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Digital political information consumption and ambivalent political attitudes.

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DIGITAL POLITICAL INFORMATION CONSUMPTION AND AMBIVALENT
POLITICAL ATTITUDES

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ABSTRACT

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Dane Ryan Warner

August 5, 2019

Understanding how individuals form, reinforce, or change attitudes has a long history in political science research. This study seeks to contribute to the existing literature by bridging the gap between the ambivalence and digital political communications literature by examining the relationship between digital political information consumption and ambivalent political attitudes. Using the American National Election Studies 2016 Time Series Study, I examine the role of digital political information consumption as a moderator of value conflict and ambivalent political attitudes. The findings suggest that increased levels of information gather significantly reduce group ambivalence, candidate ambivalence, and value ambivalence.

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CHAPTER I: INTRODUCTION

Without much difficulty, one can discover the vast influences which the internet has exerted on the course of human development. Even in countries such as Eritrea and Afghanistan where internet penetration is less than 10% of the population (InternetLiveStats 2018), political and economic actors use the internet to conduct their business in a global market. What developed as one government's desire to create a secure and efficient method of communication has developed into one of the more universal features of the human social existence. One of the early visionaries of the what is now known as the internet, J.C.R. Licklider, described his vision as "a globally interconnected set of computers through which everyone could quickly access data and programs from any site" (Leiner et al. 1997). Many of the early visions of the internet imagined a democratic platform, in the sense that the inventors of the internet envisioned a networked system which had no political or economic authority regulating its function (Brate 2002).

While theoretical work involving the internet began with its physical development, it took until the 1990s for the first social science article about the internet to appear (Dutton 2013) and took until 2010 for the internet and its related developments to become a mainstream research area. While some scholars chip away at their corner of internet

studies, others are starting to unite multiple disciplines to study this profound piece of human development. This study seeks to contribute to this effort by examining the intersection of social psychology and political science. While both fields have contributed significantly to our understanding of attitudinal ambivalence and the effects of the internet on social behavior, neither has examined the role the internet might play on this important attitudinal state.

The information we receive about the world around us has a significant impact on our personal development and our social development. If we look outside and see it is raining, we will grab an umbrella, or may even choose to remain inside. This, of course, assumes that we have already received and interpreted the relevant information, and know that rain is generally to be avoided. On the other hand, perhaps if we were as the those in Plato's cave, we may find the rain an exciting new part of our world. Like Plato's caveman, the pre-internet information environment limited many individuals to only the shadows of their interest. Historically, information was controlled by religious, economic, and political elites, or was limited by geographical distance. Today, individuals with open access to the internet can pursue and reinforce any of their information needs.

While the internet has, at times, lived up to Licklider's ideal, it has also been the enemy of his vision. This study seeks to examine the effects of having unlimited information at our fingertips. Is there such a thing as too much data?

In the next chapter, I review the extensive body of literature regarding cognition and ambivalent political attitudes as well as some literature from political communication scholars. By examining the antecedents of ambivalent attitudes and their effects on political behavior and political decision making, I will build my case for why I expect the internet

to have a negative effect on attitudinal ambivalence. In chapter three, I will explain the data and methods I used to examine the relationship between digital political information consumption and ambivalent political attitudes. This chapter includes explanations of multiple ambivalence indices and provides oversight of how much of the public experiences attitudinal ambivalence regarding several political attitude objects. In chapter four, I will analyze the data and test my research question, does digital political information consumption reduce the level of ambivalence in the general public. The results suggest that the internet is an active moderator of ambivalence. Finally, in chapter five, I will conclude by discussing where and how my findings fit into the broader context. I will also discuss new opportunities for further studies, as undoubtedly, my results prompt additional questions. I also offer a discussion of how my results may shed some light on the discussion about a polarized American electorate.

CHAPTER II: LITERATURE REVIEW ¹

What is Ambivalence?

For a full understanding of ambivalence, it is necessary to give some background information on attitudes, generally, to get a sense of how ambivalence is incorporated into our collective understanding of how attitudes shape behavior and decision-making. Attitudes are one of the most ubiquitous constructs studied in social science research. While there has been variation in the scholarly definition of attitudes through decades of research, the general consensus in contemporary scholarship is that an attitude is an individual's learned tendency to evaluate an object with some degree of positive or negative expression (Ajzen and Fishbein 2000; Eagly and Chaiken 1993; Martinez et al. 2005; Craig et al. 2003; Olson and Kendrick 2012). Early research on attitudes treated them as unidimensional, bipolar constructs (Thompson et al. 1995). This early treatment measured and gauged how positively or negatively people evaluated an attitude object

¹ Significant portions of the literature review of this thesis come directly from a chapter in the Oxford Encyclopedia of Political Decision Making "Ambivalence in Political Decision Making" authored by Dane Warner and Jason Gainous These portions were reproduced with copyright permissions from the Oxford Research Encyclopedia.

assuming that people's positions were exclusively in one of those directions, and those who felt neither were often described as indifferent (Kaplan 1972; Martinez et al. 2005).

In contrast to the unidimensional model of attitudes of early research, the preeminent model in contemporary psychology and political science literature is the tripartite approach (Michael et al. 2004; Olson and Kendrick 2012; Thompson et al. 1995). The tripartite approach treats attitudes a multidimensional construct with cognitive, affective, and behavioral components.

The tripartite approach to attitudes has disseminated downward from overall attitudes, to note, conceptualize, and measure attributes within each of the three components. Ambivalence is conceptualized as an attribute of both the cognitive and affective components of attitudes and has behavioral consequences. That said, as an attribute of attitudes, ambivalence largely falls under the umbrella of attitude strength (Ajzen 2001; Bassili 1996; Conner et al. 2002; Petty 2012). Whether a researcher is using survey instruments or conducting in-depth interviews, the data collected often contain measures of the various attributes of attitudes that characterize attitude strength, generally. Some of the primary attributes of attitude strength, other than ambivalence, include importance or the degree to which people care deeply about an issue and its significance to their daily lives (Boninger et al. 1995; Krosnick 1988; Krosnick and Abelson 1992), extremity or the distance from the midpoint on traditional attitude scales (Abelson et al. 1982; Krosnick et al. 1993; Krosnick and Abelson 1992), certainty or the degree to which an individual is confident that his or her attitude toward an object is correct (Budd 1986; Krosnick and Schuman 1988), and accessibility is the strength of the object evaluation link in memory (Fazio 1995; Fazio and Williams 1986).

The focus on attitude strength here, is not only because ambivalence is an attribute of attitude strength, but also because, generally speaking, all its components can be consequential for behavior and decision-making under a wide range of circumstances (Ajzen 2001; Conner and Armitage 2008; Craig and Martinez 2004; Craig and Martinez 2016; Guyer and Fabrigar 2015). This gives us a general sense of how ambivalence, as a characteristic of attitude strength, is consequential. Behavioral research across disciplines has identified how attitude strength structures patterns of consumption (Dursun and Tümer Kabadayı 2013), health decisions (Conner et al. 2002; Conner et al. 2003; Mccauley et al. 1988), and directly related to political decision-making, it can influence one's tendency to vote. The point here is that a range of various attitudes demonstratively predicts these and other behaviors offering substantial evidence that attitude strength conditions behavior (Bassili 1996; Howe and Krosnick 2017).

The basic idea behind the attitude strength-behavior connection is that strong attitudes predict relevant behaviors better than weak attitudes (Howe and Krosnick 2017). Like attitudes, attitude strength is a multidimensional construct. Krosnick and Petty (1995) define attitude strength as the degree in which an attitude possesses persistence, resistance, impact on information processing and judgment, and behavior guidance. Attitude strength and these four features of it provide a foundation for much of the attitudinal research in the social sciences. For instance, Krosnick and colleagues (Krosnick et al. 1993) conducted a study based on the prior findings of Raden (1985) finding low to moderate positive correlations between dimensions of attitude strength indicating these dimensions did not represent a unidimensional strength. These dimensions, or attitude attributes, often interact with one another in complex ways (Olson and Kendrick 2012). One such way, these

dimensions of attitude strength may interact with behaviors, like decision-making, is through the degree to which one's attitude is ambivalent. Again, since healthy attitudes are typically better predictors of behavior, extends to the relationship between ambivalence and behavior. Ambivalence may diminish the magnitude of the relationship between attitude and behavior (Craig et al. 2003).

This brings directly to the broader concept of attitude strength, and purpose of this section of the study, defining ambivalence. Ambivalence refers to the individual experience of simultaneously possessing both positive and negative attitudes about a single attitude object (Albertson et al. 2005; Alvarez and Brehm 1995; Armitage and Conner 2000; Cacioppo et al. 1997; Craig et al. 2002; McGraw et al. 2003; Newby-Clark et al. 2005; Priester and Petty 1996). While the broad definition seems straightforward, within the domain of political science scholars, have treated the construct in a variety of diverse ways leading to some definitional inconsistencies. Alvarez and Brehm (1995) assert the notion that for ambivalence to occur, the conflict must be irreconcilable. Lavine and Steenbergen (2005) conclude that group ambivalence, candidate ambivalence, and party ambivalence affect related behaviors and attitudes differently, indicating contextual differences based on the attitude object. In earlier work, Lavine and colleagues (1998) examine a cognitive-affective ambivalence, examining the often-ignored affective component of attitudes. While Fournier (2005) defines ambivalence as “the extent to which the elements people take into account when making a decision push toward opposing positions simultaneously” (p. 29) implying a behavioral criterion of information processing for the presence of ambivalence. Thus, some indicate that it is cognitive, some effective, and some behavioral. These all, though, still fall within the general tripartite approach to attitudes.

The variation in conceptualization and measurement (discussed in the next section) has produced different and sometimes conflicting results. For example, while many scholars find ambivalence to be quite prevalent in American public opinion (Gainous et al. 2008; Zaller 1992), there is a considerable number that finds ambivalence is much less common (Alvarez and Brehm 1995; Lavine and Steenbergen 2005; Steenbergen and R. Brewer 2004). Even with the variance of results, steadfast through the varied conceptualizations is that they all contain the basic notion of the simultaneous possession of conflicting evaluations. This consistency in the conceptualization is apparent in the numerous approaches to operationalizing ambivalence. The next section makes this point clear, while also addressing the relative value of measurement choice

Measuring Ambivalence

In addition to studying ambivalence as a psychological phenomenon, many researchers have been interested in the study of its measurement (Albertson et al. 2005; Alvarez and Brehm 1995; Bassili 1996; Gainous 2008; Holbrook and Krosnick 2005; Kaplan 1972; Thornton 2011). The measurement of ambivalence can be separated into two distinct categories: meta-attitudinal measurements and operative measurements (Bassili 1996; Gainous 2008; Holbrook and Krosnick 2005). In the most basic sense, meta-attitudinal measures ask people to evaluate their ambivalence while operative measures attempt to gauge it without subjects' knowledge that ambivalence is being assessed. While the preeminent methods for measuring ambivalence are operative measures, both meta-attitudinal and, operative measures have strengths and weaknesses for measuring

ambivalence. The following section examines the use of both methods in the existing literature and compares the practical and statistical difference between them

Meta-attitudinal Measurement

Using a meta-attitudinal approach to measuring ambivalence is straightforward. Again, this measurement strategy requires respondents to consider and evaluate their ambivalence. One way this is accomplished is by using a Likert scale with simple statements about the presence of conflicting attitudes (Gainous 2008). Another standard method for collecting meta-attitudinal data on ambivalence is using less direct questions like the one used by Mulligan (2002):

Some people feel that there are only good things or bad things about this issue (a. government wiretapping, b. social welfare spending). Their feelings are consistent. Other people feel that there are both good things and bad things about this issue. Their feelings are inconsistent. Thinking about your own views, would you say that your feelings about this issue are extremely consistent, very consistent, somewhat consistent, somewhat inconsistent, very inconsistent, or extremely inconsistent?

While the exact scales and words used to gather meta-attitudinal ambivalence data vary, they all rely on the self-report of respondents determine the presence or absence of ambivalence.

Operative Measurement

Operative measures of ambivalence comprise the favored approach in contemporary ambivalence research. The operative measurement of ambivalence uses mathematical formulas and indices to transform data collected regarding an attitude object. Generally, this data is collected using traditional survey methods, some studies, however, include measures of response latency (Bassili 1996; Gainous 2008) – a more non-traditional survey approach – as well as measures that rely on statistical modeling (assessing heteroscedasticity). For those relying on more traditional survey indicators, there are three original formulae worth noting: the Kaplan measure, the Katz and Hass measure, and the Griffin measure. Most ambivalence research uses the Griffin measure or a variant thereof. The remainder of this section summarizes the early development of a general operative measurement strategy based largely on a semantic differential strategy followed key developments in operationalizing ambivalence using the same foundation. Then we discuss the other two other operative measures: response latency and heteroscedasticity. Finally, there is a section devoted to research that has compared the relative validity of these approaches: meta-attitudinal and operative.

The Kaplan measure is the first attempt to model an operative measure of ambivalence. In seeking to understand the underlying meaning of attitude neutral responses, Kaplan (1972) developed a measurement technique to differentiate between indifference and ambivalence. In addition to using an operative formula for the operationalization of ambivalence, Kaplan also suggested a modification to the use of semantic differential scales that allows researchers to collect data that permitted easier identification of ambivalence. Rather than using a bipolar scale to measure attitudes, he

suggested researchers split the scale at the neutral point and ask respondents to rate the positive and negative components of an attitude separately.

Kaplan's formula, $AMB = TA - POL$, models ambivalence as the function of total attitude (TA) and the polarization (POL) of the attitude. Total attitude is defined as the total positive component plus the absolute value of the negative component, $TA = A_p + |A_N|$ and polarization is defined as the absolute value of the positive and negative component or $POL = |A_p + A_N|$.

While Kaplan's formula was a critical first step in operationalizing ambivalence, it did not accurately measure the construct. Explained as the overlap between the weaker and stronger component (Thompson et al. 1995), the formula failed to differentiate between degrees of ambivalence while holding the weaker component constant. The more significant contribution was his suggestion of splitting the semantic differential scale and separately measuring the positive and negative components of an attitude; a method still used in contemporary research.

The Katz and Hass formula sought to correct the conceptual shortcoming of the Kaplan's formula. Using the two-scale method proposed by Kaplan, Katz, and Hass (1988) proposed a formula that reflected that ambivalence is stronger when both components are equally intense and polar. Rather than modeling ambivalence and the sum of the two components, the Katz and Hass formula models ambivalence as the absolute value of the product of the positive and negative components or $|AMB| = A_p * A_N$. While this operationalization corrected the problem in Kaplan's definition, it also fell short of capturing ambivalence as conceptualized. Since ambivalence occurs when evaluations are similar in intensity, but opposed in valence, a response pair of (1,1) should receive a higher

ambivalence score than a response pair of (1,4). Using this formula, however, the resulting ambivalence scores would be a 1 and 4 respectively.

The final formula worth noting is the Griffin formula. Whereas the previous two formulae were steps toward creating a valid operative measure of ambivalence, the Griffin formula accomplished the task. When developing the formula, Griffin directly included the necessary and sufficient conditions for ambivalence: similarity and intensity. The formula, $AMB = (A_P + A_N)/2 - |A_P - A_N|$ results in an index that accounts for both the differences in score combinations and accurately represents the conceptualization of ambivalence. Although all three of these examples vary in their validity, they share a standard method².

-Table 2.1-

The data used in the calculation of their respective ambivalence scores were gathered using a modified semantic differential scale. While Kaplan's formula did not accurately capture the simultaneous possession of positive and negative evaluations, ambivalent attitudes, his suggestion to split the semantic differential scale was incredibly valuable. His effort distinguishes between respondents who felt neither positively or negatively and those who felt both positively and negatively and led to a method still used today. Simply by asking respondents to evaluate separately, the positive and negative components of an object relative to a neutral point, it became possible for researchers to develop the other discussed algorithms and move toward a more accurate measure than adequately separates ambivalent attitudes from those that are, indifferent or neutral.

² See Table 2.1 for a summary

Another way that scholars have attempted to measure ambivalence is by assessing response latency. Bassili (1996) argued that because some attitudes are more potentially conflictual, or characterized by ambivalence than others, it might take longer for respondents to access and state their opinion. Therefore, the amount of time that passes between being asked to respond to a survey indicator of an attitude object, and responding to it, is measured with the idea that the longer it takes, the more “potential ambivalence” exists (Newby-Clark et al. 2005).

Bassili’s (1996) work is centered broadly on attitude strength as opposed to specifically on ambivalence, but it provides the operational foundation of using response latency as an indicator of ambivalence. Albertson, Brehm, and Alvarez (2005) directly examine response latency regarding responses to questions about two policy categories (affirmative action and welfare). Their results suggested that other measures (operative in particular) performed better, but also with caveats and limitations; namely, they argue that simultaneously holding positive and negative evaluations does not necessarily signify ambivalence. Their contention is that there must be some difficulty in settling the conflict if, indeed, these conflicting evaluations are ambivalence.

Alvarez and Brehm (1995) used yet another operative measure of ambivalence. They inferred ambivalence from patterns of error variance, the heteroscedasticity, in a regression model (see also de Vries and Steenbergen 2013; Jacoby 2002): a probit model of binary choice. The argument is that error variance across individuals indicates the presence of ambivalence within individuals. However, there are limitations to such inferences about an individual-level concept (ambivalence) based upon aggregate-level data (error variance) are problematic. Error variance is high, by definition, when a more

substantial proportion of people are not predicted accurately by the binary choice model, whereas ambivalence exists when an individual person holds both positive and negative feelings about an issue. High error variance may indeed be, in part, a result of ambivalence, and the results of Alvarez and Brehm's research give us reason to believe that it probably is to some degree. However, this still does not allow us to infer if any one individual is ambivalent. Error variances in the binary choice model may be a function of non-attitudes, uncertainty, equivocation, or a host of other factors as well.

Measurement Comparison

Several studies have been conducted measuring the comparative validity of ambivalence measurement strategies (Bassili 1996; Gainous 2008; Holbrook and Krosnick 2005; Thompson et al. 1995). In addition to comparing the two different categories of measurement strategies, meta-attitudinal and operative, Gainous (2008), Thompson (1995), and to a lesser degree Bassili (1996), compare the validity of various operative measures of ambivalence. The collective results of these studies suggest several key findings described below.

Bassili (1996) uses a factor analysis to compare various meta-attitudinal measures of attitude strength and the operative measures of extremity, ambivalence, and response latency. Looking at the issues of work quotas for women, censorship of pornography, and censorship of hate speech, he finds that meta-attitudinal and operative measures consistently cluster onto two factors. This finding suggests that meta-attitudinal and operative measures of attitude strength are measuring different constructs of these issues. Based on the factor analyses, Bassili continues by creating separate indices for the two

measurement classes and running logistical regression models for a dichotomous variable of attitude pliability for all issues. In the model comprised of both indices, the meta-attitudinal index failed to reach statistical significance, whereas the operative index was statistically significant in all three cases. Further, in the models comprised of only the meta-attitudinal index, only the model for predicting the pliability of hate speech censorship performed well.

In a second, similarly structured study, Bassili (1996) found similar results between meta-attitudinal and operative measures of attitude strength. Additionally, the second study contained both a meta-attitudinal and operative measure of ambivalence. A correlation test found no relationship between the two measures.

Others have also compared meta-attitudinal and operative measures of ambivalence with similar results (Gainous 2008; Holbrook and Krosnick 2005). Using three meta-attitudinal measures and two operative measures of ambivalence the Holbrook and Krosnick, created two structural equation models. In one model, all five indicators were treated as indicators of a single latent construct, while the second model treated the meta-attitudinal and operative indicators as measuring their own respective latent constructs. Using various tests of model fit, Holbrook and Krosnick compared the two models across the issues of abortion and capital punishment. Consistent with Bassili's findings, the single construct model did not fit for either issue while the two-construct model was a good fit for both issues. The authors then used a model proposed by Kenny and Judd (1984) to compute factor scores for the two-construct ambivalence structural equation model and used these scores to estimate resistance, information gathering, the false consensus effect, perceptions of media bias, candidate evaluations, and activism. They found here that the

meta-attitudinal ambivalence and operative ambivalence had different effects on these political outcomes. Of the ten relationships tested, only three produced results statistically significant and correlated in the same direction for both measures. These findings suggest that meta-attitudinal ambivalence and operative ambivalence work differently depending on the context.

Gainous (2008) finds that between one meta-attitudinal measure and two operative measures of social welfare ambivalence, only a weak relationship exists between the two operative measures. This finding supports the findings of other scholars that there is not a relationship between meta-attitudinal measures and operative measures of ambivalence, and that when such correlations are present, they appear to be marginal at best. Gainous' conclusion regarding the relative validity of the different measures is that the operative measures that force respondents evaluate the positive and negative components of an attitude object are the most effective predictors of ambivalence.

In sum, research regarding the relative validity of the two measurement classes indicates key findings. First, meta-attitudinal measures and operative measures are measuring different constructs. Bassili (1996) suggests the reason for this is meta-attitudinal measures are capturing evaluations of attitude properties while operative measures are capturing the actual ambivalent properties. Further, the correlations between the different measurements of ambivalence tend to be weak or non-existent in most cases. Second, when comparing the validity of the measurement strategies, the operative measurements of ambivalence tend to be the superior predictor of ambivalence.

In addition to studying the validity between meta-attitudinal and operative measurement strategies, some scholars have focused on comparing the validity of operative

measures. Thompson, Zanna, and Griffin (1995) compare four formulae used to construct operative ambivalence scores, the Kaplan index, the Katz index, the Jamieson index, and the Griffin index. Their findings suggest that the Jamieson and Griffin index are the most accurate methods to measure ambivalence as commonly defined. Thornton (2011) assesses the level of measurement of operative measures using researcher inferences from open-ended survey questions and asserts that such measures should be coded categorically to increase measurement validity. Gainous (2008) concludes that the heteroscedastic model is insufficient due to ambiguity regarding the causes of variance and discrepancies between the level of observation and level of measurement.

In conclusion, the measurement of ambivalence has received a great deal of attention. The findings suggest that in most cases, the most effective way to measure the phenomenon of the simultaneous possession of positive and negative evaluative dispositions about an attitude object is using the split semantic differential method combined with the Griffin formula. While this may be true in most cases, there are some circumstances in which other methods are appropriate. For example, if one chose to include the criteria of irreconcilable internalized conflict, the addition of a meta-attitudinal measurement, or an inferential operative measure of open-ended questions, would allow researchers to identify when the presence of an ambivalent state results in affective conflict. Further, research is often constrained by practical limitations. Using the split semantic differential method requires, at least, two questions to measure one attitude doubling the resources required to collect data.

Depending on the relative importance of ambivalence to a specific research question and the practical restrictions on data collection, the most appropriate method for

measuring ambivalence may be meta-attitudinal, operative, or a combination thereof. No single method has been shown to be universally superior. However, thanks to the prior research of scholars, a considerable amount of research exists to aid in determining the appropriate method of measurement for future research.

Political Consequences of Ambivalence

It should be no surprise that the political consequences of ambivalence are the most studied area within political science ambivalence research. After all, political science is concerned with political outcomes. It is in this section, where the relationship of ambivalence to political decision-making is clearest. While much of the discussion up to this point has focused on the individual and largely psychological consequences of attitudinal ambivalence, ambivalence also affects political behavior. In addition to the direct role of ambivalence on attitude expression, ambivalent attitudes have been shown to increase susceptibility to influence (Armitage and Conner 2000; Hodson et al. 2001; Lavine et al. 2012), affect the rate of political participation (Mulligan 2011; Yoo 2010), and increase variance in vote choice (Basinger and Lavine 2005; Lavine et al. 2012; Lavine and Steenbergen 2005; Mulligan 2011; Thornton 2014), among other decision-making consequences.

Early research suggested that ambivalence plays a role in shaping citizens' feelings about their national leaders. Abelson and his colleagues (1982) found that positive and negative affective reactions toward candidates clustered on separate factors; or, in other words, their reactions formed two factors that were not significantly correlated with one another. Thus, having good feelings toward a candidate did not necessarily imply an

absence of bad feelings toward them. Subsequent research suggests that ambivalence also affects the manner in which attitudes translate into behavior (Armitage and Conner 2000). Lavine and Steenbergen (2005) present evidence of this by showing that conflict rooted in feelings toward liberal and conservative social groups can influence citizens' voting decisions.

Evidence also suggests that ambivalence mediates political evaluations (McGraw et al. 2003), and the relationship between a person's policy preferences and his or her evaluations of political leaders and institutions (Craig et al. 2005). For example, in an experiment, Haddock (2003) tests the degree to which candidate and party evaluations are linked among those that are ambivalent about British politics in general. He used a direct measure of ambivalence that simply asked subjects if they were mixed or ambivalent. The results indicated that the correlation between evaluations of the Prime Minister and the party were highest when participants evaluated them together rather than separately and that this correlation was strongest for those who were ambivalent. Other studies have demonstrated that more negative evaluations of candidates are associated with ambivalence (Craig et al. 2003; McGraw et al. 2003).

While most research on ambivalence within political science is situated in the domestic American context, Erisen and Erisen (2014) examined political ambivalence in Europe. Using data from the Eurobarometer, they looked at public opinion regarding Turkey's membership into the European Union in 2006. Using three-domain pairs, economy– security, immigration–security, and population–culture, they find that EU citizens were moderately ambivalent about Turkey's proposed ascension into the EU. They also found that ambivalent individuals in this study were more likely to support Turkey's

membership into the European Union. Research has also suggested that consequences of ambivalence extend beyond individual-level evaluative effects. It has been hypothesized that ambivalence, like other attributes such as importance, extremity, and certainty, will moderate the stability of attitudes over time (Armitage and Conner 2000; Bassili 1996; Kane et al. 2001). The evidence, however, is decidedly mixed. Some have concluded that ambivalence does contribute to attitude instability or susceptibility (Bargh et al. 1992; Craig et al. 2005; Fournier 2005; Hill and Kriesi 2001), while other research has failed to uncover such a link (Armitage and Conner 2000, 2005; Bassili 1996; Zaller and Feldman 1992).

When it comes to the relationship between ambivalence and political decision-making, perhaps, the strongest evidence that this relationship is consequential is that demonstrating a connection centered on actual political engagement. On this front, there is evidence that ambivalence can condition political participation (Yoo 2010) partisanship (Lavine et al. 2012) and vote choice (Basinger and Lavine 2005; Mulligan 2011) (Thornton 2014).

Yoo (2010) goes back to the very foundation of early ambivalence research to build a framework for understanding why ambivalence should matter for the decision to participate, specifically the decision to vote. He argues that attitudinal research still largely fails to distinguish between two types of neutrality: ambivalence and indifference. He then makes a straightforward and convincing argument that ambivalent citizens should turn out to vote at higher rates than indifferent citizens because prior research concluded that ambivalent are motivated to seek and process information intensively (Bell and Esses 2002). The contention is that ambivalent citizens will not sit idly when confronted with the

psychological conflict that is ambivalence. The indifferent are often apolitical, while the ambivalent have an affective connection to the political contest. As a result, they should be more likely to vote than the indifferent. Yoo (2010) uses American National Election Studies data to show, first, that this is, indeed, the case. Then this result is extended to political participation more generally, with the evidence indicating that the ambivalent are more likely than the indifferent to engage in various campaign activities.

While evidence that ambivalence conditions the decision to participate clearly demonstrates that it is consequential for our understanding of political decision-making generally, there is perhaps no more meaningful decision in a democratic society than the decision on how to cast one's vote. Here, too, research has provided solid evidence that ambivalence can influence vote choice. The foundation of political behavior scholarship is rooted in *The American Voter* (Campbell et al. 1960), where they argued that citizens' attachment to political parties ultimately shaped all of their political decisions. They perceived the world around them through a partisan lens. While Basinger and Lavine (2005) do not suggest that this is not the case, they do argue that voters who are ambivalent about political parties reduce their reliance on partisanship to come to a decision on whom to vote for in U.S. House elections. In *The Ambivalent Partisan: How Critical Loyalty Promotes Democracy* (2012) Lavine and colleagues find that individuals who express positive and negative attitudes towards both parties are more likely to change their partisan identity. Casting doubt on the dominance of partisanship in the political decision-making process. Others continue this line of research arguing that citizens with partisan ambivalence are more likely to split-ticket vote in congressional elections (Mulligan 2011), and while Thornton (2014) demonstrates that the indifferent are more likely than the

ambivalent about defecting (vote for a candidate who does not share their party identification) in presidential elections, he does provide evidence that ambivalent partisans will defect under certain conditions.

Sources of Ambivalence

If understanding the effects of ambivalence is important to political scientists, it is equally important to understand the conditions that inhibit or encourage ambivalence. Although a considerable amount of research has been conducted investigating the consequences of ambivalence for political decision-making, little has been done to uncover the root causes of ambivalence (Keele and Wolak 2008). Contrary to the mixed evidence from social psychology research (Conner and Armitage 2008), the assumption that the causes of ambivalence are rooted in individual differences in attitude strength and political knowledge is common (Keele and Wolak 2008). Given the mounting evidence that ambivalence has significant consequences for political decision-making (Basinger and Lavine 2005; Craig et al. 2002; Gainous and Martinez 2005; Huckfeldt et al. 2004b; Kim et al. 2013; McGraw et al. 2003; Mulligan 2011; Mutz 2002; Thornton 2014; Yoo 2010), examining the conditions in which ambivalence occurs is necessary.

While individual differences such as political knowledge, value conflict, and personality traits are often treated as sources of ambivalence, recent research indicates environmental factors such as political context (Keele and Wolak 2008; Singh and Thornton 2016; Thornton 2013) and information and social networks (Huckfeldt et al. 2004b; Mutz 2002; Rudolph 2005), also contribute to the occurrence of ambivalence. This section examines the individual, environmental, and network-based sources of ambivalence to help predict those who are most likely to possess ambivalent attitudes.

Value Conflict

Of the individual level root causes of ambivalence, value conflict is the predominant antecedent in the literature (Steenbergen and R. Brewer 2004). The idea is that ambivalence will occur in evaluative circumstances where the attitude object forces two or more of an individual's core values to be in opposition to one another (Alvarez and Brehm 1995; Craig et al. 2003; Eagly and Chaiken 1993; Katz and Hass 1988). Core values represent overarching normative principles and belief assumptions (McCann 1997) that are part of an individual's social and personal identity (Olson and Kendrick 2012). While value conflict as a principle cause of ambivalence is prevalent in the literature, Craig and colleagues contend that the empirical evidence supporting this assumption is limited. Although the empirical evidence for value conflict-driven ambivalence is limited, concordant findings suggest value conflict as a source of ambivalence (Craig and Martinez 2004; Craig et al. 2005; Zaller and Feldman 1992; Martinez et al. 2005). For this study, I have chosen to model value conflict as a form of ambivalence.

The political culture in the United States has been fraught with conflicting values about government and society since its founding (Feldman and Zaller 1992) as evidenced by the Federalist Papers and even the Constitution. Several of the founding principles of American democracy are grounded in conflicting sets of values. Many values associated with democracy and capitalism may, at times, be found in conflict with one another (McClosky and Zaller 1984), while at the same time competing with egalitarian values (Gainous and Martinez 2005). The complex set of American values in combination with historically contentious policy domains have provided scholars a rich environment to study value conflict as a source of ambivalence.

Feldman and Zaller (1992) examine the value conflict between support for the welfare state and nineteenth-century liberalism. Using two questions about social welfare and an attached open-ended question from the 1987 National Election Studies survey data, Feldman and Zaller assess respondents' answers against their open-ended elaboration. They conclude that on the issues of social welfare policy, social welfare liberals tend to be more ambivalent and that this ambivalence is the result of value conflict derived from a political culture inhospitable to the welfare state.

In a poll of Florida residents, Martinez (2005) found the support that individuals with reported value conflicts were more likely to be ambivalent regarding gay rights issues. Specifically, for gay rights issues relating to military service, privacy, job discrimination, and health insurance, those with value conflict between the values of egalitarianism and traditional lifestyle roles tended to be more ambivalent. Further, for gay rights issues regarding teaching school, legal marriage, adopting children, and joining the Boy Scouts, respondents with value conflict between egalitarianism and traditional marriage roles were found to be more ambivalent.

While values and attitudes are very clearly treated at different constructs within political science and across disciplines, in this study, I treat value conflict as a form of attitudinal ambivalence. I contended that, absent the time criteria and hierarchical nature of values, the two concepts have very similar outwardly expressions in human behavior.

Political Knowledge

General attitude theory treats topic relevant knowledge of an attitude object as an indicator of attitude strength (Ajzen 2001; Kallgren and Wood 1986). Political scientists

have long been interested in the relationship between political knowledge and various attitudinal states. In many cases, political knowledge is treated as a component and indicator of political sophistication, or an individual's ability to gather and process politically relevant information (Craig et al. 2005; Delli Carpini and Keeter 1996; Feldman 1988; Luskin 1987; Sniderman et al. 1991; Zaller 1992). Political sophistication influences many of the same behavioral and decision-making processes that are of interest in ambivalence research. Some examples include issue-based voting (Luskin et al. 2005), ideological/political attitude consistency (Jacoby 1995; Judd and Downing 1990; Judd and Krosnick 1989), and attitude change (Zaller 1992).

Ambivalence research has theorized that political knowledge both increases and reduces ambivalence. Using political knowledge and level of education as indicators of political sophistication McGraw et al. (2003) finds that those with less interest and knowledge in politics were more likely to experience meta-attitudinal ambivalence and uncertainty when evaluating candidates. In a more consequential finding for the purpose of this study, McGraw and colleagues found that the on-line processing of information, which has been shown by a variety of scholars to produce more consistent judgments (Kim and Garrett 2012; Lodge and Taber 2007; Rudolph and Popp 2007; Kim 2009), is especially effective for the highly educated. Against a similar theoretical backdrop Rudolph (2011) finds that political knowledge, operationalized as an indicator of systematic information processing, increased operative ambivalence among weak partisans while reducing operative ambivalence for strong partisans in candidate evaluations.

Early research regarding models of information processing often positioned theories of memory-based processing and on-line processing (Tormala and Petty 2001) as

opposing explanations for attitude formation. However, more contemporary research treats both models as part of the evaluative process (Kim 2009; Lodge and Taber 2007; Kim and Garrett 2012; Kim 2012). Memory-based processing refers to the process in which people based their evaluations on information stored in an individual's long-term memory (Zaller 1992). Conversely, theories of on-line information processing attribute attitudes to a running tally of affective cues for processing and evaluating new information (Kim and Garrett 2012; Kim 2009) and asserts that judgments are made in spontaneously, as needed.

While the existing research provides an insight into the potential relationship between political knowledge and ambivalence, the field would benefit from further research into this relationship. The general scholarship of political knowledge and political sophistication is vast, and the theoretical backdrop of information processing and attitude change provide a strong starting point for additional research.

Context/Political Environment

Another antecedent to ambivalence found in the literature is the condition of the political environment. Research suggests that attributes of political environments such as the electoral system (Singh and Thornton 2016), the competitiveness of the electoral district (Keele and Wolak 2008), and the nature of the political information available to the electorate (Huckfeldt et al. 2004b; Thornton 2013; de Vries and Steenbergen 2013) affect the probability for an individual to be ambivalent.

Concerned about both the lack of empirically verified causes of ambivalence and the domains focus on individual-level causes, Keele and Wolak (2008) wanted to answer whether ambivalence could result from the makeup of the political environment. Reasoning

that the political environment in battleground states differs from non-competitive partisan states during presidential campaigning, the study utilizes a quasi-experimental research design to compare the contextual causes of ambivalence. Using the battleground states as the treatment group and the non-battleground states as the control, the authors expected to find more ambivalence in battleground states. The variables of concern for this study were the distribution of partisanship among the electorate, and the content and balance of elite messaging. Based on expectations from prior research (Beck et al. 2002; Krassa 1990), Keele and Wolak (2008) expected these variables to contribute to a more heterogeneous information environment leading to increased levels of ambivalent attitudes. The treatment results indicate that *ceteris paribus*, there was a one-quarter point increase on the ambivalence scale for the treatment group. Following the confirmatory findings, they created a multilevel model to confirm whether the contextual effects on ambivalence occurred on individual-level outcomes. While the results of their study showed that individual-level indicators are significantly stronger predictors of ambivalence, they also offered evidence that there are, indeed, contextual sources of ambivalence.

Keele and Wolak's examination of contextual sources of ambivalence contributed three important findings to the study of ambivalence. First, it supported the existing use of individual-level sources of ambivalence. Second, it confirmed that the understanding of ambivalence is still incomplete and that contextual factors can affect the presence of ambivalence in individuals. Finally, it identifies competition in presidential ads, and the diversity in an individual's social network are potential sources of ambivalence.

In another study using post-election survey data from the Comparative Study of Electoral Systems, Singh and Thornton contend that coalition comprised of ideologically

dissimilar parties are more likely to generate ambivalence and that the effect of this ambivalence is low evaluations of democratic performance for electoral winners (Singh and Thornton 2016). The results of their study conclude that ideologically dissonant coalitions increase coalition ambivalence. In the parliamentary electoral context, this coalition ambivalence lowers attitudes about external efficacy and feelings of representation.

Thornton (2013) examined the impact of increased elite polarization on the influence of partisanship on vote choice and attitudes. He asserts that heightened elite polarization increases both polarized and ambivalent attitudes, while it reduces attitudes classified as indifferent. The argument is that the increase in elite polarization causes increased attention from the electorate, resulting in a denser information environment, and increasing the number of positive and negative opinions in public. Using data from the American National Election Studies, Thornton shows that from 1980 to 2004 the number of one-side individuals and ambivalent individuals increased from 42% to 47% and from 22% to 29% respectively. Conversely, the number of indifferent individuals decreased from 34% to 23% in the same period.

Cross-Cutting Information/Conflicting Networks/Groups

The last domain of sources of ambivalence to be discussed represents a middle ground between the individual and contextual sources of ambivalence; cross-cutting information and conflicting social and political networks. This area of ambivalence research is interested in understanding how individual characteristics interact with social and political conditions to better understand the general conditions that attenuate or exacerbate ambivalent attitudes.

In a study examining the consequences of politically heterogeneous social networks on ambivalence and engagement, Huckfeldt and colleagues (2004a; 2004b) find that the size and political diversity of an individual's social network enhance the potential for ambivalence. However, this relationship is complex. Their findings suggest that the disagreement between an individual and their network associates does not produce discernable effects for turnout but that as a disagreement between members of their network increases, political interest decreases. In a similar study examining political participation, Mutz (2002) finds both contradicting and concordant evidence regarding dissonant information networks.

In Mutz's study, cross-cutting information networks share a similar positive correlation with ambivalence about candidate preference. In contrast, however, Mutz finds that exposure to these dissonant networks has a negative impact on voting behavior. An additional finding worth noting is the effect of the interaction between cross-cutting exposure and ambivalence on conflict-avoidant individuals. When the effects of social accountability and ambivalence are accounted for, the size of the effects of cross-cutting exposures drops to nearly zero.

Lastly, in a study examining claims that public opinion toward European integration had experienced a decisive turn towards unfavourability, de Vries and Steenbergen (2013) look at the effects of contextual, cross-cutting, and individual-level factors on European public opinion. They assert that response variability in public opinion data is an indicator of ambivalent mass publics. Using a heteroskedastic probit model, they find several results consistent with the findings of Huckfelt and Mutz. De Vries and Steenbergen find that duration of state membership in the EU and perceived party differences have significant curvilinear effects on response variability, while dense media environments and vague party cues regarding European integration had significant positive effects on response variability. Also, worth noting were two findings regarding individual-level factors. Political knowledge failed to produce any meaningful effect on the level of response variability, and the simultaneous possession of national and European identity reduced response variability.

Digital Information Consumption as a Moderator of Ambivalence

Before making presenting my argument and predictions about the relationship between digital political information consumption and ambivalent political attitudes, it is necessary to discuss three more topics. To place my expectation in context, I will now briefly discuss some of the political communication literature in terms of the political consequences that are already known to political communications scholars. One area of research that has been exceptionally active over the last decade is that examining the effects the internet, and web-related technologies, have on our political landscape. The traditional cleavage between scholars regarding the study of the internet has been whether the internet provides an opportunity for those at the bottom of the sociopolitical strata to have a louder voice in the political process. While this cleavage has become less evident in recent years, history has undoubtedly shown that the internet can both accelerate and inhibit sociopolitical mobility.

Some of the more prolific cases of the internet as a force for good were the revolutions of the Arab Spring and the Euromaidan revolution in Ukraine (Kyj 2006; Hänska Ahy 2016; Onuch 2015; Rane and Salem 2012). Conversely, the internet has also made it easier for the Chinese government and American government to spy on its citizens (Healy 2007; Thorne and Kouzmin 2010), for ISIS to recruit new members (Awan 2017) and for private industry (Isaak and Hanna 2018) and hostile states to manipulate the American electoral process (Mueller 2019). These dynamics are the result of three primary structural differences between traditional media and internet media, 1) the internet has reduced the degree in which elites are situated as gatekeepers, 2) the internet has given the consumer significantly more power to choose what information to consume, and 3) the

volume of data available to those with the money or knowledge to obtain it (Gainous and Wagner 2014; Wagner and Gainous 2013; Cappella et al. 2015). The open nature of the internet has created a media environment that hybridizes not only traditional media environments but also introduces innovative ways in which the consumer can select, redistribute information, or even produce their own (Chadwick 2017; Gainous and Wagner 2014; Cappella et al. 2015). It is these facets of the internet, which are important for structuring the argument that increased internet use will reduce attitudinal ambivalence.

In addition, the literature discussed, there two other concepts pertinent to expectations about how the internet will affect its users. Cognitive dissonance theory and selective exposure assert that individuals will seek to avoid cognitive discomfort by selecting information compatible with their existing attitudes (Cappella et al. 2015; Festinger 1962; Fischer et al. 2005; Fischer et al. 2008b; Gainous and Wagner 2014). Though cognitive dissonance theory refers to the discomfort produced by engaging in counter-attitudinal behavior (van Harreveld et al. 2009), the assumptions of internal conflict resolution are near identical, and perhaps more consistent with information consumption. When individuals experience a recognizably internally inconsistent state, they will seek to bring the state into consonance.

One way in which individuals can avoid these unpleasant states is by avoiding counter attitudinal information and selectively consuming. The literature regarding selective exposure has uncovered several factors which interact with the tendency to select confirmatory information. Threat cues (Fischer et al. 2011), information scarcity (Fischer et al. 2008b), self-regulation capacities (Fischer et al. 2008a) and the type of evaluation being made (Fischer et al. 2010), all affect the rate of which individuals engage in selective

exposure. The summative findings of these studies indicate that cognitive investment in evaluative tasks increases reliance on weighting information based on their congruence with previously held attitudes or evaluations.

Compounding the human tendency to seek internally consistent cognitive states, are the econometric algorithms of contemporary web services. These algorithms are designed to learn user preferences from input data and curate consumer-preferred outputs. As individuals engage with various forms of data online, algorithms become more precise in providing the user with similar content initiating positive user/system feedback loops. Relative to pre-internet forms of political communication, the internet fundamentally changes the relationship between political message and the receiver's cognitions and related affective memories. Prior to the internet, political messaging required a significant amount of resources, were relatively infrequent, and less accurately targeted. Online, however, if a user interacts with political messages, which can be readily accessed, the chances of encountering additional political messages will increase. Further, if the interaction is sustained the chances of encountering politically congruent information will continue to increase.

This literature review primarily focused on the measurement, consequences, and sources of ambivalent political attitudes. Many of the sources of ambivalence covered in this chaptered are by-products of the less forgiving physical, political environment. The internet provides users an environment which is less strictly bounded by social norms, is designed to homogenize information flows and is rich in the amount of information available. These characteristics make it easier to both avoid and resolve ambivalent attitudinal states.

Behavioral researchers have begun to embrace the idea that many people have mixed feelings, or they are ambivalent, about political issues. They do not necessarily have a single “true” attitude on these issues, but rather a store of multiple and sometimes conflicting attitudes that they might draw upon at any given time when making a decision. Simply, they may simultaneously possess positive and negative evaluations of a single attitude object, and this can structure the behavioral choices they make.

The findings discussed in this section of the literature, when paired with the characteristics of the internet, provide an extremely insightful backdrop for the forthcoming analysis. As was mentioned in the introduction, the internet has fundamentally changed the nature of the political information environment. The ability to seek, produce, or be exposed to political messaging has never been greater. And while several studies found (Singh and Thornton 2016; Huckfeldt et al. 2004b; Thornton 2013; Keele and Wolak 2008; de Vries and Steenbergen 2013) that ambivalence increases as exposure to cross-cutting information and social networks increases, the user experience-centric nature of the internet permits individuals to opt-out of those networks in favor of congruent information flows.

Although individuals may experience value ambivalence due to content encountered on the web or in everyday life, the nature of the internet should reduce the occurrence of exposure to conflicting information. Additionally, between the strength of on-line judgments and the diverse exposure of information from which to update evaluative schemas in one’s long-term memory, paired with the nature of the internet should further reduce the possibility of experiencing ambivalent political attitudes. For those with access to the internet, and a willingness to engage political information, there exists a seemingly

unlimited library to pull from. Unlike the cross-cutting information environments of physical, social networks, the low cost of the internet allows users to select, from an infinite playlist, the information that best fits their user experience.

Individuals seeking information online are likely doing so because they are motivated by preference to do so. As a result, they are likely cognitively invested in any evaluations they are making and have a greater likelihood of selectively consuming attitude consistent information. Further, individuals surfing the net are removed from the threatening contexts and are exposed to few pressures from social norms, thus increasing their cognitive engagement. Finally, internet content algorithms, human tendency to socially self-sort with like-minded others, and the nearly cost-free process of consuming information online increase exposure to confirmatory stimuli, creating a voluminous online tally of attitude consistent information evaluations strengthening overall evaluations of attitude objects.

The result is an information environment which, by chance or design, seeks to reduce the amount of effort required to situate one's political information flow within a politically homogenous environment. With many of the sources of ambivalence moderated by the characteristics of the internet, I expect internet use to be negatively correlated with the ambivalence measures discussed in the next chapter.

CHAPTER III: DATA AND MEASUREMENT

While most studies focus intentionally on a specific type of ambivalence, in this study, I am focused on the relationship between digital information consumption and ambivalence, generally. The data for this study comes from the American National Election Studies 2016 elections survey, a survey that has been administered since the 1940s, and is designed to be representative of the voting-age population of the United States' electorate (ANES 2016). From these data, I constructed measures of ambivalence based upon examples from the literature; one measure of partisan ambivalence, a measure of candidate ambivalence, and one measure of value ambivalence, and one measure of group ambivalence. I created all four measures using the operative measurement strategy of constructing an ambivalence index using indirect methods to derive positive and negative evaluations about each respective attitude object.

Digital Political Information Consumption

To test the relationship between consuming political information online and ambivalence, I constructed a digital political information consumption index (DPI). The ANES 2016 time series data contain several internet use questions within the context of

political information gathering. To maximize variability for the measure, I constructed the index from utilizing seven questions from both rounds of the ANES 2016 data.

Two of the questions measure respondents access to the internet by asking if there is internet use in the respondent's household, and if the respondent owns a smartphone. The remaining questions measure the respondent's use of the internet to gather campaign-related information. From the pre-election administration of the survey respondents are asked to identify which media formats they use to learn about the presidential campaign, and how many days a week they use social media to learn about the campaign. The post-election survey questions ask respondents if they have a Facebook account and if they have used that account in the previous month, if they used social media to send a political message, and how many times they used the internet to learn about the presidential campaign.

Together, these variables provide sufficient indicators to build an index measuring both the respondents' capacity to gather political information online and their tendency to use the internet for political information gathering. The standardized Cronbach's alpha of 0.7 indicates that these items scale well together, and all seven items were included in the index to create the independent variable. Prior to constructing the index, all seven items were scaled to range from zero to one as was the resulting index.

-Table 3.1-

The DPI index has a $\mu=0.67$ and $\sigma=0.25$. Looking at the data, the strongest deviation from the mean occurs in the portion of the population ages 65 and older. The mean DPI score for those 65 and older are $\mu=0.53$ with a standard deviation of $\sigma=0.26$.

Partisan Ambivalence

The most common example of this type of measure in political science in the measurement of partisan ambivalence (Lavine et al. 2012; Thornton 2013; Greene 2005; Lavine 2001; Thornton 2011). This measure is constructed using the number of given likes and dislikes for the two major political parties in the United States. The 2016 ANES survey asks respondents a series of question regarding their likes and dislikes about the two major political parties in the United States. The questions prompting open-ended responses come in the form of two questions. The first question asks, “Is there anything R likes about Democratic (Republican) Party?” Affirmative responses are then prompted to detail their specific praises and criticism with “Anything else you (dis)like about the Democratic (Republican) Party?” until they respond with a ‘no.’

To test the relationship between digital political information consumption and partisan ambivalence, I replicated this popular measure of ambivalence index Partisan ambivalence is measured traditionally using a variation of the Griffin index mentioned earlier. Partisan ambivalence, measured using the formula, $Partisan_{AMB} = \frac{(D+R)}{2} - |D - R|$ where $D = \frac{(P_D+N_R)}{2}$ measures the total evaluative position for the Democratic Party and $R = \frac{(P_R+N_D)}{2}$ ³ measures the total evaluative position for Republicans. The first term of the $Partisan_{AMB}$, $\frac{(D+R)}{2}$, measures how similar a respondent’s partisan evaluative positions are, while the second term measures the extremity of the similarity. Thus, if $D = 5$ and $R = 5$ the

³ The P_r , P_d , N_r , N_d refer to the number of positive and negative comments regarding the respective parties

respondent's similarity of affect towards both parties will be 5 and the extremity of the similarity will be 0, the respondent a maximum ambivalence score of 5.

While some scholars have relied on the coded counts produced by the ANES staff, for this 2016 survey, the responses were not coded. In order to construct this index, I reviewed all of the open-ended responses to the party likes and dislike and produced counts for each sperate statement given for the respective questions. To replicate this measure as closely as possible, I capped the maximum number of statements a 5. While there is no accurate measure for a response coded by a single investigator, the lack of such a measure does not warrant dropping the index⁴. As mentioned by Lavine, Johnston, and Steenbergen (2012), the weakness of this measure is the disproportionate number of non-responses.

-Figure 3.1-

As figure 3.1 shows, even when examing the distribution of likes and dislikes within the context of in-party and out-party likes and dislikes, there remains a disproportionate amount of non-response. While Lavine and colleges were able to resolve this issue by having additional questions placed on the ANES survey, those questions only appeared for one year and are not available for the 2016 dataset. However, the non-response issue in this context would inhibit, rather than amplify, any relationships. Based on the extremity side of the ambivalence formula components with a value of zero cannot be ambivalent. Furthermore, leveraging this measure, which is one of the most commonly utilized ambivalence indices in the political science literature, strengthens the significance of any

⁴ Short of reviewing thousands opened ended questions multiple times there is no way to validate the of this coding.

detected relationships between digital political information consumption and ambivalent political attitudes.

Group Ambivalence

The next ambivalence index I constructed also came from Lavine (2005) and was designed to tap an unexplored aspect of ambivalent partisan identities. The group ambivalence measure uses the ANES feeling thermometers measuring respondents affect toward social groups commonly associated with the liberal and conservative dichotomy. While most of the ambivalence indices in the political science literature, and in this study, focus on cognitive ambivalence, the group ambivalence measure taps into the affective dimension of the tripartite theory of attitudes. In addition to tapping into a different aspect of attitude structure, the formula for constructing the index is slightly different from the others in this study. Unlike like the other indices, the group ambivalence index relies on variables for which both valances are present in the collection process. Both the ANES questions and the image in the response book⁵ indicate that the midpoint of 50 on the thermometer represents the neutral position. The formula for group ambivalence is:

$$Group_{amb} = \frac{(|G_C - 50| + |G_L - 50|)}{2} - |G_C - G_L|.$$

Where the G_C and G_L represent the average score of the thermometers for the respective groups. The absolute values on the left-hand side of the equation coerce the scores into unipolar measures and maintain the functional integrity of the Griffin index.

⁵ See Figure 3.2 in Appendix A

An unfortunate feature regarding this index is it treats indifference and ambivalence as mathematically identical. Both maximum evaluation pairs ($G_C=100$, $G_L=100$) and minimum evaluation pairs ($G_C=0$, $G_L=0$) produce maximum index scores of 50.

There were eight liberal groups and eight conservative groups used in the construction of the ambivalence measure for this study⁶. I measure the average liberal affect using the ANES feeling thermometers for transgender people, unions, gays and lesbians, blacks, Muslims, liberals, feminists, and the activist group Black Lives Matter. For the conservative group measure, the thermometers measure the feelings towards big business, the rich, Chief Justice Roberts, Christians, the police, whites, conservatives, and fundamentalist Christians.

In addition to indices registering an alpha score of 0.80, a correlation test revealed a small but statistically significant correlation of correlation coefficient of -0.2 at $p < .0001$. Prior to generating the group ambivalence index, I scaled both groups affect measures by a factor of 20 to make the analysis more consistent with the other measures.

-Table 3.2-

Like partisan ambivalence, the level of ambivalence about social groups is low. The population is not extremely ambivalence about group affect. After scaling the index ranges from -2.5 to 5 the middle of the index 1.5. the mean level of group ambivalence comes in well below this point at $\mu = 0.103$ with a standard deviation of $\sigma = 0.73$.

⁶ There were originally ten liberal groups and eight conservative groups. I made an atheoretical decision to make the number of thermometers equivalent. The selection process was based on both an exploratory factor analysis and Cronbach alpha scores. The scores measured feelings about the Pope and feelings about scientists.

Candidate Ambivalence

The third ambivalence measure for this study appears in the literature as candidate ambivalence (Rudolph and Popp 2007). Like the partisan ambivalence measure described earlier, this measure uses Lavine's comparative ambivalence formula $Amb = \frac{(D+R)}{2} - |D - R|$. However in the context of candidate ambivalence the $D = \frac{(P_D+N_R)}{2}$ and $R = \frac{(P_R+N_D)}{2}$ components of the comparative ambivalence index use likes and dislikes for political candidates rather than political parties. Further, this measure also relies on the use of open-ended responses to measure the positive and negative evaluations separately.

Again, while scholar's in the past have been able to rely on the ANES' coded counts for this measure, the coded data were not yet released at the time of this study. Resultantly, this measure faces the same threat to reliability in that there is no way to assess the accuracy of conclusions I reached while coding these data. Additionally, being that the questions are administered in the same format as the party likes and dislikes questions, there is a significant portion of respondents who did not respond, making non-response relatively high.

-Figure 3.3-

In addition to the problem of potential measurement error, reducing the measurable presence of ambivalent attitudes about candidates, the 2016 presidential election was one of the most emotionally charged elections in American history. Resultantly, expecting high degrees of ambivalence between candidates is unreasonable. However, while most of this study focuses on ambivalence, it is specifically focused on whether increased internet use, as a source of political information, is a factor in reducing ambivalence and aiding in the

polarization of the American electorate. Since partisan and candidate ambivalence have been found to inhibit vote choice, if there are significant results on this measure, it may provide insight into how President Trump was able to mobilize previously inactive portions of the American electorate.

As expected, the ambivalence scores for the candidate ambivalence measure are low relative to the other measures. In addition to the low mean of $\mu = -0.26$, 75% of the data fall under an ambivalence score of .25 indicating that most of the American electorate was polarized about their 2016 vote choice. If digital political information consumption does have a significant negative effect on ambivalent attitudes, perhaps the presidential Twitter feed is more effective than some would like to admit.

Value ambivalence

The last ambivalence measure for this study comes in the form of value ambivalence. Dating back to Tocqueville's *Democracy in America* (Tocqueville 1835), the seemingly contradictory nature of American political values has been a primary feature of political analysis. Several scholars view conflicting values as an antecedent to, rather than a type of, ambivalent attitudes (Craig et al. 2003). While strong arguments can be made on both sides of the debate as to whether value conflict and ambivalence can, at times, be the same thing, there is a precedent for treating them as such. At its least, value conflict is an antecedent of ambivalence and could potentially act as a proxy for otherwise unspecified types of ambivalence. It could be, however, that not only is value conflict an antecedent of ambivalent attitudes which can aid in predicting what type of people are predisposed to be ambivalent, but it is also a deeply ingrained form of ambivalence dictating a wide variety of attitudinal variability. In this study value conflict is treated as a type of ambivalence I have labeled value ambivalence.

This measure uses the ANES batteries for traditionalism and egalitarianism to model conflicting value judgments as attitudinal ambivalence. The ANES has a long tradition of utilizing these value batteries. Both batteries measure their respective values using a set of four questions with two question loading positively and two loadings negatively for the 2016 survey. Respondents are instructed to indicate whether they agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly to the with the following statements:

- If people were treated more equally in this country we would have many fewer problems.
- If people were treated more equally in this country we would have many fewer problem.
- This country would be better off if we worried less about how equal people are.
- Our society should do whatever is necessary to make sure that everyone has an equal opportunity to succeed.
- The world is always changing and we should adjust our view of moral behavior to those changes.
- The newer lifestyles are contributing to the breakdown of our society.
- We should be more tolerant of people who choose to live according to their own moral standards, even if they are very different from our own.
- This country would have many fewer problems if there were more emphasis on traditional family ties.

After recoding all four questions in each battery to run in the same substantive direction, I performed a reliability analysis to assess the validity of the indices.

-Table 3.3-

Although the data for these indices were gathered using a technique which fails to separate the positive and negative reactions of the statement, it is not the specific attitudinal responses that are of interest for this index. Taken in summative from, the responses measures two univalent constructs in opposition to one another and the take the for the P and N in the Griffin ambivalence index. Following the index construction, I scaled the measures by a factor of 25 to resemble the range of the three other ambivalence indices. The resulting index has a mean score of $\mu=1.09$ indicating that the public not experiencing a high degree of value ambivalence; however, the standard deviation of this index is higher

than the rest at $\sigma = 1.2$ placing one standard deviation within a moderate level of ambivalence⁷.

⁷ When reading ambivalence scales the level of ambivalence for balanced ambivalent attitudes is always equal to the component pair. Thus a (3,3) will have an ambivalence score of three. See Table 2.1 in appendix.

Ambivalence in the Public

-Figure 3.4-

While some scholars find ambivalence to be common in the population, these data show mixed findings. For both candidate ambivalence and partisan ambivalence, the data indicate that the public is generally not at all ambivalent⁸. For group ambivalence, the data show that 34% of respondents have moderately conflicting evaluations of ideologically sorted groups and for value ambivalence, the data show that 34% of respondents have valence pairs be between (5,3) and (5,4) indicating a moderate level of ambivalence around personal values.

⁸ This is possibly a result of the nonresponse problem with these indices.

CHAPTER IV: ANALYSIS AND RESULTS

For the analysis, I created three separate models for each ambivalence index that was discussed in the previous chapter to test the relationship between digital political information consumption and ambivalence. Each ambivalence index is modeled as a function of digital information consumption while controlling for age, education, political interest, political knowledge, traditional media consumption, the ANES Wordsum summative index for intelligence, need to evaluate score (NTE), dummy variables for gender (females and race (white)), party identification, and a variable that was derived from a question asking respondents if they felt as though they understood politics. Two additional control variables for traditionalism and egalitarianism were included in nine of the twelve models but were excluded from the value ambivalence models⁹.

One model for each ambivalence index was estimated using the full sample of respondents who completed both the pre-election survey and the post-election survey, and then again for a subset who had an associate's degree or higher, and a subset of those whose educational attainment was lower than an associate's degree. Prior to estimating the

⁹ See Appendix B for original ANES variable labels and Question wording for the control variables used in the following analysis.

models, all variables with exception of the two dummy variables for gender and race were converted to z-scores. Additionally, I used the ANES weight¹⁰ for the full sample data to correct for differences in the online and face-to-face sampling designs . Table 5.1 shows the results of all four ambivalence models for the full sample of the ANES data.¹¹

-Table 4.1-

The digital political information (DPI) indicator was statistically significant in three out of the four models. For the nationally representative sample of voting-age adults in the United States, digital political information consumption reduces group ambivalence, candidate ambivalence, and value ambivalence. For a one standard deviation increase in the DPI index, the group ambivalence is decreased -0.08 standard deviation with a $P < .01$, candidate ambivalence is reduced -0.04 standard deviations with $p < .1$, and value ambivalence is reduced -0.09 standard deviations at $p < .01$. For the subset of individuals with at least an associate degree, digital political information consumption is statistically significant for the same three types of ambivalence.

-Table 4.2-

Like the full sample, the effect of digital information consumption did not reach statistical significance for partisan ambivalence. For group ambivalence and value ambivalence a one standard deviation increase on the DPI index results in a -0.10 decrease the level of ambivalence at $p < .01$, while candidate ambivalence is reduced by -0.08 standard deviation decrease at $p < .05$. The difference in magnitude of effects between the

¹⁰ The variable for the 2016 time series full sample weight is V160102.

full sample and the degree-holding sample across group ambivalence, candidate ambivalence, and value ambivalence is 0.02, 0.04, and 0.01 respectively indicating that digital political information consumption affects those with a college education more strongly relative to cognitive and affective evaluations of social groups, political candidates, and within their value hierarchy.

-Table 4.3-

The sample subset with less than an academic associate degree, digital political information consumption reached statistical significance in only two of the four ambivalence models. For this segment of the population, gathering political information online reduces ambivalence for affect for social groups and value ambivalence. For a one standard deviation increase in the DPI index group ambivalence is reduced -0.06 standard deviation at $p < .1$ and value ambivalence is reduced by -0.08 standard deviations at $p < .01$. In total, digital political information consumption produced statistically significant results in eight of the twelve ambivalence models. Indicating that individuals as able to effectively gather political information online and use that information to reduces conflicting evaluation about feelings towards social groups, political candidates, and their personal values.

In addition to digital political information consumption, a variety of control variables registered statistically significant results across the twelve models. Party identification, ranging from strong republican to strong democrat, is statistically significant at $p < .01$ across all twelve models. Across all three samples, individuals who more strongly identify as democrats have lower levels of partisan ambivalence, candidate ambivalence, and value ambivalence, is reduced. Conversely, as an individual becomes intensely

associated with the democratic party, their feelings towards groups associated with liberal and conservative ideologies become more conflicted. In contrast to the DPI index, the control for traditional media consumption tends to increase ambivalence. For individuals with college degrees, traditional media increases partisan ambivalence, group ambivalence, and value ambivalence. In the general public, it increases partisan ambivalence, and for those, without a college degree, it reduces candidate ambivalence. These findings support the idea that the internet is creating one-sided information environments.

IQ, as measured by the ANES Wordsum Index, is statistically significant for 7 of the 12 models. Levels of partisan ambivalence increase as IQ increases for both the full-population sample and the degree-holding sample, while levels of value ambivalence decrease in the same two samples. For the general population only, group ambivalence decreases as IQ increases. While IQ is statistically significant for candidate ambivalence in the degree-holding sample and for those without degrees, the direction of the relationships is in disagreement such that IQ increases candidate ambivalence for those with college degrees and reduces candidate ambivalence for those without a college degree.

For all three samples, having an interest in politics is negatively correlated with value ambivalence. For the full sample and those without a college degree, interest in politics reduces group ambivalence. Lastly, for those in the college degree-holding sample and the general population, interest in politics reduces candidate ambivalence.

For all three samples, political knowledge significantly reduces group ambivalence. For degree holders and non-degree holders, political knowledge reduces candidate ambivalence, and in the general population and degree-holding population, it reduces value ambivalence.

For the subjective measure asking respondents whether they understand politics, the relationship is negative and significant for group ambivalence, candidate ambivalence, and value ambivalence in the degree-holding sample and the general population. For those without a degree, the relationships between the subjective measure of understanding politics and group ambivalence are positive and significant.

The control variable for the need to evaluate cognitive style reduces value ambivalence and group ambivalence for all three samples while additionally reducing partisan ambivalence for the full sample. Egalitarian values increase group ambivalence and candidate ambivalence in the sample without college degrees and increase group ambivalence in the general population. For both the full sample and the degree-holding sample, traditional values increase candidate ambivalence and reduce group ambivalence for the full sample and those without a college education. In all three samples, age significantly reduces partisan ambivalence and candidate ambivalence while increasing value ambivalence in all three samples.

The dummy variable for gender (female) indicates that women experience less partisan ambivalence and candidate ambivalence in the full sample and the degree-holding sample. Gender produces no significant effects for those without a college education. Lastly, the dummy variable for race (white) indicates that whites experience less groups ambivalence and value ambivalence for all three samples.

Many of these findings are in line with the selective exposure and online information processing theories would predict. Across the board, individuals who are more likely to engage in deliberative evaluations and to use the internet for political information gathering see significant reductions in the ambivalence. many of the negative effects on

ambivalence are from indicators of various characteristics of cognition. Moreover, the fact that all of the statistically significant effects of digital political information consumption are negative as expected suggests that as a source of information the internet reduces internal cognitive and affective conflict.

CHAPTER V: DISCUSSION

Like most political attitudes and behaviors, and attitudes and behaviors more generally, party identification age education time in his capacity race and gender all affect the dependent variable. However, as expected, digital political information consumption consistently reduced various forms of political ambivalence. When comparing the total number of statistically significant results between traditional media consumption and digital political information consumption the results indicate a qualitative difference between the two sources of information. While general media consumption reduced candidate ambivalence for those without a college degree, information gathering using traditional media produced four statistically significant results increasing the level of ambivalence and respondents.

This study is focused on the internet has a mediator of ambivalent attitudes. While the results indicate that information gathering on the internet reduces conflicting attitudinal states, the implications extend into state political discourse and political behavior. While these measures do not adequately capture indifference, the literature treats non-ambivalent attitudes as either polarized attitudes or indifferent attitudes. If Lavine et al. (2012) concluded that ambivalen partisans are a key feature of healthy democracies, what will the future of American democracy look like ask the internet continues to invade every

of our private lives? Will election predictions become more accurate as voter's make more conclusive evaluations earlier in the campaign process? Will ambivalence reduction increase political polarization in the general public and contribute to the increasing gridlock in the American legislature?

While this study did not examine any of the effects of ambivalence, the literature suggests that there are many consequential results of political ambivalence. Identifying the internet as a moderator of ambivalent attitudes contributes to the existing body of literature by merging the study of ambivalence with modern information environments. These positive results lend support to the idea that the American electorate is becoming more attitudinally polarized and ideologically consistent (Pew Research Center) .

Americans were most ambivalent when it came to attitudes reflecting their values regarding egalitarianism and traditionalism. Further, the strongest effect of the DPI index were for value ambivalence, suggesting that when provided the opportunity to seek out information in concordance with their value preferences individuals are more easily able to resolve internal value ambivalence.

One of the more significant findings of this study is the difference between the degree-holding population and the rest of the population. This finding is in line with several studies that indicate on-line processing has a strong effect on the strength of judgments (Kim and Garrett 2012; Lodge et al. 1989; Lodge and Taber 2007; Rudolph and Popp 2007; Kim 2009).

While digital political information consumption failed to reach significance in three out of the twelve total models, all three cases were for partisan ambivalence. Due to the

open-ended nature of the partisan ambivalence index and candidate ambivalence index, there was some expectation of null results. Although the models failed to find effects for the reduction partisan ambivalence, significant effects were found for candidate ambivalence. While the magnitude of the significant results is small to moderate, group ambivalence, candidate ambivalence, and value ambivalence are all reduced by digital political information.

If the general population is becoming less ambivalent about politics, the implication is that their attitudes are becoming more univalent or polarized. This finding lends support to the findings of other scholars about the polarization of the American electorate. Additionally, as greater percentages of the population migrate towards the internet for their political information and become less ambivalent about their partisanship and their values, the need for the political elite to court the median voter may ultimately become irrelevant, thus entirely changing the foundations of electoral calculus and our understanding of American electoral politics.

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Appendix A: Figures and Tables

Table 2.1: Summary of Ambivalence Indices						
Kaplan: $AMB = TA - POL$						
Negative Component	Positive Component				Captures ambivalence when positive and negative component increase or decrease simultaneously.	Fails to distinguish level of ambivalence when holding the weaker component constant.
	1	2	3	4		
1	2	2	2	2		
2	2	4	4	4		
3	2	4	6	6		
4	2	4	6	8		
Katz: $AMB = A_p * A_N$						
Negative Component	Positive Component				Corrects Kaplan's problem of distinction for degrees of ambivalence.	Scores fail to capture those similar in intensity but opposed in valence
	1	2	3	4		
1	1.00	0.50	0.00	-0.50		
2	0.50	2.00	1.50	1.00		
3	0.00	1.50	3.00	2.50		
4	-0.50	1.00	2.50	4.00		
Griffin: $AMB = (A_p + A_N)/2 - A_p - A_N$						
Negative Component	Positive Component				Models ambivalence as a function of similarity and extremity.	
	1	2	3	4		
1	1.00	0.50	0.00	-0.50		
2	0.50	2.00	1.50	1.00		
3	0.00	1.50	3.00	2.50		
4	-0.50	1.00	2.50	4.00		

Table 3.1: Digital Political Information Consumption Index

	Alpha	Std.Alpha	r
Has Facebook	0.64	0.64	0.54
Household internet Use	0.71	0.71	0.24
Campaign internet Attention: Post	0.68	0.67	0.41
Sent A Political Message: Post	0.67	0.67	0.44
Campaign internet Attention: Pre	0.69	0.67	0.39
Campaign Social Media Attention: Pre	0.64	0.64	0.57
Owns a Smart Phone	0.69	0.68	0.36

Alpha reliability = 0.71

Standardized alpha = 0.7

Note:

Table 3.2: Group Ambivalence Indices

Conservatives Groups Feeling Thermometers			
	Alpha	Std.Alpha	r
Big Business	0.77	0.76	0.53
Christians	0.76	0.75	0.60
Conservatives	0.75	0.74	0.65
Fundamentalist Christians	0.76	0.76	0.57
Police	0.78	0.77	0.47
Rich	0.77	0.77	0.50
Roberts	0.79	0.79	0.39
Whites	0.80	0.80	0.31

Alpha reliability = 0.80

Standardized alpha = 0.79

Liberal Groups Feeling Thermometers			
	Alpha	Std.Alpha	r
Blacks	0.87	0.87	0.41
Black Lives Matter	0.85	0.84	0.65
Feminists	0.84	0.84	0.68
Liberals	0.84	0.84	0.70
Muslims	0.85	0.84	0.66
Gay and Lesbian	0.84	0.84	0.67
Transgender	0.84	0.84	0.71
Unions	0.87	0.87	0.46

Alpha reliability = 0.87

Standardized alpha = 0.86

Note:

Figure 3.1

- 70 -

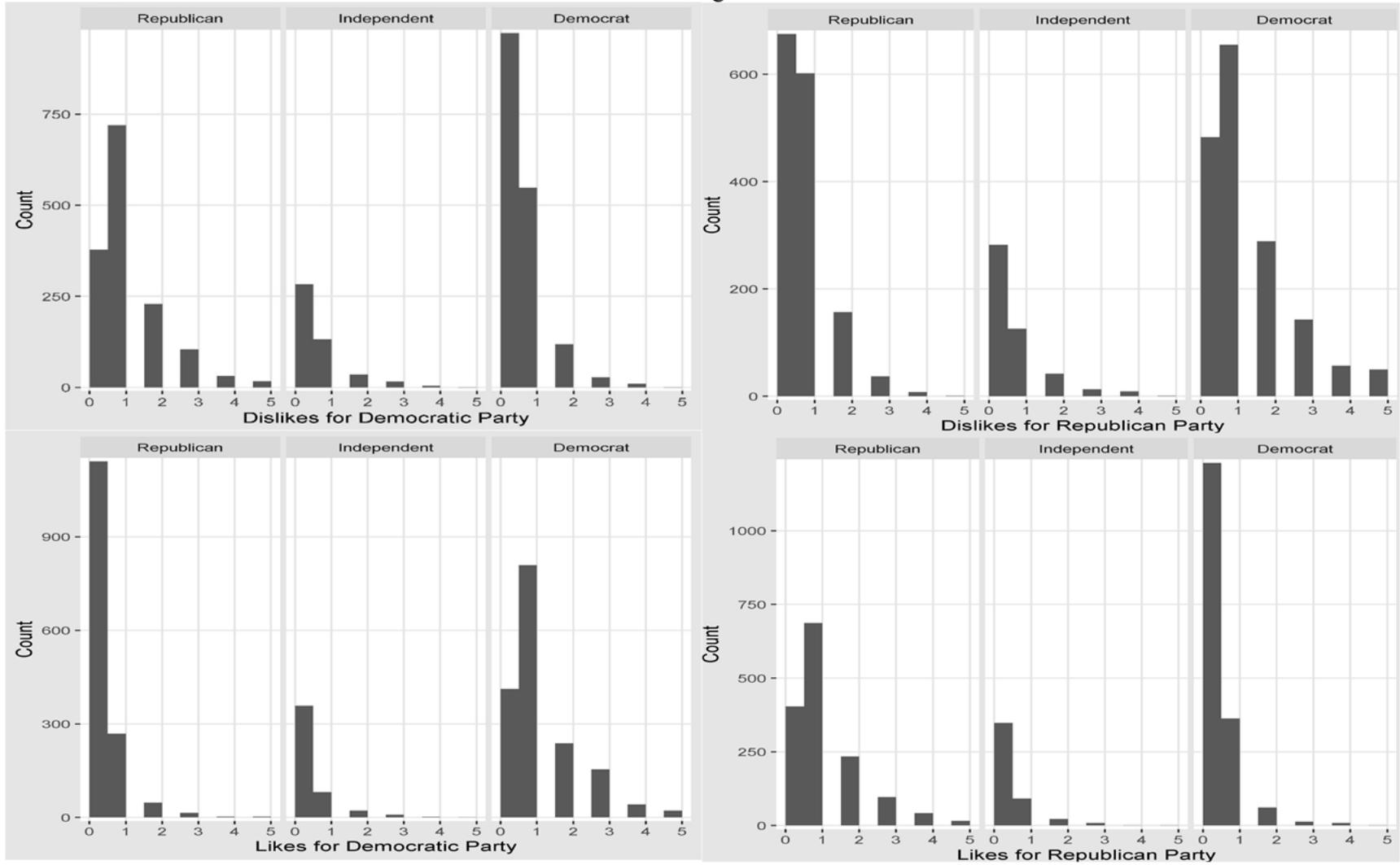


Figure 3.2



Figure 3.3

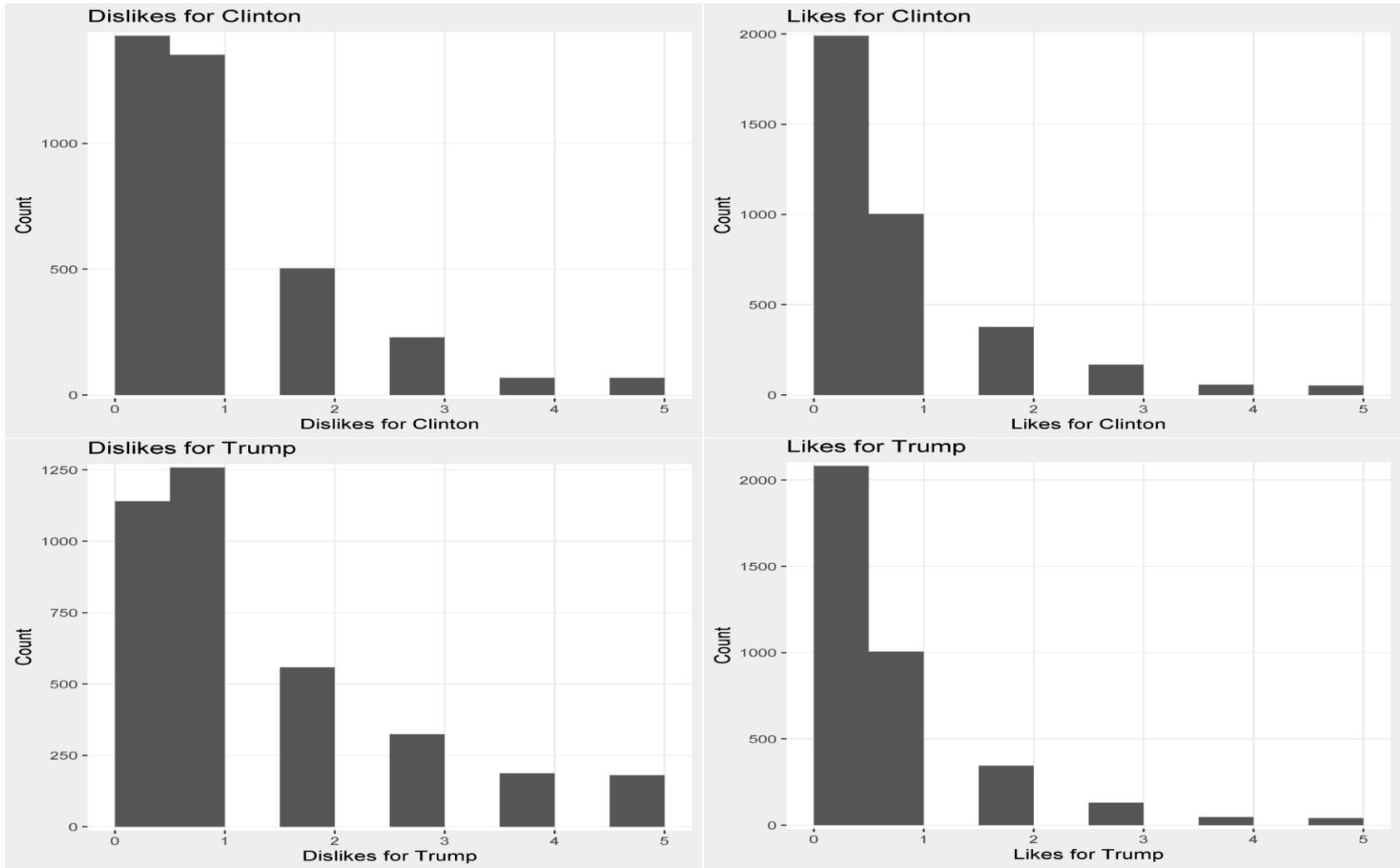


Figure 3.4

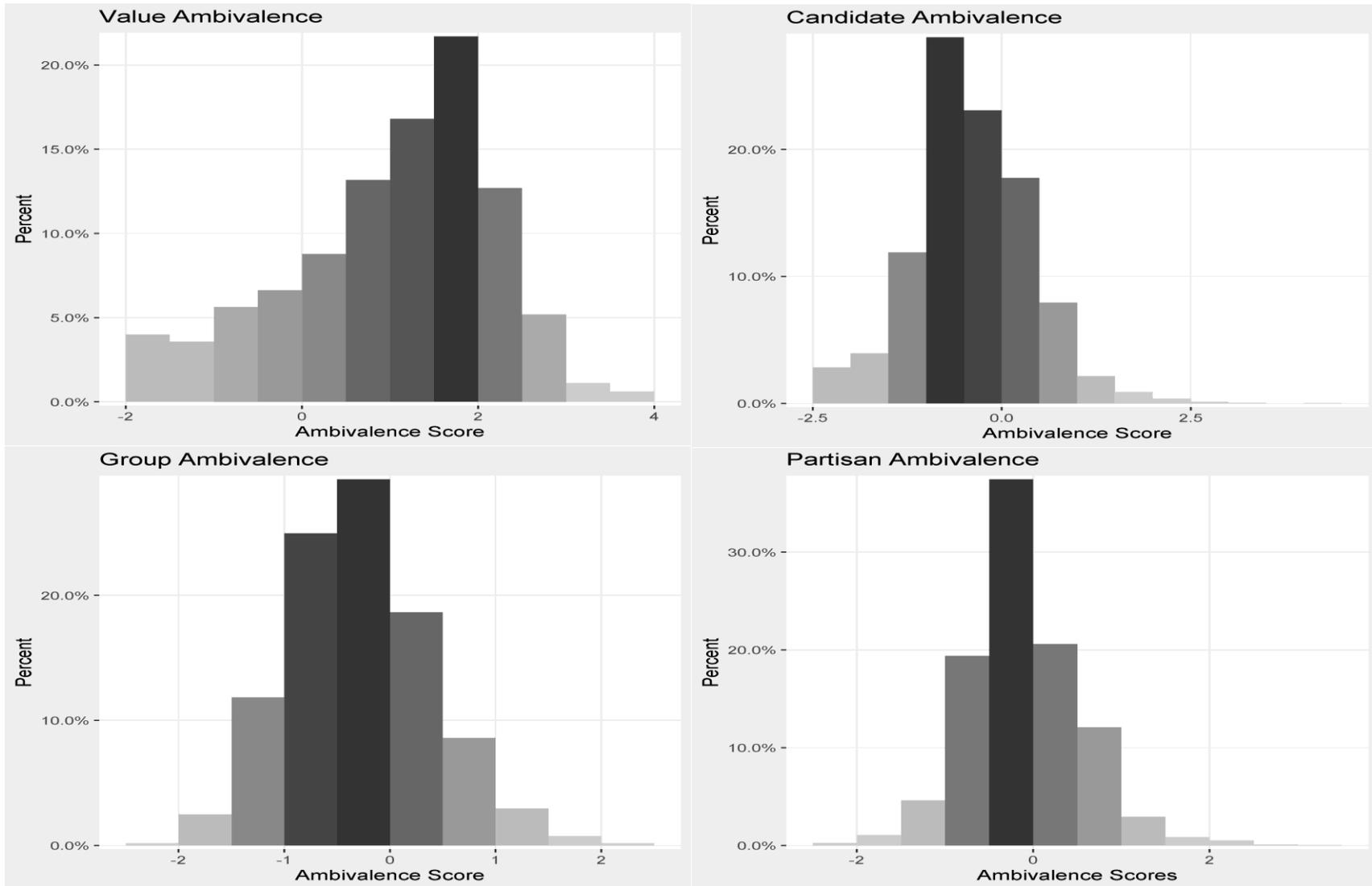


Table 3.3: Values Indices			
Traditional Values			
TRAD1	0.69	0.69	0.39
TRAD2	0.58	0.58	0.56
TRAD3	0.64	0.66	0.46
TRAD4	0.6	0.61	0.52
Alpha = 0.69			
Standardized Alpha= 0.7			
Egalitarian Values			
EGAL1	0.61	0.61	0.38
EGAL2	0.55	0.57	0.47
EGAL3	0.57	0.60	0.44
EGAL4	0.57	0.57	0.45
Alpha= 0.65			
Standardized Alpha= 0.65			

Table 3.4: Ambivalence Scores Central Tendency				
	μ	σ	Index Max	Index Min
Partisan Ambivalence	0.04	0.65	5	-2.5
Group Ambivalence	1.25	0.82	4	-2
Candidate Ambivalence	-0.26	0.8	5	-2.5
Value ambivalence	2.09	1.2	5	-2.5

Table 4.1

Digital Political Information Consumption and Ambivalence				
Full Sample: OLS				
	Partisan Amb.	Group Amb.	Candidate Amb.	Value Ambivalence
PID	-0.12*** (0.02)	0.11*** (0.02)	-0.14*** (0.02)	-0.22*** (0.02)
Digital Political Information Consumption	-0.02 (0.02)	-0.08*** (0.02)	-0.04* (0.02)	-0.09*** (0.02)
Traditional Media Consumption	0.04* (0.02)	0.03 (0.02)	-0.01 (0.02)	0.02 (0.02)
Education	0.07*** (0.02)	0.06*** (0.02)	0.03 (0.02)	-0.06*** (0.02)
IQ	0.06** (0.02)	-0.07*** (0.02)	0.02 (0.02)	-0.17*** (0.02)
Interest in Politics	0.03 (0.02)	-0.04* (0.02)	-0.09*** (0.02)	-0.04** (0.02)
Political Knowledge	0.04 (0.02)	-0.16*** (0.03)	-0.01 (0.02)	-0.10*** (0.02)
Understands Politics	-0.01 (0.02)	-0.07*** (0.02)	-0.08*** (0.02)	-0.05*** (0.02)
Gender (Female)	-0.13*** (0.04)	0.05 (0.04)	-0.07** (0.04)	-0.01 (0.04)
Need to Evaluate Score	-0.04* (0.02)	-0.14*** (0.02)	-0.02 (0.02)	-0.10*** (0.02)
Egalitarianism	0.01 (0.02)	0.04* (0.02)	0.02 (0.02)	
Traditionalism	0.003 (0.02)	-0.05** (0.02)	0.04** (0.02)	
Race (White)	-0.03 (0.04)	-0.20*** (0.05)	-0.01 (0.04)	-0.19*** (0.04)
Age	-0.08*** (0.02)	0.03 (0.02)	-0.14*** (0.02)	0.20*** (0.02)
Constant	0.08* (0.04)	0.13*** (0.04)	0.05 (0.04)	0.14*** (0.04)
N	2,891	2,430	2,891	2,891
R2	0.04	0.13	0.07	0.20
Adjusted R2	0.04	0.13	0.06	0.19
Residual Std. Error	0.99	0.92	0.96	0.91
df =	(2876)	(2415)	(2876)	(2878)

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

Table 4.2

Digital Political Information Consumption and Ambivalence				
Degree Holders: OLS				
	Partisan Amb.	Group Amb.	Candidate Amb.	Value Ambivalence
PID	-0.13*** (0.04)	0.06* (0.03)	-0.17*** (0.04)	-0.34*** (0.03)
Digital Political Information Consumption	0.01 (0.04)	-0.10*** (0.03)	-0.08** (0.04)	-0.10*** (0.03)
Traditional Media Consumption	0.07** (0.03)	0.07** (0.03)	0.03 (0.03)	0.05* (0.03)
Education	-0.13* (0.07)	0.08 (0.06)	0.04 (0.07)	-0.14** (0.06)
IQ	0.11** (0.04)	0.02 (0.04)	0.07* (0.04)	-0.17*** (0.04)
Interest in Politics	0.06 (0.04)	-0.05 (0.04)	-0.11*** (0.04)	-0.14*** (0.03)
Political Knowledge	0.03 (0.04)	-0.15*** (0.04)	-0.08** (0.04)	-0.08** (0.03)
Understands Politics	-0.05 (0.04)	-0.06* (0.03)	-0.10** (0.04)	-0.07** (0.03)
Gender (Female)	-0.24*** (0.06)	0.01 (0.06)	-0.19*** (0.06)	0.002 (0.05)
Need to Evaluate Score	-0.03 (0.03)	-0.15*** (0.03)	0.02 (0.03)	-0.09*** (0.03)
Egalitarianism	-0.0004 (0.04)	0.003 (0.03)	-0.04 (0.03)	
Traditionalism	0.01 (0.04)	-0.01 (0.03)	0.09** (0.03)	
Race (White)	-0.01 (0.07)	-0.21*** (0.06)	-0.09 (0.07)	-0.30*** (0.06)
Age	-0.10** (0.04)	0.005 (0.04)	-0.20*** (0.04)	0.25*** (0.03)
Constant	0.31*** (0.10)	0.10 (0.08)	0.20** (0.09)	0.30*** (0.08)
N	1,442	1,265	1,442	1,442
R2	0.05	0.09	0.11	0.26
Adjusted R2	0.04	0.08	0.10	0.25
Residual Std. Error	1.02	0.83	0.99	0.87
df =	(1427)	(1250)	(1427)	(1429)

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

Table 4.3

Digital Political Information Consumption and Ambivalence				
No Degree: OLS				
	Partisan Amb.	Group Amb.	Candidate Amb.	Value ambivalenc e
PID	-0.11*** (0.03)	0.15*** (0.03)	-0.09*** (0.03)	-0.11*** (0.02)
Digital Political Information Consumption	-0.04 (0.03)	-0.06* (0.03)	-0.02 (0.03)	-0.08*** (0.03)
Traditional Media Consumption	0.08 (0.06)	0.05 (0.07)	-0.13** (0.06)	-0.01 (0.06)
Education	0.03 (0.03)	-0.11*** (0.03)	-0.004 (0.03)	-0.16*** (0.03)
IQ	0.01 (0.03)	-0.04 (0.03)	-0.09*** (0.03)	0.004 (0.03)
Interest in Politics	0.05 (0.03)	-0.17*** (0.03)	0.03 (0.03)	-0.10*** (0.03)
Political Knowledge	0.01 (0.03)	-0.08** (0.03)	-0.07*** (0.02)	-0.04 (0.03)
Understands Politics	-0.06 (0.05)	0.09* (0.06)	0.01 (0.05)	-0.01 (0.05)
Gender (Female)	0.01 (0.03)	0.01 (0.03)	-0.03 (0.03)	0.01 (0.03)
Need to Evaluate Score	-0.04 (0.02)	-0.12*** (0.03)	-0.03 (0.02)	-0.08*** (0.02)
Egalitarianism	0.02 (0.03)	0.08** (0.03)	0.07*** (0.03)	
Traditionalism	0.001 (0.03)	-0.10*** (0.04)	-0.01 (0.03)	
Race (White)	-0.04 (0.06)	-0.17*** (0.06)	0.07 (0.05)	-0.09* (0.05)
Age	-0.06** (0.03)	0.05 (0.03)	-0.11*** (0.03)	0.17*** (0.03)
Constant	0.03 (0.08)	0.08 (0.09)	-0.19** (0.07)	0.12 (0.08)
N	1,449	1,165	1,449	1,449
R2	0.02	0.19	0.06	0.13
Adjusted R2	0.01	0.18	0.06	0.12
Residual Std. Error	0.96	1.00	0.91	0.94
df =	(1434)	(1150)	(1434)	(1436)

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

Appendix B: Question Wording for Control Variables

Traditional media

V162002: How many programs about the campaign for President did you watch on television? None, just one or two, several, or a good many / A good many, several, just one or two, or none?

V162003: How many speeches or discussions about the campaign for President did you listen to on the radio? None, just one or two, several, or a good many / A good many, several, just one or two, or none?

V162005: How many stories about the campaign for President did you read about in any newspaper? None, just one or two, several, or a good many / A good many, several, just one or two, or none?

From which of the following sources have you heard anything about the presidential campaign?

V161363a, V161363b, V161363c, and V161363e: From which of the following sources have you heard anything about the presidential campaign? (Mark all that apply)

1. Television news programs (morning or evening)
2. Newspapers
3. Television talk shows, public affairs, or news analysis programs
4. Internet sites, chat rooms, or blogs
5. Radio news or talk shows
6. Have not heard anything about the presidential campaign from any of these sources

Education

V161270: What is the highest level of school you have completed or the highest degree you have received?

1. Less than 1st grade
2. 1st, 2nd, 3rd or 4th grade
3. 5th or 6th grade
4. 7th or 8th grade
5. 9th grade
6. 10th grade
7. 11th grade
8. 12th grade no diploma
9. High school graduate - high school diploma or equivalent (for example: GED)
10. Some college but no degree
11. Associate degree in college - Occupational/vocational program
12. Associate degree in college -- Academic program
13. Bachelor's degree (For example: BA, AB, BS)
14. Master's degree (For example: MA, MS, MEng, MEd, MSW, MBA)
15. Professional School Degree (For example: MD, DDS, DVM, LLB, JD)
16. Doctorate degree (For example: PhD, EdD)
95. Other (SPECIFY)

IQ

WORDSUM question wording unavailable

Interest in Politics

V162256: How interested would you say you are in politics? Are you very interested, somewhat interested, not very interested, or not at all interested?

Political Knowledge

V162072: Joe Biden. What job or political office does he hold now?

V162073b: Paul Ryan. What job or political office does he now hold?

V162074b: Angela Merkel What job or political office does she now hold?

V162075b: Vladimir Putin What job or political office does he now hold?

V162076a: John Roberts What job or political office does he now hold?

V161513: For how many years is a United States Senator elected – that is, how many years are there in one full term of office for a U.S. Senator?

V161514: On which of the following does the U.S. federal government currently spend the least?

- 1.Foreign aid
- 2.Medicare
- 3.National defense
- 4.Social Security

V161515: Do you happen to know which party currently has the most members in the U.S. House of Representatives in Washington?

- 1.Democrats
- 2.Republicans

V161516: Do you happen to know which party currently has the most members in the U.S. Senate?

- 1.Democrats
- 2.Republicans

V162137: What was the current unemployment rate in the United States as of November 4, 2017?

1. Rate 2.9 percent
2. Rate 4.9 percent
3. Rate 6.9 percent
4. Rate 8.9 percent

Understands Politics

V162258: You feel you understand the most important political issues of this country.

1. Agree strongly
2. Agree somewhat
3. Neither agree nor disagree
4. Disagree somewhat
5. Disagree strongly

Gender

V161342: What is your gender?

1. Male
2. Female
3. Other

NTE Score

V162253x: Not applicable; administrative or derived variable

Egalitarianism

V162243: Our society should do whatever is necessary to make sure that everyone has an equal opportunity to succeed.' Looking at page [PRELOAD: page] in the booklet. Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly / disagree strongly, disagree somewhat, neither agree nor disagree, agree somewhat, or agree strongly with this statement?

V162244: Still looking at page [PRELOAD:page] in the booklet. This country would be better off if we worried less about how equal people are.’ Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly / disagree strongly, disagree somewhat, neither agree nor disagree, agree somewhat, or agree strongly with this statement?

V162245: Still looking at page [PRELOAD: page] in the booklet. ‘It is not really that big a problem if some people have more of a chance in life than others.’ Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly / disagree strongly, disagree somewhat, neither agree nor disagree, agree somewhat, or agree strongly with this statement?

V162246: Still looking at page PRELOAD: page in the booklet. ‘If people were treated more equally in this country we would have many fewer problems.’ Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly / disagree strongly, disagree somewhat, neither agree nor disagree, agree somewhat, or agree strongly with this statement?

Traditionalism

V162207: Still looking at page [PRELOAD: page] in the booklet. The world is always changing and we should adjust our view of moral behavior to those changes.’ Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly / disagree strongly, disagree somewhat, neither agree nor disagree, agree somewhat, or agree strongly with this statement?

V162208: Still looking at page [PRELOAD: page] in the booklet. The newer lifestyles are contributing to the breakdown of our society. Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly / disagree strongly, disagree somewhat, neither agree nor disagree, agree somewhat, or agree strongly with this statement?

V162209: Still looking at page [PRELOAD: page] in the booklet. We should be more tolerant of people who choose to live according to their own moral standards, even if they are very different from our own. Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly / disagree strongly, disagree somewhat, neither agree nor disagree, agree somewhat, or agree strongly with this statement?

V162210: Still looking at page [PRELOAD: page] in the booklet. This country would have many fewer problems if there were more emphasis on traditional family ties. Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly / disagree strongly, disagree somewhat, neither agree nor disagree, agree somewhat, or agree strongly with this statement?

Race

V161310x: I am going to read you a list of five race categories. Please choose one or more races that you consider yourself to be:

- white;
- black or African-American;
- American Indian or Alaska Native;
- Asian; or
- Native Hawaiian or other Pacific Islander?

(PROBE FOR RACE IF R SAYS HISPANIC OR A HISPANIC ORIGIN)

Age

V161267: Not applicable; administrative or derived variable.

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