Trait-Based Anger and American Political Behavior

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This draft: 3/29/18

Abstract

American political behavior in the 21st century is largely characterized by high levels of hostility and anger. While scholars have spent considerable time examining anger as an *emotion*, little is known about the political preferences and attitudes of individuals whose *personality* profile pre-disposes them to be angry. In this paper, I utilize the NEO-PI-R measure of personality to show how higher levels of trait-based anger is related to partisan affiliation, partisan issue consistency and extremity, and evaluations of the national government. Commonly used in psychological literatures for its in-depth and accurate assessment of an individual's personality, the NEO-PI-R has heretofore been neglected by political scientists. Beyond illustrating the efficacy of this measure for scholars of political behavior and political psychology, the results of my analyses suggest that individuals with higher levels of trait-based anger have political preferences and attitudes that differ in distinct ways from their more pacific counterparts.

American politics in the contemporary era is defined by a new style of partisanship. Unlike their counterparts in the 20th century, Americans today have an intense dislike of the opposing political party, its supporters, and its governing elite (Abramowitz and Webster, 2016; Mason, 2013, 2015; Iyengar, Sood and Lelkes, 2012; Malka and Lelkes, 2010). This growth in "affective polarization" has led to an electorate that is increasingly motivated by feelings of anger, fear, and anxiety (see, e.g., Brader, Valentino and Suhay, 2008; Valentino et al., 2011). The consequences of this growing anger and affective polarization are clear: Americans are increasingly biased against the out-party (Iyengar and Westwood, 2015), which has led to higher levels of political participation (Huddy, Mason and Aarøe, 2015) and straight-ticket voting (Jacobson, 2015).

Yet, while scholars have spent a considerable amount of time examining the role of anger as an *emotion* in predicting patterns of political behavior and public opinion, the existing literature is devoid of studies examining how individuals whose *personality* predisposes them to be angry engage with the political world. This omission in the literature is surprising, especially as the burgeoning field of personality and politics suggests that there are characteristics innate to each individual that shape how he or she views politics and political affairs. These personality traits are predictive of phenomena as diverse as voting behavior, political engagement, and the size of interpersonal discussion networks (Mondak and Halperin, 2008; Mondak, 2010; Gerber et al., 2010, 2012*a*).

In this study, I fill this gap in the literature by utilizing the NEO-PI-R measure of an individual's personality-governed level of anger, derived from clinical psychology, to show how anger affects an individual's political affiliation, degree of issue consistency and extremity, and evaluations of the national government. The results indicate that anger does not predict

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partisan affiliation, suggesting that neither party is more likely than the other to attract supporters who, by nature, are predisposed to be angry. However, having a higher level of personality-governed anger is predictive of issue consistency and extremity; it is also predictive of holding negative evaluations of the national government. In total, the results suggest that individuals who are angry by nature have differential preferences over politics than their more pacific counterparts, and that these angry individuals can be found in both of the two major American parties.

The remainder of this article proceeds as follows: first, I outline a theory as to how an individual's personality-governed level of anger is associated with partisan affiliation, issue consistency and extremity, and negative evaluations of the government. I then explicate my research design and introduce the NEO-PI-R measure of an individual's personality-governed level of anger. Next, I present a series of results, derived from a unique dataset on the political preferences of registered voters in the United States, that suggest that anger plays a powerful role in shaping American political behavior. Finally, I conclude with a few thoughts on the implications of my findings and a note on directions for future research.

1   Anger, Political Preferences, and Public Opinion

Social psychologists have long recognized the role of emotions in explaining patterns of behavior. In particular, anger has been found to be associated with myriad behavioral acts. Among other things, anger has been shown to affect social perception (Keltner, Ellsworth and Edwards, 1993), increase the use of group stereotypes and other heuristics (Bodenhausen, Sheppard and Kramer, 1994), prompt individuals to engage in risk seeking activities (Lerner

and Keltner, 2001), and make individuals more punitive (Lerner and Tiedens, 2006).

In addition to these behavioral outcomes, previous work has shown that differences in individuals' personality is predictive of partisan affiliation. For example, individuals who score high on measures of Conscientiousness are thought to prefer order, stability, and pre-existing hierarchies (Mondak et al., 2010). Because these traits are commonly associated with the Republican Party, higher levels of Conscientiousness has been linked with a Republican party identification (Gerber et al., 2010). Conversely, individuals who score high on measures of Openness to new experiences are characterized by "the proactive seeking and appreciation of experience for its own sake, and toleration for and exploration of the unfamiliar" (Piedmont, 1989). Because tolerance and openness to new ideas are traditionally associated with the Democratic Party, those individuals whose personality predisposes them to be relatively open to new experiences are more likely to self-identify as Democrats (Gerber et al., 2012b).

Additionally, Gerber et al. (2012b) show that personality traits are predictive of whether an individual chooses to affiliate with a political party at all. Though their results provide support for the "psychological antecedents of partisan identification," they rely on the oft-used Big Five framework of personality. Given the vitriolic nature of political behavior and partisan rhetoric in the contemporary era, it is likely that angry individuals are more attracted to one of the two major political parties than their more pacific counterparts. The hostile nature of American politics, coupled with the findings obtained by Gerber et al. (2012b) showing that personality is predictive of partisan affiliation, leads to the following hypothesis:

Hypothesis 1. *Higher personality-governed levels of anger will be associated with a greater probability of affiliating with a political party.*

In addition to being predictive of partisan affiliation, I also expect anger to be associated with partisan issue consistency and extremity. Key for the theory underlying the link between anger and higher levels of partisan issue consistency and extremity is Bodenhausen, Sheppard and Kramer's (1994) finding that "angry people are more likely to rely on simple cues in reacting to social stimuli." Though their results were obtained in regards to issues particularly salient to university students (e.g. banning meat from the school cafeteria), the logic of their findings can be easily translated to the American electorate. Indeed, if individuals have a predisposition to be angry, they should be more receptive to the increasing amount of cues sent by elites as to what issues partisan identifiers in the electorate should adopt. Because elites in the contemporary era are highly polarized, these cues about policy positions will be both extreme and consistent. The result is that individuals who are angry will adopt these policy positions, resulting in a high degree of partisan issue consistency and extremity. On the contrary, when individuals are not angry, they should be less willing and likely to rely on cues or heuristics from political elites. This implies that, unlike their angrier counterparts, these individuals should have lower levels of partisan issue consistency and extremity even though political elites are continuing to send polarized cues.

Moreover, because anger has also been linked to aggression and a lack of self-reflection (Tiedens, 2001), this implies that individuals who have high levels of anger should be less likely to seek out different issue positions that may best ameliorate societal and political problems. Without taking the time to examine all of the possible positions one might take on any given political issue (e.g. examining both a liberal position and a conservative position), angry individuals should default to the cues they receive from their co-partisans who hold elected office.

This leads to the following expectation:

Hypothesis 2. *Higher levels of personality-governed anger will be associated with higher levels of partisan issue consistency and extremity.*

Finally, anger should be related to negative evaluations of the national government via the psychological theories of Affective Intelligence (Marcus, Neuman and MacKuen, 2000) and "mood congruity" (Bower, 1991). Affective Intelligence argues that reason and emotion are not separate mental processes but, rather, are interconnected in a manner whereby emotion influences when and how individuals think about various stimuli. Meanwhile, theories of mood congruity argue that individuals evaluate objects either positively or negatively based off of their emotions. Because anger is an emotion with a negative valence (see, e.g., Bodenhausen, Sheppard and Kramer, 1994), and because emotions shape patterns of thought, individuals whose personality-governed level of anger is high should be the most likely to have negative evaluations of the national government.[1]

Hypothesis 3. *Higher levels of personality-governed anger will be associated with more negative evaluations of the national government.*

1.1   Personality in Context

While the theory I have outlined thus far suggests that higher levels of personality-governed anger should be associated with partisan affiliation, partisan issue consistency and extremity, and evaluations of the national government, it is unlikely that an individual's personality is something that can vary over time. Indeed, according to the psychological literature from

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[1]For more on Affective Intelligence, mood congruity, and the role of emotions in influencing perception and reasoning, see Marcus (2002) and Schwarz and Clore (1983).

which it is derived, "personality" refers to a relatively stable set of characteristics that guide one's disposition toward the social world (McCrae and Costa, 1994; Digman, 1989; Cobb-Clark and Schurer, 2012). Once formed, personality tends to change very little – if at all – barring major life events (McCrae and Costa, 1994).

If this is the case, then why should we be interested in something that is predictive but does not vary over time? My argument is that, while personality does not vary over time, changing electoral and political contexts can make an individual's personality-governed level of anger more or less salient for predicting and guiding patterns of political behavior. In particular, the current era is likely to be one where those individuals with high levels of personality-governed anger should have distinct preferences and opinions about politics and government compared to their more pacific counterparts. This is due not only to increasing elite polarization, but also due to the dramatic increase in negative affect among partisans and between partisan and social groups. While Americans used to feel largely indifferent about the opposing political party and its supporters, negative affect has increased tremendously in recent years as racial, social, and cultural identities have become intertwined with partisan affiliation (Abramowitz and Webster, 2016; Mason, 2015). This anger-fueled negative affect and the political environment it has created now means that "partisanship elicits more extreme evaluations and behavioral responses to ingroups and outgroups" than long-standing cleavages such as race (Iyengar and Westwood, 2015). Accordingly, understanding how anger shapes individuals' dispositions toward the political world in the contemporary era is of tremendous importance.

2 Research Design

The data for this study are part of a larger survey on personality, emotions and political behavior. Fielded via Survey Sampling International (SSI), the survey is a national sample of registered voters. The total sample size is 3,262 respondents. Of these, 42.8% are men and 57.2% are women; 82% are white, 6.6% are African-American, and 5.5% are Hispanic; finally, 85.4% have at least some college education and 14.6% have only a high school diploma. More complete summary statistics are shown in Table 1.

The survey asked individuals to fill out a series of demographic questions, such as age, race, gender, education, and household income. Participants were also asked to disclose their partisan and ideological identification along a seven-point scale. In addition to demographic and partisan/ideological information, the survey asked participants a series of questions about participatory acts and candidate choice. Among other things, individuals were asked about their voting habits and future voting intentions, how frequently they talk to others about politics, whether they have made campaign donations, and whether they have attempted to influence someone else's vote choice.

Individuals were also asked to state their preferences on six issue items: abortion, birthright citizenship, same-sex marriage, affirmative action programs, gun control, and climate change/global warming. After being told about the issue, individuals were asked to select a potential response that best matched their opinion regarding that issue. Responses for each issue position ranged from the most conservative end (e.g. "global climate change is not occurring; this is not a real issue") to the most liberal end (e.g. "global climate change has been established as a serious problem, and immediate action is necessary") with a

Table 1: Summary Statistics of Personality and Politics Data

Statistic	N	Mean	St. Dev.	Min	Max
White	3,252	0.820	0.384	0	1
Black	3,252	0.066	0.249	0	1
Asian	3,252	0.038	0.190	0	1
Native American	3,252	0.009	0.094	0	1
Hispanic	3,252	0.055	0.229	0	1
Other Race	3,252	0.012	0.110	0	1
High School Only	3,248	0.146	0.353	0	1
Some College	3,248	0.854	0.353	0	1
Male	3,255	0.428	0.495	0	1
Female	3,255	0.572	0.495	0	1
Democrat	3,247	0.521	0.500	0	1
Independent	3,247	0.108	0.310	0	1
Republican	3,247	0.371	0.483	0	1
Liberal	3,244	0.386	0.487	0	1
Conservative	3,244	0.331	0.471	0	1

moderate/unsure position in the middle (e.g. "we don't know enough about global climate change, and more research is necessary before we take any actions"). The full list of potential responses to these questions can be found in the Appendix.

These questions were used to create a measure of partisan issue consistency and extremity for each individual. For those who self-identify as ideological liberals or Democrats, partisan issue consistency and extremity was measured by summing the number of times that individual chose the most liberal response as being closest to their own policy preference. Likewise, for those who self-identify as ideological conservatives or Republicans, partisan issue consistency and extremity scores were calculated by summing the number of times that individual indicated that the most conservative response was closest to their own policy preference. Partisan issue consistency and extremity scores range from 0-6 and have a mean value of 1.1 for conservatives and Republicans and 2.7 for liberals and Democrats.

One assumption that I am making here is that liberals and Democrats should both adopt the liberal position in order to have some degree of partisan issue consistency and extremity, and vice versa for conservatives and Republicans. While one could argue that there are conservative Democrats and liberal Republicans, the increasing degree of partisan sorting within the American electorate implies that, in the current era, there are very few ideological conservatives who identify with the Democratic Party and perhaps even fewer ideological liberals who identify with the Republican Party (Levendusky, 2009; Fiorina, Abrams and Pope, 2005). Thus, coding partisan issue consistency and extremity in this way seems relatively innocuous.

Finally, individuals were asked a series of questions designed to measure their evaluations of the national government. These questions measure how much individuals believe the

government is unresponsive to the concerns and interests of the public, and the belief that the government is corrupt and never serves the public interest. Both questions are measured on a 0-10 scale, where higher values indicate more negative evaluations of the government.

NEO-PI-R Angry Hostility   The most important part of the survey is the set of questions that measure individuals' personality-governed level of anger. While the majority of the personality and politics literature operationalizes "personality" by means of the Big Five framework (see, e.g., Mondak and Halperin, 2008; Mondak et al., 2010; Mondak, 2010; Gerber et al., 2010; Cooper, Golden and Socha, 2013), I jettison this measure in favor of Costa and McCrae's (1995) NEO-PI-R measurement. Due to its careful and detailed measurement, the NEO-PI-R has become the "gold standard" in measuring individuals' personalities. However, its usage has been limited in academic settings because the full battery contains 240 questions. While such a length precludes using the NEO-PI-R to measure an individual's personality in most cases, because I am primarily interested here in an individual's personality-governed level of anger, only ten questions are needed. Thus, while using the entire NEO-PI-R survey battery is typically infeasible, relying on it to measure just one aspect of an individual's personality is not time intensive and does not present survey respondents with more of a burden than they are used to.

In order to measure how angry each individual is, participants were asked to fill out the questionnaire for the Angry Hostility NEO-PI-R facet-level trait.[2]   According to the

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[2]In actuality, the measure used here is slightly different from that found on the NEO-PI-R. Because the NEO-PI-R is a proprietary test of *Psychological Assessment Resources, Inc.* and its usage is prohibited in academic studies, psychologists have collaborated to create "open source" measures of numerous scales that correlated highly with their proprietary counterparts. Despite being slightly different measures, the "open source" version used here correlates highly with the actual NEO-PI-R test. Analyses have shown that the "open source" measure of the Angry Hostility facet-level trait has a remarkably high correlation, .90, with the NEO-PI-R measurement. For more information, see `http://ipip.ori.org/newNEO_FacetsTable.htm`

NEO Personality Inventory survey developed by Costa and McCrae (1995) to measure the Big Five, each of the five domains (e.g. Openness to new experiences, Conscientiousness) is comprised of six lower-level facets. Each of the facets "represent[s] the more closely covarying elements within the domain" and are mutually exclusive. Each domain contains six facets because, according to Costa and McCrae (1995), "inclusion of more than six would soon lead to intellectual overload." Furthermore, the factor analyses employed to identify the facets within each domain require a requisite amount of variables to facilitate replication (Gorsuch, 1983). Though these facets do not cover the entirety of the variance within each domain, they do appear to capture a large amount while still remaining parsimonious. By aggregating each facet-level score within the five respective domains, Big Five scores can be obtained for any given individual.

The Angry Hostility facet-level trait is derived from the Emotional Stability domain of the Big Five, and it largely measures the degree to which an individual is temperamental in their behavior (Lord, 2007). The Angry Hostility facet-level trait is measured by a series of ten statements, five of which are positively coded and five of which are reverse coded.[3] Each statement is presented to an individual and then that individual is asked to state their level of agreement or disagreement with the veracity of that statement in regards to their own life. Agreement is measured on a five-point scale ranging from one to five. A rating of one indicates that an individual "strongly disagrees" with a statement about herself, a rating of two indicates that an individual "disagrees" with that statement, a rating of three indicates that an individual is "neutral" about the statement, while ratings of four and five indicate

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or Goldberg et al. (2006).

[3]Half of the statements are reverse coded in order to correct for any social desirability bias that might arise while answering the survey.

that an individual "agrees" or "strongly agrees" with the statement, respectively. The final score for an individual's level of Angry Hostility is simply the summation of each of the ten questions. Formally, anger is measured as follows:

$$Anger = \sum_{i=1}^{5} x_i + \sum_{j=1}^{5} x_j \tag{1}$$

where i are the positively coded statements and j are the reverse coded statements. The positively coded statements of the Angry Hostility facet-level scale are "I get angry easily," "I get irritated easily," "I get upset easily," "I am often in a bad mood," and "I tend to lose my temper." The reverse coded statements are "I rarely get irritated," "I seldom get mad," "I am not easily annoyed," "I keep my cool," and "I rarely complain." By asking questions that are positively and negatively coded, the survey instrument is less susceptible to being answered in socially desirable ways. Higher scores on this measure indicate higher personality-governed levels of anger.

Though use of the Angry Hostility facet-level trait seems like a reasonable way to gain theoretical leverage on questions of interest when compared to the domain-level characteristics of the Big Five, one reasonable concern is that these lower-level traits might lack predictive power. If this is the case, then taking such an approach might entail a trade-off between cogent theory building and analytical utility. Fortunately, this does not appear to be the case. Comparisons between the Big Five domain-level characteristics and the facet-level traits show that "a few carefully selected personality facet scales can predict as well as or better than can all of the Big Five factor scales combined." Moreover, this same analysis found that "a substantial part of the criterion variance predicted by the facet scales is variance not predicted by the [domain] scales" (Paunonen and Ashton, 2001). Similarly, in their

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study of personality disorders, Reynolds and Clark (2001) find that the domain-level characteristics are too broad to generate "clinically meaningful descriptions" of disorders. Thus, their suggestion is to make use of the facet-level traits to obtain a "substantial increase in predictive power and descriptive resolution" on questions of interest (Reynolds and Clark, 2001).

2.1 Empirical Strategy

In order to determine whether having higher levels of anger is related to partisan identification, I run a series of logistic regression models where the dependent variables are Republican affiliation (as opposed to Democrat or Independent) and Democratic affiliation (as opposed to Republican or Independent). The models estimated are:

$$y_i = \Lambda \left(\alpha + \beta_1 \rho_i + \gamma X_i + \epsilon \right) \tag{2}$$

where y_i is an indicator for whether individual i affiliates as a Democrat or Republican (depending on the model), ρ_i is individual i's score on the Angry Hostility NEO-PI-R score, and X_i is a vector of control variables. These controls include dummy variables for females and non-whites, as well as measures of income, ideology, and educational attainment.

The models used to estimate the relationship between an individual's personality-governed level of anger and partisan issue consistency and extremity take on a similar form. The models have the following functional form:

$$pice_i = \alpha + \beta_1 \rho_i + \gamma X_i + \epsilon \tag{3}$$

where $pice_i$ denotes individual i's level of partisan issue consistency and extremity and ρ_i is individual i's score on the Angry Hostility NEO-PI-R facet-level trait. Control variables, contained in the X_i vector, include individual i's level of education, race, household income, gender, and a scale measuring level of political participation. The political participation scale is created by counting how many of the following activities each individual has done: voting in the 2012 presidential election, voting in the 2016 political primaries, displaying a yard sign during the 2016 campaign, attempting to persuade someone else's vote choice, donating money to a campaign, writing a letter to a politician, and talking about politics with friends or co-workers. Depending on the model specification, X_i may also include measures of individual i's partisan self-identification. In order to allow for heterogeneous effects, the model shown in Equation 3 is estimated on four subgroups of the data: ideological liberals, ideological conservatives, Democrats, and Republicans.[4] Estimation is via ordinary least squares (OLS).

Finally, in order to determine how anger is related to evaluations of the national government, I run models with the following functional form:

$$y_i = \alpha + \beta_1 \rho_i + \eta X_i + \epsilon \tag{4}$$

where, as before, ρ_i captures individual i's score on the NEO-PI-R anger measure. The X_i vector contains controls dummy variables for females and non-whites; it also contains

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[4]The models for ideological liberals and ideological conservatives contain control variables for partisan affiliation. No models contain control variables for an individual's ideology because it makes little sense to imagine a Democrat or a Republican who has a high degree of partisan issue consistency but, simultaneously, is not ideologically extreme. Nevertheless, models with this control variable included produce nearly identical coefficient estimates as those derived from the specification in Equation 3. The results of the models with ideology included as a control variable are available upon request.

measures for partisanship, income, ideology, and educational attainment. Depending on the model, the dependent variable, y_i, measures individual i's belief that the government is unresponsive to the concerns and interests of the public, or the belief that the national government is corrupt.

3 Results

3.1 Anger and Partisan Identification

In order to examine the relationship between an individual's personality-governed level of anger and her likelihood of affiliating with either the Democratic or Republican party, it is useful to first look at the distribution of scores on the NEO-PI-R anger measure by partisan affiliation. As shown in Figure 1, there is very little difference in the distribution of scores on the NEO-PI-R anger measure by party affiliation. While Democratic respondents have a higher modal score on the measure, the right tail is slightly fatter for Republican respondents. Thus, while Republicans have more individuals who are extremely angry, Democratic respondents are, on average, more angry than Republican respondents.

The lack of distinct distributions on the NEO-PI-R anger measure by partisanship casts doubt on the idea that anger is predictive of partisan affiliation. However, to more definitively test this relationship, I ran two logistic regressions as specified in Equation 2. The results of these models are shown in Table 2. As can be seen, anger is neither predictive of affiliating with the Democratic nor the Republican party. This suggests that neither party is more likely than the other to attract supporters who, by nature, are predisposed to be angry.
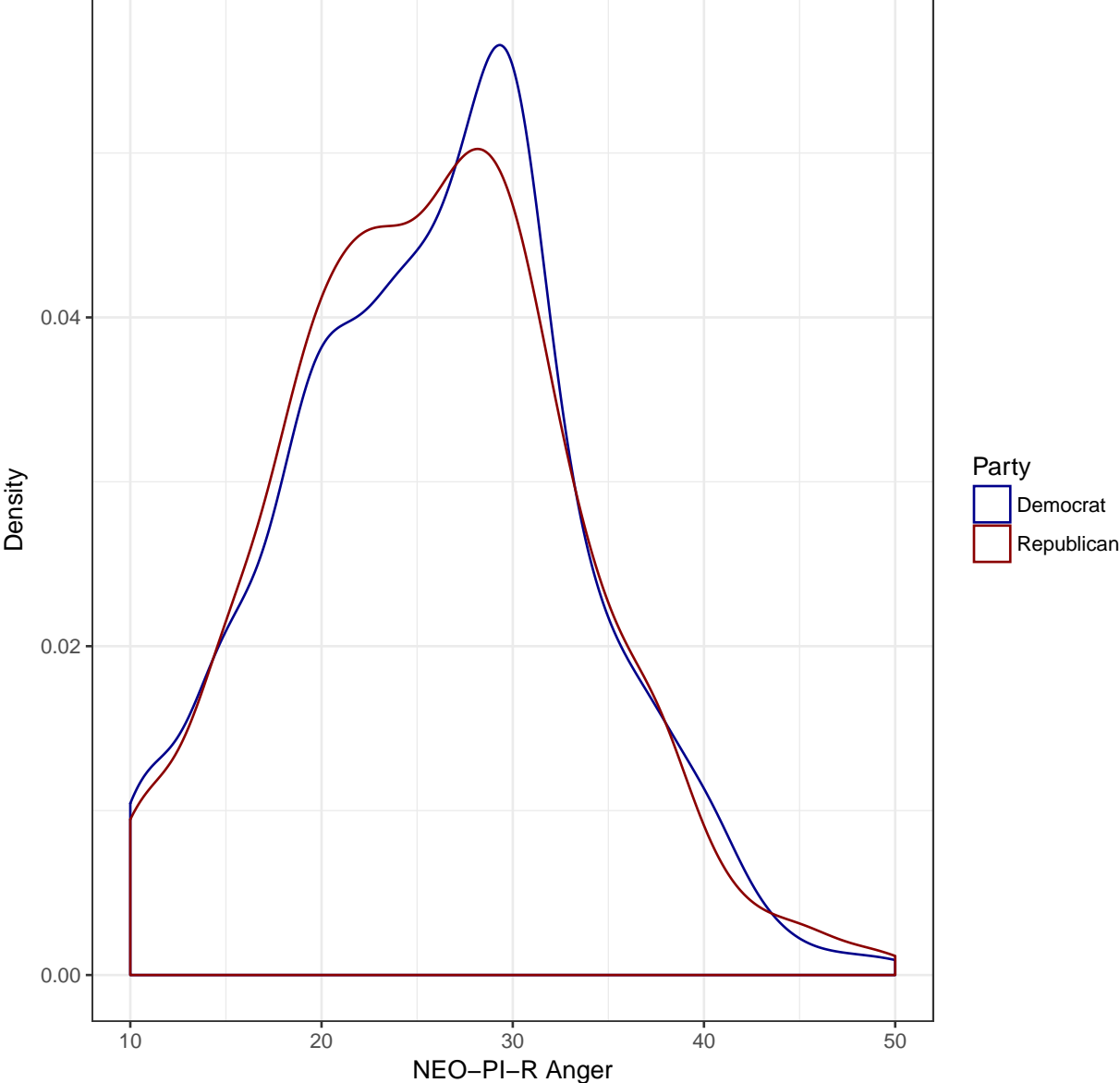
Figure 1: *Distribution of Anger by Partisanship.* This figure shows the distribution of scores on the NEO-PI-R measure of anger by partisan affiliation.

	Democrat	Republican
Anger	−0.001	−0.00003
	(0.001)	(0.001)
Female	−0.024	0.027*
	(0.015)	(0.014)
Non-white	0.128***	−0.120***
	(0.019)	(0.018)
Income	−0.004*	0.010***
	(0.002)	(0.002)
Ideology	−0.161***	0.157***
	(0.004)	(0.004)
Education	0.018***	−0.012**
	(0.005)	(0.005)
Constant	1.123***	−0.257***
	(0.039)	(0.037)
N	3,060	3,060

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

Table 2: *The Relationship Between Anger and Party Identification.* This table shows the relationship between anger and the likelihood of affiliating with either of the two major political parties.

3.2 Anger and Partisan Issue Consistency and Extremity

Though anger does not appear to be predictive of whether one affiliates with either the Democratic or Republican party, it is still possible that, once one does affiliate with one of the two major parties, anger is related to the sorts of issue positions that one adopts.

Recall that the expectation is that individuals who score higher on the NEO-PI-R measure of anger should have higher levels of partisan issue consistency and extremity. The results of the models, estimated as shown in Equation 3, show that this relationship exists in two of the four subgroups in which the analysis is conducted. Among ideological liberals, there is no statistically significant relationship between the NEO-PI-R measure of anger and partisan issue consistency and extremity. Interestingly, there is a statistically significant *negative* relationship between anger and partisan issue consistency and extremity for self-identifying Democrats. These two findings are contrary to the hypothesized relationship between anger and issue constraint and extremity.

However, among ideological conservatives and self-identifying Republicans, there is a clear positive relationship between the NEO-PI-R measure of anger and partisan issue consistency and extremity. For ideological conservatives, the coefficient estimate on the NEO-PI-R measure of anger is .010. For Republicans, the coefficient estimate is a smaller .009. Importantly, these results are obtained even when controlling for various factors that we already know to be associated with higher degrees of issue extremity: level of political participation (Abramowitz, 2010); education (Jacoby, 1991); and, depending on the model, partisanship (Bartels, 2000; Bafumi and Shapiro, 2009).

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| | Partisan Issue Consistency & Extremity | | | |
	Conservatives	Republicans	Liberals	Democrats
Anger	0.010**	0.009**	−0.007	−0.012**
	(0.005)	(0.004)	(0.005)	(0.005)
Demographics:	Yes	Yes	Yes	Yes
Partisanship:	Yes	No	Yes	No
N	983	1,107	1,144	1,548
R^2	0.102	0.040	0.113	0.050

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

Table 3: *The Relationship Between Anger and Partisan Issue Consistency and Extremity.* This table shows how scores on the NEO-PI-R measure of anger are related to partisan issue consistency and extremity. For ideological conservatives and self-identifying Republicans, higher levels of anger are associated with higher levels of partisan issue consistency and extremity.

To more clearly show the relationship between the NEO-PI-R measure of anger and partisan issue consistency and extremity, consider the two plots shown in Figure 2. The plot on the left shows the relationship between anger and partisan issue consistency and extremity as levels of anger increase for ideological conservatives. The plot on the right shows the exact same relationship but for those who self-identify as Republicans.[5] In both cases, predicted values are derived from holding education, income, and participation levels at their mean values. Moreover, gender is set to male and the nonwhite dummy variable is set to zero. In the graph on the left, the partisanship variable is held at its mean value.

As can be seen, for both ideological conservatives and Republicans, there is a strong positive relationship between anger and partisan issue consistency and extremity. For ideological conservatives, as the NEO-PI-R anger measure goes from its lowest value to its highest value, the estimated partisan issue consistency and extremity score jumps from 1.3 to 1.82. This is an increase of 40%. A one standard deviation increase above the mean on the NEO-PI-R anger of measure is associated with a 5.1% increase on the partisan issue consistency and extremity score. Similarly, the fitted values for the relationship between anger and partisan issue consistency and extremity for Republicans shows that moving from the minimum value of anger to the maximum value increases the issue constraint score from 1.62 to 2.08. This is an increase of 28.4%. Analogous to the predictions for ideological conservatives, a one standard deviation above the mean on the NEO-PI-R anger scale is associated with a 3.8% increase on the partisan issue consistency and extremity score for self-identifying Republicans. Anger, it appears, is a predictor of partisan issue consistency and extremity for conservatives and Republicans even when controlling for more obvious, well known

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[5]In these calculations, an individual was classified as a Republican if they identified themselves as either an independent who leans Republican, a weak Republican, or a strong Republican.
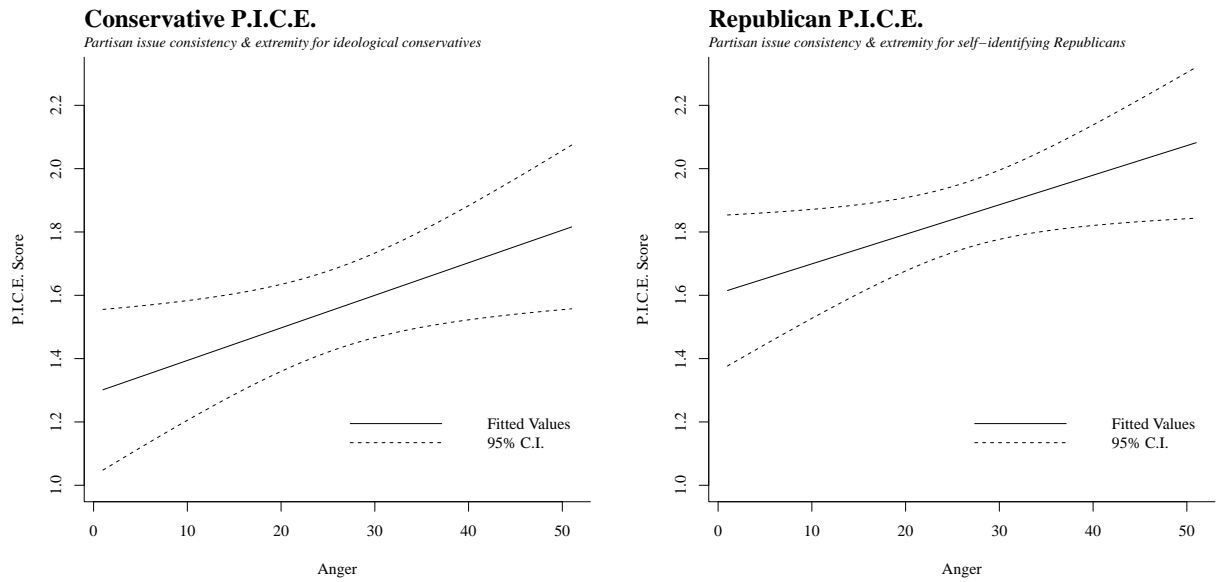
Figure 2: *Change in Partisan Issue Consistency given Level of Anger.* These figures show how an individual's level of partisan issue consistency and extremity increases for conservatives (left) and Republicans (right). Predicted values are derived from holding education, income, party identification, and participation levels at their mean values. Gender is set to male and the nonwhite dummy variable is set to zero.

predictors such as participation levels and education.

One notable pattern about these results is that higher levels of anger is associated with higher partisan issue consistency and extremity for conservatives and Republicans but not for liberals and Democrats. Given these findings, the theory outlined in this paper regarding anger and partisan issue consistency and extremity is only half-confirmed at best. However, given what we know about the nature of polarization and partisan behavior in the United States – both among the elites and the masses – such a finding is not terribly surprising. While many scholars argue that polarization is occurring, it is clear that polarization is a phenomenon largely driven by one of the two main political parties. The fact that Republicans have become more conservative over time than Democrats have become liberal has produced a stark asymmetry in polarization (see, e.g., Mann and Ornstein, 2012; Butler, 2009).[6]

Given what we know about the types of people who tend to be polarized *and* the arguments put forth in Section 1, it makes sense that anger is associated with higher partisan issue consistency and extremity for conservatives and Republicans only. The most polarized individuals tend to be the most "biased, active, and angry" (Mason, 2015) and hold the most negative views toward the opposing party and its supporters (Abramowitz and Webster, 2016). This negativity and anger is largely rooted in ideological disagreements (Rogowski and Sutherland, 2015). Because Republicans and conservatives have been the primary instigators of the rise of polarization in the American electorate, we should see anger being a larger factor in influencing partisan issue consistency and extremity for these

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[6]For further evidence of this trend in asymmetric polarization, see the following report from the Pew Research Center: http://www.people-press.org/2014/06/12/political-polarization-in-the-american-public/.

individuals than for liberals and Democrats. Thus, while the original theory outlined in Section 1 argued that higher levels of anger would be associated with higher levels of partisan issue consistency and extremity for both sides of the political divide, the fact that we see this pattern only on the political right fits with what we know from the larger literature on political behavior (Huber et al., 2015).

3.3   Anger and Evaluations of the National Government

Though anger is related to higher degrees of partisan issue consistency and extremity only for the political right, one area where it potentially bridges the partisan divide is in its ability to shape evaluations of the national government. Recall from Section 1 that the expectation is that individuals whose personality-governed level of anger is higher should be more likely to have negative evaluations of American government. Negative evaluations are assessed by measuring individuals' belief that the government is unresponsive to the concerns and interests of the public, and the belief that the government is corrupt and never serves the public interest. The results of these models, estimated as specified in Equation 4, are shown in Table 4.

The results show that anger is predictive of negative evaluations of the national government across both metrics. Individuals with higher personality-governed levels of anger are more likely to believe that the government is both unresponsive to the concerns and interests of the public, and that the government is corrupt. The credibility of these results receives support from the fact that the model has a considerable degree of face validity; indeed, the model indicates that Democrats are less likely to have negative evaluations of the government

	Govt. Unresponsive	Govt. Corrupt
Anger	0.028***	0.046***
	(0.006)	(0.006)
Republican	0.204	0.232
	(0.153)	(0.155)
Democrat	−0.625***	−0.720***
	(0.147)	(0.149)
Female	−0.140	−0.074
	(0.088)	(0.089)
Non-white	−0.070	0.181
	(0.113)	(0.114)
Income	−0.042***	−0.048***
	(0.013)	(0.013)
Ideology	0.063**	0.087***
	(0.030)	(0.031)
Education	−0.136***	−0.181***
	(0.032)	(0.032)
Constant	7.020***	6.438***
	(0.271)	(0.274)
N	3,026	3,030
R^2	0.065	0.099

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

Table 4: *Anger and Evaluations of Government.* This table shows the relationship between personality-governed levels of anger and evaluations of the national government. Individuals who are pre-disposed to be angry have more negative views of the government across both metrics.

than self-identifying independents and Republicans, while ideological conservatives are more likely than others to view the government negatively.

4   A Note on the Causal Ordering

Though the above results indicate that higher levels of anger is related to various form of political behavior, it is not possible to say that having higher levels of personality-governed anger *causes* individuals to behave differently than their more pacific counterparts. Indeed, one potential concern is that any sort of causal arrow goes the other way. That is, instead of anger affecting forms of political behavior and public opinion, it is possible that individuals are projecting their political beliefs and opinions onto personality self-reports. While the data do not allow for an adjudication between these two causal pathways, extant theory provides a useful guide as to how these results should best be interpreted.

According to the literature from which it is derived, personality is seen as a stable characteristic of individuals that is formed early in the course of life and, once it is formed, seldom – if ever – changes (McCrae and Costa, 1994; Digman, 1989; Cobb-Clark and Schurer, 2012). As McCrae and Costa (1994) note, "the greatest part of the reliable variance (i.e., variance not due to measurement error) in personality traits is stable." These same authors also show that personality stability exists across gender and racial groups. If personality is stable and formed largely during the early stages of life, then it seems implausible to assume that individuals both learn about politics and its associated nuances *and* adopt certain policy preferences before their personality begins to develop. The more likely explanation is that personality development is temporally prior to the formation of issue preferences.

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However, one further objection is that, even if personality is formed before the adoption of issue preferences, it is possible that individuals might alter the ways in which they respond to a personality battery precisely because of their issue positions. Moreover, respondents may simply misunderstand the personality questions or they may present "false answers" as a form of social desirability bias (though neither of these problems are limited to surveys that seek to measure personality traits). Fortunately, empirical analyses suggest that social desirability plays a minimal role in survey responses. Citing numerous studies, Piedmont (1989) claims 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." Thus, concerns about social desirability bias in response to personality questions appear to be unfounded.

Finally, even if personality was not stable (and therefore was susceptible to changes given a survey battery) and/or individuals projected their issue positions onto survey batteries seeking to measure personality traits, such a problem is likely avoided here due to the way in which the survey was designed. Indeed, the questions measuring individuals' baseline level of anger on the NEO-PI-R scale was presented *before* the series of questions about issue positions. Accordingly, from a mechanical standpoint, it was impossible for respondents to this survey to answer their personality questions based off of the way in which they answered questions about issue positions.

While causality cannot be determined given the nature of these data, theory and matters of research design suggest that the causal ordering flows from an individual's level of anger to patterns of political behavior and public opinion. Arguing that the causal arrow instead points in the other direction would require more assumptions – assumptions that are tenuous

at best.

5   Conclusion & Discussion

In this paper I have argued that higher levels of anger, as measured on the NEO-PI-R scale, shapes patterns of individual political behavior and public opinion. Specifically, I have examined the link between anger and partisan affiliation, partisan issue consistency and extremity, and evaluations of the national government. The results suggest that having higher levels of personality-governed anger does not influence the party with which an individual affiliates, implying that the anger that is so prevalent in contemporary American politics is not contained within just one party. On the contrary, individuals with high levels of personality-governed anger can be found in both the Democratic and Republican parties.

Additionally, I have shown that higher levels of anger are related to partisan issue consistency and extremity. Though this relationship exists only for self-identifying Republicans and ideological conservatives, the results indicate that anger, through its tendency to cause individuals to rely on cues and avoid self-reflection, is able to shape patterns of political behavior and public opinion.

Finally, the results of this paper suggest that individuals with higher personality-governed levels of anger are more likely to have negative evaluations of the national government. In particular, higher levels of anger are associated with a greater belief that the government is unresponsive to the concerns and interests of the public, as well as the belief that the government is corrupt. This relationship exists largely through the mechanism of "mood congruity," which suggests that individuals evaluate objects in a manner that is consistent

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with the valence of their emotion. Because anger is an emotion that is negatively valenced, individuals who are predisposed to be angry are more likely to possess negative evaluations of political institutions.

In addition to examining the relationship between anger, partisan affiliation, partisan issue consistency and extremity, and evaluations of the national government, this paper contributes to the literature on personality and politics by introducing and using a new measure of personality. Though the NEO-PI-R has been in existence for some time now, it has yet to be used within political science. This is unfortunate because it is a more thorough measure of an individual's personality and, compared to the Big Five domain-level personality traits, is more theoretically tractable.

Crucially, the findings presented in this paper hinge upon the theoretical idea that, though an individual's personality tends to remain stable over time, changes in electoral and political contexts (such as a high degree of elite and/or mass polarization) can make certain personality traits more or less salient for guiding patterns of behavior. Future work, then, should explore what sorts of factors can make personality traits – whether anger, anxiety, or something else – more or less salient within the political realm. Given the wide array of traits measured by the NEO-PI-R personality scale and the constantly shifting nature of political discourse, plenty of work remains for students of political behavior and political psychology.

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6 Appendix

6.1 NEO-PI-R Anger statements

Please indicate, according to the scale provided below, how accurate each of these statements are as a description of yourself. (Note: options are "very inaccurate," "moderately inaccurate," "neither inaccurate nor accurate," "moderately accurate," and "very accurate.")

- I get angry easily. (positive-coded)
- I get irritated easily. (positive-coded)
- I get upset easily. (positive-coded)
- I am often in a bad mood. (positive-coded)
- I lose my temper. (positive-coded)
- I rarely get irritated. (reverse-coded)
- I seldom get mad. (reverse-coded)
- I am not easily annoyed. (reverse-coded)
- I keep my cool. (reverse-coded)
- I rarely complain. (reverse-coded)

6.2 Issue questions for constraint measures

1. Which of the following best represents your view on abortion?
   - By law, abortion should never be permitted.
   - The law should permit abortion only in cases of rape, incest, or when the woman's life is in danger.
   - The law should permit abortion for reasons other than rape, incest, or danger to the woman's life, but only after the need for the abortion has been clearly established.
   - By law, a woman should always be able to obtain an abortion as a matter of personal choice.

2. At present, anyone born in the United States is a citizen. Should the United States government deny automatic citizenship to American-born children of illegal immigrants?
   - Yes
   - No
   - I have no position on this issue

3. Do you favor or oppose allowing gays and lesbians to marry legally?
   - Favor
   - Oppose
   - Oppose same-sex marriage but support civil unions

4. Affirmative action programs give preference to racial minorities in employment and college admissions in order to correct for past discrimination. Do you suppose or oppose affirmative action?
   - Strongly support
   - Somewhat support
   - Somewhat oppose
   - Strongly oppose
   - I have no position on this issue

5. In general, do you feel that the laws covering the sale of firearms should be ...
   - More strict
   - Less strict
   - Kept as they are

6. From what you know about global climate change or global warming, which one of the following statements comes closest to your opinion?
   - Global climate change has been established as a serious problem, and immediate action is necessary.
   - There is enough evidence that climate change is taking place and some action should be taken.
   - We don't know enough about global climate change, and more research is necessary before we take any actions.
   - Concern about global climate change is exaggerated. No action is necessary.
   - Global climate change is not occurring; this is not a real issue.