). Second, we find that the association between personality and political preferences is strengthened by powerful environmental stimuli in the form of a major political campaign—particularly in the case of candidate evaluations that are not yet fully crystallized at the outset of a campaign.

Along with these insights, however, our work does present certain limitations. First, our measure of personality traits (TIPI) is relatively brief and therefore does not benefit from the more-robust psychometric properties of its longer counterparts. Future longitudinal studies of personality and politics would certainly benefit from longer measures with both high internal consistency *and* test-retest reliability (Credé et al., 2012). Nevertheless, we think the downsides of the TIPI are outweighed by its benefits in the present context. The TIPI's short length allows its inclusion in surveys capable of reaching large, representative samples like the one we employ here. Moreover, evidence suggests that the TIPI is a reasonable substitute for other Big Five indices; it is stable over time, correlated with longer personality measures, and predicts political outcomes similarly.

Second, we observed an unanticipated but consistent relationship between emotional stability and conservative preferences, which showed the same differential patterns we had predicted for openness and conscientiousness. The prominent role of the economy in the 2008 campaign may help explain this unanticipated result. When the economy suffers, citizens tend to punish the incumbent party (Fiorina, 1981), especially if the downturn occurs in an election year (Bartels, 2008). However, this punishment likely depends on the extent to which citizens experience economic downturns as personally distressing. In this vein, less emotionally stable individuals might have been especially distraught by the recession and therefore more likely to support Obama as the challenger to the economic *status quo*—an argument congruent with the general finding that those low in emotional stability tend to react more strongly to stress (McCrae & Costa, 2003). Consistent with this explanation, Mondak and Halperin (2008) found that low emotional stability was associated with stronger perceptions of the economy as unfair. Similarly, other scholars (Gerber et al., 2010) have documented a negative association between emotional stability and liberal economic preferences. Thus, individuals low in emotional stability may have been particularly threatened by the 2008 economic collapse, and particularly attracted to the relatively liberal remedies offered by Obama.

These concerns aside, our findings have important implications for the study of personality and politics. The first and perhaps most obvious implication is that predictive models of political attitudes, decisions, and behavior stand to benefit substantially from incorporating measures of personality traits. A related but less obvious consequence of the observed relationship between personality and political preferences is that personality traits may be no less inherently “political” than the issues of race, class, and income that tend to dominate political discourse. If the differences in opinion that divide the country’s political landscape are psychological as well as demographic, then the political process puts at stake not only individuals’ material interests, but also more intangible goals with deep psychological roots.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for this research, authorship, and/or publication of this article.

References

- Achen, C. H., & Bartels, L. M. (2016). *Democracy for realists: Why elections do not produce responsive government*. Princeton University 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.
- Andersen, R., Tilley, J., & Heath, A. F. (2005). Political knowledge and enlightened preferences: party choice through the electoral cycle. *British Journal of Political Science*, *35*, 285-302.
- Arceneaux, K. (2006). Do campaigns help voters learn? A cross-national analysis. *British Journal of Political Science*, *36*, 159.
- Barbaranelli, C., Caprara, G. V., Vecchione, M., & Fraley, C. R. (2007). Voters' personality traits in presidential elections. *Personality and Individual Differences*, *42*, 1199-1208.
- Bartels, L. (2008). *Unequal democracy: The political economy of the new gilded age*. Princeton, NJ: Princeton University Press.
- Berelson, B. R., Lazarsfeld, P. F., & McPhee, W. N. (1954). *Voting*. Chicago: University of Chicago Press.
- Bouchard Jr, T. J., & Loehlin, J. C. (2001). Genes, evolution, and personality. *Behavior genetics*, *31*, 243-273.
- Campbell, A., Converse, P.E., Miller, W.E., & Stokes, D.E. (1960). *The American Voter*. New York: Wiley.
- Caprara, G. V., Schwartz, S., Capanna, C., Vecchione, M., & Barbaranelli, C. (2006). Personality and politics: Values, traits, and political choice. *Political Psychology*, *27*, 1-28.
- Caprara, G., Vecchione, M., & Schwartz, S. H. (2009). Mediation role of values in linking personality traits to political orientation. *Asian Journal of Social Psychology*, *12*, 82-94.

- Carney, D. R., Jost, J. T., Gosling, S. D., & Potter, J. (2008). The secret lives of liberals and conservatives: Personality profiles, interaction styles, and the things they leave behind. *Political Psychology, 29*, 807-840.
- Caspi, A., Roberts, B. W., & Shiner, R. L. (2005). Personality development: Stability and change. *Annual Review of Psychology, 56*, 453-484.
- Credé, M., Harms, P., Niehorster, S., & Gaye-Valentine, A. (2012). An evaluation of the consequences of using short measures of the Big Five personality traits. *Journal of personality and social psychology, 102*, 874.
- Cronbach, L. J., & Furby, L. (1970). How we should measure "change": Or should we?. *Psychological bulletin, 74*, 68.
- Federico, C. M. (2011). Ideology and public opinion. In A. Berinsky (Ed.), *New directions in public opinion* (pp. 79-100). New York: Routledge.
- Finkel, S. E. (1993). Reexamining the 'minimal effects' model in recent presidential campaigns. *Journal of Politics, 55*, 1-21.
- Finkel, S. E. (1995). *Causal analysis with panel data*. Sage Publications: Thousand Oaks, CA.
- Fiorina, M. (1981) *Retrospective Voting in American National Elections*. New Haven, CT: Yale University Press.
- Gelman, A., & King, G. (1993). Why are American presidential election campaign polls so variable when votes are so predictable?. *British Journal of Political Science, 23*, 409-451.
- Gerber, A.S., Huber, G.A., Doherty, D., & Dowling, C.M. (2012). Assessing the stability of psychological and political survey measures. *American Politics Research, 41*, 54-75.
- Gerber, A. S., Huber, G. A., Doherty, D., & Dowling, C. M. (2011). The Big Five personality traits in the political arena. *Annual Review of Political Science, 14*, 265-287.
- Gerber, A. S., Huber, G. A., Doherty, D., Dowling, C. M., & Ha, S. E. (2010). Personality and

- political attitudes: Relationships across issue domains and political contexts. *American Political Science Review*, 104, 111-133.
- Goren, P. (2012). *On voter competence*. New York: Oxford University Press.
- Gosling, S. (2008). *Snoop*. New York, NY: Basic Books.
- 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.
- Green, D., Palmquist, B., & Schickler, E. (2002). *Partisan Hearts and Minds: Political Parties and the Social Identities of Voters*. New Haven: Yale University Press.
- Greene, W. H. (2002). *Econometric analysis* (5th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Hibbing, J. R., Smith, K. B., & Alford, J. R. (2013). *Predisposed: The biology behind polarized politics*. New York: Routledge.
- Hirsh, J. B., DeYoung, C. G., Xu, X., & Peterson, J. B. (2010). Compassionate liberals and polite conservatives: Associations of agreeableness with political ideology and moral values. *Personality and Social Psychology Bulletin*, 36, 655-664.
- Jackman, S., & Vavreck, L. (2009, November 19). Cooperative Campaign Analysis Project, 2007-2008 panel study: Common content. Release 2.1 [Computer File]. Los Angeles: UCLA.
- Jennings, M. K. (1992). Ideological thinking among mass publics and political elites. *Public Opinion Quarterly*, 56, 419-441.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339-375.
- Jost, J. T., & Hunyady, O. (2005). Antecedents and consequences of system-justifying ideologies. *Current Directions in Psychological Science*, 14, 260-265.

Kaplan, N., Park, D. K., & Gelman, A. (2012). Polls and elections understanding persuasion and activation in presidential campaigns: The random walk and mean reversion models.

Presidential Studies Quarterly, 42, 843-866.

Kline, P. (2000). *Handbook of Psychological Testing*. London: Routledge.

Krosnick J. A. (1991). Response strategies for coping with the cognitive demands of attitude measures in surveys. *Applied Cognitive Psychology*, 5, 213-36.

Lenz, G. S. (2013) *Follow the leader*. Chicago: University of Chicago Press.

Long, J. S. (1997). *Regression models for categorical and limited dependent variables*. Sage Publications: Thousand Oaks, CA.

Lodge, M., & Taber, C. S. (2013). *The Rationalizing Voter*. New York: Cambridge University Press.

McCrae, R. R. (2015). A more nuanced view of reliability. *Personality and Social Psychology Review*, 19, 97-112.

McCrae, R. R., & Costa, P. T. Jr. (1999). "A five-factor theory of personality." In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 139–153). New York: Guilford Press.

McCrae, R. R. & Costa, P. T., Jr. (2003) *Personality in adulthood: A five-factor theory perspective* (2nd ed.) New York: Guilford Press.

Mondak, J. J. (2010). *Personality and the foundations of political behavior*. New York: Cambridge University Press.

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

Ozer, D. J., & Benet-Martinez, V. (2006). Personality and the prediction of consequential outcomes. *Annual Review of Psychology*, 57, 401-421.

- Pedhazur, E. J. (1997). *Multiple regression in behavioral research: Explanation and prediction* (3rd ed.). Stamford, CT: Thompson Learning.
- Plomin, R., DeFries, J.C., & McClearn, G.E. (1990). *Behavioral genetics: A primer* (2nd ed.). San Francisco: Freeman.
- Schoen, H., & Schumann, S. (2007). Personality traits, partisan attitudes, and voting behavior. Evidence from Germany. *Political Psychology, 28*, 471–498.
- Sears, D. O. (1993). Symbolic politics: A socio-psychological theory. In S. Iyengar & W. J. McGuire (Eds.), *Explorations in political psychology* (pp. 113-149). Durham: Duke University Press.
- Sears, D. O., & Valentino, N. A. (1997). Politics matters: Political events as catalysts for preadult socialization. *American Political Science Review, 45*-65.
- Selig, J. P., & Preacher, K. J. (2009). Mediation models for longitudinal data in developmental research. *Research in Human Development, 6*, 144-164.
- Stevenson, R. T., & Vavreck, L. (2000). Does campaign length matter? Testing for cross-national effects. *British Journal of Political Science, 30*, 217-235.
- Tesser, A. (1978). Self-generated attitude change. *Advances in Experimental Social Psychology, 11*, 289-338.
- Valentino, N. A., & Sears, D. O. (1998). Event-driven political communication and the preadult socialization of partisanship. *Political Behavior, 20*, 127-154.
- Vavreck, L., & Rivers, D. (2008). The 2006 Cooperative Congressional Election Study. *Journal of Elections, Public Opinion and Parties, 18*, 355-366.
- Woods, Stephen A., and Sarah E. Hampson. (2005). Measuring the Big Five with Single Items Using a Bipolar Response Scale.” *European Journal of Personality, 19*, 373–90.
- Zaller J. (1992). *The Nature and Origins of Mass Opinion*. New York: Cambridge Univ. Press.

Table 1

Changes in Political Identities and Comparative Candidate Evaluations as a Function of Personality Over the 2008 Campaign (2008 CCAP)

Predictor	Political Identities		Comparative Candidate Evaluations		
	Party ID (Oct. 2008)	Ideology (Oct. 2008)	Evaluative Difference (Oct. 2008)	Trust Difference (Oct. 2008)	Leadership Difference (Sep. 2008)
Lagged DV (Dec. 2007)	0.92*** (0.91, 0.93)	0.78*** (0.76, 0.81)	0.82*** (0.78, 0.85)	0.93*** (0.89, 0.97)	0.88*** (0.85, 0.91)
Age	0.0001 (-0.0002, 0.0003)	0.0001 (-0.0002, 0.0005)	0.001** (0.0003, 0.001)	0.0004 (-0.0002, 0.001)	-0.0001 (-0.001, 0.0003)
Income	0.01 (-0.005, 0.03)	0.02* (0.02, 0.04)	0.08*** (0.04, 0.11)	0.06*** (0.03, 0.09)	0.05** (0.02, 0.08)
Gender	-0.002** (-0.01, 0.004)	0.00001 (-0.01, 0.01)	0.03*** (0.02, 0.05)	0.02* (0.003, 0.03)	-0.01 (-0.01, 0.02)
Education	-0.01 (-0.03, 0.004)	-0.05*** (-0.08, -0.03)	-0.05*** (-0.08, -0.02)	-0.07** (-0.11, -0.03)	-0.11*** (-0.14, -0.08)
Black	-0.04*** (-0.06, -0.03)	-0.01*** (-0.03, 0.003)	-0.19*** (-0.22, -0.15)	-0.14*** (-0.17, -0.10)	-0.15*** (-0.18, -0.12)
Latino	-0.01 (-0.02, 0.003)	-0.01 (-0.04, 0.02)	-0.07*** (-0.10, -0.04)	-0.04*** (-0.06, -0.02)	-0.04** (-0.07, -0.01)
Extraversion	0.02** (0.004, 0.03)	0.01 (-0.01, 0.02)	0.04† (-0.004, 0.08)	0.03† (-0.004, 0.06)	0.01 (-0.01, 0.04)
Agreeableness	-0.002 (-0.03, 0.02)	-0.02 (-0.04, 0.01)	-0.04* (-0.08, -0.01)	-0.01 (-0.05, 0.03)	-0.03† (-0.06, 0.004)
Conscientiousness	0.01 (-0.02, 0.04)	0.02* (-0.00002, 0.05)	0.11*** (0.06, 0.16)	0.11*** (0.07, 0.16)	0.10*** (0.06, 0.14)
Emotional stability	-0.002 (-0.02, 0.01)	0.02 (-0.01, 0.05)	0.12*** (0.07, 0.17)	0.06* (0.01, 0.11)	0.08*** (0.05, 0.11)
Openness	-0.03** (-0.05, -0.01)	-0.04** (-0.07, -0.01)	-0.21*** (-0.25, -0.17)	-0.15*** (-0.20, -0.10)	-0.18*** (-0.24, -0.12)
Constant	0.05** (0.02, 0.08)	0.14*** (0.10, 0.19)	0.02 (-0.05, 0.09)	0.01 (-0.05, 0.08)	0.18*** (0.13, 0.24)
R ²	0.866	0.690	0.365	0.449	0.459
N	10,720	10,604	10,401	8,683	9,235

Note. Entries are ordinary least squares regression coefficients, with 95% confidence intervals based on robust standard errors clustered by state shown in parentheses. Survey weights are applied. All models contain fixed effects for state. Full seemingly-unrelated estimation performed on 12,535 pooled cases for evaluative models; 10,575 pooled cases for the trust models; and 10,977 pooled cases for the leadership models. († $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.)

Table 2

Changes in Comparative Candidate Evaluations: Mediation Analysis Based on Cross-Lagged Panel Model for Longitudinal Data (2008 CCAP)

Predictor	Evaluative Difference (Oct. 2008)		Trust Difference (Oct. 2008)		Leadership Difference (Sept. 2008)	
	Direct Effect	Indirect Effect	Direct Effect	Indirect Effect	Direct Effect	Indirect Effect
Extraversion	-0.01 (-0.03, 0.02) <i>-0.003</i>	0.02 (-0.001, 0.03) <i>0.01</i>	0.01 (-0.01, 0.03) <i>0.01</i>	0.01 (-0.01, 0.03) <i>0.01</i>	-0.01 (-0.04, 0.01) <i>-0.01</i>	0.02** (0.01, 0.03) <i>0.01</i>
Agreeableness	-0.0004 (-0.04, 0.03) <i>-0.0002</i>	-0.002 (-0.04, 0.03) <i>-0.001</i>	0.001 (-0.04, 0.04) <i>0.001</i>	-0.001 (-0.04, 0.04) <i>-0.0004</i>	-0.02* (-0.05, -0.002) <i>-0.01</i>	0.001 (-0.02, 0.02) <i>0.001</i>
Conscientiousness	-0.01 (-0.04, 0.03) <i>-0.004</i>	0.05** (0.02, 0.07) <i>0.02</i>	0.03 (-0.01, 0.06) <i>0.01</i>	0.05** (0.01, 0.08) <i>0.03</i>	0.004 (-0.03, 0.04) <i>0.002</i>	0.04** (0.02, 0.06) <i>0.02</i>
Emotional stability	0.01 (-0.03, 0.05) <i>0.004</i>	0.005 (-0.02, 0.03) <i>0.003</i>	0.003 (-0.02, 0.03) <i>0.002</i>	-0.01 (-0.03, 0.02) <i>-0.005</i>	0.01 (-0.02, 0.04) <i>0.004</i>	0.002 (-0.02, 0.02) <i>0.001</i>
Openness	-0.003 (-0.03, 0.02) <i>-0.001</i>	-0.08*** (-0.11, -0.06) <i>-0.04</i>	-0.03† (-0.06, 0.004) <i>-0.02</i>	-0.05** (-0.08, -0.01) <i>-0.03</i>	-0.04* (-0.07, -0.01) <i>-0.02</i>	-0.07*** (-0.09, -0.04) <i>-0.04</i>
<i>N</i>	6,836		5,160		6,460	

Note. Unstandardized estimates and 95% confidence intervals are shown in regular text; below these quantities, the equivalent standardized estimates are shown in italics. († $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.)

Table 3

*Changes in the Predictive Power of Personality Over the 2008 Campaign: Comparative Candidate Evaluations**(2008 CCAP)*

Predictor	Evaluative Difference		Trust Difference		Leadership Difference	
	Dec. 2007	Oct. 2008	Dec. 2007	Oct. 2008	Dec. 2007	Sep. 2008
Age	0.001*** (0.0003, 0.001)	0.001*** (0.001, 0.002)	0.001*** (0.0006, 0.001)	0.001*** (0.001, 0.002)	0.001*** (0.0005, 0.001)	0.001** (0.0002, 0.001)
Income	0.03** (0.01, 0.05)	0.10*** (0.06, 0.15)	0.05*** (0.02, 0.07)	0.11*** (0.07, 0.15)	0.06*** (0.04, 0.08)	0.10*** (0.07, 0.14)
Gender	0.01* (0.001, 0.02)	0.04*** (0.03, 0.06)	0.03*** (0.02, 0.05)	0.05*** (0.03, 0.06)	0.06*** (0.04, 0.07)	0.06*** (0.04, 0.07)
Education	-0.09*** (-0.11, -0.08)	-0.14*** (-0.17, -0.10)	-0.06*** (-0.09, -0.04)	-0.14*** (-0.18, -0.10)	-0.04** (-0.06, -0.01)	-0.15*** (-0.19, -0.11)
Black	-0.15*** (-0.17, -0.13)	-0.31*** (-0.36, -0.26)	-0.16*** (-0.18, -0.13)	-0.29*** (-0.34, -0.24)	-0.16*** (-0.19, -0.13)	-0.29*** (-0.33, -0.25)
Latino	-0.03* (-0.05, 0.0002)	-0.09*** (-0.12, -0.05)	-0.04*** (-0.07, -0.02)	-0.08*** (-0.11, -0.06)	-0.04** (-0.07, -0.01)	-0.07*** (-0.11, -0.04)
Extraversion	0.02 (-0.01, 0.04)	0.05* (0.002, 0.10)	0.03* (0.002, 0.06)	0.05* (0.01, 0.09)	0.02 (-0.01, 0.04)	0.03* (0.001, 0.05)
Agreeableness	-0.04* (-0.07, 0.01)	-0.07** (-0.12, -0.02)	-0.02 (-0.05, 0.01)	-0.03 (-0.09, 0.02)	-0.04** (-0.07, -0.01)	-0.07** (-0.12, -0.02)
Conscientiousness	0.05** (0.02, 0.08)	0.14*** (0.08, 0.20)	0.06*** (0.03, 0.09)	0.17*** (0.11, 0.22)	0.06*** (0.03, 0.08)	0.17*** (0.12, 0.21)
Emotional stability	0.03** (0.01, 0.06)	0.16*** (0.10, 0.21)	0.04*** (0.02, 0.07)	0.12*** (0.07, 0.17)	0.04*** (0.02, 0.07)	0.12*** (0.08, 0.16)
Openness	-0.13*** (-0.16, -0.10)	-0.32*** (-0.37, -0.27)	-0.16*** (-0.19, -0.13)	-0.31*** (-0.37, -0.25)	-0.14*** (-0.16, -0.11)	-0.31*** (-0.38, -0.25)
Constant	0.61*** (0.58, 0.65)	0.53*** (0.47, 0.60)	0.58*** (0.54, 0.62)	0.56*** (0.48, 0.64)	0.56*** (0.52, 0.60)	0.70*** (0.64, 0.76)
R ²	0.098	0.146	0.115	0.148	0.119	0.163
N	12,535	10,401	10,575	8,683	10,977	9,235

Note. Entries are ordinary least squares regression coefficients, with 95% confidence intervals based

on robust standard errors clustered by state shown in parentheses. Survey weights are applied. All

models contain fixed effects for state. Full seemingly-unrelated estimation performed on 12,535

pooled cases for evaluative models; 10,575 pooled cases for the trust models; and 10,977 pooled

cases for the leadership models. (†p<.10. *p<.05. **p<.01. ***p<.001.

Predicted change in political attitudes as a function of personality

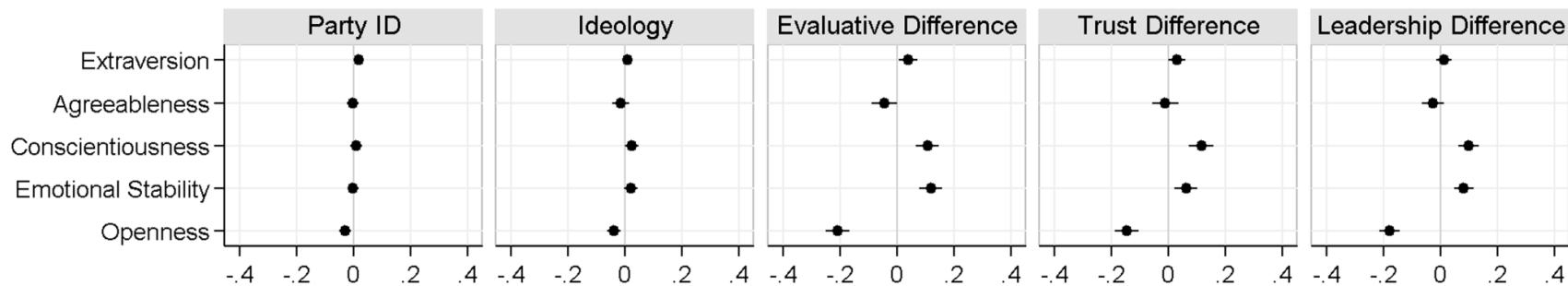


Figure 1. Differences in over-time changes in the indicated outcome variable associated with a shift from the minimum to the maximum value of each Big Five personality dimension. All outcome variables scaled to run from 0 to 1. Graphs based on estimates from Table 1.

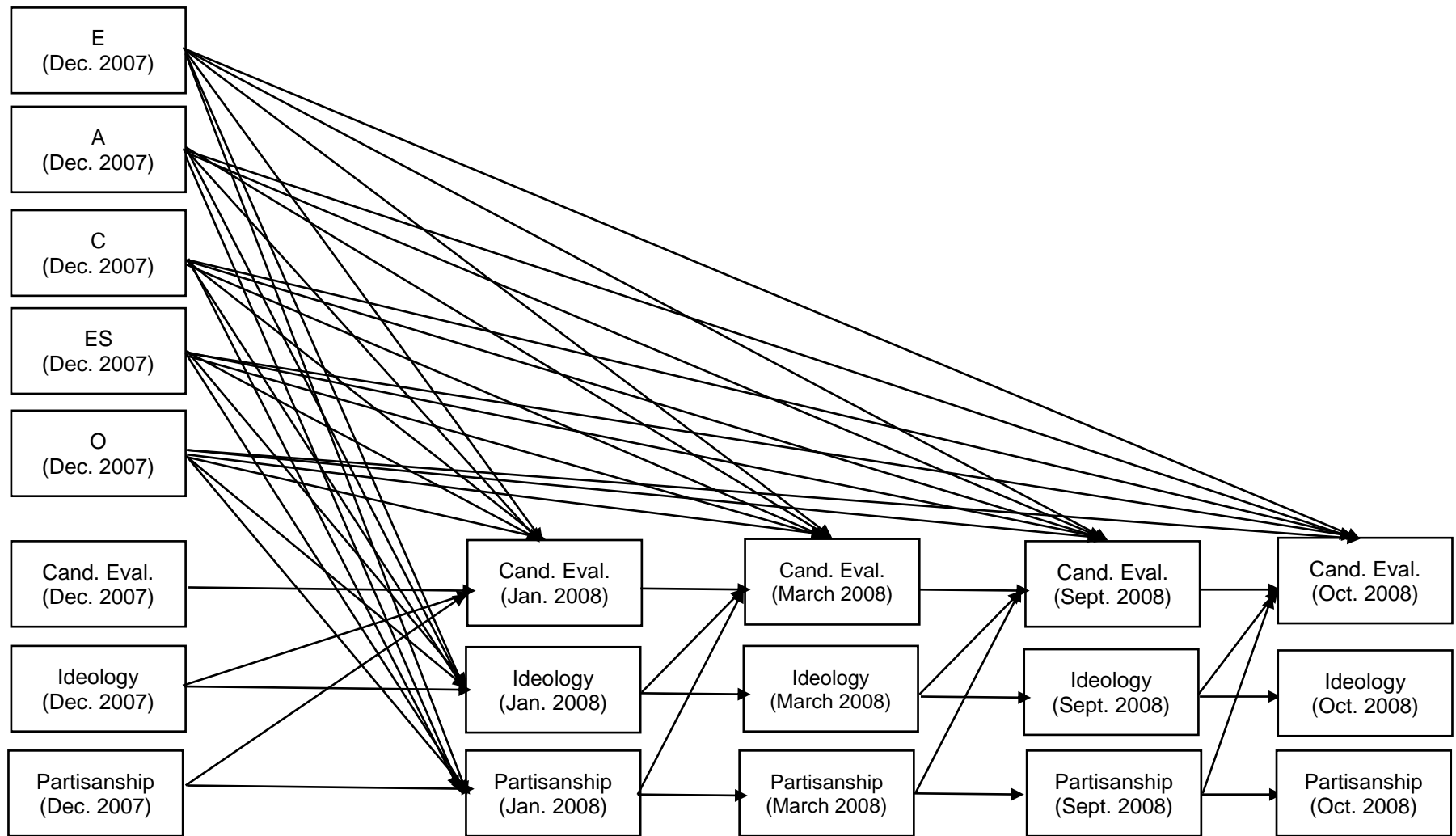


Figure 2. Schematic of structural-equation model used in mediation analyses based on cross-lagged panel model for longitudinal data. Correlations, disturbances, and disturbance correlations not shown. Note that all variables and paths from October 2008 are absent in the leadership-difference model, since the last measurement of the latter in the CCAP is from September 2008. E = Extraversion, A = Agreeableness, C = Conscientiousness, ES = Emotional Stability, O = Openness to Experience.

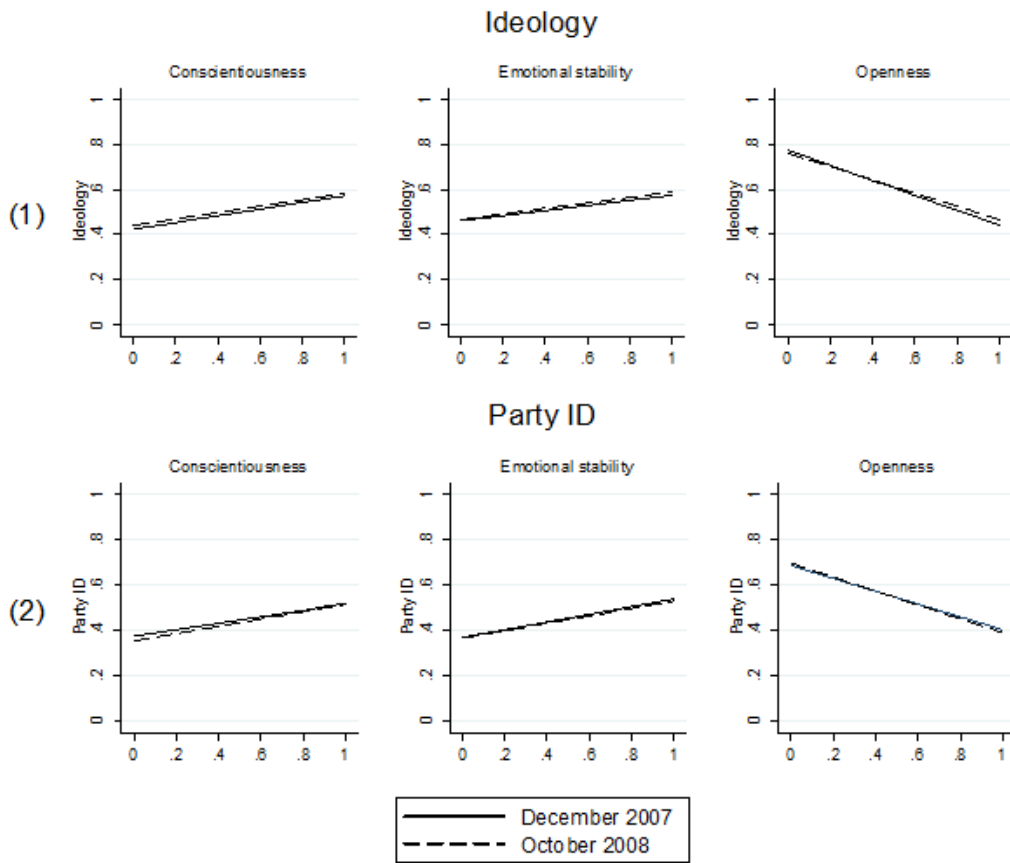


Figure 3. Effects of selected Big Five personality dimensions on political identities in December 2007 and October 2008. All personality characteristics measured in December 2007. Independent and dependent variables have been scaled to run from 0 to 1. Graphs based on estimates from Table A1.

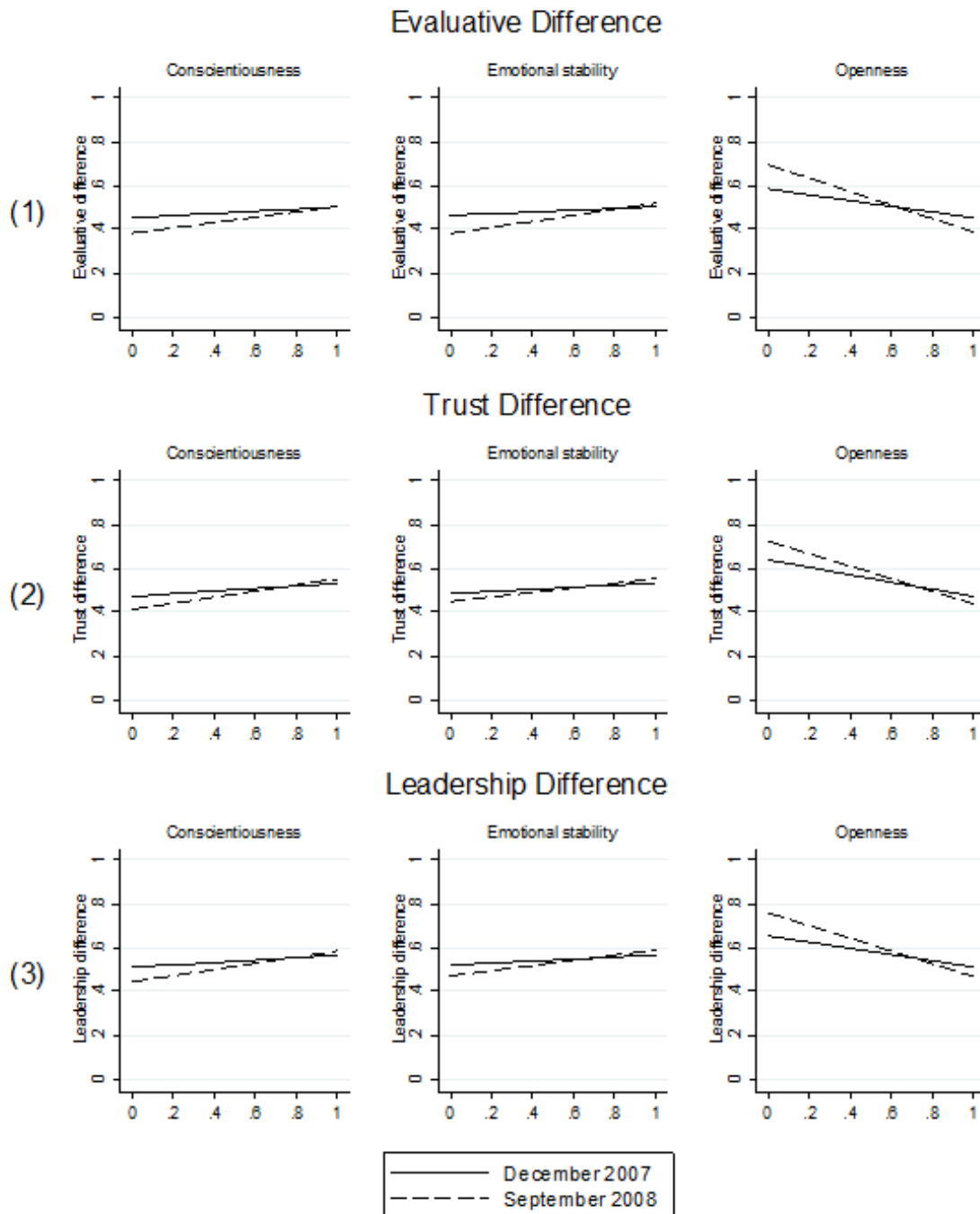


Figure 4. Effects of selected Big Five personality dimensions on comparative candidate evaluations in December 2007 and September/October 2008. All personality characteristics measured in December 2007. Both the independent and dependent variables have been scaled to run from 0 to 1. Graphs based on estimates from Table 3.