Democratic Accountability for Some: Individual Differences in How Partisans Process Political Information*

Kevin Arceneaux & Ryan J. Vander Wielen†

Abstract

Most political science models implicitly assume that individuals update their political attitudes in a uniform fashion, and therefore these models have powerful implications for democratic accountability in a polarized polity. In this paper, we demonstrate that individual differences in motivation shape how people update support for their party in light of new information. We conduct a web-based survey experiment and draw on observational panel data collected during the 2012 presidential election. Consistent with our theoretically derived expectations, we find that individuals who possess a high need for cognition (i.e., they enjoy effortful thinking) exhibit more plastic attitudes toward their party and are more likely to update their attitudes in the direction of negative information about their party. In contrast, individuals who are high in need for affect (i.e., they enjoy experiencing strong emotions) tend to be quite stable in their opinions and unwilling to punish their party.

*We would like to thank Alan Gerber and Greg Huber for generously sharing space on their Cooperative Campaign Analysis Project survey. We thank Conor Dowling for his advice on question wording and being a helpful liaison with the survey research firm. We also thank Temple University for financially supporting this research. Of course, any errors are our own. Please send all correspondence to Ryan J. Vander Wielen. Email: vanderwielen@temple.edu; Phone: 215.204.1466; Post: Department of Political Science, Temple University, Philadelphia, PA 19122.

†Kevin Arceneaux is Associate Professor of Political Science at Temple University. Ryan J. Vander Wielen is Associate Professor of Political Science at Temple University.

Democratic Accountability for Some: Individual Differences in How Partisans Process Political Information

1 Introduction

Representative democracies are premised on the simple guiding principle that democratic accountability begets democratic responsiveness. Because elections grant citizens the authority to remove their representatives from office, career-minded representatives would be wise to heed their constituents' preferences (Arnold, 1990; Mayhew, 1974). However, democratic institutions alone can only go so far in fostering responsiveness. A crucial foundational assumption of the democratic design is that citizens do, in fact, use elections to hold elected representatives accountable for their actions (Downs, 1957). Therefore, citizens bear the ultimate responsibility for giving democratic institutions their force (Dahl, 1956). Although it appears that incumbents are constrained to some extent by the preferences of their constituents (Stimson, MacKuen and Erikson, 1995), it is also the case that individual voters' retrospective evaluations are influenced by their partisan preferences (Erikson, 2004; Duch, Palmer and Anderson, 2000). Consequently, in the polarized political environment that characterizes modern American politics — where partisan loyalties are strong among political elites and voters alike — it is less clear how willing constituents are to hold co-partisan incumbents accountable for their actions.

In essence, democratic institutions confront the classic principal-agent dilemma. Accordingly, constituents (i.e., the "principal") delegate policy decisions to elected representatives (i.e., the "agent"), but are unable to effectively monitor their every move. One solution to the dilemma is for constituents to rely on cues from trusted sources (e.g., news reporters) who bear the cost of monitoring the agent (Lupia and McCubbins, 1998). For this solution to work, though, citizens must rationally update their beliefs about the agent in an unbiased fashion, moving in the direction of the credible evidence (e.g., Bullock, 2009; Downs, 1957; Gerber and Green, 1999). At the heart of this framework is the assumption that constituents are willing to accept both positive and negative information regarding co-partisan incumbents. Incumbents, regardless of their partisan affiliation, should be punished for shirking their responsibility to represent their constituents' preferences.

However, behavioral models, which draw heavily from social psychological theories, posit that individuals often behave as "motivated reasoners" who view the world through a lens formed by their social identities and predispositions, happily accepting any evidence that confirms their worldview and resisting credible evidence to the contrary (e.g., Abelson, 1986). Motivated reasoning may be especially pernicious in modern political contexts where people are deeply invested in preserving their preexisting beliefs (Taber and Lodge, 2006; Nyhan and Reifler, 2010). Partisan identification offers a powerful lens through which people evaluate political information (Campbell et al., 1960), causing some to discount or reinterpret negative information about their party (Bartels, 2002; Gains et al., 2007). Since strong social identities can invite agency slack, whereby elected representatives are able to pursue policy positions that are at odds with their constituents' preferences by making group-based appeals (Dickson and Scheve, 2006), it stands to reason that partisan loyalty may well extend elected representatives greater freedom to undervalue the preferences of their constituents.

Although rational and behavioral models of political attitude formation reach starkly different conclusions about voters' capacity to hold partisan politicians accountable for their actions, both models presume that individuals process information in uniform ways. Given the same information, all individuals should update their beliefs and attitudes in the same fashion — be it unbiased or biased. This assumption has important implications for democratic accountability, suggesting that all elected representatives experience either considerable or negligible constraints on their policy behavior via elections.

However, recent psychological models of attitude formation focus on individual differences in how people process information (e.g., Bullock, 2011; Gerber et al., 2010; Holbrook, 2006; Jost et al., 2003; Kam, 2005; Lau and Redlawsk, 2006; Mondak et al., 2010; Oxley et al., 2008; Zaller, 1992). Some individuals are motivated to maintain pre-existing attitudes, while others are motivated to reach accurate conclusions (Kruglanski, 1989; Kunda, 1990), implying that political scientists should adopt a more nuanced model of democratic accountability. Quite simply, the stylized models may be informative in some, but not all, contexts. Some partisans are "less prone to view" the world from a biased perspective (Lavine, Johnston and Steenbergen, 2012, 5), suggesting that a subset of the electorate may fulfill the ideal version of a rationally retrospective voter (Fiorina, 1981) while another subset may behave like intransigent partisans. We argue that individual differences in information processing helps account for this divergence in behavior.

The objective of this paper is to demonstrate the utility of two types of individual motivations — need for cognition (NFC) and need for affect (NFA) — for understanding differences in how individuals process political information and update their beliefs about their party's incumbents in light of new information. NFC captures the degree to which people chronically engage information cognitively (Cacioppo and Petty, 1982), and NFA captures the degree to which individuals systematically seek out emotional experiences (Maio and Esses, 2001*a*). Previous research has shown that individuals high in NFC are more responsive to policy information than party cues (Bullock, 2011), and are less inclined to make knee-jerk partisan evaluations (Arceneaux and Vander Wielen, 2013). Individuals high in NFA are more responsive to affective information than individuals high in NFC (Haddock et al., 2008; Huskinson and Haddock, 2004), are more likely to hold extreme attitudes (Britt et al., 2009; Maio and Esses, 2001*a*), and are more likely to exhibit partisan bias (Arceneaux and Vander Wielen, 2013). Therefore, we contend that a central aspect of modern democratic accountability — the willingness of voters to hold co-partisans accountable for their policy behavior — hinges critically on the manner in which voters process information. While previous research has identified the importance of NFC and NFA to political decision-making, we are unaware of any research to date that explores how these traits influence the manner in which individuals *update* information about their elected representatives. This attention to updating provides valuable insights regarding the competing models of voting behavior and, more importantly, the efficacy of democratic elections.

Across two studies we find that NFC induces individuals to behave in a manner consistent with rational updating models and NFA leads individuals to cling to their pre-existing partisan attitudes. The first study draws on experimental data to mimic real-world situations in which individuals have an opportunity to update evaluations of a co-partisan incumbent in light of either positive or negative information about their party's performance in office. We find that individuals who are high in NFC are willing to downgrade their evaluations of incumbents from their party, while individuals who are high in NFA are inflexible in updating about their party's politicians. We probe the generalizability of these findings in a second study using a nationally representative panel survey of American voters in the 2012 elections. As NFC increases, individuals show a greater propensity to exhibit weakening partisan identities over the course of the campaign and a willingness to cast votes for the opposing party, while individuals who are high in NFA tend to maintain stable partisan identities and high levels of straight-ticket voting.

2 The Effect of Individual Differences in Information Processing on Updating

Political information surrounds us, from news reports to advertisements to conversations around the dinner table. The important question is how people assimilate (or fail to assimilate) this information. The Bayesian model provides a useful point of comparison. Following Bayes' Theorem, individuals combine new information with their prior beliefs about the true state of the world. If the information is strong enough or individuals possess minimal confidence regarding the true state of the world, the new information should overwhelm their prior beliefs, causing them to update their beliefs in the direction of the information received (e.g., Achen, 1992; Bartels, 1993). Although individuals may vary in the strength of their prior beliefs, Bayesians nonetheless assimilate new information in an unbiased fashion (Bullock, 2009). Ultimately, Bayesians are interested in arriving at *accurate* beliefs about some parameter. In contrast, individuals motivated by "directional" goals assimilate new information in a biased way (Kunda, 1990). Motivated reasoners tend to accept information that is consistent with their prior beliefs even if it is of low quality (*confirmation bias*), while rejecting information that is inconsistent with their priors even if it is of high quality [*disconfirmation bias*] (Taber and Lodge, 2006).

We are especially concerned with the way in which partisan identities color how people update their political attitudes in light of new information. Many scholars contend that partisanship motivates individuals to process facts in a way that preserves beliefs that are consistent with their partisan identities (Bartels, 2002; Campbell et al., 1960; Duch, Palmer and Anderson, 2000; Wlezien, Franklin and Twiggs, 1997). When presented with the same facts, Republicans and Democrats concoct different interpretations that allow them to reach desired conclusions (Gains et al., 2007; Gerber and Huber, 2010). Partisans, by this account, reject inconvenient facts, while refusing to relinquish convenient "facts" that are subsequently proven false (Nyhan and Reifler, 2010).[1]

At the same time, partisans do not always behave like motivated reasoners. For instance, some

[1]The degree to which such partisan differences in updating represent a departure from the Bayesian ideal is a subject of some controversy (Achen, 2005; Bullock, 2009; Gerber and Green,

partisans are ambivalent about their party — they possess both positive and negative attitudes about it — and these individuals are more likely to objectively evaluate their party's performance in office and vote against their party's incumbents when they perform poorly (Lavine, Johnston and Steenbergen, 2012). There are a number of reasons why individuals may become ambivalent about their party. Previous scholarship tends to focus on the role that the environment plays in inducing people to be more or less motivated partisans. Situations that generate anxiety cause some individuals to become more open to persuasion and less likely to depend on partisan heuristics (e.g., Marcus, Neuman and MacKuen, 2000). People also possess competing motives to defend their party, on one hand, and to be good citizens who engage the facts, on the other. Situational factors can tip the balance in which of these motives wins the day (Groenendyk, 2013).

Our contention is that dispositional factors play an important role in how people update their attitudes. Some people are predisposed to be motivated reasoners, while others are predisposed to be more objective.[2] Motivations are shaped by psychological needs, which vary across individuals. Differences in needs account for differences in information processing (Kruglanski, 1989). Individuals who enjoy thinking, which is cognitively taxing, are motivated to process new information more deeply than individuals who do not enjoy thinking. They use effortful mental processing as a way to satisfy their "... need to understand and make reasonable the experiential world" (Cohen, Stotland and Wolfe, 1955, 291). NFC is a stable psychological trait. Individuals who are high in NFC may not always engage in effortful processing — just as individuals who are low in NFC may sometimes

1999; Grynaviski, 2006). Even though Bayesian models generally predict that the same facts should lead to convergence in beliefs across all partisan affiliations, under particular circumstances Bayesian updating can generate polarization in partisan beliefs (Bullock, 2009). In this paper we sidestep the thorny question about whether partisans reflect the perfect Bayesian ideal. Rather, we are interested in demonstrating how individual differences in information processing cause partisans to update in different, predictable ways.

[2]This is not to say that situational factors are unimportant. Situations can certainly influence people's motivations. However, dispositional factors play an important role as well, influencing the threshold at which people stop engaging in motivated reasoning (see Redlawsk, Civettini and Emmerson, 2010).

devote their mental energy to think through something thoroughly — but individual differences in NFC tend to predict how deeply individuals process information on average (Cacioppo et al., 1996).

Individuals who are high in NFC are more likely to scrutinize persuasive messages and evaluate the quality of the evidence presented (Petty and Cacioppo, 1986). With respect to political messages, NFC increases reliance on policy information — as opposed to source cues — in formulating an opinion (Bullock, 2011), and also minimizes the degree to which individuals engage in confirmation bias (Arceneaux and Vander Wielen, 2013).[3] Although NFC motivates individuals to critically evaluate information, it does not always motivate people to manifest the behavior of unbiased Bayesian updaters (Petty and Brinol, 2002; Petty and Cacioppo, 1986, 163). When individuals possess strong prior attitudes, NFC can facilitate counter-arguing and disconfirmation bias (Arceneaux and Johnson, 2013; Petty and Wegener, 1998). Nonetheless, NFC leads people to seek new information, consider different possibilities, and "base their judgments and beliefs on empirical information and rational considerations" (Cacioppo et al., 1996, 216). Consequently, individuals who are high in NFC tend to be less dogmatic and more open-minded (Cacioppo and Petty, 1982).

People also vary in the degree to which they are motivated to experience strong emotions (Maio and Esses, 2001*a*). When evaluating information, individuals who are high in NFA are more likely to attach strong emotions to their judgments, which in turn causes them to form more extreme attitudes (Britt et al., 2009). As NFA increases, individuals are more likely to attend to the emotional content of messages when forming attitudes (Haddock et al., 2008; Huskinson and Haddock, 2004; Mayer and Tormala, 2010). Of course, emotion plays an important role in human

[3]Some scholars fail to find evidence that NFC influences political attitude formation (Holbrook, 2006; Kam, 2005). It is difficult to reconcile these null findings with the wealth of evidence in the broader persuasion literature that documents the consistent influence of NFC in attitude formation in nonpolitical domains (Cacioppo et al., 1996). Notably, these null results emerge from analysis using the American National Election Study (ANES), which employs only two items from the conventional 16-item NFC battery, unsurprisingly generating a measure of low reliability. Consequently, measurement error may account for these null results rather than a real absence of a relationship (Bullock, 2011).

cognition (Marcus, Neuman and MacKuen, 2000) and all attitudes carry an affective charge to some extent (Lodge and Taber, 2005). The important point here is that individuals who are high in NFA tend to experience more intense emotions when processing information, and are therefore more likely to engage in motivated reasoning (Arceneaux and Vander Wielen, 2013). Moreover, it is not our goal to model the particular way in which emotions influence the attitude formation process. Although it is possible that emotions mediate the effects of NFC and NFA, our theoretical model does not specify the causal chain that connects NFC and NFA to information processing. Many other scholars have focused on the effects of specific emotions (e.g., Marcus, Neuman and MacKuen, 2000; Valentino et al., 2011). Our aim is to demonstrate that individual differences in information processing lead to fundamental differences in how people reincorporate new information into their political evaluations.

The foregoing discussion generates two theoretical premises, from which empirical propositions can be drawn. As NFC increases, individuals should be increasingly likely to update their political evaluations of co-partisan politicians in the direction of new information — both positive and negative. Of particular importance from the perspective of democratic accountability, individuals who possess high levels of NFC should be willing to negatively evaluate incumbents from their own party. In contrast, as NFA increases, partisans should be more likely to preserve partisan attitudes, sticking by their assessments of co-partisan politicians even if new information runs contrary to their preexisting attitude.

3 Study 1: Updating Experiment

To test these theoretical propositions, we begin with a randomized experiment that included both between- and within-subject components that allows us to vary the type of information that people received about a partisan political figure across time. This research approach allows us to observe how people change (or fail to change) their political evaluations in response to new information over the course of the study.

3.1 Study Design and Expectations

In the spring of 2013, we fielded a web-based survey using Amazon's Mechanical Turk (MTurk).[4] Individuals in this panel completed brief surveys in return for monetary compensation.[5] Our sample consisted of 661 adults living in the United States who identify with the party of their state's governor. Although we were unable to collect a perfectly representative sample of the US, our sample is broad and diverse. We drew respondents from a wide range of educational backgrounds (only high school education= 10.55%; some college=37.92%; college educated=54.74%), diverse income levels (54.48% of the sample reported earning less than $50,000 per year), and a wide range of ages (age_{min}=19; age_{max}=76; M=34.84; SD=12.48). Females make up 57.19% of the sample, and whites make up 80.18% of sample.

Respondents were first asked to answer a series of demographic and background questions. They were then asked to separately answer the complete NFC (Cacioppo, Petty and Kao, 1984) and NFA (Maio and Esses, 2001*b*) batteries, consisting of 16 and 26 items, respectively. We chose to employ the complete NFA battery, which consists of trait items that assess affect approach *and* avoidance, since we believe that both components of NFA theoretically contribute to the hypothesized effects discussed above. We also ensure consistency with the structure of the NFC battery, which likewise contains items that assess cognition approach and avoidance.

Based upon the geolocation of the computer accessing the survey (using IP addresses), we presented respondents with hypothetical information regarding their governor, which they were led to believe came from media reports.[6] Respondents were randomly assigned to read and react to a

[4]Both Buhrmester, Kwang and Gosling (2011) and Berinsky, Huber and Lenz (2012) find that MTurk respondents are often more representative of the general population than the typical convenience samples used in many lab experiments, and exhibit behavior consistent with existing studies.

[5]Buhrmester, Kwang and Gosling (2011) find that reasonable variation in the compensation rates for MTurk does not meaningfully affect the quality of the data.

[6]We excluded potential participants from the District of Columbia, since it does not have a governor, and from Rhode Island, since its governor does not affiliate with either the Democratic or Republican Party.

fictional report that either depicted their governor as a loyal or disloyal (i.e., shirking) agent. The fictional report indicated that the governor either advocated or opposed severe reductions to funding for public safety. This scenario was borrowed from McGraw (1990), and exploits a policy area in which there exists a broad, bipartisan consensus regarding what constitutes (dis)loyal behavior. To ensure that spending cuts would be viewed as uniformly objectionable across Democrats and Republicans, we noted that the cuts to public safety would *not* reduce gross spending (i.e., the cuts would be offset by other expenditures). The text of these items is shown in Table 1.

INSERT TABLE 1 HERE

After reading the assigned (loyal or shirking) item, respondents were asked to evaluate the statement "If there were an election today, I would vote for Governor *Name*," along a discrete scale ranging from 0 (strongly disagree) to 100 (strongly agree). Prior to the completion of the survey, respondents received a statement of full disclosure, reading: "The item you read above about Governor *Name* was created for the purpose of this study. The events described were fictional and did not happen." They were then asked to reassess the governor, using the identical statement of evaluation and scale. Thus, the disclosure offers *positive* information in the aftermath of the shirking item (hereafter the "positive disclosure" treatment) and *negative* information in the aftermath of the loyal item (hereafter the "negative disclosure" treatment). This design allows us to explore the updating of assessments as a function of respondents' NFC and NFA. Since expectations are clearest for individuals who are high in NFC (NFA) and low in NFA (NFC), we restrict our attention to these cases. Broadly speaking, we predict that individuals who are high in NFC and low in NFA (hereafter "high-NFC/low-NFA") will behave as rational updaters across pre- and post-disclosure assessments for both treatments, while those low in NFC and high in NFA (hereafter "low-NFC/high-NFA") will engage in motivated reasoning that produces behavior consistent with rational updating when presented with the positive disclosure and defensive updating when presented with the negative disclosure. Therefore, our predictions are similar across typologies in terms of their responses to the positive disclosure, but diverge for the negative disclosure. Specifically, in response to negative information, we predict that high-NFC/low-NFA types should exhibit a willingness to punish their governor, while low-NFC/high-NFA types should respond to similar information by exhibiting stable evaluations or by even rewarding their governor. Thus, we arrive at the following predictions:

> *High-NFC/Low-NFA Proposition:* Those high in NFC and low in NFA will positively update their likelihood of voting for their governor after receiving the disclosure that their governor did not behave in the disloyal fashion originally reported (positive disclosure treatment). Conversely, these individuals will negatively update their likelihood of voting for their governor after receiving the disclosure that their governor did not behave in the loyal fashion originally reported (negative disclosure treatment).

> *Low-NFC/High-NFA Proposition:* Those low in NFC and high in NFA will positively update their likelihood of voting for their governor after receiving the disclosure that their governor did not behave in the disloyal fashion originally reported (positive disclosure treatment). These individuals will not update or will positively update their likelihood of voting for their governor after receiving the disclosure that their governor did not behave in the loyal fashion originally reported (negative disclosure treatment).

3.2 Measurement and Methods

To test these predictions, we must first estimate NFC and NFA scores for each respondent. A standard approach would be to use factor analysis as a way to weight the responses to the NFC and NFA items and generate scores for each respondent. Unfortunately, conventional methods implicitly assume that the latent traits (i.e., NFC and NFA) deterministically generate the observed item responses, which implies that the NFC and NFA factor scores perfectly measure these traits. Of course, in most empirical applications, this assumption is almost certainly false — measurement error is typically present in self-reports and failure to account for it could lead to biased and inconsistent model parameter estimates and flawed inference (Treier and Jackman, 2008). Consequently, we use the Bayesian ordinal factor analysis model proposed by Martin, Quinn and Park (2013) to estimate scores for each respondent along separate NFC and NFA scales. This approach accounts for the internal consistency of the response items by explicitly accounting for error in both estimating the latent variables and in modeling their effects.

Briefly, this Bayesian method simulates from the joint posterior distribution of the ordinal factor analysis model shown in Equation 1, where y_i^* is the k-vector of latent responses belonging to respondent i, Λ is the k-vector of factor loadings, ϕ_i is a single real-valued factor score, and ϵ_i is a k-vector of disturbances.[7] In this application, the value of k is equal to 16 for the NFC battery and 26 for the NFA battery. Factor loadings and factor scores are assumed to have independent

[7]For a more detailed discussion of this method, see Martin, Quinn and Park (2013).

normal priors, and the cutpoints are assumed to have improper uniform priors (Quinn, 2004). For sake of having comparable NFC and NFA scales, we constrain the posterior means for both scales to the $[-2, 2]$ interval. The simulation relies on a Gibbs sampling algorithm and is implemented as part of the `MCMCpack` package (Martin, Quinn and Park, 2013) in `R` (R Development Core Team, 2013).[8] This method is closely related to unidimensional Bayesian ordinal item response theory (IRT) models (Quinn, 2004; Zheng and Rabe-Hesketh, 2007; van Schuur, 2011), and we note that either method of estimating NFC and NFA scores produces substantively similar results. Importantly, these methods of estimating NFC and NFA scores make full use of the ordered, polytomous responses, and therefore we do not unnecessarily discard information.

$$y_i^* = \Lambda\phi_i + \epsilon_i, \text{ with } \epsilon_i \sim \mathcal{N}(0, I) \tag{1}$$

To generate the NFC and NFA estimates, we set the number of discarded (i.e., burn-in) iterations at 50,000 and the number of Markov chain Monte Carlo (MCMC) iterations at 5,000,000. We store (i.e., thin) every 500th iteration to produce a total of 10,000 posterior factor score estimates for each respondent for each of the NFC and NFA scales separately. Using various diagnostics [e.g., the Geweke (1992) and Heidelberger and Welch (1983) convergence diagnostics], we find evidence that each chain achieved stationarity and is well mixed. See Section 1 of the Supplemental Appendix for the descriptive statistics for the NFC and NFA scales.

We estimate the effect of individual differences in information processing on partisan updating using a multilevel linear model (see Equation 2). The dependent variable measures the real change in a respondent's likelihood of voting for her governor, measured as the post-disclosure value less the pre-disclosure value. Positive values for the dependent variable represent an increase in assessments from pre- to post-disclosure. We include random intercepts for states to account for differences in political environments and gubernatorial personalities. Therefore, this approach accounts for natural cross-state variation in the relationships between voters and their governor. For sake of robustness, we also estimate the model without random intercepts.

---

[8] We use the `MCMCordfactanal` function in `MCMCpack`. Documentation is available at the Comprehensive R Archive Network (CRAN) website.

$$\begin{aligned}\Delta\text{Assessment} \quad &= \quad \alpha_m + \beta_1\text{PD} + \beta_2\text{NFC}_j + \beta_3\text{NFA}_j + \beta_4\text{NFC}_j \times \text{NFA}_j + \beta_5\text{NFC}_j \times \text{PD} + \\ & \quad \beta_6\text{NFA}_j \times \text{PD} + \beta_7\text{NFC}_j \times \text{NFA}_j \times \text{PD} + [\boldsymbol{\delta}\mathbf{z}'] + \epsilon \\ & \quad \alpha_m \sim N(\mu_\alpha, \sigma^2_\alpha) \text{ for } m \in \{1, \ldots, 50\} \text{ states} \\ & \quad \text{for } j \in \{1, 2, \ldots, 10000\} \text{ iterations}\end{aligned} \tag{2}$$

$\texttt{NFC}_j$ denotes the respondent's score on the NFC scale randomly drawn from her posterior distribution on the j^{th} iteration of model estimation, $\texttt{NFA}_j$ is similarly the respondent's score on the NFA scale randomly drawn from her posterior distribution on the j^{th} iteration, and $\texttt{NFC}_j \times \texttt{NFA}_j$ is the interaction of these terms constructed on the j^{th} iteration. We include the interaction of the NFC and NFA measures to account for the possibility that the scales are correlated with one another (Maio and Esses, 2001*b*). The PD indicator identifies those respondents who were randomly assigned the positive disclosure treatment. This variable is then interacted with the aforementioned variables to capture any differences in the effects of NFC and NFA (individually and jointly) on changes in assessments across the treatments. As a further robustness check, we also estimate the model including a number of socio-demographic, partisan, and ideological characteristics (represented by the vector of variables $\mathbf{z}$ with corresponding vector of coefficients, $\boldsymbol{\delta}$, in Equation 2). Specifically, we include variables that account for the respondent's partisan affiliation, age, education, gender, income, race, and level of conservatism.

To estimate the model shown in Equation 2, we adapt the Monte Carlo procedure detailed by Treier and Jackman (2008).[9] Specifically, we estimate the model 10,000 times, each time randomly sampling a factor score estimate from each respondent's NFC and NFA posterior distributions. After each iteration, we store the coefficient estimates for the NFC and NFA variables (and their interactions), and sample all other coefficients (for variables without posterior densities) from the multivariate normal distribution with mean equal to the vector of all estimated coefficients and variance equal to the estimated variance-covariance matrix. By randomly sampling from the NFC and NFA posterior distributions in each iteration of the model estimation, this modeling approach accounts for the uncertainty that we capture in the estimation of the latent NFC and NFA traits.

[9]We are grateful to Shawn Treier and Simon Jackman for sharing their model code.

Therefore, this modeling technique overcomes the errors-in-variables problem that results from assuming that latent traits are measured with perfect certainty. We note that using a frequentist specification of this and later models, in which NFC and NFA are measured using deterministic factor scores, yields substantively similar results to those using the approach detailed above (see Section 3 of the Supplemental Appendix). Even though the results of the Bayesian and frequentist models are substantively similar, the Bayesian specification is more appropriate given the empirical demands of the analysis. Although it surely has its merits, model simplicity should not lead us to favor a simple model to a more complex one when the latter is, indeed, more appropriate for the problem at hand (Neal, 1996; Gelman, 2009).

We empirically evaluate the two propositions stated above by simulating the predicted change in likelihood of voting for the governor across respondents who are high in one dimension and low in the other. Since we are principally interested in the behavior of individuals who are high in NFC (NFA) and low in NFA (NFC), and given that we include both the constitutive and interaction terms for NFC and NFA, the propositions cannot be directly evaluated from the coefficients alone. Therefore, we isolate the effects of new information by selecting the 1^{st} percentile of the NFC and NFA posterior means to represent "low" attribute types, and the 99^{th} percentile for "high" attribute types (a sensitivity analysis confirms that reasonable variation in these percentiles generates substantively similar results).[10] We capture the effects of new information by generating distributions of predicted changes in the pre- and post-disclosure likelihood of voting for the governor by multiplying the posterior distributions of coefficients produced in the estimation of the model in Equation 2 by scalar values of interest, and then summing across all of the rescaled posterior distributions of coefficients.[11]

---

[10]Using percentiles of the distributions of NFC and NFA posterior means is a relatively conservative assessment of low and high attributes considering that posterior means capture the central tendency of the posterior densities. Rather, using the equivalent percentiles of all estimates in the posterior distributions of NFC and NFA only exaggerates the findings below.

[11]We hold all other control variables to their respective means, when included in the model. Note that our method of generating predictions is analogous to the method introduced by King, Tomz and Wittenberg (2000), with the minor caveat that we generate distributions of coefficients

Taken together, our propositions predict that the confidence interval for predicted change in assessments will be negative and bounded away from zero for high-NFC/low-NFA types for the negative disclosure treatment, but positive and bounded away from zero for the positive disclosure treatment. Conversely, we should find that the confidence interval for predicted change for low-NFC/high-NFA types is positive and bounded away from zero (or indiscernible from zero) for the negative disclosure treatment, and positive and bounded away from zero for the positive disclosure treatment. Thus, we expect to observe a statistically meaningful difference in the change in assessments across types in the negative disclosure treatment, but not for the positive disclosure treatment. Put simply, we expect both types of processors to positively update the assessment of their in-party governor in response to positive information (positive disclosure treatment). However, when presented with negative information (negative disclosure treatment), we expect high-NFC/low-NFA types to punish their governor and low-NFC/high-NFA types to respond defensively by rating their co-partisan incumbent more positively (or at least sticking with their initial partisan assessment).

3.3 Results

The results for the models shown in Equation 2 are presented in Table 2. The results displayed in the latter columns (i.e., Models 2 and 3) provide robustness checks for the central model (i.e., Model 1). As one might expect, the dummy variable for the positive disclosure treatment is positive and statistically significant across all model specifications, suggesting that there is a baseline increase in the likelihood of voting for one's governor upon receiving corrected information indicating that the governor did not shirk as originally reported. This finding is comforting as it provides some evidence that the treatments convey the intended information and subsequently elicit plausible responses. We also note that the results are strikingly consistent across the various models. While we are limited in our ability to assess the propositions on the basis of the coefficients alone, as

in the estimation of Equation 2 rather than in the simulation process itself [where King, Tomz and Wittenberg (2000) suggest a method in which coefficients are drawn from the multivariate normal distribution after model estimation]. From the resulting distributions of predicted changes, we then construct confidence intervals (technically speaking, credible intervals) by identifying the intervals that contain the central 90% of these distributions.

discussed above, the results generally comport with our expectations. Namely, the constitutive NFA coefficient (β_3) has a large positive and statistically significant effect, indicating that increasing NFA levels produce larger positive changes in support for the governor in the negative disclosure treatment, as expected. Furthermore, the negative constitutive NFC coefficient (β_2), in conjunction with the negative constant (α), provides some initial indication that high levels of NFC could yield negative changes in support for the governor in the negative disclosure treatment, also as expected. While it is considerably more difficult to ascertain the effects of NFC and NFA in the positive disclosure treatment from the coefficients given the complexity of the interactions, the overwhelming positive effect of the positive disclosure coefficient (β_1) appears to motivate positive change for most reasonable levels of NFC and NFA, as predicted.

Insert Table 2 Here

Figure 1 shows the mean and 90% confidence intervals for the predicted change in support for the governor for both the low-NFC/high-NFA and high-NFC/low-NFA types across the negative and positive disclosure treatments. In accordance with expectations, the confidence intervals for the low-NFC/high-NFA type are positive and bounded away from zero for both treatments. This finding suggests that low-NFC/high-NFA types rationally update when provided with positive information (i.e., positive disclosure treatment), but behave as motivated reasoners who update defensively upon receiving negative information (i.e., negative disclosure treatment). Therefore, we find support for the *Low-NFC/High-NFA Proposition*. In support of the *High-NFC/Low-NFA Proposition*, the confidence intervals for the high-NFC/low-NFA type are negative and bounded away from zero for the negative disclosure treatment and positive and bounded away from zero for the positive disclosure treatment, as expected. Therefore, high-NFC/low-NFA types behave as rational updaters when confronted with both positive and negative information regarding their party. When confronted with negative information, they downgrade their assessment of their party's incumbent, and upgrade their assessment of their party's incumbent when confronted with positive information. As a testament to the robustness of these findings, the confidence intervals for predicted change generated by Models 2 and 3 provide similar support for the propositions (see Section 2 of the Supplemental Appendix).

Insert Figure 1 Here

4 Study 2: 2012 U.S. Presidential Election Campaign Panel Survey

Study 1 demonstrates that individual differences in how people process information affects their willingness to hold co-partisan politicians accountable. Some partisans behave like motivated reasoners, standing behind their party's incumbent for better or worse. Yet some partisans act like rational updaters, willing to remove support from their party's incumbent. Like all experiments, Study 1 has both strengths and weaknesses. Its strength lies in the internal validity of the design. We randomly varied the information that partisans received, lending confidence to the interpretation that NFC and NFA can lead people to process the *same* information differently. However, this strength requires us to sacrifice some degree of external validity. Although we use actual politicians and provide respondents with realistic information, it is possible that these findings would not travel beyond the manufactured environment of our experiment. Consequently, we turn to observational data for evidence that NFC and NFA shape political attitudes and behavior in natural settings.

4.1 Study Design and Expectations

Study 2 draws from he 2012 Cooperative Campaign Analysis Project (CCAP), which surveyed 44,000 respondents in December 2011 to collect baseline information, and then resurveyed random samples of 1,000 respondents each week from the beginning of January 2012 through the end of October 2012. All respondents were surveyed again after the 2012 elections, creating a panel in which respondents were interviewed at three time points (t_1 = December 2011, t_2 = a week during the 2012 campaign, t_3 = post-2012 elections). Our data consists of respondents who were interviewed in the last week of October 2012 (n = 1,000), which included questions tapping NFC and NFA. This sample is a broadly representative sample of the American voting population, in terms of both the demographic and socio-economic backgrounds of the respondents (female=51.5%, white=73.5%, age_{mean}=53, college educated = 35%, family income < \$50,000 per year = 44.9%, independents=11.6%).

Unlike Study 1, we are not able to manipulate the political information that respondents received. Nonetheless, we can rely on the presumption that the 2012 elections increased the likelihood that individuals encountered negative information about their party's candidates for elected office — be it in the news, campaign advertisements, or political discussion in their social networks.

Negativity is a staple of competitive political campaigns, as it is the primary vehicle through which candidates can draw support away from their opponents (Geer, 2006), and the 2012 campaign had its fair share of negativity (Sides and Vavreck, 2013). Although the CCAP data do not allow us to estimate the effect of NFC and NFA on how people deal with negative information about their party's candidates, they do allow us to examine whether individual differences in information processing correlate with differences in political decisions. All things being equal, motivated reasoners should respond to a competitive campaign by maintaining or even strengthening their allegiance to their party. Negative information about their party's candidate(s) should do little to dissuade them from supporting their party. Rational updaters, by contrast, should be more willing to defect from their party. The CCAP gives us two opportunities to evaluate this proposition: the change in respondents' attachment to their party over the course of the 2012 campaign and their voting choices for federal offices (President, Senate, and House). Given these data, we draw the following observable implications from our theoretical propositions.

> *Weakening Party Identification Proposition:* The likelihood of weakening party identification will be positively related to NFC and negatively related to NFA.

> *Straight-Ticket Voting Proposition:* The likelihood of straight-ticket voting will be negatively related to NFC and positively related to NFA.

4.2 Measurement and Methods

Respondents were asked four items designed to measure NFA and three items to measure NFC. The separate batteries for NFC and NFA are abridged versions of the full batteries that have been consistently found to reliably measure NFC (Cacioppo, Petty and Kao, 1984) and NFA (Maio and Esses, 2001*b*). Moreover, we look to Bullock's work for guidance in avoiding the shortcomings of the highly shortened NFC battery placed on the 2000 ANES and used by Kam (2005) and Holbrook (2006). Items in both batteries ask respondents to evaluate statements along a five (ordered) category scale. Respondents were separately asked to place themselves along the seven-point party identification scale. Therefore, we seek to determine whether the likelihood of a respondent weakening in her party identification along the seven-point scale across time is systematically related to levels of NFC and NFA. Similarly, we investigate whether NFC and NFA affect the likelihood that a respondent votes straight-ticket. Both of these measures, we contend, capture the capacity of a respondent to punish her own party. That is, weakening party identification reflects some diminished dedication to the in-party, and the willingness to split one's ticket likewise reflects the ability of a voter to cross party lines.

To generate NFC and NFA scores, we again use the Bayesian factor analysis model detailed above (Martin, Quinn and Park, 2013). Section 1 of the Supplemental Appendix offers the descriptive statistics for the NFC and NFA scales. To examine how NFC and NFA affect one's willingness to punish her own party, we construct two analytical models. The first model examines a respondent's likelihood of weakening in party identification over time as a function of her respective levels of NFC and NFA. The dependent variable for the first model measures whether a respondent weakened in her self-assessed party identification (on the 7-point scale) between December 2011 (time t) and October 2012 (time $t+1$). The second model examines the relationship between the likelihood that a respondent casts a straight-ticket ballot and her NFC and NFA scores. The dependent variable for the latter model is a dichotomous measure indicating whether the respondent reported (in the post-election survey) voting for House, Senate, and presidential candidates of the same party in the 2012 elections. The structure of both probit models is shown in Equation 3.

$$\begin{aligned} Pr(y=1) &= \Phi\left(\alpha + \beta_1 \text{NFC}_j + \beta_2 \text{NFA}_j + \beta_3 \text{NFC}_j \times \text{NFA}_j + \boldsymbol{\delta}\mathbf{z}' + \boldsymbol{\zeta}\mathbf{x}' + \epsilon\right) \\ & \quad \text{for } j \in \{1, 2, \ldots, 10000\} \text{ iterations} \end{aligned} \tag{3}$$

The key independent variables in both models are the NFC and NFA measures (and their interaction). As before, $\texttt{NFC}_j$ and $\texttt{NFA}_j$ denote the respondent's score on the respective NFC and NFA scales, randomly drawn from her posterior distribution on the j^{th} iteration of model estimation, and $\texttt{NFC}_j \times \texttt{NFA}_j$ is the interaction of these terms constructed on the j^{th} iteration. Since there are a number of socio-demographic, partisan, and ideological characteristics that are plausibly related to changes in the dependent variables, we also include a vector of respondent characteristic control variables, denoted $\mathbf{z}$ with corresponding vector of coefficients $\boldsymbol{\delta}$ in Equation 3. Note that these are the same characteristic variables used in Equation 2. In addition, we include a series of control variables tapping personality traits, such as the respondent's self assessment of political awareness, extraversion, agreeableness, conscientiousness, neuroticism, and openness to new ideas (represented in Equation 3 by the vector of variables $\mathbf{x}$ with corresponding vector of coefficients, $\boldsymbol{\zeta}$). For sake of robustness, we estimate the models both with and without the variables for the "big 5" personality traits so as to mitigate concern that our findings are dependent on these traits.[12]

Given that we include both the constitutive and interaction terms for NFC and NFA in these models to account for the possibility of correlation in the latent scales, it is somewhat difficult to make specific predictions regarding the signs and magnitudes of the key coefficients. After all, there is little guidance as to how NFC and NFA will *jointly* affect a respondent's propensity to weaken in party identification and cast a straight-ticket ballot (as reflected in the interaction term). Nonetheless, our theory provides a basis for making predictions regarding the marginal effects of NFC and NFA on the dependent variables. In particular, we suggest that the plasticity of in-party evaluations is *increasing* in NFC and *decreasing* in NFA. Stated differently, we contend that an individual's capacity to punish her in-party is positively related to NFC and negatively related to NFA.

4.3 Results

Table 3 presents the results of the models shown in Equation 3. As predicted, we find that NFC has a positive and statistically significant effect on the likelihood that an individual will weaken in her party identification across time. Conversely, and also as expected, we find that NFA has a negative and statistically significant effect on one's propensity to weaken in party identification (see "Weakening PID" model). This is true regardless of the inclusion of the big 5 personality trait variables. In other words, increasing levels of NFA promote stable (or strengthening) attachments to one's party, while increasing levels of NFC are associated with a greater likelihood of weakening partisan ties over time. Therefore, these results provide confirmation of the *Weakening Party Identification Proposition*. While we do not speculate as to the effect of the interaction term, we find that its coefficient is positive but not statistically significant. Interestingly, however, the

[12]Section 4 of the Supplemental Appendix presents the relationships between NFC/NFA and the big 5 personality traits. There is clear evidence of a relationship between information processing and the personality traits, yet, interestingly, several of the personality traits exhibit the same (directional) relationship with NFC/NFA. Thus, NFC and NFA appear to have unique qualities distinct from the personality traits. Nonetheless, we remain agnostic as to whether these personality traits mediate the effects of NFC and NFA.

positive coefficient on the interaction term offers some evidence that increasing NFC mitigates the effects of NFA on the likelihood that a respondent will weaken in party identification across time.

Insert Table 3 Here

In turning our attention to the model examining the effects of NFC and NFA on the likelihood of straight-ticket voting (see "Straight-Ticket Voting" model), we find that NFC has a negative and statistically significant effect on straight-ticket voting across both specifications of the model, as predicted. Therefore, increasing NFC bolsters the probability that a voter crosses party lines and votes for an out-party candidate. The coefficient on the NFA variable, however, does not prove to be statistically discernible from zero in either specification of the model. Therefore, we find partial confirmation of the *Straight-Ticket Voting Proposition.* The coefficient on the interaction term is positive but again fails to achieve statistical significance. The positive sign on the interaction term suggests that increasing levels NFA dampens the influence of NFC on the likelihood of straight-ticket voting.

Figure 2(a) shows the 83.5% confidence intervals for the marginal effects of NFC and NFA on the predicted probabilities of weakening party identification using the complete model from Table 3.[13] When examining the marginal effect of NFC (NFA), we allow NFC (NFA) to vary over the entire scale, and hold NFA (NFC) to one standard deviation above ("high") and below ("low") the mean of its respective distribution of posterior means. We construct 83.5% confidence intervals about the mean predictions, since we are interested in making statistical inferences on the basis of comparing the confidence intervals across different values of the latent variables, and confidence intervals of this width correspond to a conventional type I error rate of 5% [i.e., 95% confidence] (Goldstein and Healy, 1995; Maghsoodloo and Huang, 2010). Note that the predictions for Study 1 (presented in Figure 1) used 90% confidence intervals because we were interested in determining whether point estimates were statistically discernible from zero. Here, we are interested in comparing confidence intervals (associated with different values of the latent variables) to one another to assess statistical significance, which requires the construction of smaller confidence intervals to achieve analogous levels of statistical confidence.

[13]Note that using the restricted model in Table 3 generates substantively similar results.

Over the range of NFC values, the predicted probability of weakening in party identification increases by approximately 6.9 percentage points for low NFA and 10.6 percentage points for high NFA, with both representing statistically significant changes (i.e., having non-overlapping confidence intervals). We find that, on average, the predicted probability of weakening party identification decreases by approximately 7.5 percentage points over the range of NFA scores for low NFC, which constitutes statistically meaningful variation. Conversely, the probability of weakening party identification falls, on average, by only 3 percentage points over the range of NFA scores for high NFC, with some overlap in the confidence intervals over this range. Therefore, these results point to a sizable positive effect of NFC that is robust to variation in the levels of NFA. Furthermore, we find a strong negative effect of NFA that is mitigated by increasing levels of NFC. Figure 2(b) presents the 3-dimensional plot of the mean predicted probabilities of weakening party support across the joint ranges of NFC and NFA.

INSERT FIGURE 2 HERE

Figure 3(a) shows the 83.5% confidence intervals for the marginal effects of NFC and NFA on the predicted probabilities of casting a straight-ticket ballot, again using the complete model from Table 3. We find that the predicted probability of straight-ticket voting decreases by an average of roughly 12.5 percentage points over the range of NFC scores for low NFA, which is a statistically significant decrease. This decline diminishes to an 8.8 percentage point drop over the range of NFC for high NFA, with some overlap in the confidence intervals at the limits of the scale. We find that the powerful effect of NFC on one's propensity to cast a straight-ticket ballot is moderated by increasing NFA. Contrary to our expectations, NFA does not exhibit a statistically significant effect on straight-ticket voting, as evidenced by the overlapping confidence intervals for high and low levels of NFC. Figure 3(b) presents the 3-dimensional plot of the mean predicted probabilities of straight-ticket voting across the joint ranges of NFC and NFA.[14]

INSERT FIGURE 3 HERE

[14]Given our research design, it is not possible to identify the specific mechanism by which NFC and NFA generate the observed effects. It is possible that those high in NFC are more motivated to seek out negative information than those high in NFA. Alternatively, both types may be equally likely to encounter negative information, but fundamental differences in the processing of this (uni-

5 Conclusion

We investigate whether individual differences influence the way in which partisans update their evaluations of co-partisans. Consistent with expectations derived from the extant literature in social psychology, we find that individuals who enjoy effortful thinking — those who possess a high level of NFC — tend to behave in a fashion that is consistent with rational updating. When they encounter new information they adjust their attitudes in the direction of the information, even if it means downgrading their evaluation of candidates from their own party and ultimately defecting from their party at the ballot box. We also find, consistent with our theoretically derived expectations, that individuals who enjoy experiencing strong emotions — those who possess a high level of NFA — tend to behave like motivated reasoners. Relative to those high in NFC, they stand by their partisan affiliations. When they encounter new information about co-partisans, they become more emboldened in their initially formed opinions. They do not appear willing, at least in the context of our study, to countenance negative information about their party and perhaps as a result tend to behave as consistent partisans come election time.

These findings recommend a more nuanced understanding of citizens' capacity to hold co-partisan incumbents accountable for their actions. Many individuals do indeed behave as blindly loyal partisans, supporting their party in the best of times and the worst. Yet, there is also a subset of the citizenry that is willing to punish its party's incumbents. Thus, the logic of democratic accountability that forms the foundation of electoral institutions — that citizens will hold their elected representatives accountable for their actions — is upheld by only some of the electorate. While this is less than ideal from a normative perspective, perhaps there is nonetheless a silver lining. Even if the portion of the public that is capable of critically evaluating their co-partisans represents a small slice of the overall electorate, these voters have the potential to shape electoral outcomes *because* they are willing to change their voting behavior from one election to the next. In turn, these rational updaters may prove to be the last bastion of democratic accountability in political environments where partisanship is a powerful social identity (e.g., polarization).

Our analysis also helps illuminate a crucial, but under-appreciated, aspect of democratic com-

---

formly distributed) information generates the observed differences in behavior. Nevertheless, the differences in behavior produced by variation in information processing are robust and noteworthy.

petence. Attitude stability — which researchers since Converse (1964) have used as a yardstick for political sophistication — may not always be a marker for good citizenship. For a democracy to function properly, individuals must be willing to change their attitudes. In making this point, our findings contribute to the burgeoning literature on the political implications of individual differences in cognitive and affective approaches to information processing. Not only do NFC and NFA motivate people to evaluate the same information in different ways, they lead people to behave differently in the same political context. In a polarized environment, NFA may undermine people's capacity to punish incumbents for poor performance, while NFC may bolsters it. Of course, we suspect that we have only discovered part of the story. In other contexts, NFC contributes to attitude stability (e.g., Haugtvedt, Petty and Cacioppo, 1992), and there may be instances where NFA leads to flexibility. Given the relative newness of these constructs to political science, much work remains to be done, and we believe this project offers some guidance for future studies.

Future research could also investigate whether NFC and NFA operate through different emotions. For instance, a healthy stream of scholarship demonstrates that anxiety causes individuals to be more open to persuasion (e.g., Brader, 2006; Marcus, Neuman and MacKuen, 2000) and anger induces people to feel more certain and motivates them to defend preexisting attitudes (e.g., Cottrell and Neuberg, 2005; Valentino et al., 2011). Perhaps, NFC triggers anxiety, while NFA triggers anger.

In sum, we offer further evidence that political scientists should take individual differences into consideration when theorizing about public opinion and partisanship. Conventional one-size-fits-all models possess attractive parsimony, but at the risk of painting an overly simplistic picture of the public. Future work should be dedicated to incorporating psychological predispositions such as NFA and NFC into models of political behavior.

References

Abelson, Robert P. 1986. "Beliefs are Like Possessions." *Journal for the Theory of Social Behaviour* 16:223–250.

Achen, Christopher H. 1992. "Social Psychology, Demographic Variables, and Linear Regression: Breaking the Iron Triangle in Voting Research." *Political Behavior* 14:195–211.

Achen, Christopher H. 2005. "Let's Put Garbage-Can Regressions and Garbage-Can Probits Where They Belong." *Conflict Management and Peace Science* 22:327–339.

Arceneaux, Kevin and Martin Johnson. 2013. *Changing Minds or Changing Channels? Partisan News in an Age of Choice*. Chicago: University of Chicago Press.

Arceneaux, Kevin and Ryan Vander Wielen. 2013. "The Effects of Need for Cognition and Need for Affect on Partisan Evaluations." *Political Psychology* 34:23–42.

Arnold, Douglas R. 1990. *The Logic of Congressional Action*. New Haven: Yale University Press.

Bartels, Larry M. 1993. "Messages Received: The Political Impact of Media Exposure." *American Political Science Review* 87:267–285.

Bartels, Larry M. 2002. "Beyond the Running Tally: Partisan Bias in Political Perceptions." *Political Behavior* 24:117–150.

Berinsky, Adam J., Gregory A Huber and Gabriel S. Lenz. 2012. "Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk." *Political Analysis* 20:351–368.

Brader, Ted. 2006. *Campaigning for Hearts and Minds: How Emotional Appeals in Political Ads Work*. Chicago: University of Chicago Press.

Britt, Thomas W., Matthew R. Millard, Preetha T. Sundareswaran and DeWayne Moore. 2009. "Personality Variables Predict Strength-Related Attitude Dimensions Across Objects." *Journal of Personality* 77:859–882.

Buhrmester, Michael D., Tracy Kwang and Samuel D. Gosling. 2011. "Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data?" *Perspectives on Psychological Science* 6:3–5.

Bullock, John G. 2009. "Partisan Bias and the Bayesian Ideal in the Study of Public Opinion." *Journal of Politics* 71:1109–1124.

Bullock, John G. 2011. "Elite Influence on Public Opinion in an Informed Electorate." *American Political Science Review* 105:496–515.

Cacioppo, John T. and Richard E. Petty. 1982. "The Need for Cognition." *Journal of Personality and Social Psychology* 42:116–131.

Cacioppo, John T., Richard E. Petty and Chaun F. Kao. 1984. "The Efficient Assessment of Need for Cognition." *Journal of Personality Assessment* 48:306–307.

Cacioppo, John T., Richard E. Petty, Jeffrey A. Feinstein and W. Blair G. Jarvis. 1996. "Dispositional Differences in Cognitive Motivation: The Life and Times of Individuals Varying in Need for Cognition." *Psychological Bulletin* 119:197–253.

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

Cohen, Arthur R., Ezra Stotland and Donald M. Wolfe. 1955. "An Experimental Investigation of Need for Cognition." *The Journal of Abnormal and Social Psychology* 51:291–294.

Converse, Philip E. 1964. The Nature of Belief Systems in Mass Publics. In *Ideology and Discontent*, ed. David E. Apter. New York: Free Press pp. 206–261.

Cottrell, Catherine A and Steven L Neuberg. 2005. "Different Emotional Reactions to Different Groups: A Sociofunctional Threat-Based Approach to "Prejudice"." *Journal of Personality and Social Psychology* 88(5):770–789.

Dahl, Robert A. 1956. *A Preface to Democratic Theory*. Chicago: University of Chicago Press.

Dickson, Eric S. and Kenneth Scheve. 2006. "Social Identity, Political Speech, and Electoral Competition." *Journal of Theoretical Politics* 18:5–39.

Downs, Anthoy. 1957. *An Economic Theory of Democracy*. New York: Harper Collins.

Duch, Raymond M., Harvey D. Palmer and Christopher J. Anderson. 2000. "Heterogeneity in Perceptions of National Economic Conditions." *American Journal of Political Science* 44:635–652.

Erikson, Robert S. 2004. "Macro vs. Micro-Level Perspective on Economic Voting: Is the Micro-Level Evidence Endogenously Induced?" Presented at the 2004 Annual Meeting of the Political Science Methodology Society, Stanford University.

Fiorina, Morris P. 1981. *Retrospective Voting in American Elections.* New Haven: Yale University Press.

Gains, Brian, James H. Kuklinski, Paul J. Quirk, Buddy Peyton and Jay Verkuilen. 2007. "Same Facts, Different Interpretations: Partisan Motivation and Opinion on Iraq." *Journal of Politics* 69:957–974.

Geer, John G. 2006. *In Defense of Negativity: Attack Ads in Presidential Campaigns.* Chicago: University of Chicago Press.

Gelman, Andrew. 2009. "Bayes, Jeffreys, Prior Distributions and the Philosophy of Statistics." *Statistical Science* 24:176–178.

Gerber, Alan and Donald Green. 1999. "Misperceptions about Perceptual Bias." *Annual Review of Political Science* 2(1):189–210.

Gerber, Alan S. and Gregory A. Huber. 2010. "Partisanship, Political Control, and Economic Assessments." *American Journal of Political Science* 54:153–173.

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

Geweke, John. 1992. Evaluating the Accuracy of Sampling-Based Approaches to Calculating Posterior Moments. In *Bayesian Statistics*, ed. J. M. Bernardo, J. O. Berger, A. P. Dawid and A. F. M. Smith. Vol. 4 Oxford: Clarendon pp. 169–194.

Goldstein, Harvey and Michael J. R. Healy. 1995. "The Graphical Presentation of a Collection of Means." *Journal of the Royal Statistical Society* 158:175–177.

Groenendyk, Eric. 2013. *Competing Motives in the Partisan Mind: How Loyalty and Responsiveness Shape Party Identification and Democracy*. Oxford: Oxford University Press.

Grynaviski, Jeffrey D. 2006. "A Bayesian Learning Model with Applications to Party Identification." *Journal of Theoretical Politics* 18:323–346.

Haddock, Geoffrey, Gregory R. Maio, Karin Arnold and Thomas Huskinson. 2008. "Should Persuasion be Affective or Cognitive? The Moderating Effects of Need for Affect and Need for Cognition." *Personality and Social Psychology Bulletin* 34:769–778.

Haugtvedt, Curtis P., Richard E. Petty and John T. Cacioppo. 1992. "Need for Cognition and Advertising: Understanding the Role of Personality Variables in Consumer Behavior." *Journal of Consumer Psychology* 1:239–260.

Heidelberger, Philip and Peter D. Welch. 1983. "Simulation Run Length Control in the presence of an Initial Transient." *Operations Research* 31:1109–1144.

Holbrook, Thomas M. 2006. "Cognitive Style and Political Learning During the 2000 Presidential Campaign." *Political Research Quarterly* 59:343–352.

Huskinson, Thomas L.H. and Geoff Haddock. 2004. "Assessing Individual Differences in Attitude Structure: Variance in the Chronic Reliance on Affective and Cognitive Information." *Journal of Experimental Social Psychology* 40:82–90.

Jost, John T., Jack Glaser, Arie W. Kruglanski and Frank J. Sulloway. 2003. "Political Conservatism and Motivated Social Cognition." *Psychological Bulletin* 129:339–375.

Kam, Cindy D. 2005. "Who Toes the Party Line? Cues, Values, and Individual Differences." *Political Behavior* 27:163–182.

King, Gary, Michael Tomz and Jason Wittenberg. 2000. "Making the Most of Statistical Analyses: Improving Interpretation and Presentation." *American Journal of Political Science* 44:347–355.

Kruglanski, Arie W. 1989. *Lay Epistemics and Human Knowledge: Cognitive and Motivational Bases*. New York: Plenum Press New York.

Kunda, Ziva. 1990. "The Case for Motivated Reasoning." *Psychological Bulletin* 108:480–498.

Lau, Richard R. and David P. Redlawsk. 2006. *How Voters Decide: Information Processing During Election Campaigns*. New York: Cambridge University Press.

Lavine, Howard G., Christopher D. Johnston and Marco R. Steenbergen. 2012. *The Ambivalent Partisan: How Critical Loyalty Promotes Democracy*. Oxford: Oxford University Press.

Lodge, Milton and Charles S. Taber. 2005. "The Automaticity of Affect for Political Leaders, Groups, and Issues: An Experimental Test of the Hot Cognition Hypothesis." *Political Psychology* 26:455–482.

Lupia, Arthur and Mathew D. McCubbins. 1998. *The Democratic Dilemma: Can Citizens Learn What They Need to Know?* New York: Cambridge University Press.

Maghsoodloo, Saeed and Ching-Ying Huang. 2010. "Comparing the Overlapping of Two Independent Confidence Intervals with a Single Confidence Interval for Two Normal Population Parameters." *Journal of Statistical Planning and Inference* 140:3295–3305.

Maio, Gregory R. and Victoria M. Esses. 2001*a*. "The Need for Affect: Individual Differences in the Motivation to Approach or Avoid Emotions." *Journal of Personality* 69:583–615.

Maio, Gregory R. and Victoria M. Esses. 2001*b*. "The Need for Affect: Individual Differences in the Motivation to Approach or Avoid Emotions." *Journal of Personality* 69:583–615.

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

Martin, Andrew D., Kevin M. Quinn and Jong Hee Park. 2013. "Markov Chain Monte Carlo (MCMC) Package." `http://mcmcpack.wustl.edu`, Version 1.3-3.

Mayer, Nicole D and Zakary L Tormala. 2010. "'Think' Versus 'Feel' Framing Effects in Persuasion." *Personality and Social Psychology Bulletin* 36(4):443–454.

Mayhew, David. 1974. *The Electoral Connection*. New Haven: Yale University Press.

McGraw, Kathleen M. 1990. "Avoiding Blame: An Experimental Investigation of Political Excuses and Justifications." *British Journal of Political Science* 20:119–131.

Mondak, Jeffery J., Matthew V. Hibbing, Damarys Canache, Mitchell A. Seligson and Mary R. Anderson. 2010. "Personality and Civic Engagement: An Integrative Framework for the Study of Trait Effects on Political Behavior." *American Political Science Review* 104:85–110.

Neal, Radford M. 1996. *Bayesian learning for Neural Networks*. Lecture Notes in Statistics. New York: Springer.

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

Oxley, Douglas R, Kevin B Smith, John R Alford, Matthew V Hibbing, Jennifer L Miller, Mario Scalora, Peter K Hatemi and John R Hibbing. 2008. "Political Attitudes Vary with Physiological Traits." *Science* 321:1667–1670.

Petty, Richard E. and Duane T. Wegener. 1998. Attitude Change: Multiple Roles for Persuasion Variables. In *The Handbook of Social Psychology*, ed. Daniel T. Gilbert, Susan T. Fiske and Gardner Lindzey. 4 ed. Vol. 1 New York: McGraw-Hill pp. 323–390.

Petty, Richard E. and John T. Cacioppo. 1986. *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*. New York: Springer-Verlag.

Petty, Richard E. and Pablo Brinol. 2002. Attitude Change: The Elaboration Likelihood Model of Persuasion. In *Marketing for Sustainability: Towards Transactional Policy Making*, ed. Gerard C. Bartels and Wil Nelissen. IOS Press pp. 176–190.

Quinn, Kevin M. 2004. "Bayesian Factor Analysis for Mixed Ordinal and Continuous Responses." *Political Analysis* 12:338–353.

R Development Core Team. 2013. "R: A Language and Environment for Statistical Computing." Vienna: R Foundation for Statistical Computing, Version 3.0.0.

Redlawsk, David P., Andrew J. W. Civettini and Karen M. Emmerson. 2010. "The Affective Tipping Point: Do Motivated Reasoners Ever "Get It"?" *Political Psychology* 34(4):563–593.

Sides, John and Lynn Vavreck. 2013. *The Gamble: Choice and Chance in the 2012 Presidential Election*. Princeton, NJ: Princeton University Press.

Stimson, James A., Michael B. MacKuen and Robert S. Erikson. 1995. "Dynamic Representation." *American Political Science Review* 89:543–565.

Taber, Charles S. and Milton Lodge. 2006. "Motivated Skepticism in the Evaluation of Political Beliefs." *American Journal of Political Science* 50:755–769.

Treier, Shawn and Simon Jackman. 2008. "Democracy as a Latent Variable." *American Journal of Political Science* 52:201–217.

Valentino, Nicholas A, Ted Brader, Eric W. Groenendyk, Krysha Gregorowicz and Vincent L Hutchings. 2011. "Election Night's Alright for Fighting: The Role of Emotions in Political Participation." *Journal of Politics* 73(1):156–170.

van Schuur, Wijbrandt H. 2011. *Ordinal Item Response Theory: Mokken Scale Analysis.* Los Angeles: Sage.

Wlezien, Christopher, Mark Franklin and Daniel Twiggs. 1997. "Economic Perceptions and Vote Choice: Disentangling the Endogeneity." *Political Behavior* 19:7–17.

Zaller, John. 1992. *The Nature and Origins of Mass Opinion.* Cambridge: Cambridge University Press.

Zheng, Xiaohui and Sophia Rabe-Hesketh. 2007. "Estimating Parameters of Dichotomous and Ordinal Item Response Models with gllamm." *The Stata Journal* 7:313–333.

Shirking Treatment
Governor *Name* (*State — Party*) cut millions of dollars in state funding for public safety. As a result, the number of fire safety, police, and other criminal justice personnel will be severely reduced, and the purchase of new safety equipment will decline significantly. The governor supported these cuts so that spending could be raised in other areas.
Loyal Treatment
Governor *Name* (*State — Party*) refused to sign into law a bill that would cut millions of dollars in state funding for public safety. The governor's opposition to the bill will protect against severe reductions in the number of fire safety, police, and other criminal justice personnel, and will ensure that local governments can purchase new safety equipment. Instead, the governor advocates cutting spending in other areas.

Table 1: *Text of Items.*

	Model 1 (Complete Model)	Model 2 (Without Random Intercepts)	Model 3 (With Covariates)
	Coefficient (S.D.)	Coefficient (S.D.)	Coefficient (S.D.)
Positive Disclosure [PD] (β_1)	9.4599**	9.4650**	9.3717**
	(1.4500)	(1.4452)	(1.4654)
Need For Cognition [NFC] (β_2)	−0.4778	−0.4931	−0.3807
	(0.3418)	(0.3394)	(0.3598)
Need For Affect [NFA] (β_3)	2.9943**	3.0023**	2.5158**
	(0.7370)	(0.7335)	(0.7565)
NFC × NFA (β_4)	−1.3030	−1.3699	−0.8508
	(0.8866)	(0.8813)	(0.8925)
NFC × PD (β_5)	3.3110**	3.2951**	3.0869**
	(0.6736)	(0.6731)	(0.6894)
NFA × PD (β_6)	−1.8430*	−1.8336*	−1.6203
	(1.0448)	(1.0461)	(1.0661)
NFC × NFA × PD (β_7)	2.0302	2.1385*	2.0320
	(1.2672)	(1.2643)	(1.2831)
Democrat			−1.0331
			(2.4818)
Age			−0.0372
			(0.0568)
Education			−0.0513
			(0.5594)
Female			1.6038
			(1.4294)
Income			0.3113
			(0.3147)
White			1.3469
			(1.7749)
Conservatism			0.0876
			(0.9442)
Constant (α)	−1.5232	−1.9074*	−3.2892
	(1.1004)	(1.0317)	(5.5538)
State Random Intercepts	*Yes*	*No*	*Yes*
Number of Respondents	661	661	661
Groups	44	44	44
Iterations	10,000	10,000	10,000

Table 2: *Change in Assessment of Governors*
Notes: The dependent variable measures the difference in assessments of respondents' governor between times $t+1$ and t. The standard deviations of the posterior coefficient distributions are shown in parentheses (analogous to standard errors). * denotes $p \leq 0.1$ and ** denotes $p \leq 0.05$.

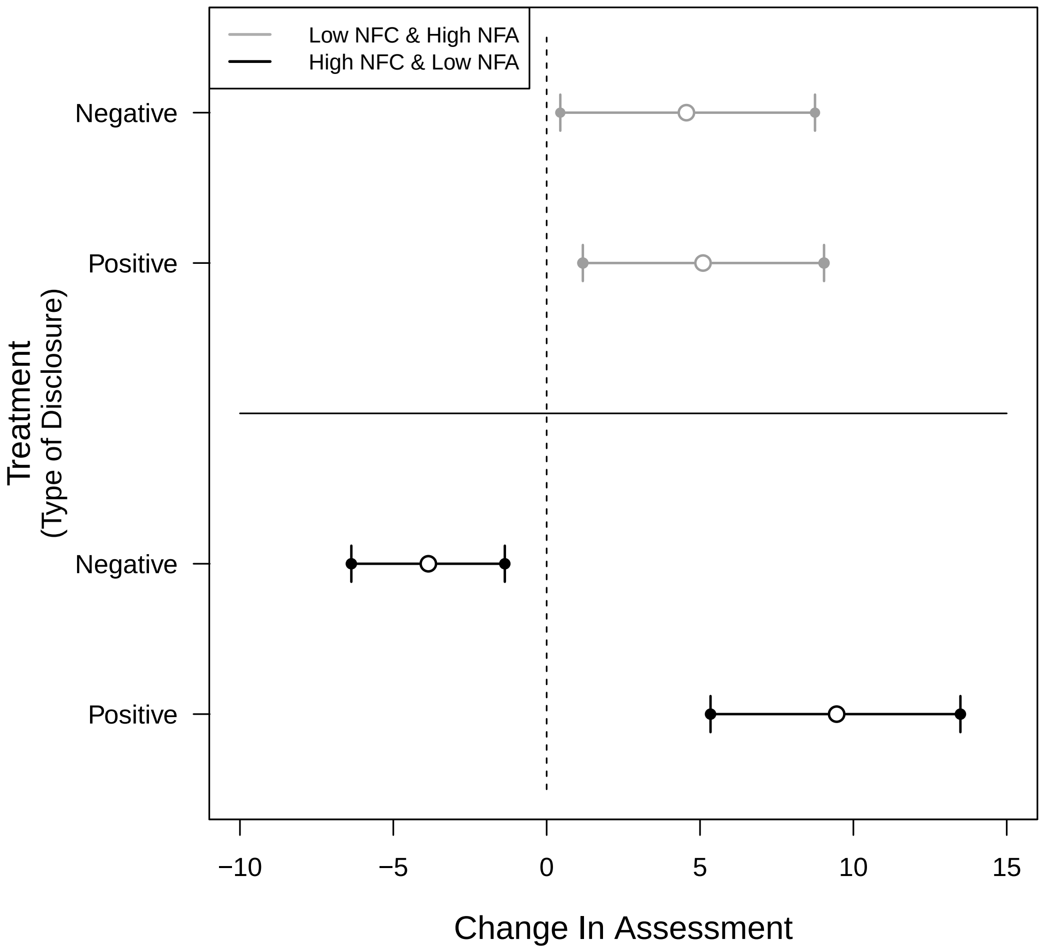
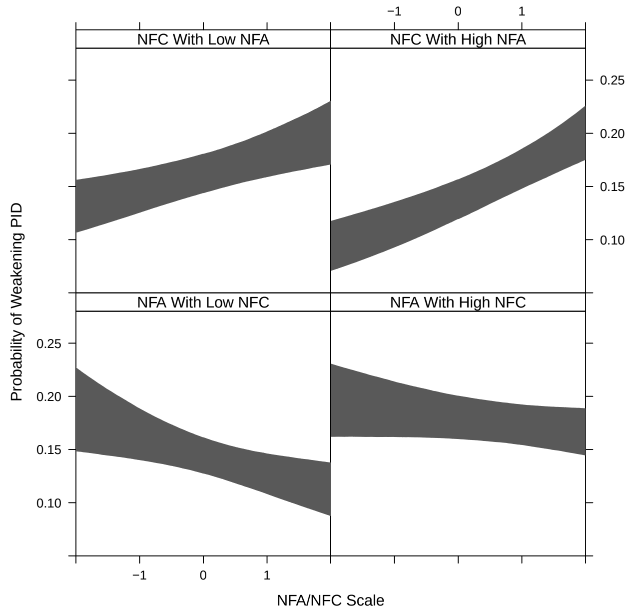


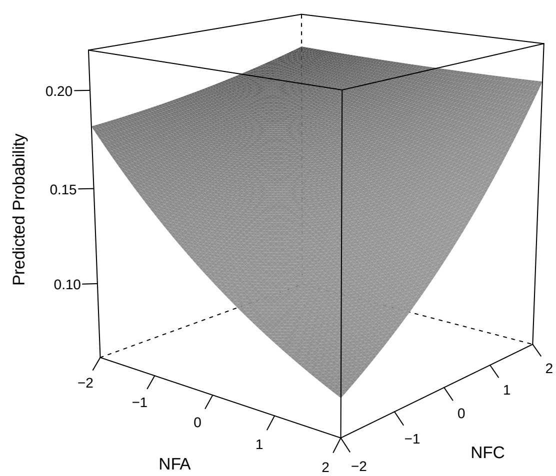
Figure 1: *Predicted Change in Assessment of Governor by Low-NFC/High-NFA and High-NFC/Low-NFA Respondents.*
Notes: Predictions are based upon the complete model (Model 1). High levels of NFC/NFA are set to the 99th percentile of the posterior means, while low levels of NFC/NFA are set to the 1st percentile. See Section 2 of the Supplemental Appendix for the predictions using Models 2 and 3.

	Weakening PID		Straight-Ticket Voting	
	Coefficient (S.D.)		Coefficient (S.D.)	
Need For Cognition [NFC] (β_1)	0.1519**	0.1560**	−0.1392**	−0.2063**
	(0.0415)	(0.0450)	(0.0598)	(0.0682)
Need For Affect [NFA] (β_2)	−0.1038*	−0.1188**	0.0120	−0.0102
	(0.0556)	(0.0598)	(0.0719)	(0.0822)
NFC × NFA (β_3)	0.0555	0.0596	0.0608	0.0395
	(0.0475)	(0.0474)	(0.0696)	(0.0735)
Democrat$_{t+1}$	0.2376	0.2661	0.5753**	0.7537**
	(0.2119)	(0.2134)	(0.2747)	(0.2918)
Age	−0.0057	−0.0066	−0.0018	−0.0048
	(0.0052)	(0.0057)	(0.0071)	(0.0076)
Education	−0.0067	0.0035	−0.0756	−0.0826
	(0.0564)	(0.0574)	(0.0729)	(0.0738)
Female	0.2423	0.2228	0.1707	0.0781
	(0.1574)	(0.1640)	(0.2068)	(0.2225)
Income	0.0253	0.0244	−0.0288	−0.0294
	(0.0221)	(0.0227)	(0.0284)	(0.0230)
White	−0.0919	−0.0741	−0.2786	−0.1449
	(0.1673)	(0.1733)	(0.2553)	(0.2659)
Conservatism$_{t+1}$	0.1161	0.1240	0.1032	0.1426
	(0.0850)	(0.0859)	(0.1126)	(0.1170)
Political Awareness	−0.3455	−0.4059	1.8897**	1.8164**
	(0.3107)	(0.3163)	(0.4073)	(0.4173)
Extraversion		−0.0458		0.0705
		(0.1152)		(0.1539)
Agreeableness		0.0267		0.2382
		(0.1641)		(0.2161)
Conscientiousness		0.0293		0.1692
		(0.1416)		(0.1889)
Neuroticism		0.0285		−0.1196
		(0.1181)		(0.1527)
Openness		0.1023		0.0449
		(0.1517)		(0.1999)
Constant (α)	−1.8120	−1.8036**	0.2760	0.2788
	(0.5519)	(0.5631)	(0.7356)	(0.7766)
Number of Respondents	869	844	487	474
Iterations	10,000	10,000	10,000	10,000

Table 3: *Likelihood of Weakening Party Identification and Straight-Ticket Voting as a Function of NFC and NFA*
Notes: The dependent variable in the Weakening PID model measures whether a respondent weakened her party identification between time t and $t+1$. The dependent variable in the Straight-Ticket Voting model measures whether a respondent reported casting a straight-ticket vote in the 2012 elections. The standard deviations of the posterior coefficient distributions are shown in parentheses (analogous to standard errors). * denotes $p \leq 0.1$ and ** denotes $p \leq 0.05$.

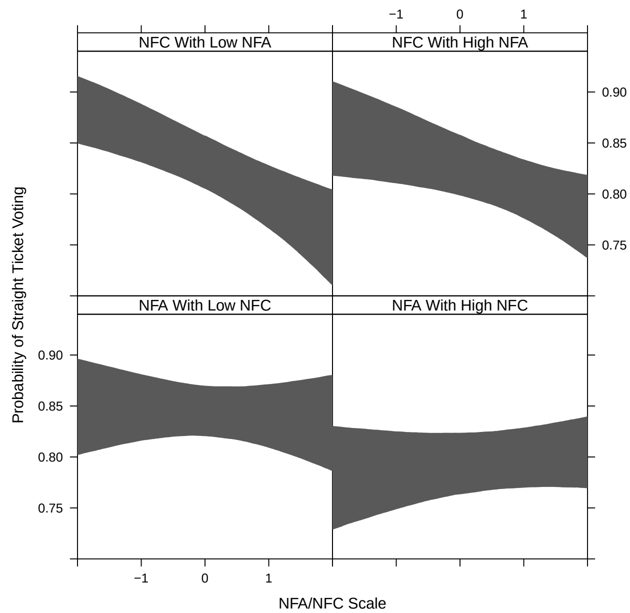


(a)

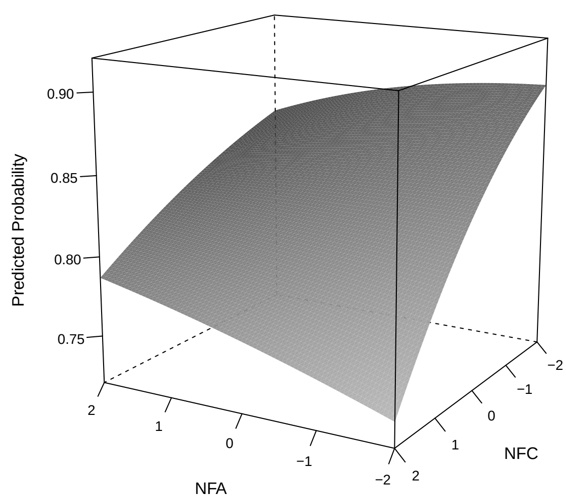


(b)

Figure 2: *Predictions for the Likelihood of Weakening Party Identification as a Function of NFC and NFA*
Notes: Panel (a) shows the marginal predicted probabilities of weakening party identification allowing NFC (NFA) to vary while holding NFA (NFC) to one standard deviation above and below the mean of the distribution of posterior means (see Weakening PID Model in Table 3), and Panel (b) shows the predicted probabilities of weakening party identification allowing both NFC and NFA to vary across all values.



(a)



(b)

Figure 3: *Predictions for the Likelihood of Straight-Ticket Voting as a Function of NFC and NFA*
Notes: Panel (a) shows the marginal predicted probabilities of straight-ticket voting allowing NFC (NFA) to vary while holding NFA (NFC) to one standard deviation above and below the mean of the distribution of posterior means (see Straight-Ticket Voting Model in Table 3), and Panel (b) shows the predicted probabilities of straight-ticket voting allowing both NFC and NFA to vary across all values.

Democratic Accountability for Some: Individual Differences in How Partisans Process Political Information

Supplemental Appendix

Kevin Arceneaux & Ryan J. Vander Wielen

1 Descriptive Statistics

	Need For Cognition (NFC)	Need For Affect (NFA)
Average Posterior Distribution Statistics:		
Mean	0.2568	−0.0155
Standard Deviation	0.5741	0.4578
Correlation Between Conventional Factor Scores & Posterior Means	0.9817	0.9875

Table 1: *Descriptive Statistics (Study 1).* The distribution-related statistics (i.e., mean and standard deviation) summarize the average posterior distribution for the given scale. Space prevents us from offering such statistics for every respondent.

	Need For Cognition (NFC)	Need For Affect (NFA)
Average Posterior Distribution Statistics:		
Mean	0.3119	0.3500
Standard Deviation	0.8515	0.8107
Correlation Between Conventional Factor Scores & Posterior Means	0.9372	0.9147

Table 2: *Descriptive Statistics (Study 2).* The distribution-related statistics (i.e., mean and standard deviation) summarize the average posterior distribution for the given scale. Space prevents us from offering such statistics for every respondent.

2 Predictions for Alternative Specifications of Equation 2

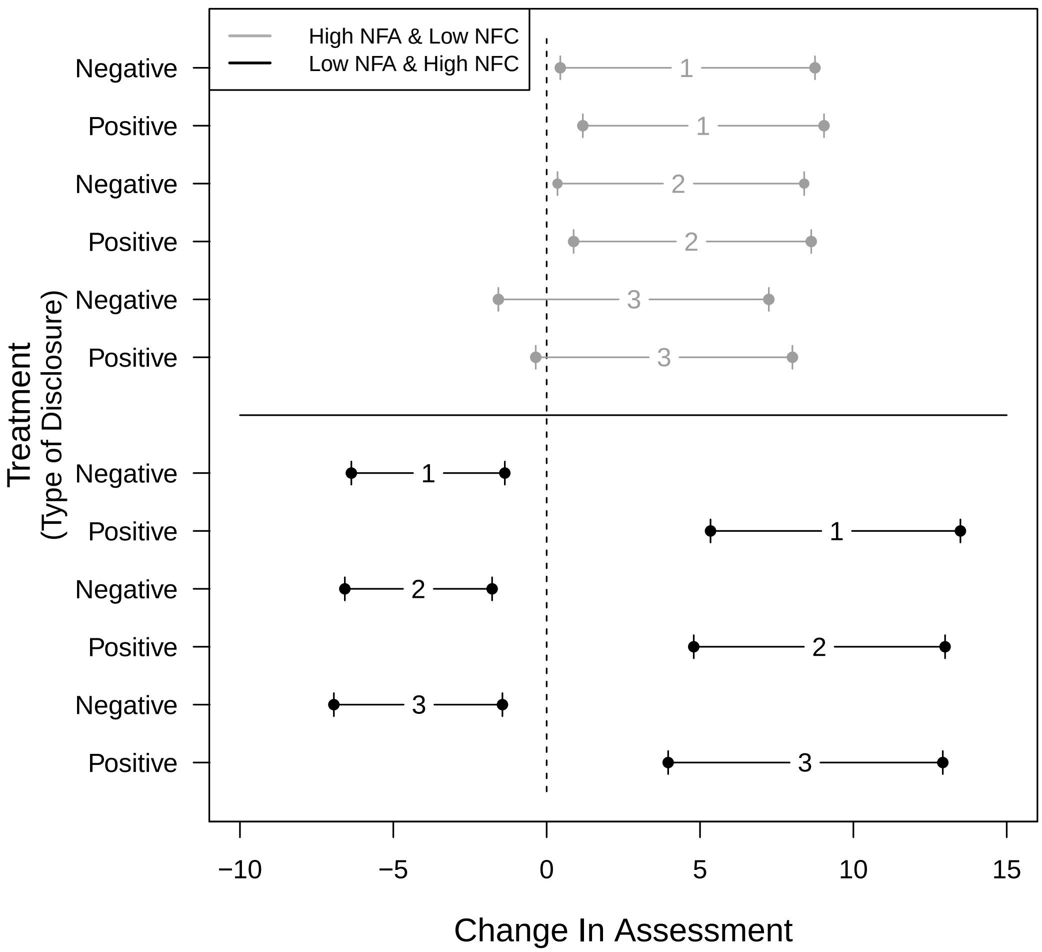


Figure 1: *Predicted Change in Assessment of Governor by Low-NFC/High-NFA and High-NFC/Low-NFA Respondents.*
Notes: Predictions are given for each of the models shown in Table 2 in the manuscript. High levels of NFC/NFA are set to the 99th percentile of the posterior means, while low levels of NFC/NFA are set to the 1st percentile. All other variables are held at their mean, when included.

3 Frequentist Specifications of Models

	Model 1 (Complete Model)	**Model 2 (Without Random Intercepts)**	**Model 3 (With Covariates)**
	Coefficient (S.D.)	Coefficient (S.D.)	Coefficient (S.D.)
Shirking (β_1)	9.6609**	9.6482**	9.7130**
	(1.37452)	(1.3858)	(1.3953)
Need For Cognition [NFC] (β_2)	−0.9237	−0.8869	−0.8230
	(0.9677)	(0.9749)	(1.0089)
Need For Affect [NFA] (β_3)	1.7447*	1.7260*	1.5893
	(1.0509)	(1.0589)	(1.0854)
NFC × NFA (β_4)	0.0350	−0.0158	0.3017
	(0.9474)	(0.9545)	(0.9589)
NFC × Shirking (β_5)	2.6712*	2.6545*	2.7836*
	(1.4625)	(1.4740)	(1.4913)
NFA × Shirking (β_6)	−0.6449	−0.6241	−0.7031
	(1.4513)	(1.4640)	(1.4733)
NFC × NFA × Shirking (β_7)	0.0223	0.0902	−0.3289
	(1.2166)	(1.2271)	(1.2303)
Democrat			0.9558
			(2.5495)
Age			−0.0841
			(0.0563)
Education			0.1373
			(0.5639)
Female			1.5332
			(1.4347)
Income			0.1971
			(0.3142)
White			1.3223
			(1.7853)
Conservatism			0.8903
			(0.9607)
Constant (α)	−1.4193	−1.7706*	−5.0815
	(1.0268)	(0.9777)	(5.4895)
State Random Intercepts	*Yes*	*No*	*Yes*
Number of Respondents	661	661	661
Groups	44	44	44

Table 3: *Change in Assessment of Governors*
Notes: The dependent variable measures the difference in assessments of respondents' governor between times $t + 1$ and t. The standard errors are shown in parentheses. * denotes $p \leq 0.1$ and ** denotes $p \leq 0.05$.

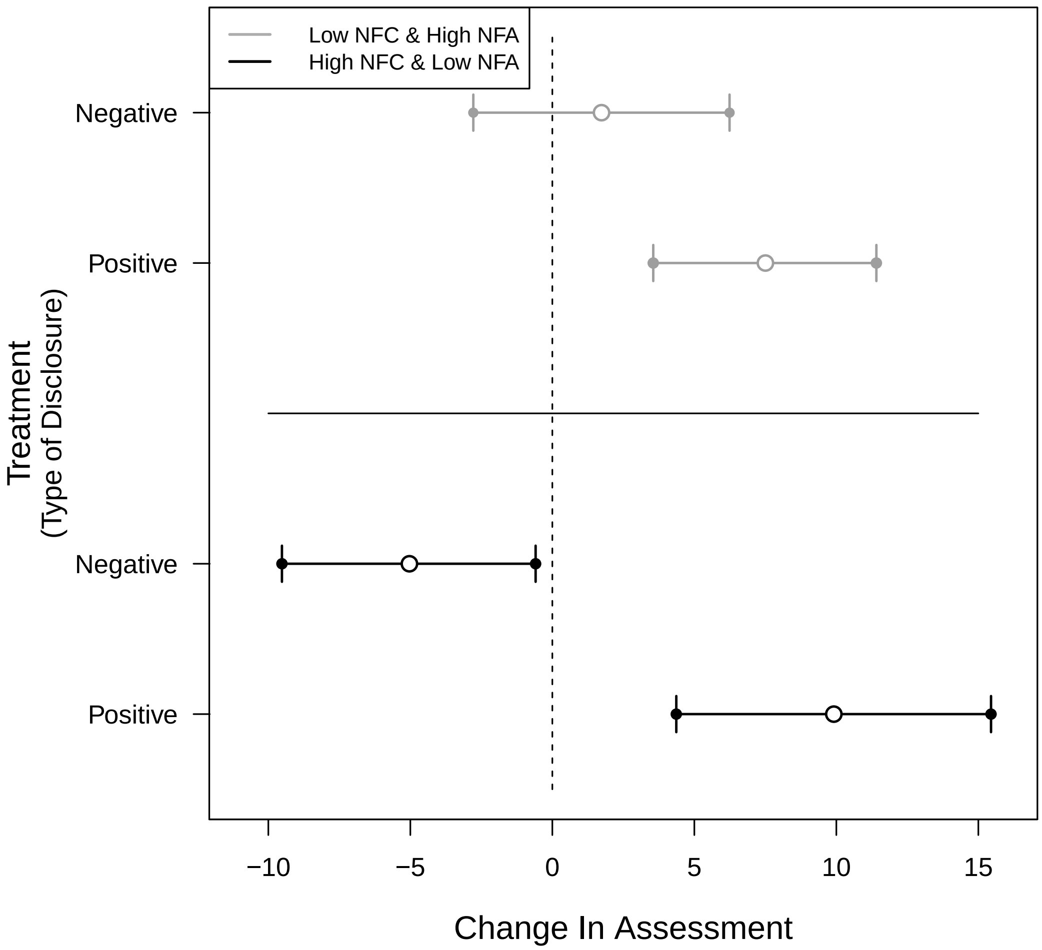
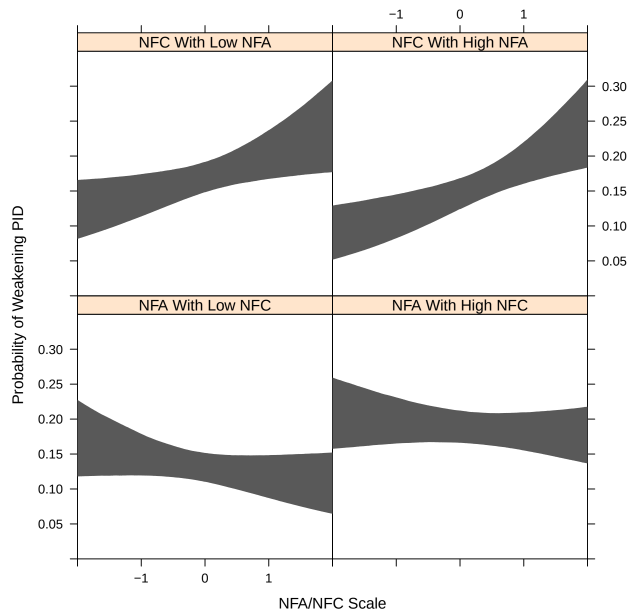


Figure 2: *Predicted Change in Assessment of Governor by Low-NFC/High-NFA and High-NFC/Low-NFA Respondents.*
Notes: Predictions are based upon the complete model (Model 1). High levels of NFC/NFA are set to the 99th percentile of the posterior means used in the predictions appearing in the manuscript (for sake of comparability), while low levels of NFC/NFA are set to the 1st percentile.

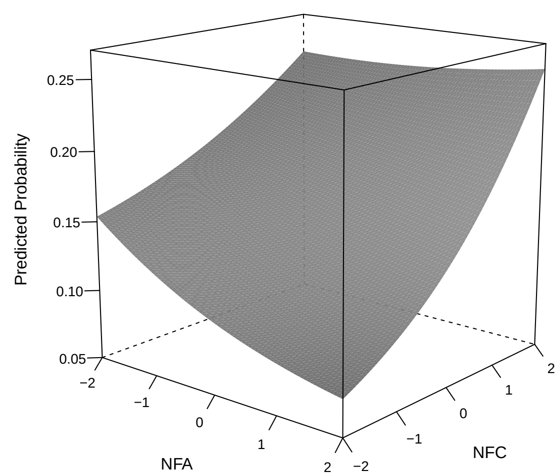
	Weakening PID	**Straight-Ticket Voting**
	Coefficient (S.D.)	Coefficient (S.D.)
Need For Cognition [NFC] (β_1)	0.2639**	-0.2517*
	(0.1056)	(0.1522)
Need For Affect [NFA] (β_2)	-0.0989	-0.0225
	(0.0947)	(0.1350)
NFC $\times$ NFA (β_3)	0.0573	0.0330
	(0.0900)	(0.1390)
Democrat$_{t+1}$	0.2434	0.7601**
	(0.2113)	(0.2898)
Age	-0.0066	-0.0052
	(0.0059)	(0.0071)
Education	-0.0061	-0.0761
	(0.0577)	(0.0761)
Female	0.2422	0.0708
	(0.1629)	(0.2262)
Income	0.0238	-0.0285
	(0.0231)	(0.0304)
White	-0.0665	-0.1368
	(0.1750)	(0.2676)
Conservatism$_{t+1}$	0.1214	0.1418
	(0.0874)	(0.1224)
Political Awareness	-0.4420	1.8415**
	(0.3237)	(0.4184)
Extraversion	-0.0353	0.0738
	(0.1171)	(0.1577)
Agreeableness	0.0336	0.2328
	(0.1695)	(0.2147)
Conscientiousness	0.0267	0.1877
	(0.1412)	(0.1967)
Neuroticism	0.0233	-0.1312
	(0.1226)	(0.1513)
Openness	0.0706	0.0736
	(0.1559)	(0.2011)
Constant (α)	-1.7192**	0.1776
	(0.5633)	(0.7705)
Number of Respondents	829	469

Table 4: *Likelihood of Weakening Party Identification and Straight-Ticket Voting as a Function of NFC and NFA*

Notes: The dependent variable in the Weakening PID model measures whether a respondent weakened her party identification between time t and $t+1$. The dependent variable in the Straight-Ticket Voting model measures whether a respondent reported casting a straight-ticket vote in the 2012 elections. The standard errors are shown in parentheses. * denotes $p \leq 0.1$ and ** denotes $p \leq 0.05$.

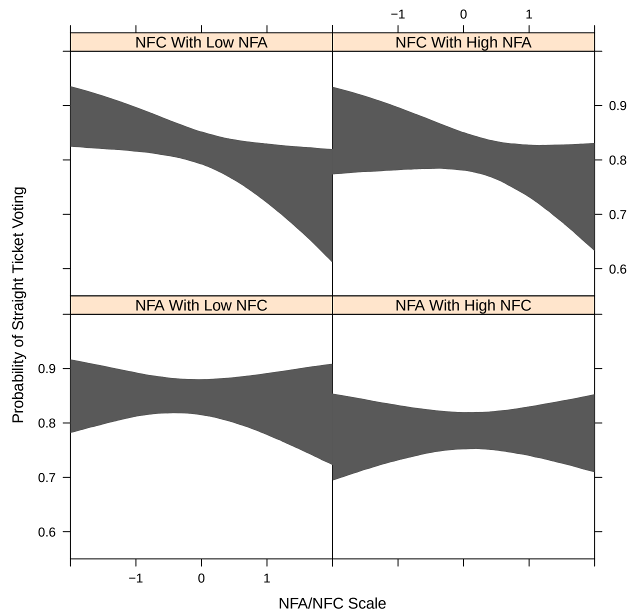


(a)

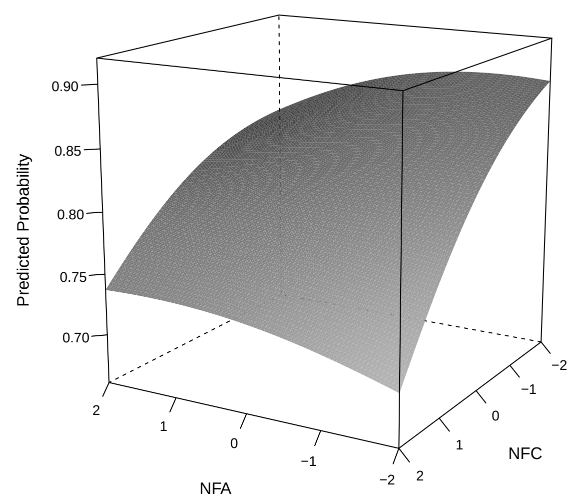


(b)

Figure 3: *Predictions for the Likelihood of Weakening Party Identification as a Function of NFC and NFA*
Notes: Panel (a) shows the marginal predicted probabilities of weakening party identification allowing NFC (NFA) to vary while holding NFA (NFC) to one standard deviation above and below the mean of the distribution of posterior means as used in the predictions appearing in the manuscript (for sake of comparability), and Panel (b) shows the predicted probabilities of weakening party identification allowing both NFC and NFA to vary across all values.



(a)



(b)

Figure 4: *Predictions for the Likelihood of Straight-Ticket Voting as a Function of NFC and NFA*
Notes: Panel (a) shows the marginal predicted probabilities of straight-ticket voting allowing NFC (NFA) to vary while holding NFA (NFC) to one standard deviation above and below the mean of the distribution of posterior means as used in the predictions appearing in the manuscript (for sake of comparability), and Panel (b) shows the predicted probabilities of straight-ticket voting allowing both NFC and NFA to vary across all values.

4 Relationship between NFC/NFA and Big 5 Traits

	NFC		**NFA**	
	Coefficient (S.D.)		Coefficient (S.D.)	
	Bivariate	Multivariate	Bivariate	Multivariate
Extraversion	0.0837**	−0.0239	0.2366**	0.1773**
	(0.0411)	(0.0398)	(0.0386)	(0.0378)
Agreeableness	0.1049**	−0.1647**	0.3918**	0.3086**
	(0.0508)	(0.0549)	(0.0470)	(0.0522)
Conscientiousness	0.2327**	0.1108**	0.2445**	0.0990**
	(0.0436)	(0.0467)	(0.0414)	(0.0444)
Neuroticism	−0.2227**	−0.1461**	−0.1241**	0.0642*
	(0.0361)	(0.0397)	(0.0349)	(0.0377)
Openness	0.5136**	0.4783**	0.4208**	0.2850**
	(0.0447)	(0.0483)	(0.0434)	(0.0459)
Constant (α)		0.3129**		0.3506**
		(0.0255)		(0.0242)
Number of Respondents		970		970

Table 5: *Relationship Between NFC/NFA and Big 5 Traits*
Notes: The dependent variables in the NFC and NFA models are measured as the means of the NFC and NFA posterior distributions for each respondent, respectively. The bivariate models present the coefficients and standard errors (in parentheses) for each of the big 5 traits using a bivariate specification (constants included in estimation but not presented in table), while the multivariate models present the results with all big 5 traits included. * denotes $p \leq 0.1$ and ** denotes $p \leq 0.05$.