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Essays on Anger, Personality, and American Political Behavior

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Essays on Anger, Personality, and American Political Behavior

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Bachelor of Arts, Oklahoma State University, 2012

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An abstract of
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Abstract

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By Steven W. Webster

American politics in the 21^{st} century is largely defined by heightened levels of anger and negativity. Yet, existing studies have done little to understand the ways in which anger and its associated personality dimensions combine to shape patterns of political behavior. In this dissertation, I present a series of studies illustrating the ways in which anger, as well as an individual's broader personality profile, affect patterns of political behavior and public opinion. In the first chapter I link the Big Five personality traits to the development of negative partisanship within the American electorate, with a particular focus on the role of Extraversion and Agreeableness. In the second chapter I utilize a new measure of anger, derived from clinical psychology, to show how individuals whose personality profile predisposes them to be angry differ from their more pacific counterparts. Finally, in the third chapter I employ an experimental design to show how heightened levels of both political and incidental anger cause a reduction in individuals' trust in government. Taken as a whole, this dissertation provides compelling evidence that anger plays a powerful role in explaining contemporary mass political behavior.

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For Mom & Dad

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Chapter 1

It's Personal: The Big Five Personality Traits and Negative Partisan Affect

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 parties 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, Iyengar, Sood and Lelkes 2012, Mason 2013, 2015, Sood and Iyengar 2015).

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 (Billig and Tajfel 1973, Tajfel 1981, Tajfel and Turner 1979), recent research suggests that negativity toward the out-party increases when social and political identities are more aligned (Malka and Lelkes 2010, Mason 2013, 2015). 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 2003, Avery and McKay 2006, Luhtanen and Crocker 1992). If such a finding exists in relation to political behavior, then there is a pressing need to adopt more nuanced, fine-grained 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.

1.1 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., Cooper, Golden and Socha 2013, Gerber et al. 2010, Mondak 2010, Mondak and Halperin 2008).[1] These five factors are most frequently referred to as (1) Openness to new experiences, (2) Conscientiousness, (3) Extraversion, (4) Agreeableness, and (5) Emotional Stability.[2] 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 dimensions that parsimoniously and comprehensively describe most phenotypic individual differ-

[1] This is also referred to as the "five factor model" of personality.

[2] Emotional stability is also referred to as neuroticism by some authors.

ences" (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 Conscientiousness and Emotional Stability are predictive of ideological conservatism (Gerber et al. 2010, Mondak 2010, Mondak and Halperin 2008). 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 (Costa and McCrae 1995, Pervin and John 1999). 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*b*). 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 2010, Abramowitz and Saunders 2008, 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.[3]

While I expect the probability of viewing the opposing party with negativity will be decreasing in Extraversion, theory suggests that, conditional upon viewing the

[3]This theoretical mechanism has its origins in Allport's (1954) contact hypothesis. According to this theory, intergroup 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).

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).[4] Thus, after being exposed to members of the opposing party according to one's 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

[4]In this sense, Agreeableness contains a good deal of what Gerring (2001) termed *conceptual resonance*, by which 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."

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.

1.2 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 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.[5] 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 *dis*agreeable. 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 1.1.

Table 1.1: 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	4.13	4.000	1.094	0	6
Emotional Stability	5,914	3.952	4.000	1.230	0	6

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*

[5]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).

their own party.[6] 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:

$$(100 - \texttt{Other party F.T.}) - \texttt{Own party F.T.} \tag{1.1}$$

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 1.1 shows the distribution of scores on this negativity scale.

An alternative specification for the dependent variable would be to simply use

[6] Independents who lean toward one of the two parties are classified as partisans.

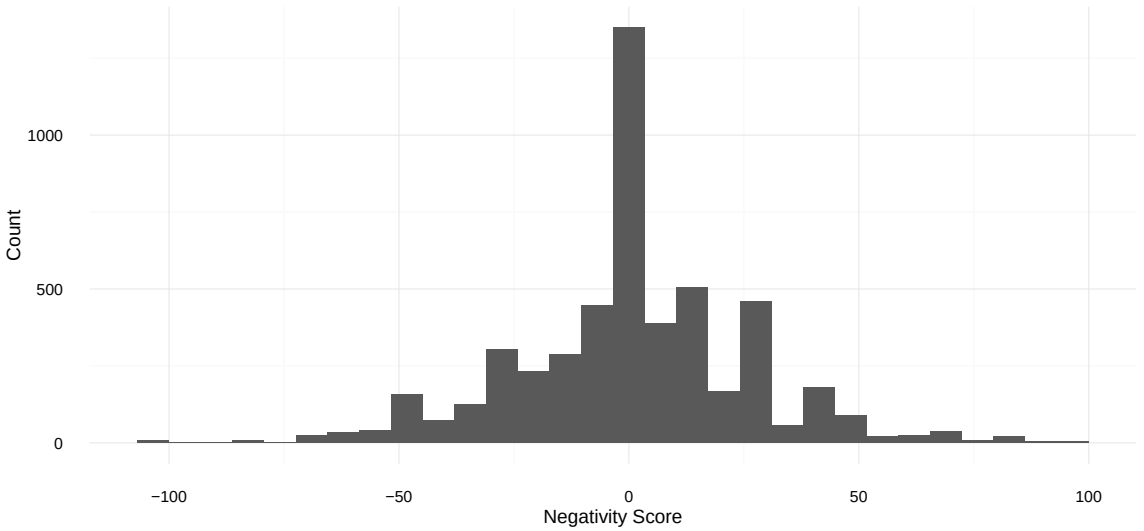


Figure 1.1: *Distribution of Negativity Scale.* This histogram shows the distribution of scores on the dependent variable used in this analysis.

individuals' feeling thermometer ratings of the opposing political party. However, the measure specified in Equation 1.1 is preferable in that it provides a useful baseline as to individuals' relative degree of like 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.

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.[7] 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.[8] 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, 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.

[7] (100 - 30) - 30 = 40.
[8] (100 - 70) - 70 = -40.

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.[9] Additionally, the results presented in Section 2.3 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 3.2, 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).[10] Thus, the 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,

[9]The mean rating for one's own party is 71 degrees. The mean rating for the opposing party is 27 degrees.

[10]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 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.

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:

$$np_i = \Lambda(\beta_1 \text{Open}_i + \beta_2 \text{Consc.}_i + \beta_3 \text{Extra.}_i + \beta_4 \text{Agree.}_i + \beta_5 \text{Stability}_i + \beta \mathbf{X}_i + \epsilon) \quad (1.2)$$

where Λ 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 vote, wore a button or displayed a bumper sticker, worked for a campaign, donated money to a 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:

$$y_i = \alpha + \beta_1 \text{Open}_i + \beta_2 \text{Consc.}_i + \beta_3 \text{Extra.}_i + \beta_4 \text{Agree.}_i + \beta_5 \text{Stability}_i + \beta \mathbf{X}_i + \epsilon \quad (1.3)$$

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.

1.3 Results

The results of the selection model (as specified in Equation 1.2) 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 2010, Abramowitz and Saunders 2008). Thus, Extraversion is a strong predictor of whether or not an individual can be classified as a negative partisan. Table 1.2 shows the full results of the model estimation.

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

	Model 1		Model 2	
	Stage 1 Zero Hurdle Logit	**Stage 2 Negative Affect OLS**	**Stage 1 Zero Hurdle Logit**	**Stage 2 Negative Affect OLS**
Openness	-0.032	0.353	-0.032	0.280
	(0.019)	(0.908)	(0.019)	(0.853)
Conscientiousness	-0.022	-1.507	-0.021	-1.331
	(0.020)	(0.919)	(0.020)	(0.879)
Extraversion	-0.047**	-1.013	-.045**	-0.663
	(0.016)	(0.724)	(0.016)	(0.678)
Agreeableness	-0.033	-3.032***	-0.029	-2.594**
	(0.020)	(0.917)	(0.020)	(0.856)
Emotional Stability	-0.026	0.919	-0.027	0.848
	(0.019)	(0.847)	(0.019)	(0.801)
Age	-0.003*	-0.071	-0.002	-0.025
	(0.001)	(0.063)	(0.001)	(0.058)
Female	-0.201***	-4.331*	-0.190***	-3.129
	(0.041)	(1.979)	(0.041)	(1.859)
Non-white	-0.340***	.240	-0.310***	1.403
	(0.043)	(2.174)	(0.044)	(2.051)
Education	0.197***	-1.214	0.188***	-1.597
	(0.032)	(1.443)	(0.032)	(1.366)
Ideology	0.128***	-0.902	0.145***	0.670
	(0.017)	(0.917)	(0.018)	(0.907)
Activism	0.065***	0.077	0.070***	0.393
	(0.010)	(0.502)	(0.010)	(0.469)
Strong Partisan			-0.185***	-15.853***
			(0.042)	(2.159)
Constant	-0.344*	39.997***	-0.411*	33.230***
	(0.159)	(7.539)	(0.161)	(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 1.2: *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.

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 1.4.

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 1.2. 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.

The patterns in Figure 1.2 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

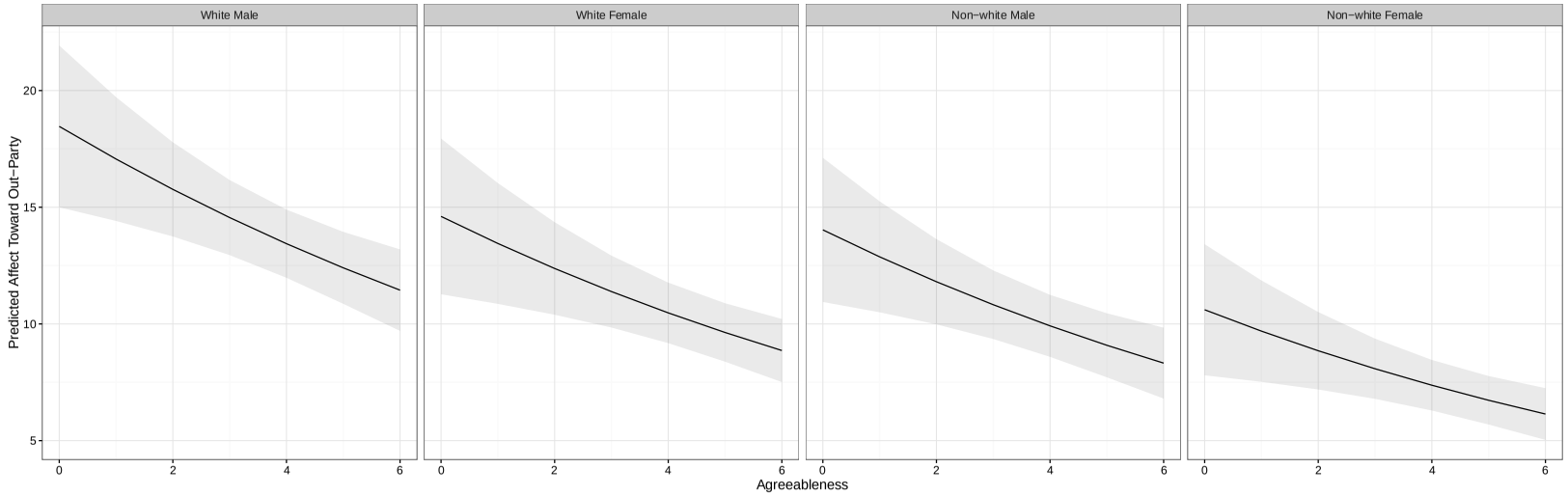


Figure 1.2: *Agreeableness Lowers Negative Affect.* These predicted probabilities show how increasing degrees of Agreeableness lowers the negativity with which an individual views the opposing party. The Agreeableness variable ranges from its minimum to maximum value and all other predictors are held constant at their means. Across the four graphs, the predictions vary according to gender and race.

affect. These numbers, along with the patterns shown in Figure 1.2, 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 1.3. In each case, the main findings are robust to the use of a logistic regression separate from OLS.

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

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Table 1.3: *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).

The first column in Table 1.3 regresses an indicator for whether or not an individual is a negative partisan (as specified in Equation 1.1) on the Big Five personality traits and the same set of controls found in Table 1.2. As before, the coefficient for Extraversion is negatively signed and is statistically significant at the $p < .05$ level. The second column in Table 1.3 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 1.2, 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.

1.3.1 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 (Cobb-Clark and Schurer 2012, Digman 1989, McCrae and Costa 1994). 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 questions 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.

1.4 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 1.3.1 – 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 in-

dividual'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.

Chapter 2

Trait-Based Anger and American Political Behavior

American politics in the contemporary era is defined by a new style of partisanship. Unlike their counterparts in the 20^{th} century, Americans today have an intense dislike of the opposing political party, its supporters, and its governing elite (Abramowitz and Webster 2016, Iyengar, Sood and Lelkes 2012, Malka and Lelkes 2010, Mason 2013, 2015). 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 down-

stream consequences of individuals who have become angry at the out-party or some other political target, 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 (Gerber et al. 2012*a*, 2010, Mondak 2010, Mondak and Halperin 2008).

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 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.

2.1 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. 2012*b*).

Additionally, Gerber et al. (2012*b*) 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. (2012*b*) 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.*

2.1.1 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, accord-

[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).

ing to the psychological literature from which it is derived, "personality" refers to a relatively stable set of characteristics that guide one's disposition toward the social world (Cobb-Clark and Schurer 2012, Digman 1989, McCrae and Costa 1994). 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 longstanding 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.

2.2 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 2.1.

Table 2.1: 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

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.[2] 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, birth-right 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 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

[2]These scales are analogous to those found in the American National Election Studies (ANES) and the Cooperative Congressional Election Study (CCES).

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 (Fiorina, Abrams and Pope 2005, Levendusky 2009). 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 party 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., Cooper, Golden and Socha 2013, Gerber et al. 2010, Mondak 2010, Mondak and Halperin 2008, Mondak et al. 2010), 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.[3] According to the 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,

[3]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 or Goldberg et al. (2006).

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.[4] 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 that an

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

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:

$$Anger = \sum_{i=1}^{5} x_i + \sum_{j=1}^{5} x_j \tag{2.1}$$

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 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).

2.2.1 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:

$$y_i = \Lambda \left(\alpha + \beta_1 \rho_i + \gamma X_i + \epsilon \right) \tag{2.2}$$

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:

$$pice_i = \alpha + \beta_1 \rho_i + \gamma X_i + \epsilon \tag{2.3}$$

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 2.3 is estimated on four subgroups of the data: ideological liberals, ideological conservatives, Democrats, and Republicans.[5] 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:

[5]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 2.3. The results of the models with ideology included as a control variable are available upon request.

$$y_i = \alpha + \beta_1 \rho_i + \eta X_i + \epsilon \tag{2.4}$$

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 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.

2.3 Results

2.3.1 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 2.1, 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

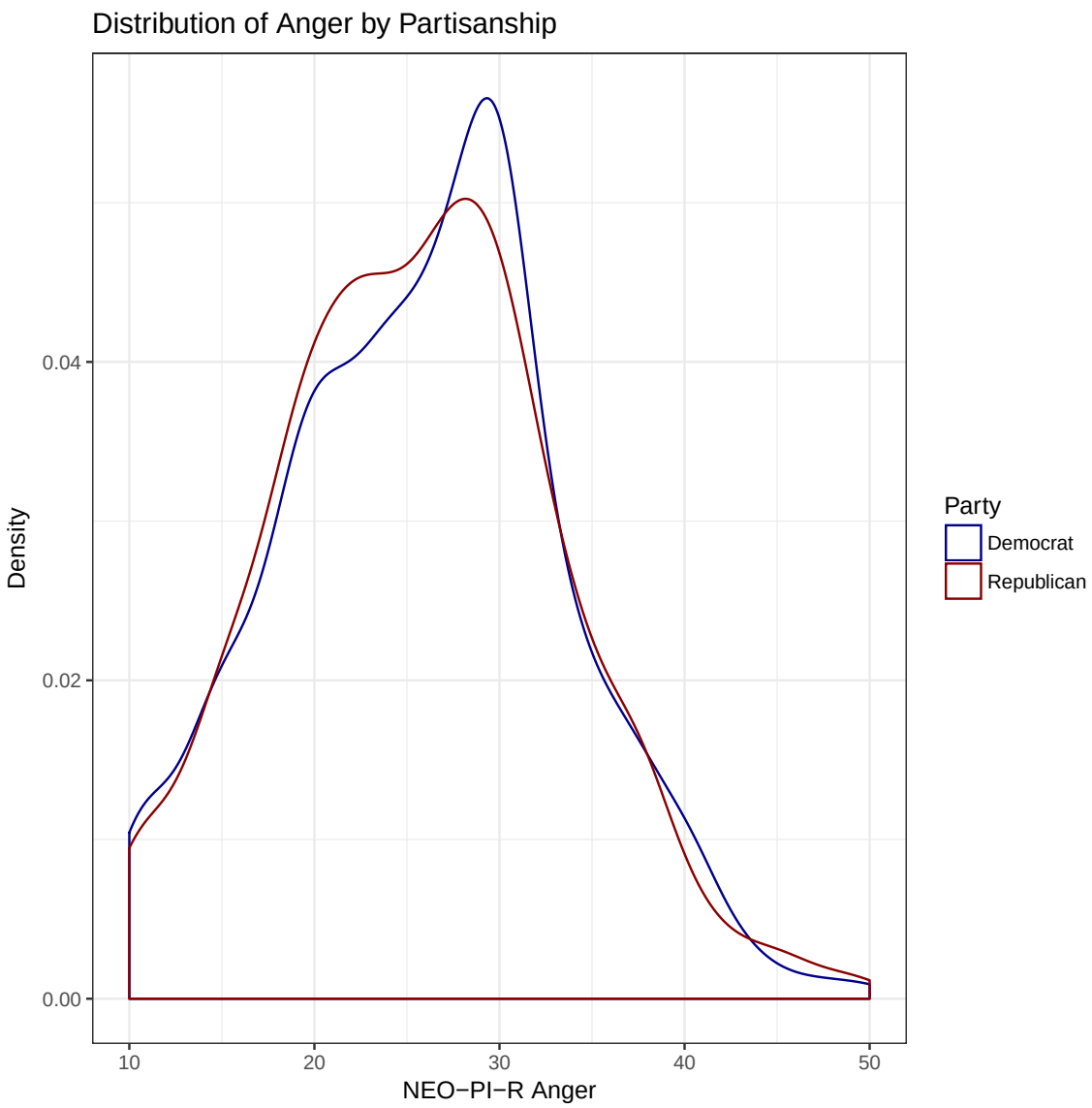


Figure 2.1: *Distribution of Anger by Partisanship.* This figure shows the distribution of scores on the NEO-PI-R measure of anger by partisan affiliation.

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 2.2. The results of these models are shown in Table 2.2. 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.

	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 2.2: *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.

2.3.2 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 2.3, 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 (Bafumi and Shapiro 2009, Bartels 2000).

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 2.2. The plot on the left shows the relationship between anger and partisan issue

	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 2.3: *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.

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.[6] 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,

[6]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.

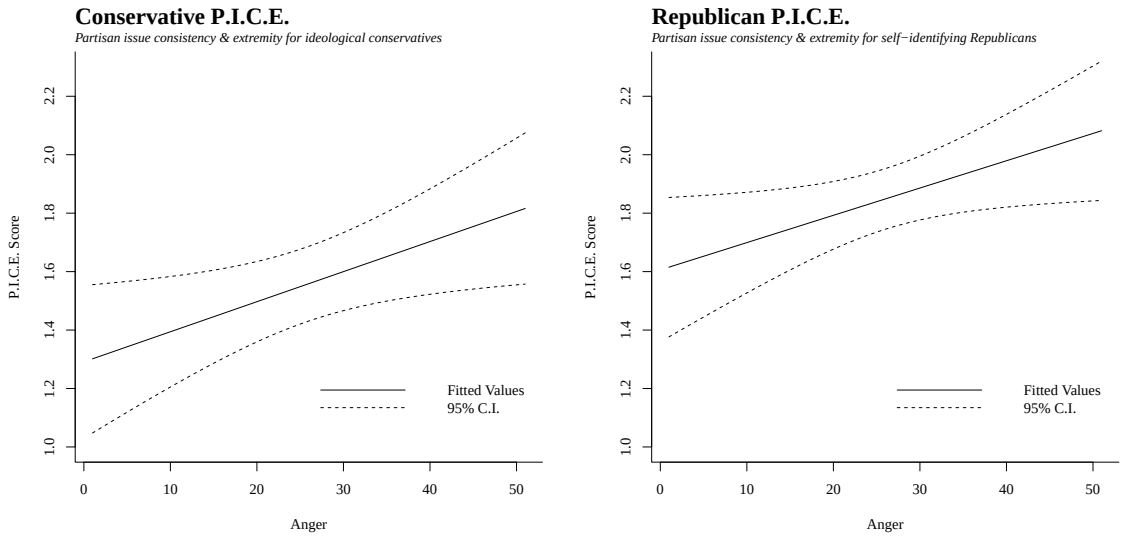


Figure 2.2: *Change in Partisan Issue Consistency given Level of Anger.* These figures show how an individual's level of partisan issue consistency and extremity increases for conservatives (left) and Republicans (right). Predicted values are derived from holding education, income, party identification, and participation levels at their mean values. Gender is set to male and the nonwhite dummy variable is set to zero.

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 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., Butler 2009, Mann and Ornstein 2012).[7]

Given what we know about the types of people who tend to be polarized *and* the arguments put forth in Section 3.2, 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 individuals than for liberals and Democrats. Thus, while the original theory outlined in Section 3.2 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

[7]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/.

on the political right fits with what we know from the larger literature on political behavior (Huber et al. 2015).

2.3.3 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 3.2 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 2.4, are shown in Table 2.4.

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

	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 2.4: *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.

2.4 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 (Cobb-Clark and Schurer 2012, Digman 1989, McCrae and Costa 1994). 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.

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.

2.5 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 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.

2.6 Appendix

2.6.1 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)

2.6.2 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.

Chapter 3

Anger and Declining Trust in Government in the American Electorate

At both the elite- and mass-level, American politics is becoming increasingly polarized (Abramowitz 2010, Abramowitz and Saunders 2008, Hetherington 2001, McCarty, Poole and Rosenthal 2016, Theriault 2008). This polarization has led to a more biased, hostile, confrontational, and angry style of politics. This new anger-fueled partisanship has caused a rise in antipathy and hostility toward the out-party (Iyengar, Sood and Lelkes 2012, Mason 2013, 2015, Sood and Iyengar 2015), an increase in straight-ticket voting (Jacobson 2015) with an associated "nationalization" of election outcomes (Abramowitz and Webster 2016), and heightened levels of political participation through the mechanism of increased in-group threat and anger

toward the out-party (Huddy, Mason and Aarøe 2015).

Yet, outside of such behavioral outcomes, little is known about how anger within the electorate shapes individuals' views of the political system and governmental processes. Indeed, while the anger that is so prevalent within contemporary American politics may bring positive benefits (e.g., increased participation and clarified choices at the ballot box), it is likely that this anger-fueled partisan antipathy has the negative consequence of diminishing individuals' evaluations of American government.

In this paper, I seek to fill this gap in our understanding by showing how anger lowers Americans' evaluations of the national government. I do this by first presenting evidence from the 2012 American National Election Studies (ANES) that shows that higher levels of anger are associated with a greater belief that people have no say about what the government does, that public officials do not care what people think, and that government is run by crooked individuals. I then present evidence from a survey experiment derived from a unique dataset on a national sample of registered voters, fielded nearly four years after the final wave of the 2012 ANES panel was completed, that shows that inducing higher levels of anger in individuals has a causal effect on lowering Americans' views toward government.

Importantly, while these causal effects are obtained by directing individuals' anger toward the national government, they are robust to anger that is aroused through apolitical means. This suggests that being angry specifically about politics or political issues is not necessary to cause a diminution in individuals' evaluations of American government. On the contrary, merely provoking higher levels of incidental anger is sufficient to alter individuals' perceptions of political issues. In total, the observational

and experimental results I present here suggest that anger has a broad and powerful role in shaping patterns of political behavior and public opinion within the American electorate, especially in regards to evaluations of the national government.

This paper proceeds as follows: first, I outline recent work on how anger affects political behavior, as well as research examining the factors that shape an individual's levels of political efficacy and evaluations of government. I then draw on psychological theories of Affective Intelligence (AI) and "mood-congruity" (see, e.g., Bower 1991) to develop a theory as to how and why anger should cause individuals to lower their evaluations of the national government. I then present a series of results – both observational and causal – consistent with my expectations. Finally, I conclude by discussing the implications of these findings and discussing avenues for future research.

3.1 Anger, Behavior, and Political Efficacy

Though canonical models of political behavior suggest that individuals are purely rational actors who are unaffected by emotions (see, e.g., Downs 1957), recent work has cogently shown that anger can and does play an important role in shaping political behavior and public opinion across a wide range of issue areas. Banks and Valentino (2012), for instance, show that anger causes a reduction in support for affirmative action policies and that this anger is at the root of symbolic racism and racial resentment. Relatedly, Banks (2014) shows that heightened levels of anger causes shifts in opinions on health care reform. Specifically, Banks's (2014) study shows that anger causes a reduction in support for health care reform among racial

conservatives by triggering symbolic racism. Conversely, higher levels of anger serves to increase support for health care reform among those who are racially liberal. The mechanism through which these findings occur can largely be explained by MacKuen et al.'s (2010) argument that anger causes people to fall back on familiar information and pre-conceived ideas.

Additional studies have illustrated how anger serves to reduce levels of trust. For instance, Dunn and Schweitzer (2005) utilize an experimental design to show how higher levels of anger plays a causal role in reducing an individual's level of interpersonal trust. Importantly, this effect is found through arousing an individual's level of "incidental anger." This implies that experiencing anger in one situation can affect a person's reactions in an unrelated setting. Applying their model to business dealings, Dunn and Schweitzer (2005) show how experiencing anger in one meeting may cause a manager to also be angry "with a client in an unrelated setting."

Relatedly, Gino and Schweitzer (2008) find that angry individuals are less willing to accept advice from others. Similar to the mechanism found by Dunn and Schweitzer (2005), Gino and Schweitzer (2008) note that the reason that angry individuals are less willing to accept advice from others is because higher levels of anger lowers an individual's level of interpersonal trust. Much like the findings provided by Dunn and Schweitzer (2005), the results that Gino and Schweitzer (2008) present are also obtained by heightening levels of "incidental anger." Anger, then, has been shown to affect trust in broad and meaningful ways across multiple studies.

If these findings about anger and trust exist at the individual level, then it makes sense to expect that we would see them at an institutional level as well. However,

the existing body of scholarship is devoid of any studies examining the link between anger and trust in (or evaluations of) governing institutions. Indeed, recent work on political trust has suggested that an individual's partisan affiliation plays the largest role in determining how she views governmental performance. According to Hetherington and Rudolph (2015), the increasing polarization of partisans along an affective dimension has caused individuals whose party is *not* in power to have consistently lower levels of trust in government. This is problematic, say Hetherington and Rudolph (2015), because "trust can serve as a reservoir that policy makers draw on to cause those not ideologically predisposed to follow them to give their ideas a shot," and "[t]hat reservoir has run dry." In sum, Hetherington and Rudolph's (2015) argument is that polarization has diminished citizens' trust in the very institutions that are designed to both represent and provide for their needs.

Hetherington and Rudolph's (2015) study largely builds on the work of Citrin (1974), who found that whether an individual trusts the government is largely a function of whether her partisan affiliation matches that of the president. Thus, Democrats in the electorate trust the government more when the president is a Democrat; similarly, Republicans exhibit higher levels of trust in government when a Republican holds the office. It is likely that such trends are exacerbated in the contemporary era, given that the rise of partisan news outlets has allowed Americans to self-select into the TV stations and news websites that best fit their own partisan and ideological leanings (Mutz 2006, Prior 2007). Indeed, previous work has shown that the ways in which news outlets cover politics plays a large role in determining citizens' cynicism toward government (Cappella and Jamieson 1997).

Though anger within the electorate is increasing as trust in government is declining, little has been done to integrate these two trends. While Hetherington and Rudolph (2015) lay a foundation for such a research agenda, more work remains to be done. Indeed, it is important to understand how the growth in anger – as a trend related to, but distinct from polarization – affects trust in, and evaluations of, government. In the next section, I draw on two related theories from psychological literatures to develop a theory as to how and why anger should lower Americans' evaluations of the national government.

3.2 Anger, Negativity, and Evaluations of Government

While anger is a prominent emotional aspect of negative partisan affect in the American electorate, the existing body of scholarship within political science has been slow to examine the precise ways in which anger shapes patterns of political behavior and public opinion. More specifically, scholars have yet to determine whether anger must be targeted at political issues in order to affect individuals' political views or if merely arousing generalized apolitical anger is sufficient to alter public opinion. Such a question is puzzling, as extant research suggests that both of these types of anger might be able to influence individuals' evaluations of the national government.

3.2.1 Targeted Political Anger and Trust in Government

That targeted political anger might be able to affect evaluations of the national government has a considerable amount of support from studies within political behavior and political psychology. In addition to being associated with higher levels of both "cheap" and "costly" forms of participation (see, e.g., Valentino et al. 2011), anger about politics has also been linked to internal political efficacy (Valentino, Gregorowicz and Groenendyk 2009). As Valentino, Gregorowicz and Groenendyk (2009) argue, policy threats – for instance, what a liberal voter might experience when a more conservative politician proposes privatizing Social Security – prompt individuals to become angry. Among those individuals who have high levels of internal political efficacy, this anger serves as a catalyst for engagement and participation in future elections.

Though these studies link anger to political participation and engagement, the mechanism they uncover is important for understanding how anger might affect attitudes toward the national government. In each case, anger is seen as a biological response to some upsetting, or otherwise unwanted, political stimuli. The result of this anger is some set of actions or thought processes against the source of the stimulus. Importantly, because "anger ... has an unusually strong ability to capture attention" and influence "perceptions, beliefs, ideas, reasoning, and ultimately choices," (Lerner and Tiedens 2006) the responses elicited from anger are oftentimes predictable. Crucially, anger typically elicits negative appraisals from individuals toward that which induced the anger – such as television reports (Kim and Cameron 2011), terrorists

(Lerner et al. 2003), art (Silvia 2009), or companies (Bennett 1997).

Following this logic, individuals who are angry about politics or political affairs should have lower evaluations of the national government. As perhaps the most visible representation of politics and political affairs, the national government is a likely target for the negative appraisals that targeted political anger should elicit. Indeed, such a relationship between anger and lower levels of trust in government is especially likely to exist in the contemporary era. Because negative partisan affect in the electorate has grown considerably over the past few decades (Abramowitz and Webster 2016, Iyengar and Westwood 2015, Mason 2013, 2015), Americans are increasingly exposed to stimuli seeking to induce anger toward the opposing political party, its governing elite, and its supporters in the electorate. Whether these stimuli come from elite rhetoric (Layman and Carsey 2002), fellow partisans (Klar 2014), or partisan-friendly media outlets (Prior 2007), political discourse in the contemporary era is decisively negative in tone. Moreover, because these anger-inducing stimuli often encourage individuals to gauge the governmental performance of a particular party (see, e.g., Citrin 1974, Hetherington and Rudolph 2015), targeted political anger should cause individuals to have lower evaluations of the national government.

3.2.2 Generalized Apolitical Anger and Trust in Government

In addition to this targeted form of political anger described above, it is also possible for a more generalized type of anger that is aroused through apolitical means to affect an individual's evaluations of the national government. That generalized apolitical

anger might be able to shape individuals' evaluations of the national government is due, in part, to the process of Affective Intelligence (AI). Pioneered by Marcus, Neuman and MacKuen (2000), AI "conceptualize[s] affect and reason not as oppositional but as complementary, as two functional mental faculties in a delicate, interactive, highly functional dynamic balance." The complementary and interactive nature of emotion and reason operates such that one's emotional reaction to a particular stimulus shapes whether an individual will react to that stimulus by relying on old habits or by seeking new information. Moreover, AI claims that "affect also influences when and how we *think* about ... things" (Marcus, Neuman and MacKuen 2000, emphasis in original).

Schwarz and Clore (1983) put forth a similar argument, claiming that emotion and reason are interconnected processes. Specifically, their argument is that affect plays a large role in how individuals process and comprehend information. In their seminal study, Schwarz and Clore (1983) experimentally induced either happy or sad emotions in subjects and then asked individuals to give subjective evaluations about their quality of life. The results they found suggest that happy individuals and sad individuals tend to have positive and negative evaluations about their quality of life, respectively. Much like Marcus, Neuman and MacKuen's (2000) theory of AI, this implies that emotions and reason are intertwined in a manner where the former play a large role in influencing the latter. In other words, "one cannot think without feeling" (Marcus 2002).

How, then, should generalized apolitical anger be expected to lower individuals' views of the national government? Insights from AI and the psychological theory

of "mood-congruity" (Bower 1991) suggest that an individual's felt emotion shapes the way in which she renders a judgment on any given thing. Extant research also suggests that anger is an emotion with a negative valence (Lerner and Keltner 2001, Moons, Eisenberger and Taylor 2010). Accordingly, individuals who are primed to exhibit higher levels of anger – either at a specific target, or incidentally – will view the target of their anger in a negative light. Put more succinctly, because anger is an emotion with a negative valence, the judgment that an angry individual makes toward another person, situation, or institution will also be negative. By eliciting generalized apolitical anger and then immediately asking individuals how they feel about the national government, the negative valence attached to the emotional outburst of anger is likely to "spill over" and shape individuals' evaluations of the government. Thus, although the mode through which the anger was elicited was apolitical, it is possible to subsequently channel that anger toward a political target and, via the mechanism of mood-congruity, lower evaluations of that same object.

This expectation was cogently illustrated by Forgas and Moylan (1987), who surveyed movie-goers about various items (e.g., political judgments, expectations about the future) after they had seen a movie with a particular overall valence. They found that individuals who saw a movie that, overall, had a happy valence, tended to give optimistic judgments on survey batteries. By contrast, those individuals who saw movies that had an aggregate sad or aggressive valence were more pessimistic in their judgments.[1] In terms of political affairs, for instance, Forgas and Moylan (1987)

[1]Forgas and Moylan's (1987) movies with a happy valence were *Beverly Hills Cop, Police Academy 2, Back to the Future,* and *Brewster's Millions.* Their movies with a sad valence were *Dance with a Stranger, Mask, Birdy,* and *Killing Fields.* Their movies with an aggressive valence were *First Blood, Rambo, Mad Max 2,* and *Mad Max 3.*

found that individuals gave lower evaluations of national and local Australian politicians after seeing a sad or aggressive film. Additionally, movie goers who saw a sad or aggressive film were less likely to believe that a nuclear war could be avoided, and were more likely to believe that the state of the economy was poor. These findings lend credence to the theory of mood-congruity, and suggest that anger should "be expected to activate negative concepts, and ... negative judgments" (Bodenhausen, Sheppard and Kramer 1994) across a wide range of possible issues.

Though both targeted political anger and generalized apolitical anger should affect individuals' evaluations of the national government, the effect sizes should not be equal. Instead, the magnitude of the targeted political anger effect should be larger than that of the effect for generalized apolitical anger. This is because, while the anger derived via apolitical means must "spill over" to political targets in order to have an effect, the targeted political anger is more direct. Because targeted political anger, by definition, directly elicits anger about politics and political affairs, the degree to which individuals negatively view the object that elicited the anger should be stronger.

3.3 Design & Results

In order to illustrate how anger – both targeted at politics and more broadly elicited – shapes individuals' views of the national government, I first utilize data from the 2012 American National Election Studies (ANES) panel survey. Using the ANES data for this analysis is beneficial for a variety of reasons. First, the ANES has been

fielded for over 60 years and is widely used within the field of political behavior. More importantly, the 2012 installment of the ANES included questions about individuals' emotional responses to the two major parties' presidential candidates. This allows for a relatively straightforward examination of the relationship between anger and trust in government.

Summary statistics on partisanship and demographics are presented in the Appendix. Here, I have dichotomized an individual's gender and racial affiliation. I have also created a three-item measure of education: a value of one indicates that an individual possesses a high school education or less, a value of two indicates that an individual possesses up to a Bachelors degree, and a value of three indicates that a respondent has a graduate or professional degree.

Given these coding decisions, 52% of the 2012 ANES sample is female and 40.6% are non-white. The mean level of education is 1.78, a number that indicates that the average level of education in the sample is just below a Bachelors degree. Moreover, nearly 53% of the sample identifies as a Democrat, approximately 34% identify as a Republican, and the remaining 13% identify as an independent.[2] These demographics are close to the percentages from the U.S. Census Bureau, which found that the U.S. population was 50.8% female and 25% non-white.[3]

Key for the analysis here are questions that asked about individuals' emotional feelings toward the Democratic and Republican presidential candidates, and a series of questions designed to measure individuals' level of trust in government. In or-

[2]In these calculations, respondents identifying as an independent who lean toward one of the two major parties were classified as a partisan.

[3]See https://www.census.gov/2010census/data/ for more demographic information from the 2010 U.S. Census.

der to construct the main independent variables of targeted political anger used in these analyses, I relied on individuals' responses to questions asking how often they felt angry at the Democratic presidential candidate and the Republican presidential candidate. These questions have five possible responses, ranging from "never" to "always."[4] I used these variables to create a measure of anger toward the opposing party's presidential candidate, where Republican respondents' values are those reported on the measure tapping anger toward the Democratic presidential candidate, and Democratic respondents' values are those reported on the measure of anger toward the Republican presidential candidate. This measure is scored such that higher values indicate more frequently feeling angry about the opposing party's presidential candidate.[5]

There are three dependent variables in this analysis, each of which taps a different measure of citizens' trust in government. The first question asks individuals how many people in government they believe to be crooked. There are three possible responses to this question: "hardly any," "not very many," and "quite a few." The variable is coded to range from 1-3. The second question asks respondents to indicate whether they agree with the notion that public officials do not care what people think. Potential responses for this question range from "disagree strongly" to "agree

[4]The full range of possible responses are "never," "some of the time," "about half the time," "most of the time," and "always."

[5]It is important to note that the questions used to create these measures are the second part of a branching item in the 2012 ANES. The first question in the two-item series asks individuals whether they ever reported feeling angry at the Democratic or Republican presidential candidate. Only those individuals who answered "yes" are branched into this second question that reports the frequency of anger. As a robustness check, I also analyzed the models with the first question of the branch as the key independent variable. This question simply asks whether the respondent ever reported feeling angry at the Democratic (or Republican) presidential candidate. The results are robust to this change.

strongly." The last dependent variable measures how much individuals believe that they have no say in what government does. Responses to this question range from "not at all" to "a great deal." For both of these variables, potential responses are coded to range from 1-5. In each case, higher values on these variables indicate lower levels of trust in government.

In order to minimize any confounding effects in my model estimates, I include in each model controls for partisanship, self-reported ideology (along a seven-point scale), gender, race, education, and a scale measuring an individual's level of activism. The education control is the trichotomous measure discussed above, while the activism scale measures how many of 11 different participatory acts an individual engaged in. These acts are attending a rally, talking to others about politics, displaying a yard sign or a bumper sticker, working for a political party, donating money to a candidate, donating money to a party, donating to a third-party political organization, attending a march or rally, attending a school board meeting, signing a political petition, or contacting a Member of Congress about an issue. Additionally, in order to address concerns about answers to the post-election dependent variables measuring trust in government being affected by the outcome of the election, I also include a pre-election measure of how much individuals trust the government as a control variable in each model. This allows for a de-facto "baseline" level of trust in government to be built into the model estimates.

To facilitate an easier interpretation of the relationship between the independent variables and the various metrics tapping into trust in government, all of the independent variables are normalized to range from 0-1. Estimation is via ordinary-least

squares (OLS) regression. However, because each of the dependent variables has just a few possible categorical responses, I also estimated these models via a series of ordered logistic regressions. In each case, the findings are robust to the use of an ordered logit. Accordingly, I present OLS results here for ease of interpretation. Results of the models calculated using ordered logit are available in the Appendix.

Across each of the three measures of trust in government, the results of Table 3.1 suggest that higher levels of targeted political anger is associated with a lower level of trust in government. The predictive power of anger toward the opposing party's presidential candidate is quite impressive. Indeed, in all three model specifications, the coefficient estimate of anger toward the opposing party's presidential candidate is larger, in terms of absolute value, than the dummy variables for gender and race. The coefficient estimate for the anger variable is larger than that of the activism variable in two of the three model specifications and is consistently on par with an individual's level of education in terms of its predictive ability.

Because the majority of the literature on political efficacy and trust in government focuses on the role of partisanship, comparing the standardized coefficient estimates between the anger variable and the partisan dummy is particularly important.[6] Outside of the measure of an individual's baseline level of pre-election trust in government, no variable plays a larger role in predicting how much an individual trusts the national government than partisanship. However, a simple comparison shows that anger is also a strong predictor of trust in government.

[6]The models with standardized coefficients are available upon request.

	Govt. Crooked	Govt. Cares	Have Say in Govt.
Anger	0.141^{***}	0.510^{***}	0.450^{***}
	(0.053)	(0.115)	(0.131)
Democrat	-0.126^{***}	-0.297^{***}	-0.395^{***}
	(0.031)	(0.064)	(0.074)
Ideology	0.037	-0.376^{**}	-0.707^{***}
	(0.077)	(0.175)	(0.200)
Female	0.053^{*}	0.022	0.076
	(0.028)	(0.059)	(0.068)
Non-White	0.091^{***}	0.094	-0.066
	(0.032)	(0.069)	(0.080)
Education	-0.222^{***}	-0.276^{***}	-0.359^{***}
	(0.043)	(0.090)	(0.103)
Activism	-0.070	-0.433^{***}	-0.956^{***}
	(0.073)	(0.154)	(0.176)
Pre-election trust	-0.682^{***}	-1.312^{***}	-1.029^{***}
	(0.092)	(0.214)	(0.245)
Constant	2.899^{***}	4.556^{***}	4.447^{***}
	(0.074)	(0.169)	(0.193)
N	1,577	1,162	1,162
R^2	0.073	0.091	0.112

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Table 3.1: *Regression Estimates of Trust in Government.* This table shows how higher levels of anger increases citizens' distrust of government. Being angry toward the opposing party's presidential candidate is associated with a higher belief that the government is crooked, that the government does not care about ordinary people, and that individuals have no say in what the government does. Note that all independent variables are scaled to range from 0-1.

Indeed, the coefficient estimate for the anger variable ranges from 61% to 93% of the size of the partisanship coefficient.[7] This suggests that, while partisanship continues to powerfully shape the ways in which Americans view the political world, having higher levels of anger can also play a substantively important role in altering levels of trust in government.

One potential concern about these results is that they might be driven by modeling choices. That is, the relationship between anger and trust that is shown in Table 3.1 might be driven by some variable that is not accounted for in the current model specification. As a check on the robustness of these results, I reanalyzed the models with a dummy variable for "strong partisans" included.[8] With this variable included, the relationship between anger and trust in government remains highly statistically significant across each of the three models. These results are shown in Table 3.2.

To facilitate a more direct comparison between the anger coefficient and the coefficient on the dummy variable for strong partisans, I recalculated the models displayed in Table 3.2 but standardized each of the independent variables. In this standardized model, the coefficient for anger is larger (in terms of absolute value) than the coefficient for the strong partisan dummy variable across all three model specifications. In the first model, the anger coefficient is 1.07 times the size of the strong partisan dummy coefficient; in the second model, the anger coefficient is 2 times the size of the strong partisan dummy coefficient; and, finally, the anger coefficient is 1.88 times the size of the strong partisan dummy coefficient in the third model. This suggests that,

[7] In column one, the standardized anger coefficient is 61% of the size of the standardized partisanship coefficient; in the second column, it is 93% of the size; in the third, it is 62%.

[8] Individuals who identify as either a "strong Democrat" or a "strong Republican" are classified as strong partisans.

in terms of predicting individuals' evaluations of the national government, targeted political anger plays a larger role than being a strong partisan.[9]

To test whether generalized apolitical anger plays a similar role in lowering individuals' level of trust in government, I re-ran the models presented in Table 3.1 but changed the operationalization of anger from being measured by respondents' frequency of anger at the opposing party's presidential candidate to the frequency with which they felt angry at *either* of the candidates from the two major parties. Though not a perfect operationalization of generalized anger, this measure has been previously used within the literature on emotions and politics (see, e.g., Valentino et al. 2011). Therefore, it is a suitable proxy for generalized anger. The results of these models, also shown in Table 3.2, are consistent with my original specification. This suggests that generalized apolitical anger, as well as targeted political anger, are both related to lower levels of trust in government.

One final potential concern about these design choices and results is that they omit variables measuring trust in government that could be used as dependent variables. Among other items, these potential dependent variables include questions about how often respondents trust the government to do what is right, and whether the government wastes taxpayers' money. However, these trust in government questions were asked *only* in the pre-election wave of the 2012 ANES. Because the current empirical specification of the models contain dependent variables that were measured in the post-election wave and independent variables that were measured in the pre-election wave, utilizing these additional questions that measure individuals' trust in

[9]These models can be found in the Appendix.

	Govt. Crooked		Govt. Cares		Have Say in Govt.	
Anger	0.166^{***}	0.361^{**}	0.553^{***}	1.478^{***}	0.492^{***}	1.429^{***}
	(0.053)	(0.170)	(0.116)	(0.367)	(0.133)	(0.419)
Democrat	-0.120^{***}	-0.030	-0.288^{***}	-0.278^{**}	-0.386^{***}	-0.235^{*}
	(0.031)	(0.057)	(0.064)	(0.123)	(0.074)	(0.140)
Ideology	0.083	-0.004	-0.272	-0.356	-0.608^{***}	-0.354
	(0.079)	(0.136)	(0.179)	(0.301)	(0.205)	(0.344)
Female	0.059^{**}	0.035	0.031	0.222^{*}	0.085	0.311^{**}
	(0.028)	(0.054)	(0.059)	(0.119)	(0.068)	(0.136)
Non-White	0.099^{***}	-0.016	0.108	0.067	-0.053	-0.003
	(0.032)	(0.057)	(0.070)	(0.125)	(0.080)	(0.142)
Education	-0.233^{***}	-0.269^{***}	-0.292^{***}	-0.095	-0.374^{***}	-0.100
	(0.044)	(0.084)	(0.090)	(0.179)	(0.104)	(0.204)
Activism	-0.044	-0.006	-0.397^{**}	-0.235	-0.922^{***}	-1.073^{***}
	(0.074)	(0.137)	(0.154)	(0.290)	(0.177)	(0.331)
Pre-election trust	-0.653^{***}	-0.149	-1.237^{***}	-0.877^{*}	-0.959^{***}	-1.061^{*}
	(0.092)	(0.201)	(0.216)	(0.489)	(0.247)	(0.558)
Strong Partisan	-0.087^{***}	-0.157^{**}	-0.154^{**}	-0.347^{**}	-0.147^{**}	-0.427^{***}
	(0.029)	(0.063)	(0.063)	(0.142)	(0.072)	(0.162)
Constant	2.875^{***}	2.745^{***}	4.487^{***}	4.002^{***}	4.382^{***}	3.663^{***}
	(0.075)	(0.144)	(0.171)	(0.332)	(0.196)	(0.379)
Anger Type:	Targeted	Generalized	Targeted	Generalized	Targeted	Generalized
N	1,577	429	1,162	324	1,162	324
R^2	0.078	0.058	0.096	0.122	0.116	0.149

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Table 3.2: *Robustness Checks on Regression Estimates of Trust in Government.* This table shows that the relationship between anger and trust in government is robust to the inclusion of a dummy variable for strong partisans and the use of a different measure of anger. Note that all independent variables are scaled to range from 0-1.

government would not produce directly comparable results. Additionally, estimating empirical models with contemporaneously measured independent and dependent variables is sure to introduce endogeneity problems. Nevertheless, regressing these additional trust in government questions on either the measure of targeted political anger or generalized apolitical anger, as well as the series of control variables described above, produces results consistent with the theoretical expectations. Results of these regressions are available in the Appendix.

3.3.1 Anger, Evaluations of Government, and Causality

While the proceeding analyses have shown that both targeted political anger and generalized apolitical anger are predictive of negative evaluations of the national government across different metrics, it is important to note that these results should be viewed with a degree of caution. Indeed, though the variables measuring anger came in the pre-election wave of the ANES survey and the dependent variables were measured in the post-election wave, it is still not possible to conclude that anger *causes* a reduction in Americans' evaluations of the national government. In general, correlational analyses based off of large scale datasets, such as the ANES or the Cooperative Congressional Election Study (CCES), cannot definitively say whether higher levels of anger leads to a diminished level of trust in government, or if having low levels of trust in government leads one to adopt a more angry persona.

Moreover, longer-running panel datasets are also inadequate to study the causal

relationship between anger and citizens' trust in government. If negative partisan affect is driven by anger and anger is higher when the opposing party controls the levers of government, then panel data is unable to adjudicate the degree to which changes in trust in government are due to anger or a change in the relationship between one's own party identification and the party that controls the government. Indeed, when the out-party gains control of the government after an election, both of the purported mechanisms that reduce trust in government – anger and the partisan relationship between an individual and the governing party (Citrin 1974, Hetherington and Rudolph 2015) – change simultaneously. These simultaneous changes preclude the use of panel data to test whether anger has a causal effect in reducing individuals' levels of trust in government. Therefore, in order to sidestep these issues and supplement the findings derived from the 2012 ANES data, I employ an experimental design to exogenously vary individuals' level of anger before measuring levels of trust in government.

The data for this experiment come from a survey fielded in Fall 2016 via Survey Sampling International (SSI). The survey is a national – though not representative – sample of registered voters with a total sample size of 3,262 respondents. Approximately 57% of the respondents are female, 82% are white, and 85.4% have at least some college education. More complete summary statistics are shown in Table 7 in the Appendix. For interested readers, the full questionnaire used on this survey battery can also be found in the Appendix.

In order to alter individuals' levels of anger, I utilize a technique known as emotional recall.[10] This technique, which has been used widely in psychology (see, e.g.,

[10]Such an approach is not the only way to alter individuals' emotional states. Lab experiments

Lerner and Keltner 2001, Lerner et al. 2003), asks individuals to write a short paragraph about a time they felt a particular emotion. The idea of such a technique is that by recalling a specific time that they felt a given emotion, that individual will temporarily experience a heightened sense of that same emotion. For the purposes of this study, individuals were asked to recall a time that they felt "very angry about politics." They were then instructed to describe as precisely as possible how this experience made them feel. Individuals in the control group were asked to recall what they had for breakfast in the morning. This question provides a useful control group because it is benign in nature and is tangential to any emotional state.

One important aspect of this design is that it, like others, asks individuals to write about a time they felt a given emotion (here, anger) *about politics*. Because such a design pairs an emotional stimulus with a prompt that causes an individual to think *specifically* about politics or political events, it is difficult to disentangle whether anger is causing a shift in attitudes toward the national government or if merely thinking about politics alters individuals' evaluations of governmental performance. Therefore, as a robustness check on the traditional emotional recall design, I also randomized individuals into two additional treatment groups. One treatment group asked participants to "write about a time they were very angry." The other treatment group asked individuals to "write about a time they thought about politics." By separating the emotion (anger) from the target (politics) in this way, I am able to more precisely adjudicate the causal mechanism being manipulated. This also allows for a

facilitate a wider range of experimental manipulations – such as games or human interactions – but are impractical within the context of a survey experiment. For an excellent overview of "how to push someone's buttons," see Lobbestael, Arntz and Wiers (2008).

straightforward examination as to the role of targeted political anger and generalized apolitical anger in shaping citizens' views of the national government.

Finally, after survey participants were randomized into one of the treatment groups described above, they were asked to rate their level of agreement with the following statement: "The national government is unresponsive to the concerns and interests of the public." Agreement with this statement was measured on a zero to ten scale, where zero indicates that an individual "completely disagrees" with the statement and ten indicates that an individual "completely agrees" with the statement.

Recall that the expectation is that higher levels of anger should cause individuals to view the national government as unresponsive to the concerns and interest of the public. Comparing the mean scores on this metric by treatment status provides suggestive evidence that such a relationship exists. The mean rating on this scale for individuals who were randomized into the "write about a time you were very angry" treatment condition is 7.0; the mean score for those randomized into the "write about a time you were very angry about politics" treatment condition is 6.91; the mean score for those who were randomized into the "write about a time you thought about politics" treatment condition is a similar 6.90; finally, the mean score on this metric for those in the control group is 6.72.

In order to more definitively test whether anger has a causal effect in reducing trust in government, I simply regress the measure of trust in government described above on indicators for treatment status. The expectation is that the coefficients for the anger treatment conditions should be positively signed. The results of the experimental manipulations are shown in Table 3.3.

The first column of Table 3.3 presents the experimental results without any control variables included. Those who were randomized into both the generalized apolitical anger ($p < .05$) and the anger-about-politics ($p < .1$) treatment groups were more likely to agree that the national government is unresponsive to the concerns and interests of the public. Merely thinking about politics had no effect on belief in government responsiveness. The second column adds a series of control variables – ideology, partisanship, level of education, income, and dummy variables for non-whites and females – to the original model specification.[11] With these control variables

	Govt. Unresponsiveness	
Anger	0.277**	0.256**
	(0.122)	(0.119)
Anger about politics	0.195*	0.204*
	(0.118)	(0.116)
Think about politics	0.182	0.193
	(0.120)	(0.117)
Controls:	No	Yes
N	3,188	3,141
R^2	0.002	0.057

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

Table 3.3: *Effect of Anger on Political Efficacy.* These experimental results show that inducing higher levels of anger causes individuals to have lower levels of political efficacy. Specifically, priming individuals to become angrier makes them more likely to believe that the national government is unresponsive to the concerns and interests of the public.

included, the coefficients remain quite similar to those in the unconditional regression: those who were randomized into the anger condition and those were randomized into

[11] Adding a series of control variables to a model that is estimated on experimental data accomplishes two things: first, given that the coefficients change very little between the unconditional and the conditional models, we can have a high degree of confidence that the randomization process worked as intended; and, second, it helps alleviate any infelicities that might have occurred during randomization.

the anger-about-politics condition both exhibited a greater belief that the national government is unresponsive to the concerns and interests of the public. Thus, regardless of the exact wording of the experimental prime, heightened levels of anger causes individuals to have lower evaluations of American government.[12]

In addition to the fact that generalized apolitical anger had the strongest effect on lowering respondents' evaluations of the national government, one particularly noteworthy result from the experimental manipulation is that the causal effect for those individuals who were randomized into the treatment group that asked them to write about a time they thought about politics is almost identical to the effect for those who were randomized into the treatment group that sought to prime anger specifically about politics. Given that anger – and not an increase in the salience of politics or political issues – is the theorized causal mechanism through which the reduction in trust in government occurs, the fact that these two causal effects are so similar is puzzling.

Therefore, in order to more precisely determine the ways in which the causal manipulations affected survey respondents, I conducted a sentiment analysis on the text written by individuals during the emotional recall design. To this end, I utilized the Linguistic Inquiry and Word Count (LIWC) dictionary as my classification system. Developed by psychologists and linguists, LIWC analyzes both the grammatical (e.g., number of pronouns or adverbs) and psychological structure (e.g., degree of negatively- or positively-valenced words) of a segment of text. Because "[l]anguage

[12]While different treatment wordings were both able to successfully induce anger in survey participants, there is no statistically significant difference between the "anger" coefficient and the "anger about politics" coefficient.

is the most common and reliable way for people to translate their internal thoughts and emotions into a form that others can understand," and because "words ... are the very stuff of psychology and communication" (Tausczik and Pennebaker 2010), understanding the types of words and phrases that individuals used in their emotional recall response will shed light on the specific emotions that they were experiencing during the experimental manipulation.[13]

Of particular interest is the degree to which individuals used words that are indicative of being angry or upset. Among others, such words include "anger," "rage," "hate," or "outrage." Of additional interest is the amount of "negative emotional" or "positive emotional" words. The former metric is an aggregate measure of negatively-valenced emotional words, such as those dealing with anger, sadness, frustration, or anxiety; this is in contrast to the latter measure, which is an aggregation of positively-valenced emotional words, such as happiness, joy, or anticipation.

If the experimental manipulations worked as intended, individuals who were randomized into the "write about a time you were very angry" and "write about a time you were angry about politics" conditions should use language that is indicative of expressions of anger. These individuals should also write responses that are higher in negative emotional words and lower in positive emotional words. Relative to the control group, individuals who were randomized into the "write about a time you thought about politics" condition should not be more likely to use words that indicate being in a heightened state of anger. They should also not be more likely to use negative

[13]For more information on how words are indicative of personality and emotional states, see Allport and Odbert's (1936) discussion of the "lexical hypothesis."

	Randomization Groups			
	Anger	Anger about politics	Think about politics	Control
Angry words	3.49	2.75	1.02	0.08
Negative emotional words	5.40	4.65	2.90	0.94
Positive emotional words	4.23	5.20	6.48	7.60

Table 3.4: *Mean Number of Emotional Words.* This table shows the mean number of angry, negative emotional, and positive emotional words used by individuals in each randomization group.

emotional words. Table 3.4 shows the mean number of angry, negative emotional, and positive emotional words used by respondents in each treatment status.

As shown in Table 3.4, individuals who were randomized into the "write about a time you were very angry" treatment group used more angry and negative emotional words than those individuals who were randomized into the other treatment conditions. Those who were randomized into the "write about a time you thought about politics" condition used the second most angry and negative emotional words. This provides suggestive evidence that the treatment groups manipulated the intended mechanisms.[14]

However, to more definitively ascertain the emotions that were manipulated by the experimental design, I regressed a series of LIWC word classification variables on treatment status. Specifically, I regressed the percentage of angry words, the percentage of negative emotional words, and the percentage of positive emotional words that an individual used in her emotional recall text on indicator variables for treatment group assignment. If the causal manipulations worked according to the

[14]A density plot of angry words and negative emotional words by treatment status can be found in the Appendix.

theoretical expectations, then individuals who were randomized into the anger-only and the anger-about-politics treatment groups should have a comparatively higher percentage of angry and negative emotional words in their emotional recall text. Individuals in these two groups should also have comparatively fewer positive emotional words in their text. Conversely, there is no firm theoretical reason to assume that individuals who were randomized into the "write about a time you thought about politics" treatment group should have either higher or lower percentages of angry, negative emotional, or positive emotional words in their emotional recall text.[15]

The results in Table 3.5 suggests that the experimental manipulation largely worked as intended. Relative to the control group, those individuals who were randomized into the treatment group that asked them to write about a time they were very angry wrote emotional recall responses with 3.4% more angry words, 4.5% more negative emotional words, and 3.8% fewer positive emotional words. Individuals who were randomized into the treatment group that sought to prime anger specifically about politics wrote responses with 2.6% more angry words, 3.7% more negative emotional words, and 2.4% fewer positive emotional words. In all cases, the treatment condition that sought to prime anger about apolitical issues was the most effective in actually heightening individuals' level of anger. These findings help to explain why this treatment condition (contrary to theoretical expectations) had the strongest causal effect in reducing individuals' trust in government, as shown in Table 3.3.

[15]Indeed, it is possible to imagine that individuals could either become inspired by thinking about politics (and so write from a positive emotional standpoint) or become upset or outraged by thinking about politics (and so write from a negative emotional standpoint).

	Pct. Angry Words	Pct. Negative Emotions	Pct. Positive Emotions
Angry	3.410^{***}	4.461^{***}	-3.370^{***}
	(0.191)	(0.304)	(0.789)
Angry about politics	2.672^{***}	3.705^{***}	-2.406^{***}
	(0.186)	(0.296)	(0.768)
Think about politics	0.938^{***}	1.962^{***}	-1.119
	(0.188)	(0.300)	(0.778)
Constant	0.080	0.942^{***}	7.604^{***}
	(0.131)	(0.209)	(0.542)
R^2	0.116	0.078	0.007

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Table 3.5: *Sentiment Analysis by Treatment Status.* This table shows the relationship between treatment status and the percentage of angry words, negative emotional words, and positive emotional words used by respondents in the emotional recall design experimental prompt.

Interestingly, the treatment group that asked individuals to write about a time they thought about politics also led to more angry and negatively-valenced emotional recall responses. Indeed, individuals who were randomized into this treatment group used nearly 1% more angry words and 2% more negative emotional words than those in the control group. However, individuals in this treatment condition were not likely to use any fewer positive emotional words in their responses than those in the control group. This suggests that merely asking individuals to think about politics is sufficient to induce anger. It appears, then, as if politics and negative emotions are not entirely separable. That this finding exists also helps to explain why the effects of the "write about a time you were angry about politics" and "write about a time you thought about politics" treatment groups are nearly identical: both trigger heightened levels of individual anger.

3.4 Conclusion & Discussion

Partisanship in the American electorate has changed in dramatic ways over the past few decades. While Americans used to feel indifferent toward the opposing political party, the contemporary era is defined by intense dislike of the out-party, its supporters, and its preferred policies. This new partisan orientation has caused Americans to be more biased against the opposing party (Mason 2015, Sood and Iyengar 2015), and, along with the decline of the incumbency advantage in favor of partisan identification (Jacobson 2015), to vote increasingly straight-ticket (Abramowitz and Webster 2016).

Yet, outside of these behavioral outcomes, little has been done to understand how and why this anger-fueled negative partisan affect shapes Americans' views of the national government. In this paper, I have helped to fill this gap by showing how anger – both targeted and generalized – is associated with lower levels of trust in government. Specifically, higher levels of anger is associated with the belief that people in government are crooked, that public officials do not care what people think, and that citizens have no say in what government does. I have also shown through a survey experiment on a national sample of registered voters that anger has a causal effect in reducing citizens' trust in government. This diminution in trust in the national government is due to the fact that people tend to evaluate objects in ways that are in line with their emotions: because anger is an emotion with a negative valence, and because this anger is directed at the government and those who run it, individuals who are angry have poor evaluations of the national government.

Moreover, this finding does not appear to be limited to one specific period of time. The correlational analyses presented in Section 3.3 utilized the 2012 ANES panel data. The data for the experimental analysis presented in Section 3.3.1 was collected in October 2016. Thus, the experimental results were obtained nearly four years after the final wave of the 2012 ANES panel was completed. That these findings are produced in two different datasets, fielded almost four years apart from each other, suggests that anger has a robust role in altering citizens' level of trust in the national government.

Importantly, the experimental results I have shown here were obtained by arousing both targeted political anger and generalized apolitical anger. This suggests that

the negative valence associated with apolitical anger can spill over to political targets. From the standpoint of campaign strategy, this implies that the ways in which members of the electorate view politics and political affairs can be shaped in subtle ways (see, e.g., Achen and Bartels 2016). Indeed, rather than seeking to stir anger specifically about government or opposition candidates within the electorate, political parties and candidates merely need to incite generic anger in order to alter patterns of public opinion. Future work, then, should build on this finding to examine other ways in which incidental anger causes shifts in mass political behavior.

Moreover, the results of my analyses suggest that politics and anger are closely intertwined. Indeed, a sentiment analysis on the text of the emotional recall responses derived from the experimental manipulation indicates that merely asking individuals to think about politics prompts them to exhibit higher levels of anger and other negatively-valenced emotions. Accordingly, it appears as though politics and anger are, to a certain extent, inseparable.

Normatively, the results presented here have troubling implications. With the rise of negative partisan affect and a contentious style of governing, Americans are more frequently exposed to anger-inducing stimuli. With politics increasingly being defined by feelings of anger toward the opposing party and its governing elite, trust in government is bound to decline. Absent some exogenous shock to the political system that reverses this trend, it is possible that trust in government will decline to a level so low that the national government will lose its sense of legitimacy in the eyes of those to whom it is accountable. If trust in governing institutions reaches such a level, the health of American democracy is threatened.

Future research, then, should examine how the harmful effects of anger in modern-day politics can be mitigated. Moreover, it is possible that certain types of anger-inducing stimuli are more damaging to citizens' trust in government and political institutions than others. If this is the case, then future research should explore what sorts of angry appeals are more or less pernicious in their ability to weaken the bonds of trust between Americans and their government. One potentially fruitful avenue for future research is to examine whether the source of the anger-inducing stimulus has an effect on exacerbating or attenuating anger's ability to reduce trust in government.

Relatedly, future work should examine how long the effects of anger on reducing trust in government persist. Is anger an emotion that brings negative evaluations of governmental institutions, but only temporarily? Or, do the effects of anger on reducing citizens' trust in government last long after anger has subsided? Understanding the duration of these effects will help to clarify our understanding about the linkage between the hostile nature of contemporary politics and Americans' trust in their own government. With trust in government continuing to decline (Pew Research Center 2015, The Economist 2017), understanding these processes is essential to strengthening American democracy.

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

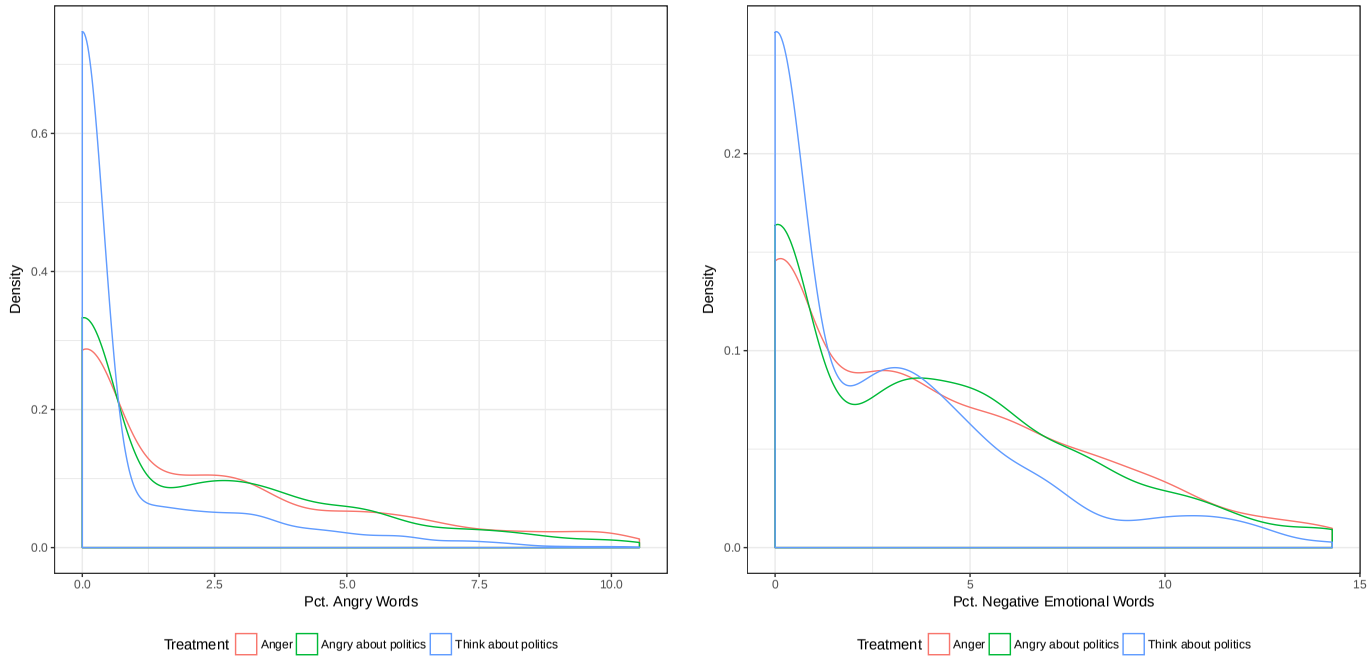
.1 Appendix

Table 6: Summary Statistics of 2012 ANES Data

Statistic	N	Mean	St. Dev.	Min	Max
Democrat	5,890	0.527	0.499	0	1
Republican	5,890	0.339	0.473	0	1
Independent	5,890	0.134	0.341	0	1
Female	5,914	0.519	0.500	0	1
Non-white	5,885	0.406	0.491	0	1
Education	5,906	1.780	0.656	1	3

Table 7: Summary Statistics of Experimental Data

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



(a) Percent Angry Words in Text

(b) Percent Negative Emotional Words in Text

Figure 1: These figures show the distribution of angry words and negative emotional words that individuals used in their emotional recall responses, by treatment status. Note that, in order to facilitate a cleaner graphical presentation, the top 5% of responses in the right-hand tail of the distribution have been removed from each subfigure.

	Govt. Crooked	Govt. Cares	Have Say in Govt.
Anger	0.605^{***}	1.040^{***}	0.761^{***}
	(0.209)	(0.217)	(0.214)
N	1,577	1,162	1,162

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Table 8: *Regression Estimates of Trust in Government (Ordered Logit).* This table shows that the results derived from using models estimated via OLS are robust to using a series of ordered logits. Models are calculated with the same control variables used in the primary estimation (Table 3.1). Note that all independent variables are scaled to range from 0-1.

	Govt. Does What is Right	Govt. Wastes Money	Govt. Run by Big Interests
	OLS	OLS	Logit
Anger	0.347^{***}	0.051	0.208
	(0.077)	(0.033)	(0.185)
Democrat	-0.374^{***}	-0.302^{***}	-0.486^{***}
	(0.045)	(0.019)	(0.113)
Ideology	-0.135	-0.021	0.197
	(0.108)	(0.047)	(0.260)
Female	-0.078^{*}	-0.032^{*}	-0.404^{***}
	(0.041)	(0.018)	(0.101)
Non-White	-0.126^{***}	-0.051^{**}	-0.490^{***}
	(0.047)	(0.020)	(0.108)
Education	0.047	-0.148^{***}	-0.033
	(0.064)	(0.027)	(0.156)
Activism	-0.212^{*}	0.029	0.374
	(0.110)	(0.047)	(0.271)
Pre-election trust	3.806^{***}	2.938^{***}	2.019^{***}
	(0.092)	(0.040)	(0.227)
N	1,529	3,114	3,083
R^2	0.082	0.109	

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Table 9: *Regression Estimates of Trust in Government, Additional Dependent Variables.* This table shows the relationship between targeted political anger and trust in government across three additional metrics. Note that all independent variables are scaled to range from 0-1.

	Govt. Crooked	Govt. Cares	Have Say in Govt.
Anger	0.045^{***}	0.151^{***}	0.134^{***}
	(0.014)	(0.032)	(0.036)
Democrat	-0.060^{***}	-0.144^{***}	-0.193^{***}
	(0.015)	(0.032)	(0.037)
Ideology	0.017	-0.056	-0.125^{***}
	(0.016)	(0.037)	(0.042)
Female	0.029^{**}	0.015	0.043
	(0.014)	(0.029)	(0.034)
Non-White	0.049^{***}	0.053	-0.026
	(0.016)	(0.034)	(0.039)
Education	-0.077^{***}	-0.096^{***}	-0.123^{***}
	(0.014)	(0.030)	(0.034)
Activism	-0.008	-0.072^{**}	-0.167^{***}
	(0.013)	(0.028)	(0.032)
Pre-election trust	-0.116^{***}	-0.220^{***}	-0.171^{***}
	(0.016)	(0.038)	(0.044)
Strong partisan	-0.042^{***}	-0.075^{**}	-0.071^{**}
	(0.014)	(0.031)	(0.035)
Constant	2.631^{***}	3.802^{***}	3.367^{***}
	(0.015)	(0.033)	(0.037)
N	1,577	1,162	1,162
R^2	0.078	0.096	0.116

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Table 10: *Regression Estimates of Trust in Government, Accounting for Strength of Partisanship (Standardized).* This table shows the standardized coefficients across each of the three model specifications. In each case, the coefficient on the anger variable is bigger – in terms of absolute value – than the coefficient on the dummy variable for strong partisans.

	Govt. Crooked	Govt. Cares	Have Say in Govt.
Anger	0.052	0.371^{**}	0.198
	(0.074)	(0.164)	(0.184)
Ideology	-0.007	-0.300	-0.532^{*}
	(0.106)	(0.247)	(0.277)
Female	0.038	0.008	0.103
	(0.041)	(0.087)	(0.097)
Non-White	0.126^{***}	0.081	0.039
	(0.042)	(0.090)	(0.101)
Education	-0.222^{***}	-0.258^{*}	-0.360^{**}
	(0.064)	(0.135)	(0.151)
Activism	-0.188^{*}	-0.808^{***}	-1.305^{***}
	(0.101)	(0.212)	(0.237)
Pre-election trust	-0.525^{***}	-1.273^{***}	-1.107^{***}
	(0.120)	(0.276)	(0.309)
Strong partisan	2.801^{***}	4.357^{***}	4.132^{***}
	(0.099)	(0.220)	(0.246)
N	844	590	590
R^2	0.054	0.081	0.113

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Table 11: *Regression Estimates of Trust in Government Among Democrats.* This shows the relationship between anger and trust in government for those respondents who self-identify as Democrats. Though the relationship between anger and trust in government is weaker here than in the original specification found in the paper (Table 3.1), the results still suggest that anger shapes the ways in which citizens view the national government. Note that all independent variables are scaled to range from 0-1.

	Govt. Does What is Right	Govt. Wastes Money	Govt. Run by Big Interests
	OLS	OLS	Logit
Anger	0.925^{***}	0.130	2.082^{***}
	(0.253)	(0.111)	(0.745)
Democrat	-0.140^{*}	-0.200^{***}	-0.269
	(0.083)	(0.037)	(0.234)
Ideology	-0.131	-0.133	-0.995^{*}
	(0.210)	(0.091)	(0.581)
Female	-0.114	-0.019	-0.297
	(0.078)	(0.035)	(0.214)
Non-White	-0.174^{**}	-0.004	-0.382^{*}
	(0.086)	(0.037)	(0.222)
Education	-0.161	-0.186^{***}	-0.445
	(0.116)	(0.053)	(0.322)
Activism	-0.328	0.031	0.702
	(0.211)	(0.091)	(0.579)
Strong partisan	-0.100	-0.029	-0.578^{**}
	(0.091)	(0.040)	(0.234)
Constant	3.741^{***}	2.938^{***}	2.445^{***}
	(0.178)	(0.078)	(0.498)
N	419	849	843
R^2	0.077	0.065	
Adjusted R^2	0.059	0.056	
Log Likelihood			-309.898
Residual Std. Error	0.784 (df = 410)	0.498 (df = 840)	
F Statistic	4.276^{***} (df = 8; 410)	7.290^{***} (df = 8; 840)	
AIC			637.796

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Table 12: *Regression Estimates of Trust in Government, With Generalized Measures of Anger and Alternative Dependent Variables.* This table shows that generalized apolitical anger is still predictive of trust in government across different dependent variables, and while controlling for strength of partisanship. Note that all independent variables are scaled to range from 0-1.

.2 Survey Questions

1. In what year were you born?
2. Are you male or female?
3. Which of the following race or ethnic groups do you most identify with?
    - White, non-Hispanic
    - Black, non-Hispanic
    - Asian, native Hawaiian, or other Pacific Islander
    - Native American
    - Hispanic
    - Other
4. What is your highest level of educational attainment?
    - High school graduate or G.E.D.
    - Some college but no degree
    - Associates degree
    - Bachelor's degree
    - Post-graduate degree
    - Professional degree
5. Where would you place yourself on the following party identification scale?
    (a) Strong Democrat
    (b) Weak Democrat
    (c) Independent but lean Democrat
    (d) Completely Independent
    (e) Independent but lean Republican
    (f) Weak Republican
    (g) Strong Republican
6. Where would you rate yourself on the following political ideology scale?
    (a) Very liberal
    (b) Liberal
    (c) Slightly liberal
    (d) Moderate; middle of the road
    (e) Slightly conservative

(f) Conservative

(g) Very conservative

7. Thinking back over the last year, what was your family's annual income?

   - Less than $10,000
   - $10,000 - $19,999
   - $20,000 - $29,999
   - $30,000 - $39,999
   - $40,000 - $49,999
   - $50,000 - $59,999
   - $60,000 - $69,999
   - $70,000 - $79,999
   - $80,000 - $89,999
   - $90,000 - $99,999
   - $100,000 - $124,999
   - $125,000 - $149,999
   - $150,000 - $174,999
   - $175,000 - $199,999
   - $200,000 - $249,999
   - $250,000+
   - Prefer not to say

8. How important is religion in your life?

   - Very important
   - Somewhat important
   - Not too important
   - Not at all

9. Aside from weddings and funerals, how often do you attend religious services?

   - More than once a week
   - Once a week
   - Once or twice a month
   - A few times a year
   - Seldom
   - Never

10. What is your present religion, if any?
    - Protestant
    - Roman Catholic
    - Mormon
    - Jewish
    - Muslim
    - Buddhist
    - Hindu
    - Atheist
    - Agnostic
    - Something else
11. Did you vote in the 2016 presidential primary?
12. Even if you did not vote in a primary or caucus, which candidate did you support?
13. How many days per week do you talk to your neighbors or friends about politics?
14. Have you canvassed on behalf of a candidate during this election cycle?
15. Have you displayed a yard sign for a candidate during this election cycle?
16. Have you attempted to influence another person's vote choice during this election cycle?
17. Have you donated money to a candidate or political campaign during this election cycle?
18. If you have donated to a candidate or political campaign during this election cycle, approximately how much money did you donate?
19. Which of the following best represents your view on abortion?
    - By law, abortion should never be permitted.
    - The law should permit abortion only in case 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.

20. 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 opinion on this issue

21. Do you favor or oppose allowing gays and lesbians to marry legally?

    - Favor
    - Oppose
    - Oppose same-sex marriage but support civil unions

22. Affirmative action programs give preference to racial minorities in employment and college admissions in order to correct for past discrimination. Do you support or oppose affirmative action?

    - Strongly support
    - Somewhat support
    - Undecided
    - Somewhat oppose
    - Strongly oppose

23. In general, do you feel that the laws covering the sale of firearms should be...

    - More strict
    - Less strict
    - Kept as they are

24. 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.

Please indicate, according to the following scale, how accurate each of these statements are as a description of yourself.

1 = Very Inaccurate; 2 = Moderately Inaccurate; 3 = Neither Inaccurate nor Accurate; 4 = Moderately Accurate; 5 = Very Accurate

I . . .
2

1. Worry about things.
2. Fear for the worst.
3. Am afraid of many things.
4. Get stressed out easily.
5. Get caught up in my problems.
6. Am not easily bothered by things.
7. Am relaxed most of the time.
8. Am not easily disturbed by events.
9. Don't worry about things that have already happened.
10. Adapt easily to new situations.
11. Get angry easily.
12. Get irritated easily.
13. Get upset easily.
14. Am often in a bad mood.
15. Lose my temper.
16. Rarely get irritated.
17. Seldom get mad.
18. Am not easily annoyed.
19. Keep my cool.
20. Rarely complain.

Please indicate how well the following statements describe yourself on the following scale:

0 = disagree strongly; 1 = disagree moderately; 2 = disagree a little; 3 = neither agree nor disagree; 4 = agree a little; 5 = agree moderately; 6 = agree strongly

I see myself as:

1. Extraverted, enthusiastic.
2. Critical, quarrelsome.
3. Dependable, self-disciplined.
4. Anxious, easily upset.
5. Open to new experiences, complex.
6. Reserved, quiet.
7. Sympathetic, warm.
8. Disorganized, careless.
9. Calm, emotionally stable.
10. Conventional, uncreative.

.3 Experimental manipulation

Anger treatment: Please write a short paragraph about a time you felt very angry. Be sure to describe precisely how this experience made you feel.

Anger + salience treatment: Please write a short paragraph about a time you felt very angry about politics. Be sure to describe precisely how this experience made you feel.

Salience treatment: Please write a short paragraph about a time you thought about politics. Be sure to describe precisely how this experience made you feel.

Control: Please write a short paragraph about what you ate for breakfast this morning. Be sure to describe precisely how this experience made you feel.

.4 Post-experiment survey

1. How important is it that your party's nominee be willing to compromise versus maintain their convictions when dealing with members of the other party?
    - Not at all important

- Not very important
- Somewhat important
- Important
- Very important

2. How much do you think the political problems facing our country today can be blamed on the opposing political party?

   - Not at all
   - Not very much
   - A little bit
   - A lot
   - Completely

3. On a 0-10 scale, where zero indicates "not at all" and ten represents "completely agree," how much do you agree with the following statement: The national government is relatively corrupt and uncommitted to serving the public interest.

4. On a 0-10 scale, where zero indicates "not at all" and ten represents "completely agree," how much do you agree with the following statement: The national government is unresponsive to the concerns and interests of the public.

5. On a 0-10 scale, where zero indicates "not at all satisfied" and ten represents "completely satisfied," how much do you agree with the following statement: I am satisfied with the policies and actions of the national government.

Bibliography

Abramowitz, Alan I. 2010. *The Disappearing Center: Engaged Citizens, Polarization, and American Democracy.* Yale University Press.

Abramowitz, Alan I. and Kyle L. Saunders. 2008. "Is Polarization A Myth?" *The Journal of Politics* 70(2):542–555.

Abramowitz, Alan I. and Steven W. Webster. 2016. "The Rise of Negative Partisanship and the Nationalization of U.S. Elections in the 21st Century." *Electoral Studies* 41:12–22.

Achen, Christopher H. and Larry M. Bartels. 2016. *Democracy for Realists: Why Elections Do Not Produce Responsive Government.* Princeton University Press.

Allport, Gordon. 1954. *The Nature of Prejudice.* Beacon Press.

Allport, Gordon W. and Henry S. Odbert. 1936. "Trait-Names: A Psycho-Lexical Study." *Psychological Monographs* 47(1):1–171.

Avery, Derek R. 2003. "Reactions to Diversity in Recruitment Advertising–Are Differences Black and White?" *Journal of Applied Psychology* 88(4):672–679.

Avery, Derek R. and Patrick F. McKay. 2006. "Target Practice: An Organizational Impression Management Approach to Attracting Minority and Female Job Applicants." *Personnel Psychology* 59(1):157–187.

Bafumi, Joseph and Robert Y. Shapiro. 2009. "A New Partisan Voter." *Journal of Politics* 71(1):1–24.

Banks, Antoine J. 2014. "The Public's Anger: White Racial Attitudes and Opinions Toward Health Care Reform." *Political Behavior* 36:493–514.

Banks, Antoine J. and Nicholas A. Valentino. 2012. "Emotional Substrates of White Racial Attitudes." *American Journal of Political Science* 56(2):286–297.

Bartels, Larry M. 2000. "Partisanship and Voting Behavior, 1952-1996." *American Journal of Political Science* 44(1):35–50.

Bennett, Roger. 1997. "Anger, Catharsis, and Purchasing Behavior Following Aggressive Customer Complaints." *Journal of Consumer Marketing* 14(2):156–172.

Berelson, Bernard R., Paul F. Lazarsfeld and William N. McPhee. 1954. *Voting: A Study of Opinion Formation in a Presidential Campaign*. University of Chicago Press.

Billig, Michael and Henri Tajfel. 1973. "Social Categorization in Intergroup Behavior." *European Journal of Social Psychology* 3(1):27–52.

Bodenhausen, Galen V., Lori A. Sheppard and Geoffrey P. Kramer. 1994. "Negative Affect and Social Judgment: The Differential Impact of Anger and Sadness." *European Journal of Social Psychology* 24(1):45–62.

Bower, Gordon H. 1991. Mood Congruity of Social Judgments. In *Emotions and Social Judgments*, ed. Joseph P. Forgas. Pergamon Press pp. 31–53.

Brader, Ted, Nicholas A. Valentino and Elizabeth Suhay. 2008. "What Triggers Public Opposition to Immigration? Anxiety, Group Cues, and Immigration Threat." *American Journal of Political Science* 52(4):959–978.

Butler, Daniel M. 2009. "The Effect of the Size of Voting Blocs on Incumbents' Roll-Call Voting and the Asymmetric Polarization of Congress." *Legislative Studies Quarterly* 34(3):297–318.

Cameron, A. Colin and Pravin K. Trivedi. 2005. *Microeconometrics: Methods and Applications*. Cambridge University Press.

Campbell, Angus, Philip E. Converse, Warren E. Miller and Donald E. Stokes. 1960. *The American Voter*. Wiley.

Cappella, Joseph N. and Kathleen Hall Jamieson. 1997. *Sprial of Cynicism: The Press and the Public Good*. Oxford University Press.

Citrin, Jack. 1974. "Comment: The Political Relevance of Trust in Government." *American Political Science Review* 68(3):973–988.

Cobb-Clark, Deborah A. and Stefanie Schurer. 2012. "The Stability of Big-Five Personality Traits." *Economics Letters* 115:11–15.

Cooper, Christopher A., Lauren Golden and Alan Socha. 2013. "The Big Five Personality Factors and Mass Politics." *Journal of Applied Social Psychology* 43(1):68–82.

Costa, Paul T. and Robert R. McCrae. 1992. "Four Ways Five Factors are Basic." *Personality and Individual Differences* 13(6):653–665.

Costa, Paul T. and Robert R. McCrae. 1995. "Domains and Facets: Personality Assessment Using the Revised NEO Personality Inventory." *Journal of Personality Assessment* 64(1):21–50.

Digman, John M. 1989. "Five Robust Trait Dimensions: Development, Stability, and Utility." *Journal of Personality* 57(2):195–214.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. Harper.

Dunn, Jennifer R. and Maurice E. Schweitzer. 2005. "Feeling and Believing: The Influence of Emotion on Trust." *Journal of Personality and Social Psychology* 88(5):736–748.

Fiorina, Morris P., Samuel J. Abrams and Jeremy C. Pope. 2005. *Culture War? The Myth of a Polarized America*. Pearson Longman.

Forgas, Joseph P. and Stephanie Moylan. 1987. "After the Movies: Transient Mood and Social Judgments." *Personality and Social Psychology Bulletin* 13(4):467–477.

Funder, David C. and C. Randall Colvin. 1988. "Friends and Strangers: Acquaintanceship, Agreement, and the Accuracy of Personality Judgment." *Journal of Personality and Social Psychology* 55(1):149–158.

Gerber, Alan S., Gregory A. Huber, David Doherty and Conor M. Dowling. 2012*a*. "Disagreement and the Avoidance of Political Discussion: Aggregate Relationships and Differences across Personality Traits." *American Journal of Political Science* 56(4):849–874.

Gerber, Alan S., Gregory A. Huber, David Doherty and Conor M. Dowling. 2012*b*. "Personality and the Strength and Direction of Partisan Identification." *Political Behavior* 34(4):653–688.

Gerber, Alan S., Gregory A. Huber, David Doherty, Conor M. Dowling and Shang E. Ha. 2010. "Personality and Political Attitudes: Relationships Across Issue Domains and Political Contexts." *American Political Science Review* 104(1):111–133.

Gerber, Alan S., Gregory Huber, Connor Raso and Shang E. Ha. 2009. "Personality and Political Behavior." *Available at SSRN 1412829* .

Gerring, John. 2001. *Social Science Methodology: A Criterial Framework*. Cambridge University Press.

Gino, Francesca and Maurice E. Schweitzer. 2008. "Blinded by Anger or Feeling the Love: How Emotions Influence Advice Taking." *Journal of Applied Psychology* 93(5):1165–1173.

Goldberg, Lewis R., John A. Johnson, Herbert W. Eber, Robert Hogan, Michael C. Ashton, C. Robert Cloninger and Harrison G. Gough. 2006. "The International Personality Item Pool and the Future of Public-Domain Personality Measures." *Journal of Research in Personality* 40:84–96.

Gorsuch, Richard L. 1983. *Factor Analysis*. 2nd ed. Lawrence Erlbaum Associates.

Green, Donald, Bradley Palmquist and Eric Schickler. 2002. *Partisan Hearts and Minds*. Yale University Press.

Hetherington, Marc J. 2001. "Resurgent Mass Partisanship: The Role of Elite Polarization." *American Political Science Review* 95(3):619–631.

Hetherington, Marc J. and Thomas J. Rudolph. 2015. *Why Washington Won't Work: Polarization, Political Trust, and the Governing Crisis.* University of Chicago Press.

Hibbing, Matthew V., Melinda Ritchie and Mary R. Anderson. 2011. "Personality and Political Discussion." *Political Behavior* 33(4):601–624.

Huber, Michaela, Leaf Van Boven, Bernadette Park and William T. Pizzi. 2015. "Seeing Red: Anger Increases How Much Republican Identification Predicts Partisan Attitudes and Perceived Polarization." *PLoS ONE* 9(10):1–18.

Huddy, Leonie, Lilliana Mason and Lene Aarøe. 2015. "Expressive Partisanship: Campaign Involvement, Political Emotion, and Partisan Identity." *American Political Science Review* 109(1):1–17.

Iyengar, Shanto, Gaurav Sood and Yphtach Lelkes. 2012. "Affect, Not Ideology: A Social Identity Perspective on Polarization." *Public Opinion Quarterly* 76(3):405–431.

Iyengar, Shanto and Sean J. Westwood. 2015. "Fear and Loathing across Party Lines: New Evidence on Group Polarization." *American Journal of Political Science* 59(3):690–707.

Jacobson, Gary C. 2015. "It's Nothing Personal: The Decline of the Incumbency Advantage in US House Elections." *The Journal of Politics* 77(3):861–873.

Jacoby, William. 1991. "Ideological Identification and Issue Attitudes." *American Journal of Political Science* 35:178–205.

Keltner, Dacher, Phoebe C. Ellsworth and Kari Edwards. 1993. "Beyond Simple Pessimism: Effects of Sadness and Anger on Social Perception." *Journal of Personality and Social Psychology* 64(5):740–752.

Kim, Hyo J. and Glen T. Cameron. 2011. "Emotions Matter in Crisis: The Role of Anger and Sadness in the Publics' Response to Crisis News Framing and Corporate Crisis Response." *Communication Research* 38(6):826–855.

Klar, Samara. 2014. "Partisanship in a Social Setting." *American Journal of Political Science* 58(3):687–704.

Layman, Geoffrey C. and Thomas M. Carsey. 2002. "Party Polarization and 'Conflict Extension' in the American Electorate." *American Journal of Political Science* 46(4):786–802.

Lerner, Jennifer S. and Dacher Keltner. 2001. "Fear, Anger, and Risk." *Journal of Personality and Social Psychology* 81(1):146–159.

Lerner, Jennifer S. and Larissa Z. Tiedens. 2006. "Portrait of The Angry Decision Maker: How Appraisal Tendencies Shape Anger's Influence on Cognition." *Journal of Behavioral Decision Making* 19:115–137.

Lerner, Jennifer S., Roxana M. Gonzalez, Deborah A. Small and Baruch Fischhoff. 2003. "Effects of Fear and Anger on Perceived Risks of Terrorism: A National Field Experiment." *Psychological Science* 14(2):144–150.

Levendusky, Matthew S. 2009. *The Partisan Sort: How Liberals Became Democrats and Conservatives Became Republicans*. University of Chicago Press.

Lobbestael, Jill, Arnoud Arntz and Reinout W. Wiers. 2008. "How to Push Someone's Buttons: A Comparison of Four Anger-Induction Methods." *Cognition & Emotion* 22(2):353–373.

Lord, Wendy. 2007. *NEO-PI-R: A Guide to Interpretation and Feedback in a Work Context*. Hogrefe Ltd.

Luhtanen, Riia and Jennifer Crocker. 1992. "A Collective Self-Esteem Scale: Self-Evaluation of One's Social Identity." *Personality and Social Psychology Bulletin* 18(3):302–318.

MacKuen, Michael, Jennifer Wolak, Luke Keele and George E. Marcus. 2010. "Civic Engagements: Resolute Partisanship or Reflective Deliberation." *American Journal of Political Science* 54(2):440–458.

Malka, Ariel and Yphtach Lelkes. 2010. "More Than Ideology: Conservative-Liberal Identity and Receptivity to Political Cues." *Social Justice Research* 23(2-3):156–188.

Mann, Thomas E. and Norman J. Ornstein. 2012. *It's Even Worse Than it Looks: How the American Constitutional System Collided with the New Politics of Extremism*. Basic Books.

Marcus, George E. 2002. *The Sentimental Citizen: Emotion in Democratic Politics*. Penn State University Press.

Marcus, George E., W. Russell Neuman and Michael MacKuen. 2000. *Affective Intelligence and Political Judgment*. University of Chicago Press.

Mason, Lilliana. 2013. "The Rise of Uncivil Agreement: Issue Versus Behavioral Polarization in the American Electorate." *American Behavioral Scientist* 57(1):140–159.

Mason, Lilliana. 2015. "'I Disrespectfully Agree': The Differential Effects of Partisan Sorting on Social and Issue Polarization." *American Journal of Political Science* 59(1):128–145.

McCarty, Nolan, Keith T. Poole and Howard Rosenthal. 2016. *Polarized America: The Dance of Ideology and Unequal Riches*. MIT Press.

McCrae, Robert R. and Paul T. Costa. 1994. "The Stability of Personality: Observations and Evaluations." *Current Directions in Psychological Science* 3(6):173–175.

Mondak, Jeffery J. 2010. *Personality and the Foundations of Political Behavior*. Cambridge University Press.

Mondak, Jeffery J. and Karen D. Halperin. 2008. "A Framework for the Study of Personality and Political Behaviour." *British Journal of Political Science* 38(2):335–362.

Mondak, Jeffrey K., Damarys Canache, Mitchell A. Seligson and Mary R. Anderson. 2010. "Personality and Civic Engagement: An Integrative Framework for the Study of Trait Effects on Political Behavior." *American Political Science Review* 104(1):85–110.

Moons, Welsey G., Naomi I. Eisenberger and Shelley E. Taylor. 2010. "Anger and Fear Responses to Stress Have Different Biological Profiles." *Brain, Behavior, and Immunity* 24:215–219.

Mutz, Diana. 2006. How the Mass Media Divide Us. In *Red and Blue Nation? Characteristics and Causes of America's Polarized Politics*, ed. Pietro S Nivola and David W Brady. Vol. 1 The Brookings Institution Press pp. 223–248.

Norman, Warren T. and Lewis R. Goldberg. 1966. "Raters, Ratees, and Randomness in Personality Structure." *Journal of Personality and Social Psychology* 4(6):681–691.

Nyhan, Brendan and Jason Reifler. 2010. "When Corrections Fail: The Persistence of Political Misperceptions." *Political Behavior* 32(2):303–330.

Paunonen, Sampo V. and Michael C. Ashton. 2001. "Big Five Factors and Facets and the Prediction of Behavior." *Journal of Personality and Social Psychology* 81(3):524–539.

Pervin, Lawrence A. and Oliver P. John. 1999. *Handbook of Personality: Theory and Research*. Elsevier.

Pettigrew, Thomas F. and Linda R. Tropp. 2008. "Allport's Intergroup Contact Hypothesis: Its History and Influence." *On the Nature of Prejudice: Fifty Years after Allport* pp. 262–277.

Pew Research Center. 2015. "Beyond Distrust: How Americans View Their Government." http://www.people-press.org/2015/11/23/1-trust-in-government-1958-2015/. Accessed: 2017-01-25.

Pew Research Center. 2016. "Partisanship and Political Animosity in 2016." http://www.people-press.org/2016/06/22/partisanship-and-political-animosity-in-2016/.. Accessed: 2017-08-14.

Piedmont, Ralph L. 1989. *The Revised NEO Personality Inventory: Clinical and Research Applications*. Plenum Press.

Prior, Markus. 2007. *Post-Broadcast Democracy: How Media Choice Increases Inequality in Political Involvement and Polarizes Elections*. Cambridge University Press.

Reynolds, Sarah K. and Lee Anna Clark. 2001. "Predicting Dimensions of Personality Disorder from Domains and Facets of the Five-Factor Model." *Journal of Personality* 62(2):199–222.

Rogowski, Jon C. and Joseph L. Sutherland. 2015. "How Ideology Fuels Affective Polarization." *Political Behavior* 38:1–24.

Saucier, Gerard and Lewis R. Goldberg. 1996. The Language of Personality: Lexical Perspectives. In *The Five-Factor Model of Personality: Theoretical Perspectives*, ed. Jerry S. Wiggins. Guilford Press pp. 21–50.

Schoen, Harald and Siegfried Schumann. 2007. "Personality Traits, Partisan Attitudes, and Voting Behavior: Evidence from Germany." *Political Psychology* 28(4):471–498.

Schwarz, Norbert and Gerald Clore. 1983. "Mood, Misattribution, and Judgments of Well-Being: Informative and Directive Functions of Affective States." *Journal of Personality and Social Psychology* 45(3):513–523.

Silvia, Paul J. 2009. "Looking Past Pleasure: Anger, Confusion, Disgust, Pride, Surprise, and Other Unusual Aesthetic Emotions." *Psychology of Aesthetics, Creativity, and the Arts* 3(1):48–51.

Sood, Gaurav and Shanto Iyengar. 2015. "All in the Eye of the Beholder: Partisan Affect and Ideological Accountability.".

Tajfel, Henri. 1981. *Human Groups & Social Categories: Studies in Social Psychology*. Cambridge University Press.

Tajfel, Henri and John C. Turner. 1979. An Integrative Theory of Intergroup Conflict. In *The Social Psychology of Intergroup Relations*, ed. William G Austin and Stephen Worchel. Brooks/Cole.

Tausczik, Yla R. and James W. Pennebaker. 2010. "The Psychological Meaning of Words: LIWC and Computerized Text Analysis Methods." *Journal of Language of Social Psychology* 29(1):24–54.

The Economist. 2017. "Declining trust in government is denting democracy." http://www.economist.com/blogs/graphicdetail/2017/01/daily-chart-20?fsrc=scn/tw/te/bl/ed/decliningtrustingovernmentisdentingdemocracy. Accessed: 2017-01-25.

Theriault, Sean M. 2008. *Party Polarization in Congress*. Cambridge University Press.

Tiedens, Larissa Z. 2001. "The Effect of Anger on the Hostile Inferences of Aggressive and Nonaggressive People: Specific Emotions, Cognitive Processing, and Chronic Accessibility." *Motivation and Emotion* 25(3):233–251.

Valentino, Nicholas A., Krysha Gregorowicz and Eric W. Groenendyk. 2009. "Efficacy, Emotions and the Habit of Participation." *Political Behavior* 31(3):307–330.

Valentino, Nicholas A., Ted Brader, Eric W. Groenendyk, Krysha Gregorowicz and Vincent L. Hutchings. 2011. "Election Night's Alright for Fighting: The Role of Emotions in Political Participation." *The Journal of Politics* (1):156–170.