

Essays on the Moderating Role of Political Engagement in Political Preference Formation

by

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Defense Date: June 27th, 2024

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Dissertation submitted in partial fulfillment of the requirements for the degree of Doctor
of Philosophy in the Department of Political Science in The Graduate School of
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ABSTRACT

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Abstract

In this dissertation, I explore how Americans' attentiveness to, interest in, and knowledge about politics—i.e., their level of political engagement—shapes the way their psychological traits manifest into political preferences. Some Americans are highly engaged with politics, following political news closely and being attentive to current affairs. Other Americans pay little attention to politics and exhibit very little knowledge about current affairs. These varying levels of political engagement are consequential in shaping how psychological traits are translated by citizens into political preferences in many issue areas. Examining decades of national US survey data from an array of sources (2008-2020), I identify political engagement as a key moderating variable in the relationships between (1) dispositional authoritarianism and responses to the COVID pandemic; (2) dispositional needs for certainty and security (NSC) and preferences for collective security; and (3) rural place-based consciousness and partisan-ideological identity and economic attitudes. In some cases, I find political engagement compounds the relationships of psychological traits to political preferences; for example, political engagement strengthens the associations of needs for security and certainty with hawkish foreign policy attitudes and tough-on-crime preferences. But in other cases, political engagement attenuates and reverses altogether the relationships of traits to political preferences; for example, the relationship between authoritarianism and preferences for COVID restrictions flips from positive at low political engagement to negative at high political engagement. Examining a diverse set of psychological traits and political attitudes, my findings consistently show the importance of political engagement as a moderator of political preference formation in the United States.

Contents

Abstract.....	iv
List of Tables	viii
List of Figures.....	ix
Acknowledgements.....	x
1. Introduction.....	1
2. The Heterogeneous Associations of Rural Consciousness with Political Preferences	9
2.1 Rural Consciousness and the Politics of Place	12
2.2 Instrumental vs. Symbolic Politics and the Role of Political Engagement	13
2.3 The Heterogeneous Effects of Rural Consciousness.....	17
2.4 Data	19
2.5 Methods.....	20
2.5.1 Rural Consciousness	20
2.5.2 Political Engagement.....	21
2.5.3 Partisanship and Ideology	22
2.5.4 Economic Policy Preferences.....	23
2.5.5 Trade Policy Preferences.....	23
2.5.6 Controls	23
2.6 Results	24
2.6.1 Rural Consciousness and Partisan-Ideological Identity	24
2.6.2 Rural Consciousness and Economic Preferences	27
2.6.3 Elite Cues and Economic Preference Formation: The Case of Trade	29
2.6.4 Out of Sample Replications.....	31

2.7 Discussion	34
2.8 Conclusion.....	35
3. The Conditional Relationships of Authoritarianism with COVID-19 Attitudes, Health Behaviors, and Policy Preferences.....	38
3.1 Authoritarianism and its Conditional Relationships to Political Preferences.....	42
3.2 The Conditional Effects of Authoritarianism on COVID-19 Responses	45
3.3 Data	49
3.4 Methodology	52
3.4.1 Authoritarianism.....	52
3.4.2 Political Engagement.....	53
3.4.3 Dependent Variables	54
3.4.4 Controls	55
3.5 Results	56
3.6 Discussion	61
3.7 Conclusion.....	64
4. The Conditional Relationships of Needs for Security and Certainty with Collective Security Preferences.....	67
4.1 Dispositional Needs for Security and Certainty and Political Attitudes.....	69
4.2 Political Engagement, Partisan-Ideological Cues, and Collective Security Issues.....	72
4.3 Data	76
4.4 Methodology	79
4.4.1 Needs for Security and Certainty	79
4.4.2 Political Engagement.....	81
4.4.3 Collective Security Preferences.....	83
4.4.4 Controls	84

4.5 Results	84
4.5.1 Needs for Security and Certainty Often, but Do Not Always, Correlate with Preferences for Collective Security	84
4.5.2 The Relationships of Needs for Security and Certainty with Preferences for Collective Security Varies by Issue and Political Engagement	88
4.6 Conclusion.....	94
5. Conclusion	99
5.1 Summary of Findings	99
5.2 Future Directions	101
Appendix A. Supplemental Material for Chapter 2	105
A.1 Data Descriptions	105
A.2 Question Wordings and Variable Operationalization.....	107
A.3 Economic Policy Results by Item.....	116
A.4 Robustness Checks	117
Appendix B. Supplemental Material for Chapter 3	129
B.1 Data Descriptions.....	129
B.2 Question Wordings and Variable Operationalization	131
Appendix C. Supplemental Material for Chapter 4	147
C.1 Data Descriptions.....	147
C.2 Question Wordings and Variable Operationalization	151
References.....	176

List of Tables

Table 1: Rates of Political Participation by Political Engagement Tercile (2020 ANES)	7
Table 2: Replication Samples from Previous Studies of Rural Consciousness	32
Table 3: Sample Characteristics.....	51
Table 4: Sample Characteristics. Bold issues indicate Democrats/liberals stake out pro-security positions; non-bold indicate Republicans/conservatives stake out pro-security positions	78

List of Figures

Figure 1: Conditional Associations of Material Interests and Partisanship with Economic Preferences.....	17
Figure 2: Distributions of Rural Consciousness and Political Engagement	21
Figure 3: Conditional Associations of Rural Consciousness to Partisan-Ideological Orientation.	25
Figure 4: Conditional Associations of Rural Consciousness to Economic Preferences	28
Figure 5: Conditional Associations of Rural Consciousness to Anti-Trade Preferences.....	31
Figure 6: Out-of-Sample Replications	33
Figure 7: Conditional Associations of Authoritarianism with Right-Wing Identities	45
Figure 8: Conditional Associations of Authoritarianism with COVID-19 Concern.....	56
Figure 9: Conditional Associations of Authoritarianism with Support for Public Health Restrictions	58
Figure 10: Conditional Associations of Authoritarianism with Health Behavior Uptake	60
Figure 11: Associations of Authoritarianism with Partisan-Ideological Orientation.....	71
Figure 12: Associations Between Needs for Security and Certainty and Collective Security Preferences.....	87
Figure 13: Interactions Between Dispositions and Political Engagement by Issue	90
Figure 14: Associations of Dispositions with Collective Security Preferences at Low vs. High Binned Political Engagement.....	93

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1. Introduction

This dissertation studies the moderating role of political engagement—defined as interest in, attention to, and knowledge about politics—for public opinion formation in the United States. In three essays, I demonstrate that politically disengaged and politically engaged Americans often translate psychological traits to political preferences in different ways. I argue these conditional relationships illustrate the profound differences in underlying motivations which drive political preference formation in the US for engaged vs. disengaged individuals, adding nuance to debates in political science over the relative influence of self-interest vs. identity in political preferences. I find politically disengaged Americans are generally more instrumental in their outlook, forming political preferences that resonate with their psychological dispositions and material interests. By contrast, politically engaged Americans are more likely to prioritize identity-based interests, sorting into partisan-ideological groups that resonate with their psychological dispositions and then adopting an array of preferences that signal and reinforce their congruence with political ingroups—even if such preferences are at odds with their material interests. This incorporation of partisan-ideological cues by the politically engaged in turn opens an indirect channel through which the relationships between psychological traits and political preferences can compound, attenuate, or even reverse entirely depending on the cues being offered by political elites.

Primarily, this dissertation research seeks to add nuance to various literatures that use plausibly pre-political psychological traits to explain political preferences. I join recent political psychologists who note that psychological traits interact with political context to shape political preferences; no trait exists in a political vacuum (e.g., Malka et al. 2014; Johnston, Lavine, and Federico 2017; Federico and Malka 2018), and this is crucial to understanding how traits map to political preferences across individuals and contexts. In the US case, the political context is one

of intense elite-level polarization along a single left-right ideological dimension that bundles cultural and economic ideologies (Fiorina and Abrams 2008; Lupton, Myers, and Thornton 2015). This elite-level polarization has important downstream consequences for the formation of political preferences among Americans because many Americans sort into parties on the basis of cultural preferences, then adopt an array of political attitudes to maintain ideological congruence with elites from political ingroups (Hetherington 2001; Abramowitz 2010; Lenz 2012; Druckman, Peterson, and Slothuus 2013). Partisan-ideological sorting and cue-taking are highly pronounced for politically engaged Americans; in turn, political engagement often plays a central moderating role in how citizens translate psychological traits to political preferences, especially outside of the cultural domain (Federico 2021; Johnston, Lavine, and Federico 2017; Ollerenshaw and Johnston 2022).

My dissertation also helps clarify the fundamental differences in approaches to political preference formation for politically disengaged and engaged Americans.¹ Political engagement is sometimes viewed as an unalloyed good for democratic processes because politically engaged citizens should, in theory, be well-equipped to represent their interests in politics (Carpini and Keeter 1996; Chong, Citrin, and Conley 2001; Fowler and Margolis 2014). Indeed, politically disengaged Americans are sometimes argued to misrepresent their interests when they participate in politics—as they often, albeit less frequently do—because they may lack the requisite political knowledge to reliably connect their interests to political choices. In this view, politically engaged

¹ Political engagement meaningfully covaries with, but is not reducible to, important demographic variables frequently analyzed in public opinion research. In the 2020 American National Election Study, political engagement (measured as a combination of political interest and political knowledge items) is positively correlated with education ($r=0.38$), age ($r=0.33$), income ($r=0.33$), white race ($r=0.19$), and male sex ($r=0.15$). In a linear model regressing engagement on the five demographic traits, all five remain significant correlates of political engagement, but education and age emerge as the two strongest correlates.

citizens are better at representing themselves because they can correctly identify which parties, policies, and candidates have the best prospects of advancing their political interests.

However, to the extent that interests are defined as material (or instrumental) in nature, recent psychological accounts often show citizens' applications of self-interests attenuate among more politically engaged individuals (Johnston, Lavine, and Federico 2017; Krupnikov and Ryan 2022; see also Brennan and Lomasky 1993 for a related formal model). This down-weighting of material interests in preference formation at higher levels of political engagement reflects the fact that political participation has material costs (e.g., time and effort) that often exceed the marginal material benefit of participation. Johnston et al. (2017), for example, shows material interests are decreasingly associated with related economic preferences as functions of political engagement; I conceptually replicate this result in Chapter 2 and show that as political engagement increases: (1) low income is decreasingly associated with support for redistributive policies; (2) job insecurity is decreasingly associated with support for a federal job guarantee; and (3) poor personal health is decreasingly associated with support for public healthcare. To the extent we define "interests" as material benefits to be accrued from political participation, the politically engaged sometimes do an arguably worse job than the politically disengaged in mapping interests to political decisions.

While it's certainly true that politically engaged Americans have more awareness of how their interests map onto the political world, it is important to keep in mind that the interests being brought to bear in political preferences are not the same for all citizens. If they are not bringing to bear material interests, what do the politically engaged rely on to form political preferences? To understand the motivations of politically engaged Americans, I draw on symbolic politics theories and argue instrumental motivations are often dominated by *identity-based* motivations among the politically engaged (e.g., Sears, Hensler, and Speer 1979; Sears 1993). Proponents of symbolic politics argue citizens' political preferences often hinge less on how a candidate, party, or policy

will affect them materially, and more on how those political preferences reflect the type of person they are and the social groups they identify with. In this view, political identities primarily work to fulfill fundamental psycho-social needs to maintain positive distinctiveness between one's ingroups and outgroups (e.g., Green et al. 2004; Devine 2015; Huddy et al. 2015; Mason 2018). Political preferences in this view thus serve as a way for citizens to adopt, reinforce, and signal their social identities.

Most political scientists agree material and identity-based interests both shape political preferences, but the central role of political engagement in shaping how citizens weigh between these interests has received less attention. Recent psychological studies have shown that citizens' weighting of instrumental motivations *decreases* with political engagement, while their weighting of identity-based motivations *increases* (Johnston, Lavine, and Federico 2017; Federico and Malka 2018; Krupnikov and Ryan 2022; for a related formal model, see Brennan and Lomasky 1993). Johnston et al. (2017), for example, find strong correlations between political engagement and agreement with statements indicating symbolic motivations such as: "My political attitudes and beliefs are an important part of my self-image" and "my political attitudes and beliefs are an important reflection of who I am." As Johnston et al. (2017) show by examining the relationships between psychological traits and economic preferences, politically engaged Americans' symbolic approach opens an indirect channel for psychological traits to affect political preferences via partisan-ideological sorting and cue-taking. In this dissertation, I extend the logic of this two-step model of public opinion formation to a variety of psychological traits and political preferences.

For many Americans, politics is primarily about receiving instrumental, material benefits; e.g., a tax policy that benefits their household's bottom line, or a policing proposal that will help them sleep more soundly at night. These individuals tend to be politically disengaged, with low levels of political interest and knowledge. For others, politics is a venue in which they can adopt,

signal, and reinforce social identities that bolster their self-conception. These individuals tend to be politically engaged. My studies illustrate these underlying motivations to forward instrumental vs. identity-based interests influence how psychological traits manifest as political preferences. Indeed, political engagement has an especially important moderating role when instrumental and identity-based interests conflict; in these cases, psychological traits often have entirely different associations with preferences for politically disengaged and politically engaged Americans.

My work bolsters, extends, and also meaningfully amends Zaller's (1992) predominant account of public opinion formation. Zaller (1992) proposes political opinions can be modeled with a relatively simple "Receive-Accept-Sample" (RAS) model. In the Receive step, citizens experience varying degrees of exposure to political information, often coming top-down from political elites. For information to be received by the citizen, it must be at least comprehensible (though not necessarily agreeable in this stage). Next, citizens either accept the information and incorporate it as a possible consideration for their thinking on issue, perhaps because it connects with predispositions, or resist/reject incongruous information. Finally, Zaller contends political opinions are off-the-cuff products of citizens sampling the various considerations that they have received, comprehended, and accepted. Considerations at the fore of citizens' minds when they are sampling (e.g., when taking a public opinion survey) determine the political opinion offered. Public opinion can therefore be explained by variation in reception, acceptance, and sampling of considerations put forward to citizens primarily by political elites.

Zaller (1992) proposes citizens vary in both predispositions and political engagement (or awareness), that political elites provide the information that helps receptive citizens connect their predispositions to political preferences, and that, in turn, predispositions and political engagement jointly determine mass opinion. Zaller argues a consequence of this model is that where political elites' opinions converge, the politically aware will tend to adopt the consensus position, but that

they will polarize when elites diverge because the aware internalize favorable messages and reject counterarguments (see also Druckman, Peterson, and Slothuus 2013). Readers will find no major objections to these points here; indeed, I frequently offer evidence of such mass polarization for politically engaged citizens when partisan-ideological elites espouse divergent issue positions.

Instead, my amendment to Zaller (1992) and related work on the bases of mass opinion primarily lies in understanding how the politically disengaged form political preferences. Zaller (1992) argues disengaged citizens do not incorporate elites' information in their opinions because they lack exposure to or comprehension of such information. Although I do not argue his position is wholly incorrect, this account elides the reasons *why* citizens are politically disengaged—their latent instrumental orientation towards political participation. In turn, by emphasizing the lack of receptibility to elite information as the primary reason disengaged citizens are less ideological, we risk missing how the same orientation toward political (dis)engagement can, in fact, meaningfully structure how the disengaged navigate politics when they participate—as they often do, at least in terms of key behaviors like voting in general elections (Table 1).² That is, the same instrumental orientation that leads some citizens to be politically disengaged also represents a channel through which they can connect predispositions to political opinions.

I contend politically disengaged citizens are often adequately (if not adeptly) capable of identifying how their instrumental interests map predispositions to political preferences. While they may not be highly attentive to or receptive of information from partisan-ideological elites, instrumental motivations ensure that the politically disengaged are not left rudderless when they form political preferences. And crucially, these instrumental motivations concentrated among

² Unsurprisingly given their instrumental orientation towards politics, Table 2 shows the politically disengaged are extremely unlikely to donate to political causes. Political donations are concentrated among the politically engaged. This relationship between engagement and political donations persists after accounting for socio-economic confounds.

politically disengaged citizens may not cause predispositions to map onto political preferences in the same way as symbolic motivations among politically engaged citizens who rely on elite cues do. Given their high receptivity to elite cues, the politically engaged are susceptible to adopting issue positions that maintain congruence with their symbolic interests as members of partisan-ideological groups, but which are misaligned with their instrumental interests. In such cases, political engagement will play an especially important role in preference formation, not merely strengthening the associations between a predisposition and a political preference via increased awareness, but causing the disengaged and engaged to adopt entirely different issue preferences because they differentially weigh competing instrumental and symbolic considerations.

Table 1: Rates of Political Participation by Political Engagement Tercile (2020 ANES)

	Low Engagement	Moderate Engagement	High Engagement
Turnout (General)	40.9%	71.9%	92.5%
Turnout (Primary)	14.5%	33.9%	61.0%
Political Donations	2.8%	7.2%	36.1%
Talks about Politics	28.6%	46.6%	64.5%
Posts about Politics	17.7%	31.6%	48.1%

This dissertation proceeds by identifying three such cases where political engagement is an important moderator of the relationship between psychological predispositions and political preferences. In Chapter 2, I begin by demonstrating that place-based consciousness among rural Americans is heterogeneously associated with partisan-ideological identification and economic preferences as functions of political engagement. I find rural consciousness is associated with left-wing political identification and economic policy preferences among politically disengaged Americans, but right-wing identification and economic policy preferences among politically engaged Americans. In Chapter 3, I show that psychological authoritarianism, an indicator of dispositional needs for security and certainty, was conditionally associated with Americans' responses to the COVID-19 pandemic, having been related to more stringent responses for the

politically disengaged but lax responses among the engaged. In Chapter 4, I identify an expansive set of contingencies in how needs for security and certainty relate to political preferences, testing for conditional relationships on 38 issues related to public safety and national defense. I find the correspondence between needs for security and certainty with political preferences in these areas is highly contingent on the alignment of partisan-ideological elites along a security-freedom axis. Across all three studies, I illustrate the importance of considering the direct and indirect channels through which psychological traits shape political preferences, taking seriously the motivations that drive opinion formation for both politically engaged and politically disengaged Americans.

2. The Heterogeneous Associations of Rural Consciousness with Political Preferences

As America's urban-rural political schisms have drastically widened in the 21st century, there has been increasing attention to the politics of place among political scientists (Gimpel et al. 2020; Mettler and Brown 2022; Scala and Johnson 2017). Polarization along the urban-rural continuum came to a dramatic head in 2016 when stark rightward rural shifts secured Donald Trump's Electoral College win despite his lackluster national performance. In the wake of rural realignment, a core question animating recent studies of rural politics is: why do rural voters, who on average have lower incomes, weaker employment prospects, and worse health outcomes than those residing in suburban and urban geographies, so often support candidates, parties, and policies that stymie social welfare provision and economic redistribution?

An influential answer to this puzzle can be found in Cramer's (2016) theory of "rural consciousness." Cramer argues that rural Americans are, in fact, considering material interests in their political behavior, but that their material grievances become intertwined with political and cultural grievances. Rural Americans perceive themselves as victims of distributional injustice, political underrepresentation, and cultural marginalization; their perceptions of "who gets what" drive opposition to redistributive economic policies that rural Americans believe take from rural citizens to benefit suburbanites and urbanites. Thus, rural Americans' conservative politics are explained by a wedding of multi-faceted rural grievances that have become increasingly acute amidst globalization, diversification, and rural depopulation (Hochschild 2018; Wuthnow 2018).

Cramer's (2016) theory would resolve the paradox of right-wing rural politics. However, Cramer relies on qualitative interviews to generate her theory of rural consciousness, and recent quantitative tests offer mixed findings. Rural consciousness is certainly prevalent (Munis 2020), and this form of group consciousness should be politically consequential (Miller et al. 1981). Yet

studies using national surveys have not found strong associations between rural consciousness and Republican partisanship (Munis 2020; Trujillo and Crowley 2022; but see Jacobs and Munis 2022), conservative identity (Lunz Trujillo and Crowley 2022), or economic conservatism (Nelsen and Petsko 2021)—three outcomes Cramer (2016) argues go hand-in-hand with rural consciousness.

Recent quantitative studies have cast doubt on Cramer’s qualitatively-derived theory of rural consciousness. I argue, however, that accounting for one crucial but overlooked difference between qualitative and quantitative studies can reconcile their findings—the varying levels of *political engagement* in the samples analyzed. Cramer (2016) interviews a cross-section of rural Wisconsinites who are older, more socially involved and, in turn, more *politically engaged* than the broader rural populace.³ Recent quantitative studies, by contrast, have analyzed surveys that draw in more representative samples, thus including many *politically disengaged* citizens. These diverging distributions are consequential for identifying rural consciousness’s effects on political preferences because disengaged and engaged citizens bring fundamentally different concerns to bear when forming political preferences (Johnston et al. 2017; Krupnikov and Ryan 2022).

In this paper, I join Cramer’s (2016) theory of rural consciousness with existing theories of instrumental and symbolic political behavior to explain why rural consciousness often seems so weakly related to political preferences. Specifically, I argue that politically disengaged rural Americans give greater weight to instrumental, self-interested considerations, while politically engaged rural Americans are more motivated by symbolic, identity-based concerns. As such, disengaged, rurally-conscious citizens generally view themselves as being better served by left-

³ To be clear, Cramer (2016) is forthright about the differences between her rural Wisconsin interviewees and the broader rural populace.

wing representation and economic policies to alleviate material deprivation; engaged, rurally-conscious citizens, by contrast, view their symbolic interests as better served by identification with the Republican Party and, in turn, the adoption of conservative economic views (Zaller 1992). Thus, I propose the relationships between rural consciousness and political preferences are moderated such that rural consciousness is associated with left-wing political preferences for politically disengaged Americans, but right-wing preferences for politically engaged Americans. Examining the 2020 American National Election Study and reanalyzing the reproduction data from three recent studies of rural consciousness (Nelsen and Petsko 2021; Lunz Trujillo and Crowley 2022; Munis 2020), I find consistent support for these theoretical expectations.

This study makes several important contributions. Primarily, this study extends Cramer's (2016) theory that rural Americans' support for Republicans and economic conservatism is rooted in identity-based motivations. Like Cramer, I find rural consciousness is associated with right-wing political preferences among politically engaged rural Americans, who are disposed to bring identity-based considerations to the fore when developing preferences. However, among politically disengaged rural Americans who prioritize their instrumental interests when forming preferences, I find rural consciousness is associated with left-wing preferences. These findings help explain why quantitative studies have found weak associations between rural consciousness and right-wing preferences (Munis 2020; Nelsen and Petsko 2021; Lunz Trujillo and Crowley 2022); re-analyzing these studies, I find rural consciousness is heterogeneously associated with political preferences as functions of political engagement. In this way, my findings affirm the central role of political engagement (or "sophistication") in preference formation (Federico and Malka 2018; Malka et al. 2014; Jones 2023), especially when material interests and identities conflict (Johnston et al. 2017; Johnston and Wronski 2015; Ollerenshaw 2022). Finally, this study offers new insight into urban-rural polarization since I show this schism is partly maintained by

the low levels of political participation among rural Americans most supportive of the Democratic Party.

2.1 Rural Consciousness and the Politics of Place

In classic accounts of American politics, such as Key's (1949) *Southern Politics in State and Nation* and Campbell et al.'s (1960) *The American Voter*, geography was taken as a primary ingredient structuring mass politics. Attention to political geography renewed in the 21st-century as rural areas became increasingly dominated by Republicans (Gimpel and Karnes 2006; Rohla et al. 2018). Frank's (2004) *What's the Matter with Kansas?* arguably reinvigorated the study of place and politics, popularizing the theory that rural Americans supported the Republican Party, despite their material interests being more aligned with the Democrats, due to rural affinities for moral traditionalism. Although Frank's account is contested (Bartels 2006), the question of why rural Americans so often support Republicans has remained central to recent inquiries into rural politics, especially after Donald Trump's upset victory in the 2016 election on the backs of rural voters (Gimpel and Karnes 2006; Kelly and Lobao 2019; McKee 2008; Wuthnow 2018).

Perhaps the most influential theory of rural politics in the 21st-century is Cramer's theory of *rural consciousness* (2012; 2016). Group consciousness—i.e., identifying with a group and believing the group's interests should be advanced via collective action—has long been a leading explanation for political participation (Miller et al. 1981), but its application to rural politics is recent. After interviewing hundreds of Wisconsinites, Cramer developed a theory of *place-based* consciousness to explain why rural Americans support Republicans and economic conservatism. Cramer theorizes rural consciousness captures three interrelated beliefs (or grievances) among rural Americans: (1) rural citizens' needs are overlooked by policymakers; (2) rural citizens are overtaxed and see

fewer public benefits than urbanites; and (3) rural citizens have distinct values and lifestyles from urbanites. In Cramer's (2016) account, rural Americans make many political decisions, such as which candidate to vote for or whether to support a policy, through the lens of rural consciousness. And in recent years, Republicans have capitalized on these grievances by tapping into rural citizens' feelings of neglect in a globalizing, urbanizing, and diversifying US.

While Cramer's (2016) theory is compelling, recent quantitative tests have offered mixed support for the claim that rural consciousness meaningfully shapes political preferences. Nelsen and Petsko (2021), for example, find that rural consciousness is insignificantly associated with Trump approval and only weakly associated with conservative economic views after controlling for racial attitudes. Trujillo and Crowley (2022) also find their 14-item rural consciousness scale is insignificantly associated with partisan and ideological identities, and Munis (2020) finds rural resentment (a conceptually similar measure to rural consciousness) is insignificantly associated with partisanship. Finally, although Jacobs and Munis (2022) do find rural resentment is related to voting for Republican candidates, they also find rural resentment is inconsistently related to affective evaluations of the parties. Taken altogether, recent quantitative studies suggest rural consciousness is not as strongly associated with right-wing preferences as we might expect based on Cramer's (2016) seminal account. This divergence between theory and empirical evidence highlights the need for further inquiry into the mechanisms underlying rural political preferences.

2.2 Instrumental vs. Symbolic Politics and the Role of Political Engagement

How can we reconcile qualitative studies that argue rural consciousness is central to rural Americans' political thinking with quantitative studies that show rural consciousness is weakly

associated with the political preferences rural consciousness was forwarded to explain? In this section, I review instrumental and symbolic theories of political preferences, and contend that citizens' relative weighting between competing instrumental and symbolic considerations are consequential for understanding how rural consciousness is translated into political preferences.

Instrumental theories of politics take citizens' political behavior as being, to a significant extent, rooted in their desire to maximize *material interests*. Often, instrumental political theories emphasize the importance of an individuals' economic circumstances as central to their political preferences. Meltzer and Richard (1981), for example, model citizens' support for redistribution as a function of citizens' places in the income distribution and their expectations regarding the disincentive effects of taxation on other citizens (see also Alesina and La Ferrara 2005; Rueda and Stegmueller 2019). Other examples of self-interest at work include workers in occupations with higher unemployment being more supportive of economic redistribution (Rehm 2009); low-income seniors being more active in support of Social Security (Campbell 2002); and Americans worried about their medical expenses being more supportive of public healthcare (Henderson and Hillygus 2011; Chong et al. 2001). In general, instrumental theories posit that citizens support parties, candidates, and policies that would advance their material interests in government.

While instrumental motivations are often important determinants of political preferences, the paradox of participation is that there are seemingly few instrumental incentives to participate in politics at all. Learning about and participating in politics can be a major expenditure of time, and citizens who do participate are unlikely to be pivotal to election or policy outcomes (Downs 1957). To resolve this paradox, scholars often point to citizens' *expressive* motivations, such as the psychosocial benefits of voting as a civic duty, as key determinants of participation (Riker and Ordeshook 1968; Fiorina 1976; Brennan and Lomasky 1993). Extending this logic beyond the decision of whether or not to participate, theories of symbolic politics contend instrumental

motivations are often dominated by *identity-based* considerations (Sears 1993; Sears et al. 1979). Proponents of symbolic politics argue citizens' political preferences often hinge less on how a candidate, party, or policy will affect them materially, and more on how political preferences reflect who they see themselves to be as a person and the groups they identify with. In symbolic accounts, political identities do not primarily serve an instrumental purpose (e.g., a running tally of material benefits to be gained by supporting a party; Fiorina 1977); instead, they fulfill the powerful psychological need to maintain positive distinctiveness between one's ingroups and outgroups (e.g., Green et al. 2004; Devine 2015; Huddy et al. 2015; Mason 2018). In this view, political preferences serve as a way for citizens to adopt, reinforce, and signal social identities.

Few political scientists are strict proponents of instrumental or symbolic theories; instead, most agree material and identity-based interests both shape political preferences. Instead, recent work centers on understanding which citizens rely more on instrumental vs. symbolic concerns, with particular attention paid to the role of *political engagement*. Politically engaged citizens are those interested in, attentive to, and knowledgeable about politics. As such, some theories argue politically engaged citizens should behave the most instrumentally since presumably the engaged better understand how their self-interests would be forwarded by parties, candidates, and policies (Carpini and Keeter 1996; Chong et al. 2001). Recent psychological studies, however, contend citizens' weighting of instrumental motivations *decreases* with engagement (Federico and Malka 2018; Johnston et al. 2017; Krupnikov and Ryan 2022; see Brennan and Lomasky 1993 for a formal model). Given the strong instrumental incentives not to invest much time into politics, but the significant expressive benefits that come from political engagement, political psychologists argue citizens' concerns should generally shift from being primarily instrumental at low political engagement to primarily symbolic at high political engagement. Indeed, the politically engaged are sometimes likened to fans of sports teams since their participation does not emerge from the

belief that their participation in politics will affect outcomes, but from the enjoyment of rooting for political teams (Hersh 2020; Krupnikov and Ryan 2022; Mason 2018).

Perhaps the clearest illustrations that politically engaged citizens upweight symbolic considerations over instrumental ones are provided by Johnston, Lavine, and Federico (2017). First, Johnston et al. (2017) field a national survey to show a strong, positive correlation between political engagement and agreement with the statements: “My political attitudes and beliefs are an important part of my self-image” and “My political attitudes and beliefs are an important reflection of who I am” ($r=0.53$). Second, Johnston et al. (2017) show that material interests are decreasingly associated with related economic preferences as functions of political engagement; specifically, that as political engagement increases: (1) low income is decreasingly associated with support for redistribution; (2) job insecurity is decreasingly associated with support for a job guarantee; and (3) poor health is decreasingly associated with support for public healthcare.

Importantly, these same patterns emerge among rural Americans, specifically. In Figure 1, I replicate Johnston et al.'s analysis of the relationships between material interests and related economic preferences using the rural subsample of the 2020 American National Election Study. As Figure 1 shows, at low political engagement, material interests are significantly associated with economic preferences (e.g., low income is associated with support for redistribution), while partisanship is not related to these preferences. However, at high political engagement, all three material interest indicators are unrelated to economic preferences, while partisanship is strongly associated with these preferences.

In summary, what is true of the national populace holds for rural Americans: disengaged rural Americans are more instrumental and less symbolic; engaged rural Americans are less instrumental and more symbolic. I argue these fundamental differences in how disengaged and

engaged rural Americans weigh instrumental and symbolic considerations is crucial towards understanding the different ways they translate rural consciousness into political preferences.

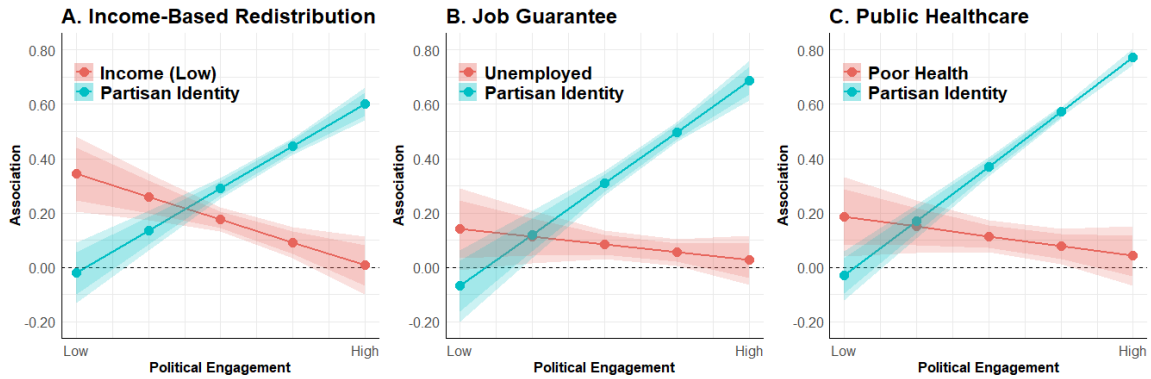


Figure 1: Conditional Associations of Material Interests and Partisanship with Economic Preferences. 83 and 95 percent confidence intervals. Data weighted. Rural and small-town Americans only. Source: 2020 ANES Time Series.

2.3 The Heterogeneous Effects of Rural Consciousness

In the context of rural consciousness and political behavior, Cramer (2016) argues both self-interested and symbolic considerations matter. Specifically, Cramer contends Republicans' recent appeals to rurally-conscious citizens' feelings of political neglect and their sense of socio-cultural marginalization have attracted rurally-conscious Americans to Republican partisanship and conservative identity. And because the rurally-conscious understand economic redistribution as a cause of, rather than a solution to, rural areas' material deprivation, as well as a violation of widely-held norms of individualism, they also adopt conservative economic views. Per Cramer, rurally-conscious citizens' understandings of their material and symbolic interests both generate right-wing political preferences like voting for Republicans and opposing social welfare policies.

My contention, however, is that rural consciousness will not have uniform effects among instrumentally- vs. symbolically-motivated citizens. In recent years, Republicans have sought to cultivate rural support by appealing to rural Americans as a people left behind in a globalizing, urbanizing, and diversifying country. Democrats, on the other hand, have often appealed to rural

Americans by emphasizing how their economic policies would advance rural material interests. For disengaged, instrumentally-minded rural Americans, Democrats' proposals to alleviate rural deprivation should be more attractive than Republicans' identity-based appeals. Conversely, engaged rural Americans should be willing to eschew material benefits for the symbolic benefits of right-wing identification. The upshot is I expect for rural consciousness to be heterogeneously associated with left-right political orientation based on citizens' weighting between instrumental and symbolic motivations as captured by political engagement. I thus derive my first hypothesis: *(H1): Rural consciousness will be associated with left-wing partisan-ideological identification for politically disengaged rural Americans, but right-wing partisan-ideological identification for politically engaged rural Americans.*

H1 accounts for why politically engaged, rurally-conscious Americans adopt right-wing identities; however, it does not necessarily account for their economic conservatism. That is, why might politically engaged rurally-conscious Americans eschew economic liberalism? In line with Johnston et al. (2017), I argue economic policies are often interpreted symbolically for politically engaged citizens when economic issues become associated with specific political groups. Today, US elites are so ideologically well-sorted that, for almost any economic issue, attentive citizens can learn or infer where Democratic and Republican elites fall on the issue (Abramowitz 2010; Hetherington 2001). Politically engaged citizens are more attentive to elite-level discourse, more willing to assimilate policy views from ingroup elites to reinforce their political identity (Carsey and Layman 2006; Layman et al. 2010; Zaller 1992), and, as I hypothesized in H1, better sorted along partisan-ideological lines. I therefore expect rurally-conscious Americans to increasingly adopt conservative economic views as a function of political engagement because conservative economic views are symbolically associated with right-wing identity (Lenz 2012; Tesler 2015). Thus, I derive a second hypothesis: *(H2): Rural consciousness will be associated with left-wing*

economic preferences for politically disengaged rural Americans, but right-wing economic preferences for politically engaged rural Americans.

The caveat to the above account, of course, is that I only expect rural consciousness to be increasingly associated with right-wing economic preferences for issues where Republican elites have staked out a more conservative position than Democratic elites. Although elites have mostly polarized this way, a few economic issues remain where Republicans are aligned with or even to the left of Democrats. Specifically, since Donald Trump became the 2016 Republican nominee, Republican elites have increasingly taken protectionist stances on issues of trade and offshoring (Mutz 2021). And while support for protectionism remains common among Democratic elites, in 2016 and 2020, Trump attacked his Democratic opponents (Clinton and Biden) over their past support for free trade agreements. My theory proposes that engaged rural Americans' economic views are adopted from ingroup elites (Zaller 1992). Thus, while I generally expect for engaged, rurally conscious citizens to adopt right-wing economic views, on an issue like trade, I expect the opposite since elite cues will shift the rurally-conscious in a left-wing (protectionist) direction.⁴ As such, my third and final hypothesis is: **(H3):** *Rural consciousness will be associated with left-wing protectionist trade preferences, and increasingly so as a function of political engagement.*

2.4 Data

To test H1-H3, I primarily use the 2020 American National Election Study (ANES). The 2020 ANES is an ideal dataset because it is a probability-based cross-section of voting-eligible Americans.⁵ Based on my theory, it is especially important to utilize a probability-based sample because imbalances correlated with political engagement could skew the inferences drawn about

⁴ For similar uses of trade's atypical elite-level alignment vis-à-vis other issues and economic preference formation, see Johnston et al. (2017) and Ollerenshaw and Johnston (2022).

⁵ All estimates are weighted. For details on the ANES sampling methodology, see Appendix A.1.

rural consciousness, and non-probability samples overrepresent the politically engaged (Kennedy et al. 2016a). In total, 7,449 respondents completed both the pre-election and post-election ANES waves. In line with the recommendations of Nemerever and Rogers (2021) for operationalizing rurality, I subset to the 3,154 respondents who identify as “rural” or “small-town”. For brevity, I refer to rural and small-town identifiers as collectively “rural.” Operationalizing rurality based on identity is appropriate because rural consciousness exists among citizens not *presently* living in rural areas or small towns, but who consider themselves to be “rural people” (Johnson and Scala 2022; Trujillo 2022). However, for those who would prefer analyses only of those residing in rural areas and small towns, my findings do replicate imposing this restriction (Appendix A.4).

2.5 Methods

H1-H3 posit the associations of rural consciousness with the three outcomes of interest are conditioned by political engagement. I test these hypotheses with multiplicative interaction linear models that include as independent variables: rural consciousness, political engagement, the interaction of rural consciousness with political engagement, and a set of control variables. Here, I outline how the variables are constructed (see Appendix A.1 for full question wordings).

2.5.1 Rural Consciousness

Rural consciousness is assessed with three items, each tapping one facet of rural consciousness (political, economic, and cultural). The first question probes perceptions of rural Americans having too much, too little, or about the right amount of political influence. The second probes perceptions of rural Americans getting less, more, or about what they deserve from the government. Finally, the third item probes perceptions of rural Americans getting less, more, or about the right amount of respect. The three items are combined into an additive scale ($\alpha=0.69$) ranging from 0 to 1, where values above 0.50 indicate rural consciousness, values at 0.50 indicate

rural non-consciousness, and values below 0.50 indicate something akin to anti-rural sentiment. The distribution of rural consciousness is shown in Figure 2. Just 5.6 percent of rural Americans are anti-rural; the modal share locate at the rurally non-conscious midpoint (20.0 percent); a large majority exhibit some degree of rural consciousness (74.4 percent). Given the sparsity of observations below the scale’s midpoint, I opt in the main text to calculate marginal effects from the 5th to 95th percentiles of rural consciousness (0.44 to 1.00) to offer more realistic effect sizes than shifting from extremely anti-rurally conscious to extremely rurally conscious.⁶

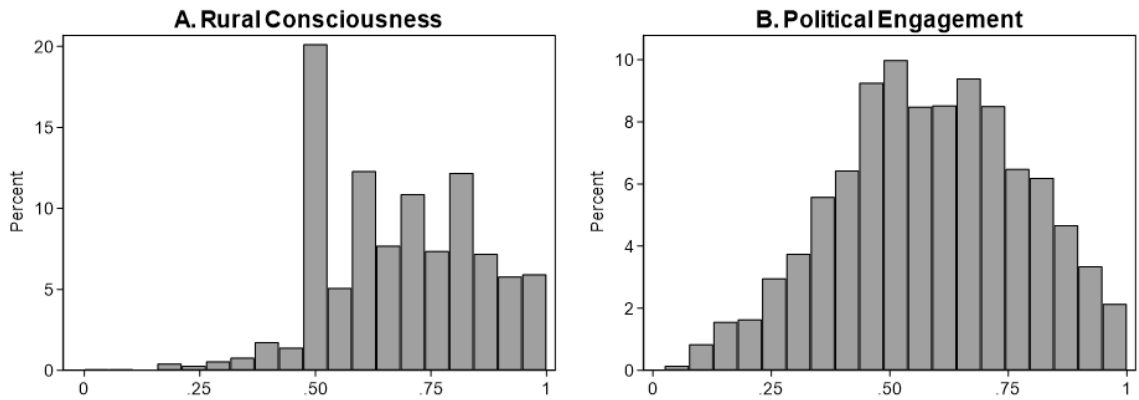


Figure 2: Distributions of Rural Consciousness and Political Engagement. Data weighted. Rural and small-town Americans only. Source: 2020 ANES Time Series.

2.5.2 Political Engagement

To assess political engagement (sometimes also referred to as “political sophistication”), I follow Johnston et al. (2017) and Ollershaw (2022) who measure political engagement using subscales of political interest and political knowledge items. The political interest subscale is comprised of five ANES items that assess self-reported attention to political events, campaigns, and news ($\alpha=0.77$). The political knowledge subscale is the number of correct answers to eight questions: one about Senators’ term lengths, two about partisan control of the House and Senate, and five

⁶ Though fitting models with anti-rurally conscious respondents risks estimation issues since the anti-rural will have outsized leverage, none of my results hinge on their inclusion (Appendix A.4).

office recall questions about major political figures ($\alpha=0.71$). These two subscales are equally weighted in the final engagement scale, which takes values between 0 and 1.⁷ In Figure 2, I show the distribution of political engagement. Notably, rural consciousness and political engagement are only weakly correlated ($r=0.10$), which means to be a politically engaged rural American does not necessarily imply being rurally conscious (or vice versa).⁸ I calculate marginal effects from the 5th to 95th percentiles of political engagement (0.26 to 0.92) to offer more realistic effect sizes given how few respondents are entirely disengaged from politics.

2.5.3 Partisanship and Ideology

To test H1, I use seven partisan-ideological orientation variables. My primary measure of partisanship is the standard 7-point partisan identity scale, recoded to range from 0 (strong Republican) to 1 (strong Democrat). As additional measures of partisanship, I also assess the difference in 101-point thermometer ratings of the Democratic and Republican parties, dichotomous two-party presidential candidate preferences (Biden/Trump), 101-point ratings of Biden vis-à-vis Trump, and disapproval of Trump's performance in office, all recoded from 0 to 1 such that higher values indicate Democratic partisanship. My primary ideological orientation measure is the standard 7-point ideology scale coded between 0 (extremely conservative) and 1 (extremely liberal). Those who indicate having not thought much about their placement on this scale are recoded to the middle category ("Moderate"). As a second ideological identity measure, I examine respondents' 101-point ratings of "Liberals" vis-à-vis "Conservatives" where higher values indicate pro-liberal warmth. Using principal component factor analysis (Appendix A.2), I show all seven items load well onto the first principal component which explains 77 percent of

⁷ My results are near-identical using the political interest and knowledge subscales (Appendix A.4).

⁸ In Appendix A.4, I verify the linearity assumption of the multiplicative interaction models using a binning estimator (Hainmueller et al. 2019).

the total variation across items. I therefore use the seven items to construct an additive, latent political identification measure ($\alpha=0.95$) that ranges from 0 (right-wing) to 1 (left-wing).

2.5.4 Economic Policy Preferences

To test H2, I use the 16 economic policy items asked on the 2020 ANES. These items span issues of redistribution, social welfare, healthcare, taxes, and trade. In a factor analysis (Appendix A.2), 14 of these items load well onto the first principal component that explains 45 percent of the variation across items, with the second component explaining only 7 percent more variation. Not unexpectedly, the two items that do *not* load well onto the first factor tap trade preferences. I therefore create an additive index of economic preferences using the 14 non-trade items ($\alpha=0.90$) ranging from 0 (economic conservatism) to 1 (economic liberalism).

2.5.5 Trade Policy Preferences

I test H3 using two trade items tapping preferences regarding import restrictions and free trade agreements. Unfortunately, these two items do not form a reliable scale ($\alpha=0.34$), so I examine them separately. Each item is coded from 0 (pro-trade) to 1 (anti-trade).

2.5.6 Controls

I control for respondent age⁹, gender, education, income, religiosity, race/ethnicity (six-categories, baseline white non-Hispanic)¹⁰, state of residence, unemployment, and whether the respondent is a parent, married, or a union member. I also control for racial stereotyping since

⁹ My findings are not driven by residual Democratic partisanship among old white southerners. Indeed, old white southerners' ancestral Democratic ties seem to attenuate rural consciousness's effects on political identification for this group relative to young white southerners (Appendix A.4).

¹⁰ Although some studies examine rural consciousness among non-Hispanic whites, I find rural consciousness is similarly associated with political preferences for whites and racial/ethnic minorities (Appendix A.4). However, whites are, on average, slightly more politically engaged ($\mu_{\text{White}}=0.60$, $\mu_{\text{Minority}}=0.55$) and slightly more rurally consciousness ($\mu_{\text{White}}=0.70$, $\mu_{\text{Minority}}=0.66$).

recent work contends that rural consciousness is partly confounded by views of urban Blacks, specifically, as being violent and lazy (Nelsen and Petsko 2021).¹¹ Racial stereotyping is assessed as the difference in ratings of Blacks and whites on two dimensions: hardworking-lazy and peaceful-violent. I use multiple imputation to address missing controls (Appendix A.1), but do not impute rural consciousness, political engagement, or the dependent variables. Finally, in line with Blackwell and Olson's (2022) recommendations for avoiding omitted interaction bias when the covariate set is small, I interact every covariate (except state fixed effects) with engagement.

2.6 Results

2.6.1 Rural Consciousness and Partisan-Ideological Identity

I begin my analysis by testing H1, which posits rural consciousness will be conditionally associated with partisan and ideological identities. In Figure 3, I display the marginal effects of rural consciousness from its 5th to 95th percentiles on latent partisanship-ideological identity and the scale's seven constituent items from the 5th to 95th percentiles of political engagement (which are labeled "Low" and "High"). Keep in mind that trimming the effect sizes will make it more difficult for me to find support for my hypotheses but is useful for identifying realistic effects. The figures' confidence intervals include 95 percent and 83 percent intervals; the 95 percent intervals are useful for visually approximating if an effect significantly differs from zero; the 83 percent intervals are useful for visually approximating if the difference between two coefficients is significant (Schenker and Gentleman 2001), making interaction effects easier to identify.

¹¹ I prefer controlling for racial stereotyping over racial resentment because racial resentment has been shown to better tap sympathy for Black Americans among liberals than the specific anti-Black attitudes thought to confound rural consciousness (Carney and Enos, n.d.; Feldman and Huddy 2005). In addition, racial resentment is argued to tap conservative values and principles (Sniderman and Tetlock 1986); because conservatism is often my outcome of interest, including racial resentment as a covariate risks attenuation bias. Racial stereotyping, by contrast, directly assesses respondents' beliefs about Black Americans' purported laziness and violence. However, acknowledging its ubiquitous use, in Appendix A.4, I test H1-H3 controlling for racial resentment.

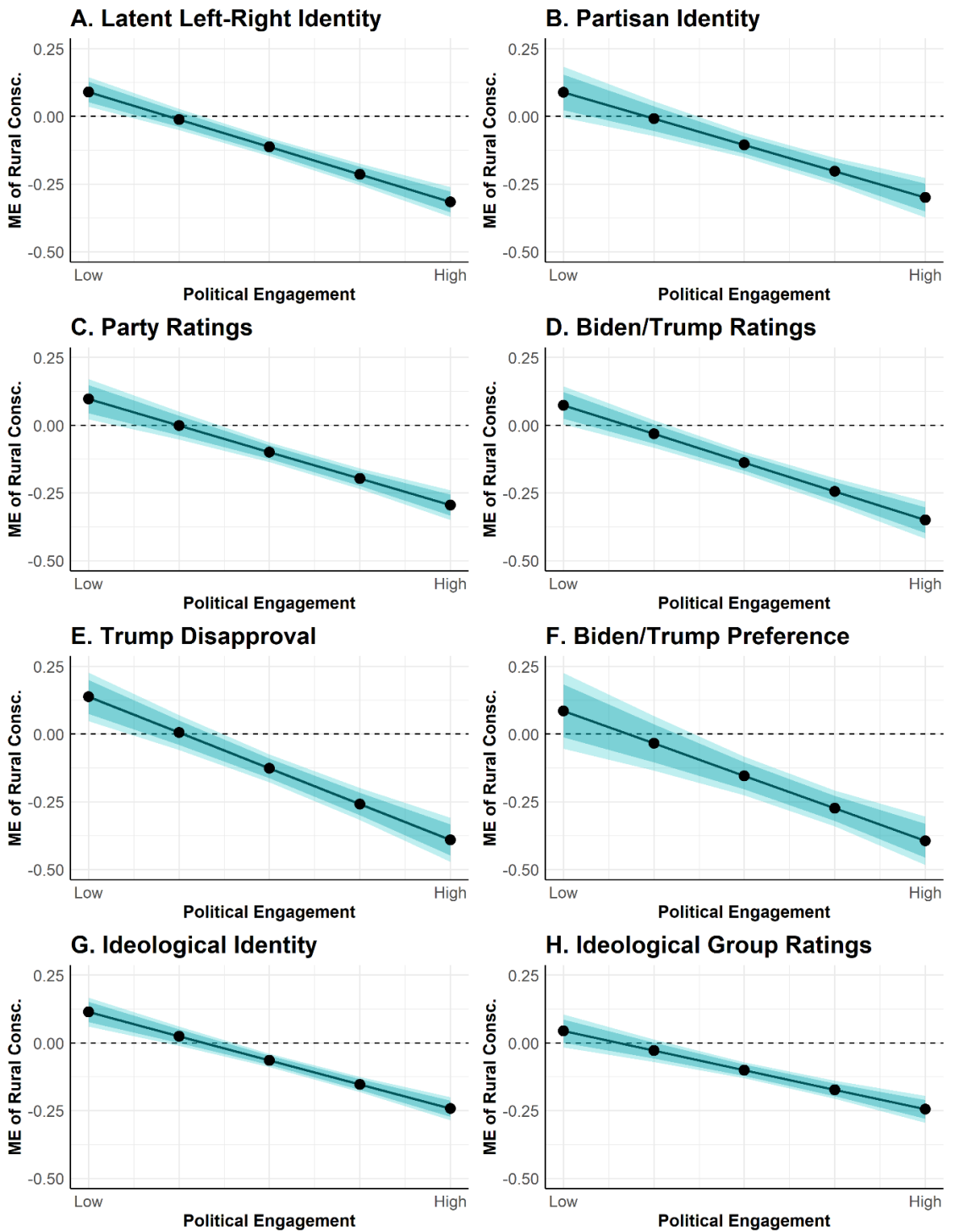


Figure 3: Conditional Associations of Rural Consciousness to Partisan-Ideological Orientation. Marginal effects of rural consciousness with 83 and 95 percent confidence intervals. Positive coefficients indicate associations to left-wing identities and preferences. Data weighted. Rural and small-town Americans only. Source: 2020 ANES Time Series.

Beginning with the latent partisan-ideological identity scale, at low political engagement, rural consciousness has a 9-point association with left-wing political identification ($p=0.002$). However, as expected, the association between rural consciousness and left-wing partisan-ideological identification flips and becomes a 32-point association with right-wing identity at high engagement ($p<0.001$). This 41-point interaction ($p<0.001$) offers support for H1. Notably, the average association between rural consciousness and right-wing identity is 11-points, which is in line with estimates from previous analyses (Munis 2020; Nelsen and Petsko 2021; Lunz Trujillo and Crowley 2022). However, this unconditional effect averages over important nuances in how rural consciousness is heterogeneously related to political identity, missing its modest association with left-wing identity among politically disengaged rural Americans but also understating how strong its associations with right-wing identity are among politically engaged rural Americans.

Turning to the constituent partisanship items, similar patterns emerge. For the 7-point partisan identity measure, I find rural consciousness has a 9-point association with Democratic partisanship at low political engagement ($p=0.069$), but a 30-point association with Republican partisanship at high engagement ($p<0.001$). Similarly, rural consciousness is associated with 10-points warmer ratings of the Democratic Party vis-à-vis the Republican Party at low engagement ($p=0.014$), but 29-points colder ratings of the Democratic Party at high engagement ($p<0.001$).

Rural consciousness is generally associated with pro-Biden views at low engagement, but pro-Trump views at high engagement. Rural consciousness is associated with 7-points warmer ratings of Biden vis-à-vis Trump at low engagement ($p=0.044$), but 35-points warmer ratings of Trump at high engagement ($p<0.001$). Similarly, rural consciousness is associated with 14-points greater disapproval of Trump's performance as president at low engagement ($p=0.004$) but 39-points less Trump disapproval at high engagement ($p<0.001$). Finally, although the estimates for

candidate preferences are noisy since it is a binary outcome, rural consciousness is associated with a 9-point greater predicted probability of preferring Biden to Trump at low engagement ($p=0.232$), but a 40-point greater probability of preferring Trump to Biden at high engagement ($p<0.001$). Across various indicators of partisanship, rural consciousness is associated with support for Democrats among the disengaged, but support for Republicans among the engaged.

2.6.2 Rural Consciousness and Economic Preferences

In this section, I address a core question of rural politics: why do rural Americans, who would on average benefit from economic redistribution and social welfare programs given their relative material conditions, often support less of these things? I hypothesize the relationships between rural consciousness and economic preferences are predicated on rural citizens' relative weighting of instrumental and symbolic considerations. The politically disengaged and rurally-conscious should prioritize their material interests over symbolic concerns, and in turn be more in favor of redistribution and social welfare programs. However, the engaged rurally-conscious should prioritize symbolic concerns and adopt conservative economic preferences to reinforce and signal their right-wing identities. As such, I expect rural consciousness to be associated with left-wing economic preferences among politically disengaged rural Americans, but right-wing economic preferences among politically engaged rural Americans (H2).

In Figure 4, I show the conditional marginal associations between rural consciousness and the 14-item economic policy scale. At low engagement, rural consciousness is associated with 11-points greater economic liberalism ($p<0.001$). Rural consciousness is, in fact, associated with support for policies that would likely disproportionately benefit rural Americans; however, this association only emerges among politically *disengaged* citizens. At high engagement, rural consciousness is associated with 27-points greater economic conservatism ($p<0.001$). This 38-point interaction offers clear support for H2. For comparison, rural consciousness has only an 8-

point unconditional association with economic policy conservatism, similar to the estimates in Nelsen and Petsko (2021). However, this unconditional association masks a modest association between rural consciousness and economic liberalism for the politically disengaged and a strong association between rural consciousness and economic conservatism for the politically engaged.

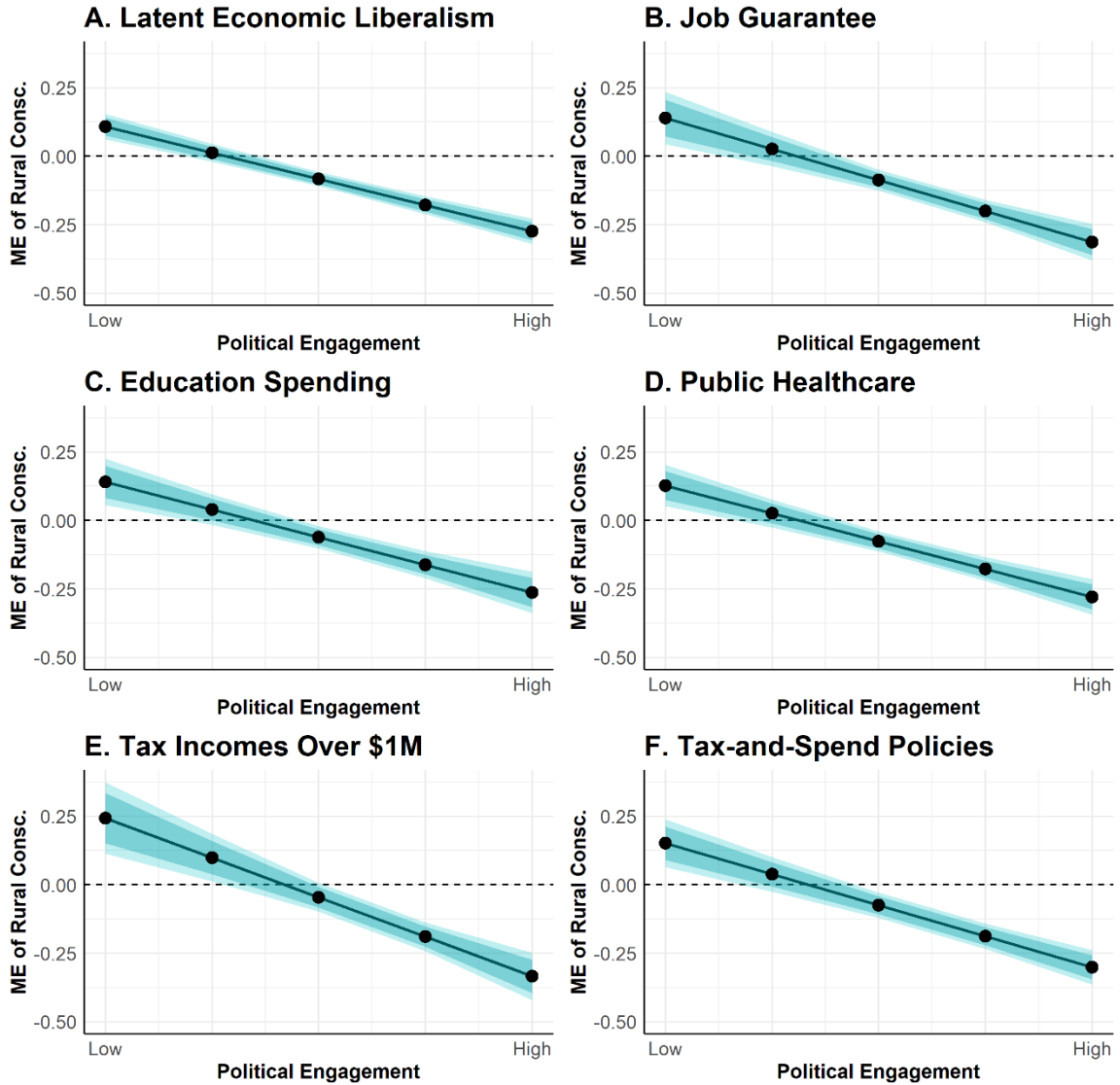


Figure 4: Conditional Associations of Rural Consciousness to Economic Preferences. Marginal effects of rural consciousness with 83 and 95 percent confidence intervals. Positive values indicate associations with left-wing economic preferences. Data weighted. Rural and small-town Americans only. Source: 2020 ANES Time Series.

Political engagement moderates the associations between rural consciousness and all 14 items used to create the economic policy scale. While it would be repetitive to discuss all 14, several items are worth addressing since they tap the core grievances raised by Cramer's (2016) rural interviewees: unemployment, education, healthcare, and taxes. In Figure 4, I plot support for a job guarantee, education spending, public healthcare (three-items; $\alpha=0.74$), taxes on incomes over \$1M, and tax-and-spend policies.¹² At low engagement, rural consciousness is associated with 14-points more support for a job guarantee ($p=0.006$), 14-points more support for education spending ($p=0.002$), 13-points more support for public healthcare ($p=0.002$), 24-points more support for taxes on incomes over \$1M ($p=0.001$), and 15-points more support for tax-and-spend policies ($p=0.001$). At high engagement, however, these associations reverse; rural consciousness is associated with 31-point less support for a job guarantee, 26-points less support for education spending, 28-points less support for public healthcare, 33-points less support for taxing incomes over \$1M, and 30-points less support for tax-and-spend policies (all $p<0.001$). These are exactly the preferences we would expect engaged rurally-conscious Americans who have sorted into the Republican Party to adopt to reinforce and signal political identities. These analyses support H2.

2.6.3 Elite Cues and Economic Preference Formation: The Case of Trade

One of my core theoretical claims is that politically engaged, rurally-conscious citizens adopt conservative economic views because: (1) they hold right-wing identities; (2) right-wing elites are usually more economically conservative than left-wing elites; and (3) engaged citizens are motivated to adopt economic preferences that help reinforce their political identities. I thus

¹² In Appendix A.3, I show significant interactions emerge for the other six items, i.e., preferences for aid to the poor, minimum wage, regulations, Social Security, welfare, and UBI.

propose the interaction between elites' position-taking and engaged citizens' attention to these positions produces heterogeneous associations of rural consciousness with economic preferences.

However, when elite signals diverge from their typical left-wing Democratic/right-wing Republican alignment, I no longer expect rural consciousness to be increasingly associated with conservative economic preferences as a function of political engagement. For economic issues where political elites are not polarized, engaged Americans will adopt similar preferences from elites. And for issues where Republican elites espouse left-wing views, I expect for the rurally-conscious and engaged to adopt left-wing economic preferences. Specifically, with Trump taking stridently anti-trade positions, I expect rural consciousness to be increasingly associated with anti-trade preferences (i.e., a left-wing preference) as a function of political engagement (H3).

In Figure 5, I plot the conditional associations between rural consciousness and support for import restrictions and opposition to free trade agreements. At low political engagement, rural consciousness is not significantly associated with trade preferences in either case ($p=0.453$, $p=0.737$). These nulls at low engagement somewhat contradict H3; I had hypothesized that rural consciousness would be associated with opposition to trade among the disengaged, and that anti-trade preferences would strengthen with engagement. One possible explanation for these nulls is that the disengaged are unsure how trade would materially affect them, since trade is a difficult issue for citizens to parse their material interests (Scheve and Slaughter 2001; Johnston 2013).

Do the hypothesized associations between rural consciousness and anti-trade preferences emerge at high engagement? Yes and no. At high engagement, rural consciousness is associated with 21-points more support for import restrictions ($p<0.001$), but only 3-points more opposition to free trade ($p=0.489$). The interactions are in the hypothesized directions, but significant only for import restrictions ($p=0.015$). The associations of rural consciousness with anti-trade views inconsistently strengthen with political engagement. Overall then, H3 finds only mixed support.

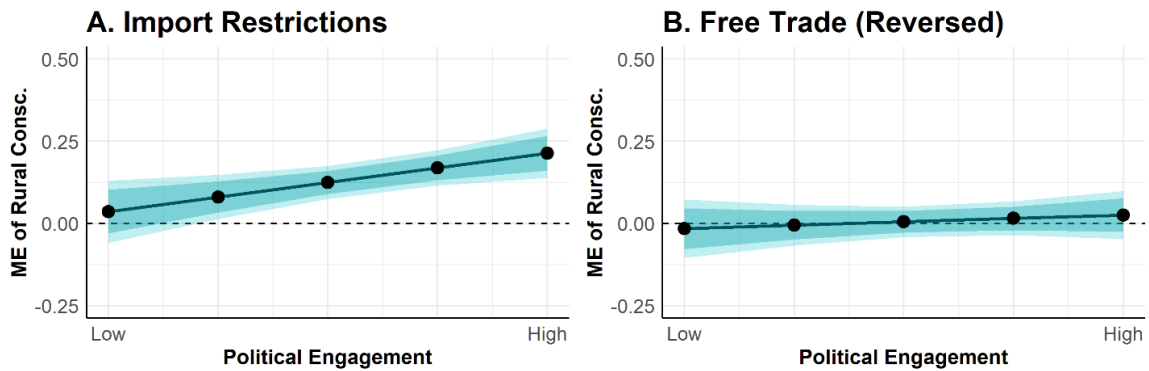


Figure 5: Conditional Associations of Rural Consciousness to Anti-Trade Preferences. Marginal effects of rural consciousness with 83 and 95 percent confidence intervals. Positive values indicate associations with anti-trade preferences. Data weighted. Rural and small-town Americans only. Source: 2020 ANES Time Series.

What is clear from the trade analysis, however, is that the relationships between rural consciousness, engagement, and economic preferences differ for trade relative to issues where Democrats take clear positions to the left of Republicans. Testing for coefficient equivalence in the interactions of rural consciousness with political engagement on the 14-item economic policy scale vs. the trade policies, I twice reject nulls of coefficient equivalence ($p < 0.001$). These results show preference formation operates differently for trade. I theorize that these differences emerge because politically engaged citizens are not adopting polarized trade preferences from political elites, as Republican and Democratic elites were not clearly differentiated on trade in 2020 due to Trump’s anti-trade positions. The trade results thus offer support for my proposed mechanism of economic opinion formation among engaged rural Americans, where the engaged incorporate elites’ positions to reinforce and signal political identity (Zaller 1992; Johnston et al. 2017).

2.6.4 Out of Sample Replications

The 2020 ANES has many advantages for testing my hypotheses about the moderating role of political engagement, such as its large sample size and the fact that it was collected with a probability-based sampling approach. However, the ANES analysis cannot directly demonstrate

the relatively weak associations of rural consciousness with political preferences in other recent studies were due to heterogeneity as a function of political engagement, especially since these studies used different measures of rural consciousness than that on the ANES. Thus, my findings would be bolstered if they were replicable across samples and measures of rural consciousness.

In this section, I replicate my analyses to the extent possible using: the 2019 ANES Pilot analyzed by Nelsen and Petsko (2021); a 2018 Cooperative Election Study (CES) module from Munis (2020); and 2018/2019 Lucid samples from Trujillo and Crowley (2022). In Table 1, I outline the key features of each replication. A few points are worth noting. First, no sample has all controls available in the ANES. Second, the samples include more engaged respondents than the ANES, consistent with non-probability surveys overrepresenting the engaged (Kennedy et al. 2016a). Third, the rural consciousness measures have varying distributions; I calculate marginal effects from the 5th to 95th percentiles. Finally, the samples are smaller than the ANES. Despite limitations, the replications can show if my findings hold with different samples and measures.

Table 2: Replication Samples from Previous Studies of Rural Consciousness

	2018 CES (Munis 2020)	2019 ANES Pilot (Nelsen and Petsko 2021)	2018/2019 Lucid (Trujillo and Crowley 2022)
<i>N (Rural Identifiers)</i>	266	1,310	1,627
<i>Rural Consciousness</i>	Four-Items	Four-Items	14-Items
<i>Political Engagement</i>	Political Interest (1) Political Knowledge (2)	Political Interest (1) Political Knowledge (3)	Political Interest (2) Political Knowledge (5)
<i>Partisanship-Ideology Orientation Items</i>	Trump Disapproval, 7-pt Partisan Identity, 7-pt Ideological Identity	Trump Disapproval, Biden-Trump Ratings, 7-pt Partisan Identity, 5-pt Ideological Identity	2016 Presidential Vote, 7-pt Partisan Identity, 7-pt Ideological Identity
<i>Economic Policy Items</i>	ACA, Banking Regulation, Deregulation, Education Spending, Income Tax (3), Healthcare (2), Minimum Wage, Sales Tax Hike, Tax Cuts, Welfare	Free College, Government Reductions of Inequality, Med-4-All, Student Loan Cancellation, Tax Hike on Households Over \$10M, UBI, Universal Pre-K	None
<i>Trade Policy Items</i>	Tariffs (2)	None	None
<i>Controls</i>	Age, Education, Income, Married, Parent, Race, Sex, Religion, Unemployed	Age, Education, Income, Married, Parent, Race, Sex, Religion, State, Unemployed	Age, Education, Income, Race, Sex, Sample-Year Fixed Effect

Figure 6 displays the conditional associations between rural consciousness and partisan-ideological orientation, economic preferences, and anti-trade preferences across the replication samples. Overall, the replication tests are similar to those for the 2020 ANES. At low political engagement, rural consciousness is associated with left-wing political orientation and economic preferences, but unassociated with anti-trade preferences. At high engagement, however, rural consciousness is associated with right-wing political orientation and economic preferences, except for trade where rural consciousness is associated with left-wing anti-trade preferences.

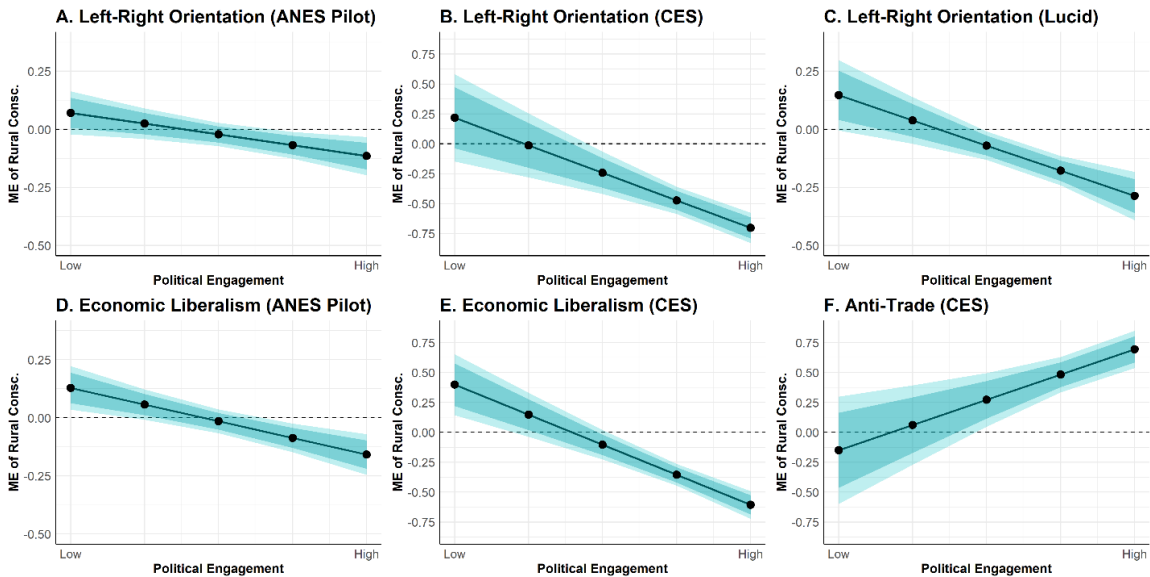


Figure 6: Out-of-Sample Replications. Marginal effects of rural consciousness with 83 and 95 percent confidence intervals. Positive values are associations with left-wing identities and preferences. Data weighted. Rural and small-town Americans only. Source: 2018 CES (Munis 2020), 2019 ANES (Nelsen and Petsko 2021), 2018/2019 Lucid (Trujillo and Crowley 2022).

Taken altogether, these replications support my contention that rural consciousness is conditionally associated with political preferences. Further, these replications directly show that the weak associations of rural consciousness with right-wing preferences in recent quantitative studies is at least partly due to unobserved heterogeneity as a function of political engagement. Taking political engagement into account, associations between rural consciousness and right-wing preferences emerge in these studies, but only among politically engaged rural Americans.

2.7 Discussion

Drawing on theories of instrumental and symbolic politics, in this paper, I hypothesized rural consciousness would be heterogeneously associated with political preferences. Specifically, I hypothesized that for politically disengaged citizens, rural consciousness would be associated with left-wing political identification and economic preferences. For politically engaged citizens, however, I hypothesized rural consciousness would be associated with right-wing identification and economic preferences. Analyzing the 2020 ANES and three previously published datasets, I found support for these expectations. I also examined how political engagement conditioned the associations between rural consciousness and preferences regarding trade—a unique issue where Republican elites since 2016 have taken left-wing (anti-trade) positions. Unlike other economic issues, for trade, rural consciousness was sometimes associated with *left-wing* preferences among the politically engaged. These results are consistent with top-down theories of opinion formation that argue politically engaged citizens adopt specific economic preferences from ingroup elites (Johnston et al. 2017; Zaller 1992), but could also show how elites like Donald Trump aptly used trade protectionism as a wedge issue to win support from rural voters.

Although I find strong support for my hypotheses across many samples, I only examined cross-sectional surveys; my analysis thus has limitations towards sustaining any claims that rural consciousness causes political preferences. The foremost threat to inference in this study is the possibility that Americans adopt or reject rural consciousness based on their political identities. My theory assumes politically engaged, rurally-conscious citizens sort into the Republican Party, and that sorting and then attention to elite discourse leads these individuals to adopt conservative economic views. Alternatively, however, these associations could indicate rural consciousness is endogenous to political identities due to its symbolic right-wing associations. Specifically,

Republicans' anti-urban/pro-rural rhetoric might actively stoke rural consciousness among their engaged supporters and/or cause engaged Democrats to disassociate from rural consciousness.

It is likely unreasonable to assume rural consciousness is entirely exogenous to political identities. As geographic polarization grows, and appeals to rural grievances have become more one-sided, rural consciousness may itself serve to signal political identity. An important question then is which causal pathway dominates: rural consciousness to political identities, or political identities to rural consciousness? Extant data precludes a direct answer to this question. Trujillo (2022) shows rural *identity* is unrelated to changes in partisanship, but it is unclear whether this result extends to rural *consciousness*. However, the 2024 ANES plans to reinterview 2020 ANES respondents; if rural consciousness appears on the 2024 questionnaire, future work could use this panel to assess whether political identities predict changes in rural consciousness. Additionally, experiments testing whether political identity primes influence rural consciousness could prove fruitful. For now, however, given the lack of direct evidence on causal ordering between rural consciousness and political identities, my findings here should be taken as strictly associational.

2.8 Conclusion

In this paper, I demonstrated the associations between rural consciousness and political preferences are contingent on political engagement. For politically disengaged Americans, rural consciousness is associated with left-wing political identification and economic preferences. For engaged citizens, however, rural consciousness is associated with the exact opposite preferences: Republican partisanship, conservative identity, and economic policy conservatism. My findings offer new insight into the psychological bases of political preferences for rural Americans, which has for decades presented a vexing puzzle to be solved. My findings also support recent theories that argue disengaged citizens prioritize instrumental, self-interested concerns in their political

preferences, whereas engaged citizens prioritize symbolic, identity-based concerns (Johnston et al. 2017). For instrumental-minded citizens, rural consciousness is associated with preferences that would increase left-wing representation and economic redistribution; but for symbolically-motivated Americans, rural consciousness is associated with right-wing identity and, in turn, opposition to redistribution. These heterogeneous associations offset on average, particularly in representative samples. In samples that overrepresent engaged rural Americans, however, rural consciousness will appear to be strongly and exclusively associated with right-wing preferences.

These results imply an amendment to Cramer's (2016) original conceptualization of rural consciousness. Cramer interviewed a sample of rural Americans more politically engaged than representative (p. 41; 2016). This skew is relevant since political engagement shapes how rural consciousness relates to political preferences. To be clear, my analyses offer much support for Cramer's (2016) theory: on average, rural consciousness is related with Republican partisanship, conservative identity, and economic conservatism. Further, my findings bolster Cramer's claim that rural citizens' economic conservatism "is more about identity than principle" (p. 140) since rural consciousness is only associated with economic conservatism for symbolically-motivated citizens. But it is important to keep in mind that not all citizens bring symbolic concerns to bear on political preferences. For instrumentally-motivated citizens, rural consciousness is associated with *left-wing* identification and economic preferences. By considering the different processes by which rural consciousness is translated into political preferences, we can expand Cramer's theory of rural consciousness and reconcile it with quantitative research that has often not found strong associations between rural consciousness and the political preferences it was meant to explain.

The popular face of rural consciousness today is found on the right. This portrayal is not surprising because political engagement is correlated with visible forms of political participation, such as voting, making political donations, discussing politics, attending political events, and

contacting elected officials. Indeed, while Trump won rural voters by 24-points, rural non-voters preferred Trump by just 4-points (2020 ANES). The preferences of rural Americans high in rural consciousness but low in engagement risk being overlooked by journalists who tend to report on highly engaged citizens (Krupnikov and Ryan 2022), researchers who have heretofore averaged over disengaged rural citizens, and politicians who have few incentives to substantively represent citizens who are unlikely to participate in politics. As rural areas continue to trend right (Hopkins 2017; Mettler and Brown 2022), a growing challenge for democratic representation involves not only addressing polarization along the urban-rural divide (Brown et al. 2021; Gimpel et al. 2020; Scala and Johnson 2017), but also figuring out how to represent the many politically disengaged rural Americans who have preferences at odds with the economic agendas being implemented by their increasingly conservative representatives.

3. The Conditional Relationships of Authoritarianism with COVID-19 Attitudes, Health Behaviors, and Policy Preferences

A vast literature in political psychology has explored the ways stable psychological traits shape socio-political attitudes and behaviors (for reviews, see Jost et al. 2003, 2017). Among the most well-studied of these traits are dispositions rooted in individual orientations toward threat, insecurity, and uncertainty. Psychological authoritarians, for example, are generally theorized to experience threat more persistently and aversively than non-authoritarians; in turn, authoritarians tend to prioritize order, safety, and predictability in their lives and environments (Feldman 2015). Authoritarianism is thus theorized to undergird right-wing (or conservative) political orientations which seek to manage perceived threats by maintaining a stable, hierarchical order and secure society (Altemeyer 1981; 1996; Jost et al. 2003). Non-authoritarians, by contrast, are theorized to prioritize novelty, diversity, and individual autonomy, while exhibiting less sensitivity to threat and instability in their environment. As such, non-authoritarianism is theorized as undergirding left-wing (or liberal) political orientations that facilitate social change, risk-taking, and innovation, even at the potential expense of social stability and collective security.

Given this predominant account of authoritarianism as tapping deep-seated sensitivities to threat and needs for security, one might have expected authoritarian Americans to exhibit greater concern over the threat of COVID-19 than their non-authoritarian compatriots. The COVID-19 pandemic was the deadliest viral outbreak to reach US shores in over a century, having caused over 1 million deaths in its first two years and millions more severe, often debilitating illnesses. Faced with an undeniable threat to collective security and personal health, authoritarians should, per prevailing psychological theories, have been among the most concerned by COVID-19, the most willing to undertake health behaviors to protect themselves against COVID-19, and the most eager to enact public health restrictions to control the spread of COVID-19.

Over the course of the pandemic, however, studies seem to have mostly failed to produce these theorized relationships between authoritarianism and COVID-19 responses in the US. Although few public opinion surveys include the personality measures necessary to directly test the relationship between dispositional needs for security like authoritarianism and responses to COVID-19, many surveys did ask Americans to report their partisan and ideological identities, which are highly correlated with authoritarianism in the US due to dispositional sorting of more authoritarian Americans into the Republican Party and conservative bloc (Hetherington and Weiler 2009; 2018). Since the outset of the pandemic, conservatives and Republicans (relative to liberals and Democrats) have reported less concern about the threat from COVID-19 (Gadarian, Goodman, and Pepinsky 2021; van Holm et al. 2020; Makridis and Rothwell 2020), lower rates of social distancing (Allcott et al. 2020), more resistance to masking (Fan, Orhun, and Turjeman 2020), and lower rates of COVID-19 vaccination.¹ Indeed, in a review of 141 estimates from 44 studies, conservatism was significantly related with reduced COVID-19 health behavior uptake in 112 cases (Geana, Rabb, and Sloman 2021). Given US authoritarians' strong tendency toward right-wing partisan-ideological identification, these studies seem to suggest Americans with the highest dispositional needs for security were the *least* concerned by COVID-19 and the *least* supportive of health behaviors and public health restrictions to contain the COVID-19 pandemic.

The American experience with COVID-19 was seemingly at odds with the expectations one would have straightforwardly derived from influential psychological theories on the threat-politics link. Specifically, the pandemic poses two vexing questions for such theories of political preferences: (1) why did conservatives and Republicans, despite their purported dispositional

¹ The Kaiser Family Foundation tracks COVID-19 vaccine uptake across partisan groups: <https://www.kff.org/coronavirus-covid-19/dashboard/kff-covid-19-vaccine-monitor-dashboard/>

sensitivities to threat and social instability, adopt health behaviors and policy preferences which likely exacerbated the severity of COVID-19; and (2) why did liberals and Democrats, despite their purported non-authoritarian, threat insensitive dispositions, dutifully sequester, adorn masks, and vaccinate to protect themselves against COVID-19, while also forcefully advocating for restrictions on personal autonomy for the sake of collective health?

This chapter seeks to answer these questions by drawing on recent psychological theories of political attitudes which argue the relationships between dispositions and political preferences can be conditioned by individuals' level of attention to politics (Johnston, Lavine, and Federico 2017). Specifically, I argue that attention to political discourse in the US countervailed the direct relationship between dispositional authoritarianism and Americans' responses to COVID-19. I show that politically engaged Americans entered the pandemic sorted into partisan-ideological groups whose elites offered messages at odds with sorted individuals' dispositional orientations toward threat and insecurity; in turn, the associations between authoritarianism and Americans' concerns about COVID-19, their willingness to adopt health behaviors, and their preferences for public health restrictions became conditioned by their level of interest in, knowledge about, and investment in politics—i.e., their political engagement. Politically disengaged Americans are not well sorted along dispositional lines, nor attentive to contra-dispositional political cues; as such, I expect authoritarianism to be directly associated with greater concern about COVID-19, greater uptake of protective health behaviors, and support for public health restrictions. However, among politically engaged Americans who are well-sorted and attentive to contra-dispositional political cues, I expect authoritarianism to be associated with less concern about COVID-19, lower health behavior uptake, and greater opposition to public health restrictions.

I test these expectations in four national surveys fielded 2020-2021 during the COVID-19 pandemic. My findings affirm that authoritarianism was associated with increased concern about

COVID-19 for politically disengaged Americans, but reduced concerns for politically engaged Americans. Authoritarianism was also associated with greater support for public health restrictions among disengaged Americans, but reduced support for public health restrictions for politically engaged Americans. Interestingly, however, I find little evidence that authoritarianism was conditionally associated with health behavior uptake, especially in 2021. My results suggest political engagement may have played a more important moderating role in shaping Americans' attitudinal responses to COVID-19 than their behavioral ones.

This study makes several important contributions. My findings support recent accounts of public opinion formation which contend psychological traits exert heterogeneous effects (Federico and Malka 2018; Johnston, Lavine, and Federico 2017; Malka et al. 2014). Authoritarianism, a common measure of threat sensitivity and dispositional needs for security, was *conditionally* related to Americans' responses to COVID-19. Directly, authoritarianism was associated with concern for the threat of COVID-19 and support for public health restrictions aimed at mitigating that threat. However, authoritarianism also promotes partisan-ideological sorting into right-wing political groups and, in turn, contra-dispositional cue-taking among the politically engaged. This indirect channel for authoritarianism to affect responses to COVID-19 cut against Americans' dispositional proclivities toward COVID-19, countervailing authoritarianism's direct impacts on Americans' responses to COVID-19, at least among politically engaged Americans. My findings help make sense of the complex relationship between personality, political engagement, and elite context in terms of how citizens respond to crises including, but likely not limited to, pandemics. Further, this study clarifies bounds for the threat-politics link in contexts where sorting along dispositional lines places citizens in political groups who espouse positions at odds with sorted individuals' dispositional orientations towards threat and insecurity—a dynamic likely at play in the US on more issues than just COVID-19 responses.

3.1 Authoritarianism and its Conditional Relationships to Political Preferences

Research across several fields has converged in highlighting the importance of persistent threat sensitivity, dispositional needs for security, and psychological aversion to uncertainty as key determinants of political preferences. Perhaps the most influential work in this area revolves around the study of the “authoritarian personality” (Adorno et al. 1950; Altemeyer 1981, 1996; Duckitt et al. 2002; Feldman and Stenner 1997; Hetherington and Weiler 2009, 2018; Stenner 2005). In these accounts, authoritarianism is theorized as capturing a dispositional aversion to threat and uncertainty, as well as an underlying need for collective order and security. In turn, authoritarianism is thought to promote hierarchy-enhancing outlooks which serve to manage threat and maintain social stability, though at the possible expense of individual freedoms and autonomy. Thus, in the influential motivated social cognition account of ideology forwarded by Jost et al. (2003), dispositional sensitivities to threat and uncertainty spur conservative political orientations, while tolerance of (or perhaps a taste for) risk and social change spurs progressive political orientations.

Recent psychological theories of mass politics amend the motivated social cognition account by contending at least two dimensions—one cultural (or social), the other economic—are necessary to capture the full array of ideological orientations in the U.S. public (Feldman and Johnston 2014; Treier and Hillygus 2009), and that psychological traits are more consistently associated with cultural ideologies than economic ones (for reviews, see Federico and Malka 2018 and Johnston and Ollerenshaw 2020). Indeed, the theoretical connection between threat sensitivity/needs for security and economic conservatism is sometimes viewed as tenuous since redistributive policies help to mitigate downside economic risks in market economies (Crawford 2017). Further, a litany of recent empirical studies have found authoritarianism is often directly

associated with *liberal* economic policy preferences (Arikan and Sekercioglu 2019; Jedinger and Burger 2019; Johnston, Lavine, and Federico 2017; Malka, Lelkes, and Soto 2019; Ollerenshaw and Johnston 2022; but see also Azevedo et al. 2019). To summarize, this literature in political psychology generally shows authoritarianism is closely associated with social conservatism and right-wing political identification in the US, but that authoritarianism is inconsistently associated with Americans' economic preferences.

To explain why dispositional traits like authoritarianism weakly correlated with economic preferences in the US, Johnston et al. (2017) put forth the “reversal hypothesis.” In their account, Johnston et al. begin by noting that Americans are becoming increasingly well-sorted along dispositional lines in the 21st century, with authoritarians sorting into the Republican Party and non-authoritarians sorting into the Democratic Party (see also Hetherington and Weiler 2009). Critically, however, this sorting is only evident among *politically engaged* Americans, defined by Johnston et al. as citizens who are interested in and knowledgeable about politics. Johnston et al. contend mass sorting among the politically engaged, coupled with the extant alignment of US political elites along a single left-right ideological dimension, opens an indirect channel through which authoritarianism can affect economic preferences. Directly, authoritarianism is associated with left-wing views on issues of redistribution and social insurance, given such policies mitigate downside economic risks; indirectly, however, authoritarianism promotes identification with and cue-taking from right-wing elites who promote economic conservatism in the US. Conversely, non-authoritarianism is directly associated with pro-market views that allow for innovation and autonomy, but identification with left-wing elites who promote economic liberalism to ingroup members. Since politically engaged Americans are better sorted as a function of dispositions and more attentive to political discourse (Zaller 1992), Johnston et al. (2017) find politically engaged Americans often adopt economic views in line with partisan-ideological elites, but at odds with

their dispositions (see Ollerenshaw and Johnston 2022 and Ollerenshaw 2022 for recent large-N replications of these findings).

The key implication of Johnston et al.'s account is that the effects of authoritarianism can reverse for politically engaged citizens in situations where citizens sort into partisan-ideological groups that offer polarized cues at odds with sorted individuals' direct dispositional preferences on an issue. In this paper, I contend the reversal hypothesis can be extended beyond the domain of economic preferences and is applicable to understanding Americans' responses to COVID-19. During the pandemic, politically engaged Americans dispositionally sensitive to the threat of COVID-19—i.e., authoritarians—entered the pandemic sorted into Republican partisanship and conservative identity, while engaged non-authoritarians were sorted into Democratic partisanship and liberal identity. I empirically demonstrate this sorting among the politically engaged before and during the COVID-19 pandemic by briefly replicating Johnston et al.'s (2017) main finding regarding the conditional associations of authoritarianism with right-wing political identities.

Figure 7 displays the results of multiplicative linear models regressing partisanship and ideology on authoritarianism, political engagement, their interaction, and demographic controls for age, education, employment, gender, income, race/ethnicity, and state of residence.² I analyze the 2016/2020 American National Election Study (ANES), which are national cross-sections of voting-eligible US adults ($n_{2016}=2,590$, $n_{2020}=7,449$).³ Positive values indicate authoritarianism is associated with right-wing partisan or ideological identities, estimated between the 5th and 95th percentiles of political engagement. This figure essentially replicates Johnston et al.'s (2017) key findings regarding the dispositional sorting of politically engaged Americans in 2016 and 2020.

² This model is much like that of Johnston et al. (2017), but fully moderated to address potential omitted interaction bias (Blackwell and Olson 2022). See Appendix B.2 for more details on the measurement of key variables.

³ In other words, that dispositional sorting predates COVID-19. Indeed, expanding the ANES time series from 1992-2020, this conditional relationship as a function of political engagement has moderately strengthened over time.

Before and during the pandemic, politically disengaged authoritarians were barely, if at all, more likely to identify with the Republican Party than disengaged non-authoritarians. At high levels of political engagement, however, authoritarians are much more likely to identify as Republicans and conservatives than non-authoritarians—differences of more than 0.40-points on 0-1 scales in 2020. In the following section, I theorize how conditional sorting shapes how authoritarianism is consequential for Americans’ responses to the COVID-19 pandemic.

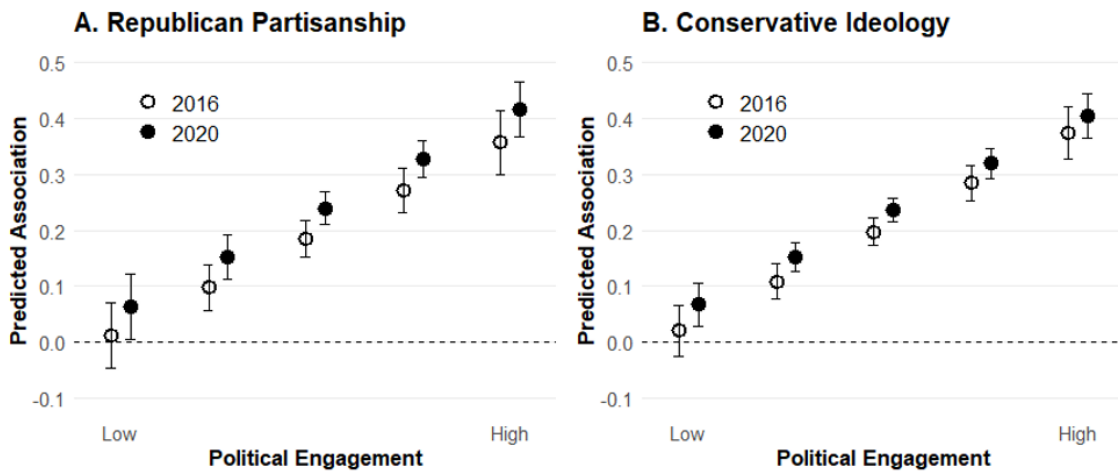


Figure 7: Conditional Associations of Authoritarianism with Right-Wing Identities. Positive values indicate associations of authoritarianism with more Republican or conservative identification. 95 percent confidence intervals. Data weighted. Source: 2016/2020 American National Election Study (ANES) Time Series.

3.2 The Conditional Effects of Authoritarianism on COVID-19 Responses

Authoritarianism is theorized to tap threat sensitivity, needs for security, and preferences for social conformity (Feldman 2015; Stenner 2005). Indeed, authoritarianism has also long been thought to tap individuals’ willingness to submit to those who can impose order on an otherwise dangerous, unpredictable world (Altemeyer 1981; Fromm 1941). Authoritarians should thus be more willing to cede individual freedoms to centralized powers like the government in exchange for collective security. Put succinctly by Hetherington and Weiler (2009), “[w]hen presented with trade-offs that might limit certain civil liberties to buttress safety, those who are more

authoritarian will tend to choose safety.” In theory then, authoritarians should have been highly concerned with the threat of COVID-19 and, in turn, eager to support public health restrictions and adopt personal health behaviors to mitigate the threat of COVID-19. For these reasons, a strict psychological theory of authoritarianism’s relationship with COVID-19 responses would likely posit that authoritarians would respond more hawkishly to the threat posed by COVID-19 than non-authoritarians.

However, psychological dispositions rarely act in a vacuum (Federico and Malka 2018; Johnston, Lavine, and Federico 2017); other forces certainly influenced Americans’ perceptions of COVID-19’s risks, as well as their beliefs regarding the necessary responses to the virus. As COVID-19 cases surged in March 2020, US public health officials urged social isolation and distancing, calling on Americans to eliminate non-essential travel and remain six or more feet apart in public settings. In addition, health officials (after some delay) began to endorse masking to reduce COVID-19’s spread in late spring 2020. These recommendations, however, found proponents and skeptics along America’s partisan-ideological divide. In this section, I review elite-level polarization on COVID-19, and contend Americans’ attention to polarized political discourse shaped politically engaged Americans’ beliefs about the threat posed by COVID-19 and the appropriate behavioral and policy responses to that threat (or perceived lack thereof).

Since early in the pandemic, Democratic elites have been vocal supporters of masking, social distancing, and staying-at-home to control the spread of COVID-19 (J. Green et al. 2020; Grossman et al. 2020). Republican elites, on the other hand, sent far more equivocal messages regarding the efficacy and necessity of these and other recommended health behaviors. Donald Trump, for example, frequently downplayed the need to wear masks, even mocking Democratic-nominee Joe Biden’s mask-wearing habits at a presidential debate watched by over 73 million Americans. President Trump’s view of masks was perhaps best captured in this statement he

made on August 13th, 2020: “Maybe they’re great, maybe they’re just good. Maybe they’re not so good.” Republican elites further ridiculed “Sleepy Joe” for running a socially distanced virtual campaign from his Delaware home’s basement while Trump traveled the country to host live campaign rallies. Republican elites’ rather blatant disregard for social distancing and masking recommendations even produced a widely-publicized “super-spreader” event at the September 2020 White House Rose Garden Party, where the Chair of the RNC, three Republican senators, and President Trump himself were infected with COVID-19. Given these blatant differences in adherence to, and advocacy on behalf of, public health recommendations, politically engaged Americans will have received conflicting cues from Democratic and Republican elites about the severity of COVID-19 and the need to adopt health behaviors like masking and social distancing.

In addition to masking and distancing, on December 11th, 2020, a new means of reducing the risk posed by COVID-19 became available when the first COVID-19 vaccine was approved. Unsurprisingly, but quite unfortunately, COVID-19 vaccination also became polarized in much the same way masking and social distancing had been. By March 2021, every single Democratic member of Congress reported having received at least one COVID-19 vaccine dose. By contrast, just 95 of 212 House Republicans and 46 of 50 Republican Senators reported being vaccinated at this point despite the widespread availability of COVID-19 vaccines to members of Congress.⁴ Although it would be unfair to characterize Republican elites as wholly “anti-vax” in a personal capacity, especially when President Trump was the one who greenlit “Operation Warp Speed” to speed COVID-19 vaccine development, a stronger pro-vaccine consensus inarguably emerged among Democratic and liberal elites compared to Republican and conservative elites by 2021.

⁴ Data from <https://www.cnn.com/2021/05/14/politics/democrats-vaccination-rates-house-mask-rules/index.html>

Not only did partisan-ideological elites diverge in terms of the health behaviors they personally engaged in and advocated that Americans engage in, elites also diverged considerably on whether compliance with public health recommendations should be state-enforced. Compared to Democratic governors, Republican governors were less likely to declare stay-at-home orders and implement capacity restrictions on businesses early in the pandemic.⁵ Similarly, by October 2020, every Democratic governor in the US had implemented statewide mask mandates, whereas 15 Republican governors opted not to issue mask mandates. Some Republicans went even further in their opposition to mask mandates; Governor Ron DeSantis, for example, barred Florida cities from assessing fines for non-compliance with local mask ordinances, and Governor Brian Kemp banned local Georgia governments from instituting mask mandates altogether until August 2020. Similarly, after COVID-19 vaccines became available, Democratic policymakers were likelier to institute vaccine mandates in workplaces, colleges and universities, medical facilities, and other public settings. Overall, Democratic elites were willing to implement public health restrictions to enforce public health recommendations, while Republican elites were uneager to use government authority toward these ends, especially as the pandemic stretched beyond the spring of 2020.

To summarize, from a strictly dispositional perspective, authoritarians should have been among the most concerned by the health threat posed by COVID-19 and more likely than non-authoritarians to alter their health behaviors and support public health restrictions to avoid the deadly disease. However, those attentive to political elites' polarized responses to COVID-19 would have received mixed messages regarding the severity of COVID-19 and the appropriate responses to the pandemic. I contend attention to polarized elite discourse cut against Americans'

⁵ For an overview of governors' early responses to COVID-19, see: <http://theconversation.com/democratic-governors-are-quicker-in-responding-to-the-coronavirus-than-republicans-135599>.

dispositional proclivities in response to COVID-19 because politically engaged authoritarians had sorted into the Republican Party and conservative bloc, which downplayed the severity of COVID-19, while engaged non-authoritarians were sorted into the Democratic Party and liberal bloc, which adopted hawkish responses to COVID-19. Although authoritarianism likely directly spurred concern for COVID-19, support for public health restrictions, and a willingness to adopt health behaviors, the indirect effects of authoritarianism via partisan-ideological sorting and attention to polarized elite discourse would have exerted pressure in the opposite direction. Thus, I derive three hypotheses for how authoritarianism will be *conditionally* associated with COVID-19 responses for politically disengaged vs. politically engaged Americans:

(H1): Authoritarianism will be associated with greater concern for the threat posed by COVID-19 among politically disengaged Americans, but less concern regarding COVID-19 among politically engaged Americans.

(H2): Authoritarianism will be associated with greater support for public health restrictions among politically disengaged Americans, but greater opposition to such measures among politically engaged Americans.

(H3): Authoritarianism will be associated with greater adoption of protective health behaviors among politically disengaged Americans, but reduced uptake of such health behaviors among politically engaged Americans.

3.3 Data

To test H1-H3, I analyze four US adult samples fielded during the first two years of the pandemic. My analyses require datasets with measures of authoritarianism, political engagement, and at least one of three COVID-19 responses (concern, health behaviors, preferences for public health restrictions). Two publicly-available surveys include these measures: the Voter Study

Group (VSG) panel and the 2020 ANES-GSS.⁶ The VSG is a non-probability panel with waves fielded via YouGov from 2011 to 2020 (see Appendix B.1 for detailed sample descriptions). In the September 2020 wave, VSG respondents were asked about COVID-19 concerns and eight items gauging their preferences for public health restrictions. The VSG also included a four-item authoritarianism measure in 2016 and various measures of political engagement across its 2016-2020 waves. By analyzing the subsample of respondents who completed the 2016 and 2020 VSG waves (n=3,275), I have the requisite measures to test H1 and H2 (but not H3). The 2020 ANES-GSS is a merged probability-based sample of respondents who completed the 2020 ANES post-election survey and the 2020 General Social Survey (n=806). Between the ANES-GSS surveys, I have the requisite measures to test H1 regarding COVID-19 concerns (but not H2 or H3).

To supplement these two publicly-available surveys, neither of which includes measures to test H3, I fielded two non-probability, quota-based samples on Lucid in 2020 (n=1,032) and 2021 (n=2,117). Past research suggests carefully drawn Lucid samples track well with national benchmarks (Stagnaro et al. 2024), and that Lucid samples can be well-suited for testing many social scientific research questions (Coppock and McClellan 2019). However, scholars have also raised concerns about high rates of inattentiveness in Lucid samples fielded during and after the pandemic (Aronow et al. 2020; Stagnaro et al. 2024). To deal with potential inattention, I applied two attention checks to screen respondents. First, respondents completed a CAPTCHA-style check where they were asked to identify two of six pictures with stop signs. Later, respondents were told: “Many people are busy and do not have time to closely follow what goes on in the government. We are interested in whether people read survey questions. To show that you have read this question, please select both “Very interested” and “Somewhat interested” below.”

⁶ The 2020 ANES-GSS is used in lieu of the full 2020 ANES because the GSS asked about COVID-19 concerns.

Respondents who failed either attention check are excluded. Both Lucid surveys measured health behavioral adoption and public health restriction preferences, allowing me to test H2 and H3. In Table 2, I summarize the key sample characteristics (see Appendix B.1 for more detailed sample descriptions).

Table 3: Sample Characteristics

	2020 ANES-GSS	2020 Lucid	2021 Lucid	VSG Panel
Authoritarianism Items	4 items	5 items	8 items	4 items
Political Engagement	Knowledge (5-item)	Interest (2-item) Knowledge (6-item)	Interest (2-item) Knowledge (5-item)	Interest (6-item) Knowledge (7-item)
COVID-19 Concern	Yes	No	No	Yes
Health Behaviors	No	Masking Distancing	Masking (2-item) Distancing (2-item) Vaccination	No
Public Health Restrictions	No	Business Closures Cell Tracking Lockdowns Mask Mandates	Business Closures Cell Tracking Lockdowns Mask Mandates (2-item) Vaccine Mandates	Business Closures Cancel Events General Restrictions Mandatory Testing School Closures Stay at Home Orders Travel Restrictions Work from Home
Sampling Approach	Probability-Based	Non-Probability, Quotas	Non-Probability, Quotas	Non-Probability; see Appendix B.1
N	806	1,032	2,117	3,275

Between the four samples, I have pooled samples of at least 3,149 respondents for testing H1-H3. In general, I pool samples to increase precision, but also provide separate results from 2020 and 2021 surveys because there could be differences in how these relationships manifested in early vs. later stages of the pandemic. The pooled samples are

well-powered to test H1-H3 based on the interaction effects in a closely related literature testing the conditional relationship of authoritarianism with economic preferences.⁷

3.4 Methodology

In this section, I outline how I operationalize key variables toward building multiplicative interaction linear regression models, with the primary focus being the interaction effects between authoritarianism and political engagement on COVID-19 responses. Full question wordings are provided for all measures in Appendix B.2.

3.4.1 Authoritarianism

To assess authoritarianism, respondents in all four surveys answered a battery of questions about childrearing values. Childrearing values are among the most widely employed measures of authoritarianism among political psychologists today (Feldman and Stenner 1997; Hetherington and Weiler 2009; Stenner 2005). Each item in the battery has respondents choose between two traits that would be good for children to have. Respondents choosing more socially conformist traits (e.g., “obedience” over “self-reliance”) are taken as having more authoritarian dispositions. The benefits of this particular measure are numerous for political science research: its items lack explicit political content (cf. Altemeyer 1981); it does not suffer acquiescence bias (cf. Adorno et al. 1950); and it is at least plausibly exogenous to political attitudes (cf. Altemeyer 1981; Engelhardt, Feldman, and Hetherington 2021; but see Bakker, Lelkes, and Malka 2021 for recent evidence of political attitudes' potential reciprocal influence on personality). The number of pairwise choice items is four in the VSG and the ANES-GSS, five in the Lucid 2020 survey,

⁷ Specifically, in a recent large-N study examining authoritarianism×engagement interactions to predict economic policy preferences, Ollerenshaw and Johnston (2022) find 0.12 standardized interactions between authoritarianism and political engagement. The pooled samples have more 90% power to identify interactions of this size, though the individual samples (particularly the ANES-GSS and Lucid 2020 survey) are underpowered to detect effects this size.

and eight in the Lucid 2021 survey (the standard authoritarian childrearing values battery is four items, but adding items has been shown to improve its measurement properties; see Engelhardt, Feldman, and Hetherington 2021). I additively scale the items such that the final authoritarianism measure ranges from 0 to 1, with higher values indicating greater dispositional authoritarianism.

3.4.2 Political Engagement

To assess political engagement, I create scales that equally weigh subjective political interest and objective political knowledge (following, e.g., Johnston, Lavine, and Federico 2017; Jones 2023; Ollerenshaw and Johnston 2022). Essentially, I construct sub-scales of political interest and political knowledge, then give each subscale half of the weight in a measure of political engagement. Respondents in the VSG completed one political interest item six times in waves between 2016 and 2020; I scale responses to these six questions to create the political interest subscale, then construct the political knowledge subscale from seven political knowledge items in the 2019 wave (e.g., identifying Neil Gorsuch's job title, knowing the party in control of the US Senate). Respondents in the Lucid samples reported their interest in politics and the average number of days per week they watch political news to create a political interest subscale, and were asked six (2020) or five (2021) factual political knowledge items to create a political knowledge subscale. These subscales were again combined with equal weight. Finally, in the ANES-GSS, I use a five-item political knowledge battery as a measure of political engagement and do not include political interest items since, unfortunately, the ANES's political interest items were asked in the *pre-election* wave, and thus are not included in the ANES-GSS. The political engagement measures are scaled to take values from 0 (disengaged) to 1 (engaged).

3.4.3 Dependent Variables

COVID-19 Concern: Respondents' level of concern regarding COVID-19 is measured with one item in each survey; the VSG, for example, asked respondents "How concerned are you that you or a close family member will get sick from the coronavirus?" The COVID-19 concern measure is recoded from 0 (not at all concerned) to 1 (very/extremely concerned).

Public Health Restrictions: To assess preferences regarding public health restrictions aimed at controlling COVID-19's spread, I additively scale available policy preferences gauged on each survey. In the 2020 VSG, eight policy preferences were gauged, such as preferences for closing businesses, canceling large gatherings, and testing people for fever before allowing them to enter public buildings. Respondents in both Lucid surveys reported their attitudes toward four policies: (1) business closures; (2) mask mandates; (3) city-wide lockdowns; and (4) allowing government agencies to track cell geolocations to enforce social distancing. In the 2021 survey, respondents also reported their preferences for (5) COVID-19 vaccine mandates. The public health restriction measures are rescaled to range from 0 (opposition) to 1 (support).

Health Behaviors: To assess individuals' uptake of health behaviors, respondents in both Lucid samples were asked to report how often they wore face masks and socially distanced from others in public.⁸ Additionally, the 2021 Lucid sample asked respondents to report their COVID-19 vaccination status operationalized as a binary variable taking the values of 0 (unvaccinated) or 1 (fully or partially vaccinated). 71 percent of the Lucid 2021 sample reported being partially or fully vaccinated for COVID-19, a similar rate to the 65 percent vaccination rate recorded by the Center for Disease Control when the Lucid 2021 survey was fielded in October 2021. Responses

⁸ Prior studies suggest self-reported health behaviors during the pandemic do appear to correspond with real-world behavioral uptake (Gollwitzer et al. 2020; Larsen, Nystrup, and Petersen 2020).

to the masking, distancing, and (in 2021) vaccination items are combined, equally weighted, into overall health behavioral uptake indices rescaled to range from 0 (low uptake) to 1 (high uptake).

3.4.4 Controls

In each model, I control for age, education, gender, income, race/ethnicity, state of residence, and sample fixed effects when pooling multiple samples. I fully moderate the model by interacting each control (except state of residence and the sample fixed effects) with political engagement to address any potential omitted interaction bias (Blackwell and Olson 2022). The ANES-GSS does not have publicly available variables for state of residence due to GSS policies for respondent re-identifiability, so I instead use 9-category Census divisions to impute states as their share of the Census division's population (e.g., Middle Atlantic respondents take values of 0.22 for NJ, 0.48 for NY, 0.30 for PA, 0.00 otherwise).

I use multiple imputation to address the missing controls (which are mostly unreported incomes), but I do not impute authoritarianism, political engagement, or the outcome variables. Notably, I do *not* control for partisanship or ideology because, consistent with prior research testing for conditional relationships between personality and political attitudes (Jedinger and Burger 2019; Johnston et al. 2017; Malka et al. 2014; Malka, Lelkes, and Soto 2019; Ollerenshaw and Johnston 2022), my theory assumes that authoritarianism's indirect effects are *mediated* by partisan-ideological sorting and the incorporation of elites' positions for politically engaged Americans. Controlling for partisanship or ideology would bias the interactions between authoritarianism and political engagement by controlling for variables that mediate responses to COVID-19 among politically engaged Americans (Baron and Kenny 1986).

3.5 Results

I begin by testing H1 (Concerns) using a pooled sample of the ANES-GSS and VSG. H1 hypothesized that authoritarianism would be associated with greater concern toward COVID-19 among politically disengaged Americans, but less concern among politically engaged Americans. In Figure 8, I display key results from a multiplicative linear interaction model where positive predicted values indicate associations between authoritarianism and greater concern toward COVID-19, and negative values indicate associations with reduced concern toward COVID-19.

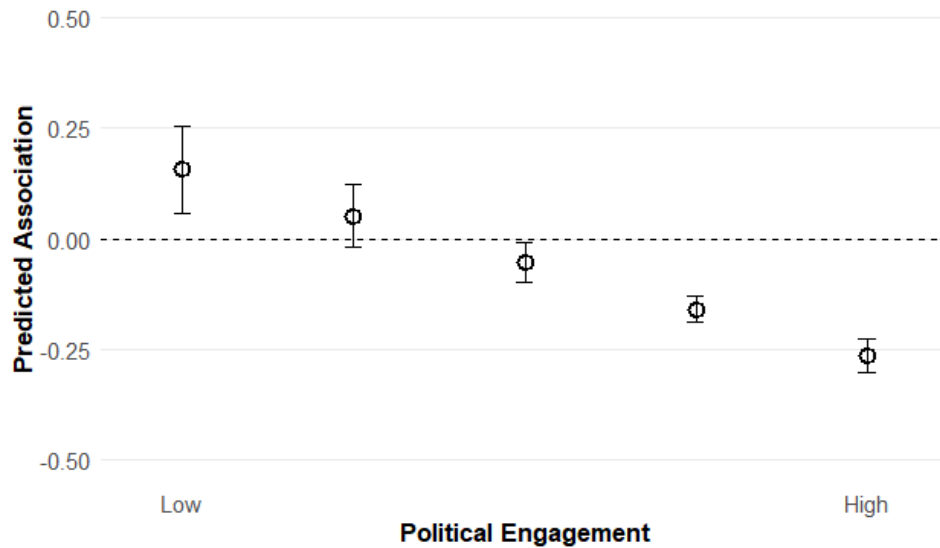


Figure 8: Conditional Associations of Authoritarianism with COVID-19 Concern. Positive values indicate associations of authoritarianism with higher levels of COVID-19 concern. 95 percent confidence intervals. Source: 2020 ANES-GSS, Voter Study Group.

At the lowest level of political engagement, I find that authoritarianism (taken from its minimum to maximum levels) is associated with 0.16-points higher concern about COVID-19 ($p=0.002$). Among the politically disengaged, authoritarianism is moderately associated with greater concern regarding the threat of COVID-19, consistent with predominant psychological theories that contend authoritarianism taps threat sensitivity and needs for security. However, Figure 8 shows that authoritarianism has a very different relationship with COVID-19 concern

among politically engaged Americans. At the highest political engagement, authoritarianism is associated with 0.26-points lower COVID-19 concern ($p < 0.001$). This result is consistent with my theoretical expectations that politically engaged authoritarians, well-sorted into right-wing identities and attentive to ingroup cues about the threat (or lack thereof) from COVID-19, would have been less concerned about COVID-19 than politically engaged non-authoritarians attentive to left-wing cues about COVID-19's severity. The overall interaction between authoritarianism and political engagement is 0.42-points ($p < 0.001$), indicating a highly contingent relationship. These analyses therefore provide strong support for H1.

Next, I examine the conditional relationship between authoritarianism and preferences for public health restrictions using the VSG and 2020/2021 Lucid surveys. H2 hypothesized that authoritarianism would be associated with support for public health restrictions among politically disengaged Americans, but opposition among politically engaged Americans. In Figure 9, I show results from a multiplicative interaction linear model where positive predicted values indicate associations between authoritarianism and support for public health restrictions and negative values indicate associations with opposition to public health restrictions. I also provide results for 2020 vs. 2021 separately since these relationships could have differed from the pandemic's first to second years.

In the pooled sample, at the lowest level of political engagement, I find authoritarianism is associated with 0.11-points greater support for public health restrictions ($p = 0.001$). Politically disengaged authoritarians were somewhat more likely to support public health restrictions than disengaged non-authoritarians, consistent with theories that authoritarians are generally more willing to trade individual autonomy for collective security. However, authoritarianism among politically engaged Americans has an entirely different relationship with public health restriction preferences. At the highest level of political engagement, authoritarianism is associated with

0.24-points less support for public health restrictions ($p < 0.001$). This result is consistent with my theory that politically engaged authoritarians would exhibit public health restriction preferences consistent with right-wing elites' laissez-faire COVID-19 policies. The overall interaction effect is 0.35-points ($p < 0.001$), indicating a highly contingent relationship between authoritarianism and this outcome consistent with H2.

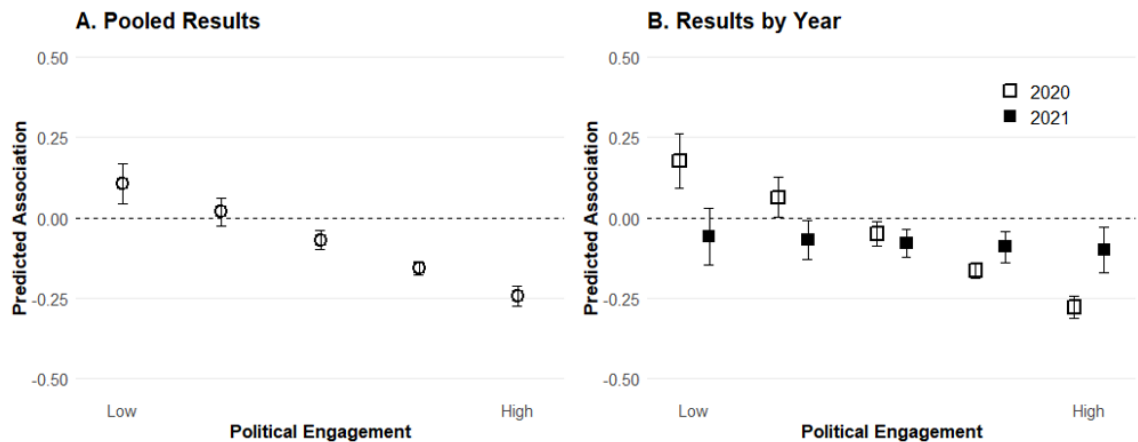


Figure 9: Conditional Associations of Authoritarianism with Support for Public Health Restrictions. Positive values indicate associations of authoritarianism with greater support for COVID-19 public health restrictions. 95 percent confidence intervals. Source: Lucid 2020/2021, Voter Study Group.

Interestingly, the results disaggregated by year in Figure 9 show political engagement did not significantly moderate the relationship between authoritarianism and public health restriction preferences in 2021 the same way it did in 2020. In the 2020 samples, authoritarianism has a 0.18-point association with support for public health restrictions at low political engagement and a 0.28-point association with opposition to public health restrictions at high political engagement for an overall -0.45-points interaction effect ($p < 0.001$). In 2021, however, authoritarianism has a 0.06-point association with opposition to public health restrictions at low political engagement and a 0.10-point association at high political engagement for an overall interaction of 0.04-points ($p = 0.547$). Although these results are not shown in Figure 9, I also specifically find a significant

negative interaction in the Lucid 2020 survey ($\beta=-0.20$, $SE=0.08$, $p=0.017$), which suggests the discrepancy between the significant result in 2020 and the null result in 2021 is due to the timing of the survey, not differences in sampling methodology or questionnaire, as these are relatively consistent across the Lucid 2020/2021 surveys. In the early stages of the COVID-19 pandemic, authoritarianism had a far more contingent relationship with Americans' preferences for public health restrictions as a function of political engagement than it did later into the pandemic.

Authoritarianism's relationships with Americans' attitudinal responses to COVID-19 are contingent on political engagement in terms of levels of concern and preferences towards public health restrictions, at least in early stages of the pandemic. Do such conditional relationships also manifest in health behavioral responses such as masking, social distancing, and vaccination? H3 hypothesizes authoritarianism will be associated with increased uptake of these health behaviors among politically disengaged Americans, but less uptake among politically engaged Americans. I test H3 using the Lucid 2020/2021 samples. In Figure 10, I show the results of a multiplicative interaction linear model where positive predicted values indicate associations of authoritarianism with increased health behavioral uptake and negative predicted values indicate associations with reduced health behavioral uptake. Recall that the 2020 health behavior index includes masking and social distancing items, while the 2021 index includes masking, distancing, *and* vaccination.

In the pooled sample, at the lowest level of political engagement, I find authoritarianism is associated with 0.03-points greater less uptake of health behaviors ($p=0.399$), a null result that is also inconsistently signed from the expectations laid out in H3. At the highest level of political engagement, authoritarianism is associated with 0.05-points less health behavior uptake, a result that is substantively small but narrowly significant ($p=0.027$). Of course, the overall interaction between authoritarianism and political engagement is only -0.02-points ($p=0.629$), indicating the relationship between authoritarianism and health behavioral uptake is insignificantly moderated

by political engagement. These results are mostly inconsistent with the expectations laid out in H3.

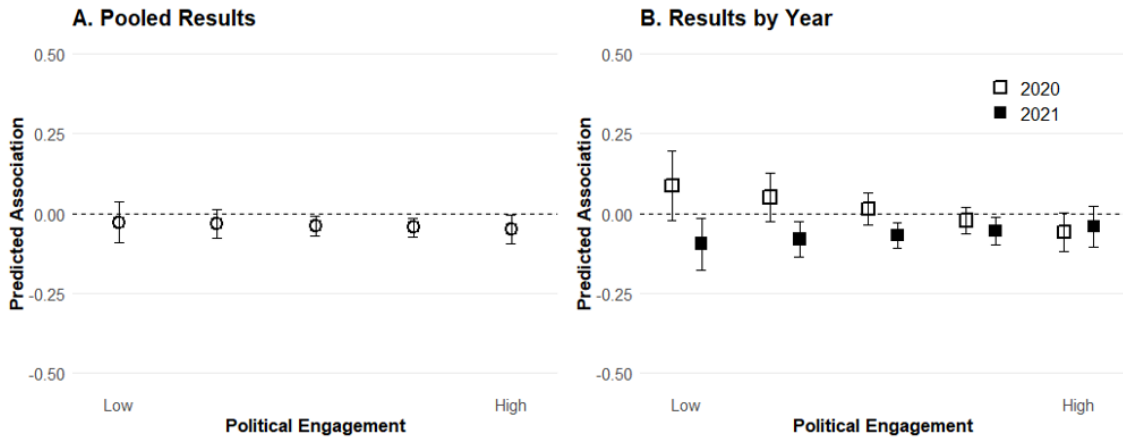


Figure 10: Conditional Associations of Authoritarianism with Health Behavior Uptake. Positive values indicate associations of authoritarianism with greater uptake of COVID-19 health behaviors. 95 percent confidence intervals. Source: Lucid 2020/2021, Voter Study Group.

Once again, the results disaggregated by year show political engagement had a somewhat different moderating role in 2020 vs. 2021. In the 2020 Lucid sample, authoritarianism has a 0.09-point association with increased health behavior uptake at low political engagement and a 0.06-point association with reduced health behavior uptake at high political engagement for an overall -0.14-points interaction effect ($p=0.051$). In the 2021 sample, however, authoritarianism has a 0.09-point association with reduced health behavior uptake at low political engagement and a 0.04-point association with reduced health behavior uptake at high political engagement for an overall interaction of 0.05-points ($p=0.384$)—a null (and incorrectly signed) result. Notably, this result holds omitting the added vaccination item in the 2021 health behavior index so that 2020 and 2021 are exclusively masking/distancing indices. Although the pandemic was by no means over by the fall of 2021 when the Lucid 2021 survey was fielded, authoritarianism no longer had contingent relationships with Americans’ responses to the COVID-19 pandemic both in terms of

public health restriction preferences and willingness to engage in health behaviors like masking, social distancing, and vaccination for COVID-19.

It is also worth pointing out that the health behavior interaction is weaker than that for attitudes related to COVID-19 concern and preferences for public health restrictions, even in 2020. One possible explanation for this discrepancy is that COVID-19 health behaviors were not shaped by individual dispositions to the same degree as COVID-19 attitudes (concern and policy preference) because there are other, more important determinants of health behavioral responses. Specifically, health behavioral uptake was, to a significant extent, outside of individuals' volition and instead a product of government and business policies. During the pandemic, many state and local governments and businesses enacted mandates that required Americans to adopt behaviors like masking, work-from-home, and vaccines (KFF 2021). Surveys where respondents report the health behaviors they engaged in may not capture individuals' underlying preferences toward these behaviors the same way questions about concern and public health restrictions might because many Americans were essentially forced to adopt health behaviors (e.g., an individual may mask if required by a local mask mandate, but they might oppose mask mandates). In this way, there could be slippage between individuals' attitudinal and their behavioral responses to COVID-19, attenuating the relative importance of dispositions on health behavioral outcomes.

3.6 Discussion

In this paper, I sought to clarify how authoritarianism was associated with Americans' responses to the COVID-19 pandemic, a novel threat to health and social order that presented an ideal case study of the psychological threat-politics link. Analyzing four national surveys fielded during the pandemic, I found authoritarianism was often conditionally associated with COVID-19 concerns, policy preferences, and health behaviors for Americans. For politically disengaged

Americans, authoritarianism was associated with greater concern over COVID-19, support for public health restrictions, and a slightly greater uptake of health behaviors, at least in 2020. For citizens highly engaged with politics, however, authoritarianism had the opposite effects in each of these areas, being associated with reduced concern, less support for public health restrictions, and a reduced willingness to adopt health behaviors. My analyses are consistent with a model of COVID-19 response whereby the direct effects of authoritarianism as a dispositional need for security were countervailed by its indirect effects mediated through partisan-ideological sorting. These indirect effects are weak for politically disengaged Americans, who are neither well-sorted nor particularly attuned to politics, but quite strong among politically engaged citizens who are well-sorted dispositionally and highly attentive to polarized elite discourse. In this way, many Republicans/conservatives and Democrats/liberals ended up responding to COVID-19 in ways seemingly at odds with their ostensible dispositional orientations toward threat and insecurity.

Before proceeding further, it is worth noting that the Lucid studies, and perhaps even the Voter Study Group analyses, should not be taken as providing unbiased estimates of the *overall* effects of authoritarianism on Americans' COVID-19 responses. Based on my results, the overall estimated effect of authoritarianism will depend on the distribution of political engagement in the sample analyzed. The distributions of political engagement in the non-probability samples likely do not accurately reflect that of the US population because non-probability samples generally have more politically engaged respondents than is representative of the US populace (Kennedy et al. 2016a). Thus, authoritarianism's overall estimated effects likely would have differed from what I find in these samples had more representative samples been analyzed. However, although the non-probability samples are inappropriate for estimating authoritarianism's overall effects on Americans' responses to COVID-19, these samples *are* arguably well-suited for testing whether

authoritarianism exerted conditional effects as a function of political engagement because these inferences do not rely on the samples having representative distributions of political engagement.

In addition, it is worth directly addressing the issue of causality. A central contention of this study is that Americans sort into partisan-ideological camps based on their dispositions and, in turn, align their responses to COVID-19 to comport with ingroup elites (and, additionally, to distinguish themselves from their outgroup's elites; Nicholson, 2012). Most political psychology research assumes that personality unidirectionally influences political attitudes, identities, and behavior. However, Bakker, Lelkes, and Malka (2021) challenge this foundational assumption and argue that psychological traits, including authoritarianism, are at least partially endogenous to political attitudes (see also Arceneaux et al. 2024). Looking at panel data, Bakker et al. find lagged cultural policy preferences and ideological identity predict increased authoritarianism in subsequent waves. Further, in experiments, Bakker et al. find that political identity primes cause liberals and Democrats to report lower levels of authoritarianism. Taken together, these results suggest a possible reciprocal influence of political attitudes and identities on authoritarianism.

The key threat to assessing causality in the present study is the possibility that Americans adopt authoritarian dispositions based on their political attitudes and identities. However, there are good reasons to believe reverse causality is not a major threat to inference in these cases. In the Lucid surveys, respondents completed the authoritarian childrearing values measures *before* answering any questions about political attitudes or identities—an ideal design for attenuating any political priming effects on personality self-reports. And in the VSG, authoritarianism was measured four years earlier than the outcome variables due to the VSG's panel design. Bakker et al. (2021) also report the effects of political attitudes on personality reports are not conditioned by political sophistication in their analyses (though they caveat this by noting that their tests may simply lack adequate statistical power). That I find different associations of authoritarianism on

COVID-19 responses as a function of political engagement likely cannot be reduced solely down to biased self-reporting of authoritarianism alone.

Finally, while Bakker et al. (2021) make an extremely valuable contribution, Engelhardt, Feldman, and Hetherington (2021) offer similar tests and find authoritarianism *is* exogenous to political attitudes. Examining ten distinct political attitudes/identities across two panel surveys, Engelhardt et al. (2021) find every single lagged item fails to predict authoritarianism except one incorrectly signed case (i.e., Tea Party support predicting *decreased* authoritarianism). Grappling with the possibility of reverse causality is long overdue for political psychologists (Arceneaux et al. 2024); however, the best evidence to date still remains equivocal on whether authoritarianism, at least when measured via childrearing values, is endogenous to political attitudes and identities.

3.7 Conclusion

Amidst a raging pandemic, an apparent challenge to a longstanding political psychology literature emerged as American conservatives, despite their well-established dispositional threat sensitivity, adopted health behaviors and policy preferences which likely exacerbated the health threat they and others faced during the COVID-19 pandemic. Conversely, liberals, despite their ostensibly non-authoritarian, threat tolerant dispositions, emerged as enthusiastic supporters of health behaviors and public health restrictions aimed at mitigating the spread of COVID-19. Can America's experience with the COVID-19 pandemic be reconciled with a leading psychological theory that posits those on the political right maintain greater threat sensitivity and dispositional needs for security than those on the political left (Jost et al. 2003; 2017)? I answer this question by identifying the contingent link between authoritarianism and Americans' responses to the COVID-19 pandemic—a link predicated on partisan-ideological sorting along dispositional lines and attention to contra-dispositional cues among politically engaged Americans.

The present study addresses ongoing debates about the role of psychological dispositions in shaping mass political attitudes and behavior. One significant contribution of this study is that it extends the reversal hypothesis, originally derived by Johnston, Lavine, and Federico (2017) to explain economic preference formation, into three previously untested domains: concern over COVID-19, health behavioral uptake, and support for public health restrictions. I find the effects of authoritarianism reverse as a function of political engagement in at least two of three cases, which suggests dispositions also exert heterogeneous effects beyond the economic domain where the reversal hypothesis was initially forwarded. Taken altogether, my analyses provide support for recent political psychological accounts which posit dispositions and political context *jointly* shape political preferences due to the downstream effects of dispositional sorting and political cue-taking (Federico and Malka 2018; Johnston and Ollerenshaw 2020; Malka et al. 2014).

Additionally, my findings may offer some insight into comparative responses to COVID-19. Conditional relationships between dispositions and political attitudes are not exclusive to the US, though extant studies outside of the US have largely been aimed at understanding economic preferences (e.g., Arikan and Sekercioglu 2019; Jedinger and Burger 2019; Malka, Lelkes, and Soto 2019). Applying similar theories to explaining responses to COVID-19, the US provides an ideal test case for what is likely a cross-national phenomenon. While I cannot provide direct evidence on this point, my findings suggest authoritarianism will be conditionally associated with responses to COVID-19 in places where the public came into the pandemic dispositionally sorted and political elites polarized on COVID-19 in ways where elites were at odds with sorted citizens' dispositional orientations. To offer a specific example, I would expect authoritarianism had a conditional relationship with the Brazilian public's responses to COVID-19 because right-wing authoritarians' tend to support Jair Bolsonaro, a politician who engaged in concerted efforts to downplay COVID-19's severity and opposed public health restrictions (Canineu and Muñoz

2021). A potentially fruitful avenue for future research would involve testing how dispositions differentially affected citizens' responses to COVID-19 in contexts characterized by different configurations of elite-level political polarization, like past studies that have sought to explain cross-national variation in the relationship between dispositions and economic ideology (Malka et al. 2014).

Finally, and perhaps most importantly, this study has implications for understanding how political discourse affects the public's responses to national crises. My results suggest elite-level discourse spurred greater support for public health restrictions among politically engaged non-authoritarians, but reduced support for such measures among politically engaged authoritarians. While it is beyond the scope of this paper to determine whether, on net, elite discourse produced a more or less optimal public response to the COVID-19 pandemic in the US, these results do suggest that stronger bipartisan advocacy on behalf of public health recommendations may have reduced recalcitrance among some segments of the US public towards means of controlling the pandemic. Had such a consensus been maintained, the US may have avoided some portion of the more than 1.2 million COVID-19 deaths the US has experienced since the pandemic's outset.

4. The Conditional Relationships of Needs for Security and Certainty with Collective Security Preferences

Scholarship at the nexus of psychology and political science has long theorized that stable dispositions and personality traits are linked to political attitudes and behaviors (Adorno et al. 1950; Rokeach 1960). Influential research in this area has been particularly attentive to the roles of individual differences in threat sensitivity and needs for security and certainty (NSC) as key determinants of political attitudes (Johnston, Lavine, and Federico 2017; Jost 2017; Federico and Malka 2018). Indeed, many political psychologists now contend ideological structures in the mass public are significantly undergirded by needs for security and certainty (Hatemi, Eaves, and McDermott 2012; Jost 2006; Thorisdottir et al. 2007).

Importantly, the last decade of research on NSC shows their relationships to political attitudes are not always straightforward; considerable variation exists across contexts, issues, and individuals. For example, NSC have robust associations with cultural conservatism, but mixed associations with economic preferences (Malka et al. 2014; Johnston, Lavine, and Federico 2017; Ollerenshaw and Johnston 2022). This heterogeneity across the cultural and economic domains is typically explained by the mediating role of partisan-ideological sorting and cue-taking in how NSC become linked with political attitudes. For example, in the US where partisan-ideological elites package cultural conservatism with economic conservatism along a single ideological dimension (Lupton, Myers, and Thornton 2015), NSC are heterogeneously related to economic preferences. NSC promote economic liberalism for politically disengaged individuals who view redistribution and social insurance policies as ways to enhance security and mitigate uncertainty; however, NSC also generally lead politically engaged Americans to sort into the Republican Party and, in turn, adopt conservative economic preferences from inparty elites (Federico and Malka 2018; Johnston and Ollerenshaw 2020). Thus, NSC have different relationships to

economic preferences for politically engaged and disengaged Americans due to the structure of elite partisan-ideological conflict. These lines of inquiry highlight the importance of political context and individual-level political engagement towards understanding how NSC relate to political attitudes.

Interestingly, although there has been growing attention to contingencies in how NSC are related to cultural and especially economic preferences, less work has tested for contingencies in these relationships on issues of collective security—arguably the most theoretically-proximate issues where NSC are said to explain individual differences in political attitudes (Adorno et al. 1950; Jost et al. 2017). Many issues have citizens weigh trade-offs between collective security and other considerations such as individual rights, autonomy, and non-interventionist principles. Political psychologists have often argued, and empirically demonstrated, that individuals high in NSC tend to prioritize collective security over these alternative considerations when forming political preferences (Altemeyer 1981; Stack 2003; Cohrs et al. 2005; Hetherington and Weiler 2009; Hetherington and Suhay 2011). Yet, as I later demonstrate, NSC considerably vary in their relationships to collective security preferences. Do contingencies based on partisan-ideological cues and individual-level political engagement explain this variation in how NSC are related to collective security preferences.

In this paper, I examine eight national US surveys to understand how needs for security and certainty (NSC) relate to collective security preferences. My analysis extends psychological accounts of opinion formation in these areas by demonstrating that associations of NSC with pro-security attitudes are, to a considerable degree, maintained by partisan-ideological cue-taking by politically engaged Americans. Specifically, I find NSC are often weakly associated with pro-security attitudes among politically disengaged Americans, but that NSC often become strongly associated with pro-security attitudes among the politically engaged. Even more interestingly, I

find political engagement does not *invariably* strengthen the associations between NSC and pro-security attitudes; indeed, this only occurs for issues where Republicans and conservatives take pro-security stances vis-à-vis Democrats and liberals. On issues where Democrats and liberals prioritize collective security interests more so than Republicans and conservatives (e.g., gun control), the association between NSC and pro-security attitudes attenuates and reverses signs altogether as political engagement increases.

This study contributes to active lines of inquiry regarding the psychological determinants of political attitudes. My findings affirm that although needs for security and certainty may *pre-dispose* citizens towards political attitudes that prioritize collective security (Jost 2006; 2017; Thorisdottir et al. 2007; Jost, Federico, and Napier 2013), these relationships vary considerably in strength and sign based on partisan-ideological groups' issue stances and individuals' attention to those stances. My findings support theories that propose relationships of psychological traits to political attitudes often depend on sorting, the structure of elite conflict, and individual-level political engagement—studies heretofore focused on cultural and economic issues (Malka et al. 2014; Johnston, Lavine, and Federico 2017; Federico and Malka 2018; Malka, Lelkes, and Soto 2019; Ollerenshaw and Johnston 2022; Ollerenshaw 2022). This study evinces the importance of considering partisan-ideological polarization alongside dispositional needs when thinking about the psychological bases of public opinion, particularly among politically attentive individuals.

4.1 Dispositional Needs for Security and Certainty and Political Attitudes

A long line of inquiry in the political and psychological sciences has sought to identify connections between pre-political dispositions and political beliefs. Among many dispositions of interest, perhaps the most studied are traits broadly defined as “needs for security and certainty” (NSC). NSC are theorized as “existential needs to maintain safety and security and to minimize

danger and threat” and “epistemic needs to attain certainty, order, and structure” (Jost, Federico, and Napier 2013). A raft of personality measures have been proposed as indicators of NSC (for reviews, see Jost et al. 2003; Federico and Malka 2018); frequently utilized measures of NSC in political science include authoritarianism and (low) openness to experience (Adorno et al. 1950; Gerber et al. 2011). Authoritarians, for example, are thought to experience threat persistently and aversively and, in turn, seek order and stability in their lives and from their environment (Feldman 2015). Authoritarianism is an example of a widely-studied disposition which taps into an enduring need for security and certainty (Feldman and Stenner 1997; Feldman 2003; Lavine, Lodge, and Freitas 2005; Hetherington and Weiler 2009; Lavine et al. 2017).

A prevailing view in political psychology is that individuals with high NSC are attracted to right-wing (or conservative) political views because the political right generally advocates for social hierarchy, order, and stability; right-wing beliefs thus satisfy needs to mitigate threat and uncertainty (Azevedo et al. 2019; Jost 2017; Jost et al. 2003; Jost, Federico, and Napier 2013; Thorisdottir et al. 2007). Conversely, those predisposed to tolerate insecurity and uncertainty are said to gravitate to liberal views because such views, if enacted, would further social progress, autonomy, and non-interventionist principles. Consistent with these accounts, a large literature finds NSC are associated with right-wing ideological identification and, in the US, Republican partisanship (Altemeyer 1981; Jost et al. 2003; Hetherington and Weiler 2009).

Recent research, however, somewhat modifies this predominant theoretical account by emphasizing the contingent and contextual associations of NSC to political attitudes, which vary across issues, individual political engagement, and contexts (Federico, Johnston, and Lavine 2014; Malka et al. 2014; Johnston and Wronski 2015; Johnston, Lavine, and Federico 2017; Federico and Malka 2018; Johnston and Ollerenshaw 2020; Ollerenshaw and Johnston 2022). Perhaps the central contention of these accounts is that citizens often adopt attitudes for identity-

based reasons because some issues attitudes are discursively bundled with other attitudes that resonate with their underlying dispositions. In the US context, for example, NSC are directly associated with cultural conservatism, and politically engaged Americans end up sorting into partisan-ideological camps that resonate with their cultural views (Hetherington and Weiler 2009; Johnston, Lavine, and Federico 2017). Because partisan-ideological groups have become increasingly divided on cultural issues, Americans higher in NSC have increasingly sorted into the Republican and conservative blocs while those lower in NSC have sorted into the Democratic and liberal blocs. Crucially, dispositional sorting is most pronounced for the politically attentive and knowledgeable (i.e., the politically engaged) because these individuals both understand the cultural positions forwarded by partisan-ideological groups and prioritize cultural issues in their political outlook (Johnston, Lavine, and Federico 2017). In Figure 11, I replicate Johnston et al.’s (2017) work on dispositional sorting as functions of political engagement using the 1992-2020 American National Election Study (ANES), which includes authoritarianism as an NSC measure. Over the last three decades, NSC have become increasingly associated with right-wing partisan-ideological identification—but only among politically engaged Americans. Dispositional sorting remains weak even in the most recent period (2020) among politically disengaged Americans.

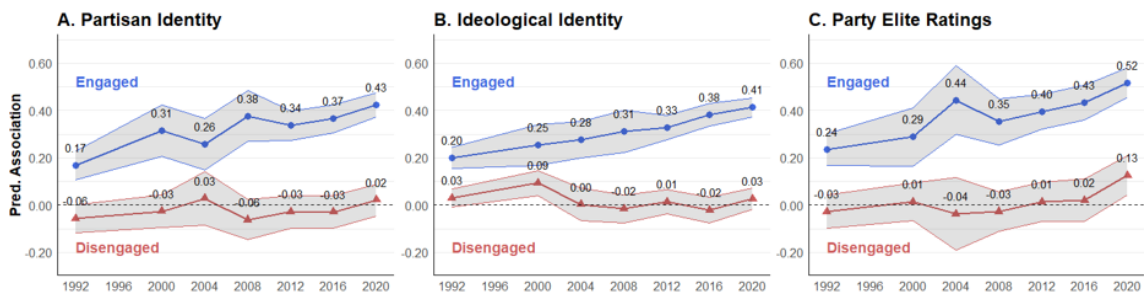


Figure 11: Associations of Authoritarianism with Partisan-Ideological Orientation. Points are predicted associations of authoritarianism with right-wing partisan-ideological orientations with 95 percent confidence bounds. Disengaged and engaged correspond with the 5th and 95th engagement percentiles. Controls for age, gender, race, income, education, employment status, and state of residence. Data are weighted. Source: American National Election Time Series.

Politically engaged Americans' dispositional sorting and attention to polarized partisan-ideological discourse has important implications for public opinion formation. Recent work finds partisan-ideological cues compound the association between NSC and cultural conservatism among politically engaged Americans since partisan-ideological cues and dispositional NSC act in the same direction (Ollerenshaw and Johnston 2022). In contrast, due to US elites' bundling of cultural and economic ideologies, partisan-ideological cues on economic issues countervail the direct relationship of NSC with left-wing economic preferences, instead promoting conservative economic preferences among politically engaged Americans (Malka et al. 2014; Johnston and Wronski 2015; Johnston, Lavine, and Federico 2017; Jedinger and Burger 2019; Ollerenshaw 2022; Ollerenshaw and Johnston 2022). Thus, to understand how dispositions relate to political attitudes, one must consider how dispositions interact with partisan-ideological cues, especially for politically engaged individuals attentive to political cues and willingness to incorporate them into their preferences to maintain congruence with their political ingroups (Zaller 1992). To date, however, little work has assessed if NSC are contingently associated with preferences on issues of collective security despite these issues' centrality in studies of NSC.⁹ In the next section, I outline expectations for how NSC should be conditionally associated with collective security attitudes in ways that correspond to heterogeneity in partisan-ideological groups' issue positions.

4.2 Political Engagement, Partisan-Ideological Cues, and Collective Security Issues

Across the diverse issue space related to matters of collective security, one would expect NSC to frequently be associated with attitudes that advance collective security interests, even at

⁹ Perhaps the closest study to date on this matter is Ollerenshaw (2022), which found that authoritarian dispositions were conditionally associated with support for public health interventions during the COVID-19 pandemic.

the potential expense of individual rights, autonomy, and principles of non-interventionism. For national security issues, a large literature supports this expectation—NSC are often associated with militaristic, hawkish foreign policy views (Crowson 2009; Eckhardt and Newcombe 1969; Harnish, Bridges, and Gump 2018; Hetherington and Suhay 2011; Huddy et al. 2005; Schoen 2007). NSC are also associated with support for domestic security measures such as wiretapping and curtailed civil liberties following terrorist attacks (Cohrs et al. 2005; Davis and Silver 2004; Hetherington and Weiler 2009). Further, studies of public opinion regarding issues of crime and public safety find positive associations between NSC and punitive, tough-on-crime preferences (Altemeyer 1981; Carroll et al. 1987; Narby, Cutler, and Moran 1993; Stack 2003). These studies converge in highlighting that NSC are generally associated with pro-security preferences—a key insight I do not seek to upturn. However, studies have yet to explore potential heterogeneity in these associations, which may be differentially shaped by partisan-ideological cues across issues.

To understand how partisan-ideological cues might affect the associations of NSC with collective security preferences, I next review the parties' and ideological groups' positions on collective security issues. Studies of issue ownership consistently find Republicans are viewed by the public as more capable stewards on matters of crime, anti-terrorism, border control, and public safety (Fagan 2019; Goggin and Theodoridis 2017; Petrocik 1996; Therriault 2015). In foreign policy, Republicans and conservatives are generally more hawkish and militaristic than Democrats and liberals (Dueck 2010; Ehrman 1995; Gadarian 2010). Further, a perusal of the parties' respective platforms provides rich evidence of Republicans' relatively greater concern for collective security; in 2016, for example, the Republican national platform reaffirmed support for the death penalty to deter crime, decried the Obama Administration's "harassment" of police forces, framed lax border control as a grave national security threat, and recommitted themselves to increasing defense spending. The Democratic platform, in contrast, devoted large sections to

criminal justice reform, curbing waste in defense spending and auditing the Pentagon, support for bans on torture, and stated “[Democrats] will use all the tools of American power, *especially diplomacy and development*, to confront global threats [emphasis added].” On these issues like these where Republicans and conservatives have prioritized collective security more than Democrats and liberals have, I expect that attention to partisan-ideological cues (i.e., political engagement) will strengthen the relationship between NSC and collective security preferences.¹⁰

Although the US political right generally “owns” pro-security positions, there are several notable issues of public safety and national defense where the left have adopted stronger pro-security positions. Perhaps the most familiar issue of this sort is gun control. Democrats have included gun control planks in their platforms since 1968, and in the wake of mass shooting events throughout the 2000s, Democrats and liberals have intensified their call for gun control (Holian 2004; Spitzer 2020). Republicans, by contrast, often support more unfettered gun rights, opposing even measures such as universal background checks as violations of individual rights (Quinn 2020). Thus, for issues of gun control, Democrats embrace a pro-security position while Republicans advocate for protections of individual rights. In turn, these partisan-ideological cues should lead NSC to have weaker associations with collective security preferences for politically engaged Americans.

Gun control is not the only issue where Democrats and liberals have staked out stronger pro-security positions than Republicans and conservatives. Republicans have usually been more hawkish on Russia than Democrats; for example, in 2012, Republican presidential nominee Mitt Romney called Russia the number one threat facing the US, a view that President Barack Obama

¹⁰ To be clear, both parties often prioritize collective security interests, but Democrats and liberals will sometimes give relatively greater weight to other considerations like civil liberties and non-interventionism than Republicans and conservatives. It is the partisan-ideological groups’ stances vis-à-vis one another that I argue is relevant here.

mocked at the third presidential debate, stating “the 1980s are now calling to ask for their foreign policy back.” Of course, following Russian efforts to hamper Hillary Clinton’s 2016 presidential campaign, Democrats adopted far more hawkish views toward Russia in and after 2016, offering more hawkish Russian positions than those of Republicans. Similarly, during this same period, President Trump and other Republican elites became engaged in protracted conflict with the Federal Bureau of Investigations (FBI) due to the FBI’s probe into Russian interference in the 2016 election. While Trump denounced the probe as an attempt by “The Deep State” to kneecap his presidency, Democrats vociferously defended the FBI. Thus, though Republicans are usually stronger supporters of law enforcement agencies, Democrats have been more vocal supporters of the FBI. In a similar vein, Democrats have been especially concerned about the rise of online dis-/misinformation since 2016, and have increasingly supported online speech controls to address these national security threats. Finally, Democrats adopted stronger collective security positions during the COVID-19 pandemic than Republicans (Ollerenshaw 2022). For these myriad issues where Democrats and liberals have taken stronger pro-security positions than Republicans and conservatives, I expect partisan-ideological cues will decrease the association between NSC and preferences for collective security, especially among politically engaged Americans.

To summarize, I derive two hypotheses about how NSC should conditionally relate to preferences for collective security depending on the issue and individuals’ political engagement:

(H1): The associations between needs for security and certainty (NSC) and pro-security attitudes will be stronger among politically engaged relative to disengaged Americans when Republicans and conservatives prioritize collective security concerns more than Democrats and liberals.

(H2): The associations between needs for security and certainty (NSC) and pro-security attitudes will be weaker among politically engaged relative to disengaged Americans when Democrats and liberals prioritize collective security concerns more than Republicans and conservatives.

4.3 Data

To assess the relationships between dispositional needs for security and certainty (NSC) and Americans' preferences on policies and issues that involve trade-offs between collective security and individual rights, autonomy, and/or non-interventionism, I examine eight surveys. I selected surveys that included measures of NSC, political engagement, and collective security preferences. Since I am interested in how partisan-ideological sorting and cue-taking affects the relationship between NSC and collective security preferences, I use surveys fielded in or after 2008 since this period is when dispositional sorting became especially pronounced among politically engaged Americans (recall Figure 11; see also Johnston, Lavine, and Federico 2017).

Table 3 summarizes the eight surveys I analyze which include: the 2008, 2012, 2016, and 2020 American National Election Study (ANES) Time Series; a 2020 ANES-GSS sample linking the 2020 ANES post-election wave to the 2016-2020 General Social Survey panel's 2020 wave; the 2008 Cooperative Campaign Analysis Project (CCAP) fielded by YouGov; an online Lucid survey fielded in 2024; and the 2016-2020 Voter Study Group (VSG) panel fielded by YouGov¹¹. In Appendix C.1, I provide more detailed descriptions of each survey's sampling methodology.

The most important methodological detail about these surveys for my purpose here is whether the survey used probability or non-probability sampling. The ANES and ANES-GSS are probability-based samples; the CCAP, Lucid, and VSG samples are non-probability samples. The CCAP and VSG use post-stratification weights to increase representativeness; the Lucid 2024 survey does not include post-stratification weights. Although YouGov often performs quite well

¹¹ The Voter Study Group only includes a measure of NSC (authoritarianism) in 2016 but does include measures of political engagement and collective security preferences across its 2016, 2017, 2018, 2019, and 2020 waves. I drop respondents who did not participate in the 2016 wave and otherwise treat the VSG panel as a cross-sectional survey pooling measures across its 2016-2020 waves.

on demographic and civic benchmarks of representativeness (Kennedy et al. 2016b), and other work even contends Lucid samples are well-suited to testing social scientific research questions (Coppock and McClellan 2019), one specific issue with non-probability samples is they tend to overrepresent politically engaged individuals. If the relationships between NSC and collective security preferences are moderated by political engagement, the average effects of NSC will be biased in non-probability samples by their unrepresentative distributions of political engagement.

However, non-probability samples can still be useful for identifying interactions between NSC and collective security preferences since these interactions are not necessarily biased by skewed distributions of political engagement. Instead, the potential issue becomes that estimates at low engagement derived from non-probability samples will be imprecise due to the relatively small share of disengaged respondents in these samples. Fortunately, the non-probability samples I use are large enough to where imprecision is not a major concern due to the sheer size of the samples (for a similar large-N approach on other issues, see Ollerenshaw and Johnston 2022).

Additionally, prior work shows the conditional relationships between NSC and political attitudes are stronger in probability-based panels than Lucid samples, likely due to differences in respondent attentiveness and effort (Ollerenshaw and Johnston 2022; Stagnaro et al. 2024). I also find weaker conditional relationships in all three cases where the Lucid survey replicates ANES analyses, but the relationships are at least in consistent directions across samples. By contrast, I do not find consistent differences in estimates when comparing the two non-probability samples recruited via YouGov (CCAP/VSG) against the ANES, which suggests the CCAP and VSG may have higher levels of response quality than the Lucid sample. While all eight datasets are useful for testing my hypotheses, readers should be cautious about making comparisons across samples given these samples differ in their sampling methodologies (detailed further in Appendix C.1).

Table 4: Sample Characteristics. Bold issues indicate Democrats/liberals stake out pro-security positions; non-bold indicate Republicans/conservatives stake out pro-security positions.

Sample	Collective Security Issues	Dispositional NSC	Political Engagement	Sampling Approach	N
ANES (2008)	Border Spending, Crime Spending, Death Penalty, Defense Spending, Gun Control , Support for Iraq War, Torture Terrorists, War on Terror Spending	Authoritarianism (4-items)	Interest (3-items) Knowledge (4-items)	Probability, Weights	2,102
ANES (2012)	Crime Spending, Death Penalty, Defense Spending, Gun Control , Iran Hawkishness, Police Spending, Post-9/11 Security, Torture Terrorists, Wiretapping (General)	Authoritarianism (4-items) Big 5 Openness to Experience (2-items)	Interest (2-items) Knowledge (7-items)	Probability, Weights	5,460
ANES (2016)	Border Fence/Wall, Crime Spending, Death Penalty, Defense Spending, Gun Control , ISIS Intervention, Police Ratings, Post-9/11 Security, Torture Terrorists, Wiretapping (General)	Authoritarianism (4-items) Big 5 Openness to Experience (2-items)	Interest (4-items) Knowledge (8-items)	Probability, Weights	3,567
ANES (2020)	Assault Weapons Ban , Border Spending, Border Fence/Wall, China/Iran/Mexico/ Russia Security Threats, COVID Restrictions , Crime Spending, Death Penalty, Defense Spending, FBI Ratings , Gun Control , ICE Ratings, Police Ratings, Police Use of Force, Urban Unrest/Law and Order	Authoritarianism (4-items)	Interest (4-items) Knowledge (8-items)	Probability, Weights	7,453
ANES-GSS (2020)	Criminal Sentencing, Defund Police Opposition	Authoritarianism (4-items)	Knowledge (5-items)	Probability, Weights	806
CCAP (YouGov) (2008)	Border Fence/Wall, Death Penalty, Handgun Ban , Iran Hawkishness, Mandatory Minimums, Support for Iraq War	Authoritarianism (5-items) Big 5 Openness to Experience (2-items)	Interest (8-items) Knowledge (12-items)	Non-Probability, Weights	13,029
Lucid (2024)	Ban Chinese Media, Ban Russian Media , FBI Ratings , Gun Control , Gun Control Trade-Off , Online Speech Controls , Online Speech Trade-Off , Military Ratings, Police Ratings, Wiretapping Left-Wing Extremists , Wiretapping Right-Wing Extremists	Authoritarianism (8-items) Big 5 Openness to Experience (5-items) Need for Closure (10-items) Schwartz Values (5-items)	Interest (2-items) Knowledge (7-items)	Quota-Based, Non-Probability	5,708
VSG (YouGov) (2016-2020)	COVID Restrictions , Death Penalty, FBI Ratings , Guilt-Innocence Trade-Off, Gun Control , Police Ratings	Authoritarianism (4-items)	Interest (6-items) Knowledge (7-items)	Non-Probability, Weights	7,998

4.4 Methodology

My analyses require four sets of variables: needs for security and certainty, political engagement, collective security attitudes, and statistical controls. In this section, I outline how I measure and operationalize these variables (full question wordings available in Appendix C.2).

4.4.1 Needs for Security and Certainty

Several widely-used personality measures tap into dispositional needs for security and certainty (NSC). These personality measures include authoritarianism, need for closure, risk aversion, Schwartz conservation and openness values, the binding moral foundations of purity, loyalty, and authority, and (low) Big Five openness to experience (Federico and Malka 2018). Recent empirical studies have used confirmatory factor analyses to show these measures share common variance, and that they are similarly related with political attitudes (Johnston, Lavine, and Federico 2017; Ollerenshaw and Johnston 2022).¹² As shown in Table 3, publicly-available surveys by and for political scientists generally include authoritarianism and sometimes a two-item openness to experience measure; these are unsurprisingly among the most widely-utilized personality measures in political science (Gerber et al. 2011; Feldman 2015). To these, in the Lucid survey, I add measures of Schwartz conservation/openness values and need for closure.

Authoritarianism in every survey is measured using the childrearing values approach (Feldman 2003; Stenner 2005; Engelhardt, Feldman, and Hetherington 2023). In this approach, respondents are presented with pairs of traits described as “desirable for children to have.” One trait in each pair prioritizes social conformity, and the other prioritizes individual autonomy (e.g., obedience vs. self-reliance, good manners vs. curiosity). Respondents selecting more conformist

¹² This is not to say there are not often differences in how these personality measures relate to political attitudes; rather, each taps latent needs for security and certainty that have predictable relationships with political attitudes.

childrearing values are taken to be more authoritarian. Perhaps more than any other personality measure, prevailing conceptualizations of authoritarianism argue those higher in this disposition are prone to trade-off individual rights and autonomy for collective security (Adorno et al. 1950; Altemeyer 1996; Cohrs et al. 2005; Hetherington and Weiler 2009). Authoritarianism is among the most widely employed NSC indicators in studies of public safety and national defense issues, making it especially appropriate for testing my theory. Authoritarianism is the sole NSC measure asked on the 2008/2020 ANES and VSG.

In addition to authoritarianism, the 2012/2016 ANES and 2008 CCAP include two-item measures of openness to experience. Low openness to experience is another indicator of NSC (Johnston, Lavine, and Federico 2017; Federico and Malka 2018). These two-item measures are drawn from the Ten-Item Personality Inventory (TIPI), and ask respondents to evaluate two word or phrase pairs (“open to new experiences, complex” and “conventional, uncreative”), then rate how well the word/phrase pair describes them. Rejection of the first word pair and endorsement of the second indicates the respondent is lower in openness to experience, an indicator of NSC. A potential concern is that brief personality measures like these will risk underestimating (and even incorrectly signing) the associations of personality with political attitudes (Bakker and Lelkes 2018). Fortunately, my analyses do not rely solely on these brief openness measures because the 2012/2016 ANES and CCAP also include authoritarianism. To generate NSC scores in these samples, I use a simple one-factor model combining authoritarianism and openness items (see Appendix C.2 for full factor analysis). I find that the openness to experience items load less strongly than the authoritarianism items onto the NSC factor, but that they at least load in the theorized direction. This is consistent with prior studies employing openness to experience and authoritarianism (Ollerenshaw and Johnston 2022), and likely reflects the noisiness of these brief measures. For the 2012/2016 ANES and CCAP, one-factor model scores serve as NSC measures.

The Lucid 2024 survey includes four personality measures. The first measure is an eight-item authoritarianism childrearing values measure from Engelhardt, Feldman, and Hetherington (2023), an extension of the four-item childrearing values measure. The second measure is a five-item openness to experience battery where respondents are asked how strongly they agree or disagree with statements like “I have a vivid imagination” and “I am not interested in abstract ideas” (reversed). The third measure is a five-item Schwartz values battery that asks respondents how well statements describe themselves; three statements tap into conservation values which indicate NSC (e.g., “Living in secure surroundings is important to this person; to avoid anything that might be dangerous”) and two tap openness values indicating low NSC (e.g., “Adventure and taking risks are important to this person; to have an exciting life”). The fourth measure is a ten-item need for closure scale where agreement to statements such as “I dislike unpredictable situations” is taken to indicate NSC. To generate NSC scores, I fit a second-order factor model. The first level has three factors: authoritarianism, openness to experience, and need for closure. Although I had expected Schwartz values to constitute an independent first-order factor, the two Schwartz openness items load highly onto the openness to experience factor, while the three conservation items load well onto the need for closure factor. The three first-order factors then load onto the second-order factor; I derive predicted NSC scores from this second-order factor.¹³

4.4.2 Political Engagement

To assess political engagement, I begin by creating subscales of “subjective” political interest and “objective” political knowledge from available items on each survey. In general, the political interest items are questions such as “How often do you pay attention to what’s going on

¹³ This second-order factor model includes a methodological factor for the common item response sets, which is constrained to be orthogonal to the substantive personality factors.

in government and politics?” or “How many days a week do you follow political news?” These questions ask respondents to subjectively evaluate how interested they are in political affairs. I additively scale the political interest items on each survey to generate political interest subscales.

The potential downside of political interest is that respondents’ self-reported interest in politics may not fully correspond with their actual attention to or understanding of politics. Thus, I also create political knowledge subscales based on the average number of correctly answered questions gauging general civic knowledge, knowledge of major political figures (e.g., the Vice President), and being able to correctly identify the parties that hold majorities in the House and Senate. The major benefit of political knowledge questions is that they provide a more objective measure of individuals’ understanding of politics. The potential downside of political knowledge items is that in online surveys (which most respondents across my eight samples completed) risk having respondents look up answers (Jensen and Thomsen 2014; Clifford and Jerit 2016). The 2020 ANES and Lucid survey include prompts to discourage cheating; the 2020 ANES also has a “trap” question to discourage subsequent cheating (see Appendix C.2 for details). These methods reduce but do not entirely prevent information search on political knowledge items in online surveys (Graham 2022). It is likely that political knowledge scores are still inflated by cheating.

Following other work on the moderating role of political engagement in public opinion formation (Johnston, Lavine, and Federico 2017; Jones 2023; Ollerenshaw and Johnston 2022), I combine the political interest and political knowledge subscales (equally weighted) to generate overall political engagement scores for each respondent. The exception to this approach is for the ANES-GSS; the 2020 ANES asked its political interest items on the *pre-election* wave, which is not a part of the ANES-GSS sample. I therefore rely on the five political knowledge items asked on the 2020 ANES *post-election* survey as my sole political engagement measure for the ANES-GSS.

4.4.3 Collective Security Preferences

Each survey gauges several issue and/or policy attitudes that involve potential trade-offs between collective security and individual rights, autonomy, and/or non-interventionism. These attitudes include those related to criminal justice, policing, domestic anti-terrorism programs, and national defense. Across the eight samples, I identified 38 unique issues falling into these areas, several of which appear in multiple samples (e.g., the death penalty). Table 3 summarizes the 38 issues. In Table 3, I do not bold issues where Republicans and conservatives have taken clearer positions prioritizing collective security than Democrats and liberals. On contra-typical issues where Democrats and liberals have staked out positions prioritizing collective security more so than Republicans and conservatives, I bold the issues in Table 3. Question wordings for these 38 outcome measures are provided in Appendix C.2.

Recent political psychological commentary has warned that narrow conceptualizations of collective security issues as strictly pertaining to public safety and national defense often leads researchers to produce misleading conclusions about how NSC are related to collective security preferences (Brandt et al. 2021; Brandt and Bakker 2022). For example, one might ask why I do not examine attitudes about climate change (nor do most studies of the threat-politics link) even though climate issues often involve trade-offs between collective security and individual rights. Indeed, climate change likely offers an easy test of H2 because Democrats and liberals take such clear pro-security positions on climate issues.

Though efforts to expand conceptualizations of collective security issues are warranted, here, I focus on traditional collective security issues related to public safety and national defense. I do so because even restricting outcome measures to public safety and national defense issues, I expect NSC will often have conditional associations with collective security preferences because US partisan-ideological groups do not consistently prioritize collective security or individual

rights on all public safety and national defense issues. For example, while Republicans are often hawkish and supportive of defense spending, Democrats have been uniquely hawkish towards Russia since 2016. Given this variation within the domains of public safety and national defense, it is unnecessary to expand beyond these areas to test whether NSC are contingently associated with collective security preferences. And by limiting the scope of my analysis to public safety and national defense, I ensure my tests speak directly to prior research that has focused on these as the most theoretically-proximate areas where NSC promote collective security preferences.

4.4.4 Controls

All analyses control for age, education, income, gender, race/ethnicity (four categories), employment status (five categories), and state of residence. The exception is the ANES-GSS, which does not include respondents' states of residence, but does have a variable with their nine-category Census division that I control for in lieu of state residency. I use multiple imputation to address missing controls (mostly respondents not reporting incomes), but I do not impute NSC, political engagement, or collective security preferences. In all analyses where NSC is interacted with political engagement, I interact political engagement with the demographic controls (except for state/region) to address potential omitted interaction bias (Blackwell and Olson 2022). I do not interact states or regions with political engagement because the potential bias reduction from doing so is likely not worth the model complexity of including an additional 50 product terms.

4.5 Results

4.5.1 Needs for Security and Certainty Often, but Do Not Always, Correlate with Preferences for Collective Security

Prevailing theories of needs for security and certainty (NSC) predict Americans higher in NSC should prioritize collective security over individual rights and/or non-interventionism more than Americans low in NSC. Before identifying conditional associations of NSC with collective

security preferences to test H1 and H2, it is worth identifying unconditional associations to show how NSC relate to Americans' preferences for collective security, on average. In this section, I assess how NSC are related to preferences across 38 issues of public safety and national defense. While some of the issues I examine are novel, much of this section replicates prior studies testing how NSC are related to preferences for collective security on issues of public safety and defense.

For each outcome in each dataset, I specify a linear model regressing the outcomes on NSC and the controls. I pool the 2008-2020 ANES for shared outcomes to increase precision. For every sample except the Lucid survey, I use weights. The outcome and NSC measures are standardized such that the NSC coefficients represent the association of a standard deviation shift in NSC on collective security preferences in standard deviations. Positive coefficients indicate NSC are associated with preferences for collective security; negative coefficients indicate NSC are associated with preferences for individual rights and/or non-interventionism.

Readers should keep in mind that I analyze a diverse set of samples, NSC measures, and outcome measures. This can be advantageous for illustrating the robustness of my results across many reasonable sampling and measurement approaches, but disadvantageous for making direct comparisons in the correlations of NSC on specific issues because it is likely that some of the observed differences are due to sampling and/or measurement differences. This is perhaps especially a concern for comparisons between probability and non-probability samples because I hypothesize (and later show) these correlations are moderated by political engagement, which is often skewed in non-probability samples (Kennedy et al. 2016b). All of that said, readers should be attentive to broad strokes in how NSC are positively vs. negatively associated with collective security preferences, and how these associations correspond to partisan-ideological polarization.

Figure 12 displays the associations of NSC with preferences for collective security across the eight datasets and 38 unique issues. Consistent with prevailing theories, dispositional NSC are

most often associated with preferences for collective security for issues of public safety and national defense. Americans higher in NSC are, on average, more supportive of border control, policing, tough-on-crime policies, domestic anti-terrorism programs, spending on defense and war, and hawkishness toward Iran, China, and even Mexico. Indeed, 30 of the 38 outcomes show significant positive associations between NSC and collective security preferences. This analysis provides evidence that, at a first approximation, Americans higher in dispositional NSC generally prioritize collective security over individual rights and/or non-interventionism, while Americans lower in NSC are less likely to support these trade-offs in order to enhance collective security.

However, NSC are notably not always associated with preferences for collective security. On two issues (banning Russian social media accounts and viewing Russia as a national security threat), I find null associations between NSC and collective security preferences. On FBI ratings, there are weakly negative associations in the VSG and weakly positive associations in the ANES and Lucid 2024 survey. But most interestingly of all, there are significant *negative* relationships between NSC and collective security preferences across the gamut of gun control policies and for COVID-19 restrictions. These negative associations are not statistical flukes; in all four surveys that gauged gun control preferences and both that gauged COVID-19 restriction preferences, NSC are negatively associated with preferences for collective security on these issues. Notably, the issues with weak or negative associations to NSC have partisan-ideological elite alignments where Democrats/liberals advocate for collective security, while Republicans/conservatives advocate for individual rights or non-interventionism. These analyses offer initial evidence that the relationships of NSC and collective security preferences hinge on partisan-ideological cues.

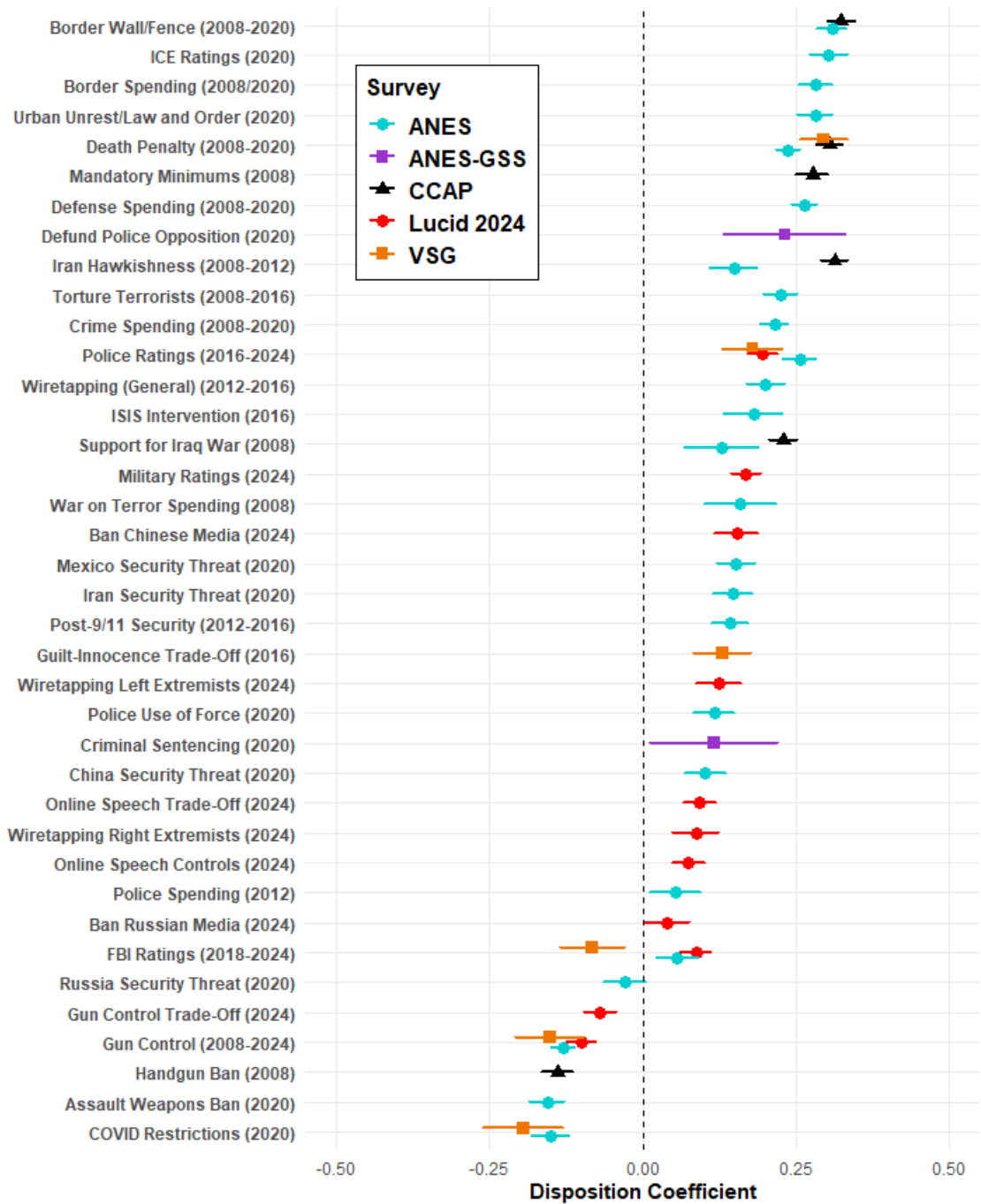


Figure 12: Associations Between Needs for Security and Certainty and Collective Security Preferences. Points are standardized coefficients of needs for security and certainty. 95 percent confidence intervals. Positive coefficients indicate needs are associated with preferences for collective security. Data weighted except for Lucid 2024. Source: ANES Time Series 2008-2020, ANES-GSS 2020, CCAP 2008, Lucid 2024, VSG 2016-2020.

4.5.2 The Relationships of Needs for Security and Certainty with Preferences for Collective Security Varies by Issue and Political Engagement

What explains variation in how NSC relate to Americans' collective security preferences? Since the early 2000s, Americans have become increasingly well-sorted along dispositional lines, with those high in NSC identifying with the Republican Party and conservatism, and those low in NSC identifying with the Democratic Party and liberalism. Crucially, this dispositional sorting is most prevalent among Americans who are interested in, attentive to, and knowledgeable about politics—i.e., the politically engaged. Politically engaged Americans are well-sorted by NSC and highly attentive to the partisan-ideological blocs' issue positions related to collective security. I theorize engaged Americans' attention to and willingness to incorporate partisan-ideological cues influences how NSC relate to preferences for collective security; specifically, that it strengthens the relationship between NSC and collective security preferences on issues where Republicans and conservatives prioritize collective security more than Democrats and liberals (H1), but attenuates this relationship on issues where Democrats and liberals have prioritized collective security more than Republicans and conservatives (H2).

To test H1 and H2, I examine whether political engagement moderates the relationships between NSC and collective security preferences. I begin by identifying the interactions between NSC and political engagement, regressing the 38 outcomes on NSC, political engagement, the interaction of NSC and political engagement, and the statistical controls. The outcome and NSC measures are standardized, but political engagement is scaled 0 to 1. Given this coding scheme, the NSC*engagement interaction coefficients represent changes in the associations of NSC with collective security preferences in standard deviations from the minimum to maximum of political engagement. I expect positive interactions on issues where Republicans and conservatives prioritize collective security more than Democrats and liberals (unbolded items in Table 3) and

negative interactions on issues where Democrats and liberals prioritize collective security more (bolded items in Table 3).

Figure 13 summarizes the interactions between needs for security and certainty (NSC) and political engagement for the 38 collective security issues. I find NSC are often conditionally associated with collective security as functions of political engagement, and that there is a great deal of variation in these conditional relationships across issues. On 22/38 issues, I find positive significant interactions between NSC and political engagement such that NSC are increasingly associated with collective security preferences for more engaged Americans. Typical issues with positive interactions include border security, tough-on-crime policies, domestic anti-terrorism programs (except those targeted at right-wing extremists), spending on defense, and hawkishness towards US adversaries (except Russia). These positive interactions are consistent with H1 and suggest partisan-ideological cue incorporation among the politically engaged could redouble the influence of NSC on collective security preferences. However, observational tests of H1 will be inevitably ambiguous in their interpretation because these stronger associations among engaged Americans could also reflect the engaged better understanding how their dispositions map onto collective security-enhancing policies (Carpini and Keeter 1996). For collective security issues where the right stakes out stronger pro-security positions than the left, it is not immediately clear whether NSC become increasingly associated with collective security preferences due to greater reliance on partisan-ideological cues in opinion formation among engaged Americans, or if this is a consequence of engaged citizens' abilities to readily map their dispositions to issue attitudes.¹⁴

¹⁴ This observational equivalence issue parallels that for studies of the conditional relationships between NSC and cultural policy preferences, e.g., Ollerenshaw and Johnston 2022.

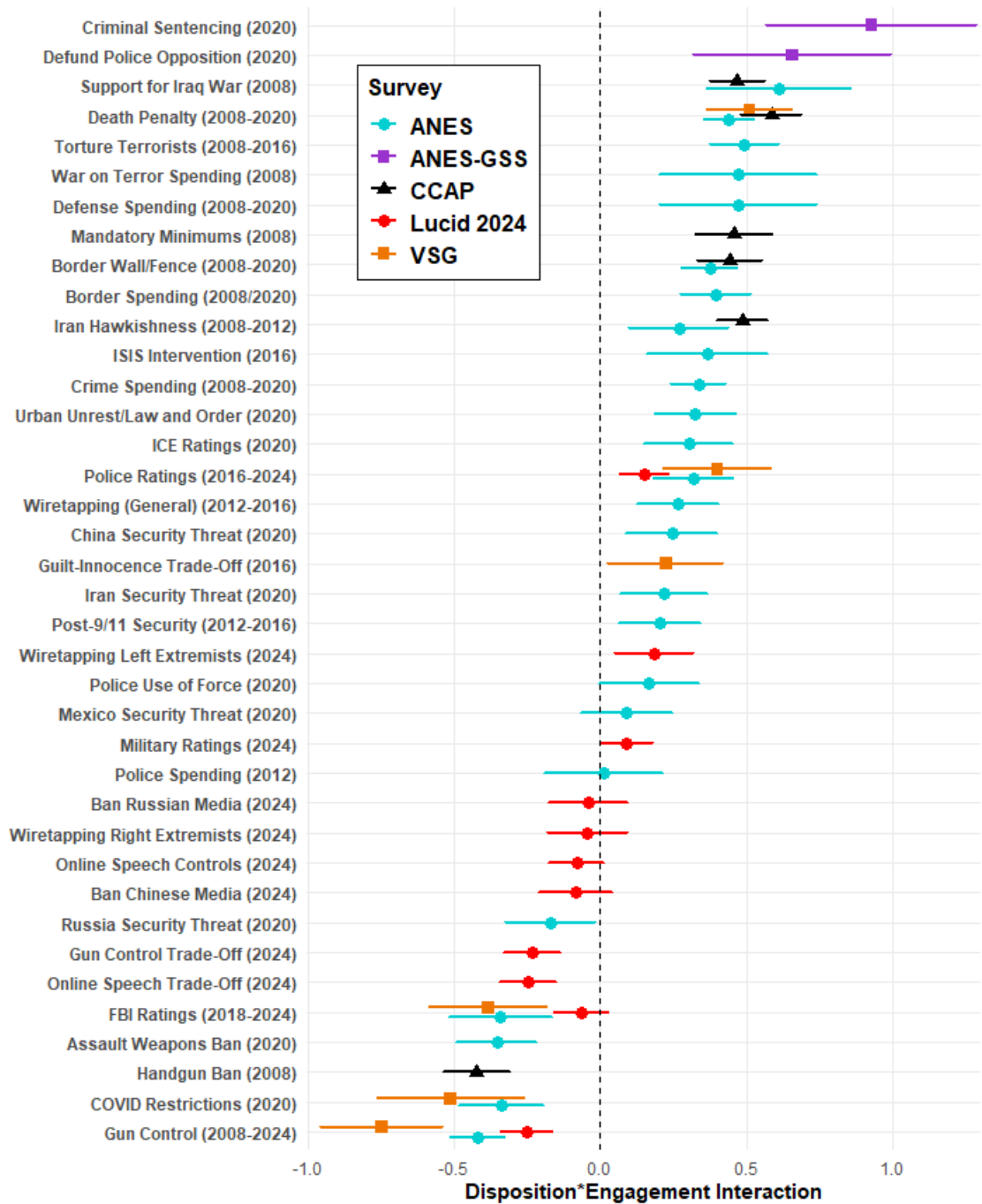


Figure 13: Interactions Between Dispositions and Political Engagement by Issue. Points are standardized coefficients for interactions of dispositional needs for security and certainty with political engagement. 95 percent confidence intervals. Positive coefficients indicate needs for security and certainty are increasingly associated with collective security preferences as political engagement increases. Data weighted except for Lucid 2024. Source: ANES Time Series 2008-2020, ANES-GSS 2020, CCAP 2008, Lucid 2024, VSG 2016-2020.

As shown at the bottom of Figure 13, in several instances, NSC have more negative (less positive) associations with preferences for collective security as political engagement increases. The issues with negative interactions between NSC and political engagement include every gun control policy, FBI evaluations, online speech controls, COVID restrictions, and hawkishness towards Russia. These issues are ones where Democrats and liberals take stronger pro-security positions than Republicans and conservatives. Notably, some of the observational equivalence issue present for tests of H1 is obviated for tests of H2 because NSC becoming less associated with collective security preferences for politically engaged Americans is inconsistent with the idea that these individuals are merely better able to map their dispositions to collective security preferences. Instead, the negative interactions on specific issues where Democrats and liberals have taken pro-security positions imply politically engaged Americans take cues from partisan-ideological elites, and that the indirect effects of cue-taking are greater than any direct effects political engagement has in improving citizens' ability to map dispositions to issue attitudes.

An important consequence of partisan-ideological cue-taking being (1) issue-specific and (2) conditional on political engagement is that there is more heterogeneity across issues in how NSC relate to collective security preferences for politically engaged Americans than disengaged ones. Figure 14 displays NSC coefficients at low and high terciles of political engagement (with the middle bin omitted for figure clarity).^{15,16} Figure 14 shows that NSC have stronger positive associations with preferences for collective security among politically engaged Americans than disengaged ones on issues where Republicans/conservatives take stronger pro-security positions;

¹⁵ The exception is the ANES-GSS; due to its small sample, I create just two low/high engagement bins. For the 2012 and 2016 ANES, I create political engagement bins separately for the online and face-to-face modes.

¹⁶ This binning approach is imperfect since the samples differ in sampling methodologies, which shape how engaged the samples are (Kennedy et al. 2016). In the VSG and CCAP, for example, the cutoffs for the first engagement bins are past the scales' midpoints, so many respondents in the low engagement bins are modestly politically engaged.

for example, Iran hawkishness and tough-on-crime policies. However, NSC have more negative (or less positive) associations with collective security preferences among engaged Americans on issues where Democrats/liberals take pro-security positions; for example, weaker positive associations with FBI ratings and stronger negative associations with opposition to gun control.

That we see more issue-based heterogeneity in the associations of NSC among politically engaged Americans follows from the heterogeneity in partisan-ideological groups' stances on matters of collective security vs. individual rights and/or non-interventionism. Were partisan-ideological blocs to consistently fall on one side of this debate, we likely would not see greater variation in the associations of NSC to collective security preferences among politically engaged Americans; we would likely observe consistently stronger positive associations for the engaged. However, because partisan-ideological groups in the US do not consistently prioritize collective security or individual rights/non-interventionism for all collective security issues, the politically engaged adopt different, arguably inconsistent, priorities depending on their ingroups' positions.

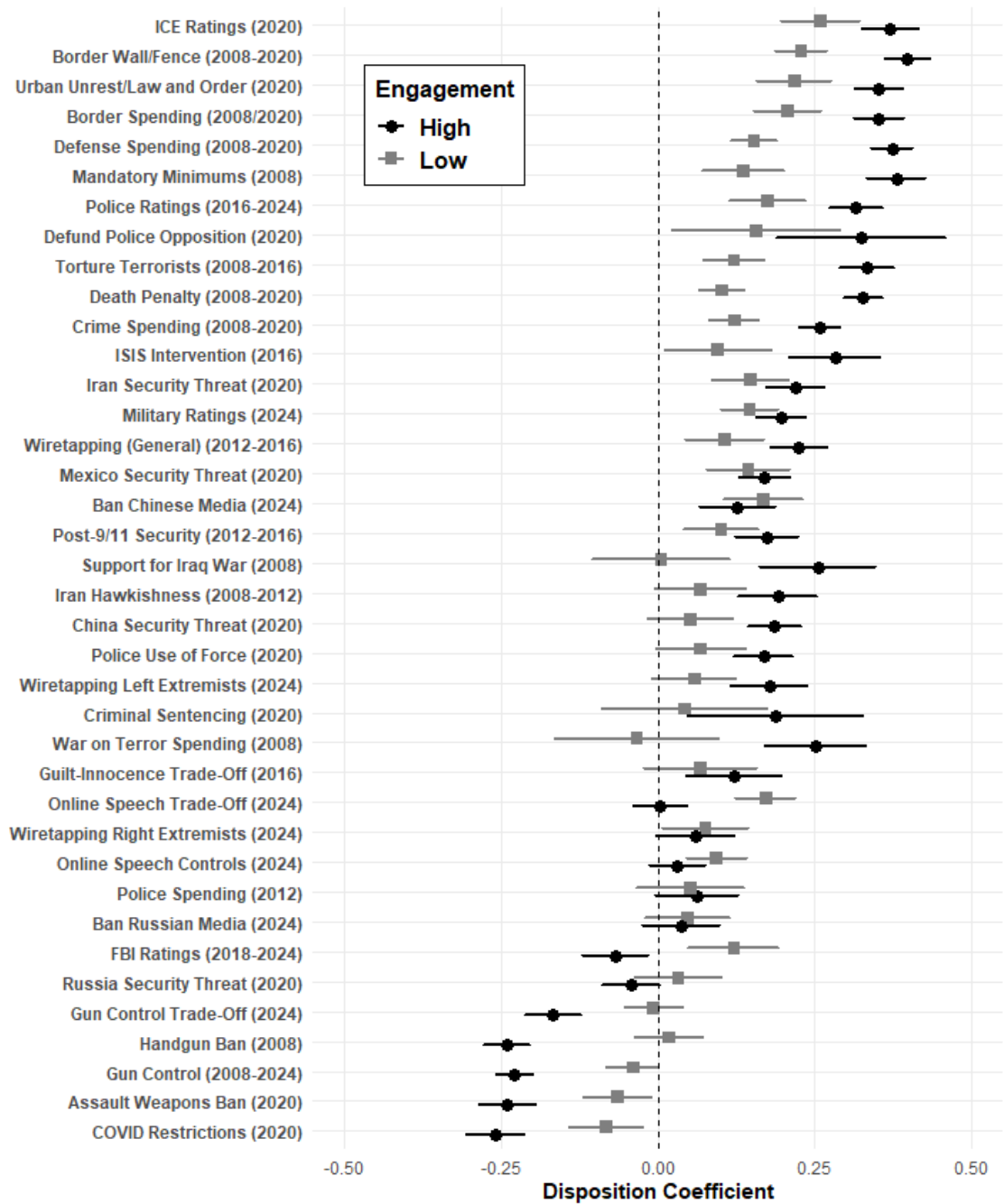


Figure 14: Associations of Dispositions with Collective Security Preferences at Low vs. High Binned Political Engagement. Points are standardized coefficients of dispositional needs for security and certainty on collective security preferences at low and high terciles of political engagement. 95 percent confidence intervals. Data weighted except for Lucid 2024. Source: ANES Time Series 2008-2020, ANES-GSS 2020, CCAP 2008, Lucid 2024, VSG 2016-2020.

4.6 Conclusion

Political psychologists have long theorized that individual differences in preferences for collective security vs. individual rights, autonomy, and non-interventionist principles are partly explained by individual differences in dispositional needs for security and certainty (NSC) (Adorno et al. 1950; Altemeyer 1981; Hetherington and Weiler 2009). Yet even focusing strictly on what are arguably prototypical issue areas in these theories—public safety and national defense—NSC vary considerably in how they are associated with collective security preferences. This paper aims to clarify this heterogeneity by considering the roles of partisan-ideological cues and individual-level political engagement in connecting NSC to collective security preferences.

In this paper, I analyzed 8 national US surveys that included 38 unique issues of public safety or national defense to identify the relationships between NSC and collective security preferences. Across these items, I found considerable, but well-explained variation in how NSC relate with collective security preferences. For issues where Republicans and conservatives have staked out clearer pro-security positions than Democrats and liberals, NSC generally positively correlate with collective security preferences. When it comes to issues of public safety and national defense, this is arguably the most typical partisan-ideological issue alignment observed. However, there are several important issues where partisan-ideological groups diverge from this typical alignment such that Democrats and liberals adopt stronger pro-security positions than Republicans and conservatives, e.g., gun control or hawkishness towards Russia. In these cases, NSC are weak or sometimes even negative predictors of collective security preferences.

To test whether issue-by-issue partisan-ideological cue-taking might explain variation in how NSC relate to collective security preferences, I tested for moderation in these relationships as a function of political engagement. In the US, politically engaged individuals are well-sorted as a function of their dispositions such that those higher in NSC are more likely to identify with the

Republican Party and the conservative ideological bloc, while those lower in NSC are more likely to identify with the Democratic Party and the liberal ideological bloc. Further, politically engaged individuals rely more on partisan-ideological cues when forming their political opinions and are more attentive to elite polarization (Zaller 1992; Johnston, Lavine, and Federico 2017). Given elite polarization on issues of collective security, I hypothesized partisan-ideological cue-taking, which is concentrated among the politically engaged, would have heterogeneous effects on the relationship between NSC and collective security preferences. For the majority of public safety and defense issues where the right-wing espouses pro-security positions, I hypothesized the relationships between NSC and collective security preferences would be stronger for politically engaged than disengaged ones. However, for the minority of issues where the left has taken stronger pro-security stances, I hypothesized the relationships between NSC and collective security preferences would be weaker for politically engaged Americans than disengaged ones.

Consistent with these expectations, I found the relationships between NSC and collective security preferences often depended on the issue under study and respondents' levels of political engagement. Politically engaged exhibit strong positive associations between NSC and collective security preferences when the pro-security stance is espoused by Republicans and conservatives, but strong negative associations when the pro-security position is espoused by Democrats and liberals. These results affirm that political engagement does not always directly connect NSC to pro-security attitudes; instead, political engagement operates indirectly via politically engaged individuals' attention to partisan-ideological groups' heterogeneous issue positions on matters of collective security, and engaged individuals' motivations to maintain congruence with those issue positions.

This study makes helps us understand the psychological roots of mass political attitudes. Centrally, my findings add weight to recent theoretical accounts positing political engagement

and elite cues often contingently link dispositional needs with political attitudes, especially for issues outside of the cultural domain (Malka et al. 2014; Johnston and Wronski 2015; Johnston, Lavine, and Federico 2017; Federico and Malka 2018; Ollerenshaw 2022; Ollerenshaw and Johnston 2022). A growing literature suggests that patterns in mass political attitudes, behaviors, and ideologies are determined to a significant degree by citizens' underlying psychological needs and motivations (e.g., Jost 2006, 2017; Jost, Federico, and Napier 2013; Thorisdottir et al. 2007). I extend these accounts by demonstrating that needs for security and certainty are *conditionally* related to Americans' collective security preferences. In terms of shaping public opinion on issues where that necessitate trade-offs between collective security and individual rights or non-interventionist principles, needs for security and certainty are often refractories of elites' issue positions among politically engaged individuals. This conclusion bears remarkable resemblance to those for studies of economic attitudes, where the effects of NSC also operate indirectly via cue-taking among the politically engaged (Johnston, Lavine, and Federico 2017; Federico and Malka 2018; Jedinger and Burger 2019; Ollerenshaw and Johnston 2022; Ollerenshaw 2022).

As a secondary contribution, this study provides a sweeping account of the psychological correlates of preferences regarding a diverse set of public safety and national defense issues. To offer two examples, the findings that needs for security and certainty are, on average, negatively related to support for gun control in the US and viewing Russia as a national security threat are, to the best of my knowledge, novel. And while prior work has explored the roles of dispositional needs in shaping public safety and national defense issue preferences, the literature had not yet comprehensively examined heterogeneity in these associations. Thus, beyond their usefulness for assessing a particular theory of public opinion formation as I do here, my analyses are also useful for researchers hoping to understand the psychological determinants of preferences on matters of public safety and national defense.

Although my findings are consistent with a psychological theory of opinion formation in which dispositions relationships to attitudes heavily depend on partisan-ideological cue-taking, there are important limitations to my observational approach. Specifically, it remains unclear to what extent partisan-ideological groups can adopt contra-dispositional positions on matters of collective security without disrupting dispositional sorting patterns (Hetherington and Weiler 2009; Johnston, Lavine, and Federico 2017). Currently, on issues of public safety and national defense, Republicans and conservatives take stronger pro-security stances than Democrats and liberals on all but a few of issues. Thus, elite cues usually have a natural resonance with sorted Americans' dispositional needs for security and certainty. This resonance likely partially undergirds dispositional sorting (though perhaps not to the same degree cultural affinities do; see Johnston, Lavine, and Federico 2017). Were the exception (i.e., Democrats/liberals adopting pro-security stances) to become the rule on issues of public safety and national defense, the current relationship between NSC and right-wing identification among politically engaged Americans might attenuate. The interplay amongst dispositional sorting, cue-taking, and issue preferences may constrain partisan-ideological elites' ability to take counter-stereotypical positions on issues of collective security before engaged citizens sort into different partisan-ideological blocs that espouse positions consistent with their underlying dispositional needs for security and certainty.¹⁷

On the other hand, it is possible that identity-based pressures are so pronounced that they could uphold paradoxically negative associations between NSC and pro-security attitudes among politically engaged citizens across even more issues, were elites' positions to reverse. Studies of economic preferences often find the direct relationship between NSC and economic liberalism is

¹⁷ Additionally, recent work suggests dispositional NSC may be partly endogenous to political identities and issue preferences (Bakker, Lelkes, and Malka 2021; Arceneaux et al. 2024), though this work does not find in initial tests that these reverse causal influences are more pronounced among politically engaged individuals.

wholly countervailed by partisan-ideological cues in the US due to primacy of cultural concerns in dispositional sorting processes (Johnston, Lavine, and Federico 2017). If collective security concerns are similarly subordinated to cultural ones, partisan-ideological groups would be more or less unconstrained in their position-taking on collective security issues in terms of effects on dispositional sorting. Future research on how NSC are conditionally related to collective security preferences, especially on new issues or issues where partisan-ideological elites' change stances, would be especially useful towards understanding how dispositional sorting may or may not be affected by the overall structure of partisan-ideological polarization on collective security issues.

5. Conclusion

5.1 Summary of Findings

This dissertation argues that political engagement is an extremely consequential variable for understanding public opinion formation. Psychological traits do not act in a vacuum for most Americans because politically engaged Americans are typically well-sorted into distinct partisan-ideological groups as functions of psychological traits. For example, I show that the politically engaged are well-sorted as functions of dispositional security needs (e.g., authoritarianism) and that engaged rural Americans are well-sorted as functions of rural consciousness. Sorting among the politically engaged becomes consequential for public opinion formation across a wide array of issues because engaged Americans often incorporate their partisan-ideological ingroups' issue positions in their political preferences. Particularly when the direct effects of psychological traits run counter to the indirect effects via sorting and cue-taking, political engagement can powerfully moderate public opinion formation and cause heterogeneous associations between psychological traits and political preferences. Across three chapters, I illustrate this heterogeneity can be found when examining the relationships between various psychological traits and a diverse array of outcomes, including economic policy preferences, COVID-19 responses, and collective security preferences on issues of public safety and national defense.

In Chapter 2, I examined the moderating role of political engagement for how rural consciousness relates to political identification and economic preferences. I showed that although rural Americans' sense of place-based consciousness is an influential explanation for their right-wing politics, recent studies have often found rural consciousness is weakly associated with Republican partisanship and conservatism. Analyzing the 2020 American National Election Study and reanalyzing three recent studies of rural consciousness, I found that this incongruity is explained by considerable heterogeneity in how rural consciousness is associated with political

preferences. For politically engaged Americans, rural consciousness is associated with right-wing partisan-ideological identification and economic conservatism. For disengaged Americans, however, rural consciousness is associated with left-wing identification and economic liberalism. I offer evidence that this heterogeneity emerges due to citizens' downweighing of instrumental concerns relative to symbolic, identity-based concerns at higher levels of political engagement. Thus, this chapter demonstrates how the relationships between rural consciousness and political identities and economic preferences are contingent on individuals' levels of political engagement.

In Chapter 3, I identified a puzzle that emerged during the COVID-19 pandemic when US conservatives, despite their purported threat sensitivity, responded to COVID in ways that evinced little concern for the risks posed by COVID-19. I argue that supposedly “threat tolerant” liberals present an equally interesting case, having fervently masked, isolated, and advocated for stringent public health restrictions when faced with COVID-19. Analyzing four national surveys, I found that the relationship between psychological dispositions and Americans' responses to the COVID-19 pandemic were heterogeneous as functions of political engagement. Authoritarianism, a common measure of dispositional threat sensitivity and needs for security, was associated with greater concern over COVID-19 and, in turn, increased willingness to engage in protective health behaviors and support restrictive public health measures—but only among politically disengaged Americans. Among politically engaged Americans, authoritarianism promoted identification with and cue-taking from right-wing elites who frequently downplayed the severity of COVID-19; in turn, attention to such rhetoric reduced politically engaged authoritarians' concern over COVID-19 and their willingness to adopt health behaviors and support public health restrictions. I argue attention to political discourse countervailed many Americans' dispositional orientations toward threat and security in response to the COVID-19 pandemic.

Finally, in Chapter 4, I examine how needs for security and certainty (NSC) conditionally relate to preferences for collective security. Examining eight national surveys which include 38 unique issues related to public safety and national defense, I comprehensively illustrated variation in how NSC relate to collective security preferences. Specifically, I find that NSC generally, but do not always, have positive associations with collective security preferences. For issues where Republicans and conservatives adopt stronger pro-security positions than Democrats and liberals, I typically observed strong associations between NSC and collective security preferences. For issues where Democrats and liberals adopt stronger pro-security positions than Republicans and conservatives, however, I typically found NSC had weak or even negative associations with collective security preferences. In moderation analyses, I show these heterogeneous relationships across issues are maintained by politically engaged Americans, who are well-sorted as a function of NSC and attentive to issue-by-issue cues in the domains of public safety and national defense. Because partisan-ideological do not fall consistently on one side of debates regarding collective security vs. other considerations like individual rights, autonomy, and non-interventionism, we see engaged citizens incorporate heterogeneous cues across issues. My findings affirm and amend psychological theories of NSC as undergirding preference for collective security by showing that these relationships are partially maintained by partisan-ideological cue-taking among politically engaged Americans.

5.2 Future Directions

I contend these three studies provide substantively important contributions to the study of US public opinion in their own rights. However, these studies are also specific illustrations of the broader point I want to make about the importance of individual-level political engagement as a moderating variable for top-down theories of public opinion formation. And there is considerably

more work to be done to test this theory of public opinion formation, both in terms of improving upon my methodological approach towards causal inference and in terms of generalizability to other psychological traits, to other political preferences, and to non-US contexts.

Experimental and longitudinal tests of the elite-cueing mechanism would be useful for testing the broader top-down model of opinion formation I propose explains my findings. I find heterogeneity in how psychological traits relate to political preferences across issues in ways that suggest politically engaged Americans are incorporating partisan-ideological group cues, e.g., how rural consciousness is associated with economic conservatism on issues where Republicans take conservative stances (e.g., government healthcare, social welfare programs) but economic liberalism on issues where Republicans are not clearly to the left of Democrats (i.e., trade). But these findings could be due to bottom-up alignment of elites' issue positions to electoral groups they are trying to win over. Perhaps rurally conscious, engaged Americans held left-wing views on trade and Republicans decided to meet these voters where they were at to win more votes. In cross-sectional analyses, the bottom-up and top-down models of opinion formation are typically observationally-equivalent. Experiments would be useful towards identifying the extent to which Americans, especially politically engaged ones, update their issue positions to align with partisan-ideological groups. The cueing experiments from Johnston, Lavine, and Federico (2017) provide one example of such tests for the relationships of needs for security and certainty with economic preferences; their design could be readily extended to other psychological traits and issue areas.

These analyses identify between-individual variation in how psychological traits relate to political preferences as functions of political engagement, demonstrating these associations often differ for politically engaged vs. politically disengaged Americans. It remains unclear, however, if within-individual variation in political engagement affects the within-individual relationships between psychological traits and political preferences. A potential threat to inference throughout

my analyses is that political engagement is essentially assumed to be an exogenous disposition. Although there is substantial evidence that political engagement is a stable disposition, major life changes and political events can affect political engagement—at least over the short-term (Prior 2010). A long-term panel study with many waves and measures of psychological traits, political engagement, and political preferences could be used to study whether individual-level variation in political engagement affects how psychological traits relate to political preferences. Ideally, such studies would use an exogenous shock to political interest that otherwise has no *direct* effect on the relationships of psychological traits to political preferences.¹⁸ Such longitudinal analyses could help clarify whether political engagement is important in and of itself or if it mostly proxies a latent orientation toward politics, such as whether one prioritizes materialistic/instrumental or symbolic/identity-based concerns in their political outlook. If political engagement is merely a manifestation of this latent orientation, it is unlikely that short-term fluctuations in political engagement would affect the relationships of psychological traits to political preferences—a potentially worthwhile null finding for explaining why political engagement is associated with more symbolic political orientations. Unfortunately, I am aware of no panels with the requisite features for conducting these analyses at present; however, the broader point stands that future research in this area would benefit from examining how within-respondent variation in political engagement affects psychological traits’ relationships with political preferences.

Finally, there remains considerable work to be done identifying the places where political engagement does and does not moderate public opinion formation. Prior work has examined political engagement as a moderator between NSC and economic preferences (Johnston, Lavine,

¹⁸ Exogenous increases in political engagement could in theory be induced experimentally, but this has proven difficult to durably achieve in practice (Trexler 2023; Hopkins and Gorton 2024).

and Federico 2017; Federico and Malka 2018), NSC and cultural preferences (Ollerenshaw and Johnston 2022), and demographic traits and political identification (Jones 2023). Many more psychological traits are sure to have contingent associations with political preferences yet to be identified. Further, most research on the moderating role of political engagement has been conducted in the unique US context (but see Malka et al. 2014; Malka, Lelkes, and Soto 2019; Jedinger and Burger 2019). The US has high partisan-ideological polarization and elites aligned along a single left-right dimension (Lupton, Myers, and Thornton 2015). These key contextual features influence how political engagement moderates political preference formation because they shape the political discourse that politically engaged Americans take cues from. When these features are absent, does political engagement no longer play a moderating role in public opinion formation? Cross-national extensions of my analyses seem an obvious avenue for future research aimed at understanding when and why political engagement moderates public opinion formation.

Appendix A. Supplemental Material for Chapter 2

A.1 Data Descriptions

American National Election Studies. 2021. ANES 2020 Time Series Study Full Release [dataset and documentation]. July 19, 2021 version. www.electionstudies.org.

Target Population: The target population of the 2020 ANES is non-institutional U.S. citizens 18 years or older as of November 3rd, 2020 living in the 50 US states or the District of Columbia.

Field Dates: The pre-election wave was fielded between August 18, 2020 and November 3, 2020. The post-election wave was fielded between November 8, 2020 and January 4, 2021.

Sample Recruitment: Westat, Inc collected the sample. “Selected addresses were sent a series of letters to recruit one household member to go online to complete a survey. The invitation letter included \$10 in cash and promised \$40 for completing a survey online. Household members following the invitation link were taken to a screening instrument to randomly select one person from among the adult U.S. citizens living at the address to complete the ANES questionnaire. Upon completion of the screener, the selected respondent was invited to complete the survey based upon the mode of their assigned group” (2020 ANES Codebook, pg. 4).

Interview Modes: Responses were mostly collected via self-administered online surveys, with small samples who completed live video or telephone interviews. Interviews were conducted in either English or Spanish.

Response Rate: The response rate (AAPOR RR1) for the 2020 ANES pre-election wave was 40.9 percent. Of those who completed a pre-election interview, 90 percent went on to complete a post-election interview.

Weights and Sample Design Effects: To accurately represent the target population, I utilize the weighting variable V200010b, the strata variable V200010d, and the cluster variable V200010c.

Sample Subset: The total post-election sample was 7,449. I subset to the 3,154 respondents who identified themselves as “rural” or “small town” Americans when asked the question (V202356): “Regardless of where you currently live, do you usually think of yourself as a city person, a suburb person, a small-town person, a country or rural person, or something else?”

Multiple Imputation: I use multiple imputation (25) by chained equations to address missing controls, but do not impute rural consciousness, political engagement, or the dependent variables. I include two additional variables (stock ownership and social class) in the chained equations that are meant to help impute income, the variable with by far the most missingness. The numbers of missing values for each variable are shown below.

Missing Values Imputed for Control Variables

Variable	Complete	Missing	Imputed
Male	3154	0	0
Black	3154	0	0
Hispanic	3154	0	0
Asian	3154	0	0
Native	3154	0	0
Parent	3133	21	21
Married	3137	17	17
Union	3145	9	9
Unemployed	3132	22	22
Income	2921	233	233
Education	3108	46	46
Age	3024	130	130
Racial Stereotyping	3106	48	48
Religiosity	3141	13	13
Church Attendance	3121	33	33
Personal Health	3129	25	25
Racial Resentment	3147	7	7

A.2 Question Wordings and Variable Operationalization

Rural Identity (V202356): “Regardless of where you currently live, do you usually think of yourself as a city person, a suburb person, a small-town person, a country or rural person, or something else?”

Rural Consciousness: The rural consciousness scale is generated from three items ($\alpha=0.69$).

1. (V202276x): “Compared to people living in cities, do people living in small towns and rural areas get more, the same, or less than they deserve from the government?... Do they get a great deal [more/less], moderately [more/less], or a little [more/less] than they deserve from the government?”
2. (V202279x): “Compared to people living in cities, do people living in small towns and rural areas have too much influence, too little influence, or about the right amount of influence on government?... Do they have much too [much/little], somewhat too [much/little], or a bit too [much/little] influence on government?”
3. (V202282x): “Do people living in small towns and rural areas get too much respect, too little respect, or about the right amount of respect from people living in cities?...Do they get much too [much/little], somewhat too [much/little], or a bit too [much/little] respect from people living in cities?”

Political Engagement: Political engagement is generated from two equally weighted subscales.

1. Political Interest
 - a. (V201005): “How often do you pay attention to what's going on in government and politics?”
 - b. (V201006): “Some people don't pay much attention to political campaigns. How about you? Would you say that you have been [very much interested, somewhat

interested or not much interested/ not much interested, somewhat interested or very much interested] in the political campaigns so far this year?”

- c. (V201629a-e): “From which of the following sources have you heard anything about the presidential campaign? Mark all that apply.” [Internet Sites, Radio News, Newspapers, TV Programs, None]
- d. (V202406): “How interested would you say you are in politics? Are you (very interested, somewhat interested, not very interested, or not at all interested / not at all interest, not very interested, somewhat interested, or very interested)?”
- e. (V202407): “And how closely do you follow politics on TV, radio, newspapers, or the Internet? (Very closely, fairly closely, not very closely, or not at all / Not at all, not very closely, fairly closely, or very closely)?”

2. Political Knowledge

- a. (V201644): “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?”
- b. (V201646): “Do you happen to know which party currently has the most members in the U.S. House of Representatives in Washington?”
- c. (V201647): “Do you happen to know which party currently has the most members in the U.S. Senate?”
- d. (V202138y): “What job or political office does Mike Pence now hold?”
- e. (V202139y1): “What job or political office does Nancy Pelosi now hold?”
- f. (V202140y1): “What job or political office does Angela Merkel now hold?”
- g. (V202141y1): “What job or political office does Vladimir Putin now hold?”
- h. (V202142y2): “What job or political office does John Roberts now hold?”

Partisan-Ideological Orientation Index: The partisan-ideological orientation index is constructed from seven items that a principal component factor analysis later in this section shows load onto one factor.

1. Partisanship (V201231x): “Generally speaking, do you usually think of yourself as [a Democrat, a Republican / a Republican, a Democrat], an independent, or what?... Would you call yourself a strong [Democrat / Republican] or a not very strong [Democrat / Republican]? Do you think of yourself as closer to the Republican Party or to the Democratic Party?”
2. Party Ratings: Party ratings are assessed as the difference in ratings given to the Democratic Party and the Republican Party on 101-point feeling thermometers.
 - a. (V201156). “How would you rate: the Democratic Party.”
 - b. (V201157). “How would you rate: the Republican Party.”
3. 2020 Presidential Candidate Preferences: Presidential candidate preferences captures preferences for Biden or Trump, including non-voters, excluding those who preferred neither or a third party.
 - a. (If voted for president, V202073). “Who did you vote for? [Joe Biden, Donald Trump/Donald Trump, Joe Biden], Jo Jorgensen, Howie Hawkins, or someone else?”
 - b. (If did not vote for president, V202079x). “Did you prefer one of the candidates in the November election for President?... Who did you prefer? [Joe Biden, Donald Trump/Donald Trump, Joe Biden], Jo Jorgensen, Howie Hawkins, or someone else?”
4. 2020 Presidential Candidate Ratings: Presidential candidate ratings are assessed as the difference in ratings of Joe Biden and Donald Trump on 101-point feeling thermometers, pre- and post-election.
 - a. (V201151, V202143). “How would you rate: Joe Biden.”
 - b. (V201152, V202144). “How would you rate: Donald Trump.”

5. Trump Disapproval: A scale capturing approval of Donald Trump's performance as president along a number of dimensions. The questions are "Do you approve or disapprove of the way Donald Trump is handling..." with follow-ups about whether they approve/disapprove strongly or not strongly.
 - a. (V201129x): "...his job as President?"
 - b. (V201132x): "...the economy?"
 - c. (V201135x): "...relations with foreign countries?"
 - d. (V201138x): "...healthcare?"
 - e. (V201141x): "...immigration?"
 - f. (V201144x): "...the coronavirus, or COVID-19, pandemic?"
6. Ideology (V201200): "Here is a seven-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale, or haven't you thought much about this?"
7. Ideological Group Ratings: Ideological group ratings are assessed as the difference in ratings given to liberals and conservatives on 101-point feeling thermometers.
 - a. (V202161). "How would you rate: Liberals."
 - b. (V202164). "How would you rate: Conservatives."

Economic Policy Index: The economic policy index is created from 14 items. A principal component factor analysis shows these items load well onto one factor, and that two trade items do *not* load well onto this same factor.

1. ACA (V202328x): "Do you approve, disapprove, or neither approve nor disapprove of the Affordable Care Act of 2010, sometimes called Obamacare?... Do you [approve/disapprove] of that a great deal, a moderate amount, or a little?"

2. Aid to Poor Spending (V201320x): “Should federal spending on aid to the poor be increased, decreased, or kept the same?... Should it be [increased / decreased] a lot or a little?”
3. Government Healthcare (V201252): “There is much concern about the rapid rise in medical and hospital costs. Some people feel there should be a government insurance plan which would cover all medical and hospital expenses for everyone. Suppose these people are at one end of a scale, at point 1. Others feel that all medical expenses should be paid by individuals through private insurance plans like Blue Cross or other company paid plans. Suppose these people are at the other end, at point 7. And, of course, some other people have opinions somewhere in between, at points 2, 3, 4, 5, or 6. Where would you place yourself on this scale, or haven’t you thought much about this?”
4. Healthcare Spending (V202380x): “Do you favor an increase, decrease, or no change in government spending to help people pay for health insurance when they can’t pay for it all themselves?...Should it [increase/decrease] a great deal, a moderate amount, or a little?”
5. Income Inequality Reduction (V202259x): “Next, do you favor, oppose, or neither favor nor oppose the government trying to reduce the difference in incomes between the richest and poorest households?... Do you [favor/oppose] that a great deal, a moderate amount, or a little?” [1. Favor a great deal 2. Favor a moderate amount 3. Favor a little 4. Neither favor nor oppose 5. Oppose a little 6. Oppose a moderate amount 7. Oppose a great deal]
6. Job Guarantee (V201255): “Some people feel the government in Washington should see to it that every person has a job and a good standard of living. Suppose these people are at one end of a scale, at point 1. Others think the government should just let each person get ahead on their own. Suppose these people are at the other end, at point 7. And, of course, some other people have opinions somewhere in between, at points 2, 3, 4, 5, or 6. Where would you place yourself on this scale, or haven’t you thought much about this?”

7. Millionaire Taxes (V202325): “Do you favor, oppose, or neither favor nor oppose increasing income taxes on people making over one million dollars per year?”
8. Minimum Wage (V202377): “Should the federal minimum wage be raised, kept the same, lowered but not eliminated, or eliminated altogether?”
9. Regulation (V202256): “Would it be good for society to have more government regulation, about the same amount of regulation as there is now, or less government regulation?”
10. School Spending (V201305x): “Should federal spending on public schools be increased, decreased, or kept the same?... Should it be [increased / decreased] a lot or a little?”
11. Social Security (V201302x): “Should federal spending on Social Security be increased, decreased, or kept the same?... Should it be [increased / decreased] a lot or a little?”
12. Spending and Services (V201246): “Some people think the government should provide fewer services even in areas such as health and education in order to reduce spending. Suppose these people are at one end of a scale, at point 1. Other people feel it is important for the government to provide many more services even if it means an increase in spending. Suppose these people are at the other end, at point 7. And, of course, some other people have opinions somewhere in between, at points 2, 3, 4, 5 or 6. Where would you place yourself on this scale, or haven’t you thought much about this?”
13. Welfare (V201314x): “Should federal spending on welfare programs be increased, decreased, or kept the same?... Should it be [increased / decreased] a lot or a little?”
14. UBI (V202376x): “Do you favor, oppose, or neither favor nor oppose establishing a federal program that gives all citizens \$12,000 per year, provided they meet certain conditions? This program would be paid for with higher taxes... Do you [favor/oppose] that a great deal, a moderate amount, or a little?”

Free Trade Agreements (V202361x): “Do you favor, oppose, or neither favor nor oppose the U.S. making free trade agreements with other countries?... How strongly do you [favor/oppose] it?”

Import Restrictions (V202231x): “Some people have suggested placing new limits on foreign imports in order to protect American jobs. Others say that such limits would raise consumer prices and hurt American exports. Do you favor or oppose placing new limits on imports?... Do you [favor/oppose] placing new limits on imports strongly or not strongly?”

Racial Stereotyping: Racial stereotyping is two combined difference measures, violence and laziness. Values above 0.50 indicate anti-Black stereotyping. Values below 0.50 indicate anti-white stereotyping.

1. (V202521/V202522): “On this scale from 1 to 7, where 1 means peaceful and 7 means violent, where would you rate [whites/blacks] in general on this scale?”
2. (V202515/V202516): “On this scale from 1 to 7, where 1 means hard-working and 7 means lazy, where would you rate whites/blacks in general on this scale?”

Partisan-Ideological Orientation Principal Components Factor Analysis.

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	5.582	5.085	0.798	0.798
2	0.497	0.213	0.071	0.869
3	0.284	0.048	0.041	0.909
4	0.237	0.022	0.034	0.943
5	0.215	0.113	0.031	0.974
6	0.102	0.018	0.015	0.988
7	0.083	.	0.012	1.000
Variable	Factor 1		Uniqueness	
Partisanship	0.899		0.192	
Party Ratings	0.942		0.113	
Candidate Preferences	0.870		0.243	
Candidate Ratings	0.923		0.148	
Trump Disapproval	0.943		0.112	
Ideological Identity	0.811		0.343	
Ideological Group Ratings	0.856		0.268	

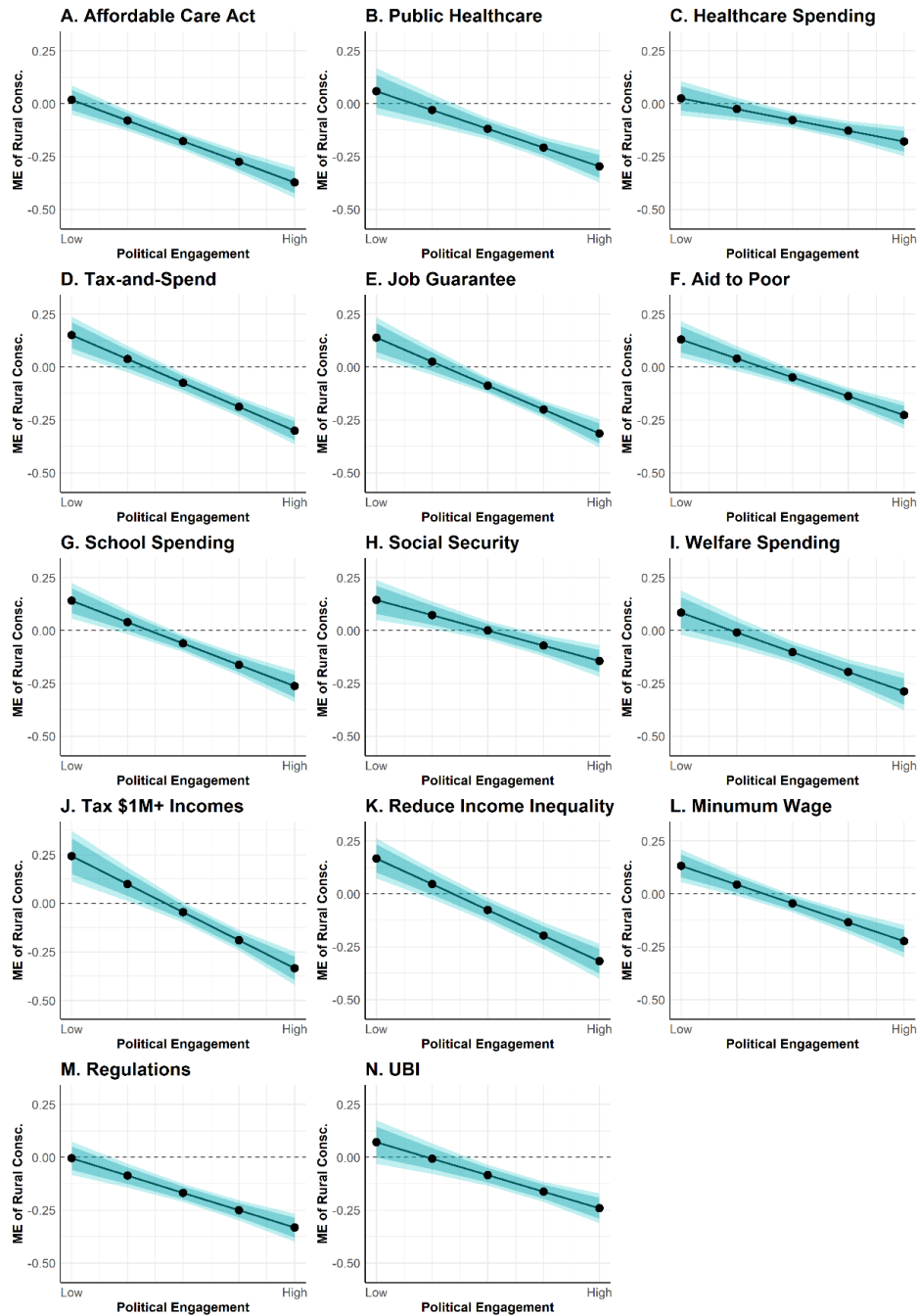
Economic Policy Principal Components Factor Analysis with Trade Items.

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	6.332	5.019	0.396	0.396
2	1.312	0.340	0.082	0.478
3	0.972	0.027	0.061	0.539
4	0.945	0.184	0.059	0.598
5	0.762	0.102	0.048	0.645
6	0.660	0.004	0.041	0.686
7	0.656	0.045	0.041	0.727
8	0.611	0.020	0.038	0.766
9	0.591	0.030	0.037	0.803
10	0.561	0.035	0.035	0.838
11	0.526	0.062	0.033	0.871
12	0.464	0.018	0.029	0.900
13	0.446	0.022	0.028	0.927
14	0.425	0.041	0.027	0.954
15	0.383	0.031	0.024	0.978
16	0.353	.	0.022	1.000
Variable	Factor 1	Factor 2	Uniqueness	
Affordable Care Act	0.765	-0.235	0.360	
Government Health Insurance	0.728	-0.106	0.458	
Public Healthcare Spending	0.672	-0.035	0.547	
Government Spending/Services	0.738	0.116	0.442	
Federal Job Guarantee	0.730	0.020	0.466	
Aid to Poor Spending	0.687	0.167	0.500	
Public School Spending	0.563	0.240	0.626	
Social Security Spending	0.356	0.562	0.558	
Welfare Spending	0.690	-0.007	0.524	
\$1+ Million Income Taxes	0.596	0.015	0.644	
Income Inequality Reductions	0.724	-0.032	0.474	
Minimum Wage	0.600	0.150	0.618	
Government Regulations	0.663	-0.021	0.560	
Universal Basic Income	0.695	-0.033	0.516	
Free Trade Agreements	-0.127	0.609	0.613	
Import Restrictions	-0.342	0.659	0.449	

Economic Policy Principal Components Factor Analysis *without* Trade Items.

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	6.235	5.192	0.445	0.4453
2	1.043	0.116	0.075	0.5198
3	0.926	0.209	0.066	0.586
4	0.717	0.050	0.051	0.6372
5	0.667	0.049	0.048	0.6849
6	0.618	0.024	0.044	0.729
7	0.595	0.028	0.043	0.7715
8	0.567	0.035	0.041	0.812
9	0.532	0.053	0.038	0.85
10	0.479	0.031	0.034	0.8842
11	0.447	0.014	0.032	0.9161
12	0.433	0.045	0.031	0.947
13	0.388	0.034	0.028	0.9747
14	0.354	.	0.025	1
Variable		Factor 1	Factor 2	Uniqueness
Affordable Care Act		0.756	-0.232	0.375
Government Health Insurance		0.726	-0.190	0.437
Public Healthcare Spending		0.674	-0.001	0.546
Government Spending/Services		0.742	0.074	0.444
Federal Job Guarantee		0.732	-0.096	0.455
Aid to Poor Spending		0.693	0.344	0.402
Public School Spending		0.569	0.318	0.575
Social Security Spending		0.370	0.742	0.312
Welfare Spending		0.689	0.168	0.497
\$1+ Million Income Taxes		0.601	-0.209	0.596
Income Inequality Reductions		0.728	-0.257	0.404
Minimum Wage		0.605	-0.009	0.634
Government Regulations		0.664	-0.136	0.541
Universal Basic Income		0.696	-0.104	0.505

A.3 Economic Policy Results by Item

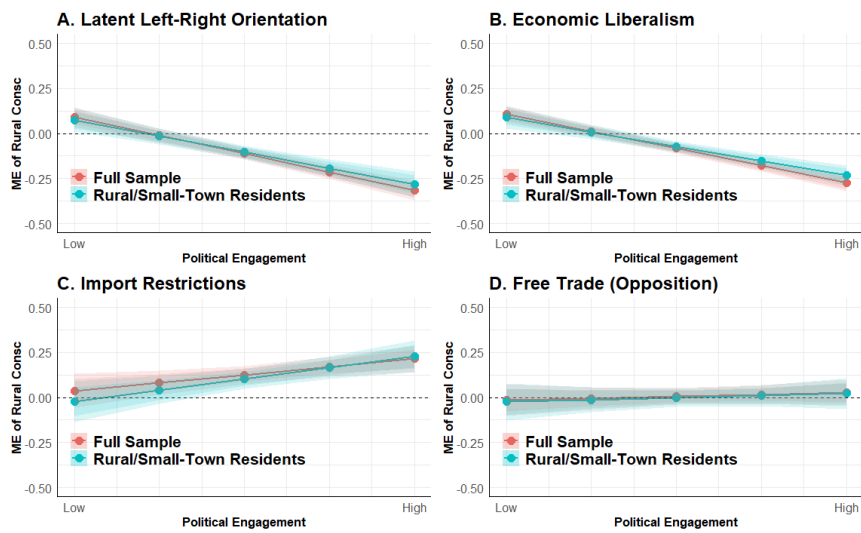


Associations of Rural Consciousness with Economic Preferences by Item. Marginal effects of rural consciousness with 83 and 95 percent confidence intervals. Positive values indicate associations with left-wing economic preferences. Data weighted. Rural/small-town Americans only. Source: 2020 ANES Time Series.

A.4 Robustness Checks

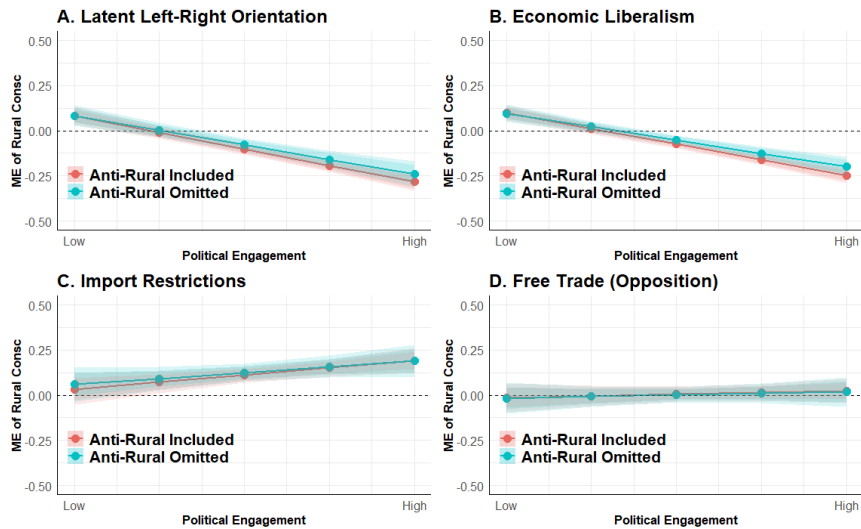
A. Rural/Small-Town Residence Sample Inclusion Requirement

In the 2020 ANES, 72 percent of those who identify as rural/small-town Americans also report living in a rural area or small-town, while 28 percent do not. Rural consciousness is similarly conditionally associated with the outcomes of interest imposing the additional requirement that rural/small-town identifiers be residing in a rural area or small-town.



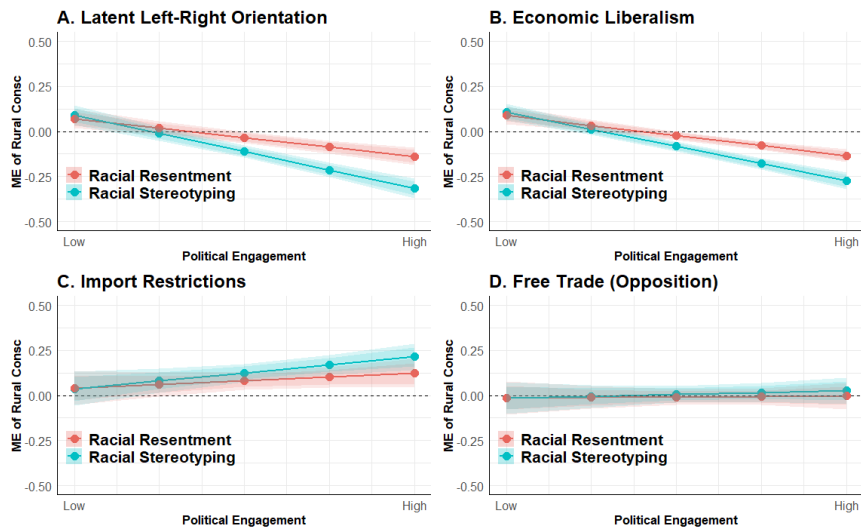
B. Dealing with Anti-Rurally Conscious Respondents

Few rural/small-town respondents give responses to the rural consciousness items that are anti-rural, so anti-rural respondents risk having outsized leverage. I test whether my conclusions hold excluding anti-rural respondents. I find no major differences in models estimated with vs. without anti-rural respondents.



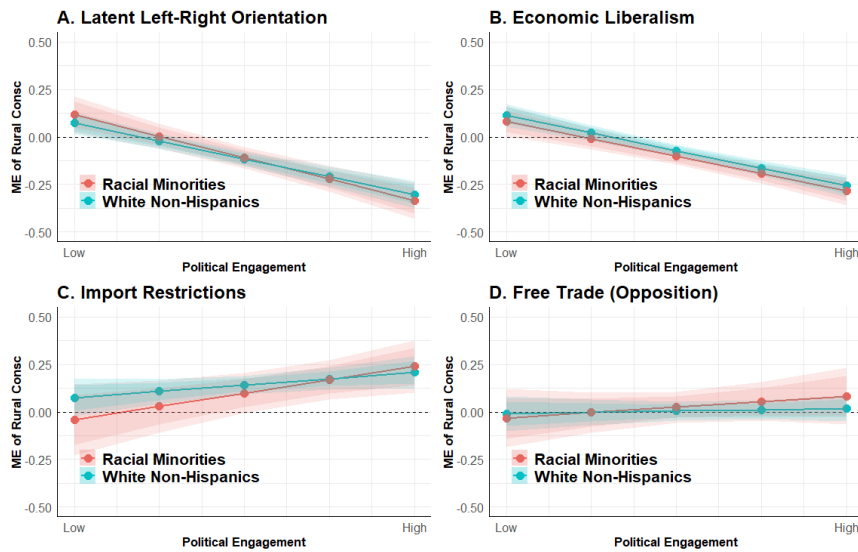
C. Racial Stereotyping vs. Racial Resentment

I control for racial stereotyping rather than racial resentment in my primary analyses for a few reasons. First, my view is that racial stereotyping directly taps the types of anti-Black beliefs thought to confound rural consciousness—the beliefs that Black Americans in urban areas are lazy and violent. Further, to the extent that racial resentment is confounded by non-racial content like conservative values, racial resentment is partly the outcome I seek to explain, especially in H1. Controlling for racial resentment therefore risks introducing post-treatment attenuation bias. However, acknowledging the competing views about racial resentment, some which argue the construct does not tap ideological conservatism, I offer models controlling for racial resentment instead of racial stereotyping. While I find support for H1 and H2 across both racial attitude measures, and similarly mixed support for H3, the effects of rural consciousness are generally weaker at high political engagement. However, this is exactly what we would expect to find if racial resentment is introducing post-treatment attenuation bias among the politically engaged.



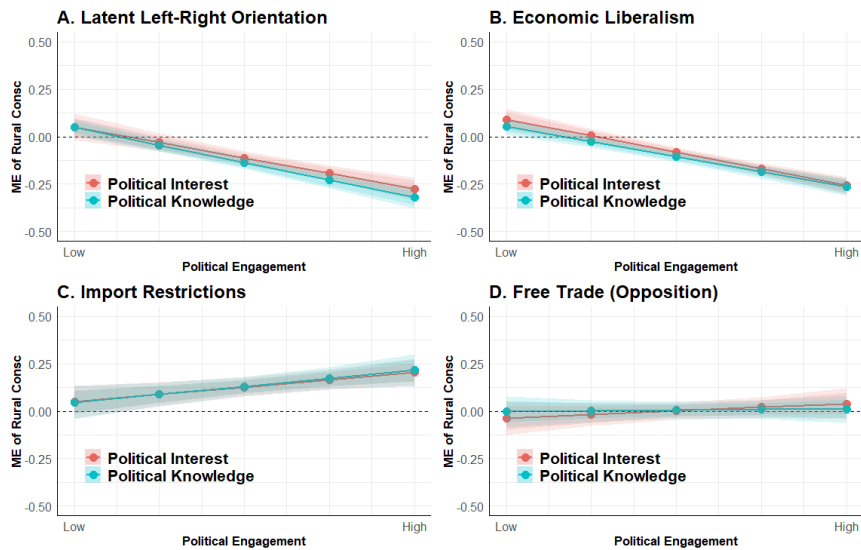
D. White vs. Racial Minority Subgroup Analyses

Here, I estimate models separately for white non-Hispanics and racial/ethnic minorities. Due to the small samples of each racial minority group, I pool racial/ethnic minorities into one sample that is 28 percent Black, 31 percent Hispanic, 8 percent Asian, 11 percent Native, and 23 percent multi-racial. In the 2020 ANES, mean rural consciousness is 0.70 for white non-Hispanics and 0.66 for people of color. I see near-identical results across groups; for both, rural consciousness is associated with left-wing political orientation and economic preferences at low engagement, but right-wing orientation and economic conservatism at high engagement. For trade, I find rural consciousness becomes somewhat more strongly associated with anti-trade preferences for racial minorities than whites as a function of political engagement; however, the differences are minor.



E. Political Engagement: Interest vs. Knowledge

There is no universal measure of political engagement (or “sophistication”). For those who have strong preferences between using subjective interest in politics vs. objective political knowledge to gauge engagement rather than both, I replicate my results across both subscales. The results are near-identical when using only political interest or political knowledge to gauge political engagement. My own view is that using both subscales creates a more discriminating measure that averages over the weaknesses of each subscale (political interest being more closely related to the conceptualization of “engagement”, but being easier to fake/overreport; political knowledge being less closely related to the conceptualization of “engagement”, but being harder to fake/overreport, at least with cheating checks like the 2020 ANES employs). For this reason, I use the combined political interest/knowledge measure of engagement in my analyses, consistent with other work using political engagement for similar purposes (Johnston, Lavine, and Federico 2017; Jones 2023; Ollerenshaw 2022; Ollerenshaw and Johnston 2022).

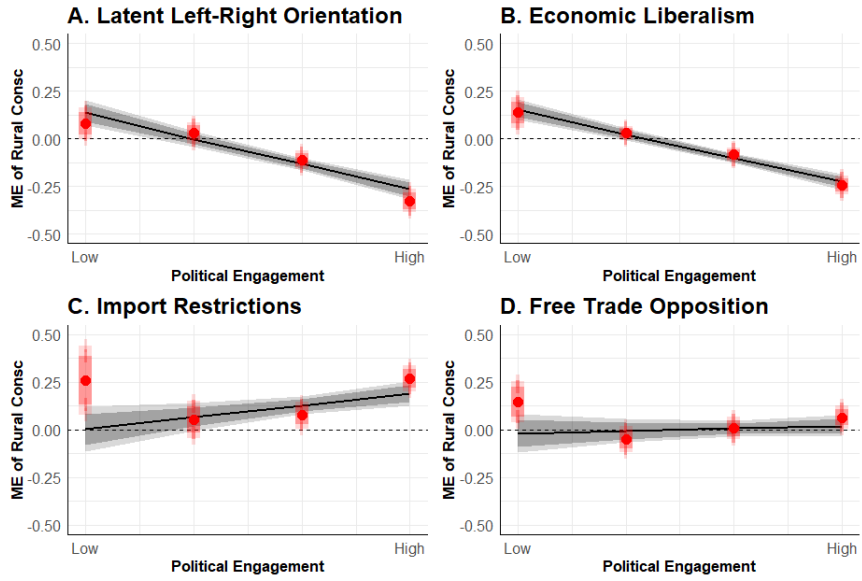


F. Binning Estimator

I opt to present linear effects for the main analyses because creating binned predictors invariably introduces measurement error and thus decreases statistical precision. However, bins are useful for verifying that the linearity assumption holds (Hainmueller, Mummolo, and Xu 2019). Since I am using multiple imputation to address missing control variables, I cannot directly employ the Hainmueller, Mummolo, and Xu (2019) binning estimator. However, I can essentially re-create a binning estimator by: binning political engagement into four categories (0-0.25, 0.25-0.50, 0.50-0.75, 0.75-1), running four separate regression models at each engagement bin, plotting the rural consciousness marginal effects at the median engagement within the bins (.192, .417, .629, .846), and comparing the binned estimates to predicted values at these same engagement values from multiplicative linear interaction models. Essentially, the binned estimates should approximately fall on the linear predicted values to verify linearity (Hainmueller, Mummolo, and Xu 2019).

The binned estimates do not significantly differ from linear predicted estimates when examining latent left-right political orientation and economic policy preferences. However, there are notable deviations from linearity for the two trade outcomes. Rural consciousness is associated with anti-trade preferences at the low engagement bin, unassociated with anti-trade preferences at the two middle engagement bins, and associated with anti-trade preferences at the high engagement bin. Recall that in the main text I had indicated that my analyses of these items offered mixed support for my expectations that rural consciousness would be associated with anti-trade preferences, and increasingly so as a function of political engagement. I draw similar conclusions from the binned analyses: rural consciousness is, on average, associated with anti-trade preferences, with mixed evidence that these associations are stronger at high political engagement. What remains clear is that preference formation differs for trade from other

economic policies where political elites are sorted such that Republicans take more conservative positions than Democrats.



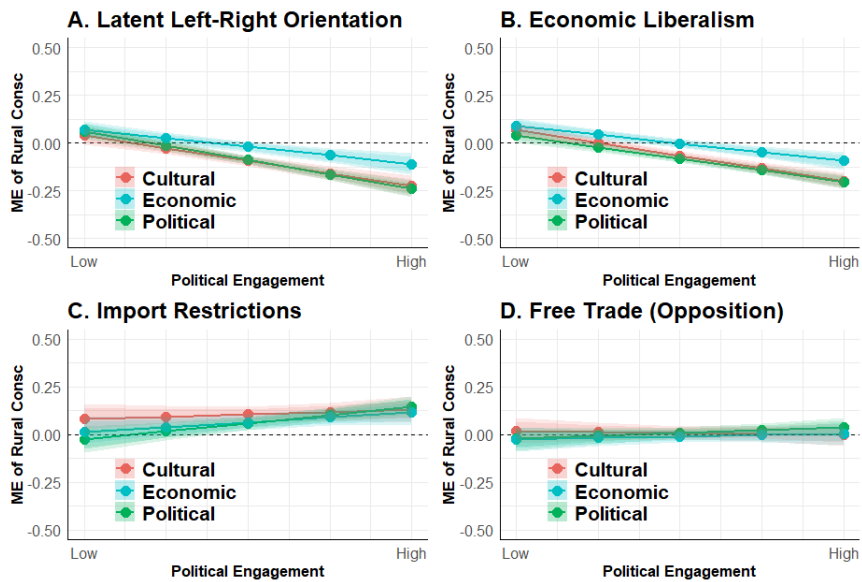
G. Rural Consciousness by Facet

Rural consciousness was theorized by Cramer (2016) to be rooted in three interrelated facets of rural grievance: economic grievance about perceived distributional injustice; political grievance about perceived underrepresentation; and cultural grievance about perceived disrespect for rural ways of life. Trujillo and Crowley (2022) argue that these facets can point the rurally-conscious in different political directions. Trujillo and Crowley (2022) find the cultural facet is associated with Trump support and conservative identity, though not partisanship; however, they also find the economic facet is unrelated to these outcomes. (Trujillo and Crowley do not test how rural consciousness is related to economic preferences). That rural consciousness has heterogeneous associations across facets offers one plausible explanation for why it often seems weakly related to political preferences in other studies utilizing unidimensional rural consciousness measures.

Trujillo and Crowley (2022) recommend analyzing rural consciousness by its facets. My theory is the effects of rural consciousness vary by citizens' weighting of instrumental and symbolic motivations. These theories are not necessarily competing. One key distinction, however, is that I argue economic rural grievances are symbolic for engaged citizens, not instrumental; similarly, cultural and political rural grievances may be rooted in instrumental concerns for the politically disengaged. As such, I still expect heterogeneity in the effects of rural consciousness across each facet. I thus replicate tests of H1-H3 with each of the three rural consciousness items on the 2020 ANES, which span the three facets of rural consciousness using otherwise identical models.

I find all three rural consciousness facets are conditionally associated with political orientation and economic preferences. The trade results are mixed, as was true of the three-item scale. The associations of rural consciousness do vary across facets, with the economic facet

having more positive overall associations with left-wing political orientation and economic preferences than the cultural and political facets. This is consistent with Trujillo and Crowley (2022). Overall, differences in the main associations of rural consciousness to political preferences do emerge across facets (Trujillo and Crowley 2022); however, heterogeneity as functions of political engagement remains across all three facets.



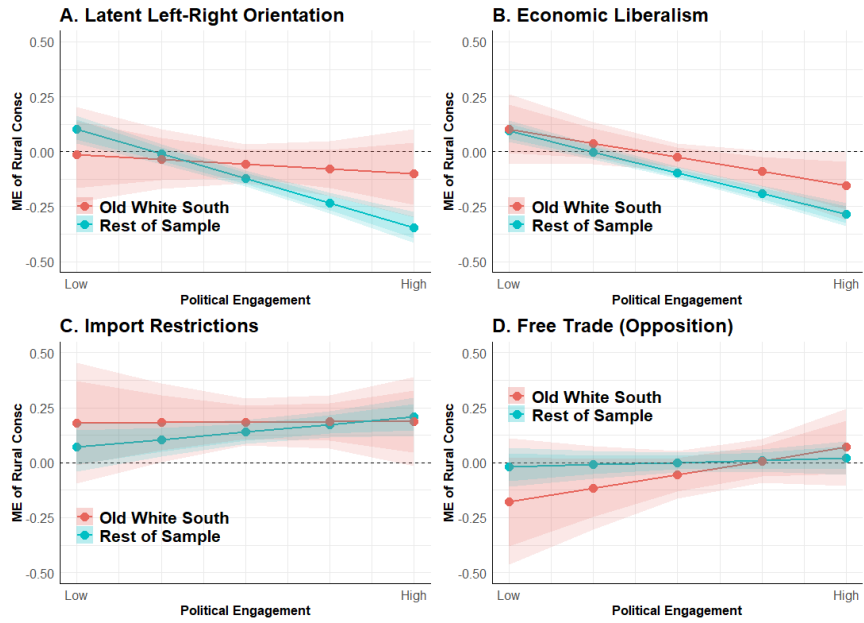
H. Age Cohorts and Southern Whites' Ancestral Democratic Ties

When examining the political orientations of rural Americans, it is important to consider cohort differences due to the ancestral ties to the Democratic Party among old rural white Southerners. One concern is the associations of rural consciousness with left-wing political orientation among disengaged rural Americans is merely a byproduct of politically disengaged ancestral Democrats not updating their partisanship. If rural consciousness was associated with left-wing orientations for old Southern whites but not others, this would be an alternative explanation for my findings. Another possibility is ancestral Democratic ties, not rural consciousness, structures older rural white Southerners' political identities; if this was the case, rural consciousness may have weaker associations with partisan-ideological identification among older rural white Southerners.

I test these possibilities by comparing the associations of rural consciousness among white rural Southerners who are 55 years or older (55 is the median age in the sample; n=479) against these associations in the rest of the sample (n=2,545). Rural consciousness has weaker conditional associations with latent political orientation and, to a lesser extent, economic preferences for old white Southerners than the rest of the sample. This is potentially consistent with the idea that older rural white Southerners political orientation has been shaped by factors other than rural consciousness, such as ancestral ties to the Democratic Party.

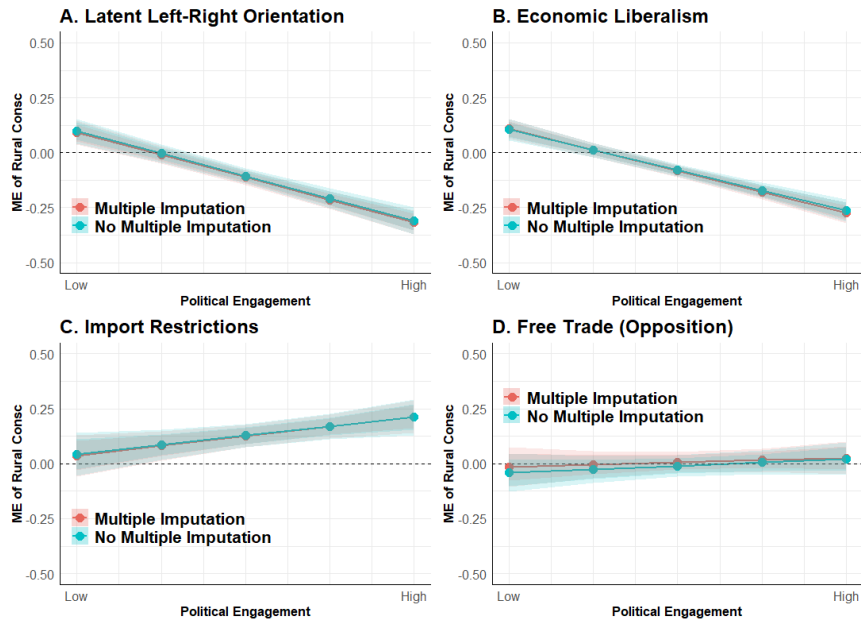
Further, though this is not shown in the Figure below, I find conditional associations of rural consciousness to political orientation among Southern whites *under the age of 55*. It appears the weak conditional association of rural consciousness with political orientation is unique to *older* white Southerners, i.e., the cohort with the strongest ancestral Democratic ties. Overall, the most important point of this analysis is showing the association between rural consciousness and left-wing political orientation among the politically disengaged is not due to ancestral ties to the

Democratic Party among old white rural Southerners who are rurally-conscious; if anything, this cohort of ancestral Democrats attenuates the conditional associations I identify for this outcome.



I. Analyses Without Multiple Imputation

Using multiple imputation vs. full listwise deletion for the control variables makes no difference for the associations I find between rural consciousness and political preferences; indeed, the differences are essentially imperceptible. The advantages of using multiple imputation to address item non-response for the control variables are that it increases the sample size by over 10 percent, making the estimates more precise, and helps bolster the generalizability of the results to the rural populace of interest.



Appendix B. Supplemental Material for Chapter 3

B.1 Data Descriptions

ANES-GSS 2020 Joint Study

The American National Election Study (ANES) and General Social Survey (GSS) in 2020 invited participants in the 2016-2020 GSS Panel Study to complete the 2020 ANES post-election questionnaire. Of 1,734 GSS Panel Study participants, 816 were re-interviewed both by the GSS in 2020 and the ANES (where, between each survey, the requisite survey instruments were located). 10 respondents were dropped for indicating that they were not U.S. citizens in the 2020 GSS, leaving a final sample of 806 U.S. adult citizens. All respondents completed the GSS and ANES online. For more information, see: <https://electionstudies.org/data-center/anes-gss-2020-joint-study/>

Voter Study Group (VSG)

The Voter Study Group panel survey was funded by the Democracy Fund in partnership with YouGov. The VSG uses non-probability sampling. The VSG Survey Guide says: “Original panelists were interviewed by YouGov in 2011–2012 as part of the 2012 Cooperative Campaign Analysis Project (CCAP). The 2012 CCAP was constructed using YouGov’s sample matching procedure. A stratified sample is drawn from YouGov’s panel, which consists of people who have agreed to take occasional surveys. The strata are defined by the combination of age, gender, race, and education, and each stratum is sampled in proportion to its size in the U.S. population. Then, each element of this sample is matched to a synthetic sampling frame that is constructed from the U.S. Census Bureau’s American Community Survey, the Current Population Survey Voting and Registration Supplement, and other databases. The matching procedure finds the observation in

the sample from YouGov’s panel that most closely matches each observation in the synthetic sampling frame on a set of demographic characteristics. The resulting sample is then weighted by a set of demographic and non-demographic variables.” The authoritarianism measure was only included on the 2016 wave, political engagement had measures across various 2016-2020 waves, and the COVID-19 outcome measures were included in the September 2020 wave. 3,275 respondents completed the requisite waves to be included in this analysis. I do not use sampling weights since I pool the VSG with non-probability surveys that do not use weights. For more information about the VSG, see: <https://www.voterstudygroup.org>

Lucid 2020 and 2021 Samples

The 2020 and 2021 Lucid samples were collected using Lucid Theorem. Lucid Theorem is a self-service tool allowing researchers to access online respondents for short interviews. All Theorem respondents must be adults and U.S. citizens. Lucid determines unique respondents within each survey through a combination of IP address, a unique Lucid identification number, and a unique panel identification number. Lucid Theorem uses quota-based sampling as outlined in Table 1A to target a national sample based on age, gender, race/ethnicity, and region. The final demographic makeup of the samples can be found in Table 1B. Lucid has since changed to Cint, but Cint retains the same Lucid Theorem service. For details, see: <https://luc.id/theorem/>

Table 1A. Lucid Theorem Quotas

Demographic	Target (%)	Demographic	Target (%)
Age: 18-24	13	White (Non-Hispanic)	68
Age: 25-34	20	Black (Non-Hispanic)	12
Age: 35-44	20	Hispanic	12
Age: 45-64	33	Other Race/Ethnicity	10
Age: 65-99	14	Region: Midwest	20
Gender: Male	49	Region: West	26
Gender: Female	51	Region: Northeast	20
-	-	Region: South	34

Table 1B. Descriptive Statistics for Samples

Sample	VSG	ANES-GSS	Lucid 2020	Lucid 2021
Age (Median)	60	53	43	46
Male	49	43	48	46
Black	8	14	12	12
Hispanic	5	10	14	13
Unemployed	7	7	11	11
Bachelor/Graduate	42	34	45	35
Less than \$10k	2	10	7	9
\$10k to \$50k	34	44	36	45
\$50k to \$100k	36	29	31	27
\$100k to \$150k	16	9	13	13
More than \$150k	12	8	12	6
Democrat + Leaners	48	45	44	50
Republican + Leaners	37	33	42	33
Independent	15	23	14	17
Liberal	27	34	32	33
Conservative	33	34	37	30
Moderate/DK	40	32	31	37
Region: South	35	36	37	38
N	3,277	806	1,032	2,117

B.2 Question Wordings and Variable Operationalization

ANES-GSS 2020

Demographics

Age: The respondent's date of birth recoded into age in years.

Education: Respondent's highest degree. [Less than high school / High School / Associate's or Junior College / Bachelor's / Graduate]

Gender: Interviewer coded sex. [Male/Female]

Income: Total family income. [Under \$1,000 / \$1,000 to \$2,999 / \$3,000 to \$3,999 / \$4,000 to \$4,999 / \$5,000 to \$5,999 / \$6,000 to \$6,999 / \$7,000 to \$7,999 / \$8,000 to \$9,999 / \$10,000 to \$12,499 / \$12,500 to \$14,999 / \$15,000 to \$17,499 / \$17,500 to \$19,999 / \$20,000 to \$22,499 / \$22,500 to \$24,999 / \$25,000 to \$29,999 / \$30,000 to \$34,999 / \$35,000 to \$39,999 / \$40,000 to \$49,999 / \$50,000 to \$59,999 / \$60,000 to \$74,999 / \$75,000 to \$89,999 / \$90,000 to \$109,999 / \$110,000 to \$129,999 / \$130,000 to \$149,999 / \$150,000 to \$169,999 / \$170,000 or over]

Race/Ethnicity: “What race do you consider yourself?” [White / Black / Something Else] “Are you Spanish, Hispanic, or Latino/Latina?” [Yes/No]

State of Residence: Imputed as the state’s population share of its nine-category Census division.

Authoritarianism

Authoritarianism: The authoritarianism personality measure is constructed as the average of responses to the below four items. The responses coded as indicating authoritarianism are bolded. The measure ranges from 0 (low) to 1 (high).

1. “Which one is more important for a child to have?” [Self-Reliance/**Obedience**]
2. “Which one is more important for a child to have?” [Independence/**Respect for Elders**]
3. “Which one is more important for a child to have?” [**Good Manners**/Curiosity]
4. “Which one is more important for a child to have?” [Considerate/**Well-Behaved**]

Political Engagement

Political Engagement: The political engagement scale is constructed as the average number of correct answers to five political knowledge questions. Unfortunately, the political interest items (and three additional political knowledge items) asked on the ANES were asked as part of the pre-election interview and are thus unavailable to use as part of this engagement measure. Higher levels of political knowledge are taken as indicating higher levels of political engagement. The political engagement scale ranges from 0 (low engagement) to 1 (high engagement).

1. “What job or political office does Mike Pence now hold?” [Vice President]
2. “What job or political office does Nancy Pelosi now hold?” [Speaker of the House]
3. “What job or political office does Angela Merkel now hold?” [German Chancellor]
4. “What job or political office does Vladimir Putin now hold?” [Russian President]
5. “What job or political office does John Roberts now hold?” [Chief Justice of the Supreme Court]

Dependent Variables

Concern Over COVID-19: A variable assessing concern over the COVID-19 pandemic. The variable is recoded to range from 0 (not at all concerned) to 1 (extremely concerned). “How concerned are you, if at all, about the coronavirus or COVID-19 outbreak?” [Extremely concerned / Very concerned / Somewhat concerned / Not very concerned / Not at all concerned]

Lucid 2020

Attention Checks

Check1: “To verify you are a real human and not a bot, please check all (and only) the images that contain a stop sign.” [Two of six images contain a stop sign]

Check2: “Many people are busy and do not have time to closely follow what goes on in the government. We are interested in whether people read survey questions. To show that you've read this question, please select both "Very interested" and "Somewhat interested" below. Once you have done so, continue to the next screen.” [Extremely interested/Very interested/Somewhat interested/A little interested/Not at all interested]

Demographics

Age: “What is your age in years?” [...]

Education: “What is the highest level of education you have completed?” [Less than a high school degree or equivalent/ High school degree or equivalent / Some college, but no degree/2-year college degree/Associate's degree/ Bachelor's degree/ Postgraduate degree]

Gender: “Which of the following best describes your gender?” [Male/Female/Other]

Income: “Finally, which of the following describes your total annual household income—that is, the total income everyone living in your household makes together, before taxes?” [Less than \$10,000/ \$10,000 to \$19,999... \$120,000 to \$149,999/ Over \$150,000]

Race/Ethnicity: “What racial or ethnic group best describes you? Please check all that apply.” [White/Black or African-American/Hispanic or Latino/Asian or Asian-American/Native-American/Middle Eastern/Mixed Race/Other]

State of Residence: Lucid provided data on respondents' state or US territory of residence.

Authoritarianism

Authoritarianism: The authoritarianism personality measure is constructed as the average of responses to the below five items. The responses coded as indicating authoritarianism are bolded. The measure ranges from 0 (low authoritarianism) to 1 (high authoritarianism).

1. “Which one is more important for a child to have?” [Self-Reliance/**Obedience**]
2. “Which one is more important for a child to have?” [Independence/**Respect for Elders**]
3. “Which one is more important for a child to have?” [**Good Manners**/Curiosity]
4. “Which one is more important for a child to have?” [Considerate/**Well-Behaved**]
5. “Which one is more important for a child to have?” [**Disciplined**/Creative]

Political Engagement

Political Engagement: The political engagement scale is the average of two equally weighted subscales: political interest and political knowledge. The political engagement scale ranges from 0 (low engagement) to 1 (high engagement).

1. *Political Interest:* The average response to two items rescaled from 0 (low) to 1 (high).
 1. *Political Attention:* “How much attention do you typically pay to news about national politics?” [A great deal/A lot/A moderate amount/A little/None at all]
 2. *Political News:* “During a typical week, how many days, if any, do you watch, read, or listen to news about politics?” [0-7 days]
2. *Political Knowledge:* The average correct responses (bolded) to six questions below.
 1. “Who is the current Speaker of the U.S. House of Representatives?” [**Nancy Pelosi** /Chuck Schumer/Kevin McCarthy/Mitch McConnell)/Don’t Know]
 2. “How long is the term of office for a U.S. Senator?” [2 years/4 years/**6 years**/8 years/ Don’t Know]

3. “What job or political office is now held by John Roberts?” [Chair of the Democratic National Committee/Senate Majority Leader/**Chief Justice of the Supreme Court**/Chair of the Republican National Committee/Don’t Know]
4. “What job or political office is now held by Angela Merkel?” [Prime Minister of the United Kingdom/**German Chancellor**/Prime Minister of Australia/Secretary of the Treasury/Don’t Know]
5. “Who is the current Vice-President of the United States?” [Marco Rubio/**Mike Pence**/Chuck Schumer/Joe Biden/Don’t Know]
6. “Who did Joe Biden, the current Democratic nominee for President, select as his Vice-Presidential running mate?” [**Kamala Harris**/Andrew Cuomo/Bernie Sanders/Elizabeth Warren/Don’t Know]

Dependent Variables

Health Behaviors Index: The health behavior index is constructed as the average of responses to the below two items. The index ranges from 0 (low behavior uptake) to 1 (high behavior uptake).

1. *Mask-Wearing:* “How often do you wear a mask or other face-covering in public places?” [Always/Most of the time/About half the time/Sometimes/Never]
2. *Social Distancing:* “How often are you social-distancing by staying at least 6 feet apart from others outside of your household?” [Always/Most of the time/About half the time/Sometimes/Never]

Public Health Measures Index: The public health measures index is constructed as the average of responses to the below four items. The index ranges from 0 (opposition) to 1 (support).

1. *Business Closures:* “Some cities and states have restricted businesses' operations during the pandemic. Supporters argue that restrictions on businesses' operations are necessary to stop the spread of COVID-19. Opponents argue that restricting businesses' operations

hurts the economy. Do you support or oppose government restrictions on businesses' operations during the pandemic?" [Support strongly/Support somewhat/Support a little/Oppose a little/Oppose somewhat/Oppose strongly]

2. *Lockdowns*: "In some countries, cities with high numbers of COVID-19 cases have been put under "lockdowns". Under lockdown, travel in and out of a city is cut-off, movement for residents within the city is restricted, and violations of lockdown measures are enforced with fines and/or jail-time. Would you support or oppose lockdowns for American cities during the COVID-19 pandemic?" [Support strongly/Support somewhat/Support a little/Oppose a little/Oppose somewhat/Oppose strongly]
3. *Mask Mandates*: "Some cities and states have issued mask mandates which require that individuals always wear masks in public places outside their own homes. Do you support or oppose mask mandates?" [Support strongly/Support somewhat/Support a little/Oppose a little/Oppose somewhat/Oppose strongly]
4. *Tracking*: "Would you support or oppose government agencies tracking people's cellphones to ensure they are limiting social contact during the COVID-19 pandemic?" [Support strongly/Support somewhat/Support a little/Oppose a little/Oppose somewhat/Oppose strongly]

Lucid 2021 Study

Attention Checks

Check1: “To verify you are a real human and not a bot, please check all (and only) the images that contain a stop sign.” [Two of six images contain a stop sign]

Check2: “Many people are busy and do not have time to closely follow what goes on in the government. We are interested in whether people read survey questions. To show that you've read this question, please select both "Very interested" and "Somewhat interested" below. Once you have done so, continue to the next screen.” [Extremely interested/Very interested/Somewhat interested/A little interested/Not at all interested]

Demographics

Age: “What is your age in years?” [...]

Education: “What is the highest level of education you have completed?” [Less than a high school degree or equivalent/ High school degree or equivalent / Some college, but no degree/2-year college degree/Associate's degree/ Bachelor's degree/ Postgraduate degree]

Gender: “Which of the following best describes your gender?” [Male/Female/Other]

Income: “Finally, which of the following describes your total annual household income—that is, the total income everyone living in your household makes together, before taxes?” [Less than \$10,000/ \$10,000 to \$19,999... \$120,000 to \$149,999/ Over \$150,000]

Race/Ethnicity: “What racial or ethnic group best describes you? Please check all that apply.” [White/Black or African-American/Hispanic or Latino/Asian or Asian-American/Native-American/Middle Eastern/Mixed Race/Other]

State of Residence: Lucid provided data on respondents' state or US territory of residence.

Authoritarianism

Authoritarianism: The authoritarianism personality measure is constructed as the average of responses to the below eight items. The responses coded as indicating authoritarianism are bolded. The measure ranges from 0 (low) to 1 (high).

1. “Which one is more important for a child to have?” [Self-Reliance/**Obedience**]
2. “Which one is more important for a child to have?” [Independence/**Respect for Elders**]
3. “Which one is more important for a child to have?” [**Good Manners**/Curiosity]
4. “Which one is more important for a child to have?” [Considerate/**Well-Behaved**]
5. “Which one is more important for a child to have?” [**Disciplined**/Adaptable]
6. “Which one is more important for a child to have?” [Free-spirited/**Polite**]
7. “Which one is more important for a child to have?” [**Orderly**/Imaginative]
8. “Which one is more important for a child to have?” [**Loyal**/Open-Minded]

Political Engagement

Political Engagement: The political engagement scale is the average of two equally weighted subscales: political interest and political knowledge. The political engagement scale ranges from 0 (low engagement) to 1 (high engagement).

1. *Political Interest:* The average response to two items rescaled from 0 (low) to 1 (high).
 1. *Political Attention:* “How much attention do you typically pay to news about national politics?” [A great deal/A lot/A moderate amount/A little/None at all]
 2. *Political News:* “During a typical week, how many days, if any, do you watch, read, or listen to news about politics?” [0-7 days]
2. *Political Knowledge:* The average correct responses (bolded) to six questions below.
 1. “Who is the current Speaker of the U.S. House of Representatives?” [**Nancy Pelosi** /Chuck Schumer/Kevin McCarthy/Mitch McConnell)/Don’t Know]

2. “How long is the term of office for a U.S. Senator?” [2 years/4 years/**6 years**/8 years/ Don’t Know]
3. “What job or political office is now held by John Roberts?” [Chair of the Democratic National Committee/Senate Majority Leader/**Chief Justice of the Supreme Court**/Chair of the Republican National Committee/Don’t Know]
4. “What job or political office is now held by Boris Johnston?” [**Prime Minister of the United Kingdom**/German Chancellor/Prime Minister of Australia/Secretary of the Treasury/Don’t Know]
5. “Who is the current Vice-President of the United States?” [Marco Rubio/Mike Pence/Chuck Schumer/**Kamala Harris**/Don’t Know]

Dependent Variables

Health Behaviors Index: The health behavior index is constructed from responses to the below five items. Each masking and distancing item gets half the weight in the overall health behavior scale as vaccination (i.e., vaccination gets one third weight, each masking/distancing item gets one-sixth weight). The index ranges from 0 (low behavior uptake) to 1 (high behavior uptake).

1. *Mask-Wearing Indoors:* “How often do you wear a mask or other face-covering in indoor spaces?” [Always/Most of the time/About half the time/Rarely/Never]
2. *Mask-Wearing Outdoors:* “How often do you wear a mask or other face-covering in outdoor spaces?” [Always/Most of the time/About half the time/Rarely/Never]
3. *Social Distancing Indoors:* “How often are you social-distancing by staying at least 6 feet apart from others in indoor spaces?” [Always/Most of the time/About half the time/Rarely/Never]

4. *Social Distancing Outdoors*: “How often are you social-distancing by staying at least 6 feet apart from others in outdoor spaces?” [Always/Most of the time/About half the time/Rarely/Never]
5. *Vaccination Status*: “Which of the following comes closest to your current vaccination status?” [Fully vaccinated (2 doses of Pfizer/Moderna or 1 dose of Johnson and Johnson)/Partially vaccinated (1 dose of Pfizer/Moderna)/Unvaccinated (0 doses)]

Public Health Measures Index: The public health measures index is constructed as the average of responses to five items: Business Closures, Lockdowns, Mask Mandates, Tracking, and Vaccine Mandates. Note support for indoor and outdoor mask mandates are first averaged and treated as one item when constructing the index. This approach is used so that the Lucid 2021 and Lucid 2020 scales are more closely comparable. The index ranges from 0 (opposition) to 1 (support).

1. *Business Closures*: “Some cities and states have restricted businesses' operations during the pandemic. Supporters argue that restrictions on businesses' operations are necessary to stop the spread of the Delta coronavirus variant. Others argue that such restrictions hurt small businesses. Do you support or oppose government restrictions on businesses' operations during the COVID-19 pandemic?” [Support strongly/Support somewhat/Support a little/Oppose a little/Oppose somewhat/Oppose strongly]
2. *Lockdowns*: “In some countries, cities with high numbers of COVID-19 cases have been put under "lockdowns". Under lockdown, travel in and out of a city is cut-off, movement for residents within the city is restricted, and violations of lockdown measures are enforced with fines. Would you support or oppose lockdowns for American cities during the COVID-19 pandemic?” [Support strongly/Support somewhat/Support a little/Oppose a little/Oppose somewhat/Oppose strongly]
3. *Mask Mandates*: Support for mask mandates is the average of the following two items:

1. “Some cities and states have mandated that people wear masks when they are indoors in public spaces (such as at grocery stores or gyms). In general, do you support or oppose indoor mask mandates?” [Support strongly/Support somewhat/Support a little/Oppose a little/Oppose somewhat/Oppose strongly]
2. “Some cities and states have mandated that people wear masks when they are outdoors in public spaces (such as at parks or beaches). In general, do you support or oppose outdoor mask mandates?” [Support strongly/Support somewhat/Support a little/Oppose a little/Oppose somewhat/Oppose strongly]
4. *Tracking*: “Would you support or oppose government agencies tracking people’s cellphones to ensure they are limiting social contact during the COVID-19 pandemic?” [Support strongly/Support somewhat/Support a little/Oppose a little/Oppose somewhat/Oppose strongly]
5. *Vaccine Mandates*: “Would you support or oppose the government requiring COVID-19 vaccinations for all American adults who do not have approved health exemptions (such as a known allergy to vaccines)?” [Support strongly/Support somewhat/Support a little/Oppose a little/Oppose somewhat/Oppose strongly]

Voter Study Group

Demographics

Age: "In what year were you born?" [...]

Education: "What is the highest level of education you have completed?" [No HS/ High school graduate / Some college / 2-year / 4-year / Post-grad]

Gender: "Are you male or female?" [Male/Female]

Income: "Thinking back over the last year, what was your family's annual income?" [Less than \$10,000 / \$10,000 - \$19,999.../... \$350,000 - \$499,999 / \$500,000 or more / Prefer not to say]

Race/Ethnicity: "What racial or ethnic group best describes you?" [White / Black / Hispanic / Asian / Native American / Two or more races / Other / Middle Eastern]

State of Residence: YouGov provides state of 2020 residence in variable inputstate_2020Sep.

Authoritarianism: The authoritarianism measure is constructed as the average of responses to four items measured in the 2016 wave of the VSG. The responses coded as indicating greater authoritarianism are bolded. The measure ranges from 0 (non-authoritarian) to 1 (authoritarian).

1. "Which one is more important for a child to have?" [Self-Reliance/**Obedience**]
2. "Which one is more important for a child to have?" [Independence/**Respect for Elders**]
3. "Which one is more important for a child to have?" [**Good Manners**/Curiosity]
4. "Which one is more important for a child to have?" [Considerate/**Well-Behaved**]

Political Engagement: Political engagement is constructed from two equally weighted subscales: political interest and political knowledge. The measure ranges from 0 (low) to 1 (high).

1. *Political Interest:* Political interest is the average of six answers across the VSG waves spanning 2016 to 2020 to the following question: "Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested. Would you say you follow what's going on

in government and public affairs...” [Most of the time, Some of the time, Only now and then, Hardly at all].

2. *Political Knowledge*: Political knowledge is the number of correctly answered questions asked in the January 2019 VSG wave. Skips and Don’t Know responses are coded as incorrect answers.
 1. “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?” [Text Entry]
 2. “Taking the November election results into account, which party will have the most members in the U.S. House of Representatives?” [Republicans, Democrats, Don’t Know]
 3. “Taking the November election results into account, which party will have the most members in the U.S. House of Representatives?” [Republicans, Democrats, Don’t Know]
 4. “What job or political office does Theresa May currently hold?” [U.S. Representative, Secretary of Education, Prime Minister of the United Kingdom, President of Australia, Don’t Know]
 5. “What job or political office does Neil Gorsuch currently hold?” [U.S. Senator, Governor, Supreme Court Justice, White House Chief of Staff, Don’t Know]
 6. “How many votes does it take for the U.S. Senate to override a presidential veto?” [50, 51, 67, 100, Don’t Know]
 7. “According to the Constitution, which part of government has the power to declare war on another country?” [The President, Congress, The Supreme Court, The Secretary of Defense, Don’t Know]

Dependent Variables

COVID-19 Concern: A variable assessing concern over the COVID-19 pandemic recoded to range from 0 (not at all concerned) to 1 (very concerned). “How concerned are you that you or a close family member will get sick from the coronavirus?” [Very concerned, Somewhat concerned, Not very concerned, Not at all concerned].

Public Health Measures Index: An eight-item scale assessing support for the following public health restrictions in September 2020. Measure ranges from 0 (oppose) to 1 (support). “Don’t Know” responses are coded to item midpoint.

1. “Thinking about the decisions by a number of state governments to impose significant restrictions on public activity because of the coronavirus outbreak, is your greater concern that state governments will...” [Lift the restrictions too quickly, Not lift restrictions quickly enough]
2. “As you may know, some state and local governments have taken certain actions in response to the coronavirus and are considering other actions. Do you support or oppose the following actions? -- Cancel all meetings or gatherings of large groups, like sports events, concerts, conferences, etc.” [Strongly support, Somewhat support, Somewhat oppose, Strongly oppose, DK]
3. “As you may know, some state and local governments have taken certain actions in response to the coronavirus and are considering other actions. Do you support or oppose the following actions? -- Close certain businesses where larger numbers of people gather, like theaters, bars, restaurants, etc.” [Strongly support, Somewhat support, Somewhat oppose, Strongly oppose, DK]
4. “As you may know, some state and local governments have taken certain actions in response to the coronavirus and are considering other actions. Do you support or oppose

the following actions? -- Close schools and universities.” [Strongly support, Somewhat support, Somewhat oppose, Strongly oppose, DK]

5. “As you may know, some state and local governments have taken certain actions in response to the coronavirus and are considering other actions. Do you support or oppose the following actions? -- Require people who can work from home to work from home.”

[Strongly support, Somewhat support, Somewhat oppose, Strongly oppose, DK]

6. “As you may know, some state and local governments have taken certain actions in response to the coronavirus and are considering other actions. Do you support or oppose the following actions? -- Restrict all non-essential travel outside the home.” [Strongly support, Somewhat support, Somewhat oppose, Strongly oppose, DK]

[Strongly support, Somewhat support, Somewhat oppose, Strongly oppose, DK]

7. “As you may know, some state and local governments have taken certain actions in response to the coronavirus and are considering other actions. Do you support or oppose the following actions? Encourage people to stay in their homes and avoid socializing with others.” [Strongly support, Somewhat support, Somewhat oppose, Strongly oppose, DK]

8. “As you may know, some state and local governments have taken certain actions in response to the coronavirus and are considering other actions. Do you support or oppose the following actions? -- Test people for a fever before letting them enter public buildings.” [Strongly support, Somewhat support, Somewhat oppose, Strongly oppose,

DK]

Appendix C. Supplemental Material for Chapter 4

C.1 Data Descriptions

2008-2020 ANES Time Series

The American National Election Study (ANES) Time Series are a set of cross-sectional surveys which have been fielded around every U.S. presidential election cycle and, on occasion, midterm election cycles. Since 1977, the ANES has been funded by the National Science Foundation as a collaborative effort between Stanford University and the University of Michigan. In this paper, I use data from the 2008, 2012, 2016, and 2020 Time Series studies. The study population for the American National Election Study is defined to include all United States citizens of voting age on or before Election Day. The ANES employs a stratified random sampling methodology. All analyses use post-stratification weights to achieve national representativeness. In some years, Black and Hispanic oversamples are selected from Census tracts with high proportions of one or both of these populations, but this is dealt with by the weights. Data collection for the ANES Time Series occurs in two waves: a pre-election wave and a post-election wave. The same cross-section of respondents is contacted for both pre- and post-election interviews. For decades, the ANES had relied on face-to-face, in-person interviewing. In the 2012 and 2016 Time Series, online samples were also fielded. In the 2020 ANES, there were no in-person interviews due to COVID-19; 2020 is mostly an online sample with small samples of phone and video interviews. For more on the ANES sampling methodology, see <https://electionstudies.org/data-center/>.

2020 ANES-GSS Joint Study

The American National Election Study (ANES) and General Social Survey (GSS) in 2020 invited participants in the 2016-2020 GSS Panel Study to complete the 2020 ANES post-election

questionnaire. Of 1,734 GSS Panel Study participants, 816 were re-interviewed both by the GSS in 2020 and the ANES (where, between each survey, the requisite survey instruments were located). 10 respondents were dropped for indicating that they were not U.S. citizens in the 2020 GSS, leaving a final sample of 806 U.S. adult citizens. All respondents completed the GSS and ANES surveys online. The ANES provides the post-election sampling weight (V200018b) used in all analyses to account for the probability-based sampling methodology employed. For more information about the ANES-GSS, see: <https://electionstudies.org/data-center/anes-gss-2020-joint-study/>

Cooperative Campaign Analysis Project (CCAP)

The CCAP was fielded by principal investigators Lynn Vavreck and Simon Jackman in 2008 as the first wave of a panel study. The 2008 wave was fielded between December 17, 2007 and November 5, 2008 with an initial sample of 20,000, of whom 78% completed the survey; of that 78%, 84% completed the requisite personality items to be included in the analysis, leaving a sample of 13,029. The sample was collected from the YouGov opt-in panel. The sampling frame is US registered voters over the age of 18. For representativeness, a target sample was generated from the American Community Study then matched with YouGov/Polimetrix participant pool. Participants from Battleground states are over-represented so each strata (Battleground and non-Battleground) makes 50% of the sample. The overrepresentation of Battleground respondents in national analyses can be addressed with weights. For more information about the CCAP, see: <https://isps.yale.edu/research/data/d130>

2024 Lucid

The 2024 Lucid sample was collected using Lucid Theorem. Lucid Theorem is a self-service tool allowing researchers to access online respondents for short interviews. All Theorem respondents must be adults and US citizens. Lucid determines unique respondents within each survey through

a combination of IP address, a unique Lucid identification number, and a unique panel identification number. Lucid Theorem uses quota-based sampling to target a national sample with ACS benchmarks on age, gender, race/ethnicity, and region. Lucid has since changed to Cint, but Cint retains the same Lucid Theorem service. I exclude respondents for failing a simple captcha check, either of two attention checks, or if they spent less than a fourth of the median time on specific pages of the survey that included my outcome measures (this was technically a joint survey with other researchers). The sample size after exclusions is 5,708. For more details on the Lucid Theorem sampling methodology, see: <https://luc.id/theorem/>

Voter Study Group (VSG)

The Voter Study Group panel survey was funded by the Democracy Fund in partnership with YouGov. The VSG uses non-probability sampling. The VSG Survey Guide says: “Original panelists were interviewed by YouGov in 2011–2012 as part of the 2012 Cooperative Campaign Analysis Project (CCAP). The 2012 CCAP was constructed using YouGov’s sample matching procedure. A stratified sample is drawn from YouGov’s panel, which consists of people who have agreed to take occasional surveys. The strata are defined by the combination of age, gender, race, and education, and each stratum is sampled in proportion to its size in the U.S. population. Then, each element of this sample is matched to a synthetic sampling frame that is constructed from the U.S. Census Bureau’s American Community Survey, the Current Population Survey Voting and Registration Supplement, and other databases. The matching procedure finds the observation in the sample from YouGov’s panel that most closely matches each observation in the synthetic sampling frame on a set of demographic characteristics. The resulting sample is then weighted by a set of demographic and non-demographic variables.” The authoritarianism measure was only included on the 2016 wave, political engagement had measures across various 2016-2020 waves, and the COVID-19 outcome measures were included in the September 2020 wave. 3,275

respondents completed the requisite waves to be included in this analysis. I do not use sampling weights since I pool the VSG with non-probability surveys that do not use weights. For more information about the VSG, see: <https://www.voterstudygroup.org>

C.2 Question Wordings and Variable Operationalization

2008, 2012, 2016, 2020 ANES

Demographics

Age: Respondent age in years.

Education: Respondent's highest degree. [8 grades or less / 9-12 grades, no diploma/equivalency / 12 grades, diploma or equivalency / 12 grades, diploma or equivalency plus non-academic training / Some college, no degree; junior/community college level degree (AA degree) / BA level degrees / Advanced degrees]

Employment Status: Derived from a series of questions about respondents' employment status. [Working now / Temporarily laid off / Unemployed / Retired / Permanently disabled / Homemaker / Student / Other]

Gender: [Male/Female/Other (2016 only)]

Income: Total family income. [Income response options vary by year; see codebook for details]

Race/Ethnicity: "What racial or ethnic group or groups best describes you?"... "Are you of Spanish or Hispanic origin or descent?" [White Non-Hispanic / Black Non-Hispanic /Asian or Pacific Islander / American Indian or Alaska Native Non-Hispanic / Hispanic / Other or multiple races]

State: Respondent state of residence.

Personality Measures

Authoritarianism: The authoritarianism personality measure is constructed as the average of responses to the below four items. Respondents are prompted: "Which one is more important for a child to have?" The responses indicating authoritarianism are bolded.

1. Self-Reliance/**Obedience**

2. Independence/**Respect for Elders**
3. **Good Manners**/Curiosity
4. Considerate/**Well-Behaved**

Openness to Experience (2012/2016): Openness to experience is measured with two items, the second reverse coded. Respondents are promoted: “Please mark how well the following pair of words describes you, even if one word describes you better than the other. Describes me...

[Extremely poorly / Somewhat poorly / A little poorly / Neither poorly nor well / A little well / Somewhat well / Extremely well]

1. Open to new experiences, complex
2. Conventional, uncreative

Needs for Security and Certainty: In the 2008 and 2020 ANES, the four authoritarianism items are used as the sole NSC measure. In the 2012 and 2016 ANES, I fit a one-factor model with the four authoritarianism items and the two openness to experience items. The item loadings onto the factor are listed below. The four authoritarianism items load more strongly onto this NSC factor than the two openness items.

2012 ANES:

Auth1	Auth2	Auth3	Auth4	Open1	Open2
1.00	1.40	1.46	0.96	-0.19	-0.19

2016 ANES:

Auth1	Auth2	Auth3	Auth4	Open1	Open2
1.00	1.35	1.19	0.81	-0.19	-0.25

Political Engagement: Political engagement is assessed as an equally weighted score derived from two subscales: political interest and political knowledge. These subscales are generated from the available political interest and knowledge items asked on each ANES Time Series.

Political Interest (2008):

1. Version A: "Some people don't pay much attention to political campaigns. how about you? would you say that you have been very much interested, somewhat interested or not much interested in the political campaigns so far this year?" [Very much interested/somewhat interested/not much interested] OR Version B: "How interested are you in information about what's going on in government and politics? Extremely interested, very interested, moderately interested, slightly interested, or not interested at all? [Extremely interested/Very interested/Moderately interested/Slightly interested/ Not interested at all]
2. Version A: "In general, how much attention did you pay to news about the campaign for president -- a great deal, a lot, a moderate amount, a little, or none at all?" [A great deal/A lot/A moderate amount/A little/None at all] OR Version B: "In general, how much attention did you pay to news about the campaign for president -- a great deal, quite a bit, some, very little, or none?" [A great deal/Quite a bit/Some/Very little/None]
3. Version A: "Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested. Would you say you follow what's going on in government and public affairs most of the time, some of the time, only now and then, or hardly at all?" [Most of the time/Some of the time/Only now and then/Hardly at all] OR Version B: "How often do you pay attention to what's going on in government and politics? All the time, most of the time, about half the time, once in a while, or never?" [All the time/Most of the time/About half the time/Once in a while/Never]

Political Knowledge (2008):

1. "What job or political office does Nancy Pelosi now hold?" [Open-Ended Response Coded by the ANES]

2. “What job or political office does Dick Cheney now hold?” [Open-Ended Response
Coded by the ANES]
3. “What job or political office does Gordon Brown now hold?” [Open-Ended Response
Coded by the ANES]
4. “What job or political office does John Roberts now hold?” [Open-Ended Response
Coded by the ANES]

Political Interest (2012):

1. “How often do you pay attention to what's going on in government and politics?”
[Always/Most of the time/About half the time/Some of the time/Never]?
2. “Some people don't pay much attention to political campaigns. How about you? Would you say that you have been [very much interested, somewhat interested or not much interested/ not much interested, somewhat interested or very much interested] in the political campaigns so far this year?” [Very much interested/Somewhat interested/Not much interested]

Political Knowledge (2012):

1. “What job or political office does John Boehner now hold?” [Open-Ended Response
Coded by the ANES]
2. “What job or political office does Joe Biden now hold?” [Open-Ended Response Coded
by the ANES]
3. “What job or political office does David Cameron now hold?” [Open-Ended Response
Coded by the ANES]
4. “What job or political office does John Roberts now hold?” [Open-Ended Response
Coded by the ANES]

5. “Do you happen to know how many times an individual can be elected President of the United States under current laws?” [Open-Ended Response]
6. “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?” [Open-Ended Response]
7. “What is Medicare?” [A program run by the U.S. Federal government to pay for old people's health care/A program run by state governments to provide health care to poor people/A private health insurance plan sold to individuals in all 50 states/A private, non-profit organization that runs free health clinics]

Political Interest (2016):

1. “How often do you pay attention to what's going on in government and politics?” [Always/Most of the time/About half the time/Some of the time/Never]?
2. “Some people don't pay much attention to political campaigns. How about you? Would you say that you have been [very much interested, somewhat interested or not much interested/ not much interested, somewhat interested or very much interested] in the political campaigns so far this year?” [Very much interested/Somewhat interested/Not much interested]
3. “How interested would you say you are in politics? Are you (very interested, somewhat interested, not very interested, or not at all interested / not at all interest, not very interested, somewhat interested, or very interested)?” [Very interested/Somewhat interested/Not very interested/Not at all interested]
4. “And how closely do you follow politics on TV, radio, newspapers, or the Internet? (Very closely, fairly closely, not very closely, or not at all / Not at all, not very closely, fairly closely, or very closely)?” [Very closely/Fairly closely/Not very closely/Not at all]

Political Knowledge (2016):

1. “What job or political office does Joe Biden now hold?” [Open-Ended Response Coded by the ANES]
2. “What job or political office does Paul Ryan now hold?” [Open-Ended Response Coded by the ANES]
3. “What job or political office does Angela Merkel now hold?” [Open-Ended Response Coded by the ANES]
4. “What job or political office does Vladimir Putin now hold?” [Open-Ended Response Coded by the ANES]
5. “What job or political office does John Roberts now hold?” [Open-Ended Response Coded by the ANES]
6. “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?” [Open-Ended Response]
7. “Do you happen to know which party currently has the most members in the U.S. House of Representatives in Washington?” [Democrats/Republicans/Don’t Know]
8. “Do you happen to know which party currently has the most members in the U.S. Senate?” [Democrats/Republicans/Don’t Know]

Political Interest (2020):

1. “How often do you pay attention to what's going on in government and politics?”
[Always/Most of the time/About half the time/Some of the time/Never]?
2. “Some people don't pay much attention to political campaigns. How about you? Would you say that you have been [very much interested, somewhat interested or not much interested/ not much interested, somewhat interested or very much interested] in the political campaigns so far this year?” [Very much interested/Somewhat interested/Not much interested]

3. “How interested would you say you are in politics? Are you (very interested, somewhat interested, not very interested, or not at all interested / not at all interest, not very interested, somewhat interested, or very interested)?” [Very interested/Somewhat interested/Not very interested/Not at all interested]
4. “And how closely do you follow politics on TV, radio, newspapers, or the Internet? (Very closely, fairly closely, not very closely, or not at all / Not at all, not very closely, fairly closely, or very closely)?” [Very closely/Fairly closely/Not very closely/Not at all]

Political Knowledge (2020):

1. “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?” [Open-Ended Response]
2. “Do you happen to know which party currently has the most members in the U.S. House of Representatives in Washington?” [Democrats/Republicans/Don’t Know]
3. “Do you happen to know which party currently has the most members in the U.S. Senate?” [Democrats/Republicans/Don’t Know]
4. “What job or political office does Mike Pence now hold?” [Open-Ended Response Coded by the ANES]
5. “What job or political office does Nancy Pelosi now hold?” [Open-Ended Response Coded by the ANES]
6. “What job or political office does Angela Merkel now hold?” [Open-Ended Response Coded by the ANES]
7. “What job or political office does Vladimir Putin now hold?” [Open-Ended Response Coded by the ANES]
8. “What job or political office does John Roberts now hold?” [Open-Ended Response Coded by the ANES]

Dependent Variables

Assault Weapons Ban (2020): This item is generated as the scaled responses to two questions.

1. “Do you favor, oppose, or neither favor nor oppose banning the sale of semi-automatic “assault-style” rifles? Do you (favor/oppose) that a great deal, a moderate amount, or a little?” [Favor a great deal/Favor moderately/Favor a little/Neither favor nor oppose/Oppose a little/Oppose moderately/Oppose a great deal]
2. “Do you favor, oppose, or neither favor nor oppose a mandatory program where the government would buy back semi-automatic assault-style rifles from citizens who currently own them? Do you (favor/oppose) that a great deal, a moderate amount, or a little?” [Favor a great deal/Favor moderately/Favor a little/Neither favor nor oppose/Oppose a little/Oppose moderately/Oppose a great deal]

Border Spending (2008, 2020): “Should federal spending on tightening border security to prevent illegal immigration be increased, decreased, or kept about the same?” [Increased/Kept about the same/Decreased/Cut out entirely (VOL.)]

Border Wall/Fence (2016, 2020): “Do you favor, oppose, or neither favor nor oppose building a wall on the U.S. border with Mexico? Do you (favor/oppose) that (a great deal, a moderate amount, or a little / a little, a moderate amount, or a great deal)?” [Favor a great deal/Favor moderately/Favor a little/Neither favor nor oppose/Oppose a little/Oppose moderately/Oppose a great deal]

China/Iran/Mexico/Russia Security Threat (2020): “How much is [China/Iran/Mexico/Russia] a threat to the United States?” [Not at all/A little/A moderate amount/A lot/A great deal]

COVID Restrictions (2020): “Do you think the limits your state placed on public activity because of the COVID-19 pandemic were far too strict, somewhat too strict, about right, not quite strict

enough, or not nearly strict enough?" [Far too strict / Somewhat too strict / About right / Not quite strict enough / Not nearly strict enough]

Crime Spending (2008-2020): "Should federal spending on dealing with crime be increased, decreased, or kept about the same?" [Increased/Kept about the same/Decreased/Cut out entirely (VOL.)]

Death Penalty (2008-2020): "Do you favor or oppose the death penalty for persons convicted of murder? Do you favor/oppose the death penalty for persons convicted of murder strongly or not strongly?" [Favor strongly/Favor not strongly/Oppose not strongly/Oppose strongly]

Defense Spending (2008-2020): "Where would you place yourself on this scale, or haven't you thought much about this?" [1 Government should decrease defense spending/2/3/4/5/6/7 Government should increase defense spending]

FBI Ratings (2020): "How would you rate the Federal Bureau of Investigation (FBI)?" [0-100 Scale]

Gun Control (2008-2020): "Do you think the federal government should make it more difficult for people to buy a gun than it is now, make it easier for people to buy a gun, or keep these rules about the same as they are now?" [More difficult/Keep these rules about the same/Less difficult]

ICE Ratings (2020): "How would you rate the Immigration and Customs Enforcement (ICE) agency?" [0-100 Scale]

Iran Hawkishness (2012): This item is generated as the scaled responses to two questions.

1. "To try to prevent Iran from developing nuclear weapons, would you favor, oppose, or neither favor nor oppose the United States bombing Iran's nuclear development sites?" [Favor/Neither favor nor oppose/Oppose]

2. “To try to prevent Iran from developing nuclear weapons, would you favor, oppose, or neither favor nor oppose invading with U.S. forces to remove the Iranian government from power?” [Favor/Neither favor nor oppose/Oppose]

ISIS Intervention (2016): “Do you favor, oppose, or neither favor nor oppose the U.S. sending ground troops to fight Islamic militants, such as ISIS, in Iraq and Syria? Do you (favor/oppose) that (a great deal, a moderate amount, or a little / a little, a moderate amount, or a great deal)?” [Favor a great deal/Favor moderately/Favor a little/Neither favor nor oppose/Oppose a little/Oppose moderately/Oppose a great deal]

Police Ratings (2016, 2020): “How would you rate police?” [0-100 Scale]

Police Spending (2012): “Thinking about public expenditure on police and law enforcement, should there be -- (much more than now, somewhat more than now, the same as now, somewhat less than now, or much less than now / much less than now, somewhat less than now, the same as now, somewhat more than now, or much more than now)?” [Much more than now/Somewhat more than now/The same as now/Somewhat less than now/Much less than now]

Police Use of Force (2020): “How often do you think police officers use more force than is necessary?” [Never/Rarely/About half the time/Most of the time/All the time]

Post-9/11 Security (2012, 2016): “Since the September 11, 2001 attacks there have been changes in security at public places such as airports, stadiums and government buildings. Have these changes in security gone too far, are they just about right, or do they not go far enough?” [Have gone too far/Are just about right/Do not go far enough]

Torture Terrorists (2008-2016): “Do you favor, oppose, or neither favor nor oppose the U.S. government torturing people, who are suspected of being terrorists, to try to get information? Do you favor/oppose that a great deal, moderately, or a little?” [Favor a great deal/Favor

moderately/Favor a little/Neither favor nor oppose/Oppose a little/Oppose moderately/Oppose a great deal]

Support for Iraq War (2008): “Do you approve, disapprove, or neither approve nor disapprove of the way the U.S. federal government has handled the war in Iraq during the last four years? Do you (approve/disapprove) extremely strongly, moderately strongly, or slightly strongly?”

[Approve extremely strongly/Approve moderately strongly/Approve slightly strongly/Neither approve nor disapprove/Disapprove slightly strongly/Disapprove moderately strongly/Disapprove extremely strongly]

Urban Unrest/Law and Order (2020): “What is the best way to deal with the problem of urban unrest and rioting? Some say it is more important to use all available force to maintain law and order, no matter what results. Others say it is more important to correct the problems of racism and police violence that give rise to the disturbances. And, of course, other people have opinions in between. On this scale from 1 to 7, where 1 means solve problems of racism and police violence, and 7 means use all available force to maintain law and order, where would you place yourself on this scale, or haven’t you thought much about this?” [1 Solve problems of racism and police violence/2/3/4/5/6/7 Use all available force to maintain law and order]

War on Terror Spending (2008): “Should federal spending on the war on terrorism be increased, decreased, or kept about the same?” [Increased/Kept about the same/Decreased/Cut out entirely]

Wiretapping (General) (2012, 2016): “Have increases in the government’s wiretapping powers since September 11, 2001, gone too far, are they just about right, or do they not go far enough?” [Have gone too far/Are just about right/Do not go far enough]

2020 ANES-GSS

Demographics

Age: The respondent's date of birth recoded into age in years.

Education: Respondent's highest degree. [Less than high school / High School / Associate's or Junior College / Bachelor's / Graduate]

Employment Status: Derived from a series of questions about respondents' employment status. [working full time / working part time / with a job, but not at work / unemployed, laid off, looking for work / retired / in school / keeping house / other]

Gender: Interviewer coded sex. [Male/Female]

Income: Total family income. [Under \$1,000 / \$1,000 to \$2,999 ... / \$150,000 to \$169,999 / \$170,000 or over]

Race/Ethnicity: "What race do you consider yourself?" [White / Black / Something Else] "Are you Spanish, Hispanic, or Latino/Latina?" [Yes/No]

Region: Census divisions. [New England / Middle Atlantic / East North Central / West North Central / South Atlantic / East South Atlantic / West South Central / Mountain / Pacific]

Personality Measures

Authoritarianism: The authoritarianism personality measure is constructed as the average of responses to the below four items. Respondents are prompted: "Which one is more important for a child to have?" The responses indicating authoritarianism are bolded.

1. Self-Reliance/**Obedience**
2. Independence/**Respect for Elders**
3. **Good Manners**/Curiosity
4. Considerate/**Well-Behaved**

Political Engagement

Political Engagement: The political engagement scale is constructed as the average number of correct answers to five political knowledge questions. Unfortunately, the political interest items (and three additional political knowledge items) asked on the 2020 ANES were asked as part of the pre-election wave and are thus unavailable to use in the political engagement measure. More correct responses to the five political knowledge questions is taken to indicate higher levels of political engagement. The political engagement scale ranges from 0 (low engagement) to 1 (high engagement).

1. “What job or political office does Mike Pence now hold?” [Vice President]
2. “What job or political office does Nancy Pelosi now hold?” [Speaker of the House]
3. “What job or political office does Angela Merkel now hold?” [German Chancellor]
4. “What job or political office does Vladimir Putin now hold?” [Russian President]
5. “What job or political office does John Roberts now hold?” [Chief Justice of the Supreme Court]

Dependent Variables

Criminal Sentencing: “In general, do you think the courts in this area deal too harshly or not harshly enough with criminals?” [Too harshly / About right / Not harshly enough]

Defund Police Opposition: “Do you favor or oppose reducing funding for police departments, and moving those funds to mental health, housing, and other social services?” [Favor / Oppose]

2008 CCAP

Demographics

Age: Respondent year of birth. [...]

Education: Highest education. [No HS / High school graduate / Some college / 2-year college / College graduate / Post-Grad]

Employment Status: Respondent current occupation. [Working full time / Working part time / Temporarily laid off / Unemployed / Retired / Permanently disabled / Taking care of home or family / Student / Other]

Gender: Respondent gender. [Male/Female]

Income: Household income. [less than \$10,000 / \$10,000 - \$14,999 ... / \$120,000 - \$149,999 / \$150,000 or more / Prefer not to say]

Race/Ethnicity: Respondent race/ethnicity. [White / Black / Hispanic / Asian / Native American / Mixed / Other / Middle Eastern]

State: Respondent state of residence.

Personality Measures

Authoritarianism: Respondents are prompted: “Although there are a number of qualities that people feel that children should have, every person thinks that some are more important than others. Listed below are pairs of desirable qualities. For each pair please mark which one you think is more important for a child to have: Which is more important for a child to have?” The responses indicating authoritarianism are bolded.

1. Independence/**Respect for Elders**
2. Self-Reliance/**Obedience**
3. **Good Manners**/Curiosity
4. Considerate/**Well-Behaved**

5. **Disciplined/Creative**

Openness to Experience: Openness to experience is measured with two items, the second reverse coded. Respondents are prompted: “Please mark how well the following pair of words describes you, even if one word describes you better than the other. Describes me... [Extremely poorly / Somewhat poorly / A little poorly / Neither poorly nor well / A little well / Somewhat well / Extremely well]

1. Open to new experiences, complex
2. Conventional, uncreative

Needs for Security and Certainty: I fit a one-factor model with the five authoritarianism items and two openness to experience items. The item loadings onto the factor are listed below. The five authoritarianism items load more strongly onto this NSC factor than the two openness items.

Auth1	Auth2	Auth3	Auth4	Auth5	Open1	Open2
1.00	1.31	1.46	0.85	1.31	-0.24	-0.30

Political Engagement

Political Engagement: Political engagement is generated from an equally weighted average of two subscales: subjective political interest and objective political knowledge.

1. *Political Interest:* Two items additively scaled.
 1. “How interested are you in politics?” [Very much interested / Somewhat interested / Not much interested / Not sure]
 2. “How much attention have you paid to the presidential nominating process this winter?” [Quite a bit / Some / Not that much / None]
2. *Political Knowledge:* Twelve political knowledge items. Correct responses bolded.
 1. JOB (SENATE OR HOUSE) HELD BY DINGELL. [**House** / Senate / Neither]
 2. JOB (SENATE OR HOUSE) HELD BY PELOSI. [**House** / Senate / Neither]

3. JOB (SENATE OR HOUSE) HELD BY GATES. [House / Senate / **Neither**]
4. JOB (SENATE OR HOUSE) HELD BY BOEHNER. [**House** / Senate / Neither]
5. JOB (SENATE OR HOUSE) HELD BY COLLINS. [House / **Senate** / Neither]
6. JOB (SENATE OR HOUSE) HELD BY WAXMAN. [**House** / Senate / Neither]
7. JOB (SENATE OR HOUSE) HELD BY KYL. [House / **Senate** / Neither]
8. JOB (SENATE OR HOUSE) HELD BY KUCINICH. [**House** / Senate / Neither]
9. JOB (SENATE OR HOUSE) HELD BY [Codebook error]. [House / **Senate** /
Neither]
10. JOB (SENATE OR HOUSE) HELD BY KENNEDY. [House / **Senate** / Neither]
11. RICE POSITION. [Secretary of Defense / **Secretary of State** / White House
Counsel / Secretary of Foreign Affairs / Don't Know]
12. GUANTANAMO PURPOSE. [**US Detention Center there** / People are dying
trying to emigrate / Site of a major environmental summit / Castro is in a hospital
there / I'm not sure]

Dependent Variables

Border Wall/Fence: "Tell us how much you agree with the following policies: Building a 700 mile fence along U.S. border." [Strongly agree / Somewhat agree / Somewhat disagree / Strongly disagree / Don't know]

Death Penalty: "Tell us how much you agree with the following policies: Use of the death penalty for prisoners convicted of murder" [Strongly agree / Somewhat agree / Somewhat disagree / Strongly disagree / Don't know]

Handgun Ban: "Tell us how much you agree with the following policies: Banning the possession of handguns except for police" [Strongly agree / Somewhat agree / Somewhat disagree / Strongly disagree / Don't know]

Iran Hawkishness: A two-item scale.

1. “Now, thinking about Iran: In dealing with Iran, do you think the U.S. is being too confrontational, not confrontational enough, or handling it about right?” [Too confrontational / Not confrontational enough / About right / Don’t know]
2. “If Iran continues with its nuclear research and is close to developing a nuclear weapon, do you believe that the United States should or should not initiate military action to destroy Iran's ability to make nuclear weapons? Do you feel strongly about that, or not?” [Should, strongly / Should, not strongly / Should not, not strongly / Should not, strongly]

Mandatory Minimums: “Tell us how much you agree with the following policies: Repealing mandatory minimum sentences for non-violent offenses.” [Strongly agree / Somewhat agree / Somewhat disagree / Strongly disagree / Don’t know]

Support for Iraq War: “How long should the U.S. stay in Iraq?” [Should leave immediately / Should leave before the end of the next year / Should stay for at least another year but not indefinitely / Should stay in Iraq as long as it takes to stabilize the country / I'm not sure, I haven't thought much about this]

Lucid 2024

Attention Checks

Check 1: "For our research, careful attention is critical! We thank you for your care. To show that you are paying attention, please select "I have a question." [I understand, I do not understand, I have a question].

Check 2: "People are very busy these days and many do not have time to follow what goes on in the government. This is an attention check. To show that you've read this much, answer both "extremely interested" and "very interested." [Extremely interested, Very interested, Moderately interested, Slightly interested, Not at all interested].

Demographics

Age: "What is your age in years?" [...]

Education: "What is the highest level of education you have completed?" [Less than a high school degree or equivalent/ High school degree or equivalent / Some college, but no degree/2-year college degree/Associate's degree/ Bachelor's degree/ Postgraduate degree]

Employment Status: "What is your current employment status?" [Employed full time, Employed part time, Unemployed, Retired, Full-time homemaker, Student, Other (please specify)].

Gender: "Which of the following best describes your gender?" [Male/Female/Other]

Income: "Finally, which of the following describes your total annual household income—that is, the total income everyone living in your household makes together, before taxes?" [Less than \$10,000/ \$10,000 to \$19,999... \$120,000 to \$149,999/ Over \$150,000]

Race/Ethnicity: "What racial or ethnic group best describes you? Please check all that apply." [White/Black or African-American/Hispanic or Latino/Asian or Asian-American/Native-American/Middle Eastern/Mixed Race/Other]

State of Residence: Lucid provided data on respondents' state or US territory of residence.

Personality Measures

Authoritarianism: Authoritarianism is measured using childrearing values from the below eight items drawn from Engelhardt, Feldman, and Hetherington (2023). Respondents are prompted: "Which one is more important for a child to have?" The responses indicating authoritarianism are listed first in each pair.

1. Respect for elders/Independence
2. Obedience/Self-reliance
3. Good Manners/Curiosity
4. Well-Behaved/Considerate
5. Disciplined/Adaptable
6. Polite/Free-spirited
7. Orderly/Imaginative
8. Loyal/Open-minded

Need for Closure: Need for (cognitive) closure is measured based on strength of agreement to the following 10 statements where agreement always indicates greater need for closure. Respondents are prompted: "Please read each of the following statements and decide how much you agree with each according to your beliefs and experiences." [Strongly agree, Moderately agree, Slightly agree, Slightly disagree, Moderately disagree, Strongly disagree].

1. "I don't like situations that are uncertain"
2. "I dislike questions which could be answered in many different ways"
3. "I find that a well ordered life with regular hours suits my temperament"
4. "I don't like to go into a situation without knowing what I can expect from it"
5. "I would quickly become impatient and irritated if I would not find a solution to a problem immediately"

6. "I don't like to be with people who are capable of unexpected actions"
7. "I dislike it when a person's statement could mean many different things"
8. "I find that establishing a consistent routine enables me to enjoy life more"
9. "I enjoy having a clear and structured mode of life"
10. "I dislike unpredictable situations"

Openness to Experience: Openness to experience is measured with five items. Respondents are prompted: "How much do you agree with each statement about you (as you generally are now, not as you wish to be in the future)?" [Strongly agree, Somewhat agree, Neither agree nor disagree, Somewhat disagree, Strongly disagree]. Items 2, 3, and 4 are reverse coded; agreement indicates lower openness to experience.

1. "I have a vivid imagination."
2. "I am not interested in abstract ideas."
3. "I have difficulty understanding abstract ideas."
4. "I do not have a good imagination."
5. "I love to think up new ways of doing things."

Schwartz Conservation/Openness Values: Schwartz conservation/openness values are measured with five items. Respondents are prompted: "Now we will briefly describe some people. Please indicate for each description whether that person is very much like you, like you, somewhat like you, a little like you, not like you, or not at all like you." [Very much like me, Like me, Somewhat like me, A little like me, Not like me, Not at all like me]. Greater "Openness to Change" (1 and 4) indicates low NSC. Greater "Conservation" (2, 3, and 5) indicates high NSC.

1. "It is important to this person to think up new ideas and be creative; to do things one's own way."

2. "Living in secure surroundings is important to this person; to avoid anything that might be dangerous."
3. "It is important to this person to always behave properly; to avoid doing anything people would say is wrong."
4. "Adventure and taking risks are important to this person; to have an exciting life."
5. "Tradition is important to this person; to follow the customs handed down by one's religion or family."

Needs for Security and Certainty: I fit a second-order factor model. The first order factors are authoritarianism, openness to experience, and need for closure. The two openness Schwartz items load onto the openness to experience factor and the three conservation Shwartz items load onto the need for closure factor. Then, these three first-order factors load onto a second-order NSC factor. All first-order and second-order factors are constrained to be orthogonal to a methods factor constituted from the openness, need for closure, and Schwartz items (which are all constrained to have the same loadings since I assume common responding patterns shape the responses to these items, e.g., acquiescence). The factor loadings are listed below for the CFA.

Authoritarianism	Openness to Experience	Need for Closure
Auth 1: 0.22	Open 1: 0.16	NFC 1: 0.15
Auth 2: 0.20	Open 2: 0.14	NFC 2: 0.12
Auth 3: 0.24	Open 3: 0.14	NFC 3: 0.13
Auth 4: 0.20	Open 4: 0.16	NFC 4: 0.15
Auth 5: 0.24	Open 5: 0.14	NFC 5: 0.09
Auth 6: 0.16	Schw 1: 0.16	NFC 6: 0.14
Auth 7: 0.16	Schw 4: 0.13	NFC 7: 0.11
Auth 8: 0.15		NFC 8: 0.13
		NFC 9: 0.13
		NFC 10: 0.16
		Schw 2: 0.10
		Schw 3: 0.09
		Schw 5: 0.07
Loading onto NSC: 0.79	Loading onto NSC: -0.37	Loading onto NSC: 0.53

Political Engagement

Political Engagement: Political engagement is generated from an equally weighted average of two subscales: subjective political interest and objective political knowledge.

1. *Political Interest:* Two items additively scaled to range from 0 (low political interest) to 1 (high political interest).
 1. "How much attention do you typically pay to news about national politics?" [A great deal, A lot, A moderate amount, A little, None at all]. Recode from 0 (None at all) to 1 (A great deal).
 2. "During a typical week, how many days, if any, do you watch, read, or listen to news about politics?" [0-7 days]. Recode from 0 (0 days) to 1 (7 days).
2. *Political Knowledge:* Respondents are prompted: "Next, we're going to ask you some questions about current events. It is important to us that you do NOT use outside sources like the Internet to search for the correct answer. Will you answer the following questions without help from outside sources?" [Yes, No]. Note, I include respondents who say no. The point is to reduce cheating, not subset to avowed non-cheaters. Then respondents answer seven items additively scaled to range from 0 (low political knowledge) to 1 (high political knowledge) with correct responses bolded.
 - a. "Who is the current Speaker of the U.S. House of Representatives?" [Nancy Pelosi, Marco Rubio, Mitch McConnell, **Mike Johnson**, Don't Know].
 - b. "How long is the term of office for a U.S. Senator?" [2 years, 4 years, **6 years**, 8 years, Don't Know]
 - c. "What job or political office is now held John Roberts?" [Chair of the Democratic National Committee, Speaker of the U.S. House of Representatives,

Chief Justice of the U.S. Supreme Court, Chair of the Republican National Committee, Don't Know].

- d. "What job or political office is now held by Rishi Sunak?" [**Prime Minister of the United Kingdom**, Secretary of the U.S. Treasury, Prime Minister of India, U.S. Senate Minority Leader, Don't Know]
- e. "Who currently holds the title "President of the United States Senate"?" [**Kamala Harris**, Mike Pence, Mitch McConnell, Elizabeth Warren, Don't Know].
- f. "Who is the current Chairperson of the U.S. Federal Reserve?" [Ben Bernanke, **Jerome Powell**, Janet Yellen, Paul Krugman, Don't Know].
- g. "What proportion of each House of the U.S. Congress is required to overturn a Presidential veto?" {One-half, **Two-thirds**, Three-quarters, Four-fifths, Don't Know].

Dependent Variables

Ban Chinese/Russian Media: "Some people are concerned that [China/Russia]-financed media accounts influence Americans on social media. Would you support or oppose the government banning [China/Russia]-financed media accounts from US social media platforms (e.g., Facebook, Tik Tok, X/Twitter)?" [Strongly support, Support, Somewhat support, Neither support nor oppose, Somewhat oppose, Oppose, Strongly oppose].

Wiretapping Left/Right Extremists: "Under US law, federal intelligence agencies can get secret court approvals to monitor phone calls, texts, and other communications without warrants. This is called "wiretapping." Proponents often argue wiretapping helps the government prevent terrorism, while opponents often argue wiretapping is a violation of privacy rights. To address terror threats from [left-wing/right-wing] extremists, do you support or oppose allowing US intelligence agencies to monitor the private communications of American citizens?" [Strongly

support, Support, Somewhat support, Neither support nor oppose, Somewhat oppose, Oppose, Strongly oppose].

Gun Control: A four-item additive scale of four policy preferences. Respondents are prompted: "When it comes to policies about gun sales and ownership, do you support or oppose the following proposals?" [Strongly support, Somewhat support, Neither support nor oppose, Somewhat oppose, Strongly oppose]. Reverse code third and fourth items.

1. "Banning high-capacity magazines that hold more than 10 ammo rounds"
2. "Banning the sale of "assault-style" weapons"
3. "Allowing people to carry concealed guns without requiring a permit"
4. "Shortening waiting periods for people who want to legally purchase guns"

Gun Control Trade-Off: "Americans hold different views about gun control. Some argue gun control prevents shootings and increase public safety. Others argue gun control restricts Americans' right to own firearms, a violation of their civil liberties. In your opinion, which should policymakers prioritize when it comes to gun control: public safety or individual rights? Place yourself anywhere on the scale below to indicate your view." [1 - Fully prioritize public safety, 2 - Mostly prioritize public safety, 3 - Slightly prioritize public safety, 4 - Prioritize public safety and individual rights equally, 5 - Slightly prioritize individual rights, 6 - Mostly prioritize individual rights, 7 - Fully prioritize individual rights].

Online Speech Controls: A three-item additive scale. Respondents are prompted: "When it comes to policies about online information and speech, do you support or oppose the following proposals?" [Strongly support, Somewhat support, Neither support nor oppose, Somewhat oppose, Strongly oppose].

1. "Government agencies directly removing false news on social media to prevent it from spreading"

2. "Regulations requiring that social media companies remove news the US government has identified as false"

3. "Fining Americans who spread false information about US elections on social media"

Online Speech Trade-Off: "Americans hold different views about regulating social media. Some argue government efforts to regulate social media are censorship. Others argue government efforts to regulate social media protect society from the spread of false information. In your view, which should be the government's priority: protecting society from false information, or protecting the right to free speech online?" [1 - Fully prioritize protecting society from false information online, 2 - Mostly prioritize protecting society from false information online, 3 - Slightly prioritize protecting society from false information online, 4 - Prioritize protecting society from false information and free speech equally, 5 - Slightly prioritize protecting the right to free speech online, 6 - Mostly prioritize protecting the right to free speech online, 7 - Fully prioritize protecting the right to free speech online]

FBI, Police, and Military Ratings: Respondents are prompted: "How much do you approve or disapprove of the following organizations?" [Strongly approve, Somewhat approve, Neither approve nor disapprove, Somewhat disapprove, Strongly disapprove].

1. US Military
2. Local and state police
3. FBI (Federal Bureau of Investigation)

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