

# It's Personal: The Big Five Personality Traits and Negative Partisan Affect in Polarized U.S. Politics

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## Abstract

One of the most important developments within the American electorate in recent years has been the rise of affective polarization. Whether this is due to notions of group-based conflict or ideological disagreement, Americans increasingly dislike the opposing political party and its supporters. I contribute to this growing literature on affective polarization by showing how differences in individuals' Big Five personality traits are predictive of both whether an individual dislikes the opposing party and the degree to which they express this hostility. Modeling negative affect toward the opposing party as a two-stage process, I find that Extraverted individuals are less likely to have negative affective evaluations of the opposing party. Additionally, conditional upon disliking the opposing party, my results indicate that higher levels of Agreeableness lowers the degree to which individuals dislike the out-party. Moreover, these relationships are substantively stronger than common sociodemographic predictors such as age, race, and educational attainment.

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One of the most important trends in American politics in the 21st century has been the heightened level of partisan polarization at both the elite- and mass-level. Fueled largely by the growth of negative partisanship, the polarized nature of contemporary American politics is one in which individuals no longer affiliate with parties and candidates through positive attachments but, rather, identify against the party and candidates they view with enmity, fear, and suspicion (Pew Research Center, 2016). Though this growing affective polarization has the ability to profoundly change the ways in which Americans engage with the political process (Abramowitz and Webster, 2016), scholars have only just begun to examine the microfoundations underlying the changing nature of partisanship's influence on political behavior.

Partisanship has been suggested to have arisen from positive-oriented group attachments (Green, Palmquist and Schickler, 2002), persuasion by peers within a social setting (Berelson, Lazarsfeld and McPhee, 1954; Klar, 2014), adoption by means of parental influence (Campbell et al., 1960), or the result of a rational economic actor deciding which party's platform best aligns with her own political preferences (Downs, 1957). Though these factors assuredly still play a role in determining partisan affiliation, an expanding body of research suggests that partisanship in the contemporary era is a process through which individuals affiliate *against* one party, rather than affiliating *with* the alternative party (Abramowitz and Webster, 2016; Mason, 2013, 2015; Sood and Iyengar, 2015; Iyengar, Sood and Lelkes, 2012).

Given its ability to shape partisan behavior in new and different ways, understanding the nature of this new form of partisanship is essential. Drawing on social psychological research about the role of social identities in shaping patterns of behavior (Tajfel and Turner, 1979; Tajfel, 1981; Billig and Tajfel, 1973), recent research suggests that negativity toward the out-party increases when

social and political identities are more aligned (Mason, 2013, 2015; Malka and Lelkes, 2010). When this overlap between social and political identities occurs, Americans become more “biased, active, and angry” toward the out-party (Mason, 2015). Related work builds on this argument, showing that negativity toward the out-party is at its highest levels when racial, cultural, and ideological identities align with partisan affiliation. When the bases of support for the Democratic and Republican parties are so distinct in terms of race, cultural preferences, and ideology, it is easy for partisans to develop an “us-versus-them” attitude toward members of the opposing party (Abramowitz and Webster, 2016).

Though the alignment of social and political identities is an important factor in producing heightened levels of negative affect toward the out-party, it is likely that negativity toward the opposing party can be modeled using more fine-grained, individual-specific factors. By focusing only on demographic characteristics, such as race or gender, it is possible that we are missing important sources of variation in explaining partisanship and partisan affect. For example, research in industrial-organizational psychology suggests that the variance in the efficacy of workplace recruitment strategies is often greater *within* sociodemographic groups than those *between* groups (Avery and McKay, 2006; Avery, 2003; Luhtanen and Crocker, 1992). If such a finding exists in relation to political behavior, then there is a pressing need to adopt more nuanced, intrapersonal approaches to studying partisanship and negative partisan affect.

In particular, the burgeoning literature on the role of personality traits in shaping political behavior offers a fruitful way to examine both the types of individuals who view the out-party with antipathy *and* the degree to which individuals dislike the opposing party. Accordingly, in this study I utilize the Big Five framework of personality to show how differences in personality traits across individuals predict whether or not someone views the opposing party negatively as well as

the degree of negativity with which that same individual views the out-party. More specifically, I show that higher levels of Extraversion lowers the probability that an individual views the opposing party negatively. Additionally, conditional upon viewing the opposing party negatively, the results I present here suggest that increasing degrees of Agreeableness lessens the negativity with which an individual views the out-party. In terms of substantive effects, these results are more important than measures of political activism and demographic variables, such as age, race, or educational attainment.

This paper proceeds as follows: first, I outline recent findings in the literature on personality and politics. I then build a theory as to how differences in individuals' personalities can be predictive of negative partisan affect in the American electorate. I then describe the data and research design used to test my theory. Next, I present a series of results consistent with my theoretical expectations. Finally, I conclude with a discussion on the implications of these results and outline an agenda for future research.

## **1 Personality and Negative Affect**

Growing in prominence in recent years, the majority of the literature on personality and politics relies on the "Big Five" framework of personality (see, e.g., Mondak and Halperin, 2008; Mondak, 2010; Gerber et al., 2010; Cooper, Golden and Socha, 2013).<sup>1</sup> These five factors are most frequently referred to as (1) Openness to new experiences, (2) Conscientiousness, (3) Extraversion, (4) Agreeableness, and (5) Emotional Stability.<sup>2</sup> Though these traits do not encompass the entirety of an individual's personality, the Big Five "appear[s] to provide a set of highly replicable dimen-

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<sup>1</sup>This is also referred to as the "five factor model" of personality.

<sup>2</sup>Emotional stability is also referred to as neuroticism by some authors.

sions that parsimoniously and comprehensively describe most phenotypic individual differences" (Saucier and Goldberg, 1996). The claim that the Big Five personality traits are highly replicable has been corroborated in numerous studies, all of which claim that this framework has a high degree of "cross-observer validity" (Costa and McCrae, 1992; Norman and Goldberg, 1966). Indeed, according to the experimental study conducted by Funder and Colvin (1988), close acquaintances were able to accurately describe their friends' personality traits with a high degree of accuracy. Moreover, Funder and Colvin (1988) found that even strangers were able to agree on a description of an individual's personality. Thus, Saucier and Goldberg's (1996) claim that the Big Five personality traits are "highly replicable" has considerable support.

Perhaps the most robust findings in this literature are that Openness to new experiences tends to be associated with ideological liberalism and that Conscientiousness is predictive of ideological conservatism (Gerber et al., 2010; Mondak and Halperin, 2008; Mondak, 2010). Though extant theory surrounding these findings is far from being fully developed, the purported mechanisms through which these relationships are thought to work are social psychological in nature. Individuals who are comparatively more open to new experiences are willing to entertain new ideas, practices, and opinions. In contrast, those who score high on measures of Conscientiousness are thought to prefer hierarchies, order, and existing social structures (Pervin and John, 1999; Costa and McCrae, 1995). Because these descriptors are often associated with supporters of the Democratic and Republican parties, respectively, scholars working within the field of personality and politics are quick to assume *ex ante* that Openness to new experiences will be associated with ideological liberalism and Conscientiousness will be related to ideological conservatism.

Beyond these two reliable findings, other work has suggested that the two personality traits most relevant to this study – Extraversion and Agreeableness – have important roles in shaping

political behavior. Extraversion has been shown to be associated with higher levels of participating in politics through all mediums. Indeed, Mondak et al. (2010) found that extraverted individuals have larger communication networks and, relatedly, Hibbing, Ritchie and Anderson (2011) show that extraverted individuals discuss politics more frequently than others. In addition to being more willing to discuss politics, Gerber et al. (2009) found that extraverts have a higher probability of turning out to vote than their more introverted peers. In fact, this increased probability is “comparable to that associated with approximately seven years greater age or much higher educational attainment, income, or church attendance” (Gerber et al., 2009). Extraversion, along with Agreeableness, has also been found to be related to “the strength and direction of partisan identification,” with higher levels of Extraversion and Agreeableness being associated with a more intense party identification (Gerber et al., 2012). Cross-national studies have found similar results (Schoen and Schumann, 2007).

Additionally, some studies have shown that Agreeableness is negatively correlated with participating in political discussion networks (Mondak and Halperin, 2008). The mechanism through which this relationship works is straightforward: because American politics has become increasingly hostile and polarized (Abramowitz and Saunders, 2008; Abramowitz, 2010; Bafumi and Shapiro, 2009) and because individuals who are highly agreeable are predisposed to shy away from confrontational discourse, these individuals will logically avoid discussing politics with their family, friends, or co-workers.

Building on these findings, I expect Extraversion and Agreeableness to both be predictive of negative partisan affect within the electorate. In particular, I expect higher levels of Extraversion to be associated with a lower probability of having negative affect toward the opposing party. This is because extraverted individuals, by definition, are more expressive and more likely to come into

contact with a vast array of people. By being outgoing and discussing politics and political affairs with various people, extraverted individuals are more likely to be exposed to viewpoints that differ from their own. For extraverts, whose demeanor is characterized by “sociability, activity, . . . and positive emotionality” (Pervin and John, 1999), simply coming into contact with individuals who support the opposing political party is enough to lower the probability of viewing the out-party with negativity. In other words, merely knowing a Republican (Democrat) is enough to lower the probability that an extraverted Democrat (Republican) is a negative partisan simply because they have been exposed to differing viewpoints. By contrast, an individual who is not extraverted is unlikely to come into contact with supporters of the opposing party. This lack of contact with supporters of the opposing party reduces individuals’ opportunities to form relationships of mutual trust and understanding that would serve to reduce partisan animus.<sup>3</sup>

While I expect the probability of viewing the opposing party with negativity will be decreasing in Extraversion, theory suggests that, conditional upon viewing the opposing party with negativity, higher levels of Agreeableness will lessen the degree to which an individual exhibits negative affect toward the out-party. Indeed, while being an extraverted individual is a necessary first step to learning about opposing political viewpoints, knowing one’s degree of extraversion is insufficient to make predictions regarding the degree of negativity with which he or she views the opposing party. Instead, the extent to which an individual views the opposing party and its supporters in a positive or negative light should be dependent upon their innate propensity to be friendly, altruistic, and modest – all of which are components of the Agreeableness domain of the Big Five (Pervin and John, 1999).<sup>4</sup> Thus, after being exposed to members of the opposing party according to one’s

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<sup>3</sup>This theoretical mechanism has its origins in Allport’s (1954) contact hypothesis. According to this theory, inter-group conflict can be ameliorated by exposing members of one group to members of the other. For a good overview of research on the contact hypothesis, see Pettigrew and Tropp (2008).

<sup>4</sup>In this sense, Agreeableness contains a good deal of what Gerring (2001) termed *conceptual resonance*, by which

degree of Extraversion, having higher levels of Agreeableness (and its associated friendliness, altruism, and modesty) will lessen the degree to which an individual views the opposing party negatively.

The theory outlined above indicates that Extraversion will be predictive of whether an individual can be classified as a negative partisan but not the degree to which they view the opposing party with negativity. Conversely, I have argued that Agreeableness will not be predictive of whether an individual can be classified as a negative partisan but it will be predictive of how negatively one views the opposing party. These theoretical expectations imply a two-stage process. First, individuals must decide – perhaps implicitly – whether they dislike the opposing party more than they like their own party. Then, conditional upon having a degree of negative affect toward the opposing party, individuals must decide *how much* they dislike the opposing party relative to liking their own party. This two-stage process implies that certain modeling choices must be made. I outline these choices in Section 2.

## 2 Data & Research Design

The data for this study come from the 2012 American National Election Study (ANES). In addition to containing demographic information and questions on ideology and political participation, the 2012 installment of the ANES included questions that measure the Big Five personality traits. These traits are measured using the Ten Item Personality Inventory (TIPI). In an ideal setting, the Big Five would be measured using the NEO-PI-R scale developed by Costa and McCrae (1995). Seen as the “gold standard” of surveys that measure personality, the NEO-PI-R is a 240-item

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he meant that a concept should “conform ... with established usage – both within everyday language and within whatever specialized language region the term may be employed.”

survey battery that takes approximately 30-45 minutes to complete. Given its length and the fact that scholars are often interested in more than just personality, the NEO-PI-R is seldom used within political science. As a result, the TIPI has been the preferred form of measurement due to its ability to easily be included on various surveys.

The TIPI scale is comprised of ten questions. Five of these questions measure the “positive pole” of a Big Five personality trait, while the remaining five measure the trait’s “negative pole.” Each question asks respondents to rate how much they agree or disagree with the respective question prompt as a description of themselves. Possible response values range from zero to six, where zero signifies that the respondent “strongly disagrees” with the statement as a description of herself and a response of six indicates that the respondent “strongly agrees” with the statement as a description of herself. The positive pole is coded as given; the negative pole, by contrast, is reverse coded. To illustrate, consider the Agreeableness domain. The two statements that comprise this trait are “sympathetic/warm” and “critical/quarrelsome.” If an individual responds to the “sympathetic/warm” prompt with a five and the “critical/quarrelsome” prompt with a two, her overall score would be 4.5.<sup>5</sup> These TIPI calculations are the key independent variables used in this paper’s empirical analysis.

Across all of the Big Five personality traits, each numerical value is observed in the data. Thus, for instance, there are individuals in the dataset who are completely agreeable and there are also individuals who are completely *disagreeable*. There is also substantial variation in the ratings individuals give themselves on each of the measures. Full summary statistics of the Big Five measures used in this analysis are shown in Table 1.

[Table 1 about here.]

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<sup>5</sup>This calculation is obtained after reverse coding the response of two to a four. Then, a simple average yields the final score  $((5+4)/2 = 4.5)$ .

The dependent variable in this study is a measure designed to approximate the Abramowitz and Webster (2016) notion of “negative partisanship.” An individual is classified as a negative partisan if they *dislike* the opposing party more than they *like* their own party.<sup>6</sup> To measure the relative degree of dislike and like of the Democratic and Republican parties, I utilize the feeling thermometer scores in the ANES. Each scale ranges from 0-100. A score of zero indicates that the respondent completely dislikes the party while a score of 100 indicates that a respondent completely likes the party. These two scales are then combined to create the measure of negative partisanship. More specifically, I combine these two variables by first subtracting an individual’s feeling thermometer rating of the opposing party from 100. I then subtract an individual’s rating of their own party from this measure. Thus, the dependent variable is:

$$(100 - \text{Other party F.T.}) - \text{Own party F.T.} \quad (1)$$

The end result of this calculation is a variable that ranges from -100 to 100. Negative values indicate that the respondent likes their own party more than they dislike the opposing party. Positive values, by contrast, indicate that the respondent dislikes the opposing party more than they like their own party. Thus, any individual who has a positive value on this measure is classified as a negative partisan. The mean score on this measure is 1.56 and the standard deviation is 26.44. Of the 5,079 individuals who answered both of the feeling thermometer questions, 39.46% are negative partisans (2,004 people). Figure 1 shows the distribution of scores on this negativity scale.

An alternative specification for the dependent variable would be to simply use individuals’ feeling thermometer ratings of the opposing political party. However, the measure specified in Equation 1 is preferable in that it provides a useful baseline as to individuals’ relative degree of like

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<sup>6</sup>Independents who lean toward one of the two parties are classified as partisans.

and dislike between the two major political parties. Indeed, it is possible that a survey respondent is a negative person in general and rates both political parties quite poorly on the feeling thermometer scales. Responses of this type would complicate the interpretation of the results throughout the analysis. Moreover, calculating the difference in affect between an individual's own party and the opposing party provides for a richer measure of negative partisan affect in the American electorate than relying only on how one rates the out-party on a feeling thermometer scale.

[Figure 1 about here.]

Because the dependent variable used here is unique to this analysis, it is worth discussing potential outcome scores in more detail. One concern is that, if individuals were to rate both parties identically on the feeling thermometer scales, it is possible that such a scenario could produce one individual who is classified as a "negative partisan" and another who is not. For instance, consider the case in which an individual gives both parties a rating of 30 on the feeling thermometer scale. This would create an outcome of 40 on the dependent variable used in this analysis, indicating that the individual is a negative partisan.<sup>7</sup> Conversely, it is possible to imagine an individual who rates both of the parties at 70 degrees on the feeling thermometer scale; this yields an outcome of -40, indicating that the individual is *not* a negative partisan.<sup>8</sup> However, such a scenario is not inconsistent with the theoretical logic underpinning the dependent variable used here. Indeed, though both of these hypothetical scenarios entail individuals who feel indifferent between their own party and the opposing party, there is nevertheless a difference in the *relative* degree of like and dislike between the two parties. Comparatively, the individual in the first scenario has given two ratings that indicate an equal measure of dislike between the two parties; in the second scenario,

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<sup>7</sup> $(100 - 30) - 30 = 40$ .

<sup>8</sup> $(100 - 70) - 70 = -40$ .

the individual's ratings indicate that she feels equally positive toward the two parties. The first individual is a negative partisan because her dislike of the opposing party outweighs the degree to which she likes her own party. By contrast, the second individual is not a negative partisan because she feels equally warm toward both of the two parties. Thus, even though feeling thermometer ratings can be identical, equivalent ratings can still be informative about the relative degree of like and dislike toward the two parties within the American electorate.

Moreover, a scenario such as the one described above is not problematic due to the fact that it occurs quite infrequently: less than 10% of respondents in the ANES data gave the two parties identical ratings on the feeling thermometer ratings.<sup>9</sup> Additionally, the results presented in Section 3 are robust to dropping those individuals who rate the parties identically on the feeling thermometer scales.

The question of interest here is how personality traits are associated with negative partisanship. More specifically, I am interested in how personality traits are predictive of whether an individual can be classified as a negative partisan. Additionally, assuming one *can* be classified as a negative partisan, how do these personality traits relate to the degree to which one views the other party with enmity? As described in Section 1, these questions imply a two-stage process whereby individuals first decide – perhaps oftentimes not explicitly – whether they are a negative partisan and then the degree to which they are a negative partisan. Therefore, in order to model this process, I employ a hurdle model. Though not often used within the literature, this modeling choice is appropriate for the theoretical expectations outlined above because it “relaxes the assumption that the zeros and positives come from the same data-generating process” (Cameron and Trivedi, 2005).<sup>10</sup> Thus, the

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<sup>9</sup>The mean rating for one's own party is 71 degrees. The mean rating for the opposing party is 27 degrees.

<sup>10</sup>Similar to the hurdle model employed here, the Heckman selection model also allows for a two-stage analysis of negative partisan affect. However, the Heckman selection model does not allow for the covariates in the first-stage regression to be identical to those in the second-stage regression. The hurdle model has no such requirement. Because

model specifically allows for Extraversion to predict whether an individual is a negative partisan but not the degree of negativity with which they view the opposing party; and, conversely, it allows for Agreeableness to predict the extent to which an individual is a negative partisan but not whether they can be initially classified as a negative partisan.

The first stage of the hurdle model is estimated using a logistic regression and the second stage employs ordinary least squares (OLS). The first stage regression takes the following functional form:

$$np_i = \Lambda(\beta_1 \text{Open}_i + \beta_2 \text{Consc.}_i + \beta_3 \text{Extra.}_i + \beta_4 \text{Agree.}_i + \beta_5 \text{Stability}_i + \beta \mathbf{X}_i + \epsilon) \quad (2)$$

where  $\Lambda$  is the logistic c.d.f,  $np_i$  is an indicator for whether respondent  $i$  is a negative partisan, betas one through five capture the Big Five measurements, and  $\mathbf{X}$  is a vector of control variables. Though I am only theoretically interested in the role of Extraversion and Agreeableness in predicting negative partisan affect within the electorate, because the Big Five is seen as a holistic model of personality (see, e.g., Mondak et al., 2010), measures for the other three personality traits must also be included in the empirical specification.

Controls include age, gender, race, education, ideology, and an activism scale. The ideology variable is coded such that higher values indicate a more liberal outlook for Democrats and a more conservative view for Republicans. The activism scale captures how many of the following activities an individual has done: attended a campaign rally, attempted to persuade someone else's

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vote, worn a button or displayed a bumper sticker, worked for a campaign, donated money to a

there is no *ex ante* reason to assume that the covariates should differ between the two stages, the flexibility offered by the hurdle model makes it preferable to the Heckman selection model in this case.

candidate, donated money to a party, donated money to a third-party political group, attended a march, attended a school board meeting, signed a petition, or contacted a Member of Congress. The second stage regression is similar, taking on the following functional form:

$$y_i = \alpha + \beta_1 \text{Open}_i + \beta_2 \text{Consc.}_i + \beta_3 \text{Extra.}_i + \beta_4 \text{Agree.}_i + \beta_5 \text{Stability}_i + \beta \mathbf{X}_i + \epsilon \quad (3)$$

where  $y_i$  is a scale measuring how negative of a negative partisan individual  $i$  is. Just as in the first-stage regression, betas one through five pertain to the Big Five personality traits and  $\mathbf{X}$  is the same vector of control variables. In both stages, standard errors are clustered on the individual.

As a robustness check and as a way to allay concerns about omitted variable bias, I also estimate models that contain a dummy variable for whether an individual can be classified as a “strong partisan.” This is created by collapsing the standard seven-point party identification scale found in the ANES into a dichotomous variable that equals one if a respondent is a “strong Democrat” or a “strong Republican” and zero otherwise.

### 3 Results

The results of the selection model (as specified in Equation 2) provide evidence in support of the two hypotheses. Moreover, these results have strong face validity in that predictors that are commonly thought to be associated with ideological extremity and partisan behavior are statistically significant and pointed in the expected direction. Indeed, the results from the selection model indicate that men are more likely to be negative partisans than women; whites are more likely to be negative partisans than non-whites; having a higher level of formal education is predictive of being

a negative partisan; and, finally, ideological extremity and higher degrees of political participation are associated with being a negative partisan.

However, most important for the theory outlined here is the fact that increasing degrees of Extraversion lowers the probability of an individual being a negative partisan. The predictive strength of this variable, in absolute terms, is on par with that of the activism scale. This finding is striking, given that previous works have shown that the most active individuals are those who are the most ideologically extreme and committed to their own party (Abramowitz and Saunders, 2008; Abramowitz, 2010). Thus, Extraversion is a strong predictor of whether or not an individual can be classified as a negative partisan. Table 2 shows the full results of the model estimation.

[Table 2 about here.]

Once an individual *is* a negative partisan, however, increasing degrees of Agreeableness lowers an individual's level of negativity toward the opposing party and its supporters. No other personality trait reaches conventional levels of statistical significance in predicting the degree to which an individual is a negative partisan. Furthermore, once individuals are negative partisans we can see that age, race, education, ideology, and levels of activism do not predict how negative an individual is toward the opposing party. It appears that, once an individual is a negative partisan, it is fine-grained and individualistic variables – such as personality traits – that are most predictive of how negative she is toward the other party. That more common predictors in the field of political behavior – such as ideology and levels of activism – do not explain the relative degree of negativity with which negative partisans view the opposing party is quite surprising. It also suggests that measures of personality traits should continue to be used in empirical research seeking to understand political behavior, a point to which I return in greater length in Section 4.

Importantly, these results are robust to the inclusion of a variable that measures whether an individual can be classified as a “strong partisan.” Because those individuals who are the most ideologically extreme and dedicated to their own party are likely to be the same individuals who view the opposing party and its supporters most negatively, the fact that the results persist even when a measure for strength of partisanship is included is impressive. Personality, it appears, is an important and robust predictor of negative partisan affect within the American electorate.

To better illustrate the degree to which Agreeableness lessens the negativity with which an individual views the out-party, consider the predicted values of negative partisan affect shown in Figure 2. In the four graphs displayed here, I vary an individual’s level of Agreeableness while holding all other predictor variables at their means. Each graph shows the predicted reduction in negative affect toward the opposing party for white men, white women, non-white men, and non-white women.

[Figure 2 about here.]

The patterns in Figure 2 are striking. For all specifications of gender and race, increasing degrees of Agreeableness lessens negative partisan affect. For white men, moving from the lowest to the highest score on the Agreeableness measure lessens the amount of negative partisan affect by 38%. For white women, this same increase in Agreeableness is associated with a 39% lower level of negative affect. For non-white men, moving from the lowest amount of Agreeableness to the highest amount is associated with a 41% lower negative affect toward the out-party. Finally, this same change for non-white women is associated with a 42% reduction in negative partisan affect. These numbers, along with the patterns shown in Figure 2, highlight the large substantive effect of increasing degrees of Agreeableness on lowering negative partisan affect within the American electorate.

One potential concern with these results is that they are driven largely by the modeling choices I have used. In order to allay concerns that the results are dependent upon the use of a two-stage model like the one employed above, I also ran a logistic regression model and an ordinary least squares (OLS) regression separately. These results are shown in Table 3. In each case, the main findings are robust to the use of a logistic regression separate from OLS.

[Table 3 about here.]

The first column in Table 3 regresses an indicator for whether or not an individual is a negative partisan (as specified in Equation 1) on the Big Five personality traits and the same set of controls found in Table 2. As before, the coefficient for Extraversion is negatively signed and is statistically significant at the  $p < .05$  level. The second column in Table 3 includes the same set of variables as the first column but with a new dependent variable that measures the degree of negativity with which an individual views the opposing party. As with the models presented in Table 2, the results of this OLS regression suggest that the degree of negativity with which an individual views the out-party is decreasing in Agreeableness. Thus, the results I have presented in this section are robust to a simpler model selection.

### **3.1 A Note on the Causal Ordering**

The interpretation of the preceding analysis rests upon the assumption that personality traits are antecedent to the formation of opinions about political parties. Thus, I have argued that increasing degrees of Extraversion lowers the likelihood that an individual is a negative partisan and that, conditional upon being a negative partisan, higher levels of Agreeableness lessens the negativity with which an individual views the opposing party. However, an alternative explanation is that

any sort of causal arrow runs in the opposite direction. In this sense, it could be that individuals develop negative views of the opposing party and then claim in self-reports (like those used in the ANES) that they are less extraverted and agreeable as a result.

While the data used for this analysis does not allow for a direct adjudication between these competing causal stories, the theory underpinning the psychological literature on personality development suggests that these personality traits are, indeed, developed before the adoption of political views and preferences. Psychological literatures argue that "personality" refers to a relatively stable set of characteristics that is formed early in life and that, subsequent to this development, these characteristics guide one's disposition toward the social world (McCrae and Costa, 1994; Digman, 1989; Cobb-Clark and Schurer, 2012). Moreover, scholars have shown that "the greatest part of the reliable variance (i.e., variance not due to measurement error) in personality traits is stable" (McCrae and Costa, 1994). These two features of an individual's personality – early development and stability over time – make it unlikely that individuals are projecting their dislike of the opposing party onto their self-reported measure of personality.

However, even if we accept the notion that an individual's personality is developed early in life and tends to remain stable over time, it is still possible that individuals may dissemble about the true nature of their personality when presented with questions on a self-report survey. Fortunately, empirical examinations of this possibility suggest that individuals do not tend to lie about their personality types on surveys. Indeed, Piedmont (1989) marshals evidence suggesting that "more direct and 'obvious' [survey] items possess better validity than subtle items" and that "when respondents are presented with a direct query about their internal state, they will give an honest and accurate response."

Given the nature of personality development and the fact that individuals tend to answer ques-

tions about their internal psychological states truthfully, it is highly unlikely that negativity toward the out-party is driving personality responses. Thus, the most likely explanation is the one offered here: personality traits are predictive of both whether one feels negatively about the out-party and the degree to which one views the out-party with negativity.

## 4 Conclusion & Discussion

In this paper, I have shown how the Big Five personality traits are predictive of both *whether* an individual views the opposing party negatively and, conditional upon disliking the opposing party more than liking one's own party, the *degree* to which an individual views the out-party with antipathy. By adopting a modeling strategy that treats negative affect toward the opposing party as a two-stage process, my analysis suggests that higher degrees of Extraversion lowers the probability that an individual can be classified as a "negative partisan." Conditional upon disliking the opposing party more than liking one's own party, the results presented in this paper suggest that individuals who score higher on the Agreeableness domain of the Big Five view the opposing party less negatively. Importantly, while these results are obtained through the use of a hurdle model, they are robust to separately estimating models via logistic regression and ordinary least squares.

An important consideration about the results I have presented here is that they cannot definitively say that higher levels of Extraversion and Agreeableness *cause* a reduction in negative partisan affect. Indeed, because "personality" is not something that can be randomly distributed among individuals, ontological discussions about cause-and-effect in regards to personality and politics are likely to continue. However, psychological theories – such as those discussed in Section 3.1 – suggest that, because personality is formed early in one's life, any sort of causal arrow would run

from personality traits and to political behavior, rather than the other way around.

One implication from the results presented here is that a potential way to help ameliorate strong feelings of negativity toward the opposing party is to expose individuals to others whose political views differ from their own. Indeed, it is likely that the mechanism through which Extraversion lowers the likelihood of being a negative partisan is through increased understanding via repeated conversations about politics. However, it is also possible to imagine a scenario in which exposure to – and conversations with – people who support the opposing party actually increases partisan antipathy. In this sense, the cliché of “familiarity breeds contempt” overwhelms the possibility of learning about the opposing party and reducing feelings of negativity. Such a possibility has grounding within political psychology studies pointing to the existence of a “backfire effect” (see, e.g. Nyhan and Reifler, 2010). Therefore, one potentially fruitful avenue for future research is to examine what sorts of conversations and environments are likely to reduce animus between partisans and which are likely to exacerbate it.

Relatedly, while psychological literatures argue that personality is a stable characteristic of individuals (McCrae and Costa, 1994), this does not mean that a person’s personality remains the same at all times and in all situations. On the contrary, “stability” implies an average tendency rather than absolute stasis. Accordingly, scholars should seek to exploit naturally occurring temporary deviations from an individual’s personality-governed level of various traits. Alternatively, scholars could experimentally prime individuals to exhibit higher or lower levels of some trait through emotional stimuli. In regards to this study, future work should seek to understand how institutions and incentives can be designed to encourage individuals to be more agreeable in their social interactions. If individuals can be encouraged to be more agreeable in their interactions with each other, the findings presented here suggest that the result of such an intervention would be

reduced partisan antipathy.

Additionally, while scholars have focused a good deal on the consequences of partisan antipathy on intergroup relations (see, e.g., Iyengar and Westwood, 2015; Mason, 2015), future work should examine the ways in which negative partisan affect shapes individuals' views of the political system writ large. Given that recent work has found connections between partisanship and low levels of trust in the national government (Hetherington and Rudolph, 2015), continuing to examine how – and to what extent – negative partisan affect shapes citizens' views of American government appears to be a promising area for future research. Indeed, understanding the consequences of negative partisan affect on the political system as a whole will serve to further illustrate the importance of understanding the ways in which personality traits both shape and predict individuals' affective evaluations of the out-party.

While plenty of work remains to be done in understanding the causes and consequences of negative partisan affect, this study fills an important gap in our understanding. More broadly, the results presented here speak to the vast literature on polarization and partisanship in American politics. While previous studies have shown connections between polarization and differences in individuals' race, culture, ideology, and group affiliations, this study shows how characteristics that are innate to each specific individual can be predictive of polarization and negative affect towards the opposing party. Importantly, the personality traits I have used here to model negative affect within the American electorate have predictive power above and beyond more traditional predictors of polarization and partisan hostility. Thus, when it comes to negative partisan affect within the electorate, the explanations are distinctly personal.

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Table 1: Summary Statistics of Big Five Personality Traits

Statistic	N	Mean	Median	St. Dev.	Min	Max
Openness	5,914	3.855	4.000	1.140	0	6
Conscientiousness	5,914	4.611	4.611	1.130	0	6
Extraversion	5,914	3.129	3.000	1.274	0	6
Agreeableness	5,914	4.130	4.000	1.094	0	6
Emotional Stability	5,914	3.952	4.000	1.230	0	6

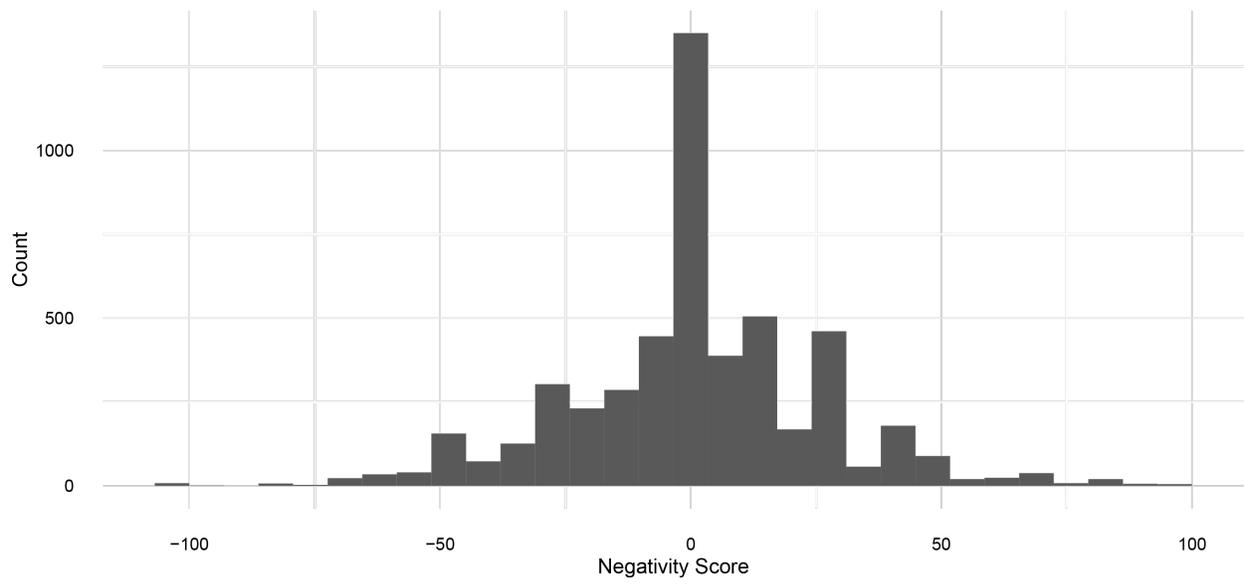


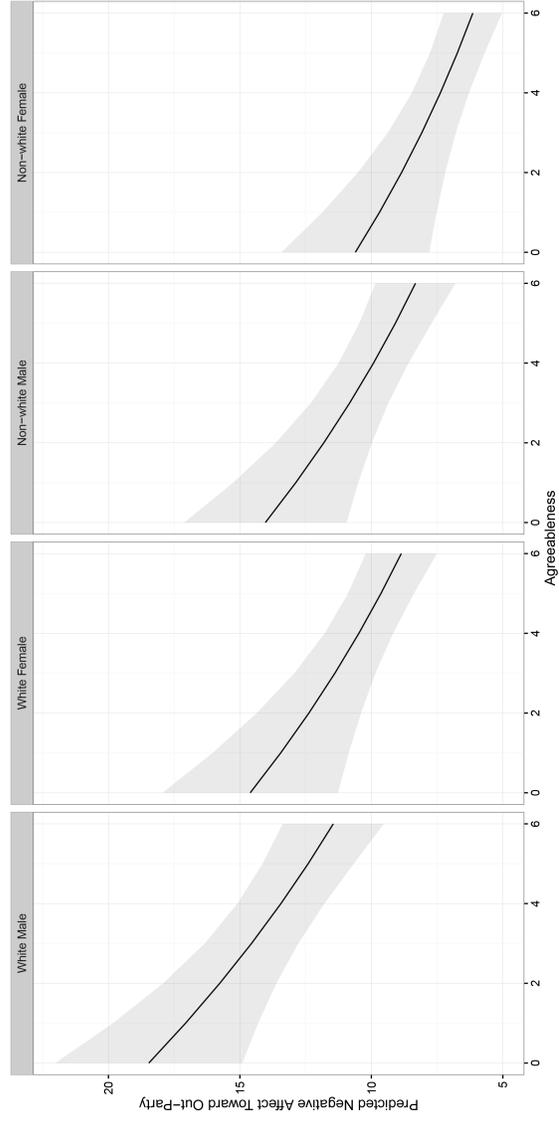
Figure 1: *Distribution of Negativity Scale*. This histogram shows the distribution of scores on the dependent variable used in this analysis.

	Model 1		Model 2	
	Stage 1	Stage 2	Stage 1	Stage 2
	Zero Hurdle Logit	Negative Affect OLS	Zero Hurdle Logit	Negative Affect OLS
Openness	-0.032 (0.019)	0.353 (0.908)	-0.032 (0.019)	0.280 (0.853)
Conscientiousness	-0.022 (0.020)	-1.507 (0.919)	-0.021 (0.020)	-1.331 (0.879)
Extraversion	-0.047** (0.016)	-1.013 (0.724)	-0.045** (0.016)	-0.663 (0.678)
Agreeableness	-0.033 (0.020)	-3.032*** (0.917)	-0.029 (0.020)	-2.594** (0.856)
Emotional Stability	-0.026 (0.019)	0.919 (0.847)	-0.027 (0.019)	0.848 (0.801)
Age	-0.003* (0.001)	-0.071 (0.063)	-0.002 (0.001)	-0.025 (0.058)
Female	-0.201*** (0.041)	-4.331* (1.979)	-0.190*** (0.041)	-3.129 (1.859)
Non-white	-0.340*** (0.043)	.240 (2.174)	-0.310*** (0.044)	1.403 (2.051)
Education	0.197*** (0.032)	-1.214 (1.443)	0.188*** (0.032)	-1.597 (1.366)
Ideology	0.128*** (0.017)	-0.902 (0.917)	0.145*** (0.018)	0.670 (0.907)
Activism	0.065*** (0.010)	0.077 (0.502)	0.070*** (0.010)	0.393 (0.469)
Strong Partisan			-0.185*** (0.042)	-15.853*** (2.159)
Constant	-0.344* (0.159)	39.997*** (7.539)	-0.411* (0.161)	33.230*** (7.251)
Observations	4,298	4,298	4,298	4,298

Cluster-robust standard errors in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

**Table 2: Personality and Negative Partisanship.** This table shows the relationship between the Big Five personality traits and negative partisanship. The selection model shows that Extraversion is negatively associated with the probability of being a negative partisan. Conditional upon an individual being a negative partisan, higher levels of Agreeableness is associated with lower levels of negative affect directed toward the out-party. This holds across alternative model specifications.



**Figure 2: Agreeableness Lowers Negative Affect.** These predicted probabilities show how increasing degrees of Agreeableness lowers the negativity with which an individual views the opposing party. The Agreeableness variable ranges from its minimum to maximum value and all other predictors are held constant at their means. Across the four graphs, the predictions vary according to gender and race.

	Negative Partisan Logit	Degree of Negative Affect OLS
Openness	-0.052* (0.031)	0.161 (0.402)
Conscientiousness	-0.036 (0.032)	-0.697* (0.415)
Extraversion	-0.077*** (0.026)	-0.461 (0.334)
Agreeableness	-0.053 (0.033)	-1.394*** (0.417)
Neuroticism	-0.042 (0.030)	0.428 (0.386)
Controls:	Yes	Yes
N	4,298	1,782

\*p < .1; \*\*p < .05; \*\*\*p < .01

**Table 3: *Negative Affect Toward the Out-Party, Modeled Separately.*** This table shows that the results presented in this paper are robust to a simpler model specification. Extraversion is still predictive of whether or not an individual can be classified as a negative partisan (column one), while Agreeableness remains predictive of the degree of negativity with which an individual views the opposing party (column two).